

Remedial Investigation/Feasibility Study Eatonville Landfill

State of Washington Department of Ecology Facility Site ID No. 85933/Cleanup Site ID No. 15271

January 2025

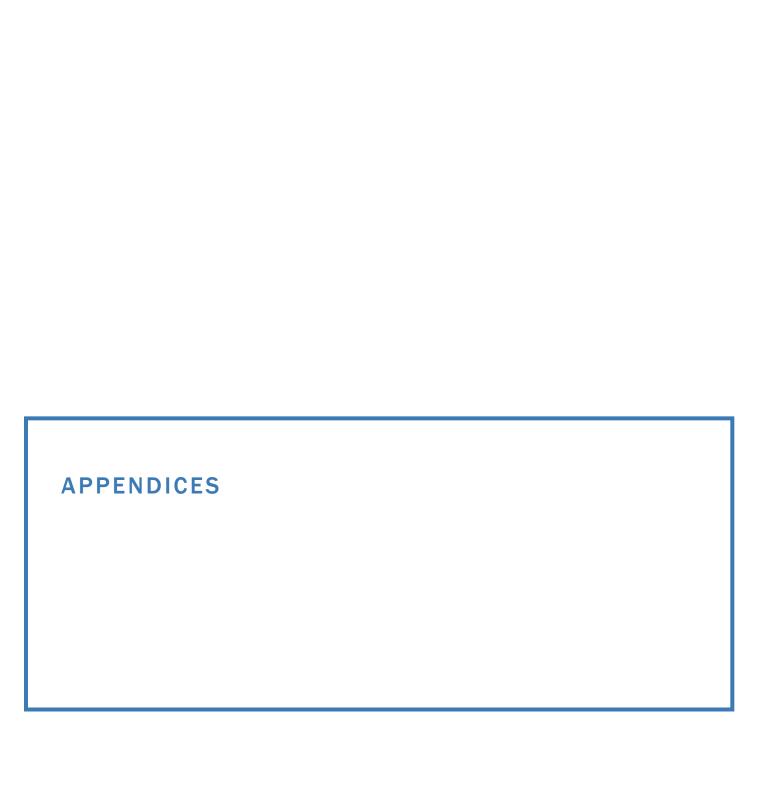
Prepared for:



Prepared by:







-APPENDIX A-

Field Documentation





1: Coffee can with bullet holes at top of landfill waste prism

Beer can with bullet holes at top of landfill waste prism

Appendix A: Evidence of Shooting in Landfill Area (1) **Photo Log**







3: Spent ammunition carriers in landfill area.

Spent ammunition carriers and target in landfill area.

Appendix A: Evidence of Shooting in Landfill Area (2) Photo Log







5: Several spent ammunition carriers in borrow pit.

Ammunition carrier in borrow pit.

Appendix A. Evidence of Shooting in Borrow Pit (1) Photo Log







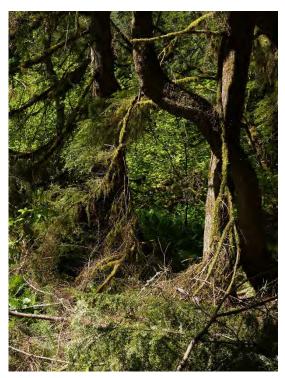
7: Several spent casings in borrow pit.

Ammunition carrier in borrow pit.

Appendix A. Evidence of Shooting in Borrow Pit (2) Photo Log







9:
Dense vegetation and mid-age tree growth in the wetland area.

10: Dense vegetation and mid-age tree growth in the wetland area immediately west of the base of the spring.

Appendix A. Wetland Area Vegetation (1) **Photo Log**





12.



11: Dense undergrowth in the wetland area.

View of dense vegetation in wetland area from landfill area.

Appendix A. Wetland Area Vegetation (2) **Photo Log**





14.



13: Debris in landfill area when looking up from toe of landfill waste prism.

14: Debris on east side of toe of landfill waste prism.

Appendix A. Landfill Area Waste (1) **Photo Log**





16.



15: Car body visible in landfill waste prism from wetland area.

Appliances and tires visible at west edge of landfill waste prism.

Appendix A. Landfill Area Waste (2) **Photo Log**





18.



17: Waste at base of landfill prism in wetland.

18: Debris at base of slope/edge of landfill waste prism intersecting with wetland.

Appendix A. Wetland Area Waste (1) Photo Log





20.



19: Tire visible in the wetland area.

20

Several tires visible in the wetland area

Appendix A. Wetland Area Waste (2) Photo Log



-APPENDIX B-

Boring and Piezometer Construction Logs

			Boring ID	HA-OIA Project Number	Sheet , of		
	Water Solutions, Inc.			SOIL BORING LOG			
0	Project:	Ent	nulle	Landfill Location: West	edge of toe between with		
U	Drilling C	Contractor:		Drilling Method:	20,100		
No.	Start Dat	te: 2/3/6	33-		ersonnel:		
	Sampling	Method:	hand d		Levels: 174		
100	- 8			0	Total Depth: 1.5-f		
	Deptn Below	Sam		Description	Comments		
00	Surface (ft)	Sample Interval/ Recovery	Sample Interval	Soil Name, USCS Group Symbol, Color, Moisture, Relati Density/Consistency, Soil Structure, Mineralogy	Air Monitoring/PID Readings, Sheen/Odor, Issues Encountered, Water Levels		
5-	- 1	0.0-0.5	(69)	Sandy, rocky, gravels up to Zin wide, subrunded, gray and brown w/some pine blue, arange, very wet	- Sumpled 1625		
	- - -	1.0		SAA	- Sampled 1430		
-		\$.0- 2.0 50%		SAA, more lavage vocas, (up to 4 in dia.) subnounded and multicolored	- Surpled 1435		
	-		V	anable to dua past noch			
	- -	1	- 1	and of hole			
	_ = -				<u>-</u>		
	-						
	-						

Boring ID Project Number HA-OIB Sheet **SOIL BORING LOG** west central of toe LandAll Entonnille Project: Location: 5.03 **Drilling Contractor: Drilling Method:** 23/22 Start Date: End Date: Field Personnel: Sampling Method: hand due Water Levels: N/R 70 G Total Depth: Sample Description Comments Below Sample Lab Surface Soil Name, USCS Group Symbol, Color, Moisture, Relative Air Monitoring/PID Readings, Sheen/Odor, Interval/ Sample Density/Consistency, Soil Structure, Mineralogy Issues Encountered, Water Levels (ft) 0.0 Sound + gravels w/ 0-0.5 voot mass, blacklyray, 50% Jund 10% NOTS few sub rounded gray rocks 100% Sampied @ 1645 (lin dia) 0,5 Sandand gravels, blacky 50% gowel 0.5 7.0 gray, some lindia. gray rous, transitions to 100% brown sand at 0.8ft 1.0 light gray/brown coarse 20% rock sand wi gravel, several 30% gravel luraper (2 in da) subrounday 50% sund -> proorly wells 100% sampled at 1655 2.0

Boring ID Project Number Sheet **SOIL BORING LOG** Project: eatonvill Location: **Drilling Contractor: Drilling Method:** Start Date: End Date: Field Personnel: Sampling Method: Water Levels: Total Depth: veptn Sample Description Comments Below Sample Lab Surface Soil Name, USCS Group Symbol, Color, Moisture, Relative Air Monitoring/PID Readings, Sheen/Odor, Interval/ Sample Density/Consistency, Soil Structure, Mineralogy Issues Encountered, Water Levels 0.0 Sampled 1500 0-05 3-10 12 in: 10% sand, rest and Silt, black, wet, Organic odor, 100% 0:5 0.5-10 Sand well sorted - Sampled 505 100% 1.0 12-18 W. Gray brown well-sorted Band w/ silt (60% sand) Sampled 1510 1.0-20 1824in: poorly sorted gray/light brown sand, some 0.5" subrounded 1000/0 20

Boring ID Project Number Sheet **SOIL BORING LOG** Water Solutions, Inc. Entermile Project: Location: **Drilling Contractor: Drilling Method:** Start Date: End Date: Field Personnel: Sampling Method: Water Levels: Total Depth: Sample Description Comments Below Sample Surface Soil Name, USCS Group Symbol, Color, Moisture, Relative Air Monitoring/PID Readings, Sheen/Odor, Interval/ Sample Density/Consistency, Soil Structure, Mineralogy Issues Encountered, Water Levels 0.0 Top 3in organic, roots 0-05 Sampled 1515 3-tem black silty poorly sorted sand (40% sand) -0.5 210% voquences, moderately Sorted sand (90%) 1520 gray brown, moist 100% 10 poorly sorted sand (90%)
We subrounded vocas (0.5")
light gray / tan, 1-2 Sampled 1525 moist 15% TOWN 75% rewrend 20

Boring ID Project Number HA-OLE Sheet **SOIL BORING LOG** Eatonuil Project: Location: Drilling Contractor: **Drilling Method:** 2/4/22 Start Date: End Date: Field Personnel: Sampling Method: Water Levels: Total Depth: Sample Description Comments Below Sample Soil Name, USCS Group Symbol, Color, Moisture, Relative Surface Interval/ Air Monitoring/PID Readings, Sheen/Odor, Sample Density/Consistency, Soil Structure, Mineralogy (ft) Issues Encountered, Water Levels Recovery 0.0 TOP 4-5 in Dug pit out of Slope. 0-0-5 root mass 100% sampled 1535 0.5 Uniform, peddy, fourly Sorted gravely sand w/ silt (sand 70%). Some cobbies, rounded, It! Sampled 1540 100% 1.0 1-2 SAA Sampled 1545 100% 20

	1	Boring ID	MA-07K	Project Number	Sheet of		
Water Solutions, Inc.			, 0 1 · V /1	SOIL BORING LOG			
Project: CAronorus LF Orilling Contractor:				Location: Location	eston edge of landfill		
	21317	.1	End Date:	Drilling Method:	Demonstra 170 2 1 6		
	Aethod:	1 1	Lifu Date.		Personnel: TW 65		
iibiiii B i	rictiou.	and de	4	vvate	r Levels:		
eptn	Sam	nnle		Description	Total Depth:		
elow — face ft)	Sample Interval/	Lab Sample	Soil Name, USCS Grou	up Symbol, Color, Moisture, Rela ency, Soil Structure, Mineralogy			
-	Recovery	Interval	Dach Evens	1, recty, organic	- 1000		
\$ - - -		(oL)	rentered as cottles/pet	1 Silty organice 17h Liot 0.5-1-5 Wes and logicist	di Ledysler /		
		(SW)	Dech but Zoud Os day, no	s/ large 72" on -1" publis (211	- Supled coup &		
-			50% sane	d, 50% gravel, or organi	- 1618 - Dengeled 102 ampl		
_	1		and of 1	udre	-		
-			By	w	-		
-			>		-		
-							
4					_		

Boring ID Project Number 0171.0107 Sheet **SOIL BORING LOG** Water Solutions, Inc. Project: Gatarulla Location: Hear orecle **Drilling Contractor: Drilling Method:** Start Date: 232 End Date: Field Personnel: 6 BW Sampling Method: Water Levels: Total Depth: 2.0 Sample Description Comments Below Sample Lab Surface Soil Name, USCS Group Symbol, Color, Moisture, Relative Interval/ Air Monitoring/PID Readings, Sheen/Odor, Sample Density/Consistency, Soil Structure, Mineralogy (ft) Issues Encountered, Water Levels 0.5 Save or above. Surpled@ 1550 100 (SW) Park brown, very certy wited -zend with gravel and fives. -Pebblos up to 3/4" up to 4040 -Silt us oder Juyled & 1557 2.0 end of lerbe Eller

	GSI.
Water S	olutions, Inc.
roject:	Enton

Boring ID ,	3
HAOS	1

Project Number

Sheet of

SOIL BORING LOG

Project:	Entour	el 4	Location: luca	Hand ver boug debic
Drilling C	ontractor:		Drilling Method:	- Contraction
Start Dat	e: 2/3/2	2	End Date: 2/3/2Z Field Pers	onnel:
Sampling	Method:	here of	Cug Water Lev	rels:
Deptn				Total Depth:
Below	Samo		Description	Comments
Surface (ft)	Interval/ Recovery	Sample Interval	Soil Name, USCS Group Symbol, Color, Moisture, Relative Density/Consistency, Soil Structure, Mineralogy	Air Monitoring/PID Readings, Sheen/Odor, Issues Encountered, Water Levels
- - 05-		(04)	Slightly Silty, very rooty, revery of reddigh brown ovalhor, no	Saylesle 1510
- - - !.v —			Save or clove, but whole - entirely oxideced to redship boun.	Sampled 1515
		(sw)	Save as above with sorvi.751 - with shows contact into? - gay poorly sorked goverly named- with jorb 1" rounded publist, - difficult to expiret due to water	Suybell 1525
20-			evelof hole - EMO	

Boring ID **Project Number** K-017 Sheet **SOIL BORING LOG** Water Solutions, Inc. Project: Palaurille Location: **Drilling Contractor: Drilling Method:** Start Date: End Date: Field Personnel: Sampling Method: Water Levels: Total Depth: Sample Description Comments Below Sample Lab Surface Soil Name, USCS Group Symbol, Color, Moisture, Relative Air Monitoring/PID Readings, Sheen/Odor, Interval/ Sample Density/Consistency, Soil Structure, Mineralogy (ft) Issues Encountered, Water Levels Saybell M:40 large, rotten wood frequent, no actor. Save as above, transituring
2 -1.75" to grey sitty

organic interest, 750 %
organic, with sulfure order,

very lage (1-5) and lene
vood leping. Payled @ 1455 FANDO

(Deci	Boring ID	HA 028	Project Number	Sheet of	
Water Solutions, Inc.		***	SOIL BORING LOG		
roject: Emilia	CLF.)	Location: Wetler	welver forest edge, S. la	
rilling Contractor:	04.5		Drilling Method:	p p	
art Date: 7/3/	22	End Date: 2/	3/22 Field Pers	onnel:	
impling Method:	Hardd	erg 4	Water Lev	vels:	
TARRE		1	1	,Total Depth:	
	mple	Des	cription	Comments	
urface Interval/ (ft) Recovery	1		mbol, Color, Moisture, Relative Soil Structure, Mineralogy	Air Monitoring/PID Readings, Sheen/Odor, Issues Encountered, Water Levels	
, <u>2</u> - -	(00)	Vey dorhares	dend roist, -	Suybole 1400	
?.S		Show Silly Show Sulferie	erzewe westerat	ts. Soupled & HOS	
1.0		Some os all very rooty Spare 12" Case.	hanzen and - Relobs over -	Scyled & 1415	
		end of h	ule -	32	
-		Malle	-		

Water Solutions. Inc.

orir	ng ID		
+	FA	-03A	

Project Number

Sheet of

Water Solutions, Inc.			SOIL BURING LO)G
Project:	SATO	Waise	Location: April	A Varieti
Drilling C	ontractor:		Drilling Method:	wettound Sill fun the
Start Dat	e: 2/3/2	2	End Date: 3/3/27 Field Pers	onnel:
	Method:	Honel de	Water Lev	
			7	Total Depth:
Below .		nple	Description	Comments
Surface (ft)	Sample Interval/ Recovery	Sample Interval	Soil Name, USCS Group Symbol, Color, Moisture, Relative Density/Consistency, Soil Structure, Mineralogy	Air Monitoring/PID Readings, Sheen/Odor, Issues Encountered, Water Levels
- - -کن		(01)	Stry Organic untered with pare with Jelly-like. No ador	
		(mi)	Desh grey weekstelyworked - revely sitt. ~ 30% five - organic waterial and nots.	Secupled @ 15:15 Comp Jor myabel @
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		(\$P)	light get cook with - word chips.	Compjar @13:33
),0 =			coul of belie -	
-				•
			15pm/	



Boring ID HA 03 13

Project Number

Sheet of

SOIL BORING LOG

Project:	GATON	THELF	Location: Speam la	1/2/4 define t
Drilling C	ontractor:		Drilling Method:	ule, ~ 1- Ift gl ofere street
Start Dat	e: 7/3/	125	End Date: 913/97 Field Pers	sonnel:
Sampling	Method:	Hand of	Water Le	vels:
Lienyn			/	Total Depth:
Depth Below	Sample		Description · .	Comments
Surface (ft)	Interval/,	Sample Interval	Soil Name, USCS Group Symbol, Color, Moisture, Relative Density/Consistency, Soil Structure, Mineralogy	Air Monitoring/PID Readings, Sheen/Odor, Issues Encountered, Water Levels
- - - -	15	oros (mc)	Pach brown Sitt with tener organic we trail, very wet.	Caryled & 1785
1,0		0.5.40 (S2)	tener organis Hochratily -	Paylal 2/7:20
-		(2M)	Coone soul w/ Clotostt.	Jaylede 12130
J.O.				(C) (M) (A) (A) (A) (A) (A) (A) (A) (A) (A) (A
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		Boring ID	HA-03C	Project Number	Sh
Water S	GSI olutions, Inc.			SOIL BORING LO	Sheet of
Project:	Entor	rulle 1	andfill	Location:	
Drilling (Contractor:		- 141	Drilling Method:	
+	te: 3/1/23		End Date:	Field Pers	sonnel:
Sampling	Method:	nand di	ng	Water Le	vels:
Depth	Sam	nple	Des	cription	Total Depth:
Below Surface (ft)	Sample Interval/ Recovery	Lab Sample	Soil Name, USCS Group Sy	mbol, Color, Moisture, Relative Soil Structure, Mineralogy	Air Monitoring/PID Readings, Sheen Issues Encountered, Water Levi
-	0.0-0.5	(OL)		70% organic- sulfunicodor -	
1 1 1	0.5-10	(sm)	moderately , silt, dance one large one	bottom 3 in vell-sorted sand very, some roots, glacial rode rounded faceted rounded routed rounded well-sorted t, uniform, wet	Sampled at 1705
	1.0.20	(SM)	Dense dancy Sand with su No odor	rey well-sorted - lt, uniform, wet -	Sampled at 1710
-				-	

		Boring ID	Project Number	Sheet of
Water S	GSI olutions, Inc.		. SOIL BORING LO	
Project:	EATONIS	avi i f	Location:	
Drilling (Contractor:	~	Drilling Method:	
Start Da	te: 2/7/2	77	End Date: 7/3/22 Field Pers	onnel:
Sampling	g Method:	HANDDI		vels:
HAAFS				Total Depth:
Depth Below	San		Description	Comments
Surface (ft)	Interval/ Recovery	Sample Inten/al	Soil Name, USCS Group Symbol, Color, Moisture, Relative Density/Consistency, Soil Structure, Mineralogy	Air Monitoring/PID Readings, Sheen/Odor, Issues Encountered, Water Level\$
- - - - -		(OL)	From organic meteril w/ C. 25, STH. 100 ty, wet, organic odor	Lempled 10:00
- - 1			Wet, erguine older	Sougelent 10:20
15 -		(mi)	Guy Sendy (LICH) Solt, I with Lock organic neither Well rested spente ruty - material, deap	Saughele 10:30
2.0 <u> </u>			ewlof hole	
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-			Bun =	

1	Boring ID	A-03 W	Project Number	Sheet of				
Water Solutions, Inc.		SOIL BORING LOG						
Entowil	luis		Location;					
ontractor:								
e: 2131-	11	End Date: 2/3		connel: B. Warrer				
	111	7 1 1 1 1		vels:				
		77		Total Depth:				
	ple	Desc	cription	Comments				
Interval/	Sample			Air Monitoring/PID Readings, Sheen/Odi				
(OL)	5-05	Derry.	Loy < 20165, A -	Sampled 9:75				
	051.0	os-10) West, 100 organic mater Samil Silt. Ver	deligh brown - in of 6 2016 - y strong sufferire - actor	Sugded 9:30				
	10-70	unterned vo/	Lebrown organie 2010 St. A. Licolor.	Sampled 9:45				
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	\	Evelo	J hole -					
		Bui						
	Sam Sample Interval/Recovery	Sample Sample Interval/ Recovery Sample Sample Sample Sample Sample Sample Source Sou	Sample Sample Interval/ Recovery Interval COL COL COL COL COL COL COL CO	SOIL BORING LO Location: Contractor: Drilling Method: End Date: 2/3/1/ Field Pers Method: Pole Post Lune degree Water Le Sample Sample Sample Description Soil Name, USCS Group Symbol, Color, Moisture, Relative Density/Consistency, Soil Structure, Mineralogy Post brown Stty again unkind rocky and letter, 20/2/ the Sample COL) Description Soil Name, USCS Group Symbol, Color, Moisture, Relative Density/Consistency, Soil Structure, Mineralogy Post brown Stty again unkind rocky and letter, 20/2/ the Sample Location: Only Material Color Soil Name, USCS Group Symbol, Color, Moisture, Relative Density/Consistency, Soil Structure, Mineralogy Post brown Stty again unkind rocky and letter, 20/2/ the Sample Location: Only Material Color Soil Name, USCS Group Symbol, Color, Moisture, Relative Density/Consistency, Soil Structure, Mineralogy Post brown Stty again unkind rocky and letter, 20/2/ the Sample Location: Only Material Location: Drilling Method: Water Le Water Le Sample Description Soil Name, USCS Group Symbol, Color, Moisture, Relative Density/Consistency, Soil Structure, Mineralogy Post brown Stty again Location: Only Material Location: Drilling Method: Water Le Water L				

		Boring ID	HA-04A	Project Number	S	heet of
Water Solutions, Inc.		SOIL BORING LOG				
Project:	Elm	lle		Location:		
Drilling (Contractor:			Drilling Method:		
Start Da	te: 7	1/72	End Date: 2/	1/14 Field Per	sonnel;	
Sampling	g Method:	Have d	ug	Water Le	vels:	
vepth			0		Total Depth:	
Below	Sample	nple Lab	Desci	ription	Co	omments
Surface (ft)	Interval/ Recovery	Sample		bol, Color, Moisture, Relative oil Structure, Mineralogy		ID Readings, Sheen/Odor, ntered, Water Levels
-	00-05	(OL)	silty, organic, 1 munmoredry the dark brown, so	on sand - an 114-05A - ovne voots, uniform	Soughel	1300
05 — - - - 1,0 —	0.5-1.0		SAA with v sulfur ode sitty sa sun		Sougheel	1305
1.5	1.0-2.0	(5M) L (5P)	unitum, tr	et, well-graded,	Singled	1310
70						

Water Solutions, Inc.		SOIL BORING LOG					
Project:		mulle	landfill	Location:			
Orilling Co		77 110	Conditi	Drilling Metho	d: Dos-	f hole digge	r
Start Date	1.15	4.4	End Date: る月		ld Person	nel.	4
Sampling I	Method:	hand o	1			s: Water near	transect
			0			otal Depth: 2.0	Trairmett
Depth Below	Sam		De	scription		Comment	:s
Surface (ft)	Sample Interval/ Recovery	Sample Interval		iymbol, Color, Moisture, F y, Soil Structure, Mineralo		hir Monitoring/PID Reading Issues Encountered, W	
-	0.0~ g .5	(oL	Silty day, Silty day, Sin deep (bgs	anics and moist and dave gray/b silt w/ roots, mo		Sampled @ K	140
- (0.5-1.0	(mi) denic, mois N3 in deep 119	ourse sundy to uniform Utergray sand moist, uniform		Sampled @ 1	1445
	:0.A.O	Switched (OL)	SAA (0.0-0 less wot a	5) with atter	11111111	Sampled @1	450

Water Solutions, Inc.			SOIL BORING LOG					
Project:	Euton	2011-0	ا ۱۲ س					
	ontractor:	VIIIC						
Start Date			Drilling Method: End Date: Field Pers					
-		nand d						
Sampling	Methou.	nuncia	Water Lev					
Depth	Sam	nle	Dogovintia	Total Depth:				
Below Surface (ft)	Sample Interval/	Lab Sample	Description Soil Name, USCS Group Symbol, Color, Moisture, Relative Density/Consistency, Soil Structure, Mineralogy	Comments Air Monitoring/PID Readings, Sheen/Odor Issues Encountered, Water Levels				
-	Recovery	(OL)	very wet, dance brown - organics and sit, smells - very organic (near tree - base)	Sample fine 1510				
5		(54)	very wet, dark brown, thouse - SAA until v3in deep, then _ dark group silty sand, _ Sulfunc odor, wet	Sample time 1515				
-		1	SAA - Sand layer =	Sample time 1520				
-								
-			-					
-				*				
=								

		Boring ID	HA-04P Project Number	Sheet of		
Water Solutions, Inc.			SOIL BORING LOG			
Project:	Eatonn	ille La	ndfill Location: Eatonni	ille		
Drilling (Contractor:		34.	ost hole driver		
Start Dat	te: 2/1/2		End Date: 3/1/3 Field Pers	sonnel: GS, BW		
Sampling	g Method:	hand c				
			0	Total Depth: 8.6 f		
Depth Below	Sam		Description	Comments		
Surface (ft)	Sample Interval/ Recovery	Sample Interval	Soil Name, USCS Group Symbol, Color, Moisture, Relative Density/Consistency, Soil Structure, Mineralogy	Air Monitoring/PID Readings, Sheen/Odo Issues Encountered, Water Levels		
	0.0-0.5	(M)	highly organic (95%) remainded - reddish brown silt Under a tree Muist water - publed at buttom	Sampled at 1600		
-	0.5-1.0	V	SAA but slightly more - ved woor and more - wood-based organics: - slight sutheric octor	Sampled at 1605		
	1.0-2.0	(OL)	SAA but 75°10 organic - with some sand (10°10) - rest silt. No odor of Sulfur, is less strong,	Sampled at 1610		

		Boring ID	HA-04E	roject Number 0171.00	7 si	neet of	
Water Solutions, Inc.			SOIL BORING LOG				
Project:	Easton	ville (andfill L	ocation:			
A construction of	Contractor:			rilling Method:	st-hole di	2024	
Start Da	te: 2/1/2	7	End Date:		onnel: GS, B1		
Sampling	g Method:	hand d	IAA	Water Lev			
			3		Total Depth: 3	7.0 £	
Below	Sam	ple	Descriptio	n		mments	
Surface (ft)	Sample	Sample Interval	Soil Name, USCS Group Symbol, Co Density/Consistency, Soil Stru		Air Monitoring/Pl	D Readings, Sheen/Contered, Water Levels	
-	v.0-05	([7])	Highly organic sitts, many root pieces, strong	(85%) plus s and wood _ sulfure odoc -	Sampled	at \$4.35	
(-	0.51.0		SAA	-	Sampled 4425 1435	out comp at	
111111	1,0-2.0		SAA but many , big roots at	nove - this depth - -	Sampled at wars.	Compat 1050	
				<u>-</u> - -			

Project Number U(71.007 **Boring ID** HA-05A Sheet of **SOIL BORING LOG** gatonville Project: Eatomile Location: **Drilling Contractor:** Drilling Method: Start Date: End Date: Field Personnel: Sampling Method: nand Water Levels: Total Depth: Depth Sample Description Comments Below Sample Lab Surface Soil Name, USCS Group Symbol, Color, Moisture, Relative Air Monitoring/PID Readings, Sheen/Odor, Interval/ Sample Density/Consistency, Soil Structure, Mineralogy (ft) Issues Encountered, Water Levels 0.0 dark brim, silt & organics, general nots, unform, wet COMP Sampled at 0,0-0,5 (M Sampled ut 1220 05 sampled @ sampled @ dark brown, 25th sand, rest sitt organics, very wet, 0,5-1.0 1230 1235 uniform HH-15-comp-0,5-10 1.0 gray brown, well graded sund (90%) with sitts and very wet, comp Sampled @ Sampled @ 1240 1245 1.0-2.0 (50) 1th -05-comp uniform 1.0-2.0 2.0

	GG		HA-05B Project Number	Sheet of
Water Solutions, Inc.			SOIL BORING LO	OG
Project:	Eate	nulle 1	andfil (Location:	0
Drilling C	ontractor:	ž ⁱ	Drilling Method: 🗼	and anger posthole
Start Dat	e: 2/1/2	á		onnel: GS, BW
Sampling	Method:	hand b		vels: IMA
	0	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1		Total Depth: 20
Depth Below	Sam	The second second second second	Description	Comments
Surface (ft)	Sample Interval/ Recovery	Sample Interval	Soil Name, USCS Group Symbol, Color, Moisture, Relative Density/Consistency, Soil Structure, Mineralogy	Air Monitoring/PID Readings, Sheen/ Issues Encountered, Water Level
-	00-05	(PT)	Brown, highly brogamic, 90% organics + silt, wet	Suyled 11:30
-	0.5-1.0		Gray: 30% sund, remainder -	sugled 11:40
	J.0-7.0	(SP)	grey well conted sily soul	recipited 11:55
	3			

	CCI	Boring ID	HA-05C Project Number	v} Sheet of							
Water So	olutions, Inc.	,	SOIL BORING LOG								
Project:	eatonu	rile Lai	Landfill Location: Eutenville								
	ontractor:			rand anger post b							
	e: 3/1/27	1 00	End Date: 21/194 Field Pers	0 22 1							
Sampling	Method:	Und de	g . Water Le	1.123							
Depth	Sau			Total Depth: 2.0 ft							
Below	Sample	nple Lab	Description	Comments							
Surface (ft)	Interval/ Recovery	Sample Interval	Soil Name, USCS Group Symbol, Color, Moisture, Relative Density/Consistency, Soil Structure, Mineralogy	Air Monitoring/PID Readings, She Issues Encountered, Water Le							
- - -		(0)	Jues out 90% organic, - 100ty watered, Mort, clock -	- Naugles & 11:00							
			rooty watered, Most clock -								
-			~ O.K transitions to any hour	rempléed @ 11:0							
		(54)	51/kg rouse with < 20 / organiz								
и -			Bonana weell maked - 1								
-		SE	Brown, well-sorted sand - very wet, uniform.	Sampled C 1110							
-			: := :-								
(=			3 -	-							
			=								
				-							
			-	-							
- -				-							
				* .							
-											
_	1.00		v -	16							

		Boring ID	HA-05D Project Number 0171.067	Sheet of
Water So	GSI- olutions, Inc.	10	SOIL BORING LO	OG
Project:	Entonu	lle Lan	AAII Location: Eatons	ille
Drilling C	ontractor:			ost hole driver
	e: 2/1/72		End Date: ネルス Field Pers	onnel: AS BW
Sampling	Method:	hand du	g Water Lev	rels: N/A
Depth		x*	9	Total Depth: 🕅 🕽 o
Below	Sample	iple Lab	Description	Comments
Surface (ft)	Interval/	Sample	Soil Name, USCS Group Symbol, Color, Moisture, Relative Density/Consistency, Soil Structure, Mineralogy	Air Monitoring/PID Readings, Sheen/Od- Issues Encountered, Water Levels
-		(12)	This ructs/organics at top _	
-	0-0.5		Very wet, brown -	sampled at 10:00
7			Very wet, brown - (waterlogged) -	
			organic Rinus, uniform	
_		Cal	very wet, brown, sits and =	
-	0.5=1.0	(00)	organics, unitum -	2 1.1 (2)
-			, <u> </u>	Sampled 1010
-			-	
			completely met (full of water) - transitions from top dark morn organics + fines, to gray sand (90% sand) well-sorted medium grain	
-		MI	to the first the world's	
-		(' "	Transitions Front top dark -	
i -	1.0 12.0		morn organits thrus	
		(00)	To gray sand (40% sand) =	Sampled 1030
		(シワ	well-surted medium grain -	•
_			nl routs	
-		9		
			_	
-			-	9
, 				
_				
_				
-			_	8
=			_	
-			-	
-			-	
_			_	
_				
_			5 7	<u>.</u>
_				

		Boring ID	HA -05E Project Number of	71.067 Sheet of							
Water S	GSI olutions, Inc.		SOIL BORING LO	2							
Project:	Eaton	ille L	andfil Location: Eatoni	lle, WA							
Drilling C	Contractor:	Min		ost-hate digger I shovel							
Start Dat	te: 2 12a			sonnel: GS, BW							
Sampling	Method:	POSt-hole	le Asharel hand Water Levels: 12# Some standing wa								
		Δ		Total Depth: 2.0ft							
Depth Below	Sam		Description	Comments							
Surface (ft)	Sample Interval/ Recovery	Sample Interval	Soil Name, USCS Group Symbol, Color, Moisture, Relative Density/Consistency, Soil Structure, Mineralogy	Air Monitoring/PID Readings, Sheen/Odor, Issues Encountered, Water Levels							
0.5 —	0-0.5	(OC)	Top-organics "Lin. 2-bin gray organics + sand 500 sand, 50% sills/Anes Damp, uniform	Jumpled 9:00							
1.0	651.0	STATE OF THE PARTY	Full Internal group I brown sand/sitt - (50% rand 50% sit /fines) - Wet at bottom Liniform	sumpled 9:10							
- - - - - - - - -	1.0 -2.2	(SM)	Top 05ft gray lbrown, 60% sand, 40% finds Lower 0.5ft lighter gray 70% sand, 40% fines Uniform, very wet, reducing oder	sampled 9:20							
0.0			reducing order								
		49									

near this location

	DE LINE			SURFACE	SAMPLIN	IG DATA SHEET		INTEREST AND THE					
	ct Name		Project Number:		Location:	Station ID:		Date:					
1000	ther Con	the RI			Entone		-01	9/14/21					
0.000	0.00	ing Method:	- C	-y		Sampling Personnel: Sampling Equipment:	Ben & Ger	90010					
			Easting: 5	10-1		Gauge Source:	A-ges						
Targe	t Coord	inates (NAD 83):	Northing:	Melen	3	Gauge Height (ft)/Time:							
					TTEMPT SU		Mary Street Street	EN PROPERTY					
Attempt #	Time	Coordii Latitude	nates Longitude	Water Depth (ft)	Recovery Depth (cm)	No	tes	Sample Interval					
OLE	1210	46.859261			20	Alter-ste oc	new Carbodi	30					
910	1220	46.859286	122.322635	1500	30	After 3/ tel 10	c-tion bris	30					
Defini		46.859366 = centimeter, ft = feet,		14/	30	Mer Zip line tormin-5 per 30							
		TEXASON THE CA.			ATTEMP	T#: V							
	Grain Size Distribution (%G/S/F): 10/30/60 Odor/Sheen/Visual Impacts:												
Gravilly Sind with self (SW Sm), gray, Fine Sind to med rounded gravel, loose, Comments: Ref. 5-1 on large debris													
Samp	led (Y)/N	1): /	Sample Time:	1215		ample ID:	<u></u>						
Grain	Size Dis	tribution (%G/S/F):	d 120130		ATTEMPT : Odor/Sheen/	Message 4 accessors to the contract of	160-17 From	burnt tree?					
Descr	iption:	710-AL					Sc, d-mp, 500						
	nents:	Nous St.	mp 5.	ro- de	d by	Jebris, Alta	-de localio						
Samp	led (Y/N): <u>y</u>	Sample Time:	225		imple ID:							
Grain	Size Dis	tribution (%G/S/F):	0130170		Odor/Sheen/	T #: Visual Impacts:		respirate and services					
Descr	iption:	HAOIC WILL SING CSU	2-5m), b			1	Sc, 10/3 at 0	Gon Colle					
	nents:	Aller-1e	5200 model			Nas Ziglin	e faminas						
samp	led (Y/N); 	Sample Time:	1240		imple ID:	W. KINDER CONT.						
	Sai	mple ID	Time		MPLE INFO	e, MS/MSD, EPA Split)	# of Contact						
			c	. ype (Pil	ary, Duplicate	e, Maj Mau, EPA Split)	# of Contain	iers					
		,											
. †													

			appear to	SURFACI	E SAMPLIN	G DATA SHEET	120/2 (NB - 15)	THE PARTY NAMED IN					
Proje	ect Name	iste RT	Project Number:		Location:	Station ID:		Date:					
	ther Con				Edonall			9/14/21					
		ing Method:	Ducco	-5-		Sampling Personnel:	DEF 1 000	euseule					
Бері	.ii Jouriu	ing Method.	Easting: 5			Sampling Equipment: Gauge Source:	1.0/21						
Targ	et Coord	inates (NAD 83):	Northing:			Gauge Height (ft)/Time:							
EBU	1000	1 28 3 10 50	The state of the s		ATTEMPT SU		PROFILE DISCONDING	TO THE ROLL OF					
#		C											
p		Coordi	nates	Water	Recovery	N	otes	-					
Attempt	Time			Depth	Depth			Sample Interval					
At	Ë	Latitude	Longitude	(ft)	(cm)	1		(cm)					
OB	1255	46.859498	122.32298		30	nest grin	ges and debris	30					
OIA	1300	46.851642	122.323102	Ø	30	educant to drainage 30							
			- 1			154							
Defin	itions: cm	= centimeter, ft = feet,	JC = jaws closed, OL	.W = overlying	water								
Grain	Siza Die	tribution (%G/S/E).	412212	17 N 11/1-10	ATTEMP								
	Grain Size Distribution (%G/S/F): 0/ 76/25 Odor/Sheen/Visual Impacts:												
Sit with Sond (Starzy), blich, no platecity, Time sod, lats of organic doors, very saft, wet, Soil.													
3:	4000	Sith smo	Electron	17,00	.17, 10	The streety it is	رد عامرا المرع	019-20					
Com	ments:	1001	1 1000	2 1			11 2.12	T- 51 16"					
	9=10	1:3 Divbe t					wath rides, la	sot 1-del					
Sam	oled (Y/N	1):	Sample Time:	1255	ATTEMPT	ample ID:							
Grain	Size Dis	tribution (%G/S/F):	1 1			Visual Impacts:		HI NUMBER OF					
Desc	ription:	NA-OIA	5 F										
5:1	iw t	16 5-6 n	ad graval	(mi)	, Juh	brun Wa	11 454 Jd 200 J.	Fine to					
C	6-150	tourled	すれからら、1	0.50	mp+	Sumo dique	11 problet 2. 21 : c) debris, 91	-55 pieces					
Com	ments:	he slope	Iron ?	203	adjucar!	t to dream	-qc.						
Samp	led (Y) N	1):	Sample Time:	305	Sa	ample ID:							
Grain	Size Dis	tribution (%G/S/F):	/ /		ATTEMP Odor/Sheen/	T #: Visual Impacts:		THE PERSON NAMED IN					
	ription:			7	o do i / o i i co i /	visual impacts.							
						,							
Comi	ments:												
Samp	led (Y/N):	Sample Time: 🌙		Sa	ample ID:							
Silvi	CON STS				MPLE INFO								
Marie S	Sa	mple ID	Time	Type (Pr	imary, Duplicat	e, MS/MSD, EPA Split)	# of Contai	ners					
NA	1-01	-092	1310	DE	: 51		6	CS MeOH Wils					
	F. G.				1			S FIEGH HAD					
				-, -									
		2											

	1000		ALC: NO.	SURFAC	E SAMPLI	NG DATA	SHEET	OUR TAXABLE MARKET	AR BUREAR
	ect Nam		Project Number:		Location:		Station ID:		Date:
		nditions:	-	A	Edan			-02	9/14/2
Dep	th Sound	ling Method:	5-00	-y			Personnel:	Ben JO	Seredieve
			Easting:	L D			Equipment:	Aget	BOOK TO NOT BEEN A
ıarg	et Coord	linates (NAD 83):	The state of the s	1	20		uge Source:	7	
100	50 - 1		The state of the s		ATTENANT C	Gauge Heigh	it (ft)/Time:		
			STEED FOR THE STEED STEE	LN 24 1 6 at	ATTEMPT SU	JIVIIVIARY			
Attempt #	Time	Coordi Latitude	nates	Water Depth (ft)	Recovery Depth		No	otes	Sample Interv
200	1100				(cm)				(cm)
0ZB	1120	46,859399	122, 323139	<u>Ø</u>	30	90	bonch	Jong drin-90	30
92A	1135	46,4659540	122.323260	D	30	0	1 - 5	17 7	
			- K*			Ur C	age an	dringe rest	30
Defini	tions: cm	= centimeter, ft = feet,	IC = igus slosed Ou						
				N = overlying (T. 4.			
Grair	Size Dis	tribution (%G/S/F):	15155130		ATTEMP Odor/Sheen/		MAN IN		
	nents:	00 0390	Sample Time:	=05e,	- 1 +: re	- rent	by, W.	se gry Sul,	of exercision
	NOTE OF	STREET, STREET,	sample Time:	105	Sa	mple ID:			
Grain	Size Dist	tribution (%G/S/F):	1 /		ATTEMPT # Odor/Sheen/\				
25	iption:	HA-02A 5-3180H), 2	I.T he brad,	-, 5:14	with s	ord, wo	+, 1005	Sc, gray 5	9 @
	nents:	0 C	lac of	drain	90 24	the t	ec of	the slope. I	- 1
amp	ed (Y/N)	: [Sample Time: /	140	Sai	mple ID:			110 cp
rain	Sizo Dict	ribution (C/C/C/C/C	University of the		ATTEMPT	#:	100		Paris Name
	ption:	ribution (%G/S/F):			Odor/Sheen/V	isual Impacts	:		
	paoni							-	- (6)
omm	ents:		1			-			C
ampl	ed (Y/N)	:[s	ample Time:		San	nple ID:		9	
	10	AND A STREET		SAI	MPLE INFOR		ATTION OF THE		
	San	iple ID	Time		nary, Duplicate,		Snlit)		
J W .	- 07 -	0921	1146				Spitt)	# of Contain	ners
	30		11 15	*/!	mity			2	
-					-				
									_
									41

V. 1	1927	Wight Williams		SURFACI	E SAMPLI	NG DATA	SHEET		
	ct Name		Project Number:		Location:	. 7.11	Station ID:		Date:
	ther Con				E-tany			02	9/14/21
		ing Method:	Syca	7			ng Personnel:	Ben and G	encuico C
Берс	n Sound	ing Method.			-		g Equipment:	1-905	
Targ	et Coord	inates (NAD 83):	Easting: Northing:				auge Source: tht (ft)/Time:	<u> </u>	
270	2,311	CAR STATES	INOTHING.		ATTEMPT SU		int (rt)/ rime:		
				ind Status	ATTEIVIET 30	JIVIIVIAKT		In which the same was a	
Attempt #	Time	Coordi Latitude	Longitude	Water Depth (ft)	Recovery Depth (cm)		No	otes	Sample Interval
		46.659196		-	30	w.	tor to	hale	30
	1055	46.859148	122.322537	-	30	777	et in	hale	30
	105	= centimeter, ft = feet,	122 322977	-	30				
Dejiii.	cions, em	- certimeter, jt - jeet,	JC – Juws ciosea, OL	.vv = overlying v	ATTEMP	T #·		A STATE OF THE STA	
Grain	Size Dis	tribution (%G/S/F):	\$17512	5	Odor/Sheen/		cts:		THE STREET
ie.	nents:	HA -02D arc 5ml (0 Arc -1	t), det b	620,521 of	+ with	5-rd, 1	oose, û	oct, soil,	
Samp	led (Y/N):	Sample Time: \	045	Sa	ample ID:			
		LANCE OF SHIPE			ATTEMPT	#: 1	DELVALIN	PARTIE THE PARTY OF THE	
	iption:	tribution (%G/S/F):	9180140	24	Odor/Sheen/	Visual Impac	cts:	st = ++11	
070	FY 1 : (HA-02E Soil COH	J. J. ch b	الرحام الم	\$111 W	the Sm!) 10050 y coli	=, dry -lop== - (7), where	-local
	icircs.	-000					(
Samp	led (M)N): Y	Sample Time:	100		imple ID:			
Grain	Size Dist	ribution (%G/S/F):	d160140	2	Odor/Sheen/	I #: Visual Imnac	te	college of participation, av	SIM 3/8-10-50 SIM
Descr	iption:	HA-020 301 (OH),	· ·	7 5:14	with 5	-d, to	ery Saf	1, Wet, 8.	11. A+
Comn	30°	In the	J. 219	-16-	centila	· 100	7-7-	Siter.	
Samp	led (Y/N): Y	Sample Time:	10		mple ID:	7	اشعا	- 1
Tellin	1-11-11		verification to be		MPLE INFO		San a	e del somme de de ser	
	Sar	nple ID	Time	Type (Pri	mary, Duplicate	, MS/MSD, EI	PA Split)	# of Contai	ners
					2				
								g	
	-	c o						#	
								- 9	

La gre	14 33 16			SURFACE	SAMPLIN	G DATA SHEET						
Proje	ct Name	al	Project Number:		Location:	Station ID:		Date:				
E	toru	ille RI			Enter Ol	-/	25	9/13/ac				
	ther Con		Suny			Sampling Personnel:	Ban & Gener	sede.				
Dept	h Sound	ng Method:	,	~		Sampling Equipment:	Post hale /A	ract				
Targ	et Coordi	nates (NAD 83):	Easting:			Gauge Source:		2				
			Northing:		TTENANT CL	Gauge Height (ft)/Time:						
		the burner was a second		V. Linding of	TTEMPT SU	IVIVIAKY		The second second second				
Attempt #	Time	Coordii Latitude	Longitude	Water Depth (ft)	Recovery Depth (cm)	# /GE #	otes	Sample Interval (cm)				
3E	1500	46.859029	122.32268	Ø	30	Neurtre Pond - Inseter 0-						
030	1525	46.65981	122.3298	3100	30		_ collect with the					
03C	1536	46.859184	122.323113	0	30	in opening		9-30				
Defin	-		The second second	.W = overlying		- Control						
Definitions: cm = centimeter, ft = feet, JC = jaws closed, OLW = overlying water ATTEMPT #:												
Grai	Grain Size Distribution (%G/S/F): 6/30/70 Odor/Sheen/Visual Impacts:											
Description: 4 A 275 No. C. N. S. 4545												
	organice S.il (OH) dich brown, side sity Sind, lots at rears and organic											
Com	ments:	/ 11	p, 1005c		1	1 - 2 : 1	- 11					
		less th	CALLED THE PARTY OF THE PARTY O			· No Point	collected					
Sam	pled (Y/I	v):	Sample Time:	15/0	ATTEMPT	ample ID:	و المالية المراجعة المالية المراجعة المراجعة المراجعة المراجعة المراجعة المراجعة المراجعة المراجعة المراجعة الم	4				
Grai	n Size Di	stribution (%G/S/F):	614515	5			-re					
Desc	ription:	HA-03D ;	A CALACAS AND AND	A 181			at and organ	5:01/01:5				
i esucia	ments:	Coording	5 then	14.6	phone	Presidesty	mated.					
Sam	pled (Y/I	N):	Sample Time:	1530		ample ID:						
Grai	n Size Di	stribution (%G/S/F):	4/20/2	ACCOUNT OF	Odor/Sheen	/Visual Impacts:	A STATE OF THE REAL PROPERTY OF THE PARTY OF	THE LIST NAME OF THE PARTY OF T				
Des	cription:	Soil Cath	11 sh brown		5 of 50		force debies, 1	osc, wot,				
	Soil	@ m3	ocm c	h-9-5	ta q	ry 5-nd w	Jith Soll					
	ments:	coolding	5 Librar	للالمحب	- Phan	e, Provingly	profict.					
Sam	Sampled (Y/N): Sample Time:) 5 40 Sample ID:											
T. F.W.	SAMPLE INFORMATION Sample ID Time Type (Primary, Duplicate, MS/MSD, EPA Split) # of Containers											
	Sa	ample ID	Time	Type (P	rımary, Duplica	te, MS/MSD, EPA Split)	# or conta	mers (
	-											
-		N	3		34	-	3	0				
	10	e €	21				- 5	a P				
						0.						
_			45									

115	in si			SURFAC	E SAMPLIN	NG DATA	A SHEET	100	The April 1
E.	ect Name	le RI	Project Number:		Location:	ار	Station ID:	HA-03	Date: 9/(3/21
Wea	ther Cor	ditions:	Suni				ng Personnel:	Ber no d	Generate
Dept	h Sound	ing Method:		_		Samplin	g Equipment:	1 / 1	DEVENICAE
Tara	nt Coord	inates (NAD 83):	Easting:	ce belo			Gauge Source:	rede 1 o	· J
laig	et Cooru	mates (NAD 65):	Northing:	300 ba		Gauge Hei	ght (ft)/Time:	4 - 1 - 4	
		(DA) AP			ATTEMPT SU			The state of	
Attempt #	Time	Coord Latitude	inates Longitude	Water Depth (ft)	Recovery Depth (cm)		N	otes	Sample Interval
238	1560	46.859305	122.323%	6 0	30	प्र	100	le	30
03A	16.5	46.859449	122.323418	\$	30	15 0	phone of	1.4	30
							10 mm on 112		- 34
0-6-	Atum 67						4		
Defini	tions: cm	= centimeter, ft = feet	t, JC = jaws closed, OL	W = overlying		- I			
Grain	Size Dis	tribution (%G/S/F)	· d/20/30		ATTEMP				
Desci	ription:	(1,0,000)	9/70/30		Odor/Sheen/	visuai impa	icts:	- Slight	print ogat
ST.	1-36	#A-03B 501 (047) 230 cm	SH WAL	- 5mg	110+5	- 185¢	اسراد م	lais, losse	, wot, 50:1,
Comr	ments:	2 300	50	4.4	44.	2:14			
COIIII	nems.	Point c	Mected	745	Phone	2			12
	led (Y)		Sample Time:	555	_	ample ID:		- 30	
			Ulin - V	STEEL PROS	ATTEMPT				4013 10 100
Grain	Size Dis	tribution (%G/S/F):	\$160 140		Odor/Sheen/	Visûal Impa	icts:	4.5	
LLA	ription:		The brown						17
_				Sad, 10	its of c	ig-ic	July ,	1005c, dom	6,200
	nents:	Point col	celed V	· Hic					4
Samp	led (YYN): Y	Sample Time:	615	The second secon	ample ID:			
Grain	Size Dis	tribution (%G/S/F):	1 1	-32103	Odor/Sheen/	T#:	eter		2 2 3 3 3 3 3 3 3 3
	iption:				odor/sneen/	visuai iiipa	cts:		
					4.	The same of the sa			0
Comr	nents:					-			
Samp	led (Y/N):	Sample Time:		Sa	ample ID:			
6	1000		SE SESSI	SA	AMPLE INFO	RMATION			
		mple ID	Time	Type (P	rimary, Duplicate	e, MS/MSD, i	EPA Split)	# of	Containers
HA	1-03	-0921	1620	•	751 mus	* . V			
HA	-100	3-0921	1625	7	201:65	0	4.		
	V.	*				1			-
	T								75

PROJECT NAME LOCATION DRILLED BY DRILL METHOD FIELD PERSONNEL Weyerhaeuser Eatonville Landfill Eatonville, Washington Stratus Hollow Stem Auger M. Greenfield BORING NO. PAGE 1 of 2
TOTAL DEPTH 26.5'
DATE START 9/14/21
DATE COMPLETED 9/14/21

RECOVERY (PERCENT)	SPT (N)	LAB SAMPLE INTERVAL	GEO- TECHNICAL SAMPLE ID	GROUND WATER LEVEL	DEPTH IN FEET	WELL DETAILS	LITHO- LOGIC COLUMN		SAND %	GRAVEL %	FINES %	MOISTURE CONTENT %
				- - -				to 8.5 feet: SANDY GRAVEL (GW), fine to coarse, subrounded to rounded, trace roots and glass. (FILL DEPOSIT)				
<1"	0-1-1 (2)	2.5'-4.0'	S-1	 - - -						-	-	
	1-1-2 (3)	5.0'-6.5'	S-2		5			② 5.0 feet: some wood debris, glass and plastic.		-		
	9-8-1 (9)	7.5'-9.0'	S-3	- - - -				8.5 to 15.0 feet: WASTE, paper, plastic, organic debris, fine to coarse, gravel-sized, some sand, 23 percent			-	
<1"	0-0-1 (1)	10.0'- 11.5'	S-4		10			organic content. (LANDFILL)			-	34.6
	0-1-1 (2)	12.5'- 14.0'	S-5		15					-		
-	2-3-3 (6)	15.0'- 16.5'	S-6	- - - - -	15			15.0 to 20.0 feet: GRAVELLY SAND (SW), medium, trace to some silt, fine rounded gravel, possible brick debris, white. (NATIVE)		-	15	14.6

REMARKS



PROJECT NAME LOCATION DRILLED BY DRILL METHOD FIELD PERSONNEL Weyerhaeuser Eatonville Landfill Eatonville, Washington Stratus Hollow Stem Auger M. Greenfield BORING NO. B-1
PAGE 2 of 2
TOTAL DEPTH 26.5'
DATE START 9/14/21
DATE COMPLETED 9/14/21

gray and brown mottled, high plasticity, (LL = 52%, PL = 29%, PI = 23%), some sand and trace rounded gravel.	RECOVERY (PERCENT)	SPT (N)	LAB SAMPLE INTERVAL	GEO- TECHNICAL SAMPLE ID	GROUND WATER LEVEL		WELL DETAILS	LITHO- LOGIC COLUMN		SAND %	GRAVEL %	. FINES %	MOISTURE CONTENT %
Bottom of hole = 26.5 feet.			I	S-7	- - - - -				gray and brown mottled, high plasticity, (LL = 52%, PL = 29%, PI = 23%), some sand and trace			83.6	30.4
			I	S-8	- - -	25				48.4	0.5	51.1	18.7
					- - - - -	30			Bottom of noie = 26.5 feet.				
- 35 36 					- - - -								
					- - - - -	35							
					- - - -								

REMARKS



PROJECT NAME LOCATION **DRILLED BY** DRILL METHOD FIELD PERSONNEL Weyerhaeuser Eatonville Landfill Eatonville, Washington **Stratus Hollow Stem Auger** M. Greenfield

BORING NO. B-2* **PAGE** 1 of 1 TOTAL DEPTH 10.8' DATE START 9/13/21 DATE COMPLETED 9/13/21

RECOVERY (PERCENT)	SPT (N)	LAB SAMPLE INTERVAL	GEO- TECHNICAL SAMPLE ID	GROUND WATER LEVEL	DEPTH IN FEET	WELL DETAILS	LITHO- LOGIC COLUMN		SAND %	GRAVEL %	FINES	MOISTURE CONTENT %
-	2-3-4 (7)	2.5'-4.0'	S-1	- - - - -				O to 10.0 feet: GRAVELLY SAND (SW), brown, trace silt, medium to coarse, subrounded to rounded gravel, scattered roots, wood debris and cobbles. (FILL DEPOSIT)				
	7-6-4 (10)	5.0'-6.5'	S-2	- - - -	5			@ 5.0 feet: driller says very difficult drilling.			_	3.8
	9-9-7 (16)	7.5'-9.0'	S-3	- - - -			o o o	 ② 7.5 feet: roots and wood debris absent below 7.5 feet. ② 8.0 feet: auger refusal after sampling, move 5.0 feet west and re-drill to 10.0 feet. 				
	7-50/4" (50/4")	10.0'-	S-4	- - - - - -	10		0 - 0 A	10.0 to 10.8 feet: GRAVEL (GW), fine to coarse, rounded to subangular, some sand. (NATIVE) Refusal = 10.8 feet.				
				- - - - - -	15							

REMARKS

Groundwater not encountered during drilling. Abandoned borehole with bentonite chips.

*Boring B-2 was previously referred to as PZ-01. Renamed to avoid confusion with permanent well PZ-01.



PROJECT NAME LOCATION **DRILLED BY** DRILL METHOD FIELD PERSONNEL Weyerhaeuser Eatonville Landfill Eatonville, Washington **Stratus**

Hollow Stem Auger M. Greenfield

BORING NO. B-3* **PAGE** 1 of 1 TOTAL DEPTH 3.0' DATE START 9/13/21 DATE COMPLETED 9/13/21

RECOVERY (PERCENT)	SPT (N)	LAB SAMPLE INTERVAL	GEO- TECHNICAL SAMPLE ID	GROUND WATER LEVEL	DEPTH IN FEET	WELL DETAILS	LITHO- LOGIC COLUMN		SAND %	GRAVEL	FINES %	MOISTURE CONTENT %
	7-10-8 (18)	1.5'-3.0'	ID		5 10 15			O to 3.0 feet: SANDY GRAVEL (GW), brown, fine to coarse, subrounded to rounded, cobbles visible at ground surface. (NATIVE) ① 1.5 feet: sampler becomes bent during sampling. Refusal during sampling at 1.5 feet. Bottom of hole = 3.0 feet.		-		3.7
				- - - - -	-20							

REMARKS

Groundwater not encountered during drilling. Abandoned borehole with bentonite chips.

*Boring B-3 was previously referred to as PZ-02. Renamed to avoid confusion with permanent well PZ-02.



PROJECT NAME LOCATION DRILLED BY DRILL METHOD Weyerhaeuser Eatonville Landfill Eatonville, Washington Holt Services Sonic

BORING NO. PZ-01
PAGE 1 of 5
TOTAL DEPTH 100.0'
DATE START 11/9/21
DATE COMPLETED 11/10/21

DRILL METHOD	Sonic
FIELD PERSONNEL	B. Warner and J. Sherrod

RECOVERY (PERCENT)	SPT (N)	LAB SAMPLE INTERVAL	GEO- TECHNICAL SAMPLE ID	GROUND WATER LEVEL	DEPTH IN FEET	WELL DETAILS	LITHO- LOGIC COLUMN		SAND %	GRAVEL	. FINES %	MOISTURE CONTENT %
55%					5			O to 35.0 feet: SILTY AND SANDY GRAVEL (GW), brown-gray, damp, unconsolidated, and clast-supported with subrounded to subangular cobble up to 5 inches (mostly >2 inches). O 0.0 to 1.0 feet: silty matrix with rooty and organic fragments. 1.0 to 2.0 feet: short interval with >70 percent medium and coarse sand without clast-supported cobbles.			-	
27%				- - - - - - - -	10			@ 10.0 to 30.0 feet: Drive was potentially compacted to a few bore-sized cobbles.			-	

REMARKS



PROJECT NAME LOCATION DRILLED BY DRILL METHOD FIELD PERSONNEL Weyerhaeuser Eatonville Landfill Eatonville, Washington Holt Services Sonic

B. Warner and J. Sherrod

BORING NO. PZ-01
PAGE 2 of 5
TOTAL DEPTH 100.0'
DATE START 11/9/21
DATE COMPLETED 11/10/21

RECOVERY (PERCENT)	SPT (N)	LAB SAMPLE INTERVAL	GEO- TECHNICAL SAMPLE ID	GROUND WATER LEVEL	DEPTH IN FEET	WELL DETAILS	LITHO- LOGIC COLUMN		SAND %	GRAVEL %	FINES %	MOISTURE CONTENT %
20%					30			@ 30.0 to 35.0 feet: Bag tore open while collecting this drive but material on the ground appears similar. 25.0 to 49.0 feet: SILTY AND.	-	-	-	
110%				- - - - - -	40			 35.0 to 49.0 feet: SILTY AND GRAVELLY SAND (SW), blue-gray, damp, with <10 percent 1 inch subrounded cobbles. ② 36.0 to 40.0 feet: grades into very moist, light brown and moderately sorted sands with up to 1.5 inch cobbles, firm consistency that retains molded shape. 				

REMARKS



PROJECT NAME LOCATION DRILLED BY DRILL METHOD FIELD PERSONNEL Weyerhaeuser Eatonville Landfill Eatonville, Washington Holt Services Sonic

B. Warner and J. Sherrod

BORING NO. PZ-01
PAGE 3 of 5
TOTAL DEPTH 100.0'
DATE START 11/9/21
DATE COMPLETED 11/10/21

RECOVERY (PERCENT)	SPT (N)	LAB SAMPLE INTERVAL	GEO- TECHNICAL SAMPLE ID	GROUND WATER LEVEL	DEPTH IN FEET	WELL DETAILS	LITHO- LOGIC COLUMN		SAND %	GRAVEL %	FINES %	MOISTURE CONTENT %
110%				- - - - - - - - - - - - - - - - -	45			35.0 to 49.0 feet: SILTY AND GRAVELLY SAND (SW), continued. @ 40.0 to 49.0 feet: returns to silty blue-gray sand with <10 percent subrounded cobbles K1.5 inches, firm and notably less moist than previous interval. @ 44.0 feet: bore-cut cobbles. @ 45.5 feet: bore-cut cobbles.	-		-	-
110%				- - - - - - - - - - - - -	55			1 inch subrounded cobbles up to 2 inches and lesser coarse sands; matrix contains scattered oxidized pink blebs throughout @ 49.0 feet: bore-cut cobbles.	-		-	

REMARKS



PROJECT NAME LOCATION DRILLED BY DRILL METHOD FIELD PERSONNEL Weyerhaeuser Eatonville Landfill Eatonville, Washington Holt Services Sonic

B. Warner and J. Sherrod

BORING NO. PZ-01
PAGE 4 of 5
TOTAL DEPTH 100.0'
DATE START 11/9/21
DATE COMPLETED 11/10/21

RECOVERY (PERCENT)	SPT (N)	LAB SAMPLE INTERVAL	GEO- TECHNICAL SAMPLE ID	GROUND WATER LEVEL	DEPTH IN FEET	WELL DETAILS	LITHO- LOGIC COLUMN		SAND %	GRAVEL %	FINES %	MOISTURE CONTENT %
110%				- - - - - - - - -	65			49.0 to 79.0 feet: SANDY SILT (ML), continued.		7	-	-
100%				- - - - - - - - - - - - - -	70			@ 68.0 feet: below a bore-cut cobble, matrix is entirely silty.	-			-
				11/10/21 - - - - - - -	75 80		0.5°0.	@ 78.0 to 79.0 feet: sharp upper contact with a coarse sandy interval; very well sorted, moist and coinciding with groundwater level; grades at the base into gravels.				

REMARKS



PROJECT NAME LOCATION DRILLED BY DRILL METHOD FIELD PERSONNEL Weyerhaeuser Eatonville Landfill Eatonville, Washington Holt Services Sonic B. Warner and J. Sherrod BORING NO. PZ-01
PAGE 5 of 5
TOTAL DEPTH 100.0'
DATE START 11/9/21
DATE COMPLETED 11/10/21

RECOVERY (PERCENT)	SPT (N)	LAB SAMPLE INTERVAL	GEO- TECHNICAL SAMPLE ID	GROUND WATER LEVEL	DEPTH IN FEET	WELL DETAILS	LITHO- LOGIC COLUMN		SAND %	GRAVEL %	FINES %	MOISTURE CONTENT %
100%				- - - - - - - -	85			79.0 to 87.5 feet: SANDY GRAVEL (GW), blue-gray, wet, clast-supported cobbles and unconsolidated with a coarse sandy matrix; very large bore-cut cobbles throughout; matrix is slightly below 84.0 feet; very sharp lower contact into sands.	-		-	1
90%				- - - -	90			87.5 to 91.0 feet: SILTY SAND (SP), blue-gray, oxidized orange below 89.5 feet; well-sorted, massive, friable, with a fine to medium grain size and sharp basal contact into gravels.				-
				- - - - - - - - - - -	95			91.0 to 100.0 feet: SANDY GRAVEL (GW), blue-gray sandy gravel; moist, unconsolidated, and clast-supported with a coarse sandy matrix and cobbles up to 2 inches. Boring terminated = 100.0 feet: installed				
				_	1 00		0 7 0 7	Boring terminated = 100.0 feet; installed well to 99.0 feet (see well details).				

REMARKS



PROJECT NAME LOCATION DRILLED BY DRILL METHOD FIELD PERSONNEL Weyerhaeuser Eatonville Landfill Eatonville, Washington Holt Services Sonic

B. Warner and J. Sherrod

BORING NO. PZ-02
PAGE 1 of 6
TOTAL DEPTH 120.0'
DATE START 11/8/21
DATE COMPLETED 11/8/21

RECOVERY (PERCENT)	SPT (N)	LAB SAMPLE INTERVAL	GEO- TECHNICAL SAMPLE ID	GROUND WATER LEVEL	DEPTH IN FEET	WELL DETAILS	LITHO- LOGIC COLUMN		SAND %	GRAVEL %	FINES %	MOISTURE CONTENT %
67%				- - - - - - - - - - - - - -	5			O to 27.5 feet: SANDY GRAVEL (GW), light gray-brown, damp, poorly sorted, unconsolidated and capped by a dark brown 4 inch cap or organic debris, sharp lower contact into sands.	-	_	-	-
70%				- - - - - - - - - - - -	15			@ 11.0 feet: scattered, large 1- to 6-inch cobbles.	-	-	-	-

REMARKS



PROJECT NAME LOCATION DRILLED BY DRILL METHOD FIELD PERSONNEL Weyerhaeuser Eatonville Landfill Eatonville, Washington Holt Services Sonic

B. Warner and J. Sherrod

BORING NO. PZ-02
PAGE 2 of 6
TOTAL DEPTH 120.0'
DATE START 11/8/21
DATE COMPLETED 11/8/21

RECOVERY (PERCENT)	SPT (N)	LAB SAMPLE INTERVAL	GEO- TECHNICAL SAMPLE ID	GROUND WATER LEVEL	DEPTH IN FEET	WELL DETAILS	LITHO- LOGIC COLUMN		SAND %	GRAVEL	FINES	MOISTURE CONTENT %
100%				- - - - - - - - -	25			0 to 27.5 feet: SANDY GRAVEL (GW), continued. 27.5 to 88.0 feet: SILTY SAND (SM),	-		-	-
120%				- - - - - - - -	30			light gray, poorly sorted and well indurated with <10 percent subrounded <1 inch cobbles, grading to dark gray by 32.0 feet. Short cobbly zones throughout, with up to 20 percent clasts up to 4 inches.			-	-
				- - - - - - - -	35			@ 35.0 feet: increasingly indurated and very firm.				

REMARKS



PROJECT NAME LOCATION DRILLED BY DRILL METHOD FIELD PERSONNEL Weyerhaeuser Eatonville Landfill Eatonville, Washington Holt Services Sonic

B. Warner and J. Sherrod

BORING NO. PZ-02
PAGE 3 of 6
TOTAL DEPTH 120.0'
DATE START 11/8/21
DATE COMPLETED 11/8/21

RECOVERY (PERCENT)	SPT (N)	LAB SAMPLE INTERVAL	GEO- TECHNICAL SAMPLE ID	GROUND WATER LEVEL	NETH DETAIL		SAND %	GRAVEL %	FINES %	MOISTURE CONTENT %
100%				-		27.5 to 88.0 feet: SILTY SAND (SM), continued.				
100%				- - - - -	45					
120%				-	50	 © 50.0 to 60.0 feet: bore-cut cobbles at base of this drive. © 50.0 to 70.0 feet: large 5- to 6-inch unsupported cobbles scattered throughout. 			-	
				- - - - -	55	@ 55.0 feet: slightly moist.				

REMARKS



PROJECT NAME LOCATION DRILLED BY DRILL METHOD FIELD PERSONNEL Weyerhaeuser Eatonville Landfill Eatonville, Washington Holt Services Sonic

B. Warner and J. Sherrod

BORING NO. PZ-02
PAGE 4 of 6
TOTAL DEPTH 120.0'
DATE START 11/8/21
DATE COMPLETED 11/8/21

RECOVERY (PERCENT)	SPT (N)	LAB SAMPLE INTERVAL	GEO- TECHNICAL SAMPLE ID	GROUND WATER LEVEL		WELL DETAILS	LITHO- LOGIC COLUMN		SAND %	GRAVEL %	FINES %	MOISTURE CONTENT %
100%				- - - - - - - - - - - - - -	65			27.5 to 88.0 feet: SILTY SAND (SM), continued.		-		1
90%	-			- - - - - -	70			@ 70.0 feet: sand becomes increasingly silty and dark gray below.@ 72.5 to 76.0 feet: well-sorted sandy interval without cobbles.				-
75%				- - - - - - -							-	-

REMARKS



PROJECT NAME LOCATION DRILLED BY DRILL METHOD FIELD PERSONNEL Weyerhaeuser Eatonville Landfill Eatonville, Washington Holt Services Sonic

B. Warner and J. Sherrod

BORING NO. PZ-02
PAGE 5 of 6
TOTAL DEPTH 120.0'
DATE START 11/8/21
DATE COMPLETED 11/8/21

RECOVERY (PERCENT)	SPT (N)	LAB SAMPLE INTERVAL	GEO- TECHNICAL SAMPLE ID	GROUND WATER LEVEL	DEPTH IN FEET	WELL DETAILS	LITHO- LOGIC COLUMN		SAND %	GRAVEL %	FINES	MOISTURE CONTENT %
120%			1	- \times_ @ 7.42 \\ 11/9/21 \\ - \\ - \\ - \\ - \\ - \\ - \\ - \\	85			27.5 to 88.0 feet: SILTY SAND (SM), continued. ② 80.0 feet: wood chips encountered. ② 86.0 feet: groundwater definitively encountered in basal interval of wet medium sand. 88.0 to 99.0 feet: SANDY GRAVEL (GW), gray, very moist, unconsolidated and poorly indurated with 15- to 70 percent subrounded 1-to 4-inch cobbles with teal and pink oxidized blebs throughout matrix, sharp lower contact into clay, sand is very coarse-grained.			-	
				- - - - - - -	95			99.0 to 100.0 feet: CLAY (CL), description on following page.				

REMARKS



PROJECT NAME LOCATION DRILLED BY DRILL METHOD FIELD PERSONNEL Weyerhaeuser Eatonville Landfill Eatonville, Washington Holt Services Sonic B. Warner and J. Sherrod BORING NO. PZ-02
PAGE 6 of 6
TOTAL DEPTH 120.0'
DATE START 11/8/21
DATE COMPLETED 11/8/21

RECOVERY (PERCENT)	SPT (N)	LAB SAMPLE INTERVAL	GEO- TECHNICAL SAMPLE ID	GROUND WATER LEVEL	DEPTH IN FEET	WELL DETAILS	LITHO- LOGIC COLUMN		SAND %	GRAVEL	FINES	MOISTURE CONTENT %
100%				- - - - -	105			99.0 to 100.0 feet: CLAY (CL), light gray, laminated, well indurated and blocky with slightly silty matrix and abundant 1/2 inch charcoal fragments, sharp lower contact into top of next drive, suggesting that transition to sand may be missing. 100.0 to 102.5 feet: SILTY SAND (SM), dark gray, moist, with 1- to 4-inch subrounded cobbles in upper 1.5 feet.	-			
100%				- - - - - -	105 110			102.5 to 105.0 feet: CLAYEY SILT (ML), green, less moist and more indurated than sand above; dark green 0.5 to 1 inch oxidized blebs and charcoal fragments throughout. 105.0 to 105.5 feet: SILTY CLAY (CL), distinctive dark green, laminated, well indurated, with a 2-inch base of loose black charcoal wood fragments. 105.5 to 112.0 feet: SANDY SILT (ML), medium gray, moist, blocky, friable and without cobbles with a gradual			-	
110%	-				115			112.0 to 116.0 feet: SILTY SAND (SM), medium gray, moist, well sorted, massive and unconsolidated sharp lower compact into clay. 116.0 to 120.0 feet: SILTY CLAY (CL), gray, slightly moist, well indurated and contains laminated charcoal beds up to 3-inches thick retaining whole wood chips. Boring terminated = 120.0 feet, backfilled with bentonite (120.0 to 99.0 feet) and installed well to 99.0 feet (see well details).				

REMARKS



PROJECT NAME LOCATION DRILLED BY DRILL METHOD FIELD PERSONNEL Weyerhaeuser Eatonville Landfill Eatonville, Washington Stratus Hand Auger

Scott and Thomas

BORING NO. PZ-03
PAGE 1 of 1
TOTAL DEPTH 3.0'
DATE START 9/15/21
DATE COMPLETED 9/15/21

N/A	RECOVERY (PERCENT)	SPT (N)	LAB SAMPLE INTERVAL	GEO- TECHNICAL SAMPLE ID	GROUND WATER LEVEL		WELL DETAILS	LITHO- LOGIC COLUMN		SAND %	GRAVEL	FINES %	MOISTURE CONTENT %
medium to coarse, wet, loose. Refusal = 3.0 feet on cobbles; installed well to 2.83 feet (see well details).	N/A				- - -				0 to 2.7 feet: ORGANIC SOIL (OH), dark brown, wet, loose, with roots.				
						10			medium to coarse, wet, loose. Refusal = 3.0 feet on cobbles; installed				

REMARKS



PROJECT NAME LOCATION DRILLED BY DRILL METHOD FIELD PERSONNEL Weyerhaeuser Eatonville Landfill Eatonville, Washington Stratus Hand Auger

Scott and Thomas

BORING NO. PZ-04
PAGE 1 of 1
TOTAL DEPTH 3.5'
DATE START 9/15/21
DATE COMPLETED 9/15/21

RECOVERY (PERCENT)	SPT (N)	LAB SAMPLE INTERVAL	GEO- TECHNICAL SAMPLE ID	GROUND WATER LEVEL	DEPTH IN FEET	WELL DETAILS	LITHO- LOGIC COLUMN		SAND %	GRAVEL %	FINES %	MOISTURE CONTENT %
N/A	-				10 15			o to 3.2 feet: ORGANIC SOIL (OH), dark brown, moist to wet, loose, with roots. 3.2 to 3.5 feet: SAND (SP), gray, wet, loose, medium to coarse, refusal on cobbles at 3.5 feet. Refusal = 3.5 feet on cobbles; installed well to 3.44 feet (see well details).				

REMARKS



PROJECT NAME LOCATION DRILLED BY DRILL METHOD FIELD PERSONNEL Weyerhaeuser Eatonville Landfill Eatonville, Washington Holt Services Sonic B. Warner and J. Sherrod BORING NO. PZ-05
PAGE 1 of 2
TOTAL DEPTH 30.0'
DATE START 11/10/21
DATE COMPLETED 11/10/21

RECOVERY (PERCENT)	SPT (N)	LAB SAMPLE INTERVAL	GEO- TECHNICAL SAMPLE ID	GROUND WATER LEVEL	DEPTH IN FEET	WELL DETAILS	LITHO- LOGIC COLUMN		SAND %	GRAVEL %	FINES %	MOISTURE CONTENT %
67%				- - - - -		<u>al</u> · · <u>al</u> · <u>al</u> · · · · · · · · · · · · · · · · · · ·		0 to 28.0 feet: GRAVEL WITH SAND (GW), brown to grayish brown, well graded, loose to medium dense, dry to damp, gravel clasts appear 0.2- to 0.7-inch diameter (rounded to subrounded), sand appears medium to coarse with intermixed fine sand pockets, trace silt.				
95%				- - -	5			@ 0.5 feet: fine to medium gravel increasing.@ 7.5 feet: 16-inch cobble.				
60%				- - - -	10			@ 10.0 feet: 6-inch fine to medium sand lense with medium gravel.				
				- - - -	15			@ 12.0 feet: increasing silt and medium gravel.				
				- - - - -	20	***		@ 15.0 feet: increasing from damp to moist.				

REMARKS

Groundwater not encountered during drilling, but observed after well was installed. Groundwater was measured at 28.30 feet below top of casing on 11/17/2021.



PROJECT NAME LOCATION DRILLED BY DRILL METHOD FIELD PERSONNEL Weyerhaeuser Eatonville Landfill Eatonville, Washington Holt Services

Sonic B. Warner and J. Sherrod

BORING NO. PZ-05
PAGE 2 of 2
TOTAL DEPTH 30.0'
DATE START 11/10/21
DATE COMPLETED 11/10/21

RECOVERY (PERCENT)	SPT (N)	LAB SAMPLE INTERVAL	GEO- TECHNICAL SAMPLE ID	GROUND WATER LEVEL	DEPTH IN FEET	WELL DETAILS	LITHO- LOGIC COLUMN		SAND %	GRAVEL %	FINES %	MOISTURE CONTENT %
50%					35 35			28.0 to 30.0 feet: SILT (ML), brownish gray, medium stiff to stiff, dry to damp, with 10 percent coarse gravel and 30 percent fine to medium sand, low plasticity and medium to rapid dilatancy. Refusal = 30.0 feet; installed well PZ-05 to 28.0 feet (see well details).				

REMARKS

Groundwater not encountered during drilling, but observed after well was installed. Groundwater was measured at 28.30 feet below top of casing on 11/17/2021.



PROJECT NAME LOCATION **DRILLED BY** DRILL METHOD FIELD PERSONNEL Weyerhaeuser Eatonville Landfill Eatonville, Washington **Stratus**

PAGE TOTAL DEPTH Geoprobe DATE START M. Greenfield DATE COMPLETED

BORING NO.

SB-10

1 of 3

9/14/21

47.5' 9/14/21

RECOVERY (PERCENT)	SPT (N)	LAB SAMPLE INTERVAL	GEO- TECHNICAL SAMPLE ID	GROUND WATER LEVEL		WELL DETAILS	LITHO- LOGIC COLUMN		SAND %	GRAVEL %	FINES %	MOISTURE CONTENT %
20%				-				to 25.0 feet: SANDY GRAVEL (GW), trace silt, rounded to subangular, fine to coarse, scattered root debris, 2-inch rooted zone at ground surface. (FILL DEPOSIT)	-		7.8	2.7
14%				- - - - - -	5			@ 5.0 feet: roots absent, some sand below.	1			-
24%				-	10			@ 10.0 feet: scattered roots and glass debris.	T			
21%				- - - - -	20			@ 16.5 feet: wet, sandy below. @ 17.0 feet: driller says soft.	F		-	-

REMARKS



BORING NO.

PAGE

SB-10

2 of 3

9/14/21

47.5' 9/14/21

PROJECT NAME LOCATION DRILLED BY DRILL METHOD FIELD PERSONNEL Weyerhaeuser Eatonville Landfill Eatonville, Washington Stratus

StratusTOTAL DEPTHGeoprobeDATE STARTM. GreenfieldDATE COMPLETED

RECOVERY (PERCENT)	SPT (N)	LAB SAMPLE INTERVAL	GEO- TECHNICAL SAMPLE ID	GROUND WATER LEVEL	DEPTH IN FEET	WELL DETAILS	LITHO- LOGIC COLUMN		SAND %	GRAVEL %	FINES %	MOISTURE CONTENT %
7%				- - - - -	25			0 to 25.0 feet: SANDY GRAVEL (GW), continued.				1
46%				- - - - - -	30			25.0 to 30.7 feet: CLAYEY SAND (SC), gray to brown, some silt and gravel, rounded gravel particles. (NATIVE)	43.5	13.9	42.7	12.1
				- - - - - -	35			30.7 to 35.0 feet: SANDY GRAVEL (GW), gray, trace to some silt, medium, rounded to subangular gravel.		-	-	-
25%	-			- - - - - - -	40			35.0 to 47.5 feet: GRAVELLY CLAY (CL), gray, some sand and silt, rounded gravel, medium to high plasticity.			-	-

REMARKS



PROJECT NAME LOCATION DRILLED BY DRILL METHOD FIELD PERSONNEL Weyerhaeuser Eatonville Landfill Eatonville, Washington Stratus

Stratus Geoprobe M. Greenfield BORING NO. PAGE 3 of 3 TOTAL DEPTH 47.5' DATE START 9/14/21 DATE COMPLETED 9/14/21

RECOVERY (PERCENT)	SPT (N)	LAB SAMPLE INTERVAL	GEO- TECHNICAL SAMPLE ID	GROUND WATER LEVEL	DEPTH IN FEET	WELL DETAILS	LITHO- LOGIC COLUMN		SAND %	GRAVEL	FINES	MOISTURE CONTENT %
ł				-				35.0 to 47.5 feet: GRAVELLY CLAY (CL), continued.				
1				-	45			Refusal = 47.5 feet.			43.2	19.2
				- - - - - -	50							
				- - - - - -	55							
				- - - -	60							

REMARKS



PROJECT NAME LOCATION DRILLED BY DRILL METHOD FIELD PERSONNEL Weyerhaeuser Eatonville Landfill Eatonville, Washington Stratus Microcore to 5' dual tube Ben and Scott BORING NO. SB-11
PAGE 1 of 1
TOTAL DEPTH 10.0'
DATE START 9/16/21
DATE COMPLETED 9/16/21

RECOVERY (PERCENT)	SPT (N)	LAB SAMPLE INTERVAL	GEO- TECHNICAL SAMPLE ID	GROUND WATER LEVEL	DEPTH IN FEET	WELL DETAILS	LITHO- LOGIC COLUMN		SAND %	GRAVEL %	FINES %	MOISTURE CONTENT %
44%				- - - - -	5			to 6.8 feet: GRAVELLY SAND (SW), fine to coarse sands and gravels, rounded to subrounded, dry, gray, firm. (FILL DEPOSIT)				
74%				- - - - - -			a a a	6.8 to 10.0 feet: SILT WITH SAND AND GRAVEL (ML), fine sand and subrounded fine to medium gravels, firm, damp. (NATIVE) @ 8.6 to 9.1 feet: sand layer.	-			-
				- - - - - - - - - - - -	15			Refusal = 10.0 feet due to gravel clast size of tube.				

REMARKS



PROJECT NAME LOCATION DRILLED BY DRILL METHOD FIELD PERSONNEL Weyerhaeuser Eatonville Landfill Eatonville, Washington Stratus Geoprobe

M. Greenfield

BORING NO. SB-14
PAGE 1 of 1
TOTAL DEPTH 15.0'
DATE START 9/14/21
DATE COMPLETED 9/14/21

RECOVERY (PERCENT)	SPT (N)	LAB SAMPLE INTERVAL	GEO- TECHNICAL SAMPLE ID	GROUND WATER LEVEL	DEPTH IN FEET	WELL DETAILS	LITHO- LOGIC COLUMN		SAND %	GRAVEL	FINES	MOISTURE CONTENT %
				- - - - -				to 7.5 feet: SANDY GRAVEL (GW), brown, trace to some silt, fine to coarse, rounded to subangular.				1
-				- - - - - - -	5			7.5 to 15.0 feet: GRAVELLY CLAY (CL), brown, some sand and silt, medium to high plasticity, rounded to subrounded gravel.	32	57.1	10.9	5.5
	-			-	15			@ 12.0 feet: loose. @ 14.0 feet: gray. Refusal = 15.0 feet, damage to tube.				-
				- - - - - -	20							

REMARKS



PROJECT NAME LOCATION DRILLED BY DRILL METHOD FIELD PERSONNEL Weyerhaeuser Eatonville Landfill Eatonville, Washington Stratus Geoprobe

M. Greenfield

BORING NO. SB-16
PAGE 1 of 1
TOTAL DEPTH 19.5'
DATE START 9/14/21
DATE COMPLETED 9/14/21

RECOVERY (PERCENT)	SPT (N)	LAB SAMPLE INTERVAL	GEO- TECHNICAL SAMPLE ID	GROUND WATER LEVEL	DEPTH IN FEET	WELL DETAILS	LITHO- LOGIC COLUMN		SAND %	GRAVEL %	FINES %	MOISTURE CONTENT %
<1"				- - - - - -				to 16.0 feet: SANDY GRAVEL (GW), fine to coarse, subrounded to rounded, trace glass and plastic fragments. Very little recovery, very soft, no hammering, driller said pushing through air. (FILL DEPOSIT)			-	
0	-			- - - - -	5							
0				- - - - - -	10						1	
				- - - - - -	13			16.0 to 19.5 feet: SANDY GRAVEL (GW), some silt to silty, rounded to subangular. (NATIVE) @ 16.0 feet: geoprobe resistance starts. Refusal = 19.5 feet.			22.8	12.8

REMARKS



PROJECT NAME LOCATION DRILLED BY DRILL METHOD FIELD PERSONNEL Weyerhaeuser Eatonville Landfill Eatonville, Washington Stratus

Auger/SPT

Ben, Scott and Thomas

BORING NO. SB-17
PAGE 1 of 3
TOTAL DEPTH 41.5'
DATE START 9/15/21
DATE COMPLETED 9/16/21

RECOVERY (PERCENT)	SPT (N)	LAB SAMPLE INTERVAL	GEO- TECHNICAL SAMPLE ID	GROUND WATER LEVEL		WELL DETAILS	LITHO- LOGIC COLUMN		SAND %	GRAVEL %	FINES %	MOISTURE CONTENT %
				- - - - - -				to 10.0 feet: SANDY GRAVEL (GW), fine to coarse, subrounded to rounded, trace glass and plastic fragments. (FILL DEPOSIT)				
	3-1-1 (2)	5.0'-6.5'	S-1	- - - -	5						-	-
	3-1-2 (3)	7.5'-9.0'	S-2								-	-
	1-1-6 (7)	10.0'- 11.5'	S-3	 - - -	10			10.0 to 25.0 feet: WASTE, silt with sand and gravel, plastic, organic debris, glass, 10 percent organic content. (LANDFILL) @ 12.0 feet: concrete fragments.			-	21.1
	33-4-1 (5)	12.5'- 14.0'	S-4	- - -				© .2.0 iod co.io.ioli ilaginorito.			-	
	1-0-0	15.0'- 16.5'	S-5	- - - - - - -	15						I	_

REMARKS



PROJECT NAME LOCATION DRILLED BY DRILL METHOD FIELD PERSONNEL Weyerhaeuser Eatonville Landfill Eatonville, Washington Stratus

Auger/SPT Ben, Scott and Thomas BORING NO. SB-17
PAGE 2 of 3
TOTAL DEPTH 41.5'
DATE START 9/15/21
DATE COMPLETED 9/16/21

RECOVERY (PERCENT)	SPT (N)	LAB SAMPLE INTERVAL	GEO- TECHNICAL SAMPLE ID	GROUND WATER LEVEL	DEPTH IN FEET	WELL DETAILS	LITHO- LOGIC COLUMN		SAND %	GRAVEL %	FINES %	MOISTURE CONTENT %
	5-4-3 (7)	20.0- 21.5'	S-6	- - - - - -				10.0 to 25.0 feet: WASTE, continued.		-	1	
	2-3-3 (6)	25.0'- 26.5'	S-7	- - - - - - - -	25			25.0 to 41.5 feet: SAND (SW), gray mottled orange, some silt, trace rounded to subrounded gravel. (NATIVE)			11.3	5.5
-	3-4-3 (7)	30.0'- 31.5'	S-8		30						ı	-
	9-12-17 (29)	35.0'- 36.5'	S-9	- - - - - - -	35					-	1	-

REMARKS



LOG OF SOIL BORING

PROJECT NAME LOCATION DRILLED BY DRILL METHOD Weyerhaeuser Eatonville Landfill Eatonville, Washington

Stratus Auger/SPT

FIELD PERSONNEL Ben, Scott and Thomas

BORING NO. PAGE 3 of 3
TOTAL DEPTH 41.5'
DATE START 9/15/21
DATE COMPLETED 9/16/21

RECOVERY (PERCENT)	SPT (N)	LAB SAMPLE INTERVAL	GEO- TECHNICAL SAMPLE ID	GROUND WATER LEVEL	DEPTH IN FEET	WELL DETAILS	LITHO- LOGIC COLUMN		SAND %	GRAVEL %	FINES %	MOISTURE CONTENT %
	8-16-17 (33)	40.0'-41.5'	S-10	- - - - - - - - - - - - - - - - - - -	50			25.0 to 41.5 feet: SAND (SW), continued. ② 40.0 feet: damp, some silt or clay to silty/clayey below. Bottom of hole = 41.5 feet.	74.8	4.7	20.5	38.3
				- - - - - - - -	55							

REMARKS

Groundwater not encountered during drilling. Abandoned borehole with bentonite chips.



LOG OF SOIL BORING

PROJECT NAME LOCATION DRILLED BY DRILL METHOD FIELD PERSONNEL Weyerhaeuser Eatonville Landfill Eatonville, Washington Stratus Geoprobe

Ben, Scott and Thomas

BORING NO. SB-18
PAGE 1 of 1
TOTAL DEPTH 15.0'
DATE START 9/16/21
DATE COMPLETED 9/16/21

RECOVERY (PERCENT)	SPT (N)	LAB SAMPLE INTERVAL	GEO- TECHNICAL SAMPLE ID	GROUND WATER LEVEL	DEPTH IN FEET	WELL DETAILS	LITHO- LOGIC COLUMN		SAND %	GRAVEL %	FINES %	MOISTURE CONTENT %
No recovery				- - - - - - -				to 5.0 feet: SANDY GRAVEL (GW), no recovery. (FILL DEPOSIT)				
20%			Enviro. Sample	- - - - - - -	5		×	5 to 10.0 feet: GRAVELLY SILTY SAND (SM), brown to dark brown, dry, medium density, plastic and glass. (LANDFILL) @ 9.0 feet: black.				-
55%			SB-18- 9-10- 0921 @14:35	- - - - - - -	10			10.0 to 15.0 feet: SILT WITH SAND (ML), gray with brown mottling, firm, damp. (NATIVE)				
				- - - - -	15	******		Bottom of hole = 15.0 feet. Installed temporary screen between 5.0 to 9.0 feet bgs and collected landfill gas measurements. CH4 - 0.001%, CO2 - 3 9%, O2 - 16%, LEL - 2%. After monitoring, abandoned and backfilled the borehole with hydrated bentonite chips.				

REMARKS

Groundwater not encountered during drilling. Abandoned borehole with bentonite chips.



LOG OF SOIL BORING

PROJECT NAME LOCATION DRILLED BY DRILL METHOD FIELD PERSONNEL Weyerhaeuser Eatonville Landfill Eatonville, Washington Stratus Geoprobe

Ben, Scott and Thomas

BORING NO. SB-19
PAGE 1 of 1
TOTAL DEPTH 10.0'
DATE START 9/16/21
DATE COMPLETED 9/16/21

RECOVERY (PERCENT)	SPT (N)	LAB SAMPLE INTERVAL	GEO- TECHNICAL SAMPLE ID	GROUND WATER LEVEL	DEPTH IN FEET	WELL DETAILS	LITHO- LOGIC COLUMN		SAND %	GRAVEL	FINES	MOISTURE CONTENT %
72%					5			to 7.0 feet: SAND WITH SILT (SW), brown to gray, fine to medium subrounded gravel, medium density, dry. (TILL)			-	
				- - - - - -	10			7.0 to 7.2 feet: SAND WITH SILT (SW), black sand, glass and gravel. (LANDFILL) 7.2 to 10.0 feet: SAND (SP), gray, fine to medium, medium density, slightly damp. (NATIVE) Bottom of hole = 10.0 feet. Installed temporary screen between 5.0 to 9.0 feet bgs and collected landfill gas measurements. CH4 - 0.1%, CO - 54 ppm, H2S 0 ppm (0.0%),				
				- - - - - -	15			LEL - 3%. After monitoring, abandoned and backfilled the borehole with bentonite chips.				
				- - -	20							

REMARKS

Groundwater not encountered during drilling. Abandoned borehole with bentonite chips.

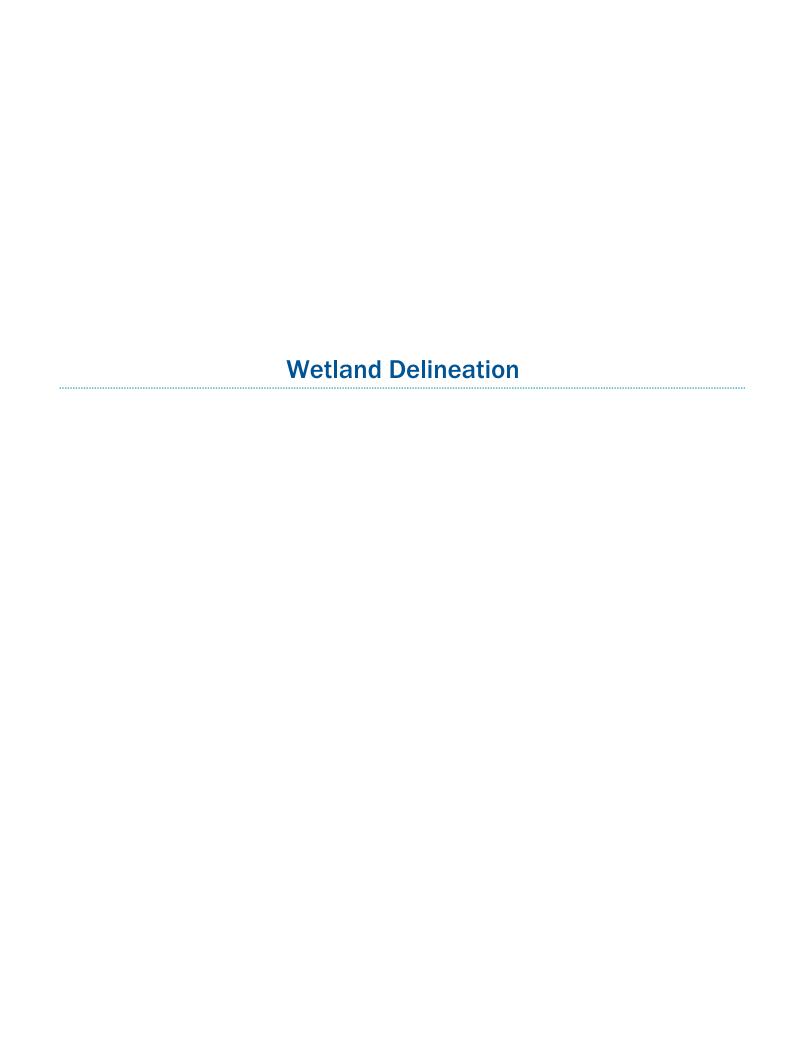


-APPENDIX C-

Wetland Delineation Report and Land Survey Data

Remedial Investigation/Feasibility Study

Former Eatonville Landfill



Wetland Delineation for the Eatonville Landfill Property, Pierce County, Washington

Township	Range	Section	Tax Lots		
16N	4E	20 Qtr 11	Portion of 1006		
		20 Qtr 14	1007		

Prepared for

Genevieve Schutzius, PE GSI Water Solutions, Inc. 55 SW Yamhill St., Suite 300 Portland, OR 97204

Prepared by

Carlee Michelson, Caroline Rim, John van Staveren, SPWS **Pacific Habitat Services, Inc.** 9450 SW Commerce Circle, Suite 180 Wilsonville, Oregon 97070 (503) 570-0800 (503) 570-0855 FAX

PHS Project Number: 7424

March 9, 2022



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I. INTRODUCTION

Pacific Habitat Services, Inc. (PHS) conducted a wetland delineation on January 20, 2022, at the Eatonville Landfill property in Pierce County, Washington (Township 16 North, Range 4 East, Section 20, portion of Tax Lot 1006 and all of 1007). This report presents the results of PHS's delineation of the study area. Figures, including maps depicting the locations of wetlands within the study area are in Appendix A. Data sheets documenting study area conditions are provided in Appendix B. Ground-level photos of the study area are included in Appendix C.

II. RESULTS AND DISCUSSION

A. Landscape Setting and Land Use

The study area is located approximately 2.6 miles southwest of downtown Eatonville and 500 feet northwest of the Mashel River, a tributary of the Nisqually River (Figure 1).

Land use surrounding the study area is primarily Nisqually State Park. Forested and undeveloped, the park property resides near the National Park Highway (Highway 7) leading east toward Mt. Rainier National Park, approximately 23 miles. The property itself is owned by Weyerhaeuser Company, and has historically served as a local dump serving the town of Eatonville and rural nearby areas. Site topography is steeply sloped south at the dump site, and gradually flattens out at the base of slope at the edge of a river terrace adjacent to the Mashel River. Although the river does not enter the study area, wetlands reside in the terrace fed by intermittent seeps in the slope conveying flows southwest. Elevations range from approximately 596 feet to 726 feet according to a topographical survey conducted by Foresight Surveying, Inc.

The study area has two separate plant communities representing wetland and upland conditions. The upland areas reside prominently upslope while the wetland plant community resides at the base of slope on the terrace.

The upland has a dominant overstory consisting of Douglas' fir (*Pseudotsuga menziesii*, FACU), Western hemlock (*Tsuga heterophylla*, FACU), and Western red cedar (*Thuja plicata*, FAC). The understory contains Oregon beaked hazelnut (*Corylus cornuta*, FACU), vine maple (*Acer circinatum*, FAC), salal (*Gaultheria shallon*, FACU), mountain huckleberry (*Vaccinium parvifolium*, FACU), Cascade Oregon grape (*Mahonia nervosa*, FACU), Himalayan blackberry (*Rubus armeniacus*, FAC), trailing blackberry (*Rubus ursinus*, FACU), and cut-leaf blackberry (*Rubus laciniatus*, FACU). Dominant herbaceous species include sword fern (*Polystichum munitum*, FACU), lesser herb-robert (*Geranium robertianum*, FACU), northern bracken fern (*Pteridium aquilinum*, FACU), and piggy-back plant (*Tolmiea menziesii*, FAC).

The wetland plant community is dominated by Red alder (*Alnus rubra*, FAC), salmonberry (*Rubus spectabilis*, FAC), slough sedge (*Carex obnupta*, OBL), and creeping buttercup (*Ranunculus repens*, FAC).

Mapped soils within the study area include Barneston gravelly ashy coarse sandy loam (8-15% slopes), Kapowsin gravelly loam (50-70% slopes), and Aquic xerofluvents, level (hydric) (USDA 2022).

B. Site Alterations

The study area existed for many decades as a leased dump from approximately the 1950s until 1980. Solid waste, vehicles, appliances, tires and other waste was disposed of and over decades accumulated a large mass along the steep slopes adjacent to and within wetlands on site. An Agreed Order (AO) and Public Participation Plan was published through the Department of Ecology (21-09-097) describing the hazardous substances known or suspected at the site, which include metals (iron, lead, and zinc), and the potential for other toxic chemicals that negatively impact water quality standards.

C. Precipitation Data and Analysis

PHS conducted the wetland delineation fieldwork on January 20, 2022. PHS used the Direct Antecedent Rainfall Analysis Method (DAREM) for field dates. Table 1 compares the average monthly WETS table precipitation at the McMillon Reservoir, WA to the observed monthly precipitation at the nearest comprehensive weather station, Graham 2.7 SW. As shown in Table 1, observed precipitation was drier than normal during the three months prior to field work.

Table 1: Comparison of average and observed monthly precipitation prior to the delineation field work

		30% Chanc	e Will Have		Condition		Condition						
Month	Average Precipitation ¹	Less More Measured Rainfall ² Average ¹ Average ¹		Value ³ (1=dry, 2=normal, 3=wet)	Month Weight ⁴	Value x Month Weight	Sum Total ⁵						
	Year 2022												
January	5.54	3.76	6.62	6.54	Normal (2)	N/A in DAREM	N/A	N/A					
			Y	ear 2021									
December	5.91	4.31	6.96	4.04	Dry (1)	3	3						
November	6.53	4.63	7.74	6.8	Normal (2)	2	4	9(drier)					
October	3.40	2.04	4.13	2.2	Normal (2)	1	2						

¹ NRCS WETS Table for the MCMILLON RESERVOIR, WA Source: http://agacis.rcc-acis.org/?fips=53053.

Total observed precipitation for the water year (October 2021-December 2021: 13.04 inches), compared to this same period averaged over the past 20 years (15.84 inches) at the McMillon Reservoir, WA is 82% of normal. Precipitation levels recorded on January 20, 2021, totaled 0.33 inches, with 4.23 inches of precipitation recorded over the prior two weeks.

Table 2: Water Year Levels

Water Year	Observed Precipitation (in.)	Average Precipitation (in.)	Percent of Normal
October 2021-December 2021	13.04	15.84	82

² Measured rainfall is the precipitation recorded at the GRAHAM 2.7 SW. Source: http://agacis.rcc-acis.org/?fips=53053

³Condition Value: compared to nearest WETS normal range

⁴Month Weight: most recent month = 3, 2nd most recent month = 2, third most recent month = 1

⁵Sum Total: sum of eighth column: drier (sum 6-9), normal (sum 10-14), wetter (sum 15-18)

Precipitation levels preceding field work were not likely to have affected the boundaries delineated by PHS. One site visit was conducted to verify upland/wetland conditions. Some areas without hydrology were further evaluated for soils and vegetation since precipitation levels were below normal in the month preceding the field investigation. In general, areas without hydrology were also lacking hydric soils or hydrophytic vegetation.

D. Methods

PHS assessed for the presence of jurisdictional wetlands in the study area based on wetland hydrology, hydric soils, and hydrophytic vegetation, in accordance with the Routine On-site Determination, as described in the *Corps of Engineers Wetland Delineation Manual*, *Wetlands Research Program Technical Report Y 87 1* ("The 1987 Manual") and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region*. The conclusions drawn by PHS were based on the methods outlined in the regional supplement.

PHS staff looked for typical indicators of Ordinary High Water (OHW) based on guidance from *Determining the Ordinary High Water Mark for Shoreline Management Act Compliance in Washington State*. Although flow from seeps was substantial at the time of the delineation, it appears that the seeps generally provide sheet flows down the slope and into the wetland below. There are occasional areas with scoured roots along the slopes from high-precipitation events, but generally no consistent channel has developed, which may be in part due to the obstacles present from the debris on the slope.

The landfill debris extends to the base of slope and covers a portion of the wetland boundary. The method applied for inferring this boundary included the use of survey topography, LiDAR topography, and comparing the wetland boundary on each side of the debris pile. The inferred portion of wetland boundary is called out on Figure 6.

Soils:

There is a well-defined change between hydric and non-hydric soils along the base of slope, with the exception of seasonally scoured areas upslope where seeps were discharging. Soils typically displayed strong redoximorphic features in either a dark surface or depleted matrix. Some areas of long-term saturation at the base of slope contained a mucky surface and sulfidic odor.

Hydrology:

Soils above the wetland boundary were excavated throughout the study area to verify the presence or lack of primary and/or secondary hydrology indicators. Sample point 1 was excavated to 18-inches to evaluate the potential for groundwater within the slope, since a seep was nearby. Sample point 7 was placed upslope of the head of the main seep to evaluate whether shallow groundwater flow was present. Although precipitation was ample over the prior two weeks, no hydrology indicators were present in the upland; likely due to the steepness of slope.

Vegetation:

Several areas along the wetland boundary contained mosaics of upland vegetation rooted on stumps or shallow tree roots. Although these areas contained upland vegetation, the mosaic sampling procedure method outlined in the regional supplement was not utilized since digging below roots exposed hydric soils and hydrology indicators. These areas were included as wetland despite the presence of upland plants.

E. Description of all Wetlands and Other Waters

PHS identified the potentially jurisdictional limits of wetland within the study area, which is described below.

Wetland A

Wetland A (210,640 square feet/ 4.84 acres) is palustrine emergent-persistent, seasonally flooded/saturated (PEM1E) wetland with a Hydrogeomorphic (HGM) class of Slope. Flowing surface water was present from the head of seep at the time of the delineation. Some shallow surface water was present at the base of slope within the terrace, but mostly infiltrates the soil and maintains persistent saturation. Spoil was not selected as a wetland modifier since the landfill material does not form a soil substrate, but a portion of the northeastern wetland boundary resides beneath the landfill debris.

Dominant vegetation within the wetland includes red alder, Western hemlock, salmonberry, slough sedge, piggy-back plant, and creeping buttercup. Vegetation present met the dominance test for hydrophytic vegetation. Soil indicators present in the wetland include hydrogen sulfide (A4), depleted below dark surface (A11), loamy gleyed matrix (F2), and depleted matrix (F3). Hydrology indicators include surface water (A1), saturation (A3), hydrogen sulfide (C1), drainage patterns (B10), geomorphic position (D2), and FAC-neutral test (D5).

The upland is dominated by Douglas' fir, Western hemlock, Western red cedar, Oregon beaked hazelnut, vine maple, salal, mountain huckleberry, Cascade Oregon grape, Himalayan blackberry, trailing blackberry, cut-leaf blackberry, sword fern, lesser herb-robert, northern bracken fern, and piggy-back plant. No hydric soil or hydrology indicators are present in the upland.

F. Deviation from Local Wetland Inventory or National Wetland Inventory

The study area is not located any designated Local Wetland Inventory (LWI) boundaries. The National Wetland Inventory (NWI) does not display any wetland in the study area, likely due to a lack of ground-truth investigations involved with NWI mapping, as well as dense canopy cover shielding the area from wetness signatures.

G. Mapping Method

PHS used blue flagging tape to delineate the wetland boundaries, and pink flagging tape to mark sample point locations. Locations of flagged boundaries and topographic contours were surveyed by Foresight Surveying, Inc. and have sub-centimeter accuracy. Sample point locations were placed via GPS and surveyed flagging locations and have an accuracy of +/- 3 feet.

H. Additional Information

The Department of Ecology issued an AO for the site under the Toxics Cleanup Program in an effort to remediate for on-site pollutants and waste (Publication 21-09-097).

Although the area is not listed among any Natural Heritage sites, the landfill is surrounded by Nisqually State Park. The nearest Natural Resource Conservation Area (NRCA) is over 20 miles east, at the Ashford NRCA.

The Washington Department of Fish and Wildlife Priority Habitat Mapper displays the following Priority Habitat and Species overlays within the study area and adjacent to and encompassing the nearby Mashel River:

- Habitat feature- "Pierce County Snag Rich Habitat"
- Terrestrial habitat-"Old Growth Habitat in Pierce County"
- Terrestrial habitat-"Pierce county Candidate Open Space Areas"
- Habitat occurrence for Townsend's big-eared bat-"Corynorhinus townsendii"

The US Fish and Wildlife Critical Habitat Mapper has no occurrences listed within the study area, but downstream of the Mashel River, at the confluence with the Nisqually River, is critical habitat for bull trout.

Washington Department of Fish and Wildlife Salmonscape maps the Mashel River as habitat for Fall Chinook, Coho, Winter Chum, Winter Steelhead, Sockeye, Pink salmon (odd year). ESA listing units include Fall & Winter Chum ESUs, Coho ESUs, Pink Odd Year ESUs, and Winter & Summer Steelhead DPSs.

There are no Washington Department of Natural Resources Wetlands of High Conservation Value mapped within the study area.

I. Results and Conclusions

PHS delineated one potentially jurisdictional wetland within the study area (Wetland A). Wetland total is 210,640 square feet/ 4.84 acres. Cowardin and HGM classification is stated above in Section E.

J. Required Disclaimer

This report documents the investigation, best professional judgment and conclusions of the investigators. It is correct and complete to the best of our knowledge. It should be considered a Preliminary Jurisdictional Determination of wetlands and other waters and used at your own risk unless it has been reviewed and approved in writing by the Washington Department of Ecology in accordance with Chapter 90.48 RCW.

III. REFERENCES

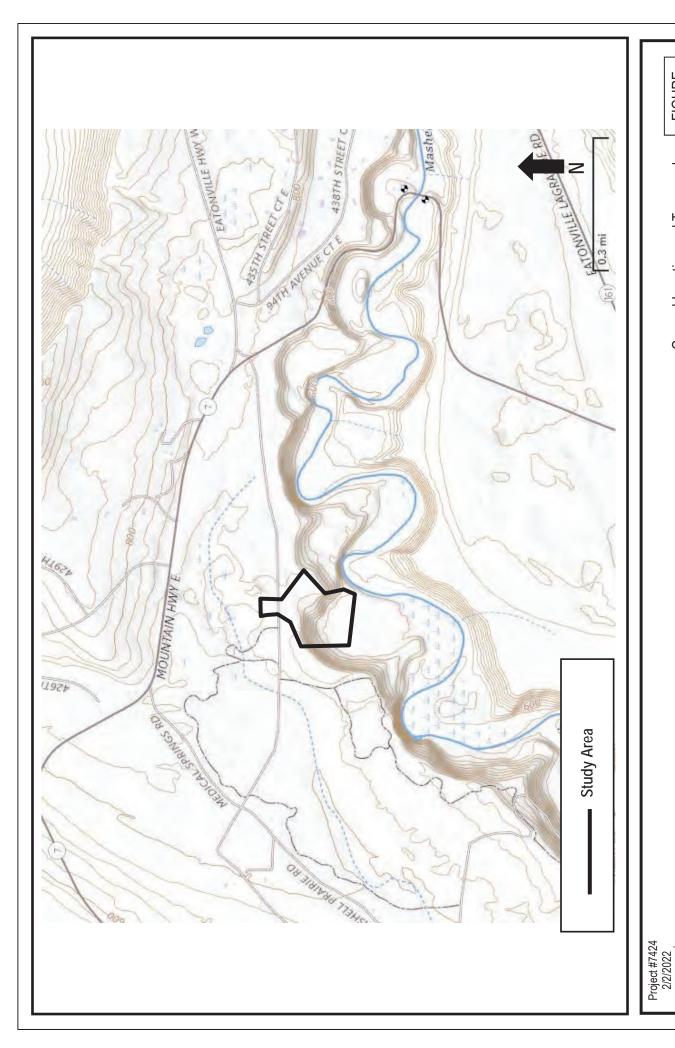
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- US Fish and Wildlife Service, 2022. National Wetland Inventory, *Wetland Mapper https://www.fws.gov/wetlands/data/mapper.html*

Appendix A

Figures



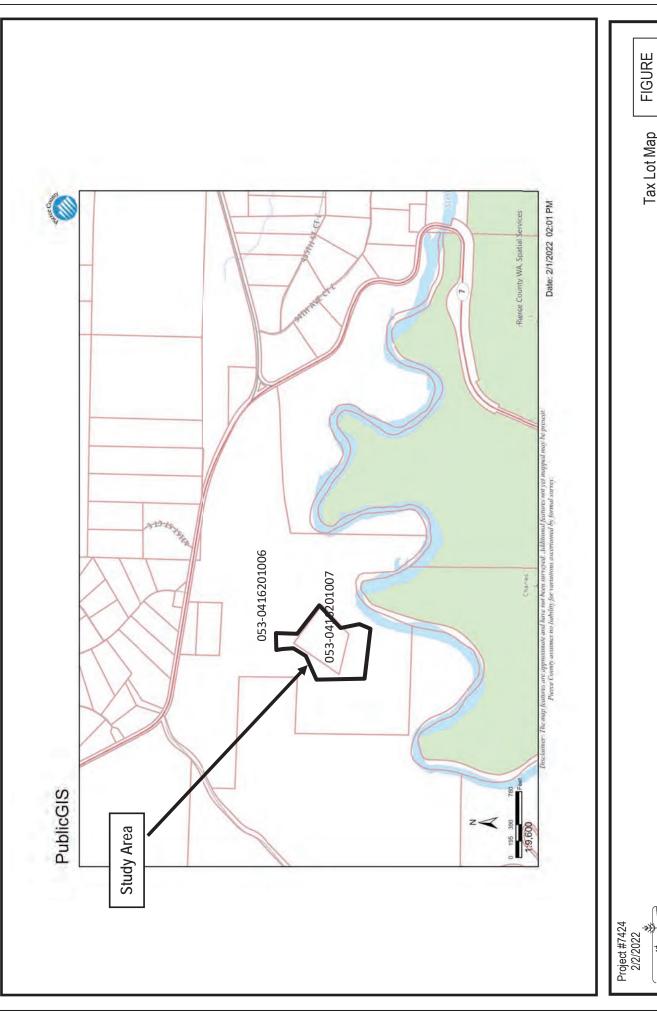


PHS

Pacific Habitat Services, Inc. 9450 SW Commerce Circle, Suite 180 Wilsonville, OR 97070

General Location and Topography Eatonville Landfill Property - Pierce County, Washington United States Geological Survey (USGS) Eatonville, Washington 7.5 quadrangle, 2020 (viewer.nationalmap.gov/basic)

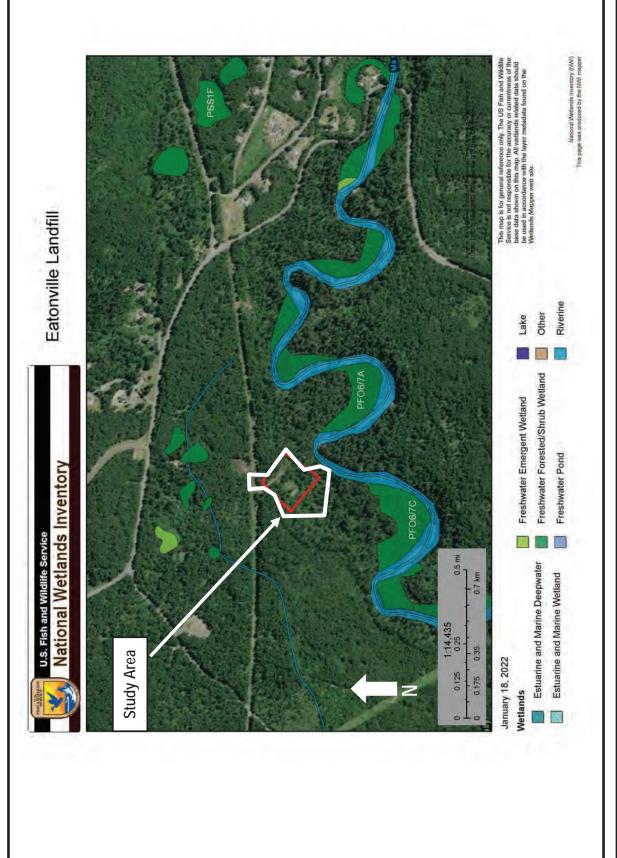
FIGURE



FIGURE

Tax Lot Map Eatonville Landfill Property - Pierce County, Washington Pierce County WA Spatial Services

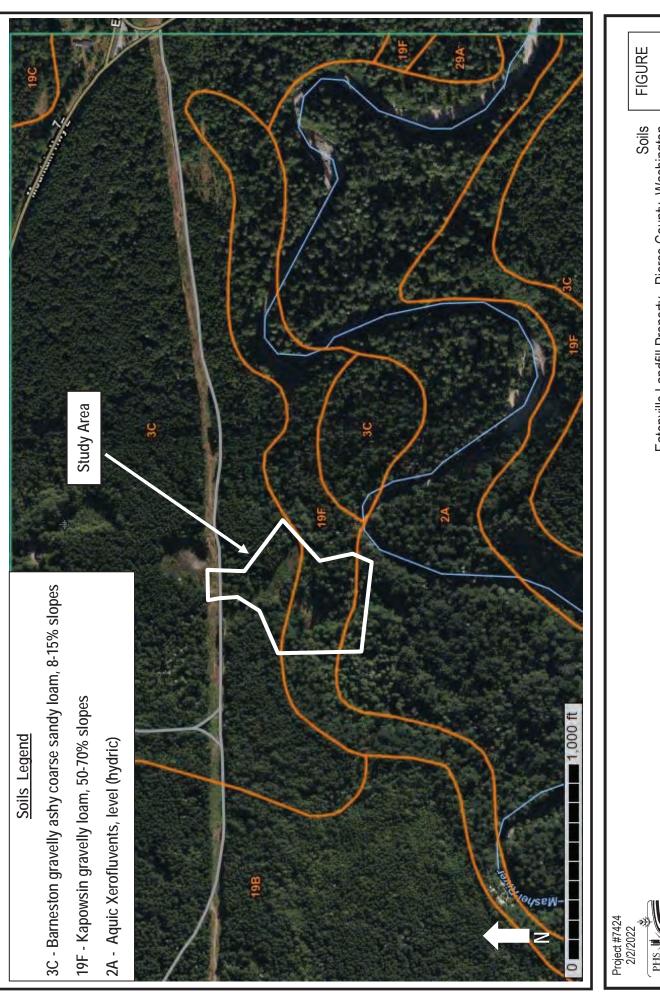
PHS PHS



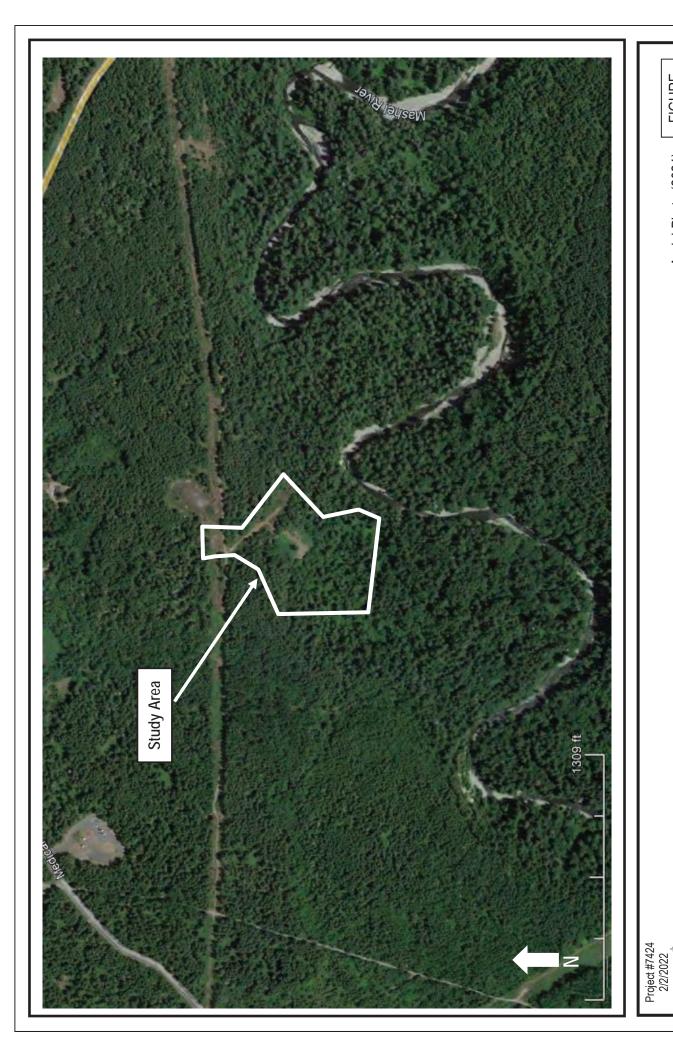
FIGURE

National Wetland Inventory Eatonville Landfill Property - Pierce County, Washington United States Fish and Wildlife Service, Online Wetland Mapper V2, 2022

Project #7424 2/2/2022 PHS



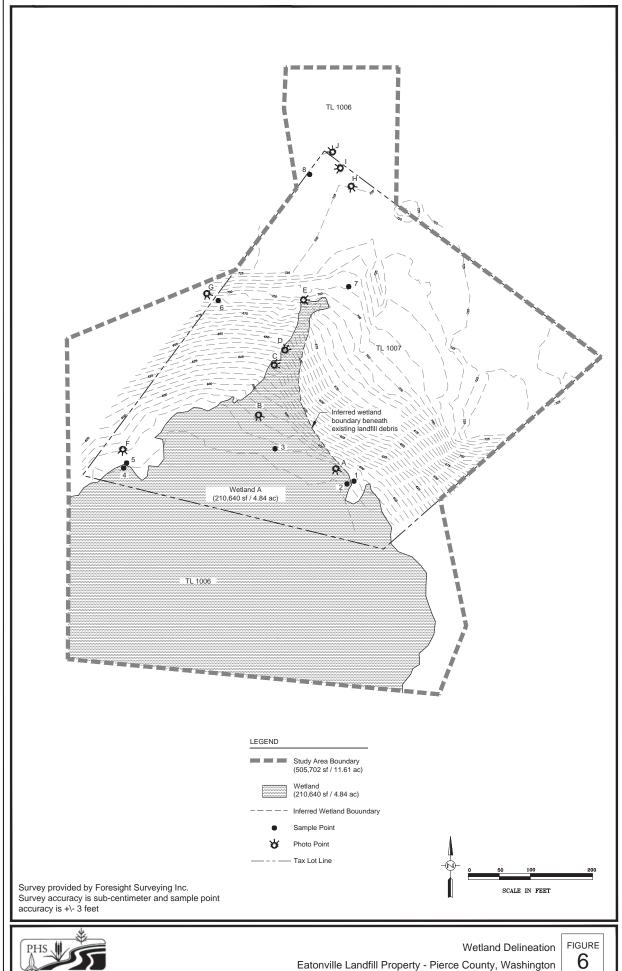
Eatonville Landfill Property - Pierce County, Washington Natural Resources Conservation Services, Web Soil Survey, 2022 (websoilsurvey.sc.egov.usda.gov)



921) FIGURE gton **5**

Aerial Photo (2021) Eatonville Landfill Property - Pierce County, Washington GoogleEarth, 2022







2-22-2022

Appendix B

Wetland Determination Data Sheets



7424

oject/Site:	Eatonville	e Landfill		City/County:	Pie	erce County	Sar	mpling Date:	1/2	0/2022
oplicant/Owner:	Weyerhaeu	ser				S	tate: WA	S	ampling Point:	1
estigator(s):		M/CR		Section, To	wnship, Range:		Section 2	— 20, 16 North,		
ndform (hillslope, tei	rrace, etc.:)		Slope	<u> </u>		ncave, convex, none):		Convex	Slope (%):	25
bregion (LRR):	, ,	LRR A		Lat:	46.859			22.3223	Datum:	
I Map Unit Name:			Kanowsin	gravelly loam	-		VI Classificatio		- None	
climatic/hydrologic		the site tyr			Yes		No X	-	n in Remarks)	
vegetation X				significantly dist		Are "Normal Circum		_ ` '	Y	
				• •		I, explain any answers		,		•
vegetation	Soil	. or mydi	ology	naturally proble	mauc? II needed	i, explain any answers	in Remarks.)			
JMMARY OF F	INDINGS -	- Attach	site map	showing san	npling point	locations, trans	ects, impo	rtant featur	es, etc.	
Irophytic Vegetatior	n Present?	Yes	X No							
Iric Soil Present?		Yes	No	X	Is Sampled Ar a Wetlar		Yes	N	o X	
tland Hydrology Pre	esent?	Yes	No	X	u Wellar				-	-
narks:		_								
	s derived us	ing the D	AREM meth	od indicate th	nat precipitation	on levels are lowe	r than avera	ige, inducing	drier condi	tions on sit
		•				ary hydrology ind		•	,	
GETATION - L	Use scient	ific nam	•			<u> </u>				
			absolute % cover	Dominant Species?	Indicator Status	Dominance Test	worksheet	:		
e Stratum (plot s	size: 3	0)				Number of Dominan	t Species			
Pseudotsuga n	menziesii		40	X	FACU	That are OBL, FAC\	N, or FAC:		3	(A)
Alnus rubra			20	Х	FAC					•
Cornus nuttalli	ii		10		FACU	Total Number of Do	minant			
Acer macrophy	yllum		10		FACU	Species Across All S	Strata:		5	(B)
			90	= Total Cover						
oling/Shrub Stratum	<u>1</u> (plot size:	15)			Percent of Dominan	t Species			
Acer circinatur	m		50	X	FAC	That are OBL, FAC\	N, or FAC:	6	0%	(A/B)
Rubus spectab	bilis		30	Х	FAC					• ` ′
Alnus rubra			5		FAC	Prevalence Inde	x Workshee	et:		
						Total % Cover of		Multiply by:		
						OBL Species		x 1 =	0	_
			85	= Total Cover		FACW species		x 2 =	0	-
		_				FAC Species		x 3 =	0	-
<u>b Stratum</u> (plot s)		.,		FACU Species		x 4 =	0	-
Polystichum m			60	X	FACU	UPL Species		x 5 =	0	-
Geranium robe			<u>10</u> 5		OBL	Column Totals	0	(A)	0	(B)
Carex obnupta Tolmiea menzie			5		FAC	Prevalence Inc	dox -B/A -	#0	IV/0!	
Tommed menzi	COII				170	i revalence in	16X -D/A -	#6	1470:	•
						Hydrophytic Veg	netation Ind	icators:		
								Test for Hydror	hvtic Vegetation	on
						x		nance Test is >5		
			80	= Total Cover			3-Preval	ence Index is≤	3.0 ¹	
		•					4-Morph	ological Adapta	tions ¹ (provide	supporting
ody Vine Stratum	(plot size:)				data in R	Remarks or on a	separate shee	et)
								nd Non-Vascula		
						<u> </u>		atic Hydrophytic		
			0	= Total Cover		¹ Indicators of hydric		nd hydrology m	ust be present	, unless
							radiic.			
		-				disturbed or problem	iatio.			
Bare Ground in Herl	b Stratum	20)			Hydrophytic Vegetation	Υe	es X	No	

Profile Descrip Depth (Inches) 0-11 11-18	Matrix Color (moist)	he depth	needed to docume					
(Inches) 0-11	Color (moist)		needed to docume			nce of indicators.)		
0-11			- · · · · · ·	Redox Featur	4 0		_	
		%	Color (moist)	% Тур	e Loc	Texture		narks
11-18	10YR 2/1	100				Sandy Loam	~30% cobble	
_	10YR 4/1	100				Sandy Loam	~30% cobble	
Type: C=Conc	entration, D=Depletion	on, RM=R	educed Matrix, CS=	Covered or Coate	d Sand Grains.		² Location: PL=Pore Linin	g, M=Matrix.
lydric Soil I	ndicators: (Appli	cable to	all LRRs, unles	s otherwise no	ted.)	Indic	ators for Problematic	Hydric Soils ³ :
ŀ	Histosol (A1)			Sandy I	Redox (S5)		2 cm Muck	(A10)
ŀ	Histic Epipedon (A2)			Strippe	d Matrix (S6)		Red Parent	Material (TF2)
E	Black Histic (A3)			Loamy	Mucky Mineral (F1)(except MLRA 1)	Very Shallo	w Dark Surface (TF12)
ŀ	Hydrogen Sulfide (A4)		Loamy	Gleyed Matrix (F2)		Other (expl	ain in Remarks)
	Depleted Below Dark	-	A11)		ed Matrix (F3)			•
	· Γhick Dark Surface (<i>P</i>	· \	,		Dark Surface (F6)			
	` Sandy Mucky Mineral	•			d Dark Surface (F7)		³ Indicators of hydrophytic	•
	Sandy Gleyed Matrix	` '			Depressions (F8)		hydrology must be present, unless disturbed of problematic.	
	_ayer (if present):			rtodox		T	problem	nado.
HYDROLO Wetland Hyd	GY drology Indicators	 s:						
_	ators (minimum of		uired; check all th	nat apply)			Secondary Indicators	s (2 or more required)
	Surface Water (A1)				tained Leaves (B9)	Except MLRA		ed Leaves (B9)
	High Water Table (A2	:)			, and 4B)			2, 4A, and 4B)
	Saturation (A3)				ıst (B11)			atterns (B10)
	Water Marks (B1)				Invertebrates (B13)			n Water Table (C2)
	Sediment Deposits (B	(2)			en Sulfide Odor (C1)			Visible on Aerial Imagery (
	Orift Deposits (B3)			Oxidize	d Rhizospheres alor	ig Living Roots (C3)	Geomorphi	c Position (D2)
	Algal Mat or Crust (B	1)			ce of Reduced Iron (•	Shallow Aq	uitard (D3)
	ron Deposits (B5)				Iron Reduction in Pl	` ,	Fac-Neutra	
	Surface Soil Cracks (or Stressed Plants	(D1) (LRR A)		Mounds (D6) (LRR A)
	nundation Visible on			Other (I	Explain in Remarks)		Frost-Heave	e Hummocks (D7)
	Sparsely Vegetated C	concave Si	urface (B8)					
iald Ohsan	vations:							
icia Obsert	Present? Yes		No <u>X</u>	Depth (inches):			
			No <u>X</u>	Depth (inches): >18	Wetland Hyd	Irology Present?	
Surface Water	resent? Yes		N	Depth (inches): >18		Yes	
Surface Water Water Table Pr Saturation Pres	sent? Yes		No <u>X</u>					No X
Surface Water Water Table Pr Saturation Pres includes capillary	sent? Yes	uge, moni			pections), if available	e:		No X
Surface Water Water Table Pr Saturation Pres includes capillary	sent? Yes	luge, moni			pections), if available	e:		NoX
Surface Water Water Table Pr Saturation Pres includes capillary	sent? Yes	luge, moni			pections), if available	 e:		NoX

7424

Project/Site: Eatonville La	andfill	City/County:	Pi	erce County	Sampling Da	ate:1/	20/2022
Applicant/Owner: Weyerhaeuser	•			State:	WA	Sampling Poir	nt: 2
Investigator(s): CR/0	СМ	Section, To	wnship, Range:	Sci	ection 20, 16 N	lorth, 4 East	
Landform (hillslope, terrace, etc.:)	Slope	_	Local relief (co	ncave, convex, none):	Concave	Slope (%	o): <10
Subregion (LRR):	RR A	Lat:	46.85	91 Long:	-122.322	3 Datur	m: WGS84
Soil Map Unit Name:	Kapowsin	gravelly loam		NWI Cla	ssification:	None	
Are climatic/hydrologic conditions on the			Yes	No	X (if no,	explain in Remarks	3)
Are vegetation X Soil	or Hydrology	significantly dist	urbed?	Are "Normal Circumstan	ces" present? (Y/	N) Y	
Are vegetation Soil	or Hydrology	naturally proble	matic? If needed	d, explain any answers in R	emarks.)		_
		_					
SUMMARY OF FINDINGS – A	ttach site map	showing san	pling point	locations, transects	, important f	eatures, etc.	
Hydrophytic Vegetation Present? Yes	X No		Is Sampled A	rea within			
Hydric Soil Present? Yes	X No		a Wetla		X	No	_
Wetland Hydrology Present? Yes	X No						
Remarks:							
Overall conditions derived using					_	_	ditions on site.
During the two weeks prior to the			reu anu prim	ary flydrology ffidicate	ors are visible.		
VEGETATION - Use scientific	•			<u> </u>			
	absolute % cover	Dominant Species?	Indicator Status	Dominance Test wor	ksheet:		
Tree Stratum (plot size: 30)			Number of Dominant Spe	cies		
1 Alnus rubra	60	X	FAC	That are OBL, FACW, or	FAC:	5	(A)
2							
3				Total Number of Dominar	nt		
4				Species Across All Strata	:	5	_(B)
	60	= Total Cover					
Sapling/Shrub Stratum (plot size:	15)			Percent of Dominant Spe	cies		
1 Rubus spectabilis	70	X	FAC	That are OBL, FACW, or	FAC:	100%	(A/B)
2 Alnus rubra	20	X	FAC				
3 Acer circinatum	10		FAC	Prevalence Index Wo	orksheet:		
4		 :		Total % Cover of		oly by:	
5	100	= Total Cover		OBL Species FACW species		1 = 0 2 = 0	_
	100	- Total Cover		FAC Species		3 = 0	_
Herb Stratum (plot size: 5)			FACU Species	x	4 = 0	_
1 Carex obnupta	70	X	OBL	UPL Species	х	5 = 0	_
2 Ranunculus repens	20	Х	FAC	Column Totals	0 (A)	0	(B)
3 Tolmiea menziesii	10		FAC				
				Prevalence Index =	B/A =	#DIV/0!	
4							
5					ion look t -		
5 6				Hydrophytic Vegetat			At a ra
5 6 7				Hydrophytic Vegetat	1- Rapid Test for	Hydrophytic Vegeta	tion
5 6	100	= Total Cover		Hydrophytic Vegetat	1- Rapid Test for 2- Dominance Te	Hydrophytic Vegeta st is >50%	tion
5 6 7		= Total Cover		Hydrophytic Vegetat	1- Rapid Test for 2- Dominance Te 3-Prevalence Indo	Hydrophytic Vegeta st is >50%	
5 6 7		= Total Cover		Hydrophytic Vegetat X	1- Rapid Test for 2- Dominance Te 3-Prevalence Indo 4-Morphological <i>A</i>	Hydrophytic Vegeta st is >50% ex is ≤ 3.0 ¹	e supporting
5 6 7 8	100	= Total Cover		Hydrophytic Vegetat	1- Rapid Test for 2- Dominance Te 3-Prevalence Indo 4-Morphological A data in Remarks of 5- Wetland Non-\	Hydrophytic Vegeta st is >50% ex is ≤ 3.0 ¹ Adaptations ¹ (provid or on a separate sh ⁄ascular Plants ¹	e supporting eet)
5 6 7 8 Woody Vine Stratum (plot size:)			Hydrophytic Vegetat X	1- Rapid Test for 2- Dominance Te 3-Prevalence Indo 4-Morphological A data in Remarks of 5- Wetland Non-V Problematic Hydr	Hydrophytic Vegeta st is >50% ex is ≤ 3.0 ¹ Adaptations ¹ (provid or on a separate she /ascular Plants ¹ ophytic Vegetation ¹	e supporting eet) (Explain)
5 6 7 8 Woody Vine Stratum (plot size:	100	= Total Cover		Hydrophytic Vegetat X Indicators of hydric soil a	1- Rapid Test for 2- Dominance Te 3-Prevalence Indo 4-Morphological A data in Remarks of 5- Wetland Non-V Problematic Hydr	Hydrophytic Vegeta st is >50% ex is ≤ 3.0 ¹ Adaptations ¹ (provid or on a separate she /ascular Plants ¹ ophytic Vegetation ¹	e supporting eet) (Explain)
5 6 7 8 Woody Vine Stratum (plot size:)			Hydrophytic Vegetat X	1- Rapid Test for 2- Dominance Te 3-Prevalence Inde 4-Morphological A data in Remarks of 5- Wetland Non-V	Hydrophytic Vegeta st is >50% ex is ≤ 3.0 ¹ Adaptations ¹ (provid or on a separate she /ascular Plants ¹ ophytic Vegetation ¹	e supporting eet) (Explain)
5 6 7 8 Woody Vine Stratum (plot size:)			Hydrophytic Vegetat X Indicators of hydric soil a disturbed or problematic.	1- Rapid Test for 2- Dominance Te 3-Prevalence Inde 4-Morphological A data in Remarks of 5- Wetland Non-V Problematic Hydround wetland hydro	Hydrophytic Vegeta st is >50% ex is ≤ 3.0¹ Adaptations¹ (provid or on a separate she /ascular Plants¹ ophytic Vegetation¹ logy must be prese	e supporting eet) (Explain)

SOIL			PHS#	7	424	-		Sampling Point:	2
Profile Descri	ription: (Describe to	•	needed to docu			onfirm the abser	nce of indicators.)	_	
Depth	Matrix		- · · · · · · · ·		ox Features	Loc ²			
(Inches)	Color (moist)	400	Color (moist)	%	Type ¹	LOC	Texture	Remarks	
0-7	10YR 2/1	100	10\10 0/4				Silt Loam	a u t- 4t the and	
7-16	10YR 4/1	95	10YR 3/1	5	_ <u>D</u>	M	Silt Loam	Gravelly rock throughout	
						-			
					- —				
1 C-Con		DM-D	Matrix C		- Operad Sc	- C-sins		21	
	Indicators: (App						Indic	² Location: PL=Pore Lining, M=Matrix ators for Problematic Hydric So	
_	Histosol (A1)	IIOUDIO 13	an Elato, a	,55 Otiloi	Sandy Redo			2 cm Muck (A10)	
	Histic Epipedon (A2)	·)			Stripped Ma	, ,		Red Parent Material (TF	- 2)
	Black Histic (A3)	,				cky Mineral (F1)(except MLRA 1)	Very Shallow Dark Surfa	•
	Hydrogen Sulfide (A	44)			_	yed Matrix (F2)	,	Other (explain in Remai	
	Depleted Below Dar	•	A11)		Depleted Ma				NO _j
	Thick Dark Surface	•	,		-	surface (F6)			
	Sandy Mucky Minera	` ,			_	ark Surface (F7)		³ Indicators of hydrophytic vegetation a	
	Sandy Gleyed Matrix					ressions (F8)		hydrology must be present, unless d problematic.	isturbed or
	Layer (if present						<u> </u>		
Type:		,-							
Depth (inches	s):				_		Hydric Soil Pres	sent? Yes X No	
Remarks:							11,4110		
1011.2.1.									
HYDROLO									
Wetland Hy	drology Indicato	rs:							
Primary Indi	cators (minimum	of one req	uired; check al	that apply	<u>′)</u>			Secondary Indicators (2 or more	e required)
	Surface Water (A1)					ed Leaves (B9) (Except MLRA	Water stained Leaves (I	
	High Water Table (A	\ 2)			1, 2, 4A, an	,		(MLRA1, 2, 4A, and 4E	,
	Saturation (A3)				Salt Crust (I	•		Drainage Patterns (B10	
	Water Marks (B1)	(50)				ertebrates (B13)		Dry-Season Water Tabl	
	Sediment Deposits ((B2)			-	Sulfide Odor (C1)) ng Living Roots (C3)	Saturation Visible on Ae	
	Drift Deposits (B3) Algal Mat or Crust (E	₽ //\			_	nizospneres aion f Reduced Iron ((. ,	Geomorphic Position (D Shallow Aquitard (D3)	12)
	Iron Deposits (B5)	34 <i>)</i>			_	Reduction in Pla	,	X Fac-Neutral Test (D5)	
	Surface Soil Cracks	(B6)			_	Stressed Plants (` '	Raised Ant Mounds (D6	3) (LRR A)
	Inundation Visible or		agery (B7)		_	ain in Remarks)	. , ,	Frost-Heave Hummocks	
	Sparsely Vegetated				-				•
Field Obser	rvations:						T		
Surface Water		X	No	Depti	h (inches):	0.5			
Water Table P			No X	_	h (inches):		Wetland Hyd	rology Present?	
Saturation Pre		X	No	_	h (inches):	0-12	·	Yes X No	
(includes capillar									
	orded Data (stream g		-		-	•			
								Nearest river elevation to site is n is what leads us to determine	
	-		-				ng hydrology sol		lliat tile
Remarks:							-9 7 - 02		
								ormwater, and overland flow, a	
from a high	ı water table whic	ch is likel	y still several '	feet below	ı. Water inf	filtrates the so	oil at the break in	slope and continues south and	i

downslope toward Mashel River, but mostly subsurface. Saturation is still selected due to include episaturation.

7424

Project/Site: Eatonville Land	fill	City/County:	Pi	erce County	Sampling Date	1/20/	2022
Applicant/Owner: Weyerhaeuser				State:	WA	Sampling Point:	3
Investigator(s): CM/CR		Section, To	wnship, Range:	Se	ection 20, 16 Nor	th, 4 East	
Landform (hillslope, terrace, etc.:)	Slope	-	Local relief (co	ncave, convex, none):	Concave	Slope (%):	5
Subregion (LRR): LRR	A	Lat:	46.85	93 Long:	-122.32310	Datum:	WGS84
Soil Map Unit Name:	Kapowsin	- gravelly loam		NWI Cla	ssification:	None	
Are climatic/hydrologic conditions on the site			Yes	No	X (if no, ex	plain in Remarks)	
	ydrology	significantly dist	urbed?	Are "Normal Circumstance	ces" present? (Y/N)	Υ	
·				I, explain any answers in Re			
				,	,		
SUMMARY OF FINDINGS - Atta	ch site map s	showing san	pling point	locations, transects	, important fea	tures, etc.	
Hydrophytic Vegetation Present? Yes	X No		la Campled A	ra a vuithin			
Hydric Soil Present? Yes	X No		Is Sampled Ai		X	No	
Wetland Hydrology Present? Yes	X No						
Remarks:							
Overall conditions derived using the						ing drier conditi	ons on site.
During the two weeks prior to the fie	eld visit, ample	rainfall occui	rred and prim	ary hydrology indicato	rs are visible.		
VEGETATION - Use scientific na	mes of plant	s.					
	absolute	Dominant	Indicator	Dominance Test wor	ksheet:		
Tree Stratum (plot size: 30	% cover	Species?	Status	Number of Deminent Spe	oioo		
1 Alnus rubra	, 80	X	FAC	Number of Dominant Specification of Dominant		6 (A)
2 Tsuga heterophylla	10		FACU	That are OBL, I ACW, or I		(~)
3 Thuja plicata	10		FAC	Total Number of Dominan	t		
4 Pseudotsuga menziesii	10		FACU	Species Across All Strata:		6 (В)
. <u> </u>	110	= Total Cover					-,
Sapling/Shrub Stratum (plot size: 15				Description of Control	-!		
	⁾ 30	X	FAC	Percent of Dominant Spec		100% (A/B)
1 Rubus spectabilis 2 Alnus rubra	10	X	FAC	That are OBL, FACW, or		100%	H/D)
3 Acer circinatum	5		FAC	Prevalence Index Wo	orksheet:		
4 Sambucus racemosa	5		FACU	Total % Cover of	Multiply	ov.	
5				OBL Species	x 1 =		
	50	= Total Cover		FACW species	x 2 =	0	
				FAC Species	x 3 =	0	
Herb Stratum (plot size: 5)			FACU Species	x 4 =	0	
1 Ranunculus sp	20	X	(FAC)	UPL Species	x 5 =	0	
2 Carex obnupta	10	X	OBL	Column Totals	0 (A)	0 (3)
3 Athyrium americanum	10	X	FAC				
4				Prevalence Index =	B/A =	#DIV/0!	
5				Uvdranbytia Varatati	ion Indicators		
6				Hydrophytic Vegetat	1- Rapid Test for Hy	dranbutia Vagatatian	
8					1- Rapid Test for Hy 2- Dominance Test i	. , .	
<u> </u>	40	= Total Cover			3-Prevalence Index		
					4-Morphological Ada		pporting
Woody Vine Stratum (plot size:)				data in Remarks or o	on a separate sheet)	
1					5- Wetland Non-Vas	cular Plants ¹	
2					Problematic Hydropl	nytic Vegetation ¹ (Ex	olain)
	0	= Total Cover		¹ Indicators of hydric soil a	nd wetland hydrolog	y must be present, u	nless
				disturbed or problematic.			
% Bare Ground in Herb Stratum	60			Hydrophytic Vegetation	Yes X	No	
				Present?			
Remarks:				•			

SOIL			PHS#	7424	ļ			Sa	impling Point:	3
Profile Descri	iption: (Describe to	the depth	needed to docume	ent the indica	tor or co	onfirm the abser	nce of indicators.)			
Depth	Matrix			Redox F		. 2				
(Inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		Remarks	
0-3	10YR 2/1	100					Silt Loam	Muck		
3-6	10YR 3/2	100					Loam			
6-12	10YR 3/2	95	10YR 4/4		С	M	Loam	Coarse		
								-		
								-		
	centration, D=Deplet	-					la dia		L=Pore Lining, M=I	
-	Indicators: (Appl Histosol (A1)	ilcable to	all LRRS, unless				indic	ators for Pr	oblematic Hydri	c soils :
	,				ndy Redo	` '			2 cm Muck (A10)	iol (TE2)
	Histic Epipedon (A2)				ipped Ma	ky Mineral (F1)(e	event MI PA 1)		Red Parent Mater Very Shallow Dark	
	Black Histic (A3)	4)			-		ACOPT MERA 1)		-	
	Hydrogen Sulfide (A- Depleted Below Darl	•	111)		pleted Ma	red Matrix (F2)			Other (explain in F	(emarks)
	Thick Dark Surface (•	311)		•	Surface (F6)				
	Sandy Mucky Minera					ark Surface (F7)			f hydrophytic veget	
	Sandy Gleyed Matrix					ressions (F8)		hydrology r	nust be present, un problematic.	ess disturbed or
	Layer (if present)				чех Бер.		<u> </u>		problematic.	
	Layer (ii present	,.								
Type:	-).						Uhardada Oadi Bara	40 V	v	NI -
Depth (inches	S)						Hydric Soil Pres	sent? Yes	X	No
Remarks:										
HYDROLO)GY									
Wetland Hy	drology Indicato	rs:								
Primary Indi	cators (minimum o	of one req	uired; check all th	nat apply)				Secondar	y Indicators (2 or	more required)
	Surface Water (A1)			Wa	ater staine	ed Leaves (B9) (Except MLRA		Water stained Lea	ives (B9)
	High Water Table (A	2)		1,	2, 4A, an	d 4B)			(MLRA1, 2, 4A, a	ind 4B)
X	Saturation (A3)			Sa	It Crust (E	311)		X	_Drainage Patterns	(B10)
	Water Marks (B1)			Aq	uatic Inve	ertebrates (B13)			_Dry-Season Wate	r Table (C2)
	Sediment Deposits (B2)		X Hy	drogen S	ulfide Odor (C1)			_Saturation Visible	on Aerial Imagery (C9)
	Drift Deposits (B3)						g Living Roots (C3)	X	Geomorphic Posit	` ,
	Algal Mat or Crust (E	34)				Reduced Iron (0	,		Shallow Aquitard	
	Iron Deposits (B5)	(DO)				Reduction in Pla	,	X	Fac-Neutral Test (
	Surface Soil Cracks Inundation Visible or	` ,	gon/ (R7)			Stressed Plants (ain in Remarks)	DT) (LKK A)	-	Raised Ant Mound Frost-Heave Hum	, , ,
	Sparsely Vegetated				ilei (Expi	alli ili ivelliaiks)			-	mocks (D1)
							Г			
Field Obser			No. V	Donath (in	-1 \.					
Surface Water			No X	Depth (in			Wetland Hyd	rology Bro	ont?	
Water Table P				Depth (in		0-12	Wetland Hyd			No
Saturation Pre (includes capillar		X	No	Depth (in	cries).	0-12		Yes	<u> </u>	No
Describe Reco	orded Data (stream g	auge, moni	toring well, aerial ph	notos, previou	s inspect	ions), if available	:			
	t (feet) during sit									
	ely 544 ft, which is likely several f		-						ads us to deteri	nine that the
Remarks:	io linely several	SEL DEION	T THE WELIANU AN	ia mai epis	atur atil	is the univil	is ilyanology so	u. 00.		
	ter and saturation	n are fed	mainly from sur	face sheet	flows c	oming from u	pslope seeps, st	ormwater, a	and overland flo	w, and not
	water table which		-			_				

downslope toward Mashel River, but mostly subsurface. Saturation is still selected due to include episaturation.

7424

Project/Site:	Eatonvi	lle Landf	ill	City/County:	Pi	erce County	Sam	oling Date:	1/20	/2022
Applicant/Owner:	Weyerhae	user	_			State	: WA		Sampling Point:	4
Investigator(s):		CM/CR		Section, To	wnship, Range:	 ;	Section 20	- , 16 North,	4 East	
Landform (hillslope, to	errace, etc.:)		Terrace	-	Local relief (co	ncave, convex, none):	Co	ncave	Slope (%):	3
Subregion (LRR):		LRR A	A	Lat:	46.85	97 Long	: -12	2.32401	Datum:	WGS84
Soil Map Unit Name:			Kapowsin	gravelly loam		NWI C	lassification	:	None	
Are climatic/hydrologi	ic conditions of	on the site t			Yes	No.	X	(if no, expla	in in Remarks)	
Are vegetation X	Soil	or Hy	/drology	significantly dist	urbed?	Are "Normal Circumsta	nces" prese	nt? (Y/N)	Υ	
Are vegetation	Soil	or Hy	/drology	naturally probler	natic? If needed	d, explain any answers in l	Remarks.)			
		_					ŕ			
SUMMARY OF	FINDINGS	- Attac	ch site map	showing san	pling point	locations, transect	ts, impor	tant featu	res, etc.	
Hydrophytic Vegetation	on Present?	Yes	X No		Is Sampled A	rea within				
Hydric Soil Present?		Yes	X No		a Wetla		s X		No	
Wetland Hydrology P	resent?	Yes	X No							
Remarks:										
		_				on levels are lower th	_		g drier condit	ions on site.
During the two w	eeks prior t	to the fiel	ld visit, ampl	e rainfall occur	red and prim	ary hydrology indica	tors are vi	sible.		
VEGETATION -	Use scien	tific nar	mes of plant	ts.		•				
			absolute % cover	Dominant Species?	Indicator Status	Dominance Test we	orksheet:			
Tree Stratum (plot	size:	30)	70 00001	Орсоюз:	Otatus	Number of Dominant Sp	pecies			
1 Alnus rubra	-		40	Х	FAC	That are OBL, FACW, o			3	(A)
2										. ,
3						Total Number of Domina	ant			
4						Species Across All Stra	ta:	-	3	(B)
			40	= Total Cover						
Sapling/Shrub Stratur	m (plot size	e: 15)			Percent of Dominant Sp	ecies			
1 Rubus specta	**			X	FAC	That are OBL, FACW,		1	00%	(A/B)
2										
3						Prevalence Index V	Vorksheet	:		
4						Total % Cover of	_	Multiply by:	_	
5						OBL Species		x 1 =	0	
			30	= Total Cover		FACW species		x 2 =	0	
Herb Stratum (plot	size:	5)				FAC Species FACU Species		x 3 = x 4 =	0	
1 Tolmiea menz			40	Х	FAC	UPL Species		- x5=		
2						Column Totals	0	(A)		(B)
3								-` ′		()
4						Prevalence Index	=B/A =	#1	OIV/0!	
5										
6						Hydrophytic Vegeta	ation Indic	ators:		
7							_1- Rapid T	est for Hydro	phytic Vegetatio	n
8						X	_	nce Test is >		
			40	= Total Cover			_	nce Index is ≤	3.0 ¹ ations¹ (provide s	upporting
Woody Vine Stratum	(plot size:)			<u> </u>	_	-	ations [.] (provide s a separate sheet	-
1	(piot size.		_′					l Non-Vascul)
2							_		ic Vegetation ¹ (E)	(plain)
			0	= Total Cover		¹ Indicators of hydric soil	_			
				. 5.01 50001		disturbed or problematic		,~ 9, 1		
			•			Hydrophytic				
% Bare Ground in He	erb Stratum		60			Hydrophytic Vegetation Present?	Yes	<u> </u>	No	

Profile Description: (Description Depth Clore) (Inches) Color (mode) 0-2 10YR 2			_		24			Sar		
(Inches) Color (mo	ibe to the	depth r	needed to docume	ent the indic	cator or co	nfirm the absen	ce of indicators.)			
	Matrix			Redox	Features					
0-2 10YR 2	oist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		Remark	S
	/1 1	100					Silt Loam	Mucky		
2-4 10YR 3	/2 1	100					Silt Loam	10% cobb	le	
4-10 10YR 3	/2	35	10YR 4/6	3	С	M	Loam	Coarse		
4-10 10YR 4	/2	60	10YR 4/6	2	С	М	Loam	Coarse		
10-12 Gley1 4	l/1 1	100					Loam			
ype: C=Concentration, D=	Depletion, I	RM=Re	educed Matrix, CS=	Covered or	Coated Sar	nd Grains.		² Location: PL	=Pore Lining, M	I=Matrix.
ydric Soil Indicators:	(Applicat	ble to	all LRRs, unles	s otherwis	se noted.))	Indic	ators for Pro	blematic Hyd	dric Soils³:
Histosol (A1)				S	Sandy Redo	x (S5)			2 cm Muck (A10	0)
Histic Epipedo	n (A2)				Stripped Mat	trix (S6)			Red Parent Mat	erial (TF2)
Black Histic (A	.3)				oamy Muck	ky Mineral (F1) (e:	xcept MLRA 1)		Very Shallow D	ark Surface (TF12)
X Hydrogen Sulf	•				-	ed Matrix (F2)			Other (explain in	
X Depleted Belo		rface (Δ	(11)		Depleted Ma	` ,			Othor (oxplain)	ir romano,
' '		,	(III)		•					
Thick Dark Su						Surface (F6)		3Indicators of	hydrophytic veg	etation and wetland
Sandy Mucky	,	•			•	rk Surface (F7)		hydrology m		unless disturbed or
Sandy Gleyed	Matrix (S4	1)		F	Redox Depre	essions (F8)			problemation).
epth (inches):					•		Hydric Soil Pres			
emarks:	icators:						nyunc 30ii Fres			
epth (inches): emarks: YDROLOGY /etland Hydrology Ind		ne requ	uired; check all th	nat apply)			nyunc 30ii Fres		Indicators (2	or more required)
epth (inches): emarks: YDROLOGY /etland Hydrology Ind	num of on	ne requ	uired; check all th		Vater staine	ed Leaves (B9) (B			Indicators (2 Water stained L	• • •
epth (inches): PMOLOGY Vetland Hydrology Indicators (minir	num of on	ne requ	uired; check all th	V	Vater staine	ed Leaves (B9) (E			,	eaves (B9)
epth (inches): Pemarks: YDROLOGY Petland Hydrology Indicators (mining Surface Water	num of on (A1) able (A2)	ne requ	uired; check all th	V		ed Leaves (B9) (E			Water stained L	eaves (B9) , and 4B)
Pepth (inches): PMOLOGY Petland Hydrology Ind Primary Indicators (mining Surface Water High Water Ta	num of on (A1) able (A2)	ne requ	uired; check all th	V	I, 2, 4A, and Salt Crust (B	ed Leaves (B9) (E			Water stained L (MLRA1, 2, 4A	eaves (B9) ., and 4B) rns (B10)
POROLOGY Vetland Hydrology Indicators (mining Surface Water High Water Taxon Saturation (A3)	num of on (A1) able (A2) b) B1)	ne requ	uired; check all th	V 1 S	I , 2, 4A, and Salt Crust (B Aquatic Inve	ed Leaves (B9) (E 1 4B) 311)			Water stained L (MLRA1, 2, 4A Drainage Patter Dry-Season Wa	eaves (B9) ,, and 4B) rns (B10) tter Table (C2)
Popth (inches): PMARKS: PMOLOGY etland Hydrology Indicators (mining Surface Water High Water Taxing X Saturation (A3 Water Marks (num of on (A1) able (A2) b) B1) osits (B2)	ne requ	uired; check all th	V S XF	I, 2, 4A, and Salt Crust (B Aquatic Inve	ed Leaves (B9) (Ed 4B) B11) Intebrates (B13)			Water stained L (MLRA1, 2, 4A Drainage Patter Dry-Season Wa	eaves (B9) , and 4B) rns (B10) ster Table (C2)
Property (inches): Proper	num of on (A1) sible (A2) s) B1) osits (B2) (B3)	ne requ	uired; check all th	V 1	I, 2 , 4A , and Salt Crust (B Aquatic Inve Hydrogen Su Oxidized Rhi	ed Leaves (B9) (Ed 4B) B11) Intebrates (B13)	Except MLRA g Living Roots (C3)	Secondary	Water stained L (MLRA1, 2, 4A Drainage Patter Dry-Season Wa Saturation Visib	eaves (B9) , and 4B) rns (B10) tter Table (C2) le on Aerial Imager sition (D2)
Popth (inches): marks: YDROLOGY etland Hydrology Ind imary Indicators (minir Surface Water High Water Ta X Saturation (A3 Water Marks (Sediment Dep Drift Deposits	num of on (A1) able (A2) b) B1) osits (B2) (B3) rust (B4)	ne requ	uired; check all th	V 1 1 S S S S S S S S S S S S S S S S S	I, 2, 4A, and Salt Crust (B Aquatic Inve Hydrogen Su Dxidized Rhi Presence of	ed Leaves (B9) (E d 4B) B11) rtebrates (B13) ulfide Odor (C1) izospheres along	Except MLRA g Living Roots (C3)	Secondary	Water stained L (MLRA1, 2, 4A Drainage Patter Dry-Season Wa Saturation Visib Geomorphic Po	neaves (B9) n, and 4B) rns (B10) ster Table (C2) sle on Aerial Imager sition (D2) d (D3)
Popth (inches): Pararks: Pararks: Pararks: Pararks: Pararks: Pararks: Pararks: Surface Water High Water Ta X Saturation (A3 Water Marks (Sediment Dep Drift Deposits Algal Mat or C	num of on (A1) able (A2) b) B1) osits (B2) (B3) rust (B4)		uired; check all th	V 1 S A A A A A A A A A A A A A A A A A A	I, 2, 4A, and Salt Crust (B Aquatic Inve Hydrogen Su Dxidized Rhi Presence of Recent Iron	ed Leaves (B9) (E 1 4B) 311) rtebrates (B13) ulfide Odor (C1) izospheres along Reduced Iron (C	Except MLRA g Living Roots (C3) (4) wed Soils (C6)	Secondary	Water stained L (MLRA1, 2, 4A Drainage Patter Dry-Season Wa Saturation Visib Geomorphic Po Shallow Aquitar Fac-Neutral Tes	neaves (B9) n, and 4B) rns (B10) ster Table (C2) sle on Aerial Imager sition (D2) d (D3)
Popth (inches): Pemarks: Parameter of the properties of the population of the popu	num of on (A1) (ble (A2) (b) (B1) osits (B2) (B3) rust (B4) (B5) tracks (B6)			X H	Aquatic Inverse Salt Crust (Baquatic Inverse Hydrogen Suboxidized Rhi Presence of Recent Iron Stunted or S	ed Leaves (B9) (E d 4B) 311) rtebrates (B13) ulfide Odor (C1) izospheres along Reduced Iron (C Reduction in Plo	Except MLRA g Living Roots (C3) (4) wed Soils (C6)	Secondary	Water stained L (MLRA1, 2, 4A Drainage Patter Dry-Season Wa Saturation Visib Geomorphic Po Shallow Aquitar Fac-Neutral Tes	eaves (B9) In and 4B) In serial limagery Sition (D2) In d (D3) In set (D5) In serial limagery In set (D5) In set (D6) (LRR A)
PyDROLOGY etland Hydrology Indicators (minimary Ind	num of on (A1) (ble (A2) b) B1) osits (B2) (B3) rust (B4) (B5) tracks (B6) ible on Aer	rial Imaç	gery (B7)	X H	Aquatic Inverse Salt Crust (Baquatic Inverse Hydrogen Suboxidized Rhi Presence of Recent Iron Stunted or S	ed Leaves (B9) (Ed 4B) 311) Intebrates (B13) Intebrates (B13) Intebrates (B13) Intebrates (B13) Interpretates (B13) Interpreta	Except MLRA g Living Roots (C3) (4) wed Soils (C6)	Secondary	Water stained L (MLRA1, 2, 4A) Drainage Patter Dry-Season Wa Saturation Visib Geomorphic Po Shallow Aquitar Fac-Neutral Tes Raised Ant Mou	eaves (B9) In and 4B) In serial limagery sition (D2) In d (D3) In st (D5) In st (D6) (LRR A)
Popth (inches): Pemarks: Paramarks: Par	num of on (A1) (ble (A2) b) B1) osits (B2) (B3) rust (B4) (B5) tracks (B6) ible on Aer	rial Imaç	gery (B7)	X H	Aquatic Inverse Salt Crust (Baquatic Inverse Hydrogen Suboxidized Rhi Presence of Recent Iron Stunted or S	ed Leaves (B9) (Ed 4B) 311) Intebrates (B13) Intebrates (B13) Intebrates (B13) Intebrates (B13) Interpretates (B13) Interpreta	Except MLRA g Living Roots (C3) (4) wed Soils (C6)	Secondary	Water stained L (MLRA1, 2, 4A) Drainage Patter Dry-Season Wa Saturation Visib Geomorphic Po Shallow Aquitar Fac-Neutral Tes Raised Ant Mou	eaves (B9) and 4B) rins (B10) ster Table (C2) sle on Aerial Imager sition (D2) d (D3) st (D5) unds (D6) (LRR A)
PYDROLOGY Vetland Hydrology Indicators (mining Surface Water High Water Taxing Sediment Deposits Algal Mat or Color Iron Deposits Surface Soil Color Inundation Vis Sparsely Vege Vetland Inches Sediment Surface Soil Color Inundation Vis Sparsely Vege Vetland Inches Sediment Surface Soil Color Inundation Vis Sparsely Vege Vetland Inches Soil Color Inundation Vis Sparsely Vege Vetland Inundation Vis Sparsely Vetland Inundation Vi	num of on (A1) (ble (A2) b) B1) osits (B2) (B3) rust (B4) (B5) tracks (B6) ible on Aer	rial Imaç	gery (B7)	X H	Aquatic Inverse Salt Crust (Baquatic Inverse Hydrogen Suboxidized Rhi Presence of Recent Iron Stunted or S	ed Leaves (B9) (Ed 4B) 311) Intebrates (B13) Intebrates (B13) Intebrates (B13) Intebrates (B13) Interpretates (B13) Interpreta	Except MLRA g Living Roots (C3) (4) wed Soils (C6)	Secondary	Water stained L (MLRA1, 2, 4A) Drainage Patter Dry-Season Wa Saturation Visib Geomorphic Po Shallow Aquitar Fac-Neutral Tes Raised Ant Mou	eaves (B9) In and 4B) Ins (B10) Inter Table (C2) Inter Table (C2) Inter Table (D2) Inter Table (D2) Inter Table (D3) Inter Table (D5) Inter Table (D6) (LRR A)
Pydrology Vetland Hydrology Ind Vimary Indicators (mining Surface Water High Water Ta X Saturation (A3 Water Marks (Sediment Dep Drift Deposits Algal Mat or Co Iron Deposits Surface Soil Co Inundation Vis Sparsely Vege Veteld Observations: Inface Water Present?	num of on (A1) (ble (A2) (b) (B1) osits (B2) (B3) rust (B4) (B5) tracks (B6) ible on Aer	rial Imaç	gery (B7) urface (B8)	X H	Aquatic Inverse Salt Crust (Baquatic Inverse Substitution of Stunted or Substitution of Stunted or Substitution of Stunted or Substitution of	ed Leaves (B9) (Ed 4B) 311) Intebrates (B13) Intebrates (B13) Intebrates (B13) Intebrates (B13) Interpretates (B13) Interpreta	Except MLRA g Living Roots (C3) (4) wed Soils (C6)	Secondary	Water stained L (MLRA1, 2, 4A Drainage Patter Dry-Season Wa Saturation Visib Geomorphic Po Shallow Aquitar Fac-Neutral Tes Raised Ant Mou	eaves (B9) In and 4B) Ins (B10) Inter Table (C2) Inter Table (C2) Inter Table (D2) Inter Table (D2) Inter Table (D3) Inter Table (D5) Inter Table (D6) (LRR A)
Pepth (inches): emarks: PYDROLOGY Vetland Hydrology Indicators (mining Surface Water High Water Taxing Water Marks (Sediment Dep Drift Deposits Algal Mat or Color Iron Deposits Surface Soil Color Inundation Vising Sparsely Vegetield Observations: urface Water Present? Veter Table Present? Veter Vater Table Present?	num of on (A1) able (A2) (B1) osits (B2) (B3) rust (B4) (B5) cracks (B6) ible on Aer etated Conc	rial Imaç	gery (B7) urface (B8) No <u>X</u>	X H S A X H C Depth (i	Aquatic Inverse Aquatic Inv	ed Leaves (B9) (Ed 4B) 311) Intebrates (B13) Intebrates (B13) Intebrates (B13) Intebrates (B13) Interpretates (B13) Interpreta	J Living Roots (C3) (4) wed Soils (C6) (C1) (LRR A)	Secondary	Water stained L (MLRA1, 2, 4A Drainage Patter Dry-Season Wa Saturation Visib Geomorphic Po Shallow Aquitar Fac-Neutral Tes Raised Ant Mou	eaves (B9) In and 4B) Ins (B10) Inter Table (C2) Inter Table (C2) Inter Table (D2) Inter Table (D2) Inter Table (D3) Inter Table (D5) Inter Table (D6) (LRR A)
Pepth (inches): emarks: IYDROLOGY Vetland Hydrology Ind Primary Indicators (mining Surface Water High Water Taxing Mater Marks (Sediment Deposits Algal Mat or Color Iron Deposits Surface Soil Color Inundation Vis Sparsely Vegetield Observations: urface Water Present? Yelloudes capillary fringe)	num of on (A1) (B1) osits (B2) (B3) rust (B4) (B5) cracks (B6) ible on Aer etated Conc	rial Imaç cave Su	gery (B7) urface (B8) No	X H C F F S C Depth (i	Aquatic Inverse Aquatic Invers	ed Leaves (B9) (Ed 14B) 311) rtebrates (B13) ulfide Odor (C1) izospheres along Reduced Iron (C) Reduction in Ploteressed Plants (I ain in Remarks)	J Living Roots (C3) (4) (4) (4) (4) (5) (1) (LRR A) (1) (1) Wetland Hyde	Secondary X	Water stained L (MLRA1, 2, 4A Drainage Patter Dry-Season Wa Saturation Visib Geomorphic Po Shallow Aquitar Fac-Neutral Tes Raised Ant Mou Frost-Heave Hu	eaves (B9) In and 4B) Ins (B10) Inter Table (C2) Inter Table (C2) Inter Table (D2) Inter Table (D3) Inter Table (D5) Inter Table (D5) Inter Table (D6) (LRR A) Immocks (D7)
High Water Ta X Saturation (A3 Water Marks (Sediment Dep Drift Deposits Algal Mat or C Iron Deposits Surface Soil C Inundation Vis Sparsely Vege Tield Observations: urface Water Present? Y Vater Table Present? Y	num of on (A1) (A1) (B1) (B3) (B3) (B5) (B5) (B5) (B6) (B6) (B6) (B6) (B6) (B6) (B6) (B7) (B6) (B7) (B7) (B8) (B8) (B8) (B9) (B9) (B9) (B9) (B9) (B9) (B9) (B9	x X a, monit sit wa pprox	gery (B7) urface (B8) No X No X No outoring well, aerial plus ~2.85 from the imately 42 feet	Depth (i Depth (i Depth (i Depth (i Depth (i Depth below sar	Aquatic Inverse Aquatic Invers	ed Leaves (B9) (Ed 4B) 311) rtebrates (B13) ulfide Odor (C1) izospheres along Reduced Iron (C) Reduction in Plor itressed Plants (I ain in Remarks) - 0-12 ons), if available: ar La Grande" t 3 on site. Th	Just Living Roots (C3) Just Living Roots (C3) Just Living Roots (C3) Just Living Roots (C3) Wetland Hydelic Living Roots (C4) Wetland Hydelic Living Roots (C3)	Secondary X Irology Prese Yes Nearest rive n is what lea	Water stained L (MLRA1, 2, 4A Drainage Patter Dry-Season Wa Saturation Visib Geomorphic Po Shallow Aquitar Fac-Neutral Tes Raised Ant Mou Frost-Heave Hu ent? X r elevation to	eaves (B9) , and 4B) rns (B10) her Table (C2) he on Aerial Imagery sition (D2) d (D3) st (D5) her (D6) (LRR A) hermocks (D7)

7424

fill	City/County:	Pie	erce County	Sampling Date:	1/20/	2022
			State:	WA	Sampling Point:	5
	Section, To	wnship, Range:	s	ection 20, 16 Nor	th, 4 East	
Slope	_	Local relief (cor	ncave, convex, none):	None	Slope (%):	<20
A	Lat:	46.859	98 Long:	-122.32405	 Datum:	WGS84
Kapowsin	gravelly loam		NWI CI	assification:	None	
		Yes	No	X (if no, ex	plain in Remarks)	
	-	urbed?	Are "Normal Circumstan	ces" present? (Y/N)	Y	
	•			. , ,		
			, explain any anonoron in the			
ch site map s	showing san	pling point	locations, transects	s, important fea	tures, etc.	
No	X	la Campled Ar	ann cuidhin			
No	Х				No X	
No	X					
<u> </u>						
				_	ing drier conditi	ons on site.
ld visit, ample	rainfall occui	rred and prima	ary hydrology indicate	ors are visible.		
mes of plant	s.					
absolute	Dominant	Indicator	Dominance Test wo	rksheet:		
% cover	Species?	Status	Number of Dominant Ca	acias		
) 85	Y	FACII			0	(A)
		-	That are OBL, I ACW, or			,^)
			Total Number of Domina	nt		
					3	(B)
100	= Total Cover					(-)
			Danas at at Danais and Con			
-		EACH			00/	(A/B)
			That are OBL, FACVV, O		0 /6	(4/6)
		1700	Prevalence Index W	orksheet:		
					ov:	
			OBL Species			
75	= Total Cover		FACW species	x 2 =	. 0	
			FAC Species	x 3 =	0	
)			FACU Species	x 4 =	. 0	
70	X	FACU	UPL Species			
			Column Totals	0 (A)	(B)
				5/4	#DD //OI	
			Prevalence Index =	=B/A =	#DIV/0!	
	-		Hydrophytic Vocata	tion Indicators:		
			inyaropnytic vegeta		drophytic Vegetation	1
						•
70	= Total Cover			•	_	
						upporting
)				data in Remarks or c	n a separate sheet	1
				5- Wetland Non-Vase	cular Plants ¹	
				Problematic Hydroph		
			¹ Indicators of hydric soil	and wetland hydrolog	y must be present, ı	unless
0	= Total Cover		attenda and a second of			
0	= Total Cover		disturbed or problematic.			
30	= Total Cover		disturbed or problematic. Hydrophytic Vegetation	Yes	No	X
	Kapowsin typical for this tim tydrology ydrology Ch site map s No No No DAREM meth Id visit, ample mes of plant absolute % cover 10 5 100 5 70 75	Section, To Slope A Lat: Kapowsin gravelly loam typical for this time of year? ydrology significantly dist ydrology naturally problet Ch site map showing san No	Section, Township, Range: Slope	State: Section, Township, Range: S	State: WA Section 20, 16 Nore Slope	Section, Township, Range: Section 20, 16 North, 4 East Slope Local relief (concave, convex, none): None Kapowsin gravolly loam Kapowsin gravolly loam Vydrology significantly disturbed? A Lat Kapowsin gravolly loam Vydrology significantly disturbed? A re "Normal Circumstances" present? (YiN) Y ydrology naturally problematic? If needed, explain any answers in Remarks.) Ch site map showing sampling point locations, transects, important features, etc. No X No X Sampled Area within a Wetland? DAREM method indicate that precipitation levels are lower than average, inducing drier conditi ldvisit, ample rainfall occurred and primary hydrology indicators are visible. Mess of plants. absolute Dominant Species? Satus Dominance Test worksheet: No X FACU That are OBL, FACW, or FAC: O SECOVET OF SE

SOIL			PHS#	7424	_		Sampling Point:	5
Profile Descri	iption: (Describe to	the depth	needed to docume	ent the indicator or o	confirm the abser	nce of indicators.)		
Depth	Matrix			Redox Features				
(Inches)	Color (moist)	%	Color (moist)	% Type ¹	Loc ²	Texture	Remarks	
0-3	7.5YR 2.5/2	100				Sandy Loam	some intermixed duff	
3-4	10YR 2/2	100				Sandy Loam		
4-16	10YR 4/2	100				Sand	Rock/gravel throughout	
Tyray C-Can	controtion D-Donloti	an DM-Da	duced Metrix CC	Covered as Contact S	and Crains		21 continue DI - Dave Lining M-Mate	
	centration, D=Depleti Indicators: (Appli					Indic	² Location: PL=Pore Lining, M=Mate ators for Problematic Hydric S	
-		icable to	an Errivs, ames			maic	-	
	Histosol (A1)			Sandy Red	, ,		2 cm Muck (A10)	T=0\
	Histic Epipedon (A2)			Stripped M	, ,		Red Parent Material (,
	Black Histic (A3)			Loamy Mu	icky Mineral (F1) (6	except MLRA 1)	Very Shallow Dark Su	ırface (TF12)
	Hydrogen Sulfide (A4	!)		Loamy Gle	eyed Matrix (F2)		Other (explain in Rem	ıarks)
	Depleted Below Dark	Surface (A	.11)	Depleted I	Matrix (F3)			
	Thick Dark Surface (A	A12)		Redox Da	rk Surface (F6)		31	
	Sandy Mucky Minera	I (S1)		Depleted [Dark Surface (F7)		³ Indicators of hydrophytic vegetation hydrology must be present, unless	
	Sandy Gleyed Matrix	(S4)		Redox De	pressions (F8)		problematic.	
Гуре: Depth (inches	 s):					Hydric Soil Pre	sent? Yes No	X
HYDROLO Wetland Hy	OGY drology Indicator	rs:						
Primary Indi	cators (minimum o	f one requ	uired; check all th	nat apply)			Secondary Indicators (2 or mo	ore required)
	Surface Water (A1)				ned Leaves (B9) (Except MLRA	Water stained Leaves	
	High Water Table (A2	2)		1, 2, 4A, a	ind 4B)		(MLRA1, 2, 4A, and	4B)
	Saturation (A3)			Salt Crust	(B11)		Drainage Patterns (B	10)
	Water Marks (B1)			Aquatic In	vertebrates (B13)		Dry-Season Water Ta	ible (C2)
	Sediment Deposits (E	32)		Hydrogen	Sulfide Odor (C1)		Saturation Visible on A	Aerial Imagery (
	Drift Deposits (B3)			Oxidized F	Rhizospheres alon	g Living Roots (C3)	Geomorphic Position	(D2)
	Algal Mat or Crust (B	4)		Presence	of Reduced Iron (0	C4)	Shallow Aquitard (D3))
	Iron Deposits (B5)			Recent Iro	n Reduction in Plo	owed Soils (C6)	Fac-Neutral Test (D5))
	Surface Soil Cracks (B6)		Stunted or	Stressed Plants (D1) (LRR A)	Raised Ant Mounds (I	D6) (LRR A)
	Inundation Visible on	Aerial Ima	gery (B7)	Other (Exp	olain in Remarks)		Frost-Heave Hummod	cks (D7)
	Sparsely Vegetated (Concave S	ırface (B8)					
Field Obser	vations:							
Surface Water	Present? Yes		No X	Depth (inches):				
Water Table P	resent? Yes		No X	Depth (inches):	>16	Wetland Hyd	drology Present?	
Saturation Pre (includes capillar			No X	Depth (inches):	>16		YesNo	X
Describe Reco	orded Data (stream ga	auge, moni	toring well, aerial pl	notos, previous inspe	ctions), if available):		
			·	·				
emarks:								

7424

ject/Site: Eatonvi	lle Landfil	<u> </u>	City/County:	Pi	erce County	Sar	mpling Date:	1/20	/2022
olicant/Owner: Weyerhae	user				s	tate: WA		Sampling Point:	6
estigator(s):	CM/CR		Section, To	wnship, Range:		Section 20, 16 Nort		4 East	
ndform (hillslope, terrace, etc.:)		Slope		Local relief (co	ncave, convex, none):		None	Slope (%):	>25
oregion (LRR):	LRR A		Lat:	46.85	99	ong: -1	22.32388	Datum:	WGS84
Map Unit Name:		Kapowsin	gravelly loam		NV	/I Classificatio	n:	None	
climatic/hydrologic conditions of	on the site typ	oical for this tim	e of year?	Yes		No X	(if no, explai	n in Remarks)	
vegetation X Soil			significantly dist	urbed?	Are "Normal Circum	stances" pres		Υ	
		-			d, explain any answers				
vegetation			Tiatarany proble	mado: milecael	a, explain any answers	iii Nomano.,			
MMARY OF FINDINGS	- Attach	site map s	showing san	npling point	locations, trans	ects, impo	rtant featui	es, etc.	
rophytic Vegetation Present?	Yes	No	Х						
ric Soil Present?	Yes	No	X	Is Sampled A		Yes	N	o X	
land Hydrology Present?	Yes	No	X						
narks:									
arks. rall conditions derived u	ising the D	AREM meth	od indicate th	nat precipitati	on levels are lowe	r than avera	ige, inducing	drier condit	ions on s
ing the two weeks prior t	to the field	visit, ample	rainfall occu	rred and prim	ary hydrology ind	cators are	visible.		
GETATION - Use scien	ntific nam	es of plants	S.						
		absolute	Dominant	Indicator	Dominance Test	worksheet	:		
		% cover	Species?	Status					
Stratum (plot size:	30)		v	E40!!	Number of Dominan			•	/ A \
Tsuga heterophylla		60	X	FACU	That are OBL, FACV	V, or FAC:		0	(A)
Pseudotsuga menziesii		30 10	X	FACU FAC	Total Number of De	in-ant			
Thuja plicata		10		FAC	Total Number of Doi Species Across All S			6	(B)
		100	= Total Cover		Species Across Air s	oliala.		0	(D)
			- Total Covel						
ling/Shrub Stratum (plot size	e: 15	,			Percent of Dominan	-			
Gaultheria shallon		60	X	FACU	That are OBL, FACV	V, or FAC:		0%	(A/B)
Vaccinium parvifolium		20	X	FACU	Blanas landa	- 14/	4-		
Mahonia nervosa		20	X	FACU	Prevalence Inde	x worksnee			
					OBL Species	_	Multiply by: x 1 =	_ 0	
		100	= Total Cover		FACW species		x2=	0	
	•	100	- Total Govel		FAC Species	-	x 3 =	0	
Stratum (plot size:	5)				FACU Species		x 4 =	0	
Polystichum munitum		60	Х	FACU	UPL Species		x 5 =	0	
					Column Totals	0	(A)	0	(B)
					Prevalence Inc	dex =B/A =	#D	IV/0!	
					Hydrophytic Vec				
							-	ohytic Vegetatio	n
		60	- Total Cava				ance Test is >5 ence Index is ≤		
	•	00	= Total Cover					ວ.ບ tions ¹ (provide s	upporting
dy Vine Stratum (plot size:)						separate sheet	
	-						nd Non-Vascula	•	
		-				Problem	atic Hydrophytic	c Vegetation ¹ (Ex	(plain)
							nd hydrology m	ust he present	unless
		0	= Total Cover		¹ Indicators of hydric	soil and wetla	na nyarology m	aut bo procent,	
		0	= Total Cover		disturbed or problem		na nyarology m	adt bo prodont,	
are Ground in Herb Stratum	4		= Total Cover			natic.	es	•	Х

SOIL			PHS #	7424	_		Sampling Point:	6
Profile Descri	iption: (Describe to	the depth	needed to docume	ent the indicator or o	onfirm the abser	nce of indicators.)		
Depth	Matrix			Redox Features				
(Inches)	Color (moist)	%	Color (moist)	% Type ¹	Loc ²	Texture	Remarks	
0-4	10YR 2/1	100				Loam	Very organic with ~20% col	oble
4-14	10YR 3/2	100				Sandy Loam		
	<u> </u>							
	-							
Type: C=Con	centration D=Depleti	on RM=Re	educed Matrix CS=	Covered or Coated S	and Grains		² Location: PL=Pore Lining, M=Mati	rix
				s otherwise noted		Indic	eators for Problematic Hydric S	•
-	Histosol (A1)			Sandy Re			2 cm Muck (A10)	
	Histic Epipedon (A2)			Stripped N			Red Parent Material (TF2)
	Black Histic (A3)				cky Mineral (F1)(e	except MLRA 1)	Very Shallow Dark Su	*
	Hydrogen Sulfide (A4	.)			eyed Matrix (F2)		Other (explain in Rem	, ,
	Depleted Below Dark	•	(11)	Depleted I			Outer (explain in Ren	arroj
	-	•	(11)		rk Surface (F6)			
	Thick Dark Surface (A	•					³ Indicators of hydrophytic vegetatio	n and wetland
	Sandy Mucky Minera				Dark Surface (F7)		hydrology must be present, unless	disturbed or
	Sandy Gleyed Matrix			Redox De	pressions (F8)	1	problematic.	
Restrictive	Layer (if present)	:						
Туре:								
Depth (inches	s):					Hydric Soil Pre	sent? Yes No	Х
Remarks:								
HYDROLO)GY							
Wetland Hy	drology Indicator	s:						
Primary Indi	cators (minimum o	f one requ	uired; check all th	nat apply)			Secondary Indicators (2 or mo	ore required)
	Surface Water (A1)			Water stai	ned Leaves (B9) (Except MLRA	Water stained Leaves	(B9)
	High Water Table (A2	2)		1, 2, 4A, a	nd 4B)		(MLRA1, 2, 4A, and	4B)
	Saturation (A3)			Salt Crust	(B11)		Drainage Patterns (B	10)
	Water Marks (B1)			Aquatic In	vertebrates (B13)		Dry-Season Water Ta	ble (C2)
	Sediment Deposits (E	32)		Hydrogen	Sulfide Odor (C1)		Saturation Visible on	Aerial Imagery (
	Drift Deposits (B3)			Oxidized F	Rhizospheres alon	g Living Roots (C3)	Geomorphic Position	(D2)
	Algal Mat or Crust (B	4)		Presence	of Reduced Iron (0	C4)	Shallow Aquitard (D3)
	Iron Deposits (B5)			Recent Iro	n Reduction in Plo	owed Soils (C6)	Fac-Neutral Test (D5)	1
	Surface Soil Cracks (B6)		Stunted or	Stressed Plants (D1) (LRR A)	Raised Ant Mounds (I	06) (LRR A)
	Inundation Visible on	Aerial Ima	gery (B7)	Other (Exp	olain in Remarks)		Frost-Heave Hummod	ks (D7)
	Sparsely Vegetated 0	Concave Su	urface (B8)					
Field Obser	vations:							
Surface Water	Present? Yes		No X	Depth (inches):				
Water Table P			No X	Depth (inches):	>14	Wetland Hyd	drology Present?	
Saturation Pre (includes capillar	esent? Yes		No X	Depth (inches):	>14		YesNo	X
Describe Reco	orded Data (stream ga	auge, moni	toring well, aerial pl	hotos, previous inspe	ctions), if available	: ::		
	, ,	J , "	,	.,				
lemarks:								
omano.								

7424

Project/Site:	Eatonville	e Landfill	<u> </u>	City/County:	Pi	erce County	Sampl	ing Date:	1/20/	2022
Applicant/Owner:	Weyerhaeu	ser				State	: WA	S	ampling Point:	7
Investigator(s):	C	M/CR		Section, To	wnship, Range:		Section 20,	16 North,	4 East	
Landform (hillslope, to	errace, etc.:)		Slope		Local relief (co	ncave, convex, none):	No	one	Slope (%):	25
Subregion (LRR):		LRR A		Lat:	46.86	01 Long	-122.	32260	Datum:	WGS84
Soil Map Unit Name:		Barneste	on gravelly a	shy coarse s	andy loam	NWI C	lassification:		None	
Are climatic/hydrologi	ic conditions on	the site typ	oical for this tim	ne of year?	Yes		о Х	(if no, explai	n in Remarks)	
Are vegetation X	Soil	or Hyd	rology	significantly dist	turbed?	Are "Normal Circumsta	nces" present	? (Y/N)	Υ	
Are vegetation	Soil	or Hyd	rology	naturally proble	matic? If needed	d, explain any answers in I	Remarks.)			
				•			•			
SUMMARY OF	FINDINGS -	- Attach	site map	showing san	npling point	locations, transect	ts, importa	nt featur	es, etc.	
Hydrophytic Vegetation	on Present?	Yes	No	X	Is Sampled A	rea within				
Hydric Soil Present?		Yes	No No	X	a Wetla	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	s	N	X	
Wetland Hydrology P	resent?	Yes	No.	X						
Remarks:					1					
		_				on levels are lower th	_		drier conditi	ons on site.
During the two w	eeks prior to	the field	visit, ample	rainfall occu	rred and prim	ary hydrology indica	tors are vis	ible.		
VEGETATION -	Use scient	ific nam	es of plant	S.						
1			absolute % cover	Dominant Species?	Indicator Status	Dominance Test wo	orksheet:			
Tree Stratum (plot	size: 3	30)	70 00 001	Орсоюз:	Otatus	Number of Dominant Sp	pecies			
1 Pseudotsuga			50	Х	FACU	That are OBL, FACW, o			1 (A)
2 Alnus rubra			10		FAC		-			,
3						Total Number of Domina	ant			
4						Species Across All Stra	ta:		4 (B)
' <u>'</u>			60	= Total Cover			-			
Sapling/Shrub Stratu	m (plot size:	15)			Percent of Dominant Sp	ecies			
1 Rubus armen			20	Х	FAC	That are OBL, FACW,		2	5% (A/B)
2							-			,
3						Prevalence Index V	Vorksheet:			
4						Total % Cover of		Multiply by:	_	
5						OBL Species		x 1 =	0	
			20	= Total Cover		FACW species		x 2 =	0	
		- \				FAC Species		x 3 =	0	
)	20	v	EACH	FACU Species		x 4 =	0	
1 Polystichum i 2 Vinca minor	munitum		20	x	(UPL)	UPL Species Column Totals	0	x 5 = (A)	0 (В)
3			20		(OFL)	Columni Totals		(A)	(ы)
4						Prevalence Index	=B/A =	#D	IV/0!	
5							-			
6						Hydrophytic Vegeta	ation Indica	itors:		
7							1- Rapid Te	st for Hydrop	hytic Vegetation	l
8							2- Dominan	ce Test is >5	60%	
			40	= Total Cover			3-Prevalenc			
							_		tions ¹ (provide su	
Woody Vine Stratum	(plot size:)						separate sheet)	
1							_	Non-Vascula		nlain)
_						1 mdiant====================================	_		: Vegetation ¹ (Ex	
2			•			Indicators of hydric soil	and wetland	nyarology m	usτ pe present, ι	ınıess
2			0	= Total Cover			O.			
2			0	= Total Cover		disturbed or problemation	Э.			
2 % Bare Ground in He	erb Stratum	60		= Total Cover		disturbed or problemation			No_	Х

SOIL			PHS #	7424	_		Sampling Point: 7
Profile Descr	iption: (Describe to t	he depth	needed to docume			nce of indicators.)	
Depth	Matrix		 	Redox Features	Loc ²		
(Inches)	Color (moist)	<u>%</u>	Color (moist)	% Type'	Loc	Texture	Remarks
0-10	10YR 2/1	100				Sandy Loam	30% cobble
10-14	10YR 2/2	100				Sandy Loam	30% cobble
							_
Type: C=Con	centration, D=Depletion	on, RM=Re	educed Matrix, CS=	Covered or Coated S	and Grains.		² Location: PL=Pore Lining, M=Matrix.
lydric Soil	Indicators: (Appli	cable to	all LRRs, unles	s otherwise noted	d.)	Indic	ators for Problematic Hydric Soils ³ :
	Histosol (A1)			Sandy Re	dox (S5)		2 cm Muck (A10)
	Histic Epipedon (A2)			Stripped M	latrix (S6)		Red Parent Material (TF2)
	Black Histic (A3)			Loamy Mu	cky Mineral (F1) (e	except MLRA 1)	Very Shallow Dark Surface (TF1
	Hydrogen Sulfide (A4	.)		Loamy Gle	eyed Matrix (F2)		Other (explain in Remarks)
	Depleted Below Dark	Surface (A	A11)	Depleted I	Matrix (F3)		
	Thick Dark Surface (A	A12)		Redox Da	rk Surface (F6)		
	Sandy Mucky Mineral	•			Dark Surface (F7)		³ Indicators of hydrophytic vegetation and wetla
	Sandy Gleyed Matrix	,			pressions (F8)		hydrology must be present, unless disturbed problematic.
	Layer (if present):				(<u> </u>	F
	s):					Hydric Soil Pres	sent? Yes NoX
	s):					Hydric Soil Pres	sent? Yes No X
Remarks:	OGY	e.				Hydric Soil Pres	sent? Yes NoX
Remarks: HYDROLO Wetland Hy	<u> </u>		uired; check all th	nat apply)		Hydric Soil Pres	Secondary Indicators (2 or more require
HYDROLC Wetland Hy Primary Indi	OGY rdrology Indicator		uired; check all th	Water stai	ned Leaves (B9) (I		Secondary Indicators (2 or more require Water stained Leaves (B9)
HYDROLC Wetland Hy Primary Indi	OGY rdrology Indicators cators (minimum of	f one requ	uired; check all th	,			Secondary Indicators (2 or more require
HYDROLO Wetland Hy Primary Indi	OGY rdrology Indicator cators (minimum of Surface Water (A1)	f one requ	uired; check all th	Water stai	nd 4B)		Secondary Indicators (2 or more require Water stained Leaves (B9)
HYDROLC Wetland Hy Primary Indi	OGY rdrology Indicators cators (minimum of Surface Water (A1) High Water Table (A2)	f one requ	uired; check all th	Water stai 1, 2, 4A, a Salt Crust Aquatic In	nd 4B) (B11) vertebrates (B13)		Secondary Indicators (2 or more require Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)
HYDROLC Wetland Hy Primary Indi	cators (minimum of Surface Water (A1) High Water Table (A2 Saturation (A3)	f one requ	uired; check all th	Water stai 1, 2, 4A, a Salt Crust Aquatic In	nd 4B) (B11)		Secondary Indicators (2 or more require Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) Drainage Patterns (B10)
HYDROLC Wetland Hy	ogy rdrology Indicator cators (minimum of Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1)	f one requ	uired; check all th	Water stai 1, 2, 4A, a Salt Crust Aquatic In Hydrogen	nd 4B) (B11) vertebrates (B13) Sulfide Odor (C1)		Secondary Indicators (2 or more required Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2)
HYDROLC Wetland Hy Primary Indi	cators (minimum of Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B	f one requ	uired; check all th	Water stai 1, 2, 4A, a Salt Crust Aquatic In Hydrogen Oxidized F	nd 4B) (B11) vertebrates (B13) Sulfide Odor (C1)	Except MLRA g Living Roots (C3)	Secondary Indicators (2 or more require Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Image
HYDROLC Wetland Hy Primary Indi	Cators (minimum of Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5)	f one request. 2) 32) 4)	uired; check all th	Water stai 1, 2, 4A, a Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro	nd 4B) (B11) vertebrates (B13) Sulfide Odor (C1) Rhizospheres along of Reduced Iron (C	Except MLRA g Living Roots (C3) C4) owed Soils (C6)	Secondary Indicators (2 or more required Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Image Geomorphic Position (D2) Shallow Aquitard (D3) Fac-Neutral Test (D5)
HYDROLC Wetland Hy Primary Indi	cators (minimum of Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B Drift Deposits (B3)	f one request. 2) 32) 4)	uired; check all th	Water stai 1, 2, 4A, a Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro	nd 4B) (B11) vertebrates (B13) Sulfide Odor (C1) Rhizospheres along of Reduced Iron (C	Except MLRA g Living Roots (C3) C4) owed Soils (C6)	Secondary Indicators (2 or more required Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Image Geomorphic Position (D2) Shallow Aquitard (D3)
HYDROLC Wetland Hy Primary Indi	cators (minimum of Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Surface Soil Cracks (I	f one requests 2) 32) 4) B6) Aerial Ima	gery (B7)	Water stai 1, 2, 4A, a Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro Stunted or	nd 4B) (B11) vertebrates (B13) Sulfide Odor (C1) Rhizospheres along of Reduced Iron (C	Except MLRA g Living Roots (C3) C4) owed Soils (C6)	Secondary Indicators (2 or more required Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Image Geomorphic Position (D2) Shallow Aquitard (D3) Fac-Neutral Test (D5)
HYDROLC Wetland Hy Primary Indi	cators (minimum of Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Surface Soil Cracks (I Inundation Visible on Sparsely Vegetated C	f one requests 2) 32) 4) B6) Aerial Ima	gery (B7)	Water stai 1, 2, 4A, a Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro Stunted or	nd 4B) (B11) vertebrates (B13) Sulfide Odor (C1) Rhizospheres along of Reduced Iron (C n Reduction in Plot Stressed Plants (Except MLRA g Living Roots (C3) C4) owed Soils (C6)	Secondary Indicators (2 or more require Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Image Geomorphic Position (D2) Shallow Aquitard (D3) Fac-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A
Primary Indi	cators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (I Inundation Visible on Sparsely Vegetated Corvations:	f one requests 2) 32) 4) B6) Aerial Ima	gery (B7) urface (B8)	Water stai 1, 2, 4A, a Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro Stunted or	nd 4B) (B11) vertebrates (B13) Sulfide Odor (C1) Rhizospheres along of Reduced Iron (C n Reduction in Plot Stressed Plants (Except MLRA g Living Roots (C3) C4) owed Soils (C6)	Secondary Indicators (2 or more require Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Image Geomorphic Position (D2) Shallow Aquitard (D3) Fac-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A
HYDROLC Wetland Hy Primary Indi	cators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (I Inundation Visible on Sparsely Vegetated Corvations:	f one requests 2) 32) 4) B6) Aerial Ima	gery (B7) urface (B8)	Water stai 1, 2, 4A, a Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro Stunted or	nd 4B) (B11) vertebrates (B13) Sulfide Odor (C1) Rhizospheres along of Reduced Iron (C n Reduction in Plo Stressed Plants (in plain in Remarks)	g Living Roots (C3) C4) owed Soils (C6) D1) (LRR A)	Secondary Indicators (2 or more required Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Image Geomorphic Position (D2) Shallow Aquitard (D3) Fac-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A Frost-Heave Hummocks (D7)
HYDROLC Wetland Hy Primary Indi	Cators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (Inundation Visible on Sparsely Vegetated Corvations:	f one requests 2) 32) 4) B6) Aerial Ima	gery (B7) urface (B8)	Water stai 1, 2, 4A, a Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro Stunted or Other (Exp	nd 4B) (B11) vertebrates (B13) Sulfide Odor (C1) Rhizospheres along of Reduced Iron (C n Reduction in Plot Stressed Plants (g Living Roots (C3) C4) owed Soils (C6) D1) (LRR A)	Secondary Indicators (2 or more require Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Image Geomorphic Position (D2) Shallow Aquitard (D3) Fac-Neutral Test (D5) Raised Ant Mounds (D6) (LRR AFFrost-Heave Hummocks (D7)
HYDROLC Wetland Hy Primary Indi	Cators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (Inundation Visible on Sparsely Vegetated Corvations: The Present? Present? Yes Present? Yes Present? Yes	f one requests 2) 32) 4) B6) Aerial Ima	gery (B7) urface (B8) No <u>X</u>	Water stai 1, 2, 4A, a Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro Stunted or Other (Exp	nd 4B) (B11) vertebrates (B13) Sulfide Odor (C1) Rhizospheres along of Reduced Iron (C n Reduction in Plo Stressed Plants (in plain in Remarks)	g Living Roots (C3) C4) owed Soils (C6) D1) (LRR A)	Secondary Indicators (2 or more required Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Image Geomorphic Position (D2) Shallow Aquitard (D3) Fac-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A Frost-Heave Hummocks (D7)
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7424

ject/Site: Eatonvi	ille Landfil	<u> </u>	City/County:	Pi	erce County	Sam	pling Date:	1/20	/2022
olicant/Owner: Weyerhae	user				Sta	te: WA	_ s	ampling Point:	8
estigator(s):	CM/CR		Section, To	ownship, Range:		Section 20), 16 North,	4 East	
dform (hillslope, terrace, etc.:)		Flat		Local relief (co	ncave, convex, none):	Co	oncave	Slope (%):	<5
pregion (LRR):	LRR A		Lat:	46.86	05 Lor	ng: -12	2.32263	Datum:	WGS84
Map Unit Name:	Barnest	on gravelly	- ashy coarse s	andy loam	NWI	Classification	1:	None	
climatic/hydrologic conditions of				Yes		No X	(if no, explai	n in Remarks)	
vegetation X Soil				turbed?	Are "Normal Circums	tances" prese	nt? (Y/N)	Υ	
			_		d, explain any answers ir	•	(, , , ,		
vogotation			- natarany proble	mano. Il libodo	a, oxpiani arry arroword ii	r rtornarito.			
MMARY OF FINDINGS	– Attacl	n site map	showing sar	npling point	locations, transe	cts, impor	tant featur	es, etc.	
rophytic Vegetation Present?	Yes	No	Х						
ric Soil Present?	Yes	No	X	Is Sampled A		es	N	X	
land Hydrology Present?	Yes	No	X	a Wollan			_		
arks:									
erall conditions derived using the two weeks prior	U					•	,	drier condit	ions on s
GETATION - Use scier	ntific nam				<u></u>				
		absolute % cover	Dominant Species?	Indicator Status	Dominance Test v	vorksheet:			
Stratum (plot size:	30)	70 COVEI	oheries;	Status	Number of Dominant	Species			
Corylus cornuta	,	20	Х	FACU	That are OBL, FACW,	•		0	(A)
Pseudotsuga menziesii		10	X	FACU	, , , , , , , , , , , , , , , , , , , ,				()
					Total Number of Domi	nant			
					Species Across All Str	ata:		5	(B)
		30	= Total Cover						
ling/Shrub Stratum (plot size	e: 15	\			Percent of Dominant S	Species			
Corylus cornuta	e. 13 <u> </u>	.) 40	X	FACU	That are OBL, FACW,	•		0%	(A/B)
Rubus armeniacus		20		FAC	That are ODE, 1 ACW,	orrao.		770	(ハロ)
Rubus laciniatus		20		FACU	Prevalence Index	Worksheet	:		
Rubus ursinus		70	X	FACU	Total % Cover of		Multiply by:		
Cirsium scariosum		5		FAC	OBL Species		x 1 =	0	
		160	= Total Cover		FACW species		x 2 =	0	
					FAC Species		x 3 =	0	
Stratum (plot size:	5)				FACU Species		x 4 =	0	
Pteridium aquilinum		70	X	FACU	UPL Species		x 5 =	0	
Nemophila parviflora		10		(UPL)	Column Totals	0	_(A)	0	(B)
Geum macrophyllum		10		FAC		D./*		11//01	
Unidentified grass		10		(UPL)	Prevalence Inde	x =B/A =	#D	IV/0!	
					Hydrophytic Vege	tation India	cators:		
					l lydrophytic vege			hytic Vegetatio	n
							ance Test is >5	, ,	•
		100	= Total Cover				nce Index is≤		
			1					tions ¹ (provide s	upporting
dy Vine Stratum (plot size:)				data in Re	emarks or on a	separate sheet)
						5- Wetlan	d Non-Vascula	r Plants ¹	
						Problema	tic Hydrophytic	Vegetation ¹ (Ex	oplain)
					14	ail and watlan	d hydrology m	ust be present.	unless
		0	= Total Cover		Indicators of hydric so		,	,	
are Ground in Herb Stratum			= Total Cover			tic.	s	•	X

Depth (Inches)			PHS#	7424			Sampling Point: 8	
(Inches)	iption: (Describe to t	he depth	needed to docume	ent the indicator or co	nfirm the absen	ce of indicators.)		
	Matrix		 	Redox Features	Loc ²	_		
	Color (moist)	%	Color (moist)	% Type'	Loc	Texture -	Remarks	
0-5	10YR 2/1	100				Loam	10% cobble	
5-14	10YR 3/6	100				Sandy Loam	5% gravel	
	-							
Type: C=Con	centration, D=Depletion	on, RM=Re	educed Matrix, CS=	Covered or Coated Sa	nd Grains.	_	² Location: PL=Pore Lining, M=Matrix.	
lydric Soil	Indicators: (Appli	cable to	all LRRs, unless	s otherwise noted.)	eators for Problematic Hydric Soils ³ :		
	Histosol (A1)			Sandy Redo	ox (S5)		2 cm Muck (A10)	
	Histic Epipedon (A2)			Stripped Ma	trix (S6)		Red Parent Material (TF2)	
	Black Histic (A3)			Loamy Mucky Mineral (F1) (except MLRA 1)		Very Shallow Dark Surface (TF12)		
	Hydrogen Sulfide (A4)		Loamy Gleyed Matrix (F2)			Other (explain in Remarks)	
	Depleted Below Dark	Surface (A	A11)	Depleted Ma	atrix (F3)			
	Thick Dark Surface (A	A12)		Redox Dark	Surface (F6)		3	
	Sandy Mucky Mineral	(S1)		Depleted Dark Surface (F7)		³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or		
	Sandy Gleyed Matrix	(S4)		Redox Depr	essions (F8)		problematic.	
lestrictive	Layer (if present):	:						
HYDROLO	NOV							
	JGY							
_	drology Indicators							
Primary Indi	drology Indicators		uired; check all th	,			Secondary Indicators (2 or more requi	
Primary Indi	cators (minimum of Surface Water (A1)	f one req	uired; check all th	Water stain	ed Leaves (B9) (E	Except MLRA	Water stained Leaves (B9)	
Primary Indi	drology Indicators cators (minimum of Surface Water (A1) High Water Table (A2	f one req	uired; check all th	Water staine	d 4B)	Except MLRA	Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)	
Primary Indi	cators (minimum of Surface Water (A1) High Water Table (A2 Saturation (A3)	f one req	uired; check all th	Water staine 1, 2, 4A, an Salt Crust (I	d 4B) 311)	Except MLRA	Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) Drainage Patterns (B10)	
Primary Indi	cators (minimum of Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1)	f one requ	uired; check all th	Water staind 1, 2, 4A, an Salt Crust (I	d 4B) B11) ertebrates (B13)	Except MLRA	Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2)	
Primary Indi	cators (minimum of Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B	f one requ	uired; check all th	Water staind 1, 2, 4A, an Salt Crust (I Aquatic Inve	d 4B) B11) ertebrates (B13) ulfide Odor (C1)		Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Image	
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Appendix C

Study Area Photos (ground level)





Photo A:

Loo ing southeast at sample points 1 and 2 and Wetland A.

Photo date anuary 20, 2022

Photo B:

Loo ing southeast at sample point 3 within Wetland A.

Photo date anuary 20, 2022



Project #7424 2/10/2022



Photo documentation

Eatonville Landfill Property - Pierce County, Washington



Photo C:

Loo ing northeast at the wetland seep and landfill debris pile.

Photo date anuary 20, 2022

Photo D:

Loo ing northeast at the debris within the Wetland A seep.

Photo date anuary 20, 2022



Project #7424 2/10/2022



Photo documentation

Eatonville Landfill Property - Pierce County, Washington



Photo E:

Loo ing east at the head of seep in Wetland A.

Photo date anuary 20, 2022

Photo F:

Loo ing south at sample points 4 and 5 and Wetland A.

Photo date anuary 20, 2022



Project #7424 2/10/2022



Photo documentation

Eatonville Landfill Property - Pierce County, Washington



Photo G:

Loo ing southeast at sample point along an old logging grade within an upland slope.

Photo date anuary 20, 2022

Photo H:

Loo ing southeast at the dirt road entrance to the landfill.

Photo date anuary 20, 2022



Project #7424 2/10/2022



Photo documentation

Eatonville Landfill Property - Pierce County, Washington



Photo I:

Loo ing west at sample point in a general upland condition near the dirt road entrance to the landfill.

Photo date anuary 20, 2022

Photo J:

Loo ing northwest at waste containment bins within an upland area near the dirt road entrance to the landfill.

Photo date anuary 20, 2022

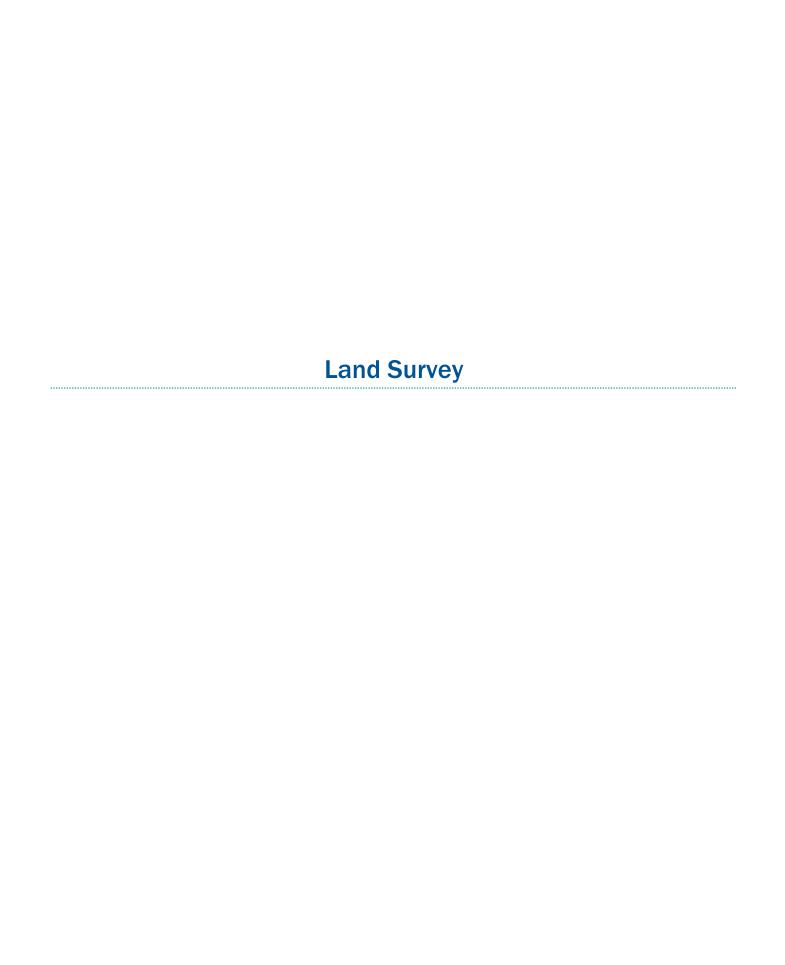


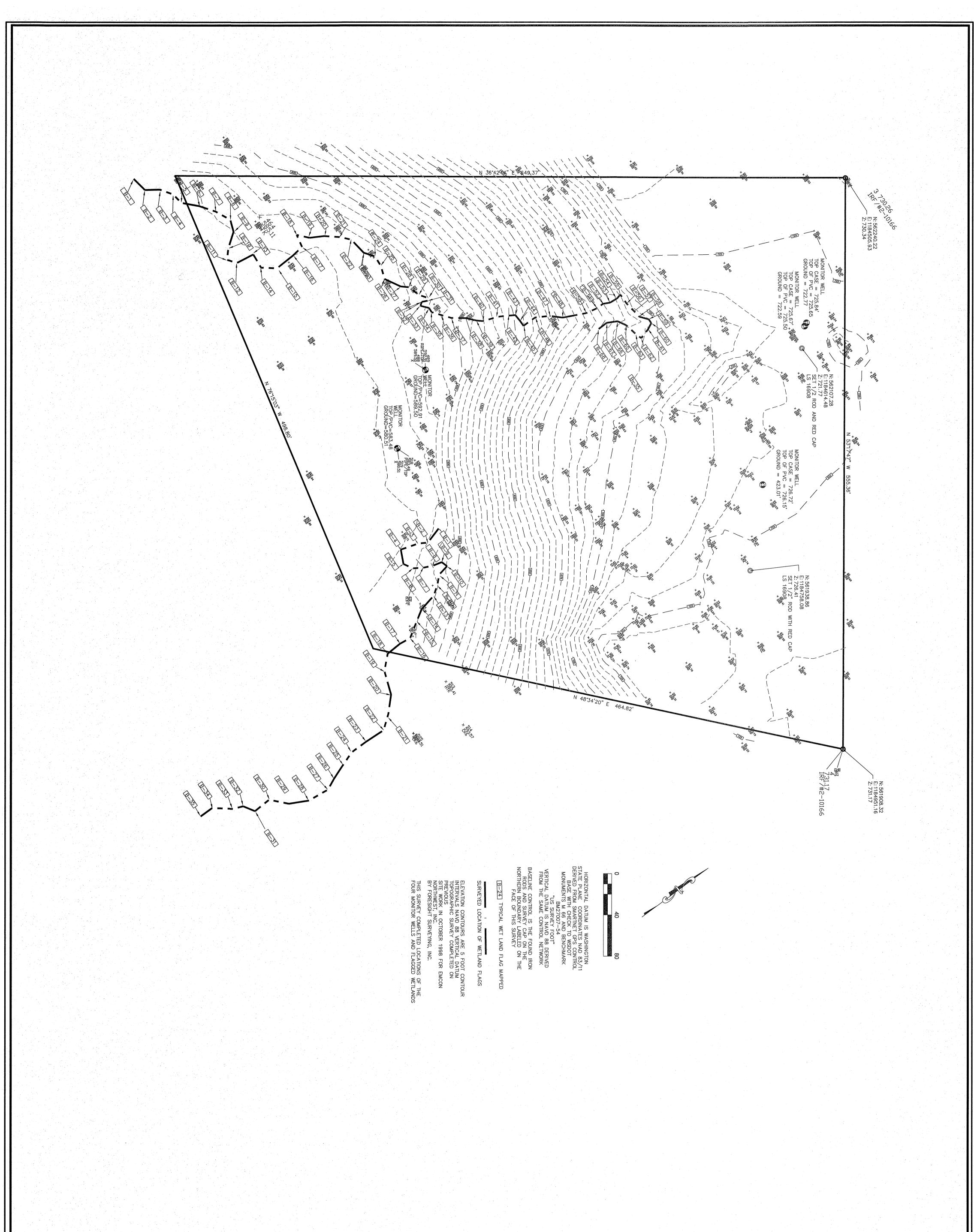
Project #7424 2/10/2022



Photo documentation

Eatonville Landfill Property - Pierce County, Washington







TOPOGRAPHIC SURVEY

WEYERHAEUSER CO. EASTONVILLE LANDFILL

SEC. 20, TOWNSHIP 16 NORTH , RANG 4 EAST. W.M.

PIERCE COUNTY, WA





1583 N. NATIONAL AVE. Fax (360) 748–0873 CHEHALIS, WA 98532 Ph (360) 748–4000 GSI WATER SOLUTIONS

DRWN BY DATE JOB NO. 4990

K FRAZIER FEB 7, 2022 FB. NO. 2517

CHKD BY SCALE

1' = 40'

SHT NO.

-APPENDIX D-

Terrestrial Ecological Evaluation

Remedial Investigation/Feasibility Study Former Eatonville Landfill

WEIGHT OF EVIDENCE BASED TERRESTRIAL ECOLOGICAL EVALUATION

Former Eatonville Landfill
State of Washington Department of Ecology
Facility Site ID No. 85933/Cleanup Site ID No. 15271





Former Eatonville Landfill State of Washington Department of Ecology

Facility Site ID No. 85933/Cleanup Site ID No. 15271

Prepared for:

GSI Water Solutions, Inc. 650 NE Holladay Street, Suite 900 Portland, OR 97232

This document has been prepared by SLR International Corporation (SLR). The material and data in this report were prepared under the supervision and direction of the undersigned.

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Jeffrey a Peterson



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ACRONYMS

ANOVA analysis of variance

bgs below ground surface

CEC cation exchange capacity

cmol_c/kg moles of electric charge per kilogram of soil

COC contaminant of concern

CSM conceptual site model

Ecology Washington State Department of Ecology

Eco-SSL Ecological Soil Screening Level

ED10 10th percentile effective dose

EPA U.S. Environmental Protection Agency

EPC exposure point concentration

GOF goodness-of-fit

GSI Water Solutions, Inc.

HQ hazard quotient

LOAEL Lowest-Observed-Adverse-Effect-Level

LOEC low observable effect concentration

mg/kg milligrams per kilogram

NOAEL No-Observed-Adverse-Effect-Level

NOEC no observable effect concentration

ORNL Oak Ridge National Laboratory

RI/FS Remedial Investigation/Feasibility Study

SL screening level

SLR SLR International Corporation

TEE terrestrial ecological evaluation

TRV Toxicity Reference Value

UCL upper confidence limit

WAC Washington Administrative Code

WOE Weight of Evidence



1. INTRODUCTION

On behalf of GSI Water Solutions, Inc. (GSI), SLR International Corporation (SLR) has prepared this site-specific terrestrial ecological evaluation (TEE) as part of the Remedial Investigation/Feasibility Study (RI/FS) for the Former Eatonville Landfill (Site) located near Eatonville, Washington. This TEE evaluates whether contaminants released to soil in the wetland area of the Site may pose unacceptable risks to terrestrial ecological receptors. A Weight of Evidence (WOE) ecological risk evaluation approach was performed consistent with Washington Administrative Code (WAC) 173-340-7493 and the WOE Work Plan (GSI, 2022) that was approved by the Washington State Department of Ecology (Ecology).

The Site is a 6.3-acre rectangular parcel of land owned by the Weyerhaeuser Company (Weyerhaeuser) (Figure 1). The former landfill covers a steep slope, and elevated concentrations of metals have been observed in soil on a "bench" at the toe of the landfill known as the wetland area. Seeps at or near the base of the landfill keep soil in the wetland area moist, and wetland habitat is present near where seeps are expressed. In general, the wetland area does not support aquatic organisms (e.g., fish and benthic invertebrates) because many surface water features created by seeps are ephemeral, and the wetland is not directly connected to permanent water features such as the nearby Mashel River. Due to a lack of standing water, the substrate on the wetland area appears to function as soil and not sediment.

Concentrations of metals (i.e., copper, lead, and zinc being the primary focus) in several soil samples from the wetland area are above relevant ecological screening levels (SLs), namely Ecological Indicator Soil Concentrations (milligrams/kilogram [mg/kg]) for Protection of Terrestrial Plants and Animals (WAC Table 749-3). However, the plant community in the wetland area appears natural, mature, and diverse. Removal of soil with elevated concentrations of contaminants (e.g., metals) has the potential to cause significant degradation of this well-established functional wetland habitat, would be challenging to implement and permit, and could result in long-term impacts to the mature forest system. The bioavailability of metals in soil is an important determinant of ecological toxicity (Langmuir et al., 2004). Many ecological SLs are based on toxicity studies using fresh metal salts with high bioavailability. These SLs can overpredict the toxicity of older metals released to soil in the field that may have weathered and are less bioavailable than fresh salts (Oorts et al., 2021).

A site-specific WOE evaluation was performed to better estimate if landfill-related contaminants (mainly metals) in wetland area soils may pose unacceptable risks to ecological receptors. Consistent with WAC 173-340-7493, the different lines of evidence evaluated included the following:

- Literature search to evaluate toxicity data and screening values used in various ecological risk assessments
- Measurements of plant community characteristics and comparisons of plant communities in areas with high metals concentrations to those in areas with relatively low metals concentrations
- Observations of plant toxicity



- Measurements of the soil invertebrate abundance and comparisons of soil invertebrate density in areas with high and relatively low metals concentrations
- Depth-weighted adjustments of soil exposure concentrations based on observations of relative exposure of ecological receptors to soil at different depths
- Wildlife behavior

The lines of evidence with the greatest potential to accurately predict adverse ecological effects associated with exposure to contaminants are those based on actual site-specific measurements. In addition, evaluations that involve statistical comparisons of measured population characteristics between contaminated and uncontaminated areas are considered better predictors of ecological effects than more qualitative or anecdotal observations. Evaluations based on comparisons of chemical concentrations to conservative, literature-based SLs that are not site-specific are typically given less weight than field study results. The approximate relative ranking of the various lines of evidence are as follows:

Plant community characteristics ≈ Invertebrate abundance > Plant health observations ≈ Wildlife behavior observations > Depth-weighted exposure concentrations > Comparisons to screening levels.



2. PROBLEM FORMULATION

Problem formulation includes describing the conceptual site model (CSM) and the important terrestrial ecological receptors that are reasonably likely to contact landfill-related chemicals in soil. Other elements of problem formulation include identifying the contaminants of concern (COCs) in soil that warrant further evaluation in the TEE, and outlining the methods by which potential risks to terrestrial ecological receptors will be evaluated. Elements of the terrestrial ecological risk assessment problem formulation are briefly discussed below.

2.1 CONCEPTUAL SITE MODEL

The CSM describes potential chemical sources, release mechanisms, environmental transport processes, exposure routes, and receptors. According to U.S. Environmental Protection Agency (EPA) risk assessment guidance (EPA, 1989), a complete exposure pathway consists of four necessary elements: (1) a source and mechanism of chemical release to the environment, (2) an environmental retention or transport medium for a released chemical, (3) a point of potential contact with the impacted medium (referred to as the exposure point), and (4) an exposure route (e.g., incidental soil ingestion) at the exposure point. If any of these four components are not present, then a potential exposure pathway is considered incomplete and is not evaluated further. If all four components are present, a pathway is considered potentially complete. The ecological CSM is described in Section 5 of the RI/FS and is briefly summarized below.

It appears that some metals in waste material placed in the landfill have partitioned into water percolating through waste material and/or into groundwater. Waterborne metals then appear to have migrated via surface water and/or groundwater to the wetland area. Some landfill-related metals in water appear to have partitioned to wetland area soils. Terrestrial ecological receptors such as vascular plants, soil-dwelling invertebrates, and wildlife (e.g., birds and mammals) may have contact with landfill-related metals in soil. Plants may have root contact with metals in soil pore water and invertebrates may have dermal contact with metals in soil. Invertebrates and wildlife may also incidentally ingest metals in soil. Inhalation of airborne soil particles and dermal contact with soil are considered potentially complete, but insignificant exposure pathways for wildlife.

The wetland area beneath the toe of the landfill supports a relatively mature and healthy forest community. Many of the large Douglas fir (Pseudotsuga menziesii) and other tree species have been established for decades. Terrestrial plants present in the wetland area include vine maple (Acer circinatum), red alder (Alnus rubra), salmonberry (Rubus spectabilis), and several other species. Wildlife in the lowlands include mammals such as American black bear (Ursus americanus), coyote (Canis latrans), blacktail deer (Odocoileus hemionus columbianus), raccoons (Procyon lotor), and Douglas squirrels (Tamiasciurus douglasii). Birds present in the wetland area include Steller's jay (Cyanocitta stelleri), Cooper's hawk (Accipiter cooperii), and many other species. The wetland area and surrounding forest is not known to support threatened or endangered plant species (LYRA Biological, 2006). Although the mature forest near the landfill may represent suitable habitat for the northern spotted owl (Strix occidentalis caurina), few other threatened or endangered wildlife species (see



https://wdfw.wa.gov/species-habitats/at-risk/listed) are likely to be present in the region or occupy habitats in the wetland area.

The substrate of the wetland area is considered soil instead of sediment. Sediment is often defined as the material that is deposited on the bottom of a water body. The organisms that are typically evaluated in sediment investigations are aquatic species such as fish and benthic invertebrates. Few, if any, wetland area locations support significant populations of wholly aquatic organisms. Instead, most of the wetlands are seasonally inundated and are dry for a portion of the year. The plants and animals residing in the wetland area are mainly terrestrial organisms and not aquatic species. Because terrestrial organisms are present in the wetland area, the substrate is evaluated as soil.

2.2 CONTAMINANT OF CONCERN SELECTION

A COC is defined here as a landfill-related chemical with the potential to cause adverse effects to plants and animals in the environment near the landfill. Soil samples from the wetland area were collected from transects HA-02 [less HA-02G] through HA-07 (Figure 1). The primary chemicals associated with the landfill that have migrated to the wetland area are metals (see Section 8 of the RI/FS). Organic chemicals (e.g., benzo(a)pyrene and gasoline range organics) were evaluated in composite samples and have been detected in the portions of the wetland area nearest the landfill, but concentrations were below ecological SLs (see Section 7 of the RI/FS). These organic chemicals are not evaluated in this TEE. Landfill-related metals are defined as those present in the wetland area at concentrations above background levels. Background metals are those unrelated to the landfill, and typically come from two primary sources: natural sources (i.e., natural elements of the Earth's crust), and ambient sources that are sometimes associated with large-scale human releases (i.e., air emissions and subsequent regional deposition). Details regarding the calculation of point estimates of regional or natural background concentrations of metals in soil are presented in Section 7.1 of the RI/FS.

As mentioned above, COCs are defined in two ways: (1) metals related to the landfill and above background levels, and (2) chemicals present in soil at concentrations above risk-based SLs protective of terrestrial ecological receptors. COC selection for this TEE is shown in Table 1.

A metal is considered to be related to the landfill if the maximum concentration in soil of the wetland area was above the regional background point estimate. Presumably, the metal concentration was above the background point estimate at a sample location due to local enrichment following migration of the metal from a landfill source.

A metal determined to be elevated in lowland soil due to a release from the landfill was considered to be COC if the exposure point concentration (EPC) was above the lowest available ecological SL (Table 1). As mentioned above, ecological SLs were the Ecological Indicator Soil Concentration for Protection of Terrestrial Plants, Soil Biota, and Wildlife from Table 749-3 (WAC 173-340-900). The EPC is an estimate of the average chemical concentration in the exposure unit that a receptor may contact on a long-term basis (EPA, 1989). Populations of plants and animals do not constrain exposure activities to a single sample location. For example, wildlife (e.g., birds and mammals) can move over the landscape and are likely to



be exposed to soil at a variety of locations within an exposure unit. Similarly, plant populations or communities are distributed over areas larger than the typical sample point.

Consistent with WAC 173-340-7493(2)(a)(i), the EPC was defined as the 95% upper confidence limit (UCL) about the mean concentration in soil of the wetland area exposure unit. The exposure unit is defined as the wetland area beneath the toe of the landfill that has been investigated for landfill-related contamination. This area is likely to be smaller than the area over which local wildlife populations and local plant communities are distributed. The 95% UCL is used as the EPC instead of the average concentration in the exposure unit because of the uncertainty associated with estimating the population mean from a sample of soil. Use of the 95% UCL provides confidence that the true population mean will not be underestimated based on data from a sample. Details regarding the calculation of 95% UCLs about the mean for metals in surface soil of the wetland area exposure unit are given in Section 7.1 of the RI/FS. EPCs for metals in surface soil are also shown in Table 1.

As shown in Table 1, hexavalent chromium, selenium, and thallium were not detected in wetland area soil. Although the laboratory methods and reporting limits were consistent with conventional standards, detection limits may have been above background point estimates. The reporting limits for thallium were below the lowest ecological SL. Because there is no evidence that hexavalent chromium, selenium, and thallium are elevated above background levels, these metals are not considered COCs.

Maximum concentrations of barium, beryllium, chromium, and vanadium are below their respective background point estimates (Table 1). As a result, these metals do not appear to be elevated above natural levels due to a release from the landfill. EPCs for beryllium and chromium are below their respective lowest ecological SLs. Barium, beryllium, chromium, and vanadium are not considered COCs.

The maximum concentrations of copper, lead, zinc, arsenic, cadmium, cobalt, and nickel in wetland area soil are above their respective background point estimates (Table 1). These metals appear to be associated with a release from the landfill. The EPCs for arsenic, cadmium, cobalt, and nickel are below their respective lowest ecological SLs. As a result, arsenic, cadmium, cobalt, and nickel are not considered COCs.

In summary, the metals that appear to be related to the landfill and have EPCs greater than their lowest ecological SLs are copper, lead, and zinc. These three metals are considered COCs and are further evaluated in the TEE.

2.3 TERRESTRIAL ECOLOGICAL EVALUATION METHODS

To better evaluate if the COCs (copper, lead, and zinc) in wetland area soil may pose unacceptable risks to ecological receptors, field studies were performed to characterize the ecological communities in areas with relatively high COC concentrations called "impact" locations and areas with lower COC concentrations called "reference" areas. Consistent with WAC 173-340-7493(3)(e), hypothesis testing statistics were used to evaluate whether average ecological conditions (e.g., plant species richness and diversity; invertebrate abundance) were significantly different between impact and reference areas. If measures of ecological community characteristics in impact areas are significantly degraded relative to reference areas, it will be inferred that metals in soil have caused adverse effects to terrestrial ecological systems.



As discussed in greater detail in Section 4, three types of field studies were performed:

- 1. Plant Community The diversity and abundance of plant vegetation cover was measured at both impact and reference locations.
- 2. Soil Invertebrate Abundance The density of invertebrates (i.e., two types of worms) was measured in soil samples from both impact and reference locations.
- 3. Wildlife Observations Camera traps were placed on game trails in the wetland area and recordings of wildlife were observed to determine if the health or behavior of wildlife may have been adversely impacted.

Plant surveys were performed at seven impact and seven reference locations (see Figure 1). Impact locations were selected as areas with relatively high zinc and/or lead concentrations. Reference areas were chosen based on samples with some of the lowest zinc and/or lead concentrations while also providing spatial diversity. An attempt was made to have impact and reference locations at roughly equal density along an approximate east/west axis along the base of the landfill. Invertebrate surveys were completed in five impact locations and five reference locations that were a subset of the 14 plant survey areas (Figure 1). Again, an attempt was made to select impact areas for both plant and invertebrate surveys that had high concentrations of COCs relative to reference areas.

As shown in Table 2, mean concentrations of all COCs were higher in the impact areas than reference areas. Using all sample results from multiple depths at ecological survey locations, mean concentrations of copper, lead, and zinc in impact areas were 2x, 4x, and 23x higher than in reference areas (Table 2). These results indicate that zinc concentrations in impact areas were typically over an order of magnitude higher than in reference areas. Similarly, maximum concentrations of copper, lead, and zinc in impact areas were 6x, 29x, and 63x higher than point estimates of natural background concentrations of these metals (Table 2). The maximum concentrations of copper, lead, and zinc in impact areas were 4x, 10x, and 63x higher than the lowest ecological SL for these metals (Table 2). Based on comparisons with ecological SLs, the potential for metals to pose unacceptable risks to ecological receptors is higher in impact areas than reference areas.



3. LITERATURE REVIEW

Literature was reviewed to determine concentrations considered protective, with the understanding that some studies may be based on environmental conditions or criteria that differ from those at the Site. An attempt was made to identify the Toxicity Reference Values (TRVs) and other information that was used by Ecology to develop the Ecological Indicator Soil Concentrations for Protection of Terrestrial Plants and Animals (WAC 173-340-900, Table 749-3). Other sources of toxicity data and/or Ecological Soil Screening Levels (Eco-SSLs) were reviewed and compared with the Table 749-3 values and approach. Resources investigated included TRVs and ecological screening values developed by Oak Ridge National Laboratory (ORNL) in the late 1990s, Eco-SSLs developed by the EPA in the mid-2000s, and other scientific journal articles or state/federal government reports with relevant toxicity information or ecological soil SLs. The literature search was not a comprehensive review of all potentially relevant reports or studies. A summary of toxicity results from the literature review are presented in Table 3.

Plant soil SLs in Table 749-3 are based on the ORNL 1997 *Toxicological Benchmarks for Screening Potential Contaminants of Concern for Effects on Terrestrial Plants: 1997 Revision* (Efroymson et al., 1997a). Similarly, Table 749-3 soil SLs protective of soil biota are based on the ORNL 1997 *Toxicological Benchmarks for Potential Contaminants of Concern for Effects on Soil and Litter Invertebrates and Heterotrophic Process: 1997 Revision* (Efroymson et al., 1997b). In both cases, when ORNL benchmark values were below typical natural background concentrations for metals, Ecology set the SL at an estimate of the Washington natural background concentration.

For wildlife, Ecology set the soil SL at the lower of the risk-based value protective of birds or mammals. The TRVs used by Ecology were from a literature survey conducted in accordance with WAC 173-340-7493(4). Details regarding the decision criteria and actual calculations used to develop the wildlife soil SLs in Table 749-3 were not reviewed (they were not found). Based on the TRVs given in Table 749-5, the source of most values could be inferred. For zinc, the mammal and bird TRVs were based on the Lowest-Observed-Adverse-Effect-Level (LOAEL) for zinc oxide reported in the ORNL 1996 *Toxicological Benchmarks for Wildlife: 1996 Revision* (Sample et al., 1996). Similarly, the avian TRV for lead was based on the LOAEL for lead acetate in Sample et al. (1996), and the avian TRV for copper was based on the LOAEL for copper oxide in Sample et al. (1996). The source of the mammal TRVs for lead and copper in Table 748-5 is unclear. The mammalian lead TRV is similar to, but different from, the mammal No-Observed-Adverse-Effect-Levels (NOAELs) for lead acetate given in Sample et al. (1996). The mammalian copper TRVs differ for the shrew and vole, and the source of these TRVs was not found.

ORNL also developed preliminary remediation goals (PRGs) protective of several bird and mammal indicator species (Efroymson et al., 1997c). The lowest mammalian copper PRG was 370 mg/kg for the shrew, and the lowest bird PRG was 515 mg/kg for the woodcock (Table 3). For lead, the lowest mammalian PRG was 740 mg/kg for the shrew, and the lowest avian PRG was 40.5 mg/kg for the woodcock. The lowest mammalian PRG for zinc was 1,600 mg/kg for the shrew, and the lowest avian PRG for zinc was 8.5 mg/kg for the woodcock (Table 3).

EPA developed Eco-SSLs in the mid- to late-2000s for several chemicals. If sufficient high-quality data were available for a chemical, Eco-SSLs protective of plants, soil invertebrates, birds, and mammals were



developed. A relatively rigorous data evaluation process was used to develop Eco-SSLs, and these are often the preferred ecological SLs by many regulatory agencies. EPA developed Eco-SSLs for lead, zinc, and copper (see https://www.epa.gov/chemical-research/interim-ecological-soil-screening-level-documents).

The lead Eco-SSLs for plants (120 mg/kg) and invertebrates (1,700 mg/kg) are above the Table 749-3 values for plants (50 mg/kg) and invertebrates (500 mg/kg). However, the lowest wildlife Eco-SSL for lead (11 mg/kg for birds) is below the Table 749-3 value of 118 mg/kg. In fact, the Eco-SSL is well below natural background concentrations in soil of much of the U.S.

The zinc Eco-SSL for plants (160 mg/kg) is above the Table 749-3 values for plants (86 mg/kg, which is background). The invertebrate Eco-SSL of 120 mg/kg is below the Table 749-3 invertebrate value of 200 mg/kg. Similarly, the lowest wildlife Eco-SSL for zinc (46 mg/kg for birds) is below the Table 749-3 value of 360 mg/kg and is also below the natural background concentration estimate of 86 mg/kg.

The copper Eco-SSL for plants (70 mg/kg) is below the Table 749-3 values for plants (100 mg/kg). The invertebrate Eco-SSL of 80 mg/kg is above the Table 749-3 invertebrate value of 50 mg/kg. The lowest wildlife Eco-SSL for copper (28 mg/kg for birds) is below the Table 749-3 value of 217 mg/kg.

The bird Eco-SSLs for lead (11 mg/kg) and copper (28 mg/kg) are below their respective regional background concentrations (see Table 1). Given that many terrestrial organisms in the U.S. have evolved with natural lead and copper concentrations above the avian Eco-SSLs for these metals, it is unlikely that these SLs are reliable predictors of threshold concentrations for adverse effects in wildlife. For this reason, Sample et al. (2019) revisited the derivation of the avian Eco-SSL for lead. They report that some of the lead toxicity test data for Japanese quail (*Coturnix japonica*) used in the Eco-SSL is highly variable and unreliable. They recommend excluding these data for Japanese quail and emphasizing chicken toxicity data, which were less variable and more reliable in TRV derivation. Sample et al. (2019) also recommend use of dose-response relationships instead of NOAELs/LOAELs as a preferred method in lead TRV development. They use a 10th percentile effective dose (ED10) as a threshold dose comparable to a NOAEL and an ED20 as comparable to a LOAEL. They calculated soil SLs for several bird indicator species, including the American robin (*Turdus migratorius*), which is the bird indicator species used by Ecology in Table 749-3. The lead soil SLs for the robin based on the ED10 was 74.6 mg/kg, and the value based on the ED20 was 180.6 mg/kg.

In a study of how exposure to lead in sediment of the Coeur d'Alene River Basin in Idaho may harm waterfowl, Beyer et al. (2000) added lead-contaminated sediment to the diet of Canada geese (*Branta canadensis*) and mallards (*Anas platyrhynchos*) in the laboratory. They estimated that the NOAEL concentration of lead in ingested sediment for waterfowl was 24 mg/kg, the LOAEL was 530 mg/kg, and the concentration associated with increased mortality was 1,800 mg/kg.

It is well known that the bioavailability of metals in soil can be strongly influenced by a variety of soil characteristics such as pH, particle size, organic carbon, reduction/oxidation conditions, and others (Langmuir et al., 2004). Eco-SSLs and comparable ecological soil SLs generally do not consider important factors that influence metal bioavailability in soil. Eco-SSLs and similar SLs are often based on toxicity studies using soluble metal salts with relatively high bioavailability. Recently, Australia has developed draft



soil quality guidelines (SQGs) protective of ecological receptors that attempt to incorporate some of the known soil factors that influence bioavailability (https://www.nepc.gov.au/sites/default/files/2022-09/schedule-b5c-guideline-soil-quality-guidelines-sep10.pdf). Consideration of factors that influence bioavailability is important because many sites have contamination that was released years in the past. Bioavailability and toxicity of many metals decreases over time because metals (especially metal ions) bind to soil particles or form complexes due to chemical and biological processes in soil (Smolders et al., 2009).

Australia SQGs were developed using toxicity data for plants, soil processes, and soil invertebrates. Three different biological effect levels were evaluated: a no-effect level typically estimated as a threshold for adverse effects in test organisms, a low-effect level representing the lowest concentrations associated with adverse effects, and a median-effect level representing concentrations associated with adverse effects in half of the test population. The sets of toxicity data for these three effect levels were as follows: (1) no observable effect concentration (NOEC) and the effective concentration associated with adverse effects in 10 percent of the test population (EC10); (2) low observable effect concentration (LOEC) and EC30; and (3) EC50. The Australia SQGs were also developed for three settings: (1) national parks with relatively pristine ecological systems warranting a high level of species protection; (2) residential and public open space; and (3) commercial and industrial lands.

The draft Australia SQGs for zinc are a function of two primary soil conditions: pH and cation exchange capacity (CEC) in moles of electric charge per kilogram of soil (cmol_c/kg). Assuming the natural background concentration of zinc in soil is 86 mg/kg (Washington background estimate), the SQGs based on LOEC/EC30 effects (comparable to many Table 749-3 toxicity data) for aged zinc in a public open space (former landfill is not a national park) range from 156 mg/kg (pH=4, CEC=5) to 1,386 mg/kg (pH=7.5, CEC=60). The pH and CEC in soil at the Site are unknown, but the pH in soil of many forested areas in western Washington is slightly acidic. Using a pH of 6.5 and mid-range CEC of 20 cmol_c/kg, the zinc SQG protective of plants and soil biota is 676 mg/kg.

For lead, the draft Australia SQG guidance reports that less than half the variance in bioavailability/toxicity of lead in soil is typically explained by factors such as pH, organic carbon content, clay content, or CEC. Therefore, these factors were not used in the draft lead SQG derivations. Assuming a natural background concentration of lead in soil of western Washington of approximately 20 mg/kg (Ecology, 1994), the Australia SQG for aged lead based on LOEC/EC30 in a public open space is 1,120 mg/kg.

In summary, most of the ecological SLs in Table 749-3 are within an order of magnitude of Eco-SSLs and similar values developed by others. One exception is the avian Eco-SSL for lead of 11 mg/kg which is an order of magnitude below several other wildlife soil SLs for lead such as the Table 749-3 values of 118 mg/kg, the sediment LOAEL for waterfowl from Beyer et al. (2000) of 530 mg/kg, and the Sample et al. (2019) ED20-based value (approximate LOAEL) for the American robin of 180.6 mg/kg (Table 3). Also, the lead Eco-SSL protective of invertebrates (1,700 mg/kg) and the Australia SQG for lead protective of plants and soil biota (1,120 mg/kg) are higher than the ORNL invertebrate SL used in Table 749-3 of 500 mg/kg. Only a single soil sample collected (DU-01 which is located at the borrow pit and outside the Site extents) had a lead concentration above the invertebrate Eco-SSL of 1,700 mg/kg, and there are reasons to think that remaining lead concentrations are below levels that cause adverse effects to soil biota. The ORNL avian PRG for zinc of 8.5 mg/kg is significantly lower than other zinc wildlife SLs. The



Australia SQG for zinc in soil is a function of soil pH and CEC. These soil characteristics have not been measured at the Site. However, if the bioavailability of aged zinc in soil at the Site were considered using the draft Australia method, it is probable the site-specific SL protective of plants and soil biota would be several hundred mg/kg and above the comparable Table 749-3 SLs for plants and soil invertebrates.



4. VEGETATION EVALUATION

To better evaluate if metals released to soil are causing adverse effects to plants, plant community characteristics (e.g., species diversity and relative abundance) were measured in areas with and without elevated concentrations of copper, lead, and/or zinc in soil. Specifically, species-specific foliar cover was estimated at both the ground and canopy levels (Bonham, 1989). Statistics were then used to evaluate if plant community metrics in impact locations with high metals concentrations were different from those in reference locations with relatively low metals concentrations. In addition to measuring plant diversity and abundance, general observations of plant health were made at each location.

4.1 METHODS

As mentioned previously, plant surveys were performed at seven impact locations and seven reference locations (see Figure 1). Impacted locations were defined as having concentrations of lead up to 501 mg/kg and/or concentrations of zinc up to 5,420 mg/kg. Reference locations were chosen based on samples with some of the lowest zinc and lead concentrations while also providing spatial diversity. An attempt was made to have impacted and reference locations at roughly equal density along an approximate east/west axis along the base of the landfill.

At each plant survey location, a 10-foot by 10-foot cell was centered around the spot where a soil sample was previously collected, and cell boundaries were either marked with flagging or visually estimated. Ground cover was estimated as the proportion of the ground in each cell that was covered (i.e., obscured) with vascular plant leaves or stems. Ground that was covered with moss was not considered plant cover in this survey. Foliar cover in the canopy was estimated as the percent of sky that was obscured by plant leaves or branches. In most cases, the vascular plant obscuring the ground or sky could be identified to the species level, but in one instance plants were identified to the genus level (i.e., *Esquisetum* spp). The minimum area over which species-specific cover was estimated was 5 percent of the cell. Percent cover could exceed 100% if leaves of different plant species overlapped. This was more common with canopy cover because the interval with leaves and branches between the observer and the sky was often over 50 feet but with ground cover only a few feet separated the observer and the ground. The approximate height interval of the plants obscuring the sky was estimated for canopy cover.

In general, two aspects of the plant community were measured and evaluated: diversity and relative abundance. Diversity reflects the number of species in a community. Relative abundance reflects how dominant or rare a species is in terms of density/biomass/cover relative to other species. Plant communities with high evenness are assemblages where the relative abundance of different species is similar, and species are considered dominant when they have high abundance relative to other plants in the community. Metrics that reflect plant diversity and relative abundance included the following:

Species richness (S) - The total number of different species in an area. Species richness is a count of the different species and is an indicator of diversity. It does not consider abundance.



Shannon Index (H) - A diversity metric that estimates entropy and considers both species richness and relative abundance (evenness). The higher the index, the greater the diversity of the community. The index is calculated as follows:

$$H = -\left(\sum_{i=1}^{k} p_i \, x \ln(p_i)\right)$$

Where:

k = Total number of species in community (or sample)

 p_i = Proportion (e.g., percent cover) of community belonging to the *i*th species

Simpson Index (D) – A measure of diversity that considers both the number of species and their relative abundance. This measure estimates the probability that two randomly selected members of the community will be of the same type. The index ranges between 0 and 1, and a higher value reflects lower diversity. The index is estimated as follows:

$$D = \sum_{i=1}^{k} p_i^2$$

Simpson Reciprocal Index (RI) – A diversity index that is the inverse of D. As mentioned above, D has the counterintuitive quality that the value decreases with increasing diversity. This index will have a minimum value of 1 when there is only a single species in the community, and the index value will increase as community diversity increases. The index is estimated as follows:

$$RI = \frac{1}{D}$$

Hypothesis testing statistics in the EPA ProUCL 5.1 (e.g., one-way analysis of variance [ANOVA]) were used to test if mean estimates of S, H, D, and RI at impact locations were different from reference areas. Alpha, the probability of rejecting the null hypothesis when the null hypothesis is true, was set at 0.05 (5%). If the P-values were above 0.05, it is inferred that there is no significant difference between impact and reference groups in plant community characteristics and that COCs concentrations in soil are not causing significant effects to plant communities.

Although the study was designed to compare impact and reference populations and not COC exposure/response relationships (i.e., changes in plant communities over a gradient of metal concentrations in soil), regression analyses were used as means to better explore the potential relationship between metals concentrations and plant community characteristics. Using either lead or zinc as independent variables, linear regression was used to evaluate how S, H, D, and RI (dependent variables) vary as a function of metal concentration in soil. Insufficient soil data were available for copper to perform informative regression analyses. Typically, when one performs a large number of statistical tests, some test results will have P-values less than 0.05 purely by chance. When multiple comparisons



are being made, statistical corrections (e.g., Bonferroni correction) are often used to prevent the inflation of false positives. However, because these are intended to be exploratory evaluations, no corrections were made to account for multiple comparisons.

General plant health was also observed in each cell. An attempt was made to record the presence of nonnative plants and evidence of plant stress due to contaminant exposure. Potential visual indicators of plant stress included wilting, chlorosis, browning, excessive mortality, and reduced growth.

4.2 RESULTS

Attachment A presents photographs of the ground and canopy at each sample location. Common names of the plant species observed, scientific names, and a four-letter acronym for each plant species is given in Table 4. Table 5 shows ground and canopy foliar cover measurements for each location, along with plant community metrics (i.e., S, H, D, and RI). Summary statistics and statistical test results are shown in Table 6. Output from QQ plots, box plots, goodness-of-fit (GOF) tests, and parametric and non-parametric one-way ANOVA tests are presented in Attachment B.

As shown in Table 5, a total of 15 vascular plant species were observed to be covering at least 5% of the ground or canopy in the fourteen 10-foot by 10-foot survey cells. None of these plants are considered invasive or non-native species. In fact, few non-native plant species were observed in the wetland outside of the survey cells.

There was no obvious visual evidence of plant stress due to the potential toxic effects of exposure to metals in soil. However, due to the time of year, some mainly annual plants showed signs of chlorosis that appeared to be the result of natural senescence. For the most part, these plants appeared to have already flowered. None of these yellowed plants were common or abundant, and none had foliar cover of over 5% of the ground or canopy.

As shown in Table 6, mean plant community diversity and relative abundance metrics based on measurements of both ground and foliar cover are similar in reference and impact areas. Parametric and nonparametric one-way ANOVA (i.e., Kruskal Wallis H test) were used to test whether mean plant community metrics were significantly different between impact and reference populations (ProUCL 5.1 ANOVA output is in Attachment B). For both ground and canopy cover, plant community data (i.e., S, H, D, and RI) characteristics generally met the assumptions of parametric ANOVA, with some potential exceptions. For example, with ground cover, GOF tests and QQ plots show that most plant community data have approximately normal distributions (see Attachment B). GOF tests and QQ plots show that many of the plant community metrics for canopy cover also appear to have a normal distribution, although some do not show a discernable distribution (Attachment B). A visual inspection of box plots suggests variance in ground cover data may be similar between impact and reference populations, although impact populations may have higher variance for some metrics. Based on inspection of box plots, the variance in canopy cover plant community data appear more similar (Attachment B). In general, plant community data appear to meet the assumptions of parametric ANOVA. However, there may be cases where data do not meet the assumptions of parametric ANOVA. Results of both parametric and nonparametric ANOVA are reported in Table 6.

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As shown in Table 6, parametric and nonparametric ANOVA results indicate that there are no significant differences in mean S, H, D, or RI for ground and canopy cover between impact and reference populations. In fact, a brief inspection of the raw plant metric scores and their means and standard deviations suggests that there is considerable similarity between the two groups. Based on these results, there is no evidence to suggest that exposure to COCs in soil has caused significant changes to plant species diversity or relative abundance.

Ordinary least squares regression was used to explore potential exposure/response relationships between concentrations of lead and zinc in soil and plant community characteristics. The sample size for copper is too small to develop informative associations between soil concentrations and plant community characteristics. Table 7 presents regression statistics (e.g., intercept, slope, F-value, P-value), and Attachment C gives ProUCL output along with graphs of S, H, D, and RI as a function of lead and zinc concentrations. As shown in Table 7, plant diversity and relative abundance in the canopy was poorly associated with lead and zinc concentrations. For example, slopes of the relationships were small (also see graphs in Attachment C), and P-values were generally well above 0.05. The exception was zinc and canopy plant species richness (Table 7). In this case, the highest species richness was observed at the location with the highest concentration of zinc in soil (Attachment C). No attempt was made to investigate plant community characteristics over a gradient of zinc concentrations, and this particular observation is unlikely to reflect a general relationship. It is unlikely that high zinc concentrations somehow promote plant species richness.

In general, plant community characteristics based on ground cover (diversity and relative abundance) were also poorly associated with lead and zinc concentrations (Table 7, Attachment C). However, there were exceptions. Plant community characteristics of ground cover were positively associated with concentrations of lead in soil (Table 7, Attachment C). It appears that these apparent associations were driven by a location with relatively high concentrations of lead that happened to also have relatively high plant diversity and abundance. No lead gradient in soil was intentionally investigated, there were only a couple of locations that had exceptionally high lead levels, and one of these locations happened to have high plant diversity and abundance. There is little reason to think that high lead levels in soil promote plant diversity and abundance.



5. SOIL INVERTEBRATE EVALUATION

Consistent with WAC 173-340-7493(3)(e), a site-specific field study of terrestrial invertebrate (earthworms) abundance in impact and reference areas was performed to evaluate if COCs in soil are causing adverse effects to soil-dwelling invertebrates. Five impact areas and five reference areas were evaluated. These areas were a subset of the 14 plant survey areas (see Figure 1). Again, impact areas selected for invertebrate surveys had relatively high concentrations of COCs compared to reference areas (Table 2). Hypothesis testing statistics were used to evaluate if the mean abundance of worms in impact areas is different from that in reference areas.

5.1 METHODS

Within each of the 10-foot by 10-foot plant survey grid cell that were centered around soil sample locations, five pits were dug and the soil in these pits was surveyed for the presence of worms. A 1-foot diameter metal cylinder was used to define the boundaries of pits. Each pit was excavated to a depth of 6 inches. The contents of pits were sorted by hand for worms. Two types of worms were recorded: pot worms (family Enchytraeidae) and earthworms (family Lumbricidae or Megascolecidae). These worms were not identified to the level of species. Although there are native earthworms in western Washington (many from family Megascolecidae), invasive worms from Europe are common (many in family Lumbricidae). Both pot worms and earthworms belong to the phylum Annelida. Pot worms are white and typically smaller than earthworms. Earthworms are typically gray and have a glandular swelling in the anterior portion of the body called the clitellum. Attachment D shows photographs of the metal cylinder used to define pit boundaries along with pot worms and earthworms that were found in soil.

Hypothesis testing statistics (e.g., ANOVA) were used to test if mean earthworm and total worm abundance at impact areas were different from reference areas. The probability of rejecting the null hypothesis when the null hypothesis is true (alpha) was set at 0.05. If the P-values were above 0.05, it is inferred that there is no significant difference between impact and reference groups in worm abundance and that COC concentrations in soil are not causing significant effects to soil invertebrate communities.

Regression analyses were used to explore the potential relationship between metals concentrations in soil and worm abundance. Lead or zinc were set as independent variables, and linear regression was used to evaluate how total worm abundance varies as a function of metal concentration in soil. Insufficient copper data were available for these regression analyses. Again, no statistical corrections (e.g., Bonferroni correction) were used to account for multiple comparisons.

5.2 RESULTS

Table 8 gives the number of earthworms and pot worms found in the five replicate pits excavated at each of the impact and reference areas. Earthworms were found in over 70 percent of sample pits, and numbers per pit ranged from 0 to 10. Pot worms were found in less than 30 percent of pits, and numbers ranged from 0 to 8.



The mean and standard deviation of earthworms and total worms was similar between reference and impact groups (Table 9). Because pot worms were infrequently detected, ANOVA statistics were calculated for earthworm and total worm abundance. An inspection of GOF tests and QQ plots suggests that earthworm and total worm abundance data do not fit a normal distribution (see Attachment E). A visual inspection of box plots suggests variance in earthworm and total worm abundance may be higher in the reference population relative to the impact populations (Attachment E). Worm abundance data do not appear to meet the assumptions of parametric ANOVA, and nonparametric ANOVA test results appear to be most appropriate. However, both nonparametric and parametric one-way ANOVA results are reported in Table 9.

As shown in Table 9, nonparametric (and parametric) ANOVA results indicate that there are no significant differences in mean earthworm and total worm abundance between impact and reference groups. Instead, earthworm and total worm abundance are very similar between the two groups. These results indicate no evidence that exposure to COCs in soil has caused significant changes to worm abundance.

It should be noted that no worms were detected in soil at location 05E, which was a reference area. The soil type at this location was noticeably different than that found at the other locations. Soil at location 05E was mainly sand (see Appendix A of the RI/FS). Although speculative, it is possible that worms may avoid sandy soil, especially if more preferable substrates are nearby. The mean abundance of earthworms and total worms in the impact group is 3.40 and 4.60, respectively (Table 9). Mean abundance of earthworms and total worms in the reference group is 2.84 and 3.28, respectively (Table 9). Worm abundance in the impact group is consistently higher than in the reference group. When results from location 05E are removed, mean worm abundance of the reference group is more similar to that of the impact group. Mean earthworm and total worm abundance of the reference group after removal of location 05E data are 3.55 and 4.10, respectively. It appears that worm abundance in impact and reference areas are very similar in locations with comparable soil types.

Regression was used to explore potential exposure/response relationships between concentrations of lead and zinc in soil and total worm abundances. Table 7 presents regression statistics (e.g., intercept, slope, F-value, P-value), and Attachment C gives ProUCL output along with graphs of worm abundance as a function of lead and zinc concentrations. As shown in Table 7, total worm abundance was poorly associated with lead and zinc concentrations. Again, there is no evidence that elevated concentrations of lead or zinc in soil have caused adverse effects to soil invertebrates.



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6. DEPTH-WEIGHTED RECEPTOR ADJUSTMENT

Ecological receptors are likely to have different exposures to soil at different depths depending on their natural history characteristics. For example, most wildlife that forage on the ground surface are likely to have highest exposure to surface soil (i.e., 0 to 6 inches below ground surface [bgs]). Wildlife that typically live and forage below ground (i.e., moles, pocket gophers) are likely to have highest exposures to subsurface soil (over 6 inches bgs). It should be noted that no evidence of burrowing wildlife was noted in the wetlands, likely because most soil is saturated and muddy, and unlikely to structurally support burrows. Many of the wetland plants have shallow root systems. As discussed in the WOE Work Plan (GSI, 2022), the density of small plant roots was used as an indicator of ecological exposure intensity with depth.

Although not explicitly quantified, it was clear during soil excavations to enumerate worms that almost all of the small plant roots were found in the 0 to 6 inches bgs soil interval. Similarly, almost all worms found in soil were associated with small plant roots. Although several attempts were made to photograph small plant roots, relative root density is poorly illustrated in photos. Attachment F presents photographs of excavated roots at five different locations: near 02C, 02B, 03B, 02A, and one location not near a soil sample. The proportion of all roots in the excavation that were within the 0 to 6 inches bgs soil interval were 0.9, 0.95, 1, 0.95, and 0.95, respectively. However, relative plant root density was best determined through both sight and feel, and visual patterns of relative root density with depth are not obvious in the photographs.

Depth-weighted soil exposure concentrations were estimated using Ecology's Depth Weighted Receptor Adjustment Equation (Ecology, 2017):

$$C_{ea} = (C_{c(1)} \times Pr_{(1)}) + (C_{c(2)} \times Pr_{(2)})$$

Where:

Cea = Exposure adjusted contaminant concentration

 $C_{c(1)}$ = Soil contaminant concentration at sample depth 1 (0 to 6 inches bgs)

 $C_{c(2)}$ = Soil contaminant concentration at sample depth 2 (6 to 12 inches bgs)

 $Pr_{(1)}$ = Proportion of receptor exposure at sample depth 1

 $Pr_{(2)}$ = Proportion of receptor exposure at sample depth 2

There were limited copper data, so this evaluation focused on lead and zinc. As shown in Table 10, lead and zinc concentrations in surface soil (0 to 6 inches bgs) were available for all locations. At a subset of these locations, lead and zinc sample results were also available for subsurface locations: 6 to 12 inches bgs and 12 to 24 inches bgs. However, as noted above, very few small plant roots were found below 6 inches bgs, and data from the 12 to 24 inches bgs interval were not used to estimate depth-weighted exposure concentrations. Pr₍₁₎ (proportion of receptor exposure for the 0 to 6 inches bgs depth interval)



was set at 0.95, and $Pr_{(2)}$ was set at 0.05. If no subsurface soil samples were available for a location, only the available surface soil results were used. For locations with duplicate sample results, only concentrations in the primary sample were used.

Depth-weighted exposure concentrations are presented in Table 10. These data were used to estimate a depth-weighted EPC for ecological receptors. The EPC is an estimate of the long-term average concentration an ecological receptor, or population of receptors, may experience at the Site. Because there is uncertainty associated with estimating the population mean from a sample, the 95% UCL on the mean was used as the EPC (EPA, 1989). ProUCL was used to estimate 95 UCLs based on depth-weighted lead and zinc concentrations. ProUCL output is given in Attachment G, and the depth-weighted 95 UCLs about the means are as follows:

- Lead EPC = 225 mg/kg
- Zinc EPC = 1,799 mg/kg

Hazard quotients (HQs) are estimated as the ratio of the depth-weighted EPC over an ecological SL. HQs for lead and zinc are given below for plants, soil biota, and wildlife. The HQs are based on the Table 749-3 ecological SLs along with some of the alternative SLs discussed in Section 2.

Lead HQs based on the Table 749-3 SLs for plants (50 mg/kg), soil biota (500 mg/kg), and wildlife (118 mg/kg) are as follows: Plant HQ = 4.5, Soil biota HQ = 0.5, and Wildlife HQ = 1.9. If we use the EPA Eco-SSLs for plants (120 mg/kg) and invertebrates (1,700 mg/kg), along with the Sample et al. (2019) SL for the American robin for wildlife, the HQs for lead are as follows: Plant HQ = 1.9, Soil biota HQ = 0.1, and Wildlife HQ = 1.3. Based on these HQs, lead in soil is not expected to cause adverse effects to soil-dwelling invertebrates. The draft Australia lead SQG protective of plants and soil biota based on LOEC/EC30 in a public open space is 1,120 mg/kg and well above the lead EPC.

Using Table 749-3 zinc SLs for plants (86 mg/kg based on background), soil biota (200 mg/kg) and wildlife (360 mg/kg), HQs are as follows: Plant HQ = 20.9, Soil biota HQ = 9, and Wildlife HQ = 5. If we use the EPA Eco-SSL for plants (160 mg/kg), the Plant HQ = 11.2. HQs for plants and soil biota are likely to be lower if bioavailability of zinc in soil were to be considered consistent with the draft Australia SQG approach.

In summary, with the exception of the lead HQ for soil biota, HQs based on depth-adjusted EPCs are above the acceptable risk level of 1. Ecological SLs for metals can often overestimate ecological toxicity. For example, roughly one third of the plant, invertebrate or wildlife EPA Eco-SSLs for metals are below typical natural concentrations in soil of some portion of the U.S. (https://www.epa.gov/chemical-research/interim-ecological-soil-screening-level-documents). It is unlikely that ubiquitous natural metals concentrations in soil are causing unacceptable adverse effects to ecological receptors. Instead, metal bioavailability strongly influences ecological toxicity, and many ecological SLs are based on toxicity studies using fresh metal salts with high bioavailability. These relatively high bioavailability metals often differ from the forms of metals found at older historical metals release sites. It seems likely based on results of the Site-specific evaluation that the above SLs overestimate lead and zinc risks to ecological receptors.



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7. WILDLIFE BEHAVIOR EVALUATION

A series of four remote motion sensor game cameras were stationed at various locations within the wetland area to allow for the monitoring of wildlife over a period of approximately 4 weeks. Two cameras were set up to view animals on established game trails, and two were oriented towards trees supporting bait-baskets filled with suet. Bait-baskets with suet were placed approximately 15 feet from the camera. Cameras were set up to record one-minute videos when motion is detected. Videos from the cameras were analyzed for behaviors or characteristics associated with excess contaminant uptake in wildlife, including (but not limited to):

- Muscular incoordination
- Debility
- Slowness
- Jerkiness
- Falling
- Hyperactivity
- Fluffed feathers
- Drooped eyelids
- Seizure

Table 11 presents information regarding the date and time a video was recorded along with the animals present in the video. A total of 22 videos were recorded. Of these, 13 videos captured birds or mammals, and 9 showed no apparent wildlife. Animals clearly visible in videos included Steller's jay, raccoons, blacktailed deer, coyote, black bear, Cooper's hawk, and Douglas squirrels. None of the animals observed in videos appeared to be sick or injured, nor did they display behavior suggesting that they were ill or unhealthy. To the contrary, all wildlife appeared healthy and vital. For example, the coyote appears to have a thick coat, perhaps in preparation for winter, and the squirrels and raccoons moved swiftly and smoothly over the landscape. Several videos show wildlife foraging in a natural manner, and many of the feeding behaviors appear to be complex (e.g., raccoon washing food).



8. WEIGHT OF EVIDENCE EVALUATION

Based on a WOE ecological evaluation using results of multiple independent investigations, there is a low probability that elevated concentrations of COCs in soil at the Site are causing unacceptable adverse effects to terrestrial ecological receptors. The most relevant and reliable evidence to evaluate potential effects of metals exposure on ecological receptors is direct measurement of ecological conditions in the field. Plant diversity and relative abundance along with the abundance of earthworms and pot worms (worms were used as indicators of soil-dwelling invertebrates) were measured in impact areas with relatively high concentrations of metals in soil, and reference areas with relatively low metals concentrations. No evidence of adverse effects of metal exposure on plants or soil invertebrates was found. Instead, the plant and invertebrate communities in impact and reference areas were very similar, consistent with expectations if there were no significant adverse effects due to exposure to metals in soil.

There were no obvious visual signs that conditions at the Site caused adverse effects to plants or wildlife. With the exception of seasonal changes in plant conditions (i.e., natural senescence of annual plants), there were no obvious indications of poor plant health due to metals toxicity. Wildlife were observed in the wetlands near the toe of the landfill, along with signs of wildlife such as deer and bear prints in muddy soil. Several birds and a frog in the genus *Rana* (not captured and could not be identified to species) were observed in the wetlands. There was no obvious evidence that wildlife were more abundant outside of metal-impacted areas of the wetland.

Several individuals from seven different bird and mammal species were captured on videos from wildlife cameras. None of the birds or mammals observed in videos appeared to be unhealthy. To the contrary, all wildlife appeared to be vigorous and were behaving in a natural manner. Again, there is no evidence that wildlife were adversely impacted by metals in soil.

The least reliable line of evidence available to evaluate ecological effects is comparisons of metals concentrations with conservative ecological SLs. Based on screening-level ecological risks using a depth-weighted EPC, lead in soil is not expected to cause adverse effects to soil-dwelling invertebrates. Also, based on comparisons with an alternative SL, lead would not exceed the acceptable risk level for wildlife if the HQ is expressed with one significant digit. Screening-level risks that lead may pose to plants is low (HQ<2). Plant, soil biota, and wildlife HQs for zinc in soil are at or above 5. As discussed previously, many ecological SLs overestimate risks because they are based on toxicity studies using forms of metals with relatively high bioavailability.

There is no evidence that COCs in soil are causing adverse impacts to plant or invertebrate communities in the wetland area. Plant diversity and abundance along with invertebrate abundance are similar in areas with relatively high concentrations of landfill-related chemicals (e.g., copper, lead, zinc, and perhaps petroleum hydrocarbons) compared to areas with low concentrations of these chemicals. Therefore, the highest concentrations of COCs in soil of the wetland area may represent site-specific "no-effect" concentrations that are protective of local ecological receptors. For example, two of the three highest concentrations of zinc in soil were from impact station HA-02E. As shown in Table 5, plant diversity and abundance measures at this location were typical of most other survey sites and were not especially low. Similarly, worm abundance at HA-02E was relatively high. The two survey locations with the highest



concentrations of lead were 05A and 06D. Again, plant diversity and abundance at 06D is relatively high, and typical at 05A. Invertebrate density is relatively high at both 05A and 06D. Although there are fewer results for copper, the highest concentration was at 02C. Although no invertebrates were sampled at this location, measures of plant diversity and abundance were similar to many other locations. The highest concentrations of copper, lead, and zinc in wetland area soils that appear to be protective of local biota are 208 mg/kg, 501 mg/kg, and 5,420 mg/kg, respectively (Table 2).



9. REFERENCES

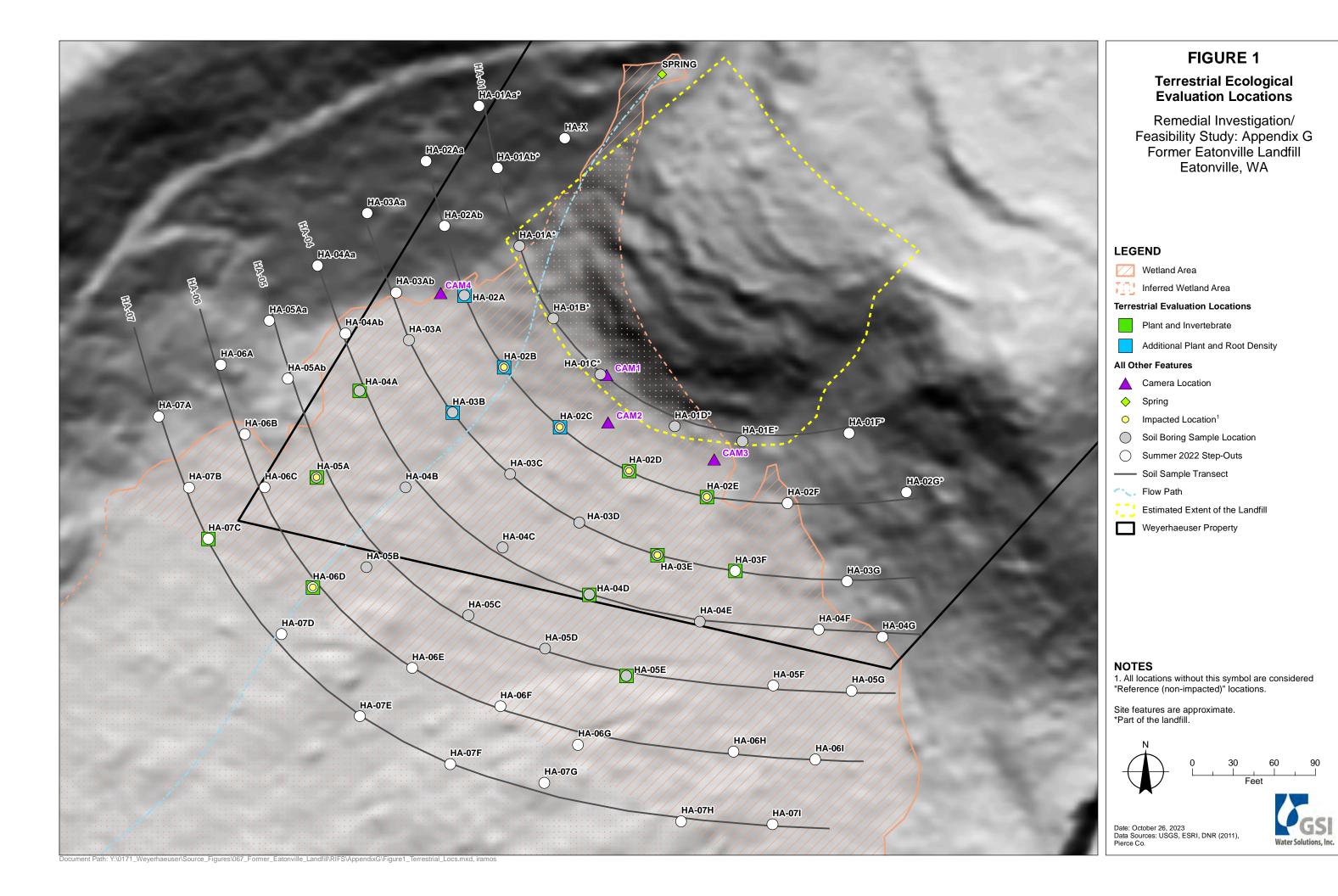
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FIGURE





TABLES

Table 1. Background Metals Concentrations in Soil

Metal	Units	Number of Wetland Area Samples ^a	Number of Detections	Statistical Distribution	Max Location	Max Concentration Depth Interval (ft)	Max Concentration in Wetland Area (mg/kg)	Natural Background (mg/kg)	Wetland Area Data 95% UCL (mg/kg)	Lowest Ecological SL (mg/kg)
Arsenic	mg/kg	25	21	Normal	HA-02E	0-0.5	12.5	7 ^b	4.6	10
Barium	mg/kg	25	25	Normal	HA-02D	0-0.5	116	780.4 ^c	80	102
Beryllium	mg/kg	25	4	Normal	HA-02C	0-0.5	0.85	2 ^b	0.3	10
Cadmium	mg/kg	25	18	Normal	HA-02D	0-0.5	5.03	1 ^b	1.7	4
Total Chromium	mg/kg	25	25	Normal	HA-03A	0-0.5	26.01	42 ^b	16.5	42
Hexavalent Chromium	mg/kg	25	25		_	_	ND	-	ND	_
Cobalt	mg/kg	25	21	Normal	HA-02E	0-0.5	82.3	29.19 ^c	12.3	20
Copper	mg/kg	25	25	Normal	HA-02C	0-0.5	208	36 ^b	68.6	50
Lead	mg/kg	80	80	Gamma	HA-06D	0-0.5	501	17 ^b	111	50
Nickel	mg/kg	25	20	Normal	HA-02C	0-0.5	51.4	38 ^b	18.6	30
Vanadium	mg/kg	25	25	Normal	HA-03A	0-0.5	38.8	243.9 ^c	34.1	2
Selenium	mg/kg	25	0	_	_	_	ND	0.611 ^c	ND	1
Thallium	mg/kg	25	0	_	_	_	ND	0.374 ^c	ND	1
Zinc	mg/kg	90	90	Normal	HA-02D	0.5-1.0	5,420	86 ^b	889.3	86

Retained as a wetland metal COC

Screening factor that eliminates consideration as a COC

— = not applicable

mg/kg = milligrams per kilogram

ND - Non Detect

SL = screening level

UCL = upper confidence limit

UTL = upper tolerance limit

^a All discrete samples from the wetland area that includes transects HA-02 through HA-07.

^b Washington State Department of Ecology 90th percentile Statewide background value

^c USGS 2013 top 5 cm in mixed forest setting 90% Upper Tolerance Limit (UTL)/90% Coverage

Table 2. Concentrations of COCs at Plant and Invertebrate Survey Locations

Tubio El	oon contractors	o oi cocs at ria	ire arra irre	0.00.00	
Station	Group	Sample Depth	Copper	Lead	Zinc
		(feet bgs)	(mg/kg)	(mg/kg)	(mg/kg)
HA-02A	Reference	0.0-0.5	29.5	38.5	76
HA-02A	Reference	0.5-1.0	_	57.5	90
HA-02A	Reference	1.0-2.0	_	_	48
HA-02B	Impact	0.0-0.5	44	86.6	486
HA-02B	Impact	0.5-1.0	_	48.6	537
HA-02B	Impact	1.0-2.0	_	_	286
HA-02C	Impact	0.0-0.5	208	172	1,940
HA-02C	Impact	0.5-1.0	_	158	2,520
HA-02C	Impact	1.0-2.0	_	_	142
HA-02D	Impact	0.0-0.5	61.1	163	3,420
HA-02D	Impact	0.5-1.0	_	60.1	5,420
HA-02D	Impact	1.0-2.0	_	_	613
HA-02E	Impact	0.0-0.5	182	80.4	3,920
HA-02E	Impact	0.5-1.0	_	15.2	4,290
HA-02E	Impact	1.0-2.0	_	_	418
HA-03B	Reference	0.0-0.5	21.2	88.9	107
HA-03B	Reference	0.5-1.0	_	35.2	77
HA-03B	Reference	1.0-2.0	_	_	20
HA-03E	Impact	0.0-0.5	33.7	62.3	3,600
HA-03E	Impact	0.5-1.0	_	16.7	1,560
HA-03E	Impact	1.0-2.0	_	_	1,190
HA-03F	Reference	0.0-0.5	_	55.5	40
HA-04A	Reference	0.0-0.5	_	94	200
HA-04D	Reference	0.0-0.5	_	109	185
HA-05A	Impact	0.0-0.5	_	373	59
HA-05E	Reference	0.0-0.5	_	87.7	10
HA-06D	Impact	0.0-0.5	_	501	410
HA-07C	Reference	0.0-0.5	_	112	33
Mean All Ir	mpact Samples		106	145	1,812
Mean All R	eference Sample	es es	25	75	80
Impact/Re	ference, All Samរុ	oles	4	2	23
Mean <0.5	' Impact Samples	5	106	205	1,976
Mean < 0.5	' Reference Samլ	ples	25	84	93
Impact/Re	ference, <0.5' Sa	mples	4	2	21
Maximum	Concentration		208	501	5,420
Backgroun	d		36	17	86
Maximum	Background		6	29	63
Lowest Eco	ological SL		50	50	86
Maximum,	Ecological SL		4	10	63

Invertebrate survey areas in *italics* (02D, 02E, 03E, 03F, 04A, 04D, 05A, 05E, 06D, 07C)

— = not applicable

bgs = below ground surface

COC = contaminant of concern

mg/kg = milligrams per kilogram

SL = screening level

Table 3. Toxicity Data

	Cop	Copper SLs (mg/kg)		Lead SLs (mg/kg)			Zinc SLs (mg/kg)		
Source	Plants	Soil Biota	Wildlife	Plants	Soil Biota	Wildlife	Plants	Soil Biota	Wildlife
WAC 173-340-900, Table 749-3 ^{1,2,3}	100	50	217	50	500	118	86	200	360
EPA Eco-SSLs ⁴	70	80	28	120	1,700	11	160	120	46
ORNL PRGs ⁵			370			40.5			8.5
Beyer et al., 2000 ⁶	_	_	_	_	_	530	_	_	_
Sample et al., 2019 (ED10) ⁷				_	_	75.6	_	_	_
Sample et al., 2019 (ED20) ⁸				_	_	180.6	_	_	_
NEPC, 2011				_	_	1,120	676	676	156 - 1,386

- = not applicable

Eco-SSL = Ecological Soil Screening Level

ED = Effective dose

EPA = U.S. Environmental Protection Agency

LOAEL = Lowest Observed Adverse Effect Level

NOAEL = No Observed Adverse Effect Level

ORNL = Oak Ridge National Laboratory

PRG = Preliminary Remediation Goal

SL = screening level

REFERENCES

Beyer, W.N., D.J. Audet, G.H. Heinz, D.J. Hoffman, and D. Day. 2000. Relation of Waterfowl Poisoning to Sediment Lead Concentrations in the Coeur d'Alene River Basin. Ecotoxicology 9, 207–218. National Environmental Protection Council (Australia). 2011. Schedule B5c: Guideline on soil quality guidelines for Arsenic, Chromium (III), Copper, DDT, Lead, Naphthalene, Nickel & Zinc

Efroymson, R.A., G.W. Suter II, B.E. Sample, and D.S. Jones. 1997. Preliminary Remediation Goals for Ecological Endpoints. ES/ER/TM-162/R2, Oak Ridge National Laboratory, Environmental Sciences Division. August

¹ Plant soil screening levels in Table 749-3 are based on the ORNL 1997 Toxicological Benchmarks for Screening Potential Contaminants of Concern for Effects on Terrestrial Plants: 1997 Revision (Efroymson et al., 1997a)

² Biota soil screening levels in Table 749-3 are based on the ORNL 1997 Toxicological Benchmarks for Potential Contaminants of Concern for Effects on Soil and Litter Invertebrates and Heterotrophic Process: 1997 Revision (Efroymson et al., 1997b)

³ Wildlife soil screening levels

⁴ Eco-SSLs. Copper: Avian=28 mg/kg, Mammalian=49 mg/kg. Lead: Avian=11 mg/kg, Mammalian=56 mg/kg. Zinc: Avian=46 mg/kg, Mammalian=79 mg/kg.

⁵ Copper: Lowest Avian=515 mg/kg for woodcock, Lowest Mammalian=370 mg/kg for shrew. Lead: Lowest Avian=40.5 mg/kg for woodcock, Lowest Mammalian=740 mg/kg for shrew. Zinc: Lowest Avian=8.5 mg/kg for woodcock, Lowest Mammalian=1600 mg/kg for shrew.

⁶ Lowest-Observed-Adverse-Effect-Level for waterfowl (Beyer et al., 2000)

⁷ 10th percentile effective dose (ED10), comparable to the NOAEL, for the American robin (*Turdus migratorius*). This study sought to update the Eco-SSL for lead, which is lower than background level in most areas of the U.S., using more applicable species and methodologies.

⁸ 20th percentile effective dose (ED20), comparable to the LOAEL, for the American robin (*Turdus migratorius*). This study sought to update the Eco-SSL for lead, which is lower than background level in most areas of the U.S., using more applicable species and methodologies.

Table 4. Names of Plants Observed

Common Name	Scientific Name	Acronym
Bigleaf maple	Acer macrophyllum	ACMA
Devil's club	Oplopanax horridus	ОРНО
False lilly of the valley	Maianthemum dilatatum	MADI
Horsetail	Equisetum spp	EQSP
Piggyback plant	Tolmiea menziesii	TOME
Red alder	Alnus rubra	ALRU
Red elderberry	Sambucus racemosa	SARA
Redwood sorrel	Oxalis oregana	OXOR
Salmonberry	Rubus spectabilis	RUSP
Skunk cabbage	Lysichiton americanus	LYAM
Stinging nettle	Urtica dioica	URDI
Vine maple	Acer circinatum	ACCI
Western bracken fern	Pteridium aquilinum	PTAQ
Western hemlock	Tsuga heterophylla	TSHE
Western sword fern	Polystichum munitum	POMU

Table 5. Plant Ground Cover, Canopy Cover, and Community Metrics

Station	I/R	Date	G/C	Species ¹	Foliar Cover	Total Cover	Richness (S)	Shannon (H)	Simpson (D)	Simpson (RI)
04A	R	9/7/2022	G	ACCI	0.2	0.4	3	2.08	0.38	2.67
04A	R	9/7/2022	G	LYAM	0.1					
04A	R	9/7/2022	G	TOME	0.1					
04A	R	9/7/2022	С	ACCI	1	1.05	2	0.38	0.91	1.10
04A	R	9/7/2022	С	RUSP	0.05					
05A	Ι	9/7/2022	G	TOME	0.1	0.4	6	3.47	0.19	5.33
05A	Ι	9/7/2022	G	OPHO	0.1					
05A	Ι	9/7/2022	G	RUSP	0.05					
05A	Ι	9/7/2022	G	LYAM	0.05					
05A	ı	9/7/2022	G	POMU	0.05					
05A	_	9/7/2022	G	PTAQ	0.05					
05A	_	9/7/2022	C	ALRU	1	1.5	3	1.72	0.50	1.99
05A	Ι	9/7/2022	С	OPHO	0.3					
05A	Ι	9/7/2022	С	RUSP	0.2					
06D	I	9/7/2022		LYAM	0.05	0.2	4	2.77	0.25	4.00
06D	_	9/7/2022	G	POMU	0.05					
06D	Ι	9/7/2022	G	PTAQ	0.05					
06D	Ι	9/7/2022	G	RUSP	0.05					
06D	Ι	9/7/2022	С	ACCI	1	1	1	0.00	1.00	1.00
07C	R	9/8/2022	G	TOME	0.4	0.5	3	1.28	0.66	1.52
07C	R	9/8/2022	G	ACCI	0.05					
07C	R	9/8/2022	G	LYAM	0.05					
07C	R	9/8/2022	С	ACCI	0.7	0.8	2	0.75	0.78	1.28
07C	R	9/8/2022	С	RUSP	0.1					
02D	I	9/8/2022	G	TSHE	0.2	0.4	4	2.43	0.34	2.91
02D	I	9/8/2022		PTAQ	0.1					
02D	ı	9/8/2022		LYAM	0.05					
02D	ı	9/8/2022		EQSP	0.05					
02D	ı	9/8/2022	С	TSHE	0.9	1.5	3	1.71	0.48	2.10
02D	ı	9/8/2022		ALRU	0.5					
02D	ı	9/8/2022	С	ACCI	0.1					
02E	ı	9/8/2022		EQSP	0.4	0.6	4	1.97	0.49	2.06
02E	I	9/8/2022		LYAM	0.1					
02E	I	9/8/2022		RUSP	0.05					
02E	ı	9/8/2022		URDI	0.05					
02E	I	9/8/2022		ALRU	0.9	1.3	4	1.69	0.54	1.87
02E	I	9/8/2022		ACMA	0.3					
02E	I	9/8/2022		SARA	0.05					
02E	ı	9/8/2022		RUSP	0.05					
03E	ı	9/8/2022		MADI	0.1	0.1	1	0.00	1.00	1.00
03E	ı	9/8/2022		TSHE	1	1.8	3	1.96	0.41	2.42
03E	I	9/8/2022		ALRU	0.5					
03E	ı	9/8/2022		ACCI	0.3					
04D	R	9/8/2022		LYAM	0.3	0.4	2	1.12	0.63	1.60
04D	R	9/8/2022		MADI	0.1					
04D	R	9/8/2022	С	TSHE	0.9	1.7	2	1.38	0.50	1.99

Table 5. Plant Ground Cover, Canopy Cover, and Community Metrics

Station	I/R	Date	G/C	Species ¹	Foliar Cover	Total Cover	Richness (S)	Shannon (H)	Simpson (D)	Simpson (RI)
04D	R	9/8/2022	С	ALRU	0.8					
05E	R	9/8/2022	G	PTAQ	0.3	0.6	3	2.02	0.39	2.57
05E	R	9/8/2022	G	OXOR	0.2					
05E	R	9/8/2022	G	RUSP	0.1					
05E	R	9/8/2022	С	ALRU	0.5	0.8	3	1.80	0.47	2.13
05E	R	9/8/2022	С	ACMA	0.2					
05E	R	9/8/2022	С	ACCI	0.1					
03F	R	9/8/2022	G	ACCI	0.1	0.1	1	0.00	1.00	1.00
03F	R	9/8/2022	С	ACCI	1	2	2	1.39	0.50	2.00
03F	R	9/8/2022	С	ALRU	1					
02C	I	9/8/2022	G	PTAQ	0.1	0.2	3	2.08	0.38	2.67
02C	I	9/8/2022	G	TOME	0.05					
02C	I	9/8/2022	G	EQSP	0.05					
02C	1	9/8/2022	С	ALRU	0.6	0.7	3	1.02	0.74	1.34
02C	1	9/8/2022	С	ACCI	0.05					
02C	I	9/8/2022	С	TSHE	0.05					
02B	-1	9/8/2022	G	EQSP	0.8	0.85	2	0.45	0.89	1.12
02B	- 1	9/8/2022	G	URDI	0.05					
02B	- 1	9/8/2022	С	ALRU	0.7	0.8	2	0.75	0.78	1.28
02B	-1	9/8/2022	С	RUSP	0.1					
03B	R	9/8/2022	G	ACCI	0.2	0.3	2	1.27	0.56	1.80
03B	R	9/8/2022	G	RUSP	0.1					
03B	R	9/8/2022	С	ACCI	0.9	1.8	2	1.39	0.50	2.00
03B	R	9/8/2022	С	ALRU	0.9					
02A	R	9/8/2022	G	LYAM	0.1	0.25	4	2.66	0.28	3.57
02A	R	9/8/2022	G	TOME	0.05					
02A	R	9/8/2022	G	POMU	0.05					
02A	R	9/8/2022	G	RUSP	0.05					
02A	R	9/8/2022	С	TSHE	1	1.6	3	1.80	0.47	2.13
02A	R	9/8/2022	С	ALRU	0.4					
02A	R	9/8/2022	С	ACCI	0.2					

C = Canopy Cover

G= Ground Cover

I = Impacted Area

R = Reference Area

 $^{^{1}}$ See Table 4 for the definitions of these acronyms.

Table 6. Plant Community Indices: Mean, Standard Deviation, Parametric and Nonparametric ANOVA

	Maan	CD	One-way	y ANOVA	Kruskal V	Vallis Test	
	Mean	SD	F	P-value	H Stat	P-value	
Ground Community	Richness (S,)					
Impact	3.43	1.62	1.44	0.25	1.32	0.25	
Reference	2.57	0.98	1.44	0.23	1.32	0.25	
Canopy Community Richness (S)							
Impact	2.71	0.95	1.13	0.31	1.32	0.25	
Reference	2.29	0.49	1.13	0.31	1.32	0.23	
Ground Community Shannon Index (H)							
Impact	1.88	1.24	0.46	0.51	0.69	0.41	
Reference	1.49	0.86	0.40	0.51	0.03	0.41	
Canopy Community .	Shannon In	dex (H)					
Impact	1.26	0.71	0.00	0.99	0.02	0.90	
Reference	1.27	0.53	0.00	0.33		0.90	
Ground Community .	Simpson Ind	dex (D)					
Impact	0.51	0.32	0.11	0.74	0.69	0.41	
Reference	0.56	0.24	0.11	0.74	0.03	0.41	
Canopy Community .	Simpson Inc	dex (D)		_			
Impact	0.64	0.21	0.19	0.67	0.41	0.52	
Reference	0.59	0.18	0.19	0.07	0.41	0.52	
Ground Community .	Simpson Re	ciprocal Inc	dex (RI)				
Impact	2.73	1.55	0.86	0.37	0.69	0.41	
Reference	2.10	0.88	0.80	0.57	0.03	0.41	
Canopy Community .	Simpson Re	ciprocal Ind	lex (RI)				
Impact	1.72	0.51	0.13	0.73	0.41	0.52	
Reference	1.81	0.43	0.13	0.75	0.41	0.32	

ANOVA = analysis of variance

SD = Standard Deviation

Table 7. Regression of Plant Community Metrics and Worm Abundance on Lead and Zinc Concentrations in Soil

Independent Variable	Dependent Variable	Number (n)	Intercept	Slope	F-value	P-value
Canopy Plant Communi	ty					
Lead	S	14	2.79	-2.00E-03	1.68	0.22
Lead	Н	14	1.56	-1.99E-03	2.85	0.12
Lead	D	14	0.52	6.61E-04	3.19	0.10
Lead	RI	14	1.96	-1.38E-03	2.27	0.16
Zinc	S	14	2.17	3.17E-04	7.77	0.02 *
Zinc	Н	14	1.12	1.47E-04	1.90	0.19
Zinc	D	14	0.65	-3.37E-05	0.92	0.36
Zinc	RI	14	1.67	8.81E-05	1.10	0.32
Ground Plant Communi	ty		•			
Lead	S	14	2.11	6.14E-03	6.57	0.02 *
Lead	Н	14	1.00	4.78E-03	6.77	0.02 *
Lead	D	14	0.69	-1.12E-03	4.94	0.05 *
Lead	RI	14	1.43	6.83E-03	12.68	0.004 *
Zinc	S	14	3.00	-1.87E-06	0.00	0.99
Zinc	Н	14	1.75	-6.13E-05	0.09	0.76
Zinc	D	14	0.51	2.11E-05	0.17	0.69
Zinc	RI	14	2.57	-1.47E-04	0.38	0.55
Worm Abundance			•	•		
Lead	Total #	50	3.88	3.72E-04	0.01	0.91
Zinc	Total #	50	3.55	3.32E-04	1.26	0.27

^{*} P-value less than 0.05

D = Simpson Index

H = Shannon Index

RI = Reciprocal Simpson Index

S = Species Richness

Table 8. Earthworm and Pot Worm Abundance

Station Replicate Reference Cell Date Earthworm Pot worm	
(I/R)	Total Worms
04A 1 R 9/7/2022 3 0	3
04A 2 R 9/7/2022 6 0	6
04A 3 R 9/7/2022 7 0	7
04A 4 R 9/7/2022 6 0	6
04A 5 R 9/7/2022 6 0	6
• • • • • • • • • • • • • • • • • • • •	3
05A 2 I 9/7/2022 2 0	2
05A 3 I 9/7/2022 4 0	4
05A 4 I 9/7/2022 9 0	9
05A 5 I 9/7/2022 9 0	9
06D 1 I 9/7/2022 6 0	6
06D 2 I 9/7/2022 6 0	6
06D 3 I 9/7/2022 2 0	2
06D 4 I 9/7/2022 2 0	2
06D 5 I 9/7/2022 3 0	3
07C 1 R 9/8/2022 7 0	7
07C 2 R 9/8/2022 0 0	0
07C 3 R 9/8/2022 5 0	5
07C 4 R 9/8/2022 6 0	6
07C 5 R 9/8/2022 7 0	7
02D 1 I 9/8/2022 2 0	2
	2
02D 3 I 9/8/2022 0 0	0
02D 4 I 9/8/2022 0 0	0
02D 5 I 9/8/2022 0 0	0
02E 1 I 9/8/2022 1 7	8
02E 2 I 9/8/2022 2 3	5
02E 3 I 9/8/2022 3 8	11
02E 4 I 9/8/2022 2 3	5
02E 5 I 9/8/2022 2 3	5
03E 1 I 9/8/2022 10 2	12
03E 2 I 9/8/2022 6 4	10
03E 3 I 9/8/2022 7 0	7
03E 4 I 9/8/2022 2 0	2
03E 5 I 9/8/2022 0 0	0
04D 1 R 9/8/2022 1 1	2
04D 2 R 9/8/2022 1 1	2
04D 3 R 9/8/2022 3 4	7
04D 4 R 9/8/2022 0 2	2
04D	0
	0
05E 2 R 9/8/2022 0 0	0
05E 3 R 9/8/2022 0 0	0
05E 4 R 9/8/2022 0 0	0
05E 5 R 9/8/2022 0 0	0
03F 1 R 9/8/2022 4 1	5
03F 2 R 9/8/2022 1 0	1
03F 3 R 9/8/2022 0 1	1
03F 4 R 9/8/2022 8 1	9
03F 5 R 9/8/2022 0 0	0

I = Impacted Area

R = Reference Area

Table 9. Worm Abundance: Mean, Standard Deviation, Nonparametric and Parametric ANOVA

	Mean	SD	One-wa	y ANOVA	Kruskal Wallis Test		
	Mean		F	P-value	H Stat	P-value	
Earthworm /	Earthworm Abundance						
Impact	3.40	2.96	0.87	0.35	0.44	0.51	
Reference	2.84	3.00	0.67				
Total Worm	Abundance						
Impact	4.60	3.63	1.57	0.21	1.93	0.17	
Reference	3.28	3.06	1.57	U.ZI	1.95	0.17	

ANOVA = analysis of variance SD = Standard Deviation

Table 10. Depth-Adjusted Lead and Zinc Concentrations in Soil and Exposure Point Concentrations

Exposure Point Conce		
Location	Lead	Zinc
	(mg/kg)	(mg/kg)
DU-01	6,000	132
DU-02	197	436
HA-01-Comp	129	3,615
HA-01A	158	403
HA-01B	167	1,834
HA-01C	274	5,688
HA-01D	309	13,346
HA-01E	17	109
HA-01F	27	35
HA-01Aa	13	33 38
HA-01Ab HA-X	21 679	104
HA-02-Comp	59	2,547
HA-02-Comp	39	76
HA-02B	85	489
HA-02C	171	1,969
HA-02D	158	3,520
HA-02E	77	3,939
HA-02F	26	40
HA-02G	8	34
HA-02Ab	10	32
HA-02Aa	6	32
HA-03-Comp	61	409
HA-03A	248	377
HA-03B	86	105
HA-03C	264	865
HA-03D	136	2,348
HA-03E	60	3,498
HA-03F	56	40
HA-03G	12	32
HA-03Aa	80	30
HA-03Ab	53	11
HA-04-Comp	244	567
HA-04A	94	200
HA-04B	199	26
HA-04C	169	204
HA-04D	109	185
HA-04E	52	1,400
HA-04F	10	19
HA-04G	10	25
HA-04Aa	8	38
HA-04Ab	31	30
HA-05-Comp	113	87
HA-05A	373	59
HA-05B	120 179	44 79
HA-05C HA-05D	179 55	79 723
HA-05D HA-05E	88	10
HA-05E	32	733
HA-05G	16	66
HA-05Aa	163	26
HA-05Ab	102	16
HA-06A	176	36
HA-06B	194	20
HA-06C	514	61
HA-06D	501	410
HA-06E	39	291
HA-06F	33	20
HA-06G	50	19
HA-06H	17	25
HA-06I	48	1,990
HA-07A	67	39
HA-07B	143	46
HA-07C	112	33
HA-07D	223	192
HA-07E	197	548
HA-07F	48	17
HA-07G	9	19
HA-07H	57	25
HA-07I	40	1,910
UCL 95	224.6	1,799

mg/kg = milligrams per kilogram UCL = Upper Confidence Limit

Table 11. Wildlife Camera Observations

Video	Date	Time	Comment
3			No apparent wildlife. Wind-blown vegetation may have triggered camera.
4	9/10/2022	2:43 PM	No apparent wildlife. Wind-blown vegetation may have triggered camera.
5	9/10/2022	3:47 PM	No apparent wildlife.
6	9/18/2022	12:03 PM	Steller's jay (<i>Cyanocitta stelleri</i>) feeding on suet in a bait basket. This jay also visited
			the ground. Three raccoons (<i>Procyon lotor</i>) moving on the ground beneath the alder tree with
7	9/23/2022	6:43 AM	the bait. The uppermost bait basket appears to be half full of suet.
8	9/27/2022	8:46 PM	Blacktail deer (<i>Odocoileus hemionus</i>) doe. One of the bait baskets is gone from the tree.
Camera is orien	Led towards a game	trail.	ucc.
			Blacktail deer doe appears to be on a game trail. It could be the same animal
3	9/27/2022	8:41 PM	observed 5 minutes later on WC1 (see above).
4	10/2/2022	8·19 AM	Adult coyote (Canis latrans) on game trail. It sounds as if the coyote breaks branches
			on the ground beneath the camera.
Camera is orien	ted towards a game	e trail surrounded T	
2	9/13/2022	11:10 AM	It is unclear what triggered the camera. A hummingbird or large insect flies through the field of view at the 7-second mark.
			the field of view at the 7-second mark.
3	10/2/2022	2:33 PM	No apparent wildlife. Wind-blown vegetation may have triggered camera.
4	10/2/2022	0:01 DM	Black bear (Ursus americanus) appears to be foraging near a game trail, and much
4	10/3/2022	9.01 PIVI	of body is obscured by vegetation.
5	10/3/2022	2:09 PM	No apparent wildlife. Camera may have been triggered by falling leaves or wind-
			blown vegetation.
Camera is facing	g a tree with a suet-	filled bait basket	near a small creek.
			No apparent wildlife. However, debris can be seen falling and crunching can be
1	9/9/2022	10:12 PM	heard at the 16-second mark. An animal may be present in the tree that is
			supporting the camera.
2	9/10/2022	10·29 AM	No apparent wildlife. It appears to be windy with considerable falling debris. After
	3/10/2022	10.23 / 1111	wind subsides there appear to be many flying insects.
			It appears that a Cooper's hawk (<i>Accipiter cooperii</i>) is perched on a branch.
3	9/10/2022	12:36 PM	However, the image is blurry and the bird could be a sharp-shinned hawk (<i>Accipiter</i>
	, ,		striatus). A Douglas squirrel (Tamiasciurus douglasii) can be heard calling.
4	9/10/2022	12:47 PM	No apparent wildlife.
5	9/11/2022	10:55 AM	Two Douglas squirrels are moving over the tree with the bait basket.
	· ·		
			Steller's jay appears to be foraging on the ground. Bait basket is no longer present
6	9/18/2022	3:14 PM	Steller's jay appears to be foraging on the ground. Bait basket is no longer present on tree.
6			on tree.
6 7	9/18/2022		on tree. Steller's jay appears to be foraging in the same location as in previous video. The
		3:14 PM	on tree.
	9/18/2022	3:14 PM	on tree. Steller's jay appears to be foraging in the same location as in previous video. The bird can be seen eating something white. It is possible that the jay is eating suet from the bait basket that is no longer on the tree.
7	9/18/2022	3:14 PM 4:39 PM	on tree. Steller's jay appears to be foraging in the same location as in previous video. The bird can be seen eating something white. It is possible that the jay is eating suet from the bait basket that is no longer on the tree. Two raccoons, one in tree and another in creek. The raccoon in the creek appears to
	9/18/2022	3:14 PM	on tree. Steller's jay appears to be foraging in the same location as in previous video. The bird can be seen eating something white. It is possible that the jay is eating suet from the bait basket that is no longer on the tree. Two raccoons, one in tree and another in creek. The raccoon in the creek appears to wash and then eat something. At the end of the video something can be heard in the
7	9/18/2022	3:14 PM 4:39 PM	on tree. Steller's jay appears to be foraging in the same location as in previous video. The bird can be seen eating something white. It is possible that the jay is eating suet from the bait basket that is no longer on the tree. Two raccoons, one in tree and another in creek. The raccoon in the creek appears to wash and then eat something. At the end of the video something can be heard in the tree that supports the camera.
7	9/18/2022	3:14 PM 4:39 PM	on tree. Steller's jay appears to be foraging in the same location as in previous video. The bird can be seen eating something white. It is possible that the jay is eating suet from the bait basket that is no longer on the tree. Two raccoons, one in tree and another in creek. The raccoon in the creek appears to wash and then eat something. At the end of the video something can be heard in the
7	9/18/2022 9/18/2022 9/21/2022	3:14 PM 4:39 PM 4:00 PM	on tree. Steller's jay appears to be foraging in the same location as in previous video. The bird can be seen eating something white. It is possible that the jay is eating suet from the bait basket that is no longer on the tree. Two raccoons, one in tree and another in creek. The raccoon in the creek appears to wash and then eat something. At the end of the video something can be heard in the tree that supports the camera. Raccoon in tree and another beneath a log on the right. A third raccoon appears
	Video Camera is orient 3 4 5 6 7 8 Camera is orient 2 3 4 5 Camera is facing 1 2 3	Camera is oriented towards a game 3 9/10/2022 4 9/10/2022 5 9/10/2022 6 9/18/2022 8 9/27/2022 Camera is oriented towards a game 3 9/27/2022 4 10/2/2022 Camera is oriented towards a game 2 9/13/2022 3 10/2/2022 4 10/3/2022 5 10/3/2022 Camera is facing a tree with a suet- 1 9/9/2022 3 9/10/2022 4 9/10/2022	Camera is oriented towards a game trail and an alde 3 9/10/2022 12:12 PM 4 9/10/2022 2:43 PM 5 9/10/2022 3:47 PM 6 9/18/2022 12:03 PM 7 9/23/2022 6:43 AM 8 9/27/2022 8:46 PM Camera is oriented towards a game trail. 3 9/27/2022 8:41 PM 4 10/2/2022 8:19 AM Camera is oriented towards a game trail surrounded 2 9/13/2022 11:10 AM 3 10/2/2022 2:33 PM 4 10/3/2022 9:01 PM 5 10/3/2022 2:09 PM Camera is facing a tree with a suet-filled bait basket 1 9/9/2022 10:12 PM 2 9/10/2022 10:29 AM 3 9/10/2022 12:36 PM 4 9/10/2022 12:47 PM



ATTACHMENT A

PHOTOGRAPHS OF GROUND AND CANOPY PLANT COVER

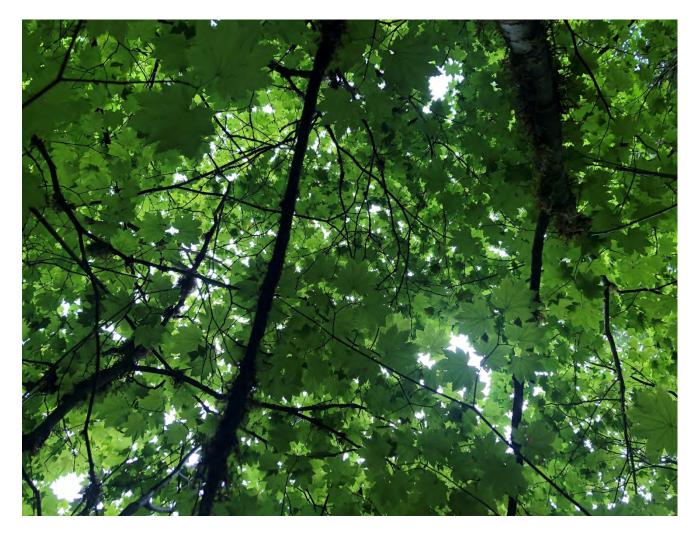


Photo 1: Canopy Cover at 04A





Photo 2: Ground Cover at 04A





Photo 3: Ground Cover at 04A





Photo 4: Canopy Cover at 05A





Photo 5: Ground Cover at 05A





Photo 6: Ground Cover at 05A





Photo 7: Canopy Cover at 06D





Photo 8: Ground Cover at 06D





Photo 9: Ground Cover at 06D



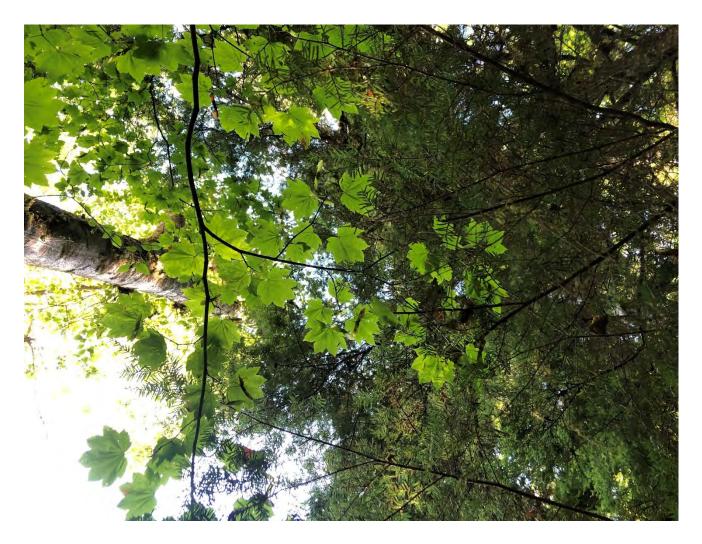


Photo 10: Canopy Cover at 02A





Photo 11: Ground Cover at 02A





Photo 12: Ground Cover at 02A





Photo 13: Ground Cover at 02B



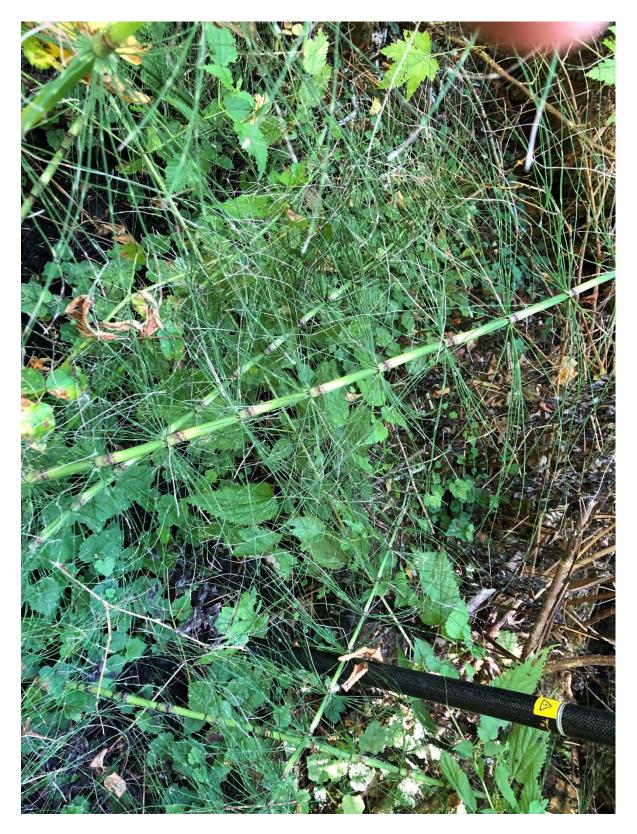


Photo 14: Ground Cover at 02B





Photo 15: Canopy Cover at 02C



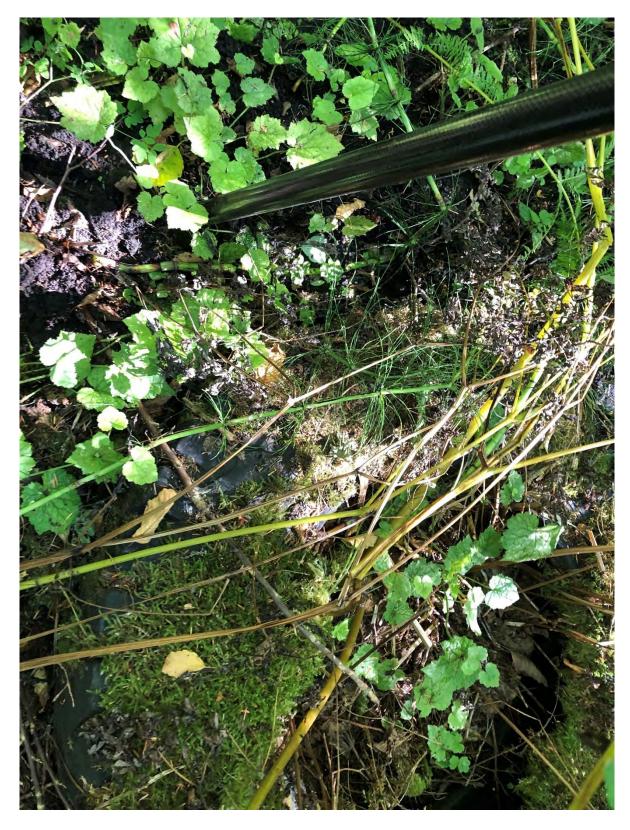


Photo 16: Ground Cover at 02C



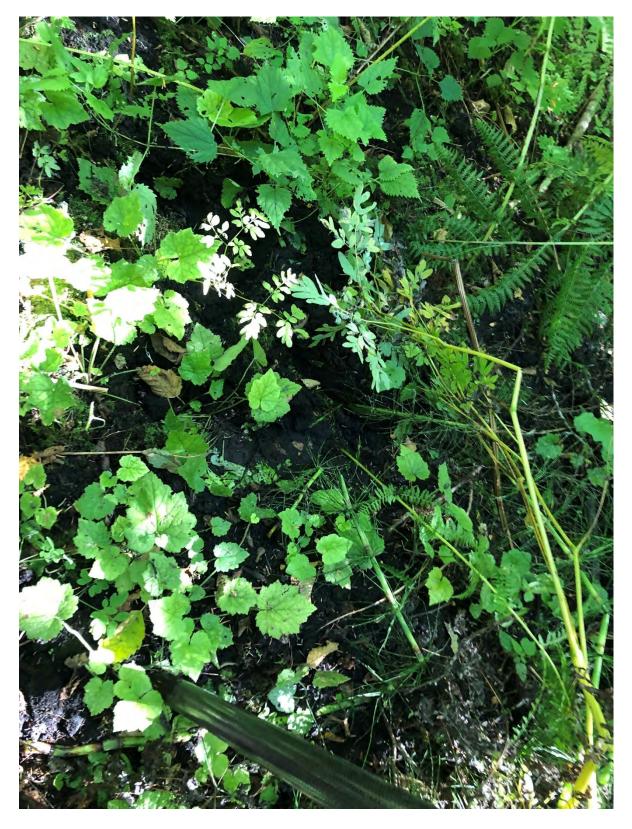


Photo 17: Ground Cover at 02C



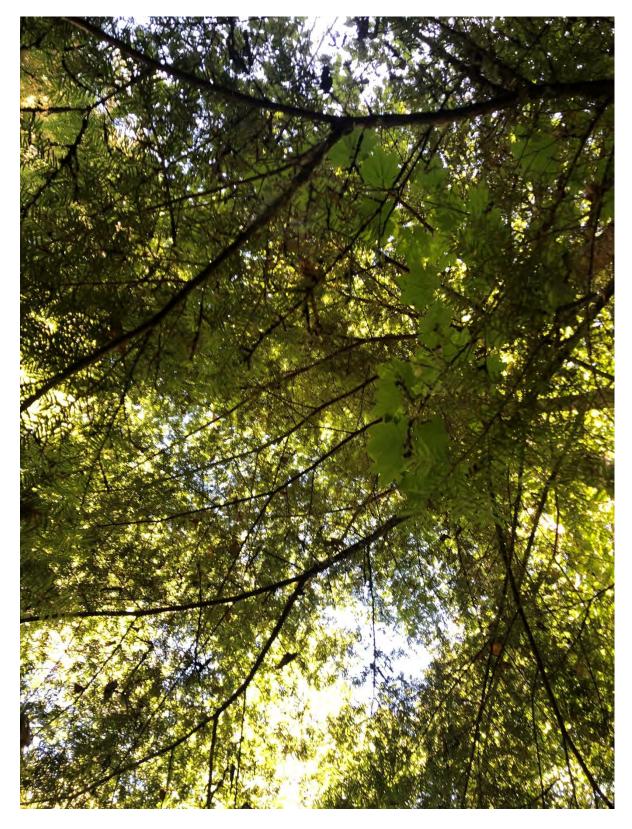


Photo 18: Canopy Cover at 02D





Photo 19: Ground Cover at 02D





Photo 20: Ground Cover at 02D



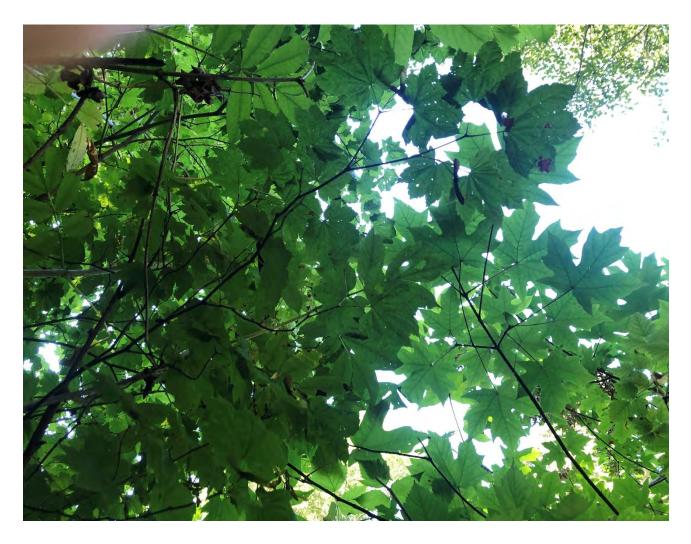


Photo 21: Canopy Cover at 02E





Photo 22: Ground Cover at 02E





Photo 23: Ground Cover at 02E



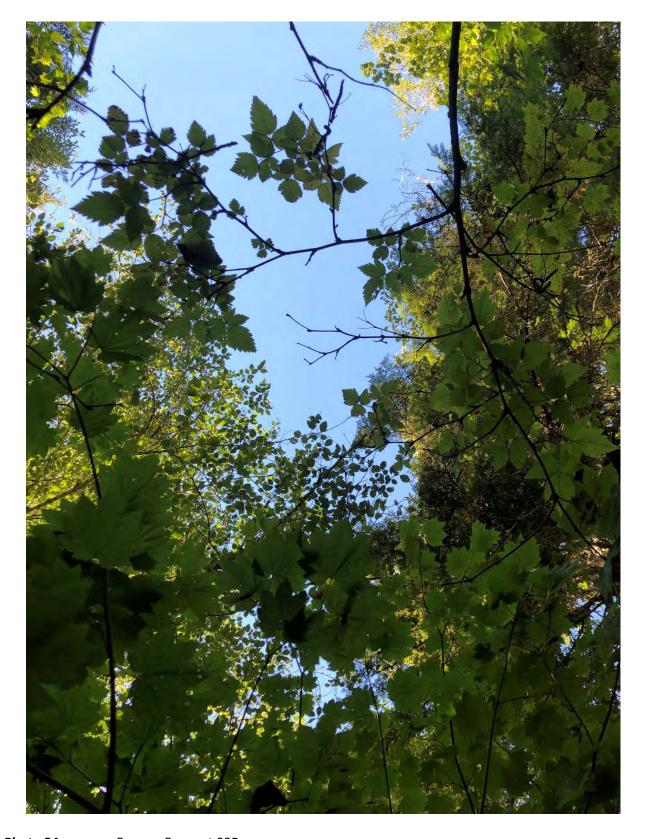


Photo 24: Canopy Cover at 03B





Photo 25: Ground Cover at 03B





Photo 26: Ground Cover at 03B





Photo 27: Ground Cover at 03E





Photo 28: Ground Cover at 03E



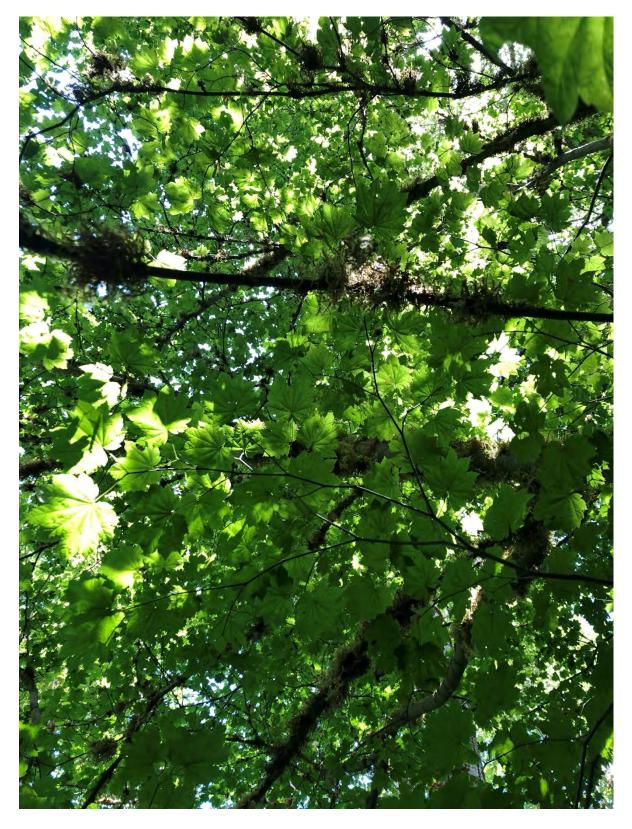


Photo 29: Canopy Cover at 03F





Photo 30: Ground Cover at 03F



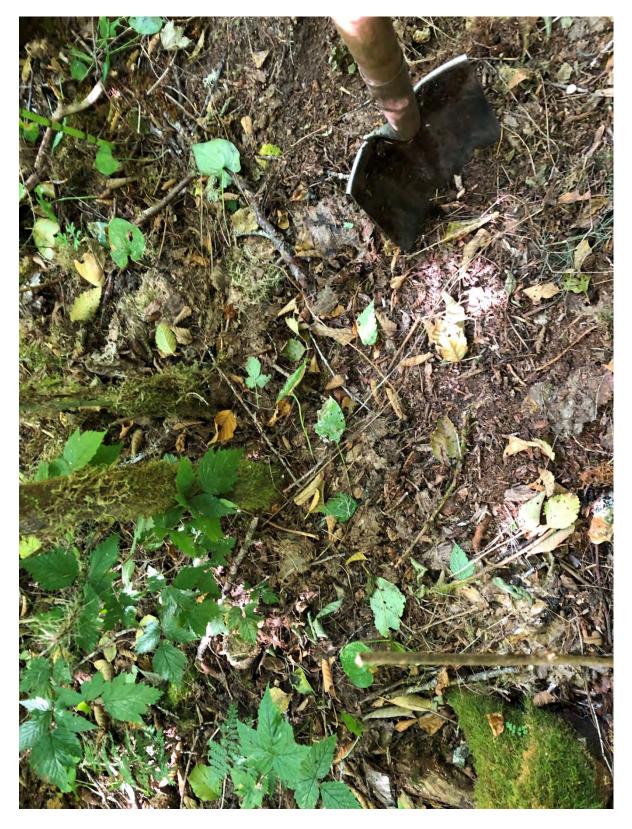


Photo 31: Ground Cover at 03F



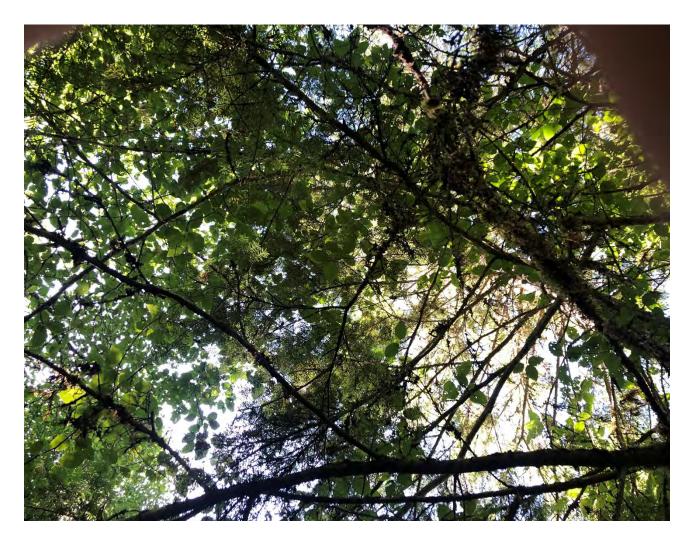


Photo 32: Canopy Cover at 04D



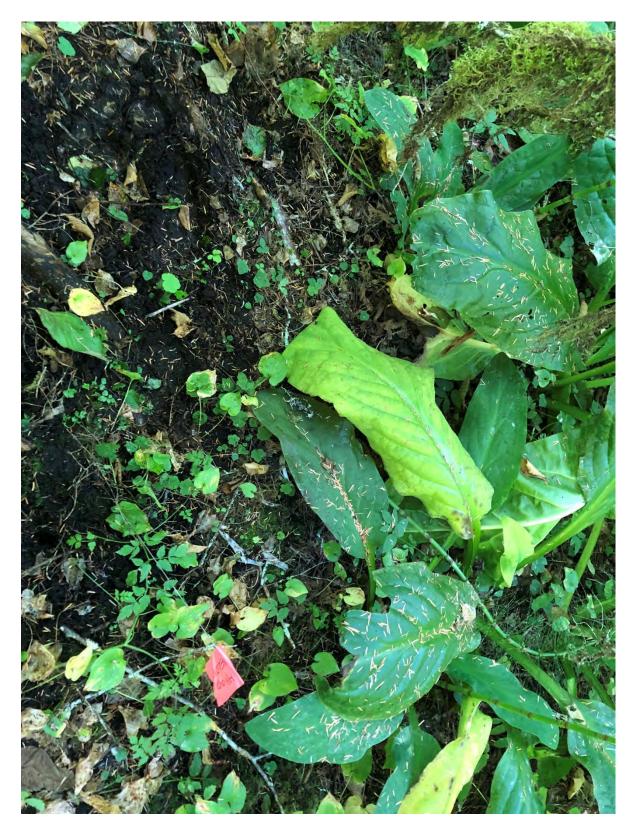


Photo 33: Ground Cover at 04D



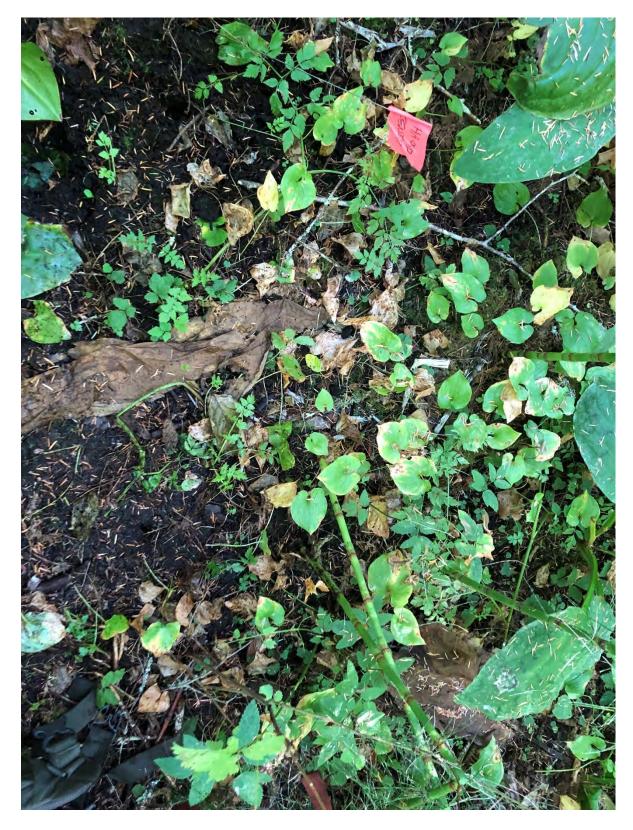


Photo 34: Ground Cover at 04D



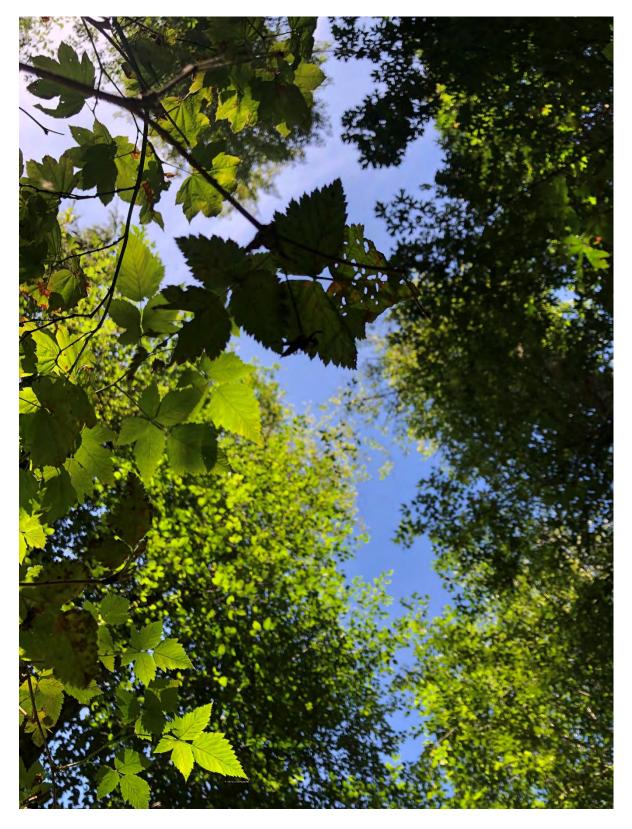


Photo 35: Canopy Cover at 05E





Photo 36: Ground Cover at 05E



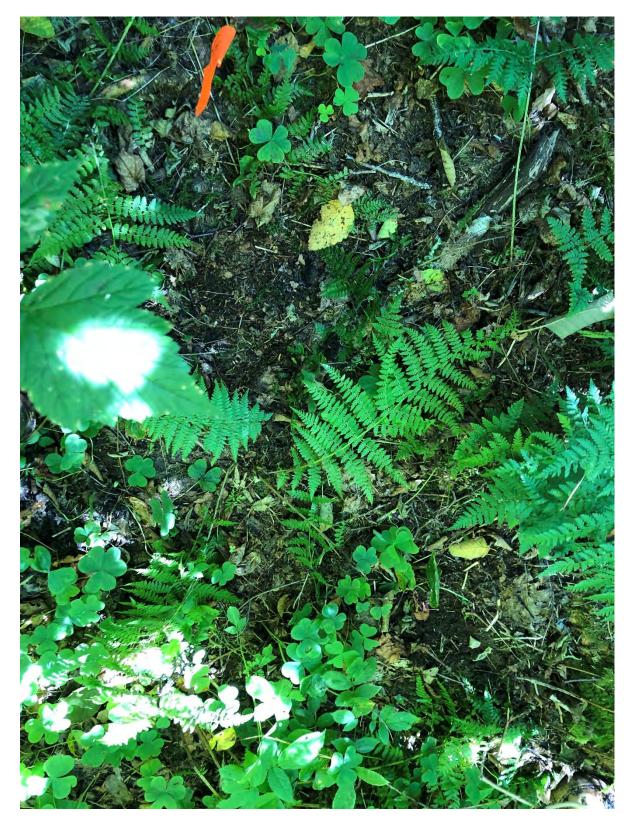


Photo 37: Ground Cover at 05E





Photo 38: Canopy Cover at 07C



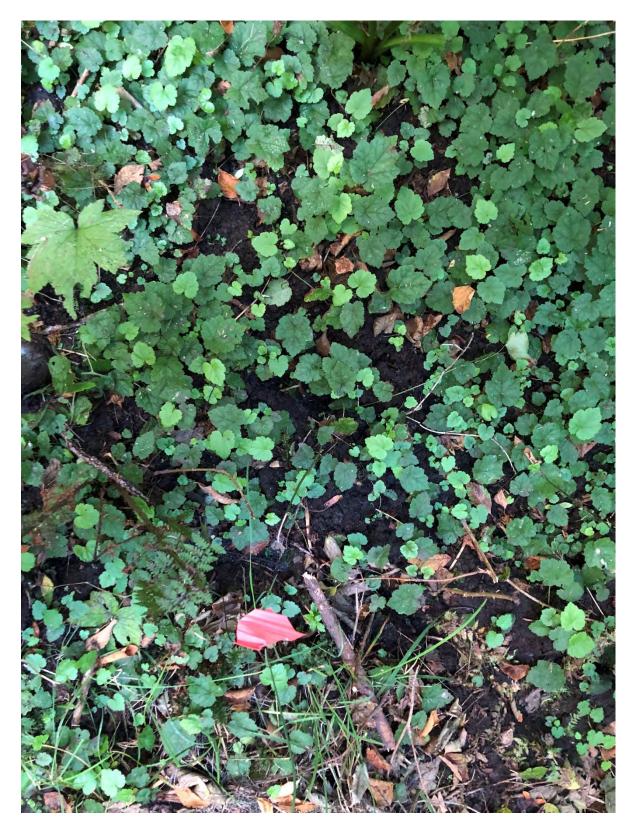


Photo 39: Ground Cover at 07C





Photo 40: Ground Cover at 07C





ATTACHMENT B

PLANT COMMUNITY STATISTICS – PROUCL OUTPUT

	Α	В	С	D	Е	F	G	Н	l	J	K	L	М
1				Can	opy Co	ver Go	odness	-of-fit (0	GOF)	Tests			
2													
3				Goodness-o	f-Fit Test Sta	tistics for U	ncensored F	ull Data Set	s without	Non-Detects			
4			ted Options										
5	Date	e/Time of Co		ProUCL 5.19		26:28 PM							
6			From File	Canopy cove	er.xls								
7				OFF									
8		Confidence (Coefficient	0.95									
9													
10	Richness (S) (i)											
- ' '		/ \·/											
12 13			Raw St	tatistics									
14			Numb	per of Valid O	bservations	7							
15			Number	of Distinct O	bservations	4							
16					Minimum	1							
17		Maximur											
18		Mean of Raw Dat											
19			Standa	rd Deviation of	of Raw Data	0.951							
20					Khat	6.948							
21					Theta hat	0.391							
22					Kstar	4.065							
23			Mann	aflas Transf	Theta star	0.668							
24		Standar		of Log Transf of Log Transf		0.925 0.455							
25		Statiual	u Deviation	or Log Transi	omed Data	0.455							
26		N	Normal GOF	Test Results									
27		•											
28				Correlation C	coefficient R	0.92							
29 30				hapiro Wilk T		0.87							
31			Shapiro	Wilk Critical (0.05) Value	0.803							
32			Approxim	ate Shapiro V	Vilk P Value	0.12							
33				Lilliefors T	est Statistic	0.332							
34				efors Critical (0.304							
35	Data appear	Approximat	te Normal at	(0.05) Signifi	cance Level								
36													
37		G	amma GOF	Test Results	•								
38				Correlation C	oofficient D	0.88							
39					est Statistic	0.88							
40				A-D Critical (0.709							
41					est Statistic	0.368							
42 43				K-S Critical(0.313							
	Data not Ga	mma Distrib) Significance	•								
45			<u> </u>										
46		Lo	gnormal GO	F Test Resul	ts								
47													
48				Correlation C		0.872							
49				hapiro Wilk T		0.784							
50		Shapiro Wilk Critical (0.05) Valu				0.803 0.0161							
51		Approximate Shapiro Wilk P Val											
52				Lilliefors T	est Statistic	0.363							

	A B C D E	F	G	Н	I	J	K	L	M
53	Lilliefors Critical (0.05) Value	0.304							
34	Data not Lognormal at (0.05) Significance Level								
55	Richness (S) (r)								
56	numess (o) (i)								
57	Raw Statistics								
58	Number of Valid Observations	7							
59	Number of Distinct Observations	2							
60 61	Minimum	2							
62	Maximum	3							
63	Mean of Raw Data	2.286							
64	Standard Deviation of Raw Data	0.488							
65	Khat	28.44							
66	Theta hat	0.0804							
67	Kstar	16.35							
68	Theta star	0.14							
69	Mean of Log Transformed Data								
70	Standard Deviation of Log Transformed Data	0.198							
71	Names I COF Test Desuits								
72	Normal GOF Test Results								
73	Correlation Coefficient R	0.785							
74	Shapiro Wilk Test Statistic	0.601							
75	Shapiro Wilk Critical (0.05) Value	0.803							
76	Approximate Shapiro Wilk P Value								
77 78	Lilliefors Test Statistic	0.435							
79	Lilliefors Critical (0.05) Value	0.304							
80	Data not Normal at (0.05) Significance Level								
81									
82	Gamma GOF Test Results								
83									
84	Correlation Coefficient R								
85	A-D Test Statistic	1.569							
86	A-D Critical (0.05) Value	0.707							
87	K-S Test Statistic K-S Critical(0.05) Value	0.451 0.311							
88	Data not Gamma Distributed at (0.05) Significance Level	0.311							
09	Daw Not Gamma Distributed at (0.00) Significance Level								
90	Lognormal GOF Test Results								
91 92									
93	Correlation Coefficient R	0.785							
94	Shapiro Wilk Test Statistic	0.601							
95	Shapiro Wilk Critical (0.05) Value	0.803							
96	Approximate Shapiro Wilk P Value	4.2492E-4							
97	Lilliefors Test Statistic	0.435							
98	Lilliefors Critical (0.05) Value	0.304							
99	Data not Lognormal at (0.05) Significance Level								
100									
101	Non-parametric GOF Test Results								
102	Date do not follow a discomible distribution of (0.05) by the	Dianifica							
103	Data do not follow a discernible distribution at (0.05) Level of S	oignincance							
104									

	_	E	F	G	Н	ı	J	K	L	M
105	Shannon (H) (i)									
106										
107	Raw Statistics									
108	Number of Valid Observa		7							
109	Number of Distinct Observa		7							
110		nimum	0 1.962							
111	Mean of Raw	kimum v Doto	1.264							
112	Standard Deviation of Raw		0.706							
113	Standard Deviation of Naw			values <= 0	<u> </u>					
114				a or lognorm						
115		Data	not gamm	a or logiloin	iai					
116	Normal GOF Test Results									
117	Normal del Test Nesale									
118	Correlation Coeffici	ient R	0.934							
119	Shapiro Wilk Test Sta		0.87							
120	Shapiro Wilk Critical (0.05)		0.803							
121 122	Approximate Shapiro Wilk P		0.199							
123	Lilliefors Test Sta		0.297							
123	Lilliefors Critical (0.05)	Value	0.304							
125	Data appear Normal at (0.05) Significance Level									
126										
127	Shannon (H) (r)									
128										
129	Raw Statistics									
130	Number of Valid Observa	ations	7							
131	Number of Distinct Observa	ations	5							
132	Min	nimum	0.383							
133		kimum	1.801							
134	Mean of Raw		1.27							
135	Standard Deviation of Raw		0.525							
136		Khat	4.737							
137		eta hat	0.268							
138		Kstar	2.802							
139		ta star	0.453							
140	Mean of Log Transformed		0.13							
141	Standard Deviation of Log Transformed	u Data	0.562							
142	Normal GOF Test Results									
143	Normal GOF Test Results									
144	Correlation Coeffici	ient R	0.937							
145	Shapiro Wilk Test Sta		0.871							
146	Shapiro Wilk Critical (0.05)		0.803							
147	Approximate Shapiro Wilk P V		0.225							
148	Lilliefors Test Sta		0.299							
149 150	Lilliefors Critical (0.05)		0.304							
151	Data appear Normal at (0.05) Significance Level									
152										
153	Gamma GOF Test Results									
154										
155	Correlation Coeffici	ient R	0.872							
156	A-D Test Sta	tatistic	0.663							
.50						I.	I.	<u>I</u>	İ	I

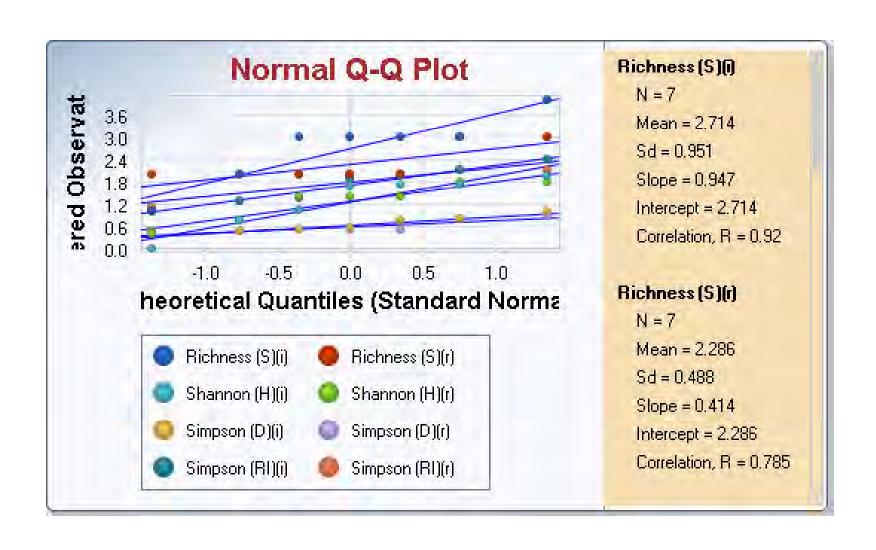
	Α		В	С	D	Е	F	G	Н	I	J	K	L	М
157						l (0.05) Value								
158					K-S	Test Statistic	0.347							
159					K-S Critica	I(0.05) Value	0.313							
	Data follov	/ App	r. Gamn	na Distributio	on at (0.05) S	Significance L	evel							
161														
162			Lo	ognormal Go	OF Test Res	ults								
163														
164					Correlation	Coefficient R	0.891							
165					Shapiro Wilk	Test Statistic	0.798							
166				Shapiro	Wilk Critica	l (0.05) Value	0.803							
167				Approxin	nate Shapiro	Wilk P Value	0.0351							
168					Lilliefors	Test Statistic	0.349							
169				Lilli	iefors Critica	l (0.05) Value	0.304							
	Data not L	ognor	mal at (0.05) Signifi	icance Level									
171														
	Simpson (D) (i)												
172	• •													
173 174				Raw S	Statistics									
175				Num	nber of Valid	Observations	7							
				Numbe	er of Distinct	Observations	7							
176						Minimum	0.414							
177						Maximum								
178					Mear	of Raw Data								
179				Standa		of Raw Data								
180						Khat								
181						Theta hat								
182						Kstar	6.548							
183						Theta star	0.0971							
184				Mean	of Log Tran	sformed Data								
185			Standa			sformed Data								
186			Otarida	Ta Beviation	Tor Log Train		0.02							
187				Normal GO	F Test Resul	te .								
188			'	rionnal dol	1 1000110001									
189					Correlation	Coefficient R	0.953							
190						Test Statistic								
191					•	I (0.05) Value								
192				•		Wilk P Value								
193				, whice	•	Test Statistic								
194				1 ;111		l (0.05) Value								
195	Data anne	ar No	rmal at /		icance Level		0.504							
190	Sata appe	ai 1 4 0	ımaı at ((5.55) Olgi III										
197				Gamma GO	F Test Resul	Ite								
198				Gamma GO	ı restricesul	w .								
199					Correlation	Coefficient R	0.975							
200						Test Statistic								
201						l est Statistic l (0.05) Value								
202														
203		K-S Test Statistic K-S Critical(0.05) Value						1	1					
204	K-S Critical(0.05) Value Data appear Gamma Distributed at (0.05) Significance Level						0.312	1	1					
203	Data appear Gamma Distributed at (0.05) Significance Level													
206	Lognormal GOF Test Results													
207		Lognormal GOF Test Results												
208														
											·	·		

	Α	В	С	D E	F	G	Н	I	J	K	L	M
209				Correlation Coefficient F								
210				Shapiro Wilk Test Statistic								
211			-	Wilk Critical (0.05) Value								
212			Approxim	nate Shapiro Wilk P Value								
213			1 :11:	Lilliefors Test Statistic								
214	Data anna			efors Critical (0.05) Value	0.304							
213	Data appea	ar Lognorma	ıı at (0.05) Sıç	nificance Level								
216	Simpson (E)) (r)										
217	Cimpoon (E	2) (1)										
218			Raw S	tatistics								
219 220			Num	ber of Valid Observations	7							
221			Numbe	r of Distinct Observations	5							
222				Minimum	0.469							
223				Maximum	0.909							
224				Mean of Raw Data	0.59							
225			Standa	rd Deviation of Raw Data	0.179							
226				Kha								
227				Theta ha								
228				Kstai								
229				Theta star								
230				of Log Transformed Data								
231		Standa	ard Deviation	of Log Transformed Data	0.272							
232			Normal COE	Test Results								
233			Normal GOF	rest results								
234				Correlation Coefficient F	0.846							
235			5	Shapiro Wilk Test Statistic								
236 237				Wilk Critical (0.05) Value								
238				nate Shapiro Wilk P Value								
239				Lilliefors Test Statistic	0.403							
240			Lilli	efors Critical (0.05) Value	0.304							
	Data not No	ormal at (0.0	5) Significan	ce Level	1							
242												
243			Gamma GOI	Test Results								
244												
245				Correlation Coefficient F								
246				A-D Test Statistic								
247				A-D Critical (0.05) Value K-S Test Statistic								
248				K-S Critical(0.05) Value								
249	Data not G	amma Dietri	huted at (0 0	5) Significance Level	0.512							
250	24.0 HOL G	IG DISUI	at (0.0t	-, -igiiiiodiloo Eevel								
251		L	ognormal GC	OF Test Results								
252253			-									
253 254				Correlation Coefficient F	0.857							
255			5	Shapiro Wilk Test Statistic	0.726							
256			Shapiro	Wilk Critical (0.05) Value	0.803							
257			Approxim	nate Shapiro Wilk P Value	0.00825							
258				Lilliefors Test Statistic								
259				efors Critical (0.05) Value	0.304							
260	Data not Lo	ognormal at	(0.05) Signific	cance Level								

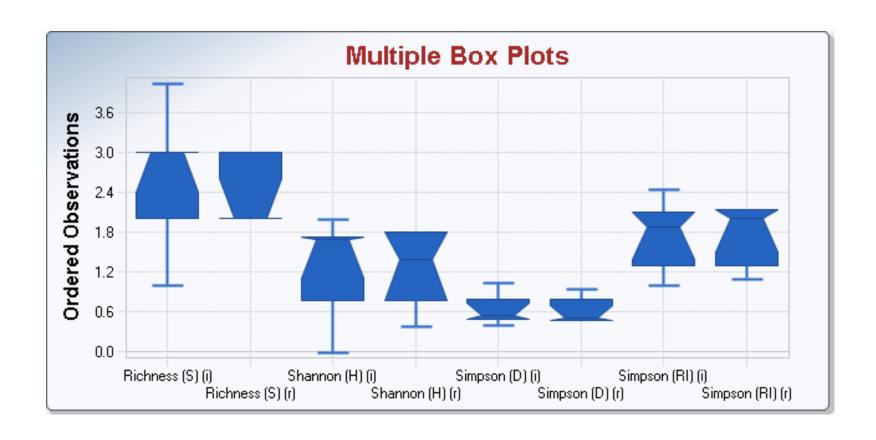
	Α	В	С	D	E	F	G	Н	I	J	K	L	M
261													
262	Non-parame	etric GOF Te	est Results										
263													
264	Data do not	follow a dis	cernible distri	bution at (0.0	05) Level of	Significance							
265													
266	Simpson (R) (i)											
267													
268				tatistics	N	T -							
269				ber of Valid C									
270			Number	r of Distinct C									
271					Minimum								
272					Maximum	2.418 1.715							
273			Ctanda		of Raw Data								
274			Standa	rd Deviation	Khat								
275					Theta hat	0.142							
276					Kstar	7.011							
277					Theta star	0.245							
278			Mean	of Log Trans									
279		Standa	ard Deviation	_									
280		Starius	ila Deviation		ionned Data	0.52							
281			Normal GOF	Test Results	<u> </u>								
282			- Tomiai Goi										
283				Correlation C	Coefficient R	0.979							
284				Shapiro Wilk T									
285				Wilk Critical									
286 287			•	ate Shapiro \	. ,								
288			•••	•	Test Statistic								
289			Lillie	efors Critical	(0.05) Value	0.304							
209	Data appear	Normal at	(0.05) Signific	cance Level									
291													
292		(Gamma GOF	Test Result	s								
293													
294				Correlation C	Coefficient R	0.968							
295				A-D T	Test Statistic	0.33							
296				A-D Critical	(0.05) Value	0.708							
297				K-S 7	Test Statistic								
298				K-S Critical(•	0.312							
299	Data appear	Gamma Di	istributed at (0.05) Signific	ance Level								
300													
301		Lo	ognormal GO	F Test Resul	lts								
302													
303				Correlation (
304				Shapiro Wilk T									
305				Wilk Critical									
306			Approxim	ate Shapiro \									
307	Lilliefors Test Statistic												
308	Lilliefors Critical (0.05) Value Data appear Lognormal at (0.05) Significance Level												
309	Data appear	· Lognormal	at (0.05) Sig	nificance Lev	/el								
310	0'	N ()											
311	Simpson (R) (r)											
312													

	Α	В	С	D	Е	F	G	Н	I	J	K	L	М
313			Raw St										
314				oer of Valid C									
315			Number	of Distinct C									
316					Minimum	1.1							
317					Maximum	2.133							
318					of Raw Data	1.806							
319			Standar	rd Deviation of		0.428							
320	<u> </u>				Khat	17.4							
321					Theta hat	0.104							
322					Kstar	10.04							
323	<u> </u>				Theta star	0.18							
324	<u> </u>			of Log Transf		0.562							
325		Standar	rd Deviation of	of Log Transi	formed Data	0.272							
326			1005	T . D . L									
327			Normal GOF	l est Results	i 								
328				<u> </u>		0.000							
329	<u> </u>			Correlation C									
330	<u> </u>			hapiro Wilk T									
331	 		-	Wilk Critical (ate Shapiro V		0.803 0.0132		<u> </u>					
332			Approxima	-	est Statistic								
333			Lillie	efors Critical (
334	Data not No	rmal at (0.0F	5) Significanc		(0.05) Value	0.304							
333	Data Hot Noi	illiai at (0.05)) Significanc	e resei									
336			Gamma GOF	Toet Results									
337					•								
338				Correlation C	Coefficient R	0.825							
339					est Statistic	1.046							
340				A-D Critical (0.707							
341					est Statistic								
342				K-S Critical(0.312							
343 344	Data not Ga	mma Distrib	uted at (0.05	,	′								
344													
345 346		Lo	gnormal GO	F Test Resul	lts								
347													
348			-	Correlation C	Coefficient R	0.857							
349			Si	hapiro Wilk T	est Statistic	0.726							
350			Shapiro '	Wilk Critical ((0.05) Value	0.803							
351			Approxima	ate Shapiro V	Nilk P Value	0.00825		 					
352				Lilliefors T	est Statistic	0.395		1					
353			Lillie	efors Critical ((0.05) Value	0.304							
	Data not Loç	gnormal at ((0.05) Significa	ance Level				1					
355													
356	Non-parame	tric GOF Te	st Results					1					
357													
358	Data do not follow a discernible distribution at (0.05) Level of					Significance							
ì													

Canopy Cover QQ Plots



Canopy Cover Box Plots



	Α	В	С	D	Е	F	G	Н	I	J	K	L	М
1					Canop	y Cove	r Sumn	nary Sta	tistics				
2													
3				General Sta	tistics on Und	censored Ful	II Data						
4	Dat	te/Time of Co	mputation	ProUCL 5.19	9/29/2022 1:	52:06 PM							
5		User Selec	ted Options										
6			From File	Canopy cov	er.xls								
7		Ful	l Precision	OFF									
8													
9	From File: C	anopy cover	.xls										
10													
11					General S	tatistics for U	Jncensored D	Data Sets					
12							1			05	144 D /2 27-		
13	Vari		NumObs	# Missing	Minimum	Maximum	Mean	Geo-Mean	SD	SEM	MAD/0.675	Skewness	CV
14		otalCover (i)	7	0	0.7	1.8	1.229	1.167	0.407	0.154	0.445	-0.0394	0.331
15		otalCover (r)	7	0	0.8	2	1.393	1.309	0.499	0.188	0.593	-0.241	0.358
16		hness (S) (i)	7	0	1	4	2.714	2.521	0.951	0.36	0	-0.863	0.35
17		hness (S) (r)	7	0	2	3	2.286	2.246	0.488	0.184	0	1.23	0.213
18		annon (H) (i)	7	0	0	1.962	1.264	0	0.706	0.267	0.407	-1.042	0.558
19		annon (H) (r)	7	0	0.383	1.801	1.27	1.139 0.608	0.525	0.199	0.614	-0.86	0.414
20		npson (D) (i)	7	0	0.414 0.469	0.909	0.636 0.59	0.608	0.212 0.179	0.08	0.181 0.0463	0.835 1.381	0.333
21		npson (D) (r)	7	0	0.469	2.418	1.715	1.644	0.179	0.0676	0.0463	-0.116	0.303
22		ipson (RI) (I)	7	0	1.1	2.418	1.715	1.754	0.514	0.194	0.778	-1.205	0.3
23	Silli	ipsoii (Ri) (i)	,	U	1.1	2.133	1.000	1.754	0.420	0.102	0.196	-1.205	0.237
24					Percer	ntiles for I Inc	ensored Data	a Sets					
25					1 01001								
26	Vari	able	NumObs	# Missing	10%ile	20%ile	25%ile(Q1)	50%ile(Q2)	75%ile(Q3)	80%ile	90%ile	95%ile	99%ile
27		otalCover (i)	7	0	0.76	0.84	0.9	1.3	1.5	1.5	1.62	1.71	1.782
28		otalCover (r)	7	0	0.8	0.85	0.925	1.6	1.75	1.78	1.88	1.94	1.988
29		hness (S) (i)	7	0	1.6	2.2	2.5	3	3	3	3.4	3.7	3.94
30 31		hness (S) (r)	7	0	2	2	2	2	2.5	2.8	3	3	3
32		annon (H) (i)	7	0	0.452	0.806	0.886	1.687	1.714	1.719	1.818	1.89	1.948
33		annon (H) (r)	7	0	0.605	0.879	1.068	1.386	1.593	1.718	1.801	1.801	1.801
34		npson (D) (i)	7	0	0.451	0.481	0.489	0.536	0.763	0.774	0.869	0.934	0.987
35		npson (D) (r)	7	0	0.469	0.475	0.484	0.5	0.641	0.725	0.832	0.871	0.902
36		npson (RI) (i)	7	0	1.168	1.292	1.311	1.867	2.047	2.08	2.229	2.323	2.399
37	Sim	pson (RI) (r)	7	0	1.208	1.423	1.637	2	2.067	2.107	2.133	2.133	2.133
07	`			1	<u> </u>	I.	1						

	Α	В	С	D	Е	F	G	Н	I	J	K	L
1				Ca	anopy C	over Pa	arametr	<u>ic ANO</u>	VA			
2												
3					neway ANO							
4	Date	e/Time of Co			19/29/2022 1	:53:17 PM						
5			From File	Canopy co	ver.xls							
6		Ful	I Precision	OFF								
7												
8					T	Т	T	Т	1	T	1	T
9		Richne	ess (S)									
10						0.0						
11			Group		Mean	SD	Variance					
12			r		2.286	0.488	0.238					
13		wand Ctatiat	ا	7	2.714	0.951 0.76	0.905 0.577					
14	G	irano Statisti	ics (All data)	14	2.5	0.76	0.577					
15		Class	sical One M	av Analysis	of Variance T	ahla						
16		Source	SS SS	DOF	MS MS	V.R.(F Stat)	D_\/alua					
17	Retwo	en Groups	0.643	1	0.643	1.125	0.31					
18		nin Groups	6.857	12	0.643	1.120	0.01					
19	vviu	Total	7.5	13	0.371							
20		10(a)	7.0	1.5								
21	Poo	led Standar	d Deviation	0.756								
22	. 55		R-Sq	0.0857								
23				0.0007								
24 25	Note: A p-va	lue <= 0.05	(or some oth	ner selected	level) sugge:	sts that there	are significa	ant difference	s in			
	1		•		, 55		•					
7)6	IIIeaii/IIIeuia	n characteri	stics of the v	arious grou	os at 0.05 or	other selecte	d level of sig	nificance				
26 27	1					other selecte /median char	_		groups are c	comparable.		
27	1						_		groups are o	comparable.		
27 28	1						_		groups are o	comparable.		
27 28 29	1		er selected le				_		groups are c	comparable.		
27 28 29 30	1	0.05 (or othe	er selected le				_		groups are c	comparable.		
27 28 29 30 31	1	0.05 (or othe	er selected le	evel) sugges			_		groups are o	comparable.		
27 28 29 30 31 32	1	0.05 (or othe	er selected le	evel) sugges	ts that mean	/median char	acteristics o		groups are o	comparable.		
27 28 29 30 31	1	0.05 (or othe	er selected le	ovel) sugges	ts that mean	/median char	variance		groups are o	comparable.		
27 28 29 30 31 32 33	A p-value > (0.05 (or othe	er selected le	Obs 7	Mean 1.27	SD 0.525	Variance		groups are o	comparable.		
27 28 29 30 31 32 33 34	A p-value > (Shann	on (H) Group r ics (All data)	Obs 7 7 14	Mean 1.27 1.264 1.267	SD 0.525 0.706 0.598	Variance 0.276 0.498		groups are o	comparable.		
27 28 29 30 31 32 33 34 35	A p-value > (Shann Shann Class	Group r ics (All data)	Obs 7 7 14	Mean 1.27 1.264 1.267 of Variance T	SD 0.525 0.706 0.598	Variance 0.276 0.498 0.357		groups are o	comparable.		
27 28 29 30 31 32 33 34 35 36	A p-value > (Shann Shann Class Source	Group r ics (All data)	Obs 7 14 ay Analysis	Mean 1.27 1.264 1.267 Dr Variance T	SD	Variance 0.276 0.498 0.357		groups are o	comparable.		
27 28 29 30 31 32 33 34 35 36	A p-value > (Shann Shann Class Source en Groups	Group r ides (All data) sical One-Wa	Obs 7 7 14 Ay Analysis of DOF 1	Mean 1.27 1.264 1.267 Of Variance T MS 1.3659E-4	SD 0.525 0.706 0.598	Variance 0.276 0.498 0.357		groups are o	comparable.		
27 28 29 30 31 32 33 34 35 36 37 38	A p-value > (Shann Shann Class Source en Groups nin Groups	Group r idics (All data) Sical One-Wat SS 1.3659E-4 4.647	Obs 7 14 ay Analysis of 12	Mean 1.27 1.264 1.267 Dr Variance T	SD	Variance 0.276 0.498 0.357		groups are o	comparable.		
27 28 29 30 31 32 33 34 35 36 37 38 39	A p-value > (Shann Shann Class Source en Groups	Group r ides (All data) sical One-Wa	Obs 7 7 14 ay Analysis of DOF 1	Mean 1.27 1.264 1.267 Of Variance T MS 1.3659E-4	SD	Variance 0.276 0.498 0.357		groups are o	comparable.		
27 28 29 30 31 32 33 34 35 36 37 38 39 40	A p-value > (Shann Shann Class Source en Groups nin Groups Total	Group r idics (All data) Sical One-Wat SS 1.3659E-4 4.647 4.647	Obs 7 14 Ay Analysis of 12 13	Mean 1.27 1.264 1.267 Of Variance T MS 1.3659E-4	SD	Variance 0.276 0.498 0.357		groups are o	comparable.		
27 28 29 30 31 32 33 34 35 36 37 38 39 40	A p-value > (Shann Shann Class Source en Groups nin Groups	Group r ides (All data) sical One-Wat SS 1.3659E-4 4.647 4.647	Obs 7 7 14 DOF 1 12 13 0.622	Mean 1.27 1.264 1.267 Of Variance T MS 1.3659E-4	SD	Variance 0.276 0.498 0.357		groups are o	comparable.		
27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42	A p-value > (Shann Shann Class Source en Groups nin Groups Total	Group r ides (All data) sical One-Wat SS 1.3659E-4 4.647 4.647	Obs 7 14 Ay Analysis of 12 13	Mean 1.27 1.264 1.267 Of Variance T MS 1.3659E-4	SD	Variance 0.276 0.498 0.357		groups are o	comparable.		
27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43	A p-value > (Shann Shann Grand Statisti Class Source en Groups nin Groups Total	Group r ics (All data) sical One-Wa SS 1.3659E-4 4.647 4.647 d Deviation R-Sq	Obs 7 7 14 ay Analysis 6 DOF 1 12 13 0.622 2.9396E-5	Mean 1.27 1.264 1.267 Of Variance T MS 1.3659E-4 0.387	SD 0.525 0.706 0.598 Table V.R.(F Stat) 3.5277E-4	Variance 0.276 0.498 0.357 P-Value 0.985	f the various		comparable.		
27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46	A p-value > (Shann Shann Class Source en Groups nin Groups Total	Group r ides (All data) sical One-Wat SS 1.3659E-4 4.647 4.647 d Deviation R-Sq (or some other)	Obs 7 7 14 DOF 1 12 13 0.622 2.9396E-5	Mean 1.27 1.264 1.267 MS 1.3659E-4 0.387	SD 0.525 0.706 0.598 V.R.(F Stat) 3.5277E-4	Variance 0.276 0.498 0.357 P-Value 0.985	f the various		comparable.		
27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46	A p-value > 0 G Betwe With Poo Note: A p-va	Shann Shann Class Source en Groups nin Groups Total cled Standard	Group r ics (All data) sical One-Wa SS 1.3659E-4 4.647 4.647 d Deviation R-Sq (or some otherstics of the v	Obs 7 7 14 ay Analysis 6 DOF 1 12 13 0.622 2.9396E-5 her selected rarious group	Mean 1.27 1.264 1.267 MS 1.3659E-4 0.387	SD 0.525 0.706 0.598 Table V.R.(F Stat) 3.5277E-4 sts that there other selecte	Variance 0.276 0.498 0.357 P-Value 0.985 are significated level of significations are significated level of significated level of significations are significated level of significated level of significations are significated level of significated level of significations are significated level of signifi	f the various	s in			
27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46	A p-value > 0 G Betwe With Poo Note: A p-va	Shann Shann Class Source en Groups nin Groups Total cled Standard	Group r ics (All data) sical One-Wa SS 1.3659E-4 4.647 4.647 d Deviation R-Sq (or some otherstics of the v	Obs 7 7 14 ay Analysis 6 DOF 1 12 13 0.622 2.9396E-5 her selected rarious group	Mean 1.27 1.264 1.267 MS 1.3659E-4 0.387	SD 0.525 0.706 0.598 V.R.(F Stat) 3.5277E-4	Variance 0.276 0.498 0.357 P-Value 0.985 are significated level of significations are significated level of significated level of significations are significated level of significated level of significations are significated level of significated level of significations are significated level of signifi	f the various	s in			
27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47	A p-value > 0 G Betwe With Poo Note: A p-va	Shann Shann Class Source en Groups nin Groups Total cled Standard	Group r ics (All data) sical One-Wa SS 1.3659E-4 4.647 4.647 d Deviation R-Sq (or some otherstics of the v	Obs 7 7 14 ay Analysis 6 DOF 1 12 13 0.622 2.9396E-5 her selected rarious group	Mean 1.27 1.264 1.267 MS 1.3659E-4 0.387	SD 0.525 0.706 0.598 Table V.R.(F Stat) 3.5277E-4 sts that there other selecte	Variance 0.276 0.498 0.357 P-Value 0.985 are significated level of significations are significated level of significated level of significations are significated level of significated level of significations are significated level of significated level of significations are significated level of signifi	f the various	s in			
27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48	A p-value > 0 G Betwe With Poo Note: A p-va	Shann Shann Class Source en Groups Total Iled Standard Ilue <= 0.05 n characteri 0.05 (or other	Group r ides (All data) sical One-War SS 1.3659E-4 4.647 4.647 d Deviation R-Sq (or some otherstics of the ver selected leader)	Obs 7 7 14 ay Analysis 6 DOF 1 12 13 0.622 2.9396E-5 her selected rarious group	Mean 1.27 1.264 1.267 MS 1.3659E-4 0.387	SD 0.525 0.706 0.598 Table V.R.(F Stat) 3.5277E-4 sts that there other selecte	Variance 0.276 0.498 0.357 P-Value 0.985 are significated level of significations are significated level of significated level of significations are significated level of significated level of significations are significated level of significated level of significations are significated level of signifi	f the various	s in			
27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48	A p-value > 0 G Betwe With Poo Note: A p-va	Shann Shann Class Source en Groups nin Groups Total cled Standard	Group r ides (All data) sical One-War SS 1.3659E-4 4.647 4.647 d Deviation R-Sq (or some otherstics of the ver selected leader)	Obs 7 7 14 ay Analysis 6 DOF 1 12 13 0.622 2.9396E-5 her selected rarious group	Mean 1.27 1.264 1.267 MS 1.3659E-4 0.387	SD 0.525 0.706 0.598 Table V.R.(F Stat) 3.5277E-4 sts that there other selecte	Variance 0.276 0.498 0.357 P-Value 0.985 are significated level of significations are significated level of significated level of significations are significated level of significated level of significations are significated level of significated level of significations are significated level of signifi	f the various	s in			

	A B	С	D	E	F	G	Н	I	J	K	L
53		Group	Obs	Mean	SD	Variance					
54		r	7	0.59	0.179	0.032					
55		i	7	0.636	0.212	0.0448					
56	Grand Statisti	ics (All data)	14	0.613	0.19	0.036					
57											
58	Class	sical One-Wa	y Analysis o	of Variance T	able						
59	Source	SS	DOF	MS	V.R.(F Stat)	P-Value					
60	Between Groups	0.00746	1	0.00746	0.194	0.667					
61	Within Groups	0.461	12	0.0384							
62	Total	0.468	13								
63											
64	Pooled Standar	d Deviation	0.196								
65		R-Sq	0.0159								
66											
67	Note: A p-value <= 0.05	(or some oth	er selected	level) sugge:	sts that there	are significa	nt difference	s in			
68	mean/median characteri	stics of the v	arious group	os at 0.05 or	other selecte	d level of sig	nificance				
69	A p-value > 0.05 (or other	r selected le	vel) suggest	ts that mean/	median char	acteristics of	the various	groups are co	omparable.		
70											
71											
72	Simps	on (RI)									
73											
74		Group	Obs	Mean	SD	Variance					
75		r	7	1.806	0.428	0.183					
76		i	7	1.715	0.514	0.264					
77	Grand Statist	ics (All data)	14	1.76	0.457	0.209					
78						,					
79	Class	sical One-Wa	y Analysis o	of Variance T	able						
80	Source	SS	DOF	MS	V.R.(F Stat)	P-Value					
81	Between Groups	0.0291	1	0.0291	0.13	0.725					
82	Within Groups	2.683	12	0.224							
83	Total	2.712	13								
84				1	1						
85	Pooled Standard										
86		R-Sq	0.0107								
87				1	1		<u> </u>		<u> </u>		
	Note: A p-value <= 0.05	(or some oth	er selected	level) sugge:	sts that there	are significa	nt difference	s in			
	mean/median characteri	stics of the v	arious group	s at 0.05 or	other selecte	d level of sig	nificance				
	A p-value > 0.05 (or othe	acteristics of	the various	groups are co	omparable.						
91											
	<u> </u>										

	Α	В	С	D	Е	F	G	Н	I	J	K	L
1				Can	opy Cov	er Non	parame	tric AN	AVO			
2												
3					etric Oneway	•	ıskal-Wallis ⁻	Test)				
4	Dat	te/Time of Co			19/29/2022 1:	53:45 PM						
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8							I			1	1	
9		Richne	ess (S)									
10				T								
11		Group	Obs	Median	Ave Rank	Z						
12		i	7	3	8.786	1.15						
13		r	7	2	6.214	-1.15						
14		Overall	14	2.5	7.5							
15		Z M (11 0: ::)	505	DV	(4:	ia a \						
16	, I	K-W (H-Stat)		P-Value	(Approx. Ch							
17		1.322	1	0.25	/	l for Tion						
18		1.563	1	0.211	(Aujusted	d for Ties)]		
19	Note: A = :-	alue <= 0 0°	(or come cal	ner enlantad	level) sugges	to that there	are cianifica	nt difforence	e in			
20	· -		-		ps at 0.05 or c		-		3 III			
21					ts that mean/		_		aroline are o	nmnarahla		
22	∧ p-value >	5.05 (OI OIIIE	o acicultu i	svei) sugges	w ulat IIIEail/I	meulali Cildi	นบเซเเอแบอ UI	ale valious (groups are 0	oniparable.		
23												
24		Shann	on (H)									
25		- Chaill	(* 1)									
26		Group	Obs	Median	Ave Rank	Z						
27		i	7	1.687	7.643	0.128						
28		r	7	1.386	7.357	-0.128						
29 30		Overall	14	1.386	7.5							
31			1									
32	ŀ	K-W (H-Stat)	DOF	P-Value	(Approx. Ch	isquare)						
33		0.0163	1	0.898								
34		0.0164	1	0.898	(Adjusted	d for Ties)						
35			1	1			<u> </u>	1	1	1		
	Note: A p-va	alue <= 0.05	(or some otl	ner selected	level) sugges	ts that there	are significa	nt difference	s in			
	mean/media	an characteri	stics of the v	/arious group	ps at 0.05 or o	other selecte	d level of sig	nificance				
38	A p-value >	0.05 (or othe	er selected le	evel) sugges	ts that mean/	median char	acteristics of	the various	groups are c	comparable.		
39											1	-
40												
41		Simps	on (D)									
42												
43		Group	Obs	Median	Ave Rank	Z						
44		i	7	0.536	8.214	0.639						
45		r	7	0.5	6.786	-0.639						
46		Overall	14	0.502	7.5							
47												
48	ŀ	K-W (H-Stat)		P-Value	(Approx. Ch	isquare)						
49		0.408	1	0.523								
50		0.411	1	0.522	(Adjusted	d for Ties)						
51												
52	Note: A p-va	alue <= 0.05	(or some otl	ner selected	level) sugges	ts that there	are significa	nt difference	s in			

	Α	В	С	D	Е	F	G	Н	I	J	K	L
53	mean/media	an characteri	stics of the v	arious group	os at 0.05 or o	ther selecte	d level of sig	nificance				
54	A p-value >	0.05 (or othe	er selected le	evel) sugges	ts that mean/	median char	acteristics of	the various	groups are c	omparable.		
55												
56												
57		Simps	on (RI)									
58												
59		Group										
60		i	7	1.867	6.786	-0.639						
61		r										
62		Overall	14	1.992	7.5							
63												
64	ŀ	K-W (H-Stat)	DOF	P-Value	(Approx. Ch	isquare)						
65		0.408	1	0.523								
66		0.411	1	0.522	(Adjusted	for Ties)						
67												
68	Note: A p-va	alue <= 0.05	(or some oth	er selected	level) sugges	ts that there	are significa	nt difference	s in			
69	mean/media	an characteri	stics of the v	arious group	os at 0.05 or o	ther selecte	d level of sig	nificance				
70	A p-value >	0.05 (or other	er selected le	evel) sugges	ts that mean/	median char	acteristics of	the various	groups are c	omparable.		
71												

	Α	В	С	D	Е	F	G		Н	I	J	K	L
1				Ground	Cover	Goodr	ness-of-	·fit (0	GOF) Tests			
2													
3				Goodness-o	f-Fit Test St	atistics for	Uncensored	Full Da	ata Sets	without Nor	n-Detects		
4			cted Options										
5	Dat	te/Time of C	Computation	ProUCL 5.19		:31:14 PM							
6			From File	Ground cove	er.xls								
7			ıll Precision	OFF									
8		Confidence	Coefficient	0.95									
9													
10													
11	Richness (S	S) (i)											
12													
13				tatistics									
14	<u> </u>			ber of Valid O									
15			Numbe	r of Distinct O									
16	<u> </u>				Minimum								
17	<u> </u>				Maximum								
18					of Raw Data								
19	<u> </u>		Standa	rd Deviation of									
20					Khat								
21					Theta hat								
22					Kstar								
23	<u> </u>				Theta star								
24	<u> </u>			of Log Transf									
25	<u> </u>	Standa	ard Deviation	of Log Transf	ormed Data	0.592							
26	<u> </u>												
27	<u> </u>		Normal GOF	Test Results									
28	<u> </u>			0 1									
29	<u> </u>			Correlation C									
30	ļ			Shapiro Wilk T									
31	ļ		-	Wilk Critical (•								
32	<u> </u>		Approxim	ate Shapiro V									
33	<u> </u>		1 1121		est Statistic								
34	D-to-			efors Critical (v.u5) Value	0.304							
33	uata appea	r Normal at	(0.05) Signific	cance Level									
36	ļ		0										
37	 		Gamma GOF	· rest Results	.								
38	<u> </u>			0 1 =		00:5							
39	 			Correlation C									
40	ļ				est Statistic								
41	ļ			A-D Critical (
42	 				est Statistic								
43	Date assis			K-S Critical(-	0.313							
44	∪ata appea	ır Gamma D	istributed at (u.ua) Signific	ance Level								
45	 			NE Took Deed	•								
46	 	L	ognormal GC	r Test Kesul	ເຮ								
47	ļ			0	\ee: · · -	0.00=							
48	<u> </u>			Correlation C									
49	<u> </u>			Shapiro Wilk T									
50	<u> </u>		-	Wilk Critical (
51	ļ		Approxim	ate Shapiro V									
52				Lilliefors I	est Statistic	0.254							

53	Α	В	C Lillie	D efors Critical (E (0.05) Value	F 0.304	G	Н	I	J	K	L	
54	Data appea	r Lognormal	l at (0.05) Sig	nificance Lev	/el								
55													
56	Richness (S	5) (r)											
57													
58				tatistics									
59				ber of Valid C		7							
60			Number	r of Distinct O		4							
61					Minimum	1							
62					Maximum	4							
63					of Raw Data	2.571							
64			Standa	rd Deviation		0.976							
65					Khat	6.61							
66					Theta hat	0.389							
67					Kstar	3.872							
68				· -	Theta star	0.664							
69				of Log Transf		0.867							
70		Standa	ard Deviation	of Log Transi	formed Data	0.455							
71			No.	T D b.									
72			Normal GOF	l est Results	1								
73				Correlation C	Da afficient D	0.962							
74													
75				hapiro Wilk T Wilk Critical (0.936		<u> </u>					
76			-	ate Shapiro V		0.803							
77			Approxim	-	est Statistic	0.537							
78			1:00:					<u> </u>		<u> </u>			
79	Doto oppos	r Normal at	(0.05) Signific	efors Critical ((0.05) value	0.304		<u> </u>					
80	Data appea	i Nomiai at	(0.05) Signino	cance Level									
81			Gamma GOF	Tost Posulte									
82			Gaillilla GOF	Test nesults	•								
83				Correlation C	Coefficient R	0.939		 					
84					est Statistic	0.455							
85				A-D Critical (0.709							
86					est Statistic	0.275							
87				K-S Critical(0.313		+	<u> </u>	<u> </u>			
88	Data appea	r Gamma D	istributed at (-	-								
89								+					
90			ognormal GO	F Test Resul	lts			+					
91								+					
92				Correlation C	Coefficient R	0.928		+	+	1			
93	 			hapiro Wilk T		0.877		+					
94	 			Wilk Critical (0.803		+	1				
95			-	ate Shapiro V		0.165		+	+	1			
96 97				-	est Statistic	0.266		+	+	1			
98			Lillie	efors Critical (0.304		+					
98	Data appea	r Lognorma	l at (0.05) Sig					+					
100								+					
100	Shannon (H	l) (i)					1	+		1			
101								+					
102			Raw S	tatistics				+					
103				ber of Valid C	bservations	7	+	+		1			
104	<u> </u>									<u> </u>			

105	A B C D E Number of Distinct Observations	F 7	G	Н	I	J	K	L
106	Minimum	0						
107	Maximum	3.466						
108	Mean of Raw Data	1.88						
109	Standard Deviation of Raw Data	1.241						
110	Di	ata contains	s values <= ()			1	
111	Data	a not gamm	na or lognorn	nal				
112								
113	Normal GOF Test Results							
114								
115	Correlation Coefficient R	0.967						
116	Shapiro Wilk Test Statistic	0.928						
117	Shapiro Wilk Critical (0.05) Value	0.803						
118	Approximate Shapiro Wilk P Value	0.612						
119	Lilliefors Test Statistic	0.242						
120	Lilliefors Critical (0.05) Value	0.304						
121	Data appear Normal at (0.05) Significance Level							
122								
	Shannon (H) (r)							
124								
125	Raw Statistics							
126	Number of Valid Observations	7						
127	Number of Distinct Observations	7						
128	Minimum	0						
129	Maximum	2.664						
130	Mean of Raw Data	1.492						
131	Standard Deviation of Raw Data	0.862						
132			s values <= (
133	Data	a not gamm	na or lognorn	nal	T-	1		
134								
135	Normal GOF Test Results							
136								
137	Correlation Coefficient R	0.968						
138	Shapiro Wilk Test Statistic	0.948						
139	Shapiro Wilk Critical (0.05) Value	0.803						
140	Approximate Shapiro Wilk P Value	0.634						
141	Lilliefors Test Statistic	0.192						
142	Lilliefors Critical (0.05) Value	0.304						
143	Data appear Normal at (0.05) Significance Level							
144	Simpson (D) (i)							
143	Simpson (D) (i)							
146	Raw Statistics							
147	Number of Valid Observations	7						
148	Number of Distinct Observations	7						
149	Minimum	0.188						
150	Maximum	1						
151	Mean of Raw Data	0.505						
152	Standard Deviation of Raw Data	0.303						
153	Standard Deviation of Naw Data Khat	3.178						
154	Theta hat	0.159						
155	Kstar	1.911			1			
156	Notal	1.511						

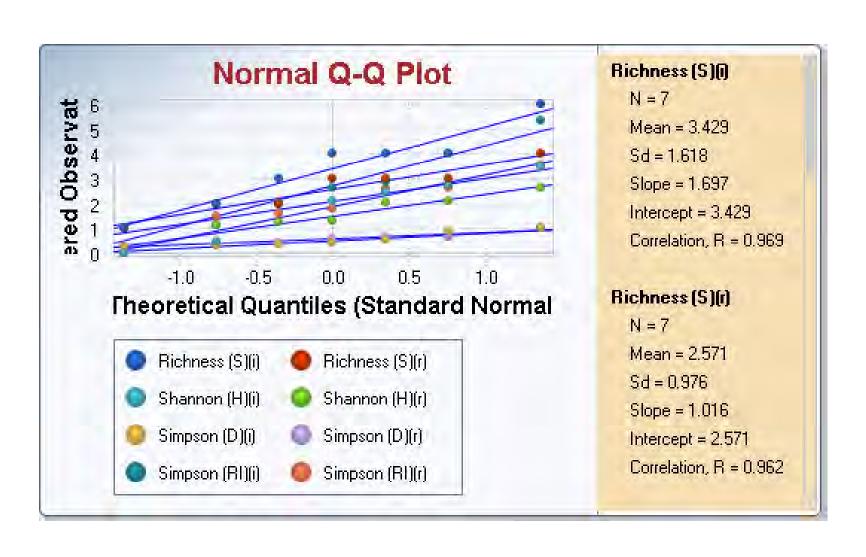
157	Α	В	С	D	E Theta star	F 0.264	G	Н	I	J	K	L	
158			Mean	of Log Trans	formed Data	-0.85							
159		Standa	ard Deviation	of Log Trans	formed Data	0.62							
160													
161			Normal GOF	Test Results	5								
162													
163					Coefficient R	0.936							
164					Test Statistic	0.862							
165					(0.05) Value	0.803							
166			Approxim		Wilk P Value	0.216							
167					Test Statistic	0.237							
168					(0.05) Value	0.304							
169	Data appea	r Normal at	(0.05) Signific	cance Level									
170													
171			Gamma GOF	Test Result	S								
172													
173					Coefficient R	0.966							
174					Γest Statistic	0.339							
175					(0.05) Value	0.712							
176					Γest Statistic	0.194							
177					(0.05) Value	0.314							
178 [[]	Data appea	r Gamma D	istributed at (0.05) Signific	cance Level								
179													
180		L	ognormal GO	F Test Resu	lts								
181													
182					Coefficient R	0.98							
183				•	Test Statistic	0.945							
184					(0.05) Value	0.803							
185			Approxim		Wilk P Value	0.825							
186					Γest Statistic	0.167							
187					(0.05) Value	0.304							
188	Data appea	r Lognorma	l at (0.05) Sig	nificance Le	vel								
189													
190	Simpson (C)) (r)											
191													
192				tatistics	I								
193					Observations	7							
194			Number	r of Distinct C	Observations	7							
195					Minimum	0.28							
196				.,	Maximum	1							
197			0: :		of Raw Data	0.555							
198			Standa	rd Deviation	of Raw Data	0.241							
199					Khat	6.537							
200					Theta hat	0.0849							
201					Kstar	3.831							
202			8.4	of Law To	Theta star	0.145							
203		0		-	formed Data	-0.667							
204		Standa	ard Deviation	of Log Trans	stormed Data	0.427							
205			Name - LOCE	Took D	_								
206			Normal GOF	rest Results	5								
207				Correlation	Coofficient D	0.000							
208				Correlation (Coefficient R	0.958							l

	Α		В		С		D	E	F	G	Н	I	J	K	L	
209								Test Statistic (0.05) Value	0.924 0.803			1				
210								(0.05) Value Wilk P Value	0.803							
211					фріохііі		-	Test Statistic	0.472							
212					Lilli			(0.05) Value	0.304							
213	Data app	ar No	rmal at	t (N NF				(0.05) Value	0.304							
214	Data app	sai NO	illiai a	ι (υ.υ.) Sigilli	iicaiice	LEVE									
215				Gam	ma GO	F Test	Result	•								
216				Guin	iiia GO	1 1030	ricouit									
217						Corre	elation (Coefficient R	0.983							
218								Test Statistic	0.241							
219						A-D ((0.05) Value	0.709							
220								Test Statistic	0.194							
221						K-S (0.05) Value	0.313							
222223	Data app	ear Ga	mma [Distrib	uted at			cance Level								
223	-					•	-									
225			ı	Logno	rmal G	OF Tes	st Resu	Its								
226																
227						Corre	lation (Coefficient R	0.985							
228						Shapiro	o Wilk 7	Γest Statistic	0.97							
229					Shapiro	Wilk (Critical	(0.05) Value	0.803							
230				Д	Approxin	nate Sl	hapiro \	Wilk P Value	0.9							
231						Lill	liefors 7	Γest Statistic	0.17							
232					Lilli	iefors (Critical	(0.05) Value	0.304							
	Data app	ear Lo	gnorma	al at ((0.05) Si	gnifica	nce Le	vel								
234																
235	Simpson	(RI) (i))													
236																
237						Statistic										
238								Observations	7							
239					Numbe	er of Di	stinct C	Observations	7							
240								Minimum	1							
241							NA	Maximum of Raw Data	5.333							
242					Ctond	d D		of Raw Data	2.727 1.552							
243					Starius	aru De	viation	Khat	3.412							
244								Theta hat	0.799							
245								Kstar	2.045							
246								Theta star	1.334							
247					Mean	n of Loc	g Trans	formed Data	0.85							
248			Stand	dard D		_		formed Data	0.62							
249									-							
250 251				Norr	nal GOI	F Test	Results									
251																
252 253						Corre	elation (Coefficient R	0.976							
254					(Shapiro	o Wilk 7	Γest Statistic	0.943							
255					Shapiro	o Wilk (Critical	(0.05) Value	0.803							
256				Α	Approxin	nate Sl	hapiro \	Wilk P Value	0.758							
257						Lill	liefors 7	Test Statistic	0.168							
258								(0.05) Value	0.304							
259	Data app	ear No	rmal a	t (0.05	5) Signif	ficance	Level									
260																
										1	0	1	1	1	I	

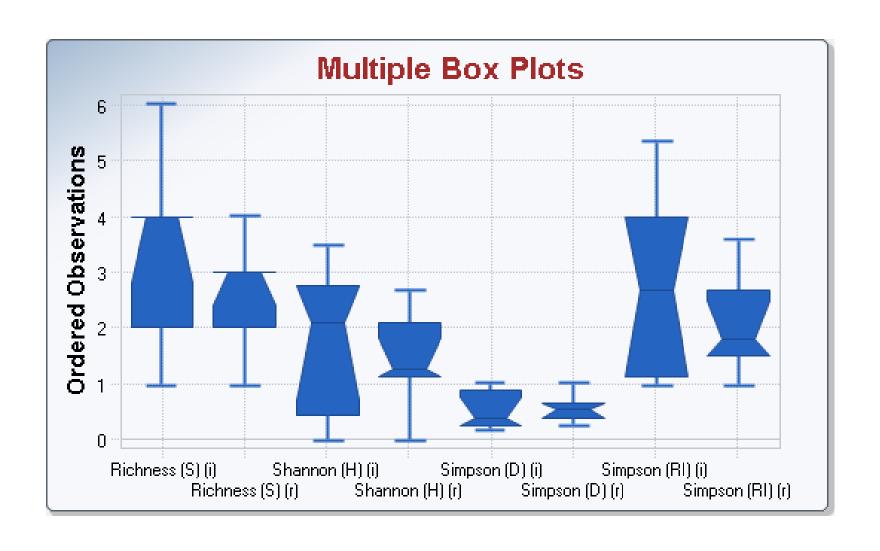
Commission Coefficient R 0.991	261	A	В	C Gamma GO	F Test Results	Е	F	G	Н	I	J	K	L
Correlation Coefficient R 0.991													
A. D. Toet Statistic 0.225					Correlation C	oefficient R	0.991						
A-D Critical (0.05) Value					A-D Te	est Statistic	0.225						
Section Sect					A-D Critical (0	0.05) Value	0.711						
Rest appear Gamma Distributed at (0.05) Significance Level					K-S Te	est Statistic	0.177						
250 250					K-S Critical(0	.05) Value	0.313						
		Data appear	r Gamma I	Distributed at	(0.05) Significa	nce Level							
272 Correlation Coefficient R 0.98				Lognormal Go	OF Test Result	s							
Correlation Coefficient R 0.98													
Shapiro Wilk Test Statistic 0.945					Correlation C	oefficient R	0.98						
Shapiro Wilk Critical (0.05) Value 0.803					•		0.945						
Company	274			•	,	,							
Control Cont	275			Approxin	-								
Deta appear Lognormal at (0.05) Significance Level	276												
Deta appear Lognormal at (0.05) Significance Level	277				•	-	0.304						
Simpson (RI) (r) Simpson (RI) (r) (r) Simpson (RI) (r) (r) Simpson (RI) (r) (r) Simpson (RI) (r) (r) (r) Simpson (RI) (r) (r) (r) Simpson (RI) (r) (r) (r) (r) Simpson (RI) (r) (r) (r) (r) (r) (r) (r) (r) (r) (r	278	Data appear	r Lognorm	al at (0.05) Si	gnificance Leve	el							
Simpson (RI) (r) Simpson (RI) (r) (r) Simpson (RI) (r) (r) Simpson (RI) (r) (r) Simpson (RI) (r) (r) (r) Simpson (RI) (r) (r) (r) Simpson (RI) (r) (r) (r) (r) Simpson (RI) (r) (r) (r) (r) (r) (r) (r) (r) (r) (r	279												
Raw Statistics Number of Valid Observations 7	280	Simpson (R	l) (r)										
282 Number of Valid Observations 7	281												
284	282												
Maximum 1	283						7						
285 Maximum 3,571	284			Numbe	er of Distinct Ol	oservations	7						
Mean of Raw Data 2.104	285					Minimum							
288 Standard Deviation of Raw Data	286												
See 287													
299 Shapiro Wilk Test Statistic 0.948	288			Standa	ard Deviation o	f Raw Data							
Standard Deviation of Log Transformed Data 0.667	289												
292	290					Theta hat							
293	291												
Standard Deviation of Log Transformed Data 0.427	292												
295	293				=								
296 Normal GOF Test Results 0.973 0.973 0.973 0.973 0.973 0.973 0.973 0.973 0.973 0.973 0.973 0.974	294		Stand	dard Deviation	n of Log Transfo	ormed Data	0.427						
297	295												
298 Shapiro Wilk Test Statistic 0.948	296			Normal GOI	F Test Results								
Shapiro Wilk Test Statistic 0.948	297					m · =1			<u> </u>				
Shapiro Wilk Critical (0.05) Value 0.803	298								<u> </u>				
Approximate Shapiro Wilk P Value 0.722	299												
Solid Continue C	300				· ·								
Solution			Approxin	-									
Data appear Normal at (0.05) Significance Level	302			1					1				
305 306		Date ·	- NIa		-	value (cu.u	0.304		1				
306 Gamma GOF Test Results	304	vata appea	r Normal a	ιι (υ.υ5) Signif	icance Level								
307 308	305			Oarran 22	E Took Daniel								
308 Correlation Coefficient R 0.986 309 A-D Test Statistic 0.236 310 A-D Critical (0.05) Value 0.709 311 K-S Test Statistic 0.176	306			Gamma GO	r i est kesults								
309 A-D Test Statistic 0.236 310 A-D Critical (0.05) Value 0.709 311 K-S Test Statistic 0.176	307				Operator O	#: -:	0.000		1				
310 A-D Critical (0.05) Value 0.709 311 K-S Test Statistic 0.176	308								1				
311 K-S Test Statistic 0.176	309								1				
V. C. Cristica (V. O.F.). Value 0.212	310				· ·	-							
312 N-5 Chiicai(0.05) Value 0.313	311												
	312				K-S Critical(U	value	0.313						

	Α	В	С	D	E	F	G	Н	ı	J	K	L
313	Data appear	r Gamma Dis	stributed at (0.05) Signific	ance Level							
314												
315		Lo	gnormal GO	F Test Resul	lts							
316												
317				Correlation (Coefficient R	0.985						
318			S	hapiro Wilk T	est Statistic	0.97						
319			Shapiro	Wilk Critical	(0.05) Value	0.803						
320			Approxim	ate Shapiro \	Nilk P Value	0.9						
321				Lilliefors T	est Statistic	0.17						
322				efors Critical	` '	0.304						
323	Data appear	r Lognormal	at (0.05) Sig	nificance Lev	⁄el							
	·	·								·		

Ground Cover QQ Plots



Ground Cover Box Plots



	Α	В	С	D	Е	F	G	Н	ı	J	K	L	М
1		_	_		Groun	d Cove	r Summ	nary Sta	tistics	_			
2													
3				General Sta	tistics on Un	censored Fu	II Data		1				
4	Date	/Time of Co	omputation	ProUCL 5.1	9/29/2022 1:	35:18 PM							
5	l	User Selec	ted Options										
6			From File	Ground cove	er.xls								
7		Ful	I Precision	OFF									
8				•									
9	From File: Gr	ound cover	r.xls										
10													
11					General S	tatistics for L	Incensored I	Data Sets					
12													
13	Varial		NumObs	# Missing	Minimum	Maximum	Mean	Geo-Mean	SD	SEM	MAD/0.675		CV
14		talCover (i)		0	0.1	0.85	0.393	0.318	0.262	0.0991	0.297	0.842	0.667
15		alCover (r)		0	0.1	0.6	0.364	0.322	0.165	0.0624	0.148	-0.235	0.453
16		ness (S) (i)		0	1	6	3.429	3.022	1.618	0.612	1.483	0.0135	0.472
17		ness (S) (r)		0	1	4	2.571	2.38	0.976	0.369	1.483	-0.277	0.38
18		nnon (H) (i)		0	0	3.466	1.88	0	1.241	0.469	1.028	-0.574	0.66
19		nnon (H) (r)		0	0	2.664	1.492	0	0.862	0.326	1.104	-0.519	0.578
20		oson (D) (i)		0	0.188	1	0.505	0.428	0.317	0.12	0.185	0.91	0.628
21	-	oson (D) (r)		0	0.28	1	0.555	0.513	0.241	0.0912	0.247	0.971	0.435
22		son (RI) (i)		0	1	5.333	2.727	2.339	1.552	0.587	1.977	0.637	0.569
23	Simps	son (RI) (r)	7	0	1	3.571	2.104	1.949	0.876	0.331	1.144	0.605	0.416
24					Porcor	ntiles for Unc	oncored Det	o Soto					
25					reicei	illies for Offic	ensored Dat	a Seis					
26	Varial	hle	NumObs	# Missing	10%ile	20%ile	25%ile(O1)	50%ile(Q2)	75%ile(O3)	80%ile	90%ile	95%ile	99%ile
27		talCover (i)		0	0.16	0.2	0.2	0.4	0.5	0.56	0.7	0.775	0.835
28		alCover (r)		0	0.19	0.26	0.275	0.4	0.45	0.48	0.54	0.57	0.594
29		ness (S) (i)		0	1.6	2.2	2.5	4	4	4	4.8	5.4	5.88
30		ness (S) (r)		0	1.6	2	2	3	3	3	3.4	3.7	3.94
31		non (H) (i)		0	0.268	0.751	1.207	2.079	2.599	2.703	3.05	3.258	3.424
32		non (H) (r)		0	0.675	1.154	1.199	1.278	2.051	2.068	2.313	2.489	2.629
33 34		oson (D) (i)		0	0.225	0.269	0.297	0.375	0.688	0.809	0.934	0.967	0.993
35		son (D) (r)		0	0.337	0.378	0.382	0.556	0.643	0.653	0.796	0.898	0.98
36	-	son (RI) (i)		0	1.075	1.311	1.591	2.667	3.455	3.782	4.533	4.933	5.253
37	-	son (RI) (r)		0	1.309	1.532	1.558	1.8	2.619	2.648	3.029	3.3	3.517
3/	·	. , , ,											

-	А	В	С	D	E	F	G	Н		J	K	L
1				G	round C	over Pa	rametri	ic ANO\	/A			
2												
3					neway ANO							
4	Date/Tin	ne of Co	<u>'</u>		19/29/2022 1	:38:01 PM						
5			From File	Ground co	ver.xls							
6		Full	Precision	OFF								
7												
8						1	T	Т	T		1	
9		Richne	ess (S)									
10				01		00						
11			Group		Mean	SD 0.076	Variance					
12			r	7	2.571	0.976	0.952					
13	0.75.7	J C4-4:-4:	ا مددا الم	7 14	3.429	1.618	2.619 1.846					
14	Grand	ว	cs (All data)	14	3	1.359	1.840					
15		Close	ical One We	w Analysis	of Variance	Table						
16	c	Source	SS	DOF	MS	V.R.(F Stat)	D-Value					
17	Between G		2.571	1	2.571	1.44	0.253					
18	Within G	-	21.43	12	1.786	1.74	0.200					
19	vviuiiii G	Total	24	13	1.700							
20		· otal	2-7	1.5								
21	Pooled S	Standard	d Deviation	1.336								
22	. 00.04		R-Sq	0.107								
23				0.107								
24 25	Note: A p-value <	<= 0.05	or some oth	er selected	level) sugge	sts that there	are significa	ant difference	s in			
	mean/median ch											
20							a .010. 0. 0.g	ji iiii Cai iCe				
27	A p-value > 0.05	(or othe	r selected le						groups are	comparable.		
21	A p-value > 0.05	(or othe	r selected le						groups are o	comparable.		
28	A p-value > 0.05	(or othe	r selected le						groups are o	comparable.		
28	A p-value > 0.05	(or othe							groups are o	comparable.		
28 29 30	A p-value > 0.05								groups are o	comparable.		
28 29 30 31	A p-value > 0.05			vel) sugges					groups are o	comparable.		
28 29 30 31 32	A p-value > 0.05		on (H)	vel) sugges	sts that mean	/median char	acteristics o		groups are o	comparable.		
28 29 30 31	A p-value > 0.05		on (H)	vel) sugges	Mean	/median char	variance		groups are o	comparable.		
28 29 30 31 32 33		Shann	on (H)	Obs	Mean 1.492	/median char	Variance 0.743		groups are o	comparable.		
28 29 30 31 32 33 34		Shann d Statisti	on (H) Group r i cs (All data)	Obs 7 7 14	Mean 1.492 1.88 1.686	SD 0.862 1.241 1.046	Variance 0.743 1.541		groups are o	comparable.		
28 29 30 31 32 33 34 35	Grand	Shann d Statisti Class	on (H) Group r ics (All data)	Obs 7 7 14 ay Analysis	Mean 1.492 1.88 1.686	SD 0.862 1.241 1.046	Variance 0.743 1.541 1.094		groups are o	comparable.		
28 29 30 31 32 33 34 35 36	Grand	Shann d Statisti Class Source	on (H) Group r ics (All data)	Obs 7 7 14 ay Analysis DOF	Mean 1.492 1.88 1.686 of Variance	SD 0.862 1.241 1.046 Table V.R.(F Stat)	Variance 0.743 1.541 1.094 P-Value		groups are o	comparable.		
28 29 30 31 32 33 34 35 36 37	Grand S Between G	Shann I Statisti Class Source Groups	on (H) Group r ics (All data) sical One-Wa SS 0.527	Obs 7 7 14 ay Analysis DOF 1	Mean 1.492 1.88 1.686 Of Variance T MS 0.527	SD 0.862 1.241 1.046	Variance 0.743 1.541 1.094		groups are o	comparable.		
28 29 30 31 32 33 34 35 36 37	Grand	Shann d Statisti Class Gource Groups Groups	Group r ics (All data) sical One-Wa SS 0.527 13.7	Obs 7 14 ay Analysis DOF 1 12	Mean 1.492 1.88 1.686 of Variance	SD 0.862 1.241 1.046 Table V.R.(F Stat)	Variance 0.743 1.541 1.094 P-Value		groups are o	comparable.		
28 29 30 31 32 33 34 35 36 37 38 39	Grand S Between G	Shann I Statisti Class Source Groups	on (H) Group r ics (All data) sical One-Wa SS 0.527	Obs 7 7 14 ay Analysis DOF 1	Mean 1.492 1.88 1.686 Of Variance T MS 0.527	SD 0.862 1.241 1.046 Table V.R.(F Stat)	Variance 0.743 1.541 1.094 P-Value		groups are o	comparable.		
28 29 30 31 32 33 34 35 36 37 38 39 40	Grand S Between G Within G	Shann d Statisti Class Source Groups Groups Total	on (H) Group r ics (All data) sical One-Wa SS 0.527 13.7 14.23	Obs 7 14 ay Analysis DOF 1 12 13	Mean 1.492 1.88 1.686 Of Variance T MS 0.527	SD 0.862 1.241 1.046 Table V.R.(F Stat)	Variance 0.743 1.541 1.094 P-Value		groups are o	comparable.		
28 29 30 31 32 33 34 35 36 37 38 39 40	Grand S Between G Within G	Shann d Statisti Class Source Groups Groups Total	Group r ics (All data) sical One-Wa SS 0.527 13.7 14.23	Obs 7 7 14 Say Analysis DOF 1 12 13 1.068	Mean 1.492 1.88 1.686 Of Variance T MS 0.527	SD 0.862 1.241 1.046 Table V.R.(F Stat)	Variance 0.743 1.541 1.094 P-Value		groups are o	comparable.		
28 29 30 31 32 33 34 35 36 37 38 39 40 41 42	Grand S Between G Within G	Shann d Statisti Class Source Groups Groups Total	on (H) Group r ics (All data) sical One-Wa SS 0.527 13.7 14.23	Obs 7 14 ay Analysis DOF 1 12 13	Mean 1.492 1.88 1.686 Of Variance T MS 0.527	SD 0.862 1.241 1.046 Table V.R.(F Stat)	Variance 0.743 1.541 1.094 P-Value		groups are o	comparable.		
28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43	Grand S Between G Within G	Shann d Statisti Class Source Groups Groups Total	Group r ics (All data) sical One-Wa SS 0.527 13.7 14.23 d Deviation R-Sq	Obs 7 7 14 Ay Analysis DOF 1 12 13 1.068 0.037	Mean 1.492 1.88 1.686 Of Variance 7 MS 0.527 1.142	SD 0.862 1.241 1.046 Table V.R.(F Stat) 0.461	Variance 0.743 1.541 1.094 P-Value 0.51	f the various		comparable.		
28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46	Grand S Between G Within G Pooled S	Shann d Statisti Class Source Groups Total Standard	on (H) Group r ics (All data) Sical One-Wass 0.527 13.7 14.23 d Deviation R-Sq (or some oth	Obs 7 7 14 ay Analysis DOF 1 12 13 1.068 0.037	Mean 1.492 1.88 1.686 MS 0.527 1.142	SD 0.862 1.241 1.046	Variance 0.743 1.541 1.094 P-Value 0.51	f the various		comparable.		
28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47	Grand S Between G Within G Pooled S Note: A p-value < mean/median characteristics	Shann d Statisti Class Source Groups Total Standard <= 0.05	on (H) Group r ics (All data) sical One-Wa SS 0.527 13.7 14.23 d Deviation R-Sq (or some otherstics of the v	Obs 7 7 14 ay Analysis DOF 1 12 13 1.068 0.037 er selected arious grou	Mean 1.492 1.88 1.686 Of Variance T MS 0.527 1.142 level) sugge	SD 0.862 1.241 1.046 V.R.(F Stat) 0.461 ests that there other selecte	Variance 0.743 1.541 1.094 P-Value 0.51 are significated level of significated level o	f the various	sin			
28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47	Grand S Between G Within G Pooled S	Shann d Statisti Class Source Groups Total Standard <= 0.05	on (H) Group r ics (All data) sical One-Wa SS 0.527 13.7 14.23 d Deviation R-Sq (or some otherstics of the v	Obs 7 7 14 ay Analysis DOF 1 12 13 1.068 0.037 er selected arious grou	Mean 1.492 1.88 1.686 Of Variance T MS 0.527 1.142 level) sugge	SD 0.862 1.241 1.046 V.R.(F Stat) 0.461 ests that there other selecte	Variance 0.743 1.541 1.094 P-Value 0.51 are significated level of significated level o	f the various	sin			
28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47	Grand S Between G Within G Pooled S Note: A p-value < mean/median characteristics	Shann d Statisti Class Source Groups Total Standard <= 0.05	on (H) Group r ics (All data) sical One-Wa SS 0.527 13.7 14.23 d Deviation R-Sq (or some otherstics of the v	Obs 7 7 14 ay Analysis DOF 1 12 13 1.068 0.037 er selected arious grou	Mean 1.492 1.88 1.686 Of Variance T MS 0.527 1.142 level) sugge	SD 0.862 1.241 1.046 V.R.(F Stat) 0.461 ests that there other selecte	Variance 0.743 1.541 1.094 P-Value 0.51 are significated level of significated level o	f the various	sin			
28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48	Grand S Between G Within G Pooled S Note: A p-value < mean/median characteristics	Shann Class Source Groups Total Standard <= 0.05 aracteris (or other	on (H) Group r ics (All data) Sical One-Wass 0.527 13.7 14.23 d Deviation R-Sq (or some otherstics of the ver selected less	Obs 7 7 14 ay Analysis DOF 1 12 13 1.068 0.037 er selected arious grou	Mean 1.492 1.88 1.686 Of Variance T MS 0.527 1.142 level) sugge	SD 0.862 1.241 1.046 V.R.(F Stat) 0.461 ests that there other selecte	Variance 0.743 1.541 1.094 P-Value 0.51 are significated level of significated level o	f the various	sin			
28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49	Grand S Between G Within G Pooled S Note: A p-value < mean/median characteristics	Shann d Statisti Class Source Groups Total Standard <= 0.05	on (H) Group r ics (All data) Sical One-Wass 0.527 13.7 14.23 d Deviation R-Sq (or some otherstics of the ver selected less	Obs 7 7 14 ay Analysis DOF 1 12 13 1.068 0.037 er selected arious grou	Mean 1.492 1.88 1.686 Of Variance T MS 0.527 1.142 level) sugge	SD 0.862 1.241 1.046 V.R.(F Stat) 0.461 ests that there other selecte	Variance 0.743 1.541 1.094 P-Value 0.51 are significated level of significated level o	f the various	sin			

	A B	С	D	E	F	G	Н	I	J	K	L
53		Group	Obs	Mean	SD	Variance					
54		r	7	0.555	0.241	0.0583					1
55		i	7	0.505	0.317	0.1					
56	Grand Statist	ics (All data)	14	0.53	0.272	0.0739					
57							<u> </u>				
58	Clas	sical One-Wa	y Analysis o	of Variance T	able						
59	Source	SS	DOF	MS	V.R.(F Stat)	P-Value					
60	Between Groups	0.00889	1	0.00889	0.112	0.743					
61	Within Groups	0.951	12	0.0793							
62	Total	0.96	13								
63				1	1		I				
64	Pooled Standar	d Deviation	0.282								
65		R-Sq	0.00926								
66							<u>I</u>				
	Note: A p-value <= 0.05	(or some oth	er selected	level) sugge:	nt difference	s in					
68	mean/median character	istics of the v	arious group	s at 0.05 or	nificance						
69	A p-value > 0.05 (or other	er selected le	vel) suggest	ts that mean/	the various	groups are co	omparable.				
70											
71											
72	Simps	on (RI)									
73											
74		Group	Obs	Mean	SD	Variance					
75		r	7	2.104	0.876	0.767					
76		i	7	2.727	1.552	2.408					
77	Grand Statist	ics (All data)	14	2.415	1.253	1.57					
78				1	1		I				
79	Clas	sical One-Wa	y Analysis o	of Variance T	able						
80	Source	SS	DOF	MS	V.R.(F Stat)	P-Value					
81	Between Groups	1.362	1	1.362	0.858	0.373					
82	Within Groups	19.05	12	1.587							
83	Total	20.41	13								
84				1	1		L				
85	Pooled Standar	d Deviation	1.26								
86		R-Sq	0.0667								
87				1	1	1	<u>I</u>				
	Note: A p-value <= 0.05	(or some oth	er selected	level) sugge:	sts that there	are significa	nt difference	s in			
	mean/median character	istics of the v	arious group	s at 0.05 or	other selecte	d level of sig	nificance				
90	A p-value > 0.05 (or other	er selected le	vel) suggest	ts that mean	median char	acteristics of	the various	groups are co	omparable.		
91											

	Α	В	С	D	Е	F	G	Н	I	J	K	L
1				Grou	und Cov	er Non	parame	tric ANO	AVC			
2												
3		1	1	Nonparame	etric Oneway	ANOVA (Kri	iskal-Wallis	Test)			1	
4	Dat	te/Time of Co	omputation	ProUCL 5.1	9/29/2022 1:	39:40 PM						
5			From File	Ground cov	er.xls							
6		Ful	I Precision	OFF								
7												
8								_				
9		Richne	ess (S)									
10			1									
11		Group	Obs	Median	Ave Rank	Z						
12		i	7	4	8.786	1.15						
13		r	7	3	6.214	-1.15						
14		Overall	14	3	7.5							
15		Z 141 // 1 C 1	505		// = =:							
16		K-W (H-Stat)		P-Value	(Approx. Ch	isquare)						
17		1.322	1	0.25	/A 1' ·	16 T ' \						
18		1.399	1	0.237	(Adjusted	d for Ties)						
19	Note: A ··	oluo 0 05	/or com = -11		lovel\ ev=====		oro electrici	nt difference	o in			
20					level) sugges				s Ifi			
21					os at 0.05 or o		_		groupe ore a	omparable		
	√ h-∧aine >	บ.บอ (บา อนาด	si selected le	ver) suggest	is uidi mean/	meulan Chal	acteristics 01	ule various (yroups are C	omparable.		
23												
24		Shann	non (H)									
25		Glailli	···· (1 1 <i>)</i>									
26		Group	Obs	Median	Ave Rank	Z						
27		i	7	2.079	8.429	0.831						
28		r	7	1.278	6.571	-0.831						
29		Overall	14	1.994	7.5	,						
30												
31 32	ŀ	K-W (H-Stat)	DOF	P-Value	(Approx. Ch	isquare)						
33		0.69	1	0.406		- ,						
34		0.693	1	0.405	(Adjusted	d for Ties)						
35			1	1		•		1	<u> </u>			
	Note: A p-va	alue <= 0.05	(or some oth	ner selected	level) sugges	ts that there	are significa	nt difference	s in			
37	mean/media	an characteri	istics of the v	arious group	os at 0.05 or o	other selecte	ed level of sig	nificance				
38	A p-value >	0.05 (or othe	er selected le	evel) sugges	ts that mean/	median chai	acteristics of	f the various	groups are o	comparable.		
39											1	-
40												
41		Simps	on (D)									
42												
43		Group	Obs	Median	Ave Rank	Z						
44		i	7	0.375	6.571	-0.831						
45		r	7	0.556	8.429	0.831						
46		Overall	14	0.438	7.5							
47												
48	ŀ	K-W (H-Stat)		P-Value	(Approx. Ch	isquare)						
49		0.69	1	0.406								
50		0.693	1	0.405	(Adjusted	d for Ties)						
51												
52	Note: A p-va	alue <= 0.05	(or some oth	ner selected	level) sugges	sts that there	are significa	nt difference	s in			

	Α	В	С	D	E	F	G	Н	I	J	K	L
53	mean/media	an characteri	stics of the v	arious group	os at 0.05 or o	ther selecte	d level of sig	nificance				
54	A p-value >	0.05 (or othe	er selected le	evel) sugges	ts that mean/	median char	acteristics of	the various	groups are c	omparable.		
55												
56												
57		Simps	on (RI)									
58												
59		Group	Obs	Median	Ave Rank 8.429	Z 0.831						
60		i										
61		r										
62		Overall										
63												
64	ŀ	K-W (H-Stat)	DOF	P-Value	(Approx. Ch	isquare)						
65		0.69	1	0.406								
66		0.693	1	0.405	(Adjusted	d for Ties)						
67												
68	Note: A p-va	alue <= 0.05	(or some oth	er selected	level) sugges	ts that there	are significa	nt difference	s in			
69	mean/media	an characteri	stics of the v	arious group	os at 0.05 or o	other selecte	d level of sig	nificance				
70	A p-value >	0.05 (or other	er selected le	evel) sugges	ts that mean/	median char	acteristics of	the various	groups are c	omparable.		
71							·		·			



ATTACHMENT C

REGRESSION OF PLANT AND INVERTEBRATE METRICS ON SOIL CHEMISTRY – PROUCL OUTPUT

Canopy Cover Regression

Date Comparison Date Provided Provided Date Provided Provided	1	Α	В	С	D Ordinary Le	E east Squares	F Linear Regr	G ession Outp	H out Sheet	I	J	K	L
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Title For Y vs X Piots Classical Regression		Dis	splay Regres	ion Tables	True								
1			Title For Y	vs X Plots	Classical Re	egression							
Display Prediction Band True		nfidence Le	vel for Regre	ession Line	0.95								
13		Dis	splay Confid	ence Band	True								
14		С	Display Predi	ction Band	True								
15					<u> </u>								
Dependendant Variable (Y-Data) Richness (S 14													
17			-			•							
18				-									
Regression Estimates Std. Error T-values P-values						Pb							
20 21 Regression Estimates and Inference Table	19		Nur	nber Reporte	ed (x-values)	14							
Parameter Estimates Std. Error T-values P-values													
Parameter Estimates Std. Error T-values P-values													
2-3			-			ce Table							
Pb						•							
26 27	24	-											
Source of Variation SS DOF MS F-Value P-Value	25	Pb	-0.00203	0.00156	-1.298	0.219							
Source of Variation SS DOF MS F-Value P-Value	26												
Regression 0.923 1 0.923 1.684 0.2188	27												
Error 6.577 12 0.548	28	Sou											
Total 7.5 13 31 32 33 R Square 0.123 34 Adjusted R Square 0.05 35 Sqrt(MSE) = Scale 0.74 36 Square 39 1 3 2.715 0.285 0.385 39 1 3 2.667 0.333 0.45 31 3 3 2.615 0.385 0.52 34 4 6 3 2.615 0.385 0.52 35 7 2 2.613 -0.613 -0.828 46 8 2 2.602 -0.602 -0.814 47 9 2 2.566 -0.566 -0.764 49 11 3 2.463 0.537 0.726 50 12 3 2.444 0.556 0.75 51 13 3 2.037 0.963 1.3 Square 0.025 Square 0.05 Square 0.05	29		R	_				1.684	0.2188				
32 33 R Square 0.123 34 Adjusted R Square 0.05 35 Sqrt(MSE) = Scale 0.74 36 Sqrt(MSE) = Scale 0.74 36 Sqrt(MSE) = Scale 0.74 38 Obs YVector Yhat Residuals Res/Scale 39 1 3 2.715 0.285 0.385 40 2 2 2.68 -0.68 -0.919 31 3 3 2.667 0.333 0.45 31 3 3 2.667 0.333 0.45 31 3 3 3 2.667 0.333 0.45 31 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	30						0.548						
Square 0.123 Adjusted R Square 0.05	31			Total	7.5	13							
34						0.155							
Sqrt(MSE) = Scale 0.74				A 11	-								
Solution			-	-									
Regression Table				Sqrt(N	ise) = Scale	U./4							
38 Obs Y Vector Yhat Residuals Res/Scale				Dages - 1	ion Table								
39 1 3 2.715 0.285 0.385 40 2 2 2.68 -0.68 -0.919 41 3 3 2.667 0.333 0.45 42 4 4 2.63 1.37 1.851 43 5 2 2.617 -0.617 -0.834 44 6 3 2.615 0.385 0.52 45 7 2 2.613 -0.613 -0.828 46 8 2 2.602 -0.602 -0.814 47 9 2 2.572 -0.572 -0.773 48 10 2 2.566 -0.566 -0.764 49 11 3 2.463 0.537 0.726 50 12 3 2.444 0.556 0.75 51 13 3 2.037 0.963 1.3		Obc	VVactor	_		Doc/Scala							
40 2 2 2.68 -0.68 -0.919 41 3 3 2.667 0.333 0.45 42 4 4 2.63 1.37 1.851 43 5 2 2.617 -0.617 -0.834 44 6 3 2.615 0.385 0.52 45 7 2 2.613 -0.613 -0.828 46 8 2 2.602 -0.602 -0.814 47 9 2 2.572 -0.572 -0.773 48 10 2 2.566 -0.566 -0.764 49 11 3 2.463 0.537 0.726 50 12 3 2.444 0.556 0.75 51 13 3 2.037 0.963 1.3													
40 41 3 3 2.667 0.333 0.45 42 4 4 2.63 1.37 1.851 43 5 2 2.617 -0.617 -0.834 44 6 3 2.615 0.385 0.52 45 7 2 2.613 -0.613 -0.828 46 8 2 2.602 -0.602 -0.814 47 9 2 2.572 -0.572 -0.773 48 10 2 2.566 -0.566 -0.764 49 11 3 2.463 0.537 0.726 50 12 3 2.444 0.556 0.75 51 13 3 2.037 0.963 1.3													
41 42 4 4 2.63 1.37 1.851 43 5 2 2.617 -0.617 -0.834 44 6 3 2.615 0.385 0.52 45 7 2 2.613 -0.613 -0.828 46 8 2 2.602 -0.602 -0.814 47 9 2 2.572 -0.572 -0.773 48 10 2 2.566 -0.566 -0.764 49 11 3 2.463 0.537 0.726 50 12 3 2.444 0.556 0.75 51 13 3 2.037 0.963 1.3													
43 5 2 2.617 -0.617 -0.834 44 6 3 2.615 0.385 0.52 45 7 2 2.613 -0.613 -0.828 46 8 2 2.602 -0.602 -0.814 47 9 2 2.572 -0.572 -0.773 48 10 2 2.566 -0.566 -0.764 49 11 3 2.463 0.537 0.726 50 12 3 2.444 0.556 0.75 51 13 3 2.037 0.963 1.3													
44 6 3 2.615 0.385 0.52 45 7 2 2.613 -0.613 -0.828 46 8 2 2.602 -0.602 -0.814 47 9 2 2.572 -0.572 -0.773 48 10 2 2.566 -0.566 -0.764 49 11 3 2.463 0.537 0.726 50 12 3 2.444 0.556 0.75 51 13 3 2.037 0.963 1.3									-				
44 45 7 2 2.613 -0.613 -0.828 46 8 2 2.602 -0.602 -0.814 47 9 2 2.572 -0.572 -0.773 48 10 2 2.566 -0.566 -0.764 49 11 3 2.463 0.537 0.726 50 12 3 2.444 0.556 0.75 51 13 3 2.037 0.963 1.3													
45 8 2 2.602 -0.602 -0.814 47 9 2 2.572 -0.572 -0.773 48 10 2 2.566 -0.566 -0.764 49 11 3 2.463 0.537 0.726 50 12 3 2.444 0.556 0.75 51 13 3 2.037 0.963 1.3													
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52 1- 1.770 -0.770 -1.001													
<u></u>	52	17	'	1.770	-0.770	-1.001			<u> </u>				

1	Α	В	С	D Ordinary Le	E east Squares	F Linear Regr	G ession Outp	H out Sheet	I	J		K	L	
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7		Dis	play Limits	False										
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10		Title For Y	vs X Plots	Classical Re	egression									
	nfidence Le	vel for Regre	ession Line	0.95										
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13	D	isplay Predi	ction Band	True										
14				I										
15														
16		Depend	endant Varia	ible (Y-Data)	Shannon (H									
17		Nun	mber Reporte	ed (Y values)	14									
18		Indep	pendent Vari	able (x-data)	Pb									
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21														
22		Regressi	on Estimates	and Inferen	ce Table	I								
23	Parameter	Estimates	Std. Error	T-values	p-values									
24	intercept	1.555	0.227	6.857	1.7552E-5									
25	Pb	-0.00199	0.00118	-1.687	0.117									
26		1	1	1		<u>I</u>	<u> </u>							
27			OL	S ANOVA Ta	ble									
28	Sou	ırce of Varia	tion	SS	DOF	MS	F-Value	P-Value						
29		R	egression	0.891	1	0.891	2.847	0.1173						
30			Error	3.756	12	0.313								
31			Total	4.647	13									
32														
33				R Square	0.192									
34			=	ed R Square	0.124									
35			Sqrt(M	ISE) = Scale	0.559									
36														
37			_	ion Table										
38	Obs	Y Vector	Yhat	Residuals	Res/Scale									
39	1	1.801	1.478	0.322	0.576									
40	2	1.386	1.445	-0.0582	-0.104									
41	3	1.962	1.431	0.531	0.949									
42	4	1.687	1.395	0.292	0.522									
43	5	0.754	1.383	-0.629	-1.125									
44	6	1.801	1.38	0.42	0.751									
45	7	1.386	1.378	0.00823	0.0147							_		
46	8	0.383	1.368	-0.985	-1.761									
47	9	1.383	1.338	0.0448	0.08									
48	10	0.754	1.332	-0.579	-1.034									
49	11	1.706	1.231	0.476	0.851									
50	12	1.018	1.213	-0.194	-0.348									
51	13	1.722	0.813	0.909	1.625									
52	14	0	0.558	-0.558	-0.997									
							-				-			

1	Α	В	С	D Ordinary Le	E east Squares	F Linear Regr	G ession Outp	H ut Sheet	I	J	K	L	
2		User Select	ed Options	-									
3		e/Time of Co		ProUCL 5.1	10/9/2022 11	:31:31 AM							-
4			From File	Canopy reg	r.xls								
5		Fu	II Precision	OFF									
6													
7		Dis	play Limits	False									
8	Display	Regresion D	Diagnostics	False									
9	Dis	play Regres	sion Tables	True									
10		Title For Y	vs X Plots	Classical Re	egression								
	nfidence Le	vel for Regre	ession Line	0.95									
12	Dis	splay Confid	ence Band	True									
13	D	Display Predi	ction Band	True									
14				1									
15													
16		Depend	lendant Varia	ible (Y-Data)	Simpson (D								
17		Nur	nber Reporte	ed (Y values)	14								
18		Inde	pendent Vari	able (x-data)	Pb								
19		Nur	mber Reporte	ed (x-values)	14								
20													
21													
22		Regressi	ion Estimates	and Inferen	ce Table								
23	Parameter	Estimates	Std. Error	T-values	p-values								
24	intercept	0.518	0.0712	7.273	9.8383E-6								
25	Pb	6.6099E-4	3.7009E-4	1.786	0.0994								
26		·		·									
27				S ANOVA Ta									
28	Sou	ırce of Varia		SS	DOF	MS	F-Value	P-Value					
29		R	egression	0.0983	1	0.0983	3.19	0.0994					
30			Error	0.37	12	0.0308							
31			Total	0.468	13								
32													
33				R Square	0.21								
34			=	ed R Square	0.144								
35			Sqrt(N	ISE) = Scale	0.176								
36			<u>_</u>					T					
37			_	ion Table									
38	Obs	Y Vector	Yhat	Residuals	Res/Scale								
39	1	0.469	0.543	-0.0742	-0.423								
40	2	0.5	0.554	-0.0542	-0.309								
41	3	0.414	0.559	-0.145	-0.827								
42	4	0.536	0.571	-0.0351	-0.2								
43	5	0.781	0.575	0.207	1.176								
44	6	0.469	0.575	-0.107	-0.608								
45	7	0.5	0.576	-0.0763	-0.434								
46	8	0.909	0.58	0.33	1.878								
47	9	0.502	0.59	-0.0878	-0.5								
48	10	0.781	0.592	0.19	1.081								
49	11	0.476	0.625	-0.15	-0.853								
50	12	0.745	0.631	0.114	0.648								
51	13	0.502	0.764	-0.262	-1.492								
52	14	1	0.849	0.151	0.862								

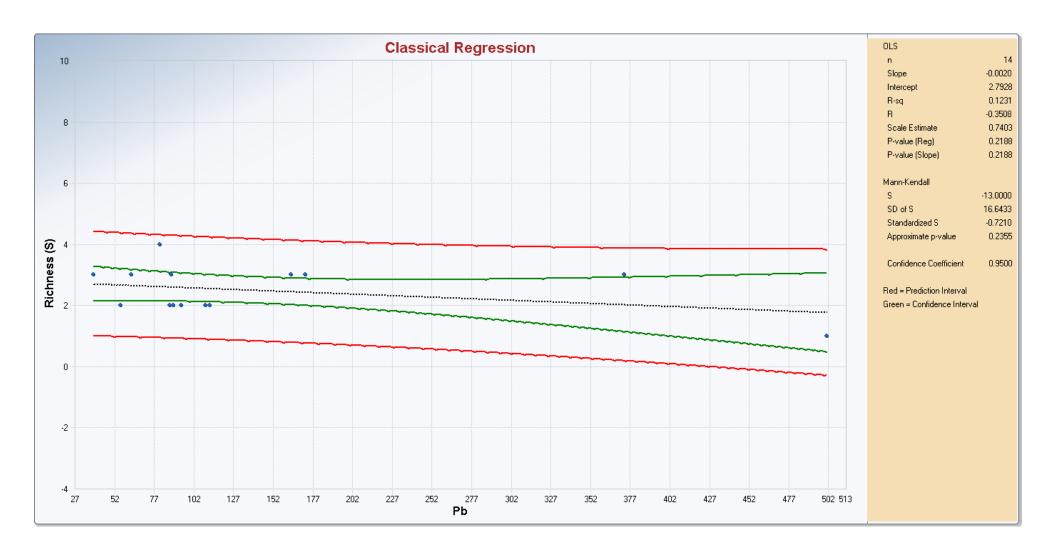
1	Α	В	С	D Ordinary Le	E east Squares	F Linear Regr	G ession Outp	H ut Sheet	1	J	J	K	L	
2		User Select	ed Options	-										\dashv
3		te/Time of Co		ProUCL 5.1	10/9/2022 11	:31:52 AM								
4			From File	Canopy reg	r.xls									\dashv
5		Fu	II Precision	OFF										\dashv
6				1										
7		Dis	play Limits	False										
8	Display	Regresion D	Diagnostics	False										_
9	Dis	splay Regres	sion Tables	True										
10		Title For Y	vs X Plots	Classical Re	egression									
	nfidence Le	vel for Regre	ession Line	0.95										
12	Dis	splay Confid	ence Band	True										
13		Display Predi	ction Band	True										
14				·										
15														
16		-	lendant Varia											
17			nber Reporte	-	14									
18			pendent Vari	, ,										
19		Nur	mber Reporte	ed (x-values)	14									
20														
21														
22		-	ion Estimates											
23	Parameter		Std. Error	T-values	p-values									
24	intercept	1.96	0.177	11.09	1.1596E-7									
25	Pb	-0.00138	9.1935E-4	-1.505	0.158									
26				O ANO =										
27		63.5		S ANOVA Ta			E.7.	D						
28	Sou	urce of Varia		SS	DOF	MS	F-Value	P-Value						
29		R	egression	0.431	1	0.431	2.265	0.1582						_
30			Error	2.282	12 13	0.19								
31			Total	2.712	13									_
32				R Square	0.159									_
33			Δdiuet	ed R Square	0.159									\dashv
34			=	ISE) = Scale	0.0887									
35			Sqrt(IV	10L) – 3Cale	0.430									\dashv
36			Regressi	ion Table										_
37	Obs	Y Vector	Yhat	Residuals	Res/Scale									
38	1	2.133	1.907	0.226	0.519									\dashv
39	2	2	1.883	0.117	0.268									\dashv
40	3	2.418	1.874	0.544	1.248									=
41	4	1.867	1.849	0.0185	0.0425									=
42 43	5	1.28	1.84	-0.56	-1.285									\dashv
44	6	2.133	1.839	0.295	0.676									
45	7	2	1.837	0.163	0.374									\dashv
46	8	1.1	1.83	-0.73	-1.675									=
47	9	1.993	1.809	0.184	0.422									\dashv
48	10	1.28	1.805	-0.525	-1.204									\dashv
49	11	2.103	1.735	0.368	0.844									=
50	12	1.342	1.722	-0.38	-0.871									
51	13	1.991	1.444	0.547	1.255									
52	14	1	1.267	-0.267	-0.612									
UΖ		1	1	1				I	1	1		1		

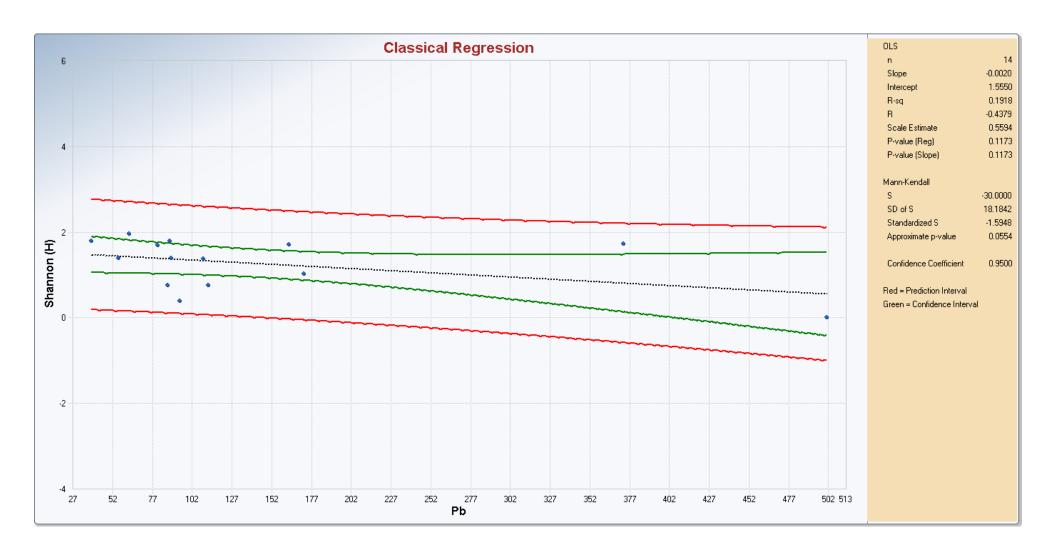
1	Α	В	С	D Ordinary Le	E east Squares	F Linear Regr	G ession Outp	H out Sheet	I	J	J	K	l	-
2		User Select	ed Options	-										
3		te/Time of Co		ProUCL 5.1	10/9/2022 11	1:32:14 AM								
4			From File	Canopy reg	r.xls									
5		Ful	II Precision	OFF										
6				<u> </u>										
7		Dis	play Limits	False										
8	Display	Regresion D	Diagnostics	False										
9	Dis	splay Regres	sion Tables	True										
10		Title For Y	vs X Plots	Classical Re	egression									
	nfidence Le	vel for Regre	ession Line	0.95										
12		splay Confid		True										
13	С	Display Predi	ction Band	True										
14				II.										
15														
16				ible (Y-Data)	Richness (S									
17			mber Reporte		14									
18				able (x-data)	Zn									
19		Nur	mber Reporte	ed (x-values)	14									
20														
21														
22		-		and Inferen	ce Table									
	Parameter		Std. Error	T-values	p-values									
24	intercept	2.172	0.202	10.73	1.6633E-7									
25	Zn	3.1714E-4	1.1380E-4	2.787	0.0164									
26														
27				S ANOVA Ta			I							
28	Sou	urce of Varia		SS	DOF	MS	F-Value	P-Value						
29		R	egression _	2.947	1	2.947	7.767	0.0164						
30			Error	4.553	12	0.379								
31			Total	7.5	13									
32				Б.С	0.000									
33			A 11 ·	R Square	0.393									
34			-	ed R Square	0.342									
35			Sqrt(N	ISE) = Scale	0.616									
36			Decree-	ion Table										
37	Ohe	Y Vector	Yhat	ion Table	Doc/Coals									
38	Obs 1	y vector	2.175	Residuals 0.825	Res/Scale 1.339									
39	2	2	2.175	-0.182	-0.296									
40	3	2	2.182	-0.182	-0.296									
41	4	3	2.185	0.809	1.314									
42	5	3	2.191	0.809	1.314			-						
43	6	2	2.196	-0.206	-0.334									
44	7	2	2.206	-0.206	-0.334									
45	8	2	2.231	-0.231	-0.374									
46	9	1	2.235	-0.235	-0.382									
47	10	2	2.302	-0.326	-0.529			-						
48	11	3	2.326	0.213	0.346			-						
49	12	3	3.256	-0.256	-0.416									
50	13	3	3.256	-0.256	-0.416									
51	14	4	3.415	0.585	0.95									
52	14	4	3.413	0.565	0.30									

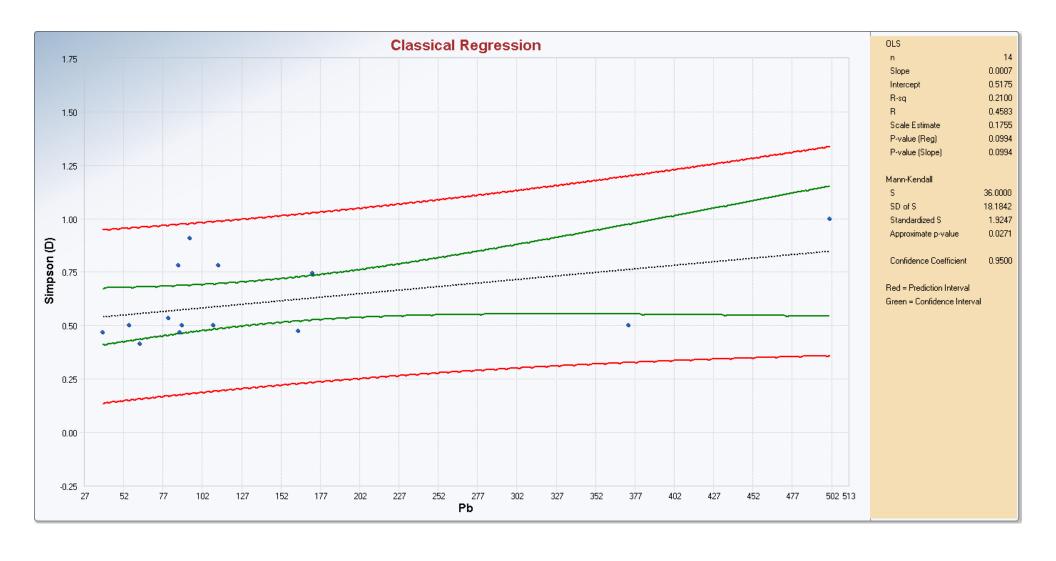
1	A	В	С	D Ordinary Le	E east Squares	F Linear Regr	G ession Outp	H out Sheet	I		J	K	L
2		User Select	ed Options	-									
3		te/Time of Co		ProUCL 5.1	10/9/2022 11	1:32:32 AM							
4			From File	Canopy reg	r.xls								
5		Ful	II Precision	OFF									
6				1									
7		Dis	play Limits	False									
8	Display	Regresion D	Diagnostics	False									
9	Dis	splay Regres	sion Tables	True									
10		Title For Y	vs X Plots	Classical Re	egression								
	nfidence Le	vel for Regre	ession Line	0.95									
12	Dis	splay Confid	ence Band	True									
13	С	Display Predi	ction Band	True									
14				·									
15													
16		-		ible (Y-Data)									
17			nber Reporte	-	14								
18				able (x-data)									
19		Nur	mber Reporte	ed (x-values)	14								
20													
21													
22		-		and Inferen	,								
23	Parameter		Std. Error	T-values	p-values								
24	intercept	1.115	0.19	5.869	7.6133E-5								
25	Zn	1.4725E-4	1.0681E-4	1.379	0.193								
26				O ANO =									
27		617		S ANOVA Ta		170	-	B > 7 · ·					
28	Sou	urce of Varia		SS	DOF	MS	F-Value	P-Value					
29		R	egression	0.635	1	0.635	1.901	0.1932					
30			Error	4.011	12 13	0.334							
31			Total	4.647	13								
32				R Square	0.137								
33			Δdiuet	ed R Square	0.137								
34			=	ISE) = Scale									
35			Sqrt(IV	10L) – 3Cale	0.576								
36			Regress	ion Table									
37	Obs	Y Vector	Yhat	Residuals	Res/Scale								
38	1	1.801	1.116	0.684	1.183								
39	2	0.754	1.12	-0.366	-0.633								
40	3	1.386	1.121	0.265	0.459								
41	4	1.722	1.124	0.598	1.034								
42 43	5	1.801	1.126	0.674	1.167								
44	6	1.386	1.131	0.256	0.442								
45	7	1.383	1.142	0.241	0.416								
46	8	0.383	1.144	-0.761	-1.317								
47	9	0	1.175	-1.175	-2.033								
48	10	0.754	1.186	-0.433	-0.749					<u> </u>			
48	11	1.018	1.401	-0.382	-0.661								
50	12	1.706	1.619	0.0879	0.152								
51	13	1.962	1.645	0.317	0.548								
52	14	1.687	1.692	-0.00498	-0.00861								
		1		1					I.	1		I	

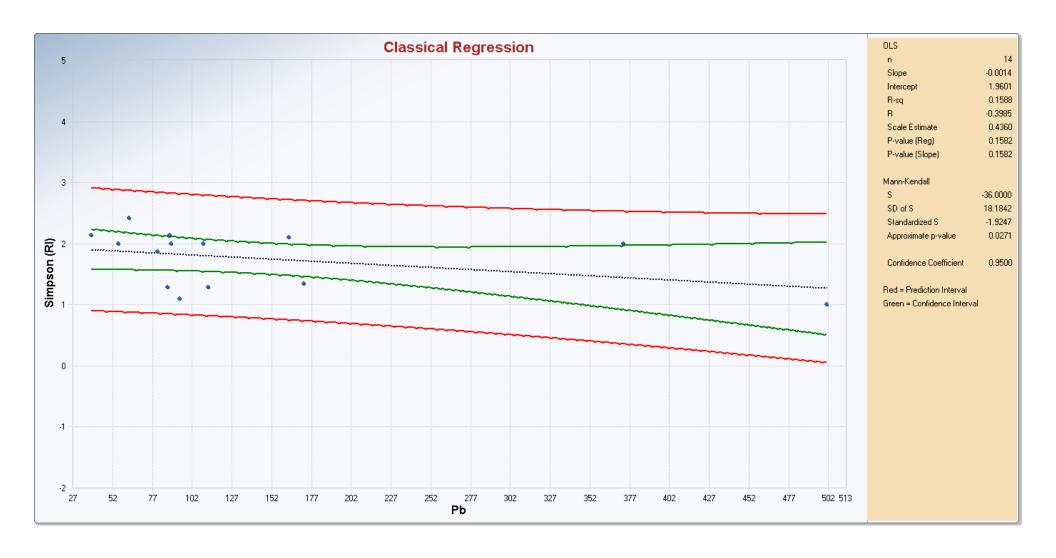
1	Α	В	С	D Ordinary Le	E east Squares	F Linear Regr	G ession Outp	H out Sheet	I	J	K	L	
2		User Select	ed Options	-									
3		te/Time of Co	-	ProUCL 5.1	10/9/2022 11	1:32:52 AM							
4			From File	Canopy reg	r.xls								
5		Fu	II Precision	OFF									
6				1									
7		Dis	play Limits	False									
8	Display	Regresion D	Diagnostics	False									
9	Dis	splay Regres	sion Tables	True									
10		Title For Y	vs X Plots	Classical Re	egression								
	nfidence Le	vel for Regre	ession Line	0.95									
12		splay Confid		True									
13		Display Predi	iction Band	True							 		
14													
15													
16		•	lendant Varia	, ,	. ,								
17			mber Reporte		14								
18			pendent Vari										
19		Nur	mber Reporte	ed (x-values)	14								
20				T									
21					T . * *								
22	Da:: :	-	ion Estimates										
23	Parameter		Std. Error	T-values	p-values								
24	intercept	0.648 -3.371E-5	0.0625		2.4411E-7								
25	Zn	-3.3/ IE-5	3.5164E-5	-0.959	0.357								
26			OI	S ANOVA Ta	hle								
27	Soi	urce of Varia		S ANOVA Ta	DOF	MS	F-Value	P-Value					
28	500		egression	0.0333	1	0.0333	0.919	0.3567					
29			Error	0.435	12	0.0362	3.010	0.0007					
30			Total	0.468	13	3.3002							
31				230									
32				R Square	0.0711								
33			Adjust	ed R Square	0								
34 35			-	ISE) = Scale									
36													
37			Regress	ion Table									
38	Obs	Y Vector	Yhat	Residuals	Res/Scale								
39	1	0.469	0.648	-0.179	-0.94								
40	2	0.781	0.647	0.134	0.706								
41	3	0.5	0.647	-0.147	-0.77								
42	4	0.502	0.646	-0.144	-0.755								
43	5	0.469	0.645	-0.177	-0.928								
44	6	0.5	0.644	-0.144	-0.758								
45	7	0.502	0.642	-0.14	-0.735								
46	8	0.909	0.641	0.268	1.409								
47	9	1	0.634	0.366	1.922								
48	10	0.781	0.632	0.15	0.786								
49	11	0.745	0.583	0.162	0.853								
50	12	0.476	0.533	-0.0571	-0.3								
51	13	0.414	0.527	-0.113	-0.594								
52	14	0.536	0.516	0.0197	0.104								

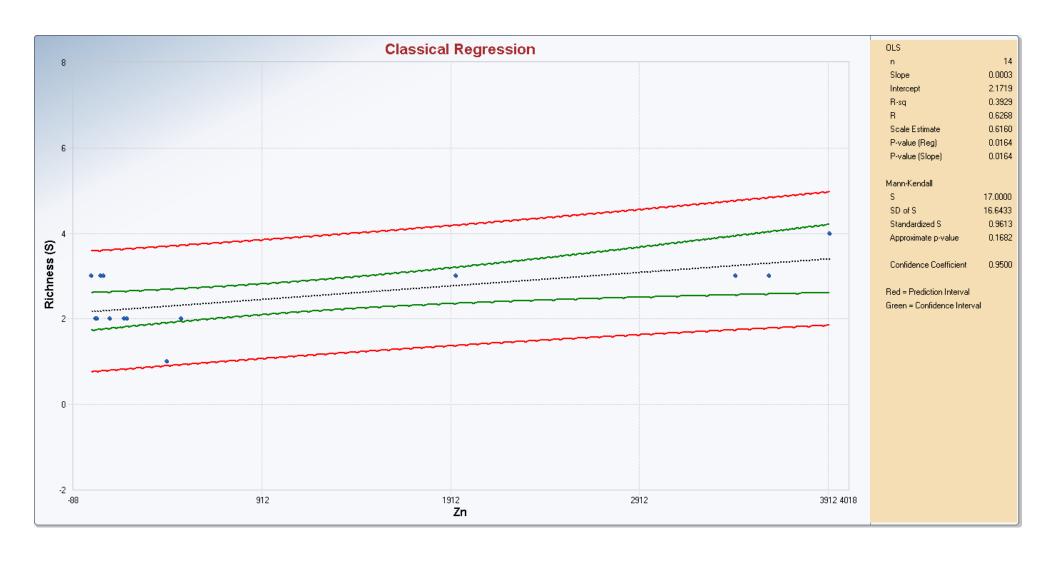
1	Α	В	С	D Ordinary Le	E east Squares	F Linear Regr	G ession Outp	H out Sheet	I	J	K		L
2		User Select	ed Options										
3		te/Time of Co		ProUCL 5.1	10/9/2022 11	1:33:07 AM							
4			From File	Canopy reg	r.xls								
5		Fu	II Precision	OFF									
6				1									
7		Dis	play Limits	False									
8	Display	Regresion D	Diagnostics	False									
9	Dis	splay Regres	sion Tables	True									
10		Title For Y	vs X Plots	Classical Re	egression								
	nfidence Le	vel for Regre	ession Line	0.95									
12	Dis	splay Confid	ence Band	True									
13	D	Display Predi	ction Band	True									
14				·									
15													
16		-	lendant Varia										
17			nber Reporte		14								
18			pendent Vari										
19		Nur	mber Reporte	ed (x-values)	14								
20													
21													
22		-	ion Estimates										
23	Parameter		Std. Error	T-values	p-values								
24	intercept	1.669	0.15	11.16	1.0789E-7								
25	Zn	8.8130E-5	8.4065E-5	1.048	0.315								
26				O ANO =								\perp	
27		63.5		S ANOVA Ta		1/0	E.7.	B > ' '					
28	Sou	urce of Varia		SS	DOF	MS	F-Value	P-Value				\bot	
29		R	egression	0.228	1	0.228	1.099	0.3151				$-\!$	
30			Error	2.485 2.712	12 13	0.207						-	
31			Total	2./12	13							-	
32				R Square	0.0839							\longrightarrow	
33			Δdiuet	ed R Square	0.0839							$-\!\!\!\!+\!\!\!\!\!-$	
34			-	ISE) = Scale								+	
35			Sqrt(IV	ioc) – ocale	0.400							$-\!\!\!\!+\!\!\!\!\!-$	
36			Regressi	ion Table								-	
37	Obs	Y Vector	Yhat	Residuals	Res/Scale							-	
38	1	2.133	1.67	0.464	1.019							+	
39	2	1.28	1.672	-0.392	-0.861							+	
40	3	2	1.672	0.328	0.72							+	
41	4	1.991	1.674	0.317	0.697							+	
42	5	2.133	1.676	0.458	1.006								
43 44	6	2	1.678	0.322	0.707							+	
45	7	1.993	1.685	0.308	0.677							+	
46	8	1.1	1.687	-0.587	-1.29								
46	9	1	1.705	-0.705	-1.549							+	
47	10	1.28	1.712	-0.432	-0.949								
48	11	1.342	1.84	-0.497	-1.093							_	
50	12	2.103	1.97	0.132	0.291								
51	13	2.418	1.986	0.432	0.949								
52	14	1.867	2.014	-0.147	-0.323								
JZ										1	<u> </u>		

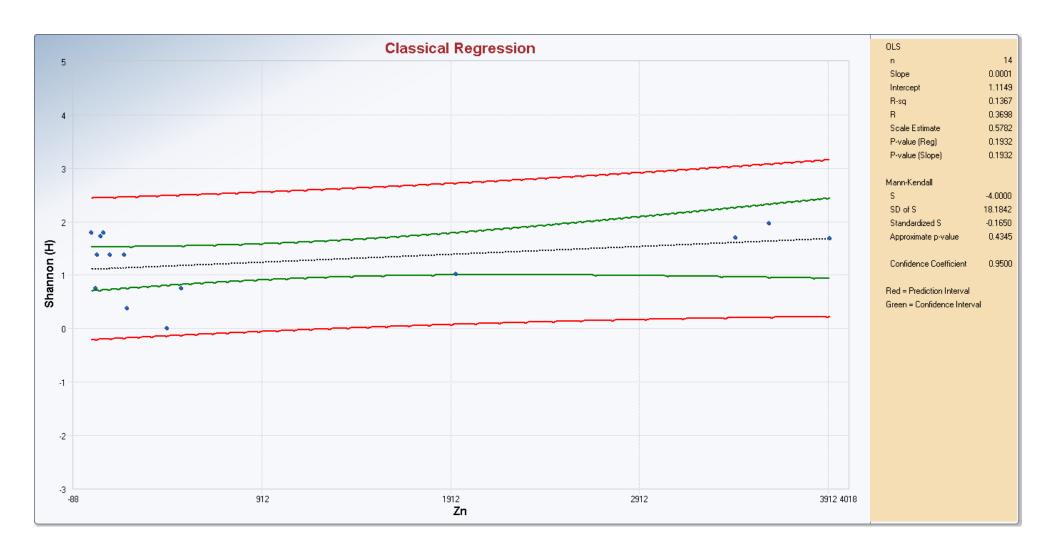


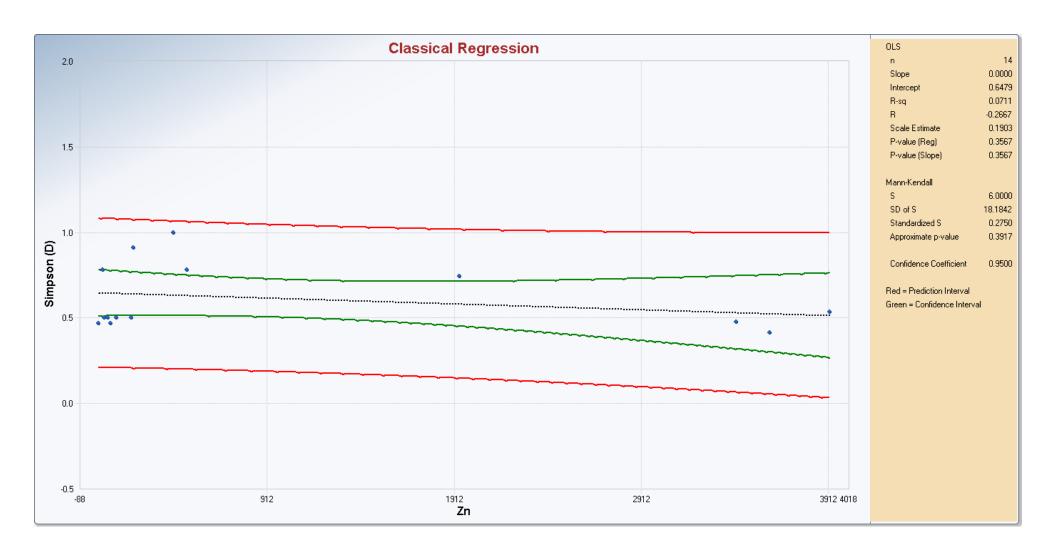


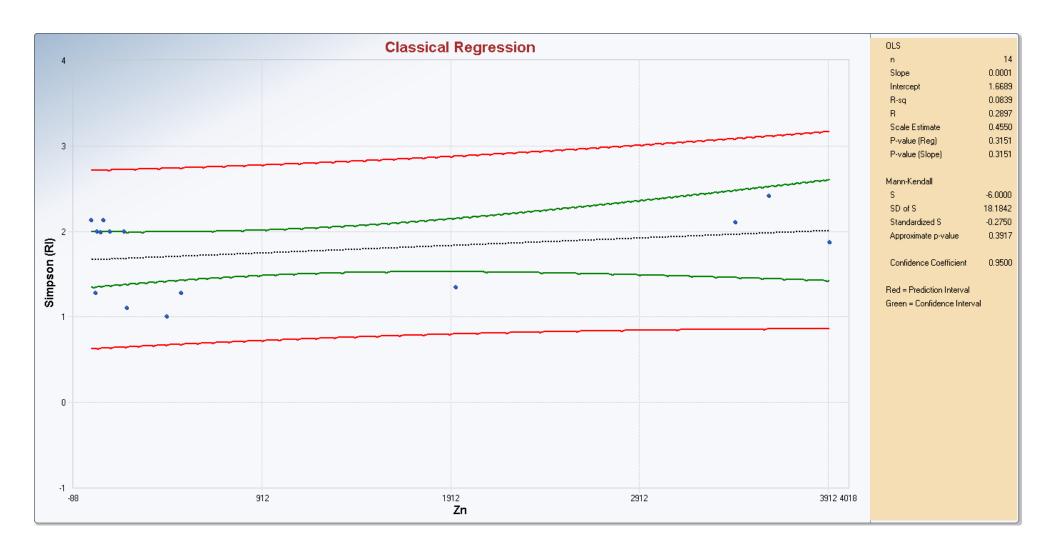












Ground Cover Regression

1	Α	В	С	D Ordinary Le	E east Squares	F Linear Regr	G ession Outp	H ut Sheet	I	J	K	L	
2		User Selecte	ed Options		<u> </u>		<u> </u>						\dashv
3		e/Time of Co		ProUCL 5.1	10/9/2022 1::	20:57 PM							
4			From File	Ground regr	.xls								\dashv
5		Ful	II Precision	OFF									\dashv
6				<u> </u>									\dashv
7		Dis	play Limits	False									\dashv
8	Display	Regresion D	Diagnostics	False									\dashv
9	Dis	splay Regres	sion Tables	True									
10		Title For Y	vs X Plots	Classical Re	egression								\dashv
	nfidence Le	vel for Regre	ession Line	0.95									
12	Dis	splay Confid	ence Band	True									
13	С	isplay Predi	iction Band	True									
14				I									
15													
16		Depend	lendant Varia	ble (Y-Data)	Richness (S								
17		Nun	mber Reporte	ed (Y values)	14								
18		Indep	pendent Vari	able (x-data)	Pb								
19		Nur	mber Reporte	ed (x-values)	14								
20													
21													
22		Regressi	on Estimates	and Inferen	ce Table	I							
23	Parameter	Estimates	Std. Error	T-values	p-values								
24	intercept	2.112	0.461	4.582	6.2979E-4								
25	Pb	0.00614	0.0024	2.562	0.0249								
26		1	1	1		<u>I</u>	<u> </u>						
27			OL	S ANOVA Ta	ble								
28	Sou	ırce of Varia	tion	SS	DOF	MS	F-Value	P-Value					
29		R	egression	8.488	1	8.488	6.566	0.0249					
30			Error	15.51	12	1.293							
31			Total	24	13								
32													
33				R Square	0.354								
34			-	ed R Square	0.3								
35			Sqrt(M	ISE) = Scale	1.137								
36													
37			_	ion Table									
38	Obs	Y Vector	Yhat	Residuals	Res/Scale								
39	1	4	2.349	1.651	1.453								
40	2	1	2.453	-1.453	-1.278								
41	3	1	2.495	-1.495	-1.315								
42	4	4	2.606	1.394	1.226								
43	5	2	2.644	-0.644	-0.566								
44	6	3	2.651	0.349	0.307								
45	7	2	2.658	-0.658	-0.579								
46	8	3	2.689	0.311	0.273								
47	9	2	2.782	-0.782	-0.687								
48	10	3	2.8	0.2	0.176								
49	11	4	3.113	0.887	0.78								
50	12	3	3.169	-0.169	-0.148								
51	13	6	4.403	1.597	1.404								
52	14	4	5.189	-1.189	-1.046								

1	Α	В	С	D Ordinary Le	E east Squares	F Linear Regr	G ession Outp	H out Sheet	I	J	K	L	
2		User Select	ed Options		<u> </u>		<u> </u>						
3		e/Time of Co		ProUCL 5.1	10/9/2022 1:	23:28 PM							
4			From File	Ground regr	xls								
5		Ful	II Precision	OFF									
6				<u> </u>									
7		Dis	play Limits	False									
8	Display	Regresion D	Diagnostics	False									
9	Dis	play Regres	sion Tables	True									
10		Title For Y	vs X Plots	Classical Re	egression								
	nfidence Le	vel for Regre	ession Line	0.95									
12	Dis	splay Confid	ence Band	True									
13	С	isplay Predi	iction Band	True									
14				I									
15													
16		Depend	lendant Varia	ible (Y-Data)	Shannon (H								
17		Nur	mber Reporte	ed (Y values)	14								
18		Inde	pendent Vari	able (x-data)	Pb								
19		Nur	mber Reporte	ed (x-values)	14								
20													
21													
22		Regressi	on Estimates	and Inferen	ce Table								
23	Parameter	Estimates	Std. Error	T-values	p-values								
24	intercept	0.995	0.353	2.82	0.0155								
25	Pb	0.00478	0.00184	2.602	0.0231								
26		1	1	1			I.						
27			OL	S ANOVA Ta	ble								
28	Sou	ırce of Varia	tion	SS	DOF	MS	F-Value	P-Value					
29		R	egression	5.131	1	5.131	6.77	0.0231					
30			Error	9.095	12	0.758							
31			Total	14.23	13								
32													
33				R Square	0.361								
34			=	ed R Square	0.307								
35			Sqrt(M	ISE) = Scale	0.871								
36					· <u> </u>								
37			_	ion Table									
38	Obs	Y Vector	Yhat	Residuals	Res/Scale								
39	1	2.664	1.179	1.485	1.706								
40	2	0	1.26	-1.26	-1.448								
41	3	0	1.293	-1.293	-1.485								
42	4	1.966	1.379	0.587	0.674								
43	5	0.447	1.409	-0.961	-1.104								
44	6	2.023	1.414	0.609	0.699						·		
45	7	1.273	1.42	-0.147	-0.169								
46	8	2.079	1.444	0.635	0.73								
47	9	1.125	1.516	-0.391	-0.449								
48	10	1.278	1.53	-0.252	-0.29								
49	11	2.426	1.774	0.652	0.749								
50	12	2.079	1.817	0.263	0.302								
51	13	3.466	2.777	0.689	0.792								
52	14	2.773	3.388	-0.615	-0.707								

1	Α	В	С	D Ordinary Le	E east Squares	F Linear Regr	G ession Outp	H ut Sheet	I	J	K	L
2		User Select	ed Options	•	•		•					
3		e/Time of Co	· ·	ProUCL 5.1	10/9/2022 1:2	23:42 PM						
4			From File	Ground regi	.xls							
5		Ful	II Precision	OFF								
6				1								
7		Dis	play Limits	False								
8	Display	Regresion D	Diagnostics	False								
9	Dis	play Regres	sion Tables	True								
10		Title For Y	vs X Plots	Classical Re	egression							
	nfidence Le	vel for Regre	ession Line	0.95								
12	Dis	splay Confid	ence Band	True								
13	D	Display Predi	ction Band	True								
14				1								
15												
16		Depend	lendant Varia	able (Y-Data)	Simpson (D							
17		Nur	mber Reporte	ed (Y values)	14							
18		Inde	pendent Vari	able (x-data)	Pb							
19		Nur	mber Reporte	ed (x-values)	14							
20												
21												
22		Regressi	ion Estimates	s and Inferen	ce Table							
	Parameter	Estimates	Std. Error	T-values	p-values							
24	intercept	0.691	0.0965	7.158	1.1508E-5							
25	Pb	-0.00112	5.0203E-4	-2.222	0.0463							
26		·		<u> </u>								
27				S ANOVA Ta								
28	Sou	ırce of Varia		SS	DOF	MS	F-Value	P-Value				
29		R	egression	0.28	1	0.28	4.936	0.0463				
30			Error	0.68	12	0.0567						
31			Total	0.96	13							
32												
33				R Square								
34			-	ed R Square								
35			Sqrt(M	ISE) = Scale	0.238							
36			<u>_</u>				Г	T				
37			_	ion Table								
38	Obs	Y Vector	Yhat	Residuals	Res/Scale							
39	1	0.28	0.648	-0.368	-1.546							
40	2	1	0.629	0.371	1.558							
41	3	1 0.486	0.621	0.379	1.59							
42	4	0.486	0.601	-0.115	-0.484							
43	5	0.889	0.594	0.295	1.238							
44	6	0.389	0.593	-0.204	-0.858							
45	7	0.556	0.592	-0.0363	-0.152							
46	8	0.375	0.586	-0.211	-0.887							
47	9	0.625	0.569	0.0556	0.234							
48	10	0.66	0.566	0.094	0.395							
49	11	0.344	0.509	-0.165	-0.695							
50	12	0.375	0.499	-0.124	-0.521							
51	13	0.188	0.275	-0.0874	-0.367							
52	14	0.25	0.132	0.118	0.495							

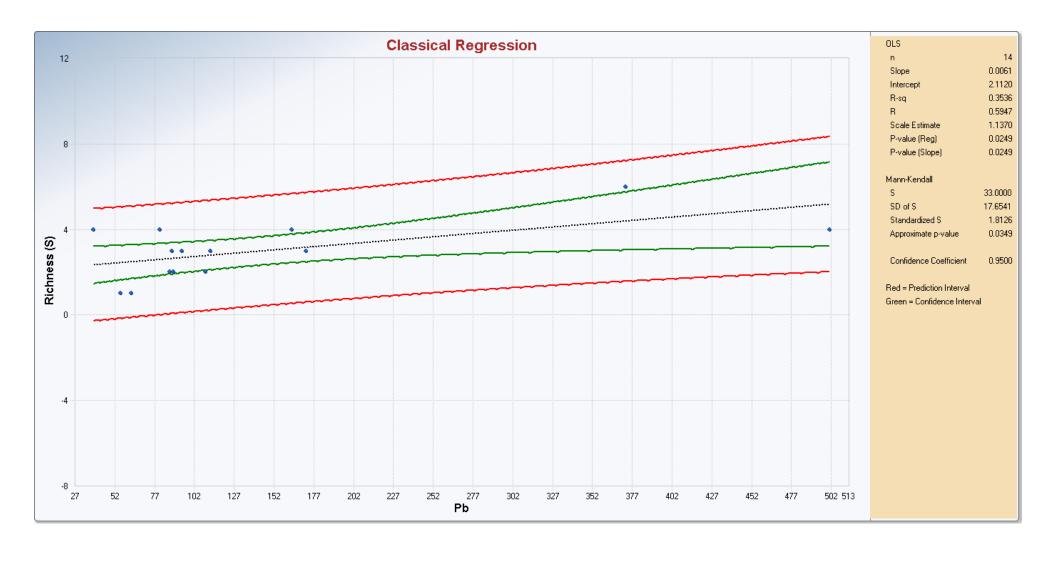
1	Α	В	С	D Ordinary Le	E east Squares	F Linear Regr	G ession Outp	H out Sheet	I	J	K	L	\blacksquare
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5		Ful	II Precision	OFF									\dashv
6				<u> </u>									\dashv
7		Dis	play Limits	False									\dashv
8	Display	Regresion D	Diagnostics	False									\dashv
9	Dis	splay Regres	ion Tables	True									1
10		Title For Y	vs X Plots	Classical Re	egression								\dashv
	nfidence Le	vel for Regre	ession Line	0.95									\dashv
12	Dis	splay Confid	ence Band	True									\dashv
13	D	Display Predi	ction Band	True									\dashv
14				1									\dashv
15													\dashv
16		Depend	endant Varia	ible (Y-Data)	Simpson (R								\dashv
17		Nur	mber Reporte	ed (Y values)	14								\dashv
18		Inde	pendent Vari	able (x-data)	Pb								\exists
19		Nur	mber Reporte	ed (x-values)	14								\dashv
20													\exists
21													
22		Regressi	on Estimates	and Inferen	ce Table	I							\dashv
23	Parameter	Estimates	Std. Error	T-values	p-values								\dashv
24	intercept	1.428	0.369	3.875	0.00221								
25	Pb	0.00683	0.00192	3.561	0.00391								\dashv
26		Ш	1	<u>I</u>		I.	I.						
27			OL	S ANOVA Ta	ble								
28	Sou	urce of Varia	tion	SS	DOF	MS	F-Value	P-Value					
29		R	egression	10.49	1	10.49	12.68	0.0039					
30			Error	9.923	12	0.827							
31			Total	20.41	13								
32													
33				R Square	0.514								
34			=	ed R Square	0.473								
35			Sqrt(M	ISE) = Scale	0.909								
36													
37			_	ion Table									
38	Obs	Y Vector	Yhat	Residuals	Res/Scale								
39	1	3.571	1.691	1.88	2.068								
40	2	1	1.807	-0.807	-0.888								
41	3	1	1.854	-0.854	-0.939								
42	4	2.057	1.977	0.0799	0.0878								
43	5	1.125	2.02	-0.895	-0.984								
44	6	2.571	2.027	0.544	0.599								
45	7	1.8	2.035	-0.235	-0.259								
46	8	2.667	2.07	0.597	0.656								
47	9	1.6	2.173	-0.573	-0.63								
48	10	1.515	2.193	-0.678	-0.745								
49	11	2.909	2.541	0.368	0.404								
50	12	2.667	2.603	0.0639	0.0703								
51	13	5.333	3.975	1.358	1.494								
52	14	4	4.849	-0.849	-0.934								
													_

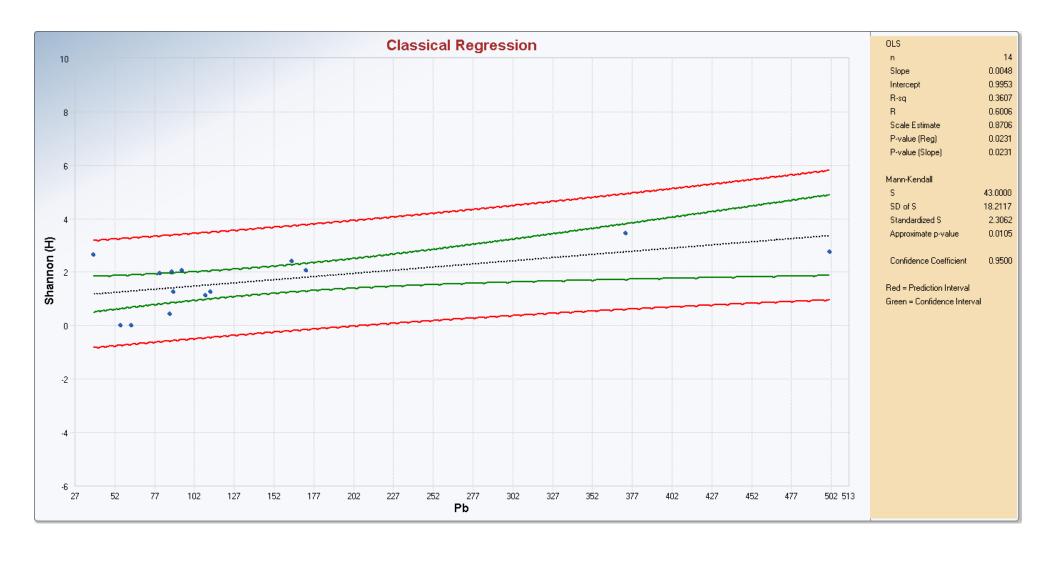
1	Α	В	С	D Ordinary Le	E east Squares	F Linear Regi	G ression Outp	H ut Sheet	l	J	K	L
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4			From File	Ground regr	xls							
5		Ful	II Precision	OFF								
6				1								
7		Dis	play Limits	False								
8	Display	Regresion D	Diagnostics	False								
9	Dis	play Regres	sion Tables	True								
10		Title For Y	vs X Plots	Classical Re	gression							
	nfidence Le	vel for Regre	ession Line	0.95								
12	Dis	splay Confid	ence Band	True								
13	С	isplay Predi	ction Band	True								
14				1								
15												
16		Depend	lendant Varia	ible (Y-Data)	Richness (S	;						
17		Nur	nber Reporte	ed (Y values)	14							
18		Inde	pendent Vari	able (x-data)	Zn							
19		Nur	mber Reporte	ed (x-values)	14							
20												
21												
22		Regressi	ion Estimates	and Inferen	ce Table							
	Parameter	Estimates	Std. Error	T-values	p-values							
24	intercept	3.002	0.465	6.46	3.1137E-5							
25	Zn	-1.874E-6	2.6126E-4	-0.00717	0.994							
26		·		·		·	·					
27				S ANOVA Ta								
28	Sou	ırce of Varia		SS	DOF	MS	F-Value	P-Value				
29		R	egression	1.0287E-4	1		5.1434E-5	0.9944				
30			Error	24	12	2						
31			Total	24	13							
32												
33					4.2861E-6							
34			-	ed R Square	0							
35			Sqrt(N	ISE) = Scale	1.414							
36			D .	T-!!			T	T				
37	Ol	VV	_	ion Table	Dec/0- 1							
38	Obs	Y Vector	Yhat	Residuals	Res/Scale							
39	2	3	3.002 3.002	-0.00192	-0.00136 -0.00133							
40	3	3	3.002	-0.00188 -2.002	-1.416							
41		6	3.002	2.998	2.12							
42	<u>4</u> 5	4	3.002	0.998	0.706							
43	6	2	3.002	-1.002	-0.708							
44	7	2	3.002	-1.002	-0.708							
45	8	3	3.002	-0.00156	-0.708							
46	9	4	3.002	0.999	0.706							
47	10	2	3.001	-1.001	-0.708							
48	11	3	2.998	0.0017	0.0012							
49	12	4	2.998	1.004	0.0012							
50	13	1	2.996	-1.995	-1.411							
51	14	4	2.995	1.005	0.711							
52	14	4	2.333	1.005	0.711							

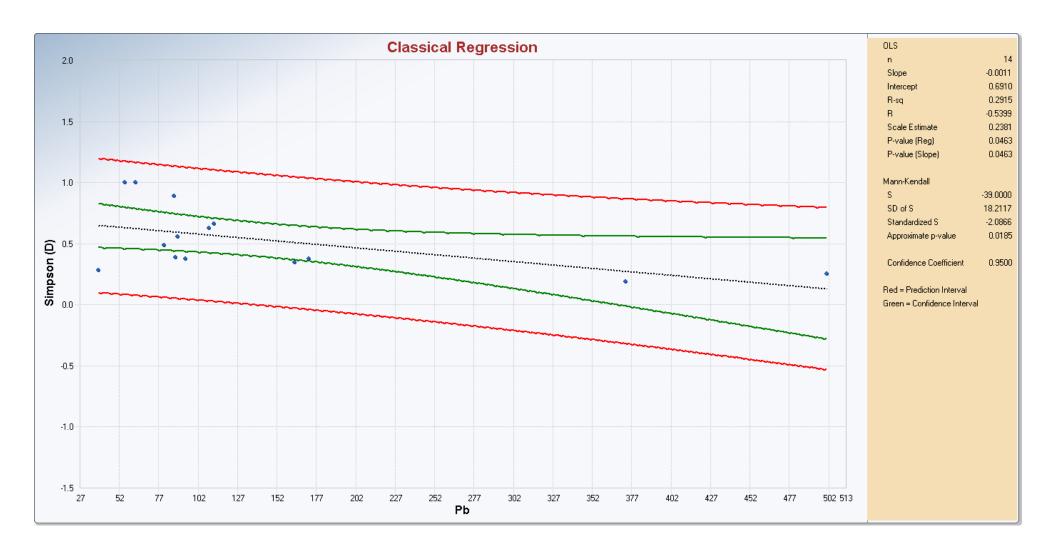
1	Α	В	С	D Ordinary Le	E east Squares	F Linear Regr	G ession Outp	H ut Sheet	I	J	K	L	
2		User Select	ed Options	-	-		<u> </u>						
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4			From File	Ground regr	.xls								
5		Ful	II Precision	OFF									
6				<u> </u>									
7		Dis	play Limits	False									
8	Display	Regresion D	Diagnostics	False									
9	Dis	play Regres	sion Tables	True									
10		Title For Y	vs X Plots	Classical Re	egression								
	nfidence Le	vel for Regre	ession Line	0.95									
12	Dis	splay Confid	ence Band	True									
13	С	isplay Predi	iction Band	True									
14				I									
15													
16		Depend	lendant Varia	ible (Y-Data)	Shannon (H								
17		Nur	mber Reporte	ed (Y values)	14								
18		Inde	pendent Vari	able (x-data)	Zn								
19		Nur	mber Reporte	ed (x-values)	14								
20													
21													
22		Regressi	on Estimates	and Inferen	ce Table	1							
23	Parameter	Estimates	Std. Error	T-values	p-values								
24	intercept	1.749	0.356	4.908	3.6092E-4								
25	Zn	-6.132E-5	2.0037E-4	-0.306	0.765								
26		1	1	1		<u> </u>	I.						
27			OL	S ANOVA Ta	ble								
28	Sou	ırce of Varia	tion	SS	DOF	MS	F-Value	P-Value					
29		R	egression	0.11	1	0.11	0.0937	0.7648					
30			Error	14.12	12	1.176							
31			Total	14.23	13								
32				•									
33				R Square	0.00775								
34			=	ed R Square	0								
35			Sqrt(M	ISE) = Scale	1.085								
36													
37			_	ion Table									
38	Obs	Y Vector	Yhat	Residuals	Res/Scale								
39	1	2.023	1.749	0.274	0.253								
40	2	1.278	1.747	-0.469	-0.433								
41	3	0	1.747	-1.747	-1.61								
42	4	3.466	1.746	1.72	1.586								
43	5	2.664	1.745	0.92	0.848								
44	6	1.273	1.743	-0.47	-0.433								
45	7	1.125	1.738	-0.613	-0.565								
46	8	2.079	1.737	0.343	0.316								
47	9	2.773	1.724	1.049	0.967								
48	10	0.447	1.719	-1.272	-1.173								
49	11	2.079	1.63	0.449	0.414								
50	12	2.426	1.539	0.887	0.817								
51	13	0	1.528	-1.528	-1.409								
52	14	1.966	1.509	0.457	0.422								

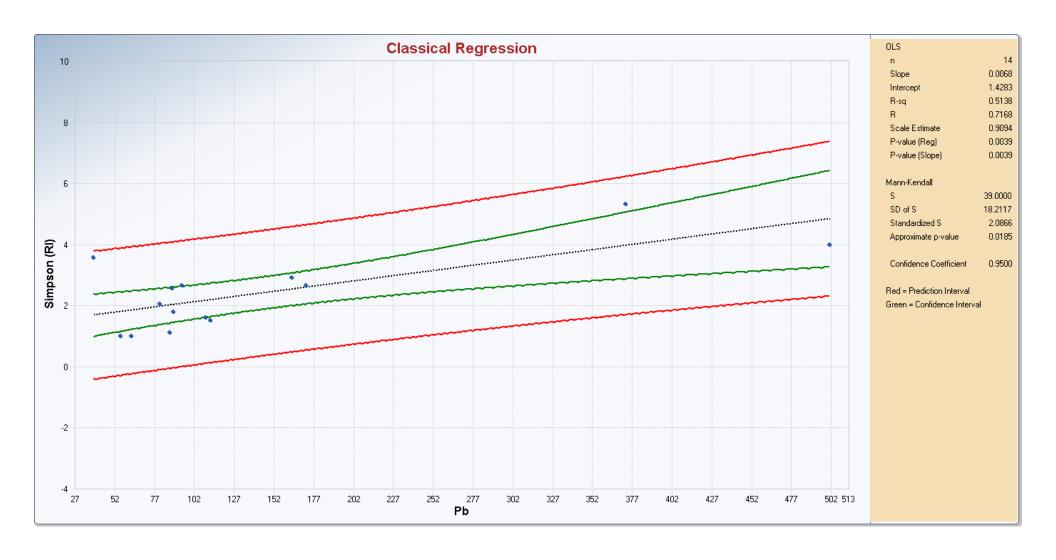
1	Α	В	С	D Ordinary Le	E east Squares	F Linear Regr	G ession Outp	H ut Sheet	l	J	k	(L
2		User Select	ed Options	•	•		•						
3		e/Time of Co	· ·	ProUCL 5.1	10/9/2022 1::	24:58 PM							
4			From File	Ground regi	.xls								
5		Ful	II Precision	OFF									
6				1									
7		Dis	play Limits	False									
8	Display	Regresion D	Diagnostics	False									
9	Dis	play Regres	sion Tables	True									
10		Title For Y	vs X Plots	Classical Re	egression								
	nfidence Le	vel for Regre	ession Line	0.95									
12		splay Confid		True									
13	D	isplay Predi	ction Band	True									
14													
15													
16		· ·		able (Y-Data)									
17			-	ed (Y values)									
18				able (x-data)									
19		Nur	mber Reporte	ed (x-values)	14								
20													
21													
22		-		s and Inferen	ce Table								
23	Parameter		Std. Error	T-values	p-values								
24	intercept	0.508	0.0923	5.502	1.3589E-4								
25	Zn	2.1091E-5	5.1904E-5	0.406	0.692								
26													
27				S ANOVA Ta									
28	Sou	ırce of Varia		SS	DOF	MS	F-Value	P-Value					
29		R	egression	0.013	1	0.013	0.165	0.6916					
30			Error	0.947	12	0.0789							
31			Total	0.96	13								
32													
33				R Square									
34			-	ed R Square									
35			Sqrt(N	ISE) = Scale	0.281								
36				·				1					
37	01	VV .	-	ion Table	Da-10 !								
38	Obs	Y Vector	Yhat	Residuals	Res/Scale								
39	1	0.389	0.508	-0.119	-0.424								
40	3	0.66	0.509	0.151 0.491	0.539 1.749								
41			0.509 0.509	-0.322									
42	4 5	0.188 0.28	0.509	-0.322 -0.229	-1.145 -0.817								
43		0.28		0.0454	-0.817 0.162								
44	7		0.51 0.512	0.0454	0.162								
45	8	0.625 0.375	0.512	-0.137	-0.488								
46	9	0.375	0.512	-0.137	-0.488								
47	10	0.25	0.517	0.371	-0.949 1.321								
48	11	0.889	0.518	-0.174	-0.619								
49	12		0.549										
50		0.344		-0.236	-0.841								
51	13	-	0.584	0.416	1.481								
52	14	0.486	0.591	-0.104	-0.372								

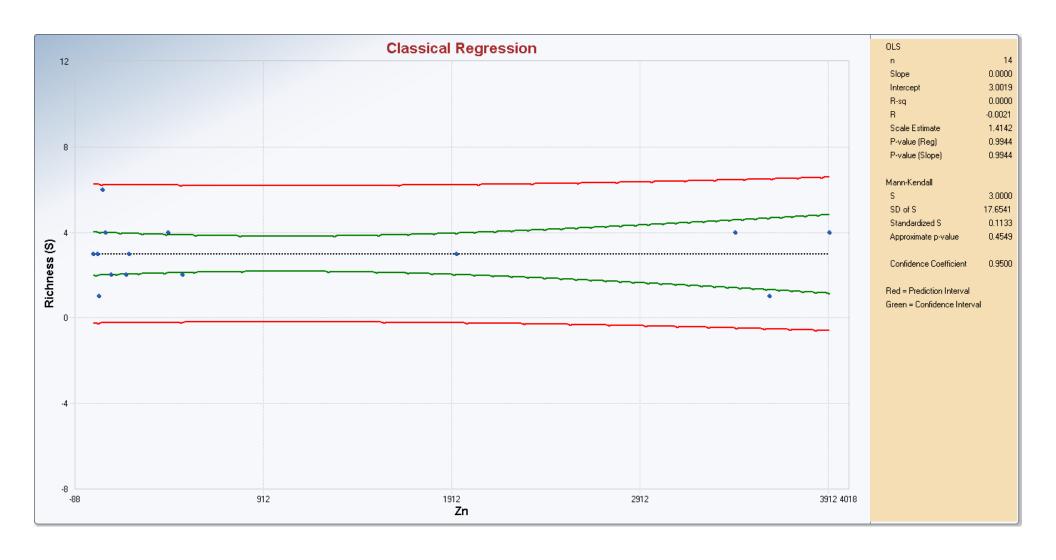
1	Α	В	С	D Ordinary Le	E east Squares	F Linear Regr	G ession Outp	H out Sheet	I	J	K	L
2		User Select	ed Options	-								
3		te/Time of Co		ProUCL 5.1	10/9/2022 1::	25:15 PM						
4			From File	Ground regi	.xls							
5		Fu	II Precision	OFF								
6				1								
7		Dis	play Limits	False								
8	Display	Regresion D	Diagnostics	False								
9	Dis	splay Regres	sion Tables	True								
10		Title For Y	vs X Plots	Classical Re	egression							
	nfidence Le	vel for Regre	ession Line	0.95								
12	Dis	splay Confid	ence Band	True								
13		Display Predi	ction Band	True								
14				·								
15												
16		-		ible (Y-Data)								
17			nber Reporte		14							
18				able (x-data)								
19		Nur	mber Reporte	ed (x-values)	14							
20												
21												
22		-		and Inferen								
23	Parameter		Std. Error	T-values	p-values							
24	intercept	2.567	0.422		5.4644E-5							
25	Zn	-1.465E-4	2.3720E-4	-0.618	0.548							
26				O ANO =								
27		637 :		S ANOVA Ta		140	E > 7 7	D				
28	Sou	urce of Varia		SS	DOF	MS	F-Value	P-Value				
29		R	egression	0.629	1	0.629	0.381	0.5484				
30			Error	19.78	12 13	1.649						
31			Total	20.41	13							
32				R Square	0.0308							
33			Δdinet	ed R Square	0.0308							
34			=	ISE) = Scale								
35			Jqi i(IV	.o., - ocale	1.204							
36			Regress	ion Table								
37	Obs	Y Vector	Yhat	Residuals	Res/Scale							
38	1	2.571	2.565	0.00595	0.00464							
39	2	1.515	2.562	-1.047	-0.815							
40	3	1	2.561	-1.561	-1.216							
41	4	5.333	2.558	2.775	2.161							
42	5	3.571	2.556	1.016	0.791							
43 44	6	1.8	2.551	-0.751	-0.585							
45	7	1.6	2.54	-0.94	-0.732							
46	8	2.667	2.538	0.129	0.1							
47	9	4	2.507	1.493	1.163							
48	10	1.125	2.496	-1.371	-1.068							
48	11	2.667	2.283	0.384	0.299							
50	12	2.909	2.066	0.843	0.657							
51	13	1	2.04	-1.04	-0.81							
52	14	2.057	1.993	0.0644	0.0502							
JZ							<u> </u>					

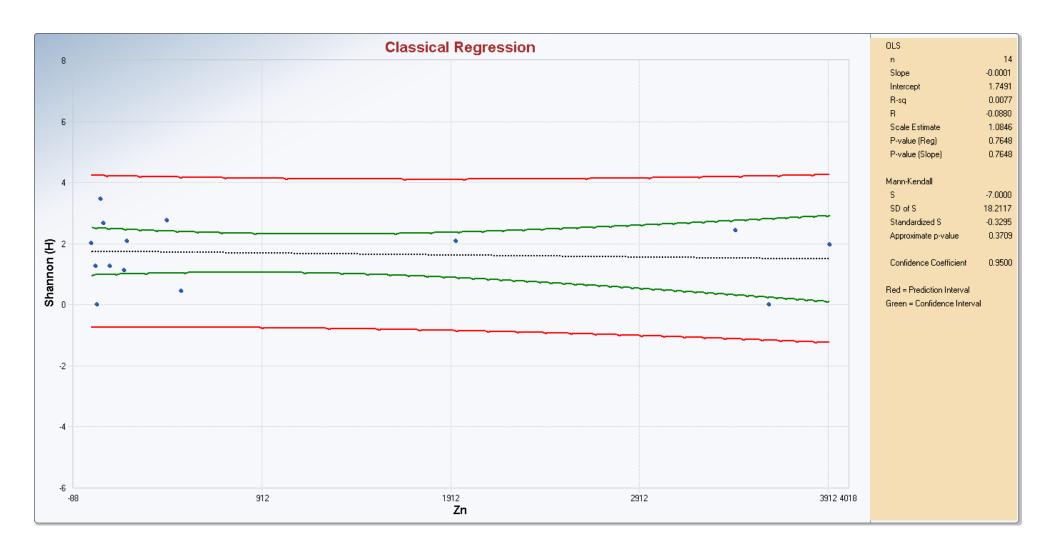


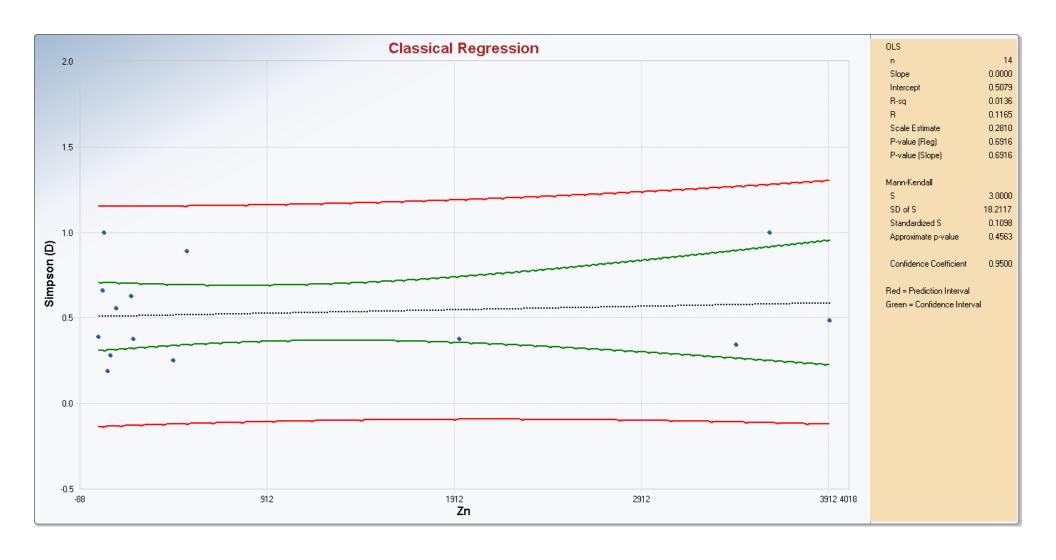


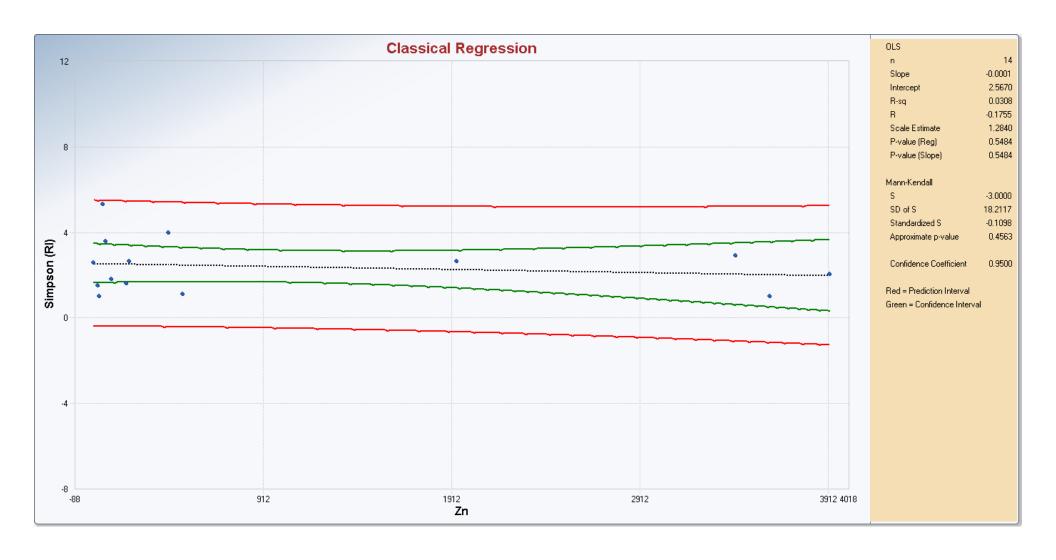












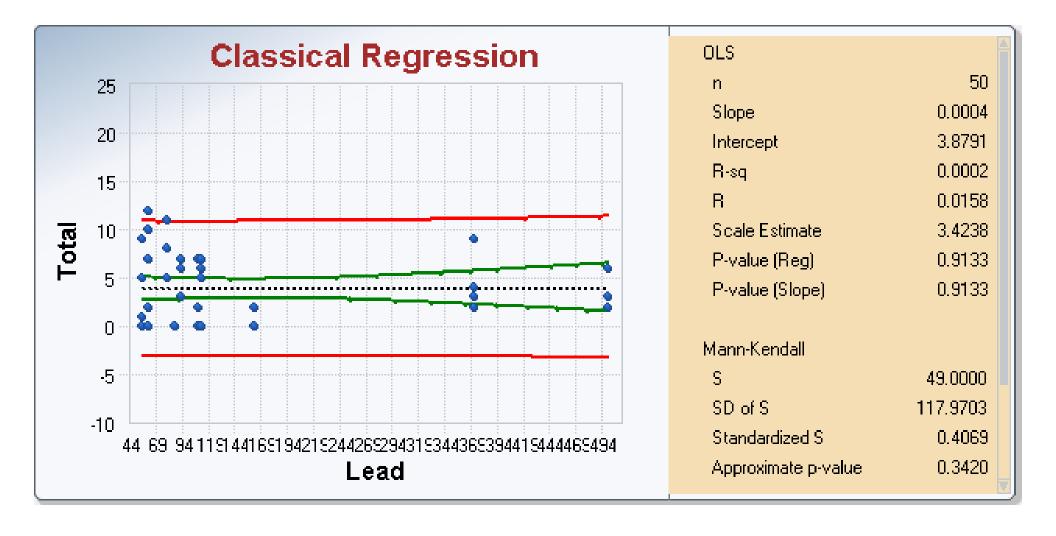
Invertebrate Abundance Regression

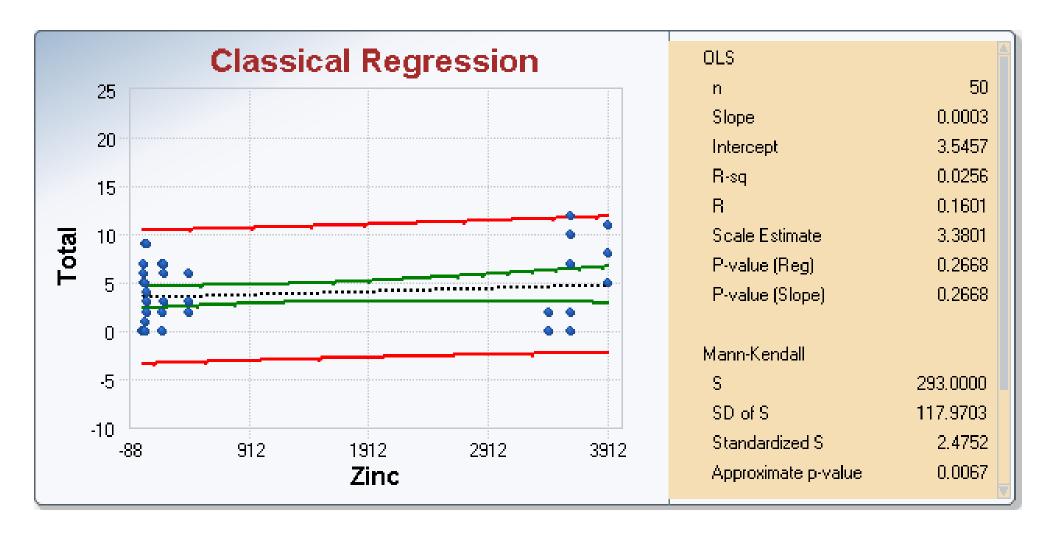
1	Α	В	С	D Ordinary Le	E east Squares	F Linear Regr	G ession Outp	H ut Sheet	I	J	K	L	\exists
2		User Select	ed Options	-	-		<u> </u>						\dashv
3		te/Time of Co		ProUCL 5.1	10/9/2022 11	:51:42 AM							=
4			From File	Inverts.xls									=
5		Ful	II Precision	OFF									\dashv
6				1									
7		Dis	play Limits	False									
8	Display	Regresion D	Diagnostics	False									\dashv
9	Dis	splay Regres	sion Tables	True									\dashv
10		Title For Y	vs X Plots	Classical Re	egression								\dashv
	nfidence Le	vel for Regre	ession Line	0.95									\dashv
12	Dis	splay Confid	ence Band	True									
13	С	Display Predi	ction Band	True									
14				1									
15													
16		Depend	endant Varia	ible (Y-Data)	Total								
17		Nur	mber Reporte	ed (Y values)	50								
18		Inde	pendent Vari	able (x-data)	Lead								
19		Nur	mber Reporte	ed (x-values)	50								
20													
21													
22		Regressi	on Estimates	and Inferen	ce Table								
	Parameter	Estimates	Std. Error	T-values	p-values								
24	intercept	3.879	0.738	5.256	3.3477E-6								
25	Lead	3.7205E-4	0.0034	0.109	0.913								
26		·	<u> </u>	·									
27				S ANOVA Ta									
28	Sou	urce of Varia		SS	DOF	MS	F-Value	P-Value					
29		R	egression	0.14	1	0.14	0.012	0.9133					
30			Error	562.7	48	11.72							
31			Total	562.8	49								
32													
33					2.4939E-4								_
34			-	ed R Square	0								_
35			Sqrt(N	ISE) = Scale	3.424								_
36			<u>_</u>					T					
37			_	ion Table	· ·								_
38	Obs	Y Vector	Yhat	Residuals	Res/Scale								_
39	1	0	3.9	-3.9	-1.139								_
40	2	1	3.9	-2.9	-0.847								_
41	3	1	3.9	-2.9	-0.847								_
42	4	5	3.9	1.1	0.321								
43	5	9	3.9	5.1	1.49								
44	6	0	3.902	-3.902	-1.14								
45	7	2	3.902	-1.902	-0.556								_
46	8	7	3.902	3.098	0.905								_
47	9	10	3.902	6.098	1.781								_
48	10	12	3.902	8.098	2.365								_
49	11	5	3.909	1.091	0.319								_
50	12	5	3.909	1.091	0.319								_
51	13	5	3.909	1.091	0.319								_
52	14	8	3.909	4.091	1.195								

	Α	В	С	D	Е	F	G	Н	I	J	K	L
53	15	11	3.909	7.091	2.071							
54	16	0	3.912	-3.912	-1.142							
55	17	0	3.912	-3.912	-1.142							
56	18	0	3.912	-3.912	-1.142							
57	19	0	3.912	-3.912	-1.142							
58	20	0	3.912	-3.912	-1.142							
59	21	3	3.914	-0.914	-0.267							
60	22	6	3.914	2.086	0.609							
61	23	6	3.914	2.086	0.609							
62	24	6	3.914	2.086	0.609							
63	25	7	3.914	3.086	0.901							
64	26	0	3.92	-3.92	-1.145							
65	27	2	3.92	-1.92	-0.561							
66	28	2	3.92	-1.92	-0.561							
67	29	2	3.92	-1.92	-0.561							
68	30	7	3.92	3.08	0.9							
69	31	0	3.921	-3.921	-1.145							
70	32	5	3.921	1.079	0.315							
71	33	6	3.921	2.079	0.607							
72	34	7	3.921	3.079	0.899							
73	35	7	3.921	3.079	0.899							
74	36	0	3.94	-3.94	-1.151							
75	37	0	3.94	-3.94	-1.151							
76	38	0	3.94	-3.94	-1.151							
77	39	2	3.94	-1.94	-0.567							
78	40	2	3.94	-1.94	-0.567							
79	41	2	4.018	-2.018	-0.589							
80	42	3	4.018	-1.018	-0.297							
81	43	4	4.018	-0.0178	-0.00521							
82	44	9	4.018	4.982	1.455							
83	45	9	4.018	4.982	1.455							
84	46	2	4.065	-2.065	-0.603							
85	47	2	4.065	-2.065	-0.603							
86	48	3	4.065	-1.065	-0.311							
87	49	6	4.065	1.935	0.565							
88	50	6	4.065	1.935	0.565							
89			<u>I</u>		1	1	<u>I</u>	11				

1	Α	В	С	D Ordinary Le	E east Squares	F Linear Regr	G ession Outp	H ut Sheet	I	J	K	L
2		User Selecto	ed Options	-	•							
3		te/Time of Co	-	ProUCL 5.1	10/9/2022 11	:52:03 AM						
4			From File	Inverts.xls								
5		Ful	I Precision	OFF								
6				<u>I</u>								
7		Dis	play Limits	False								
8	Display	Regresion D	Diagnostics	False								
9	Dis	splay Regres	ion Tables	True								
10		Title For Y	vs X Plots	Classical Re	egression							
	nfidence Le	vel for Regre	ession Line	0.95								
12	Dis	splay Confid	ence Band	True								
13	D	Display Predi	ction Band	True								
14				<u>I</u>								
15												
16		Depend	endant Varia	ible (Y-Data)	Total							
17			-	ed (Y values)								
18		Indep	oendent Vari	able (x-data)	Zinc							
19		Nur	mber Reporte	ed (x-values)	50							
20												
21												
22		Regressi	on Estimates	and Inferen	ce Table							
	Parameter	Estimates	Std. Error	T-values	p-values							
24	intercept	3.546	0.593		2.7016E-7							
25	Zinc	3.3200E-4	2.9552E-4	1.123	0.267							
26		·	·	·								
27				S ANOVA Ta								
28	Sou	urce of Varia		SS	DOF	MS	F-Value	P-Value				
29		R	egression	14.42	1	14.42	1.262	0.2668				
30			Error	548.4	48	11.43						
31			Total	562.8	49							
32												
33				R Square								
34			=	ed R Square								
35			Sqrt(N	ISE) = Scale	3.38							
36			<u>_</u>				Г	T				
37			_	ion Table	·							
38	Obs	Y Vector	Yhat	Residuals	Res/Scale							
39	1	0	3.549	-3.549	-1.05							
40	2	0	3.549	-3.549	-1.05							
41	3	0	3.549	-3.549	-1.05							
42	4	0	3.549	-3.549	-1.05							
43	5	0	3.549	-3.549	-1.05							
44	6	0	3.556	-3.556	-1.052							
45	7	5	3.556	1.444	0.427							
46	8	6 7	3.556	2.444	0.723							
47	9		3.556	3.444	1.019							
48	10	7	3.556	3.444	1.019							
49	11	0	3.559	-3.559	-1.053							
50	12	1	3.559	-2.559	-0.757							
51	13	1	3.559	-2.559	-0.757							
52	14	5	3.559	1.441	0.426							

	Α	В	С	D	Е	F	G	Н	I	J	K	L
53	15	9	3.559	5.441	1.61							
54	16	2	3.565	-1.565	-0.463							
55	17	3	3.565	-0.565	-0.167							
56	18	4	3.565	0.435	0.129							
57	19	9	3.565	5.435	1.608							
58	20	9	3.565	5.435	1.608							
59	21	0	3.607	-3.607	-1.067							
60	22	2	3.607	-1.607	-0.475							
61	23	2	3.607	-1.607	-0.475							
62	24	2	3.607	-1.607	-0.475							
63	25	7	3.607	3.393	1.004							
64	26	3	3.612	-0.612	-0.181							
65	27	6	3.612	2.388	0.706							
66	28	6	3.612	2.388	0.706							
67	29	6	3.612	2.388	0.706							
68	30	7	3.612	3.388	1.002							
69	31	2	3.682	-1.682	-0.498							
70	32	2	3.682	-1.682	-0.498							
71	33	3	3.682	-0.682	-0.202							
72	34	6	3.682	2.318	0.686							
73	35	6	3.682	2.318	0.686							
74	36	0	4.681	-4.681	-1.385							
75	37	0	4.681	-4.681	-1.385							
76	38	0	4.681	-4.681	-1.385							
77	39	2	4.681	-2.681	-0.793							
78	40	2	4.681	-2.681	-0.793							
79	41	0	4.741	-4.741	-1.403							
80	42	2	4.741	-2.741	-0.811							
81	43	7	4.741	2.259	0.668							
82	44	10	4.741	5.259	1.556							
83	45	12	4.741	7.259	2.148							
84	46	5	4.847	0.153	0.0452							
85	47	5	4.847	0.153	0.0452							
86	48	5	4.847	0.153	0.0452							
87	49	8	4.847	3.153	0.933							
88	50	11	4.847	6.153	1.82							
89								•				







ATTACHMENT D

PHOTOGRAPHS OF SOIL INVERTEBRATES



Photo 1: Initial placement of 12-inch diameter metal cylinder





Photo 2: View after removal of surface debris





Photo 3: Initial placement of 12-inch diameter metal cylinder





Photo 4: View after removal of surface debris



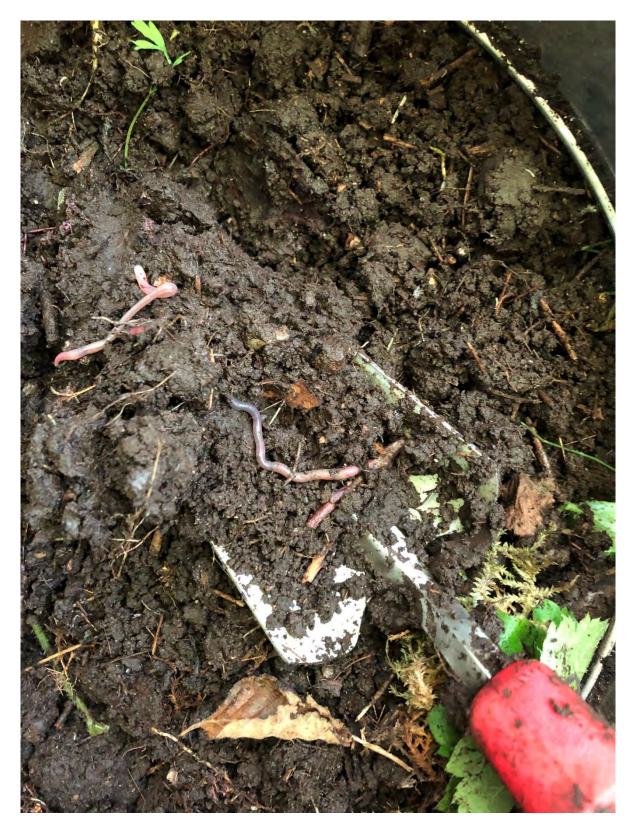


Photo 5: Trowel, cylinder, and 2 earthworms in sample pit





Photo 6: Earthworms in sample pit



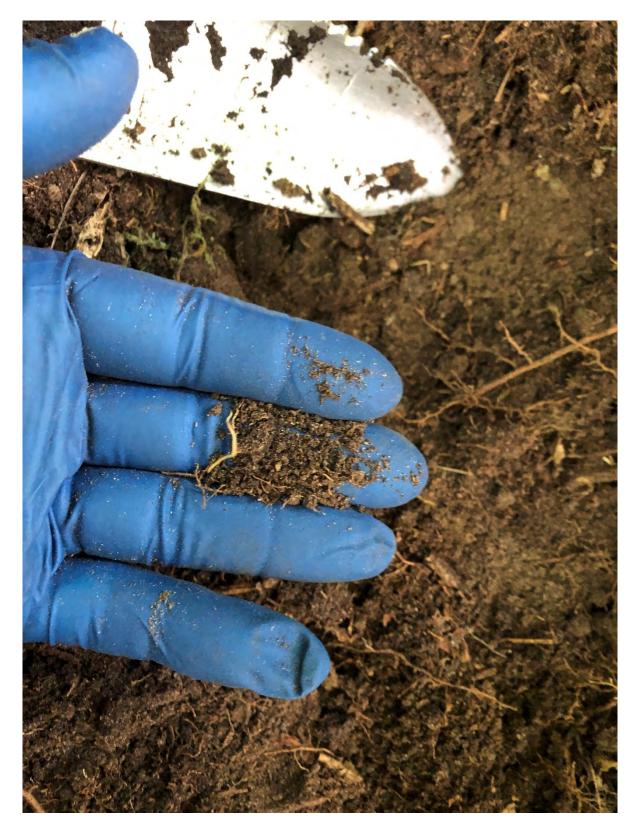


Photo 7: White pot worm in gloved hand



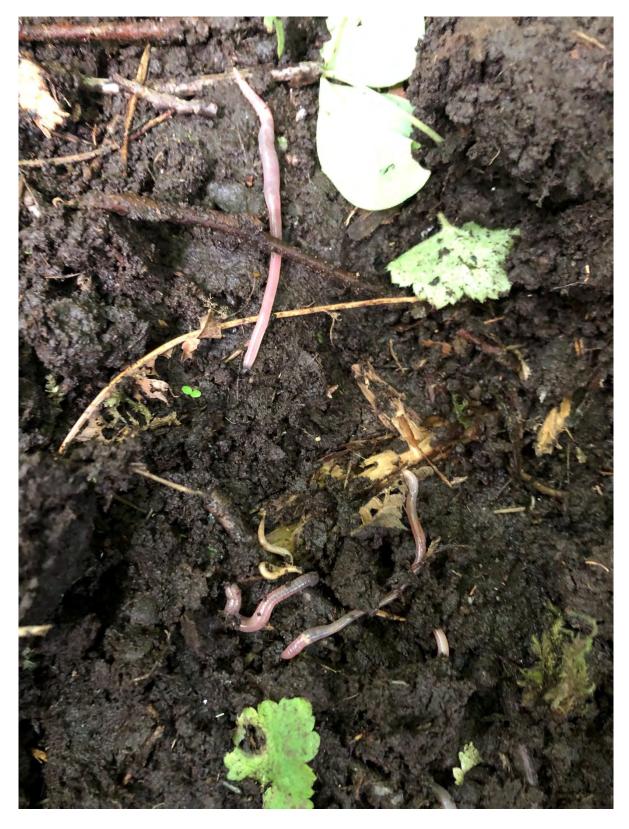


Photo 8: Four earthworms and one pot worm





ATTACHMENT E

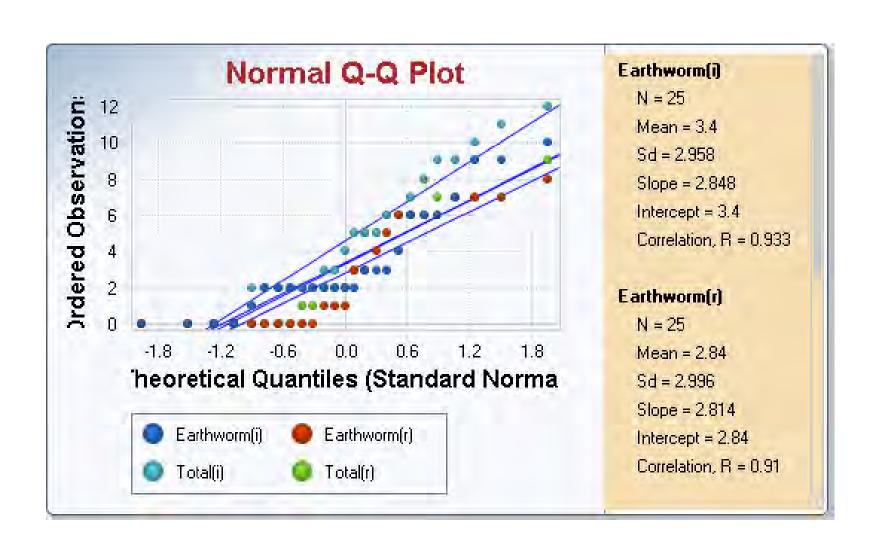
SOIL INVERTEBRATE STATISTICS – PROUCL OUTPUT

	A B C	D E	F	G	Н	I	J	K	L
1		Worm God	odness-	of-fit (C	GOF) Te	ests		r	
2									
3		Goodness-of-Fit Test St	atistics for U	ncensored	Full Data Se	ts without No	n-Detects		
4	User Selected Options	D 1101 E 110101000 1	1101511						
5	·	ProUCL 5.110/2/2022 1	:14:34 PM						
6	From File	Inverts.xls							
7	Full Precision	OFF							
8	Confidence Coefficient	0.95							
9								1	
10	Fauthoriams (1)								
11	Earthworm (i)								
12	Dow St	tatistics							
13		per of Valid Observations	25						
14		of Distinct Observations							
15	Number	Minimum							
16									
17		Maximum Mean of Raw Data							
18	Ctonda	mean of Raw Data							
19	Sianda		Data contain	e values <-	.0				
20									
21		Di	ata not gamn	ia or iognor	ıııaı				
22	Normal GOF	Teet Reculte							
23	Notified GOF	1 Oot 1 todullo							
24		Correlation Coefficient R	0.933						
25		hapiro Wilk Test Statistic							
26		Wilk Critical (0.05) Value							
27		ate Shapiro Wilk P Value							
28	Дрюми	Lilliefors Test Statistic							
29	l illie	efors Critical (0.05) Value							
30	Data not Normal at (0.05) Significand		0.170						
31	Data not normal at (0.00) eigninoand								
32	Non-parametric C	OF Test Results							
33	Ton paramotrio								
34	Data do not follow a discernible distrib	oution at (0.05) Level of S	ignificance						
33	and the state of t								
36	Earthworm (r)								
37	····· v/								
38	Raw Si	atistics							
39		per of Valid Observations	25						
40		of Distinct Observations							
41		Minimum							
42		Maximum							
43		Mean of Raw Data							
44 45	Standa	rd Deviation of Raw Data							
45 46			Data contain	ı s values <=	0				
46 47			ata not gamn						
47 48			<u></u>	J2-					
	Normal GOF	Test Results							
49 50									
50 E1		Correlation Coefficient R	0.91						
51		hapiro Wilk Test Statistic							
52		,						1	

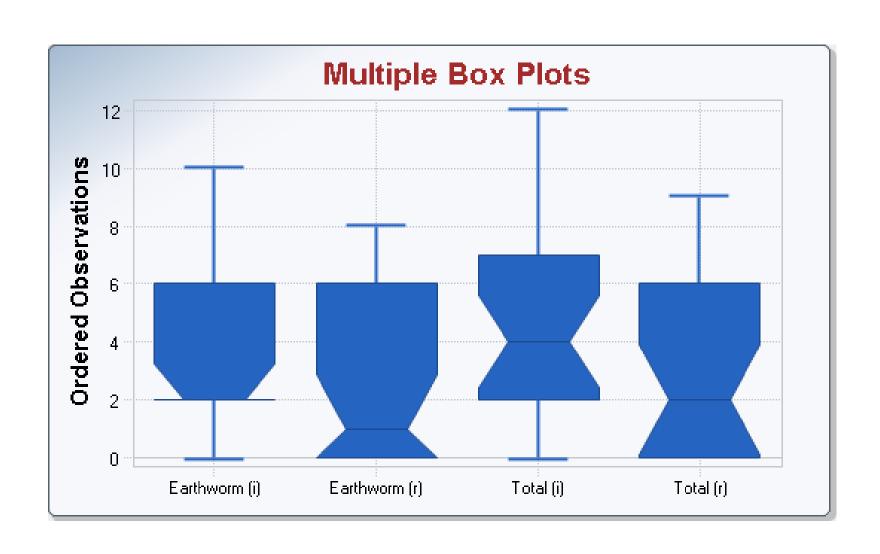
	A B C Shapiro V	D Wilk Critical (0.0	E 5) Value	F 0.918	G	Н	I	J	K	L
53 54		ate Shapiro Wilk	-							
55		Lilliefors Test	Statistic	0.25						
56	Lillief	fors Critical (0.0	5) Value	0.173						
57	Data not Normal at (0.05) Significance	e Level								
58										
59	Non-parametric G	OF Test Results	S							
60										
	Data do not follow a discernible distribu	ution at (0.05) L	evel of Si	ignificance						
62										
63	Total (i)									
64										
65	Raw Sta									
66		er of Valid Obse		25						
67	Number	of Distinct Obse		12						
68			Minimum	0						
69			laximum	12						
70	-	Mean of R		4.6						
71	Standard	d Deviation of R		3.629		<u> </u>				
72					s values <= 0					
73			Da	ita not gamm	a or lognorm	ıaı				
74	Normal GOF	Toot Doculto								
75	Normal GOF	rest nesults								
76		Correlation Coef	fficient R	0.969						
77		napiro Wilk Test		0.924						
78		Wilk Critical (0.0		0.918						
79		ate Shapiro Wilk		0.0655						
80	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Lilliefors Test		0.163						
81	Lilliet	fors Critical (0.0		0.173						
82	Data appear Normal at (0.05) Signification		-,							
83 84										
	Total (r)									
86										
87	Raw Sta	atistics								
88	Numb	er of Valid Obse	ervations	25						
89	Number	of Distinct Obse	ervations	8						
90		N	Minimum	0						
91		N	laximum	9						
92		Mean of R	aw Data	3.28						
93	Standard	d Deviation of R	aw Data	3.062						
94			C	Data contains	s values <= 0)		•		
95			Da	ta not gamm	a or lognorm	nal				
96										
97	Normal GOF	Test Results								
98										
99		Correlation Coef								
100		napiro Wilk Test		0.85						
101		Wilk Critical (0.0	-	0.918						
102	Approxima	ate Shapiro Wilk		0.0014						
103		Lilliefors Test		0.182						
104	Lillief	fors Critical (0.0	5) Value	0.173						

	Α	В	С	D	E	F	G	Н	I	J	K	L
105	Data not No	rmal at (0.05) Significand	e Level								
106												
107	Non-parametric GOF Test Results											
108												
109	Data do not f	ollow a disce	rnible distrib	oution at (0.0	5) Level of S	ignificance						

Worm QQ Plots



Worm Box Plots



	Α	В	С	D	E	F	G	Н		J	K	L	М
1					W	orm Su	mmary	Statistic	CS				
2													
3				General Sta	tistics on Un	censored Fu	II Data	1	<u> </u>		- II		
4	Dat	e/Time of Co	mputation	ProUCL 5.1	10/2/2022 1:	11:12 PM							
5		User Selec	ted Options										
6			From File	Inverts.xls									
7		Ful	Precision	OFF									
8				*									
9	From File: Ir	verts.xls											
10													
11					General S	tatistics for U	Jncensored I	Data Sets					
12													
13	Vari	able	NumObs	# Missing	Minimum	Maximum	Mean	Geo-Mean	SD	SEM	MAD/0.675	Skewness	CV
14	Е	arthworm (i)	25	0	0	10	3.4	0	2.958	0.592	1.483	0.949	0.87
15	E	arthworm (r)	25	0	0	8	2.84	0	2.996	0.599	1.483	0.41	1.055
16		Total (i)	25	0	0	12	4.6	0	3.629	0.726	2.965	0.522	0.789
17		Total (r)	25	0	0	9	3.28	0	3.062	0.612	2.965	0.27	0.934
18													
19					Percen	tiles for Unc	ensored Dat	a Sets					
20													
21	Vari		NumObs	# Missing	10%ile	20%ile	25%ile(Q1)	50%ile(Q2)	75%ile(Q3)	80%ile	90%ile	95%ile	99%ile
22	E	arthworm (i)	25	0	0	1.8	2	2	6	6	8.2	9	9.76
23	E	arthworm (r)	25	0	0	0	0	1	6	6	7	7	7.76
24		Total (i)	25	0	0	2	2	4	7	8.2	9.6	10.8	11.76
25		Total (r)	25	0	0	0	0	2	6	6.2	7	7	8.52

Worm Parametric A	HIJKL
2 Classical On way ANOVA	ANOVA
Classical Onewer ANOVA	
Glassical Oneway ANOVA	
Date/Time of Computation ProUCL 5.110/2/2022 1:15:39 PM	
5 From File	
6 Full Precision OFF	
7	
8	
9 Earthworm	
10	
11 Group Obs Mean SD Variance	
r 25 2.84 2.996 8.973	
i 25 3.4 2.958 8.75	
14 Grand Statistics (All data) 50 3.12 2.96 8.76	1
15	
16 Classical One-Way Analysis of Variance Table	
Source SS DOF MS V.R.(F Stat) P-Value	
18 Between Groups 3.92 1 3.92 0.442 0.509	9
19 Within Groups 425.4 48 8.862	
20 Total 429.3 49	
21	
Pooled Standard Deviation 2.977	
23 R-Sq 0.00913	
Note: A revelue of 0.05 (or some other pelected level) average to that there are similar	ficent differences in
uniore: A p. vallio <= 11 lip (or como other colected level) clidacete that there are ciani	
Note: A p-value <= 0.05 (or some other selected level) suggests that there are signi	
mean/median characteristics of the various groups at 0.05 or other selected level of	significance
26 mean/median characteristics of the various groups at 0.05 or other selected level of 27 A p-value > 0.05 (or other selected level) suggests that mean/median characteristic	significance
26 mean/median characteristics of the various groups at 0.05 or other selected level of 27 A p-value > 0.05 (or other selected level) suggests that mean/median characteristic 28	significance
mean/median characteristics of the various groups at 0.05 or other selected level of A p-value > 0.05 (or other selected level) suggests that mean/median characteristic 28 29	significance
mean/median characteristics of the various groups at 0.05 or other selected level of A p-value > 0.05 (or other selected level) suggests that mean/median characteristic Total	significance
mean/median characteristics of the various groups at 0.05 or other selected level of A p-value > 0.05 (or other selected level) suggests that mean/median characteristic A p-value > 0.05 (or other selected level) suggests that mean/median characteristic Total Total Total Total Total Total Total	s of the various groups are comparable.
mean/median characteristics of the various groups at 0.05 or other selected level of A p-value > 0.05 (or other selected level) suggests that mean/median characteristic A p-value > 0.05 (or other selected level) suggests that mean/median characteristic Total Total Group Obs Mean SD Variance	s of the various groups are comparable.
mean/median characteristics of the various groups at 0.05 or other selected level of A p-value > 0.05 (or other selected level) suggests that mean/median characteristic A p-value > 0.05 (or other selected level) suggests that mean/median characteristic Total Total Group Obs Mean SD Variance Total 32 Group Obs Mean SD Variance Total 33 Provided Total SD Variance Total SD Variance Total SD SD Variance Total SD SD Variance Total SD SD SD SD Variance Total SD	s of the various groups are comparable.
mean/median characteristics of the various groups at 0.05 or other selected level of 27 A p-value > 0.05 (or other selected level) suggests that mean/median characteristics	s of the various groups are comparable.
mean/median characteristics of the various groups at 0.05 or other selected level of 27 A p-value > 0.05 (or other selected level) suggests that mean/median characteristic 28	s of the various groups are comparable.
mean/median characteristics of the various groups at 0.05 or other selected level of 27 A p-value > 0.05 (or other selected level) suggests that mean/median characteristics	s of the various groups are comparable.
mean/median characteristics of the various groups at 0.05 or other selected level of A p-value > 0.05 (or other selected level) suggests that mean/median characteristic	s of the various groups are comparable.
mean/median characteristics of the various groups at 0.05 or other selected level of 27 A p-value > 0.05 (or other selected level) suggests that mean/median characteristics	s of the various groups are comparable.
mean/median characteristics of the various groups at 0.05 or other selected level of 27 A p-value > 0.05 (or other selected level) suggests that mean/median characteristic 28	s of the various groups are comparable.
mean/median characteristics of the various groups at 0.05 or other selected level of A p-value > 0.05 (or other selected level) suggests that mean/median characteristic	s of the various groups are comparable.
Mean/median characteristics of the various groups at 0.05 or other selected level of A p-value > 0.05 (or other selected level) suggests that mean/median characteristics	s of the various groups are comparable.
Mean/median characteristics of the various groups at 0.05 or other selected level of 27 A p-value > 0.05 (or other selected level) suggests that mean/median characteristic 28	s of the various groups are comparable.
Mean/median characteristics of the various groups at 0.05 or other selected level of 27 A p-value > 0.05 (or other selected level) suggests that mean/median characteristics	s of the various groups are comparable.
Mean/median characteristics of the various groups at 0.05 or other selected level of 27 A p-value > 0.05 (or other selected level) suggests that mean/median characteristic	s of the various groups are comparable.
Mean/median characteristics of the various groups at 0.05 or other selected level of a p-value > 0.05 (or other selected level) suggests that mean/median characteristics	f significance s of the various groups are comparable.
Meter A p usiling Group Source SS DOF MS V.R.(F Stat) P-Value Source SS DOF MS V.R.(F Stat) P-Value Source SS DOF MS V.R.(F Stat) P-Value Source SA Source	f significance s of the various groups are comparable.
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5			From File	Inverts.xls								
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11		Group	Obs	Median	Ave Rank	Z						
12		i	25	2	27.42	0.931						
13		r	25	1	23.58	-0.931						
14		Overall	50	2	25.5							
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16	K	(-W (H-Stat)										
17		0.867										
18		0.896										
19			, .					. 1100				
20					level) sugges				es in			
21					os at 0.05 or o		_					
22	A p-value >	0.05 (or othe	er selected le	evel) sugges	ts that mean/	median char	acteristics of	the various	groups are	comparable).	
23												
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31	k	(-W (H-Stat)	DOF	P-Value	(Approx. Ch	isquare)						
32	r	1.566	1	0.211	(дрргох. Оп	ioquai 6)						
33		1.604	1	0.211	(Adjusted	d for Ties)						
34		1.00-7		0.200	(, tajastot	0100/						
35	Note: A n-va	alue <= 0.05	(or some of	her selected	level) sugges	ts that there	are significa	ant difference	es in			
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37 38 39	A p-value >	U.US (OF OTHE	er selected le	evel) sugges	ts that mean/	median char	acteristics of	f the various	groups are	comparable).	



ATTACHMENT F

PHOTOGRAPHS OF DEPTH-SPECIFIC PLANT ROOT DENSITY



Photo 1: Root test pit at HA-02A





Photo 2: Root test pit at location HA-02B





Photo 3: Root test pit at location HA-02C



Photo 4: Root test pit at location HA-03B



Photo 5: Root test pit at location near Camera 1



ATTACHMENT G

EXPOSURE POINT CONCENTRATIONS – PROUCL OUTPUT

Statistics Sta		Α	В	С	D	E	F	G	H		J	К	L				
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76						9	95% I	BCA Bo	ootstra	ap UCL	517.4													
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82			-							. 050	V 1101	.,					1				050/			
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88		Н	l-statisti	ic oft	en re			-		•	nd low) valu								chnica	al G	uide.			-
90						lt	is the	erefore	recon	nmende	ed to avoid t	he use	of H-st	tatistic b	ased 9	5% UC	CLs.							-
91		Use o	f nonpa	aramo	etric	metho	ods a	re pref	erred	to com	pute UCL95	for ske	wed da	ata sets	which	do not	follo	wag	gamma	a di	stribu	tion.		1
92																								1
93																								1
	Zinc																							1
95																								
96											Genera	Statisti	cs]
97						Total	Num	ber of (Obser	vations	70								stinct				68	
98																Num	nber o	of Mi	ssing	Obs			0	
99										inimum												lean	805.7	1
100									Ма	aximum									0	_		dian	77.47	
101								- tt: ·		SD									Std. E		or of M		227.9	1
102							Co	etticien	nt of V	ariation	2.367										Skewn	iess	4.682	
103											Normal	GOE T	aet .											4
104											Normal	GUT 16	5 51											

105	Α	В	С	D Shapiro Wilk	E Test Statistic	F 0.475	G	Н	Shapiro Wil	J k GOF Test	K	L
105 106					Wilk P Value	0		Data No	ot Normal at 5		nce Level	
107					Test Statistic					GOF Test		
107				5% Lilliefors (Critical Value	0.106		Data No	ot Normal at 5	5% Significar	nce Level	
109					Data Not	Normal at 5	 % Significance					
110					As	suming Norn	nal Distribution					
111 112			95%	Normal UCL					UCLs (Adjus	sted for Skew	vness)	
113				95% Stu	udent's-t UCL	1186			95% Adjuste	ed-CLT UCL ((Chen-1995)	1317
										,	hnson-1978)	1207
114 115												
116						Gamma (GOF Test					
				A-D	Test Statistic	4.913		Ande	rson-Darling	Gamma GOF	- Test	
117					Critical Value		Data		_		nificance Lev	/el
118					Test Statistic				gorov-Smirno			
119					Critical Value		Data	-			nificance Lev	/el
120							d at 5% Signifi					
121												
122						Gamma	Statistics					
123					k hat (MLE)				k s	star (bias cor	rected MI F)	0.373
124				The	eta hat (MLE)						rected MLE)	2159
125					nu hat (MLE)	53.18				•	s corrected)	52.24
126				MLE Mean (bia	, ,	805.7				•	as corrected)	1319
127				WEE Wear (bit	ao corrected)	000.7			Approximate		-	36.64
128			hΔ	ljusted Level of	f Significance	0.0466				djusted Chi S		36.36
129					Olgrillicarice	0.0400			7.0	ajustou Oni O	quare value	
130					Δει	suming Gam	ma Distribution	<u> </u>				
131		95% Annrovii	mate Gam	ma UCL (use v		-			djusted Gamr	ma IICI (use	when n<50)	1158
132					VIICIT II - 00//	1140		307071	ajuotou Guiiii		W1101111 100)	
133						Lognormal	GOF Test					
134				Shapiro Wilk	Test Statistic		1001	Shar	piro Wilk Log	normal GOF	Test	
135				-	Wilk P Value				Lognormal a			
136					Test Statistic				lliefors Logno	•		
137				5% Lilliefors (0.106			Lognormal a			
138							5% Significand		Lognormara	t 0 70 Olgrillion		
139							o /o Olgrinicario	C LCVCI				
140						Lognorma	l Statistics					
141				Minimum of	Logged Data	-	i Otatiotico			Mean of	logged Data	4.945
142					Logged Data						logged Data	1.86
143				WIGAIIIIGIII OI	Logged Data	3.433				3D 0I	logged Data	1.00
144					Δεοι	ımina Loano	rmal Distribution	n				
145					95% H-UCL	1456	ווויטמוטפוע ומוויטפוע.	// I	000/	Chebyshev (MI/IIEI IIOI	1476
146			QE(% Chebyshev (• `	MVUE) UCL	2269
147				% Chebyshev (` ′				31.3%	Olienysiiev (WIVUL) UCL	
148				70 Chebyshev ((IVIVUE) UCL	31/4						
149					Nonneroma	atric Distrib. 4	ion Free UCL S	Statistics				
150					· · · · · · · · · · · · · · · · · · ·		ernible Distribut		١			
151					Data GO NOT TO	JIOW & DISCE	DISTIDU	1011 (U.US)	,			
152					Nlamm -	rometrie Di-t	ribution Francis	CLC				
153							ribution Free U	CLS		OEO/ I-	akknifa LICI	1106
154					5% CLT UCL						ckknife UCL	1186
155			95	5% Standard Bo	•				050/		tstrap-t UCL	1464
156				95% Hall's Bo	otstrap UCL	2643			95% l	Percentile Bo	otstrap UCL	1217

	Α	В	С	D	E	F	G	Н	I	J	K	L]
157				95% BCA Bo	otstrap UCL	1325							
158			90% CI	nebyshev(Me	an, Sd) UCL	1489			95% Ch	ebyshev(Me	an, Sd) UCL	1799	1
159			97.5% Cł	nebyshev(Me	an, Sd) UCL	2229			99% Ch	ebyshev(Me	an, Sd) UCL	3073	
160													
161						Suggested	UCL to Use						
162			95% Ch	ebyshev (Me	an, Sd) UCL	1799							
163													
164	I	Note: Sugge:	stions regard	ding the selec	ction of a 95%	6 UCL are pr	ovided to he	lp the user to	select the n	nost appropri	ate 95% UC	L.	
165			F	Recommenda	ations are bas	sed upon dat	ta size, data	distribution,	and skewnes	SS.			
166		These recor	mmendation	s are based ι	ipon the resu	ılts of the sim	nulation stud	ies summariz	zed in Singh,	, Maichle, an	d Lee (2006)		
167	Но	wever, simu	lations resul	ts will not cov	er all Real W	orld data se	ts; for addition	onal insight th	ne user may	want to cons	ult a statistic	ian.	
168													

-APPENDIX E-

Geotechnical Laboratory Reports

Remedial Investigation/Feasibility Study Former Eatonville Landfill

A & L WESTERN AGRICULTURAL LABORATORIES

1311 WOODLAND AVE #1 • MODESTO, CALIFORNIA 95351 • (209) 529-4080 • FAX (209) 529-4736



REPORT NUMBER: 21-273-040 **CLIENT NO:** 1180-D

SEND TO: GREENFIELD GEOTECHNICAL

7085 SW SCHOLLS FRY

BEAVERTON, OR 97008

SUBMITTED BY: MELANI BANKS

CUSTOMER:

LAB NO: 23311 DATE: 10/07/2021 ORGANIC FERTILIZER REPORT PAGE: 1

			ı	REPORT OF	ANALYSIS	IN PERCEN	Т				REPO	RT OF ANALYS	SIS IN PARTS	PER MILLION	
SAMPLE ID	Nitrogen N	Phosphorus P	Phosphate P ₂ O ₅	Potassium K	Potash K₂O	Sulfur S	Magnesium Mg	Calcium Ca	Sodium Na	Iron Fe	Aluminum Al	Manganese Mn	Copper Cu	Zinc Zn	
SB-17															

							POUNI	S OF NUTR	IENTS / TOI	N					
SAMPLE ID	Nitrogen N	Phosphorus P	Phosphate P ₂ O ₅	Potassium K	Potash K₂O	Sulfur S	Magnesium Mg	Calcium Ca	Sodium Na	Iron Fe	Aluminum Al	Manganese Mn	Copper Cu	Zinc Zn	
SB-17															

Reported on an as-received basis Moisture = Organic Matter = 10.42 %

X Reported on a dry basis Moisture = 21.06%

Remarks: To convert to pounds of nutrients/ton

as received, multiply pounds of nutrients/ton as reported by (100 - moisture %)/100. Our reports and letters are for the exclusive and confidential use of our clients, and may not be reproduced in whole or in part, nor may any reference be made to the work, the result or the company in any advertising, news release, or other public announcements without obtaining our prior written authorization.

This report applies only to the sample(s) tested. Samples are retained a maximum of thirty days after testing.

Kathryn Butterfield-Byrne A & L WESTERN LABORATORIES, INC.

A & L WESTERN AGRICULTURAL LABORATORIES

1311 WOODLAND AVE #1 • MODESTO, CALIFORNIA 95351 • (209) 529-4080 • FAX (209) 529-4736



REPORT NUMBER: 21-273-040 **CLIENT NO:** 1180-D

SEND TO: GREENFIELD GEOTECHNICAL

7085 SW SCHOLLS FRY

BEAVERTON, OR 97008

SUBMITTED BY: MELANI BANKS

CUSTOMER:

LAB NO: 23312 DATE: 10/07/2021 ORGANIC FERTILIZER REPORT PAGE: 2

			ı	REPORT OF	ANALYSIS	IN PERCEN	Т				REPO	RT OF ANALYS	SIS IN PARTS	PER MILLION	
SAMPLE ID	Nitrogen N	Phosphorus P	Phosphate P ₂ O ₅	Potassium K	Potash K₂O	Sulfur S	Magnesium Mg	Calcium Ca	Sodium Na	Iron Fe	Aluminum Al	Manganese Mn	Copper Cu	Zinc Zn	
CM-B1 *															

							POUNI	S OF NUTR	IENTS / TOI	N					
SAMPLE ID	Nitrogen N	Phosphorus P	Phosphate P ₂ O ₅	Potassium K	Potash K₂O	Sulfur S	Magnesium Mg	Calcium Ca	Sodium Na	Iron Fe	Aluminum Al	Manganese Mn	Copper Cu	Zinc Zn	
CM-B1 *															

Reported on an as-received basis Moisture = Organic Matter = 23.08 %

Reported on a dry basis Moisture = 34.61%

Remarks: To convert to pounds of nutrients/ton

as received, multiply pounds of nutrients/ton as reported by (100 - moisture %)/100.

*Composite sample from boring B-1

Our reports and letters are for the exclusive and confidential use of our clients, and may not be reproduced in whole or in part, nor may any reference be made to the work, the result or the company in any advertising, news release, or other public announcements without obtaining our prior written authorization.

This report applies only to the sample(s) tested. Samples are retained a maximum of thirty days after testing.

Kathryn Butterfield-Byrne A & L WESTERN LABORATORIES, INC.



						Percent Pa	assing No. 200	Seive: AS	TM D 1140					
Project	: Name:					Greer	nfield- Eatonville					Date:	10/5	5/21
Project I	Number:						21-118					Tech:	LN	1B
B/TP No.	Sample #	Sample Type	Depth (ft)	Soak	Soak Time (hrs)	Sample Preparation Method	Mass Determination	Tare for Total (g)	Total Dry Mass + Pan (g)	Tare for Retained (g)	Retained Dry Mass + Pan (g)	Percent Passing No. 200 Sieve		
B-1		SS	15	YES	2	531.6	15.0							
B-1		SS	SS 20 YES 2 Method A Direct 427.4 669.6 427.4									83.6		
SB-10		SS	0	YES	2	Method A	Direct	428.2	986.1	428.2	942.8	7.8		
SB-10		SS	45	YES	2	Method A	Direct	431	781.3	431	630.1	43.2		
SB-16		SS	15	YES	2	Method A	Direct	116	271.6	116	236.1	22.8		
SB-17		SS	25	YES	2	Method A	Direct	119.3	286.2	119.3	267.4	11.3		



ATTERBERG LIMITS REPORT

	ATTERBERG LIMITS REPORT	
PROJECT	CLIENT	PROJECT NO. LAB ID
Greenfield-Eatonville	Greenfield-Eatonville	21-118 B-1 20'
		REPORT DATE FIELD ID
		10/8/21 B-1 20'
		DATE SAMPLED SAMPLED BY
		9/28/21 MG
	MATERIAL DATA	
MATERIAL SAMPLED	MATERIAL SOURCE	USCS SOIL TYPE
	Boring B-1 at 20 feet	Elastic SILT (ML)
	LABORATORY TEST DATA	
METHOD	Alexad A. Marikina in A	TEST PROCEDURE
Net preparation, Me		ASTM D4318 & D2216
ATTERBERG LIMITS	LIQUID LIMIT DETERMINATION	LIQUID LIMIT
	1 2 3 4	100.0%
Denoted Describe	wet soil + pan mass, g = 8.5 9.6 10.2 10.3	90.0%
liquid limit = 52		80.0%
plastic limit = 29	· · · · · · · · · · · · · · · · · · ·	70.0%
plasticity index = 23	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	% 60.0%
	moisture, % = 50.0% 50.8% 53.1% 52.3%	500%
HRINKAGE	PLASTIC LIMIT DETERMINATION	
1 1 1 1 1	1 2 3 4	30.0%
shrinkage limit =	wet soil + pan mass, g = 7.1 9.3 8.5 9.3	20.0%
shrinkage ratio =	dry soil + pan mass, g = 5.6 7.3 6.6 7.4	10.0%
	pan mass, g = 0.4 0.4 0.4 0.4	10 number of blows "N" 100
	moisture, % = 28.8% 29.0% 30.6% 27.1%	ADDITIONAL DATA
	PLASTICITY CHART	ADDITIONAL DATA
80		
		% gravel =
:		% sand =
70		% silt and clay = 83.6
	"U" Line	% silt =
60		% clay =
		moisture content =
:		
50 -		
plasticity index	"A" Line	
₹ 40		
stic	CH or OH	
30		
	CL or OL	
20		
10	MH or OH	
10		DATE TESTED TESTED BY
/	CL-ML ML or OL	
0		10/6/21 LMB
0 10	20 30 40 50 60 70 80 90 100	•
	liquid limit	



CENTRAL GEOTECHNICAL SERVICES LLC

10240 SW Nimbus Ave., Suite L6 Portland, Oregon 97223 (503) 616-9419

MOISTURE CONTENT and DRY DENSITY: ASTM D 2216 & D 2937						
Project Name:	Greenfield- Eatonville	Date:	10/5/21			
Project Number:	21-118	Tech:	LMB			

B/TP No.	S#	Sample Type	Dept h (ft)	Pan	Tare (g)	Wet + PAN (g)	Dry + PAN (g)	Moisture (%)	Diameter (in)	Length (in)	DDensity (pcf)
PZ-1	*		5.0		0.8	74.2	71.5	3.8			
PZ-2	*		1.5		0.8	73.5	70.9	3.7			
B-1			15.0		429.4	567.2	549.6	14.6			
B-1			20.0		0.8	20.1	15.6	30.4			
B-1			25.0		0.8	40.2	34.0	18.7			
SB-10)		0.0		0.8	57.8	56.3	2.7			
SB-10)		25.0		0.8	49.1	43.9	12.1			
SB-10)		45.0		0.8	62.5	52.6	19.1			
SB-14	4		5.0		0.8	35.3	33.5	5.5			
SB-16	3		15.0		0.8	46.7	41.5	12.8			
SB-17	7		25.0		0.8	62.5	59.3	5.5			
SB-17	7		40.0		0.8	22.1	16.2	38.3			
					_		_			_	

*these samples correspond to boring logs B-2 and B-3, respectively



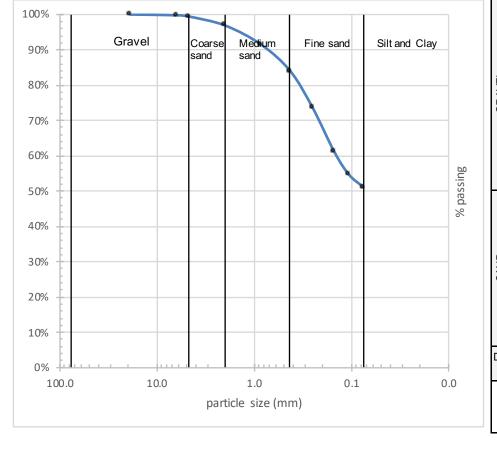


PARTICLE-SIZE ANALYSIS REPORT

PROJECT	CLIENT	PROJECT NO. LAB ID					
Greenfield-Eatonville	Greenfield-Eatonville	21-118 B-1	@ 25'				
		REPORT DATE FIELD ID					
		10-Oct-21 B-1	@ 25'				
		DATE SAMPLED SAMPLED BY					
		28-Sep-21	MG				
	MATERIAL DATA						

	USCS SOIL TYPE Sandy SILT (SM)
SPECIFICATIONS	AASHTO SOIL TYPE

LABORATORY EQUIPMENT				TEST PROC	EDUR				
Humboldt Standard Sieves - Auto	Shaker - V	Vet Sieve		ASTM C13	6 AND	D1140			
ADDITIONAL DATA				SIEVE DATA	A				
initial dry mass (g) =	386.9						% !	gravel =	0.5%
as-received moisture content =		coefficient of curvature	C _c =				%	sand =	48.4%
liquid limit =	0	coefficient of uniformity	C _u =				% silt an	d clay =	51%
plastic limit =	0	effective size (mm)	$D_{(10)} =$						
plasticity index =	0		$D_{(30)} =$			_			
fineness modulus =			$D_{(60)} =$	SIEVE	SIZE	PE	RCENT	PASSIN	IG
fines check =	51.1%		$D_{(90)} =$	US	mm	mass (g)	Indiv %	Cumul %	% Pass



	SIEVE	SIZE	PE	RCENT	PASSIN	IG
	US	mm	mass (g)	Indiv %	Cumul %	% Pass
	6.00"	150.0		0%	0%	100%
	4.00"	100.0		0%	0%	100%
	3.00"	75.0		0%	0%	100%
	2.50"	63.0		0%	0%	100%
	2.00"	50.0		0%	0%	100%
	1.75"	45.0		0%	0%	100%
ᇜ	1.50"	37.5		0%	0%	100%
GRAVEI	1.25"	31.5		0%	0%	100%
<u>2</u>	1.00"	25.0		0%	0%	100%
O	7/8"	22.4		0%	0%	100%
	3/4"	19.0		0%	0%	100%
	5/8"	16.0				
	1/2"	12.5				
	3/8"	9.50				
	1/4"	6.30	0.80	0%	0%	100%
	#4	4.75	1.30	0%	1%	99%
	#8	2.36				
	#10	2.00	9.90	2.56%	3%	97%
	#16	1.18				
	#20	0.850	21.00	5.43%	9%	91%
	#30	0.600				
9	#40	0.425	29	7.55%	16%	84%
SAND	#50	0.300				
0)	#60	0.250	40.30	10.42%	26%	74%
	#80	0.180				
	#100	0.150	48.10	12.43%	39%	61%
	#140	0.106	24.90	6.44%	45%	55%
	#170	0.900				
	#200	0.075	13.80	3.57%	49%	51%
DAT	E TEST	ED		TESTE) BY	
	5-0	Oct-21			LMB	

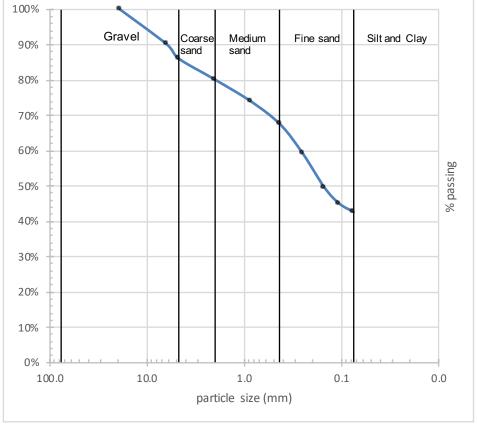


PARTICLE-SIZE ANALYSIS REPORT

PROJECT	CLIENT	PROJECT NO.	LAB ID
Greenfield-Eatonville	Greenfield-Eatonville	21-118	SB-10 @ 25'
		REPORT DATE	FIELD ID
		10-Oct-21	SB-10 @ 25'
		DATE SAMPLED	SAMPLED BY
		28-Sep-21	MG

	MATERIAL DATA						
MATERIAL SAMPLED	MATERIAL SOURCE	USCS SOIL TYPE					
SB-10 @ 25'	SB-10 @ 25'	Silty/Clayey SAND (SC-SM)					
SPECIFICATIONS		AASHTO SOIL TYPE					

LABORATORY EQUIPMENT					TEST PROCEDUR	E
Humboldt Standard Sieves - Auto	Shaker - \	Net Sieve			ASTM C136 AND	D D1140
ADDITIONAL DATA					SIEVE DATA	
initial dry mass (g) =	435.4					% gravel = 13.9%
as-received moisture content =		coefficient of curvature	C _c =			% sand = 43.5%
liquid limit =	0	coefficient of uniformity	C _u =			% silt and clay = 43%
plastic limit =	0	effective size (mm)	$D_{(10)} =$			
plasticity index =	0		$D_{(30)} =$			
fineness modulus =			$D_{(60)} =$		SIEVE SIZE	PERCENT PASSING
fines check =	42.7%		D ₍₉₀₎ =		US mm	mass (g) Indiv % Cumul % % Pass
					6 00" 150 0	0% 0% 100%



	SIEVE	SIZE	PE	RCENT	PASSIN	IG
	US	mm	mass (g)	Indiv %	Cumul %	% Pass
	6.00"	150.0		0%	0%	100%
	4.00"	100.0		0%	0%	100%
	3.00"	75.0		0%	0%	100%
	2.50"	63.0		0%	0%	100%
	2.00"	50.0		0%	0%	100%
	1.75"	45.0		0%	0%	100%
ᇜ	1.50"	37.5		0%	0%	100%
⋛	1.25"	31.5		0%	0%	100%
3RAVEI	1.00"	25.0		0%	0%	100%
G	7/8"	22.4		0%	0%	100%
	3/4"	19.0		0%	0%	100%
	5/8"	16.0				
	1/2"	12.5				
	3/8"	9.50				
	1/4"	6.30	42.80	10%	10%	90%
	#4	4.75	17.60	4%	14%	86%
	#8	2.36				
	#10	2.00	26.10	5.99%	20%	80%
	#16	1.18				
	#20	0.850	27.00	6.20%	26%	74%
	#30	0.600				
9	#40	0.425	28	6.52%	33%	67%
SAND	#50	0.300				
ഗ	#60	0.250	35.70	8.20%	41%	59%
	#80	0.180				
	#100	0.150	41.70	9.58%	50%	50%
	#140	0.106	19.70	4.52%	55%	45%
	#170	0.900				
	#200	0.075	10.70	2.46%	57%	43%
DAT	E TEST	ED		TESTED BY		
	5-0	Oct-21			LMB	

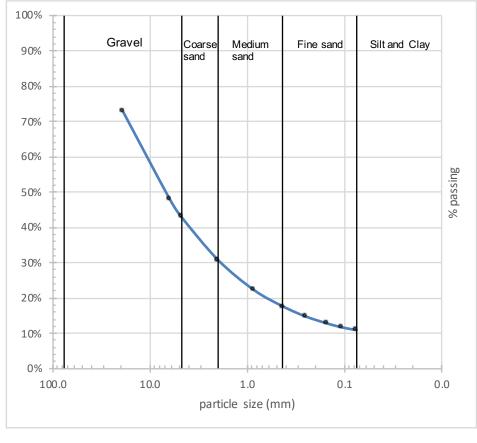


PARTICLE-SIZE ANALYSIS REPORT

PROJECT	CLIENT	PROJECT NO.	LAB ID
Greenfield-Eatonville	Greenfield-Eatonville	21-118	SB-14 @ 5'
		REPORT DATE	FIELD ID
		10-Oct-21	SB-14 @ 5'
		DATE SAMPLED	SAMPLED BY
		28-Sep-21	MG

MATERIAL DATA								
MATERIAL SAMPLED	MATERIAL SOURCE	USCS SOIL TYPE						
SB-14 @ 5'	SB-14 @ 5'	GRAVEL with sand and silt (GW)						
SPECIFICATIONS		AASHTO SOIL TYPE						

LABORATORY EQUIPMENT					TEST PR	OCEDURE			
Humboldt Standard Sieves - Auto	Shaker - \	Net Sieve			ASTM C	136 AND	D1140		
ADDITIONAL DATA					SIEVE DA	ΛTA			
initial dry mass (g) =	422.5							% gravel =	57.1%
as-received moisture content =		coefficient of curvature	C _c =					% sand =	32.0%
liquid limit =	0	coefficient of uniformity	C _u =				% sil	t and clay =	11%
plastic limit =	0	effective size (mm)	$D_{(10)} =$						
plasticity index =	0		$D_{(30)} =$	2.0		ı	•		
fineness modulus =			$D_{(60)} =$	11.0	SIE	VE SIZE		NT PASSII	
fines check =	10.9%		$D_{(90)} =$		US	mm	mass (g) Indiv	% Cumul %	% Pass



	SIEVE	SIZE	PERCENT PASSING				
	US	mm	mass (g)	Indiv %	Cumul %	% Pass	
	6.00"	150.0		0%	0%	100%	
	4.00"	100.0		0%	0%	100%	
	3.00"	75.0		0%	0%	100%	
	2.50"	63.0		0%	0%	100%	
	2.00"	50.0		0%	0%	100%	
	1.75"	45.0		0%	0%	100%	
ᇜ	1.50"	37.5		0%	0%	100%	
⋝	1.25"	31.5		0%	0%	100%	
3RAVEI	1.00"	25.0		0%	0%	100%	
O	7/8"	22.4		0%	0%	100%	
	3/4"	19.0	115.10	27%	27%	73%	
	5/8"	16.0					
	1/2"	12.5					
	3/8"	9.50					
	1/4"	6.30	104.40	25%	52%	48%	
	#4	4.75	21.70	5%	57%	43%	
	#8	2.36			-		
	#10	2.00	51.30	12.14%	69%	31%	
	#16	1.18					
	#20	0.850	36.10	8.54%	78%	22%	
	#30	0.600					
SAND	#40	0.425	20	4.66%	82%	18%	
Ź	#50	0.300					
0)	#60	0.250	11.80	2.79%	85%	15%	
	#80	0.180					
	#100	0.150	8.40	1.99%	87%	13%	
	#140	0.106	4.60	1.09%	88%	12%	
	#170	0.900					
	#200	0.075	3.30	0.78%	89%	11%	
DAT	E TEST	ED		TESTE) BY		
	5-0	Oct-21			LMB		

% gravel = 4.7% % sand = 74.8%





PARTICLE-SIZE ANALYSIS REPORT

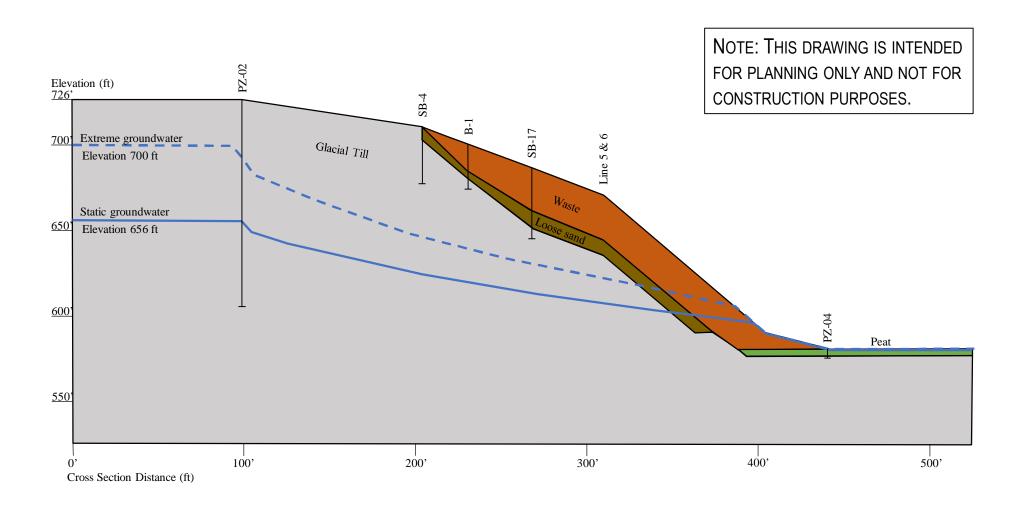
PROJECT	CLIENT	PROJECT NO.	LAB ID
Greenfield-Eatonville	Greenfield-Eatonville	21-118	SB-17 @ 40'
		REPORT DATE	FIELD ID
		10-Oct-21	SB-17 @ 40'
		DATE SAMPLED	SAMPLED BY
		28-Sep-21	MG
	MATERIAI DATA		

MATERIAL DATA								
MATERIAL SAMPLED	MATERIAL SOURCE	USCS SOIL TYPE						
SB-17 @ 40'	SB-17 @ 40'	Silty SAND (SM)						
SPECIFICATIONS		AASHTO SOIL TYPE						

		_,					
LABORATORY EQUIPMENT					TEST PROC	EDURI	=
Humboldt Standard Sieves - Auto	Shaker - \	Net Sieve			ASTM C13	6 AND	D1140
ADDITIONAL DATA					SIEVE DATA	١	
initial dry mass (g) =	169.5						
as-received moisture content =		coefficient of curvature	C _c =				
liquid limit =	0	coefficient of uniformity	C _u =				%
plastic limit =	0	effective size (mm)	D ₍₁₀₎ =				
plasticity index =	0		$D_{(30)} =$	0.1			
fineness modulus =			$D_{(60)} =$	0.25	SIEVE	SIZE	PEF
fines check =	20.5%		$D_{(90)} =$	3	US	mm	mass (g)

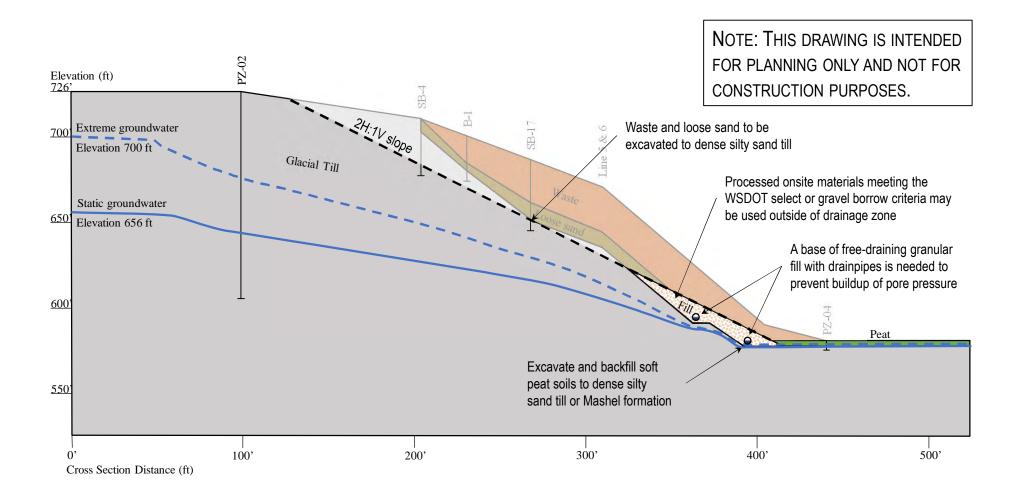
	SIEVE SIZE PERCENT PASSING								
	US	mm	mass (g)	Indiv %	Cumul %	% Pass			
	6.00"	150.0		0%	0%	100%			
	4.00"	100.0		0%	0%	100%			
	3.00"	75.0		0%	0%	100%			
	2.50"	63.0		0%	0%	100%			
	2.00"	50.0		0%	0%	100%			
	1.75"	45.0		0%	0%	100%			
님	1.50"	37.5		0%	0%	100%			
Ĭ	1.25"	31.5		0%	0%	100%			
3RAVE I	1.00"	25.0		0%	0%	100%			
9	7/8"	22.4		0%	0%	100%			
	3/4"	19.0		0%	0%	100%			
	5/8"	16.0							
	1/2"	12.5							
	3/8"	9.50							
	1/4"	6.30	4.60	3%	3%	97%			
	#4	4.75	3.40	2%	5%	95%			
	#8	2.36							
	#10	2.00	15.10	8.91%	14%	86%			
	#16	1.18							
	#20	0.850	14.90	8.79%	22%	78%			
	#30	0.600							
$\frac{1}{2}$	#40	0.425	14	7.96%	30%	70%			
SAND	#50	0.300							
(J)	#60	0.250	16.00	9.44%	40%	60%			
	#80	0.180							
	#100	0.150	31.90	18.82%	59%	41%			
	#140	0.106	23.60	13.92%	73%	27%			
	#170	0.900							
	#200	0.075	11.80	6.96%	80%	20%			
DAT	E TEST	ED		TESTE	BY BY				
	5-0	Oct-21			LMB				

100%						
90%	Gravel	Coarse sand	Medium sand	Fine sand	Silt and Clay	
80%		Saila	Saild			
70%						
60%						
50%						% passing
40%				\		ed %
30%						
20%				\		
10%						
0%						
100.0	10.0		1.0	0.1		0.0
		parl	ticle size (m	m)		



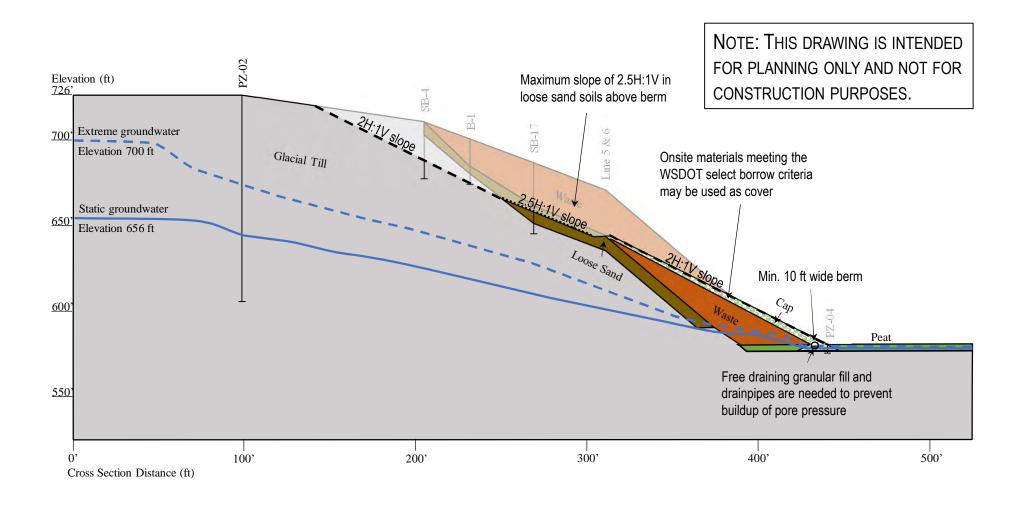
Remedial Investigation – Former Eatonville Landfill Eatonville, WA Greenfield Geotechnical LLC

Figure 1 Existing Conditions



Remedial Investigation – Former Eatonville Landfill Eatonville, WA Greenfield Geotechnical LLC

Figure 2 2H:1V Excavation Cut/Fill



Remedial Investigation – Former Eatonville Landfill Eatonville, WA Greenfield Geotechnical LLC

Figure 3 Partial Removal with Berm

-APPENDIX F-

Laboratory Analytical Reports, Data Validation Reports, and Supplemental Data

Remedial Investigation/Feasibility Study

Former Eatonville Landfill

Appendix F Laboratory Analytical Reports, Data Validation Reports, and Supplemental Data

Table of Contents

Laboratory Reports

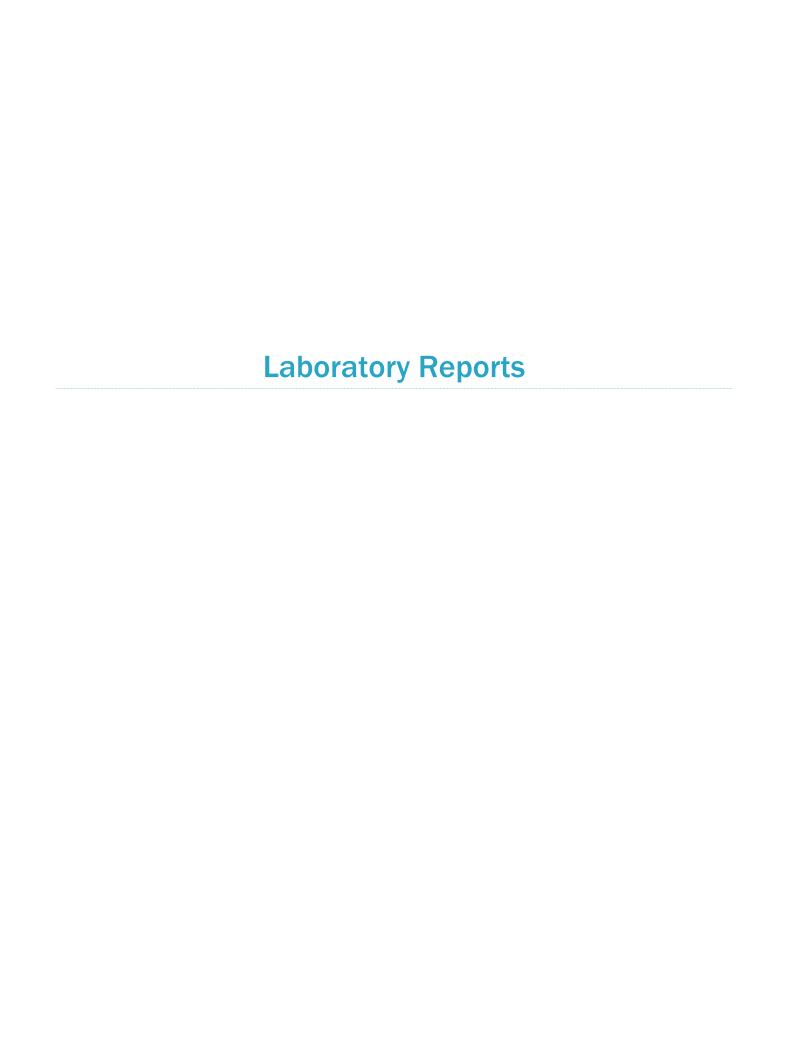
- A1I0619, Fremont Analytical, Inc., October 6, 2021
- A1I0619, Apex Laboratories, November 16, 2021
- Vista Analytical Laboratory, November 23, 2021
- A1K0892, Fremont Analytical, Inc., December 9, 2021
- Vista Analytical Laboratory, March 10, 2022
- A1K0754, Apex Laboratories, April 14, 2023
- A2H0521, Apex Laboratories, April 14, 2023
- A2I0312, Apex Laboratories, April 14, 2023
- A2B0895, Apex Laboratories, April 14, 2023
- A1A0458, Apex Laboratories, April 19, 2023
- A1K0892, Apex Laboratories, April 25, 2023
- A2B0202, Apex Laboratories, April 25, 2023
- A2B0202, Air Technology Laboratories, Inc., April 28, 2023

Data Validation Reports

- Level 2 Data Validation Checks, Eatonville, Report 2109161
- Level 2 Data Validation Checks, Eatonville, Report 2109344
- Level 2 Data Validation Checks, Eatonville, Report 2111482
- Level 2 Data Validation Checks, Eatonville, Report 2202107
- Level 2 Data Validation Checks, Eatonville, Report A1A0458
- Level 2 Data Validation Checks, Eatonville, Report A1K0754
- Level 2 Data Validation Checks, Eatonville, Report A1K0892
- Level 2 Data Validation Checks, Eatonville, Report A1l0619
- Level 2 Data Validation Checks, Eatonville, Report A2B0202
- Level 2 Data Validation Checks, Eatonville, Report A2B0895
- Level 2 Data Validation Checks, Eatonville, Report A2H0521
- Level 2 Data Validation Checks, Eatonville, Report A2I0312
- Level 2 Data Validation Checks, Eatonville, Report N021001

Supplemental Data

- ProUCL Outputs
 - USGS Top 5
 - USGS Top 5 SE Non-Detects
 - USGS Top 5 TI
 - Wetland Complete ProUCL Detects
 - Wetland Complete ProUCL Non-Detects
- USGS Soil Background Data





3600 Fremont Ave. N.
Seattle, WA 98103
T: (206) 352-3790
F: (206) 352-7178
info@fremontanalytical.com

Apex LaboratoriesPhilip Nerenberg
6700 SW Sandburg St
Tigard, OR 97223

RE: A110619

Work Order Number: 2109344

October 06, 2021

Attention Philip Nerenberg:

Fremont Analytical, Inc. received 15 sample(s) on 9/22/2021 for the analyses presented in the following report.

Extractable Petroleum Hydrocarbons by NWEPH Sample Moisture (Percent Moisture) Volatile Petroleum Hydrocarbons by NWVPH

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Brianna Barnes Project Manager CC: Sub Data

DoD-ELAP Accreditation #79636 by PJLA, ISO/IEC 17025:2017 and QSM 5.3 for Environmental Testing ORELAP Certification: WA 100009 (NELAP Recognized) for Environmental Testing Washington State Department of Ecology Accredited for Environmental Testing, Lab ID C910

Date: 10/06/2021



CLIENT: Apex Laboratories Work Order Sample Summary

Project: A110619 Work Order: 2109344

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2109344-001	HA-01-0921	09/14/2021 1:10 PM	09/22/2021 9:35 AM
2109344-002	HA-02-0921	09/14/2021 11:45 AM	09/22/2021 9:35 AM
2109344-003	HA-03-0921	09/13/2021 4:20 PM	09/22/2021 9:35 AM
2109344-004	DU-01-0921-After Processing	09/14/2021 5:00 PM	09/22/2021 9:35 AM
2109344-005	DU-02-0921-After Processing	09/15/2021 4:30 PM	09/22/2021 9:35 AM
2109344-006	HA-1003-0921	09/13/2021 4:25 PM	09/22/2021 9:35 AM
2109344-007	DU-01-0921-As Received	09/14/2021 5:00 PM	09/22/2021 9:35 AM
2109344-008	DU-02-0921-As Received	09/15/2021 4:30 PM	09/22/2021 9:35 AM
2109344-009	SB18-9-10-0921	09/16/2021 2:35 PM	09/22/2021 9:35 AM
2109344-010	EB01-0921	09/16/2021 5:25 PM	09/22/2021 9:35 AM
2109344-011	EB02-0921	09/16/2021 5:55 PM	09/22/2021 9:35 AM
2109344-012	SW04-0921	09/16/2021 10:30 AM	09/22/2021 9:35 AM
2109344-013	SW05-0921	09/16/2021 11:35 AM	09/22/2021 9:35 AM
2109344-014	SW06-0921	09/16/2021 3:00 PM	09/22/2021 9:35 AM
2109344-015	SW1006-0921	09/16/2021 3:15 PM	09/22/2021 9:35 AM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned



Case Narrative

WO#: **2109344**Date: **10/6/2021**

CLIENT: Apex Laboratories

Project: A1I0619

I. SAMPLE RECEIPT:

Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:

Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.



Qualifiers & Acronyms

WO#: 2109344

Date Reported: 10/6/2021

Qualifiers:

- * Flagged value is not within established control limits
- B Analyte detected in the associated Method Blank
- D Dilution was required
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- I Analyte with an internal standard that does not meet established acceptance criteria
- J Analyte detected below Reporting Limit
- N Tentatively Identified Compound (TIC)
- Q Analyte with an initial or continuing calibration that does not meet established acceptance criteria
- S Spike recovery outside accepted recovery limits
- ND Not detected at the Reporting Limit
- R High relative percent difference observed

Acronyms:

%Rec - Percent Recovery

CCB - Continued Calibration Blank

CCV - Continued Calibration Verification

DF - Dilution Factor

DUP - Sample Duplicate

HEM - Hexane Extractable Material

ICV - Initial Calibration Verification

LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate

MCL - Maximum Contaminant Level

MB or MBLANK - Method Blank

MDL - Method Detection Limit

MS/MSD - Matrix Spike / Matrix Spike Duplicate

PDS - Post Digestion Spike

Ref Val - Reference Value

REP - Sample Replicate

RL - Reporting Limit

RPD - Relative Percent Difference

SD - Serial Dilution

SGT - Silica Gel Treatment

SPK - Spike

Surr - Surrogate



Analytical Report

Work Order: 2109344 Date Reported: 10/6/2021

Client: **Apex Laboratories** Collection Date: 9/14/2021 1:10:00 PM

Project: A1I0619

Lab ID: 2109344-001 Matrix: Soil

Client Sample ID: HA-01-0921

Result	RL	Qual	Units	DF	Date Analyzed
ons by NWEF	<u> </u>		Batch	1D: 33	3794 Analyst: MM
ND	42.6		mg/Kg-dry	1	10/5/2021 6:13:58 AM
ND	21.3	*	mg/Kg-dry	1	10/5/2021 6:13:58 AM
ND	21.3		mg/Kg-dry	1	10/5/2021 6:13:58 AM
ND	21.3		mg/Kg-dry	1	10/5/2021 6:13:58 AM
ND	21.3		mg/Kg-dry	1	10/5/2021 6:13:58 AM
ND	42.6		mg/Kg-dry	1	10/5/2021 2:40:35 AM
ND	21.3	*	mg/Kg-dry	1	10/5/2021 2:40:35 AM
ND	21.3		mg/Kg-dry	1	10/5/2021 2:40:35 AM
ND	21.3		mg/Kg-dry	1	10/5/2021 2:40:35 AM
23.5	21.3		mg/Kg-dry	1	10/5/2021 2:40:35 AM
65.7	60 - 140		%Rec	1	10/5/2021 6:13:58 AM
66.0	60 - 140		%Rec	1	10/5/2021 2:40:35 AM
	ND N	ND 42.6 ND 21.3 ND 21.3 ND 21.3 ND 21.3 ND 21.3 ND 21.3 ND 42.6 ND 21.3 ND 21.3 ND 21.3 ND 21.3 ND 21.3 ND 21.3	ND 42.6 ND 21.3 ND 42.6 ND 21.3 ND 21.3 ND 21.3 ND 21.3 ND 21.3 23.5 23.5 21.3 65.7 60 - 140	ND 42.6 mg/Kg-dry ND 21.3 * mg/Kg-dry ND 21.3 * mg/Kg-dry ND 21.3 mg/Kg-dry ND 21.3 mg/Kg-dry ND 21.3 mg/Kg-dry ND 42.6 mg/Kg-dry ND 21.3 * mg/Kg-dry ND 21.3 mg/Kg-dry ND 21.3 mg/Kg-dry ND 21.3 mg/Kg-dry 23.5 21.3 mg/Kg-dry 65.7 60 - 140 %Rec	ND 42.6 mg/Kg-dry 1 ND 21.3 * mg/Kg-dry 1 ND 21.3 * mg/Kg-dry 1 ND 21.3 * mg/Kg-dry 1 ND 21.3 mg/Kg-dry 1 ND 21.3 mg/Kg-dry 1 ND 21.3 mg/Kg-dry 1 23.5 21.3 mg/Kg-dry 1 65.7 60 - 140 %Rec 1

NOTES:

^{* -} Associated LCS does not meet acceptance criteria; refer to QC summary.

Volatile Petroleum Hydrocarbons	by NWVPH		Batch	ID: 33	3811 Analyst: SLL
Aliphatic Hydrocarbon (C5-C6)	14.1	9.56	mg/Kg-dry	1	9/24/2021 2:40:21 AM
Aliphatic Hydrocarbon (C6-C8)	18.3	5.73	mg/Kg-dry	1	9/24/2021 2:40:21 AM
Aliphatic Hydrocarbon (C8-C10)	ND	9.56	mg/Kg-dry	1	9/24/2021 2:40:21 AM
Aliphatic Hydrocarbon (C10-C12)	2.45	1.91	mg/Kg-dry	1	9/24/2021 2:40:21 AM
Aromatic Hydrocarbon (C8-C10)	ND	11.5	mg/Kg-dry	1	9/24/2021 2:40:21 AM
Aromatic Hydrocarbon (C10-C12)	ND	1.91	mg/Kg-dry	1	9/24/2021 2:40:21 AM
Aromatic Hydrocarbon (C12-C13)	ND	1.91	mg/Kg-dry	1	9/24/2021 2:40:21 AM
Benzene	ND	2.29	mg/Kg-dry	1	9/24/2021 2:40:21 AM
Toluene	ND	1.91	mg/Kg-dry	1	9/24/2021 2:40:21 AM
Ethylbenzene	ND	6.50	mg/Kg-dry	1	9/24/2021 2:40:21 AM
m,p-Xylene	ND	3.82	mg/Kg-dry	1	9/24/2021 2:40:21 AM
o-Xylene	ND	1.91	mg/Kg-dry	1	9/24/2021 2:40:21 AM
Naphthalene	ND	9.94	mg/Kg-dry	1	9/24/2021 2:40:21 AM
Methyl tert-butyl ether (MTBE)	ND	4.20	mg/Kg-dry	1	9/24/2021 2:40:21 AM
Surr: 1,4-Difluorobenzene	77.8	65 - 140	%Rec	1	9/24/2021 2:40:21 AM
Surr: Bromofluorobenzene	92.9	65 - 140	%Rec	1	9/24/2021 2:40:21 AM
Sample Moisture (Percent Moistu	re)		Batch	ID: R	70080 Analyst: cb

0.500

54.9

Percent Moisture

9/23/2021 9:29:00 AM



Analytical Report

Work Order: **2109344**Date Reported: **10/6/2021**

Client: Apex Laboratories Collection Date: 9/14/2021 11:45:00 AM

Project: A1I0619

Lab ID: 2109344-002 **Matrix:** Soil

Client Sample ID: HA-02-0921

Result	RL	Qual	Units	DF	Date Analyzed
ons by NWEF	<u> </u>		Batch	n ID: 33	3794 Analyst: MM
ND	42.3		mg/Kg-dry	1	10/5/2021 8:00:38 AM
ND	21.2	*	mg/Kg-dry	1	10/5/2021 8:00:38 AM
ND	21.2		mg/Kg-dry	1	10/5/2021 8:00:38 AM
ND	21.2		mg/Kg-dry	1	10/5/2021 8:00:38 AM
ND	21.2		mg/Kg-dry	1	10/5/2021 8:00:38 AM
ND	42.3		mg/Kg-dry	1	10/4/2021 4:54:59 PM
ND	21.2	*	mg/Kg-dry	1	10/4/2021 4:54:59 PM
ND	21.2		mg/Kg-dry	1	10/4/2021 4:54:59 PM
ND	21.2		mg/Kg-dry	1	10/4/2021 4:54:59 PM
ND	21.2		mg/Kg-dry	1	10/4/2021 4:54:59 PM
71.5	60 - 140		%Rec	1	10/5/2021 8:00:38 AM
71.3	60 - 140		%Rec	1	10/4/2021 4:54:59 PM
	ND N	ND 42.3 ND 21.2 ND 21.2 ND 21.2 ND 21.2 ND 21.2 ND 21.2 ND 42.3 ND 42.3 ND 21.2	ND 42.3 ND 21.2 ND 21.2 ND 21.2 ND 21.2 ND 21.2 ND 21.2 ND 42.3 ND 42.3 ND 21.2	ND 42.3 mg/Kg-dry ND 21.2 * mg/Kg-dry ND 21.2 mg/Kg-dry ND 21.2 mg/Kg-dry ND 21.2 mg/Kg-dry ND 21.2 mg/Kg-dry ND 42.3 mg/Kg-dry ND 21.2 * mg/Kg-dry ND 21.2 mg/Kg-dry ND 21.2 mg/Kg-dry ND 21.2 mg/Kg-dry ND 21.2 mg/Kg-dry 71.5 60 - 140 %Rec	ND 42.3 mg/Kg-dry 1 ND 21.2 * mg/Kg-dry 1 ND 21.2 mg/Kg-dry 1 ND 21.2 mg/Kg-dry 1 ND 21.2 mg/Kg-dry 1 ND 21.2 mg/Kg-dry 1 ND 42.3 mg/Kg-dry 1 ND 21.2 * mg/Kg-dry 1 ND 21.2 mg/Kg-dry 1 <tr< td=""></tr<>

NOTES:

^{* -} Associated LCS does not meet acceptance criteria; refer to QC summary.

Volatile Petroleum Hydrocarbons by NWVPH			Batch	ID: 33	Analyst: SLL
Aliphatic Hydrocarbon (C5-C6)	11.3	10.4	mg/Kg-dry	1	9/24/2021 3:19:15 AM
Aliphatic Hydrocarbon (C6-C8)	11.1	6.24	mg/Kg-dry	1	9/24/2021 3:19:15 AM
Aliphatic Hydrocarbon (C8-C10)	ND	10.4	mg/Kg-dry	1	9/24/2021 3:19:15 AM
Aliphatic Hydrocarbon (C10-C12)	4.78	2.08	mg/Kg-dry	1	9/24/2021 3:19:15 AM
Aromatic Hydrocarbon (C8-C10)	ND	12.5	mg/Kg-dry	1	9/24/2021 3:19:15 AM
Aromatic Hydrocarbon (C10-C12)	ND	2.08	mg/Kg-dry	1	9/24/2021 3:19:15 AM
Aromatic Hydrocarbon (C12-C13)	ND	2.08	mg/Kg-dry	1	9/24/2021 3:19:15 AM
Benzene	ND	2.50	mg/Kg-dry	1	9/24/2021 3:19:15 AM
Toluene	ND	2.08	mg/Kg-dry	1	9/24/2021 3:19:15 AM
Ethylbenzene	ND	7.07	mg/Kg-dry	1	9/24/2021 3:19:15 AM
m,p-Xylene	ND	4.16	mg/Kg-dry	1	9/24/2021 3:19:15 AM
o-Xylene	ND	2.08	mg/Kg-dry	1	9/24/2021 3:19:15 AM
Naphthalene	ND	10.8	mg/Kg-dry	1	9/24/2021 3:19:15 AM
Methyl tert-butyl ether (MTBE)	ND	4.57	mg/Kg-dry	1	9/24/2021 3:19:15 AM
Surr: 1,4-Difluorobenzene	77.7	65 - 140	%Rec	1	9/24/2021 3:19:15 AM
Surr: Bromofluorobenzene	93.8	65 - 140	%Rec	1	9/24/2021 3:19:15 AM
Sample Moisture (Percent Moisture)			Batch	ID: R	70080 Analyst: cb

0.500

56.9

Percent Moisture

9/23/2021 9:29:00 AM



Work Order: 2109344 Date Reported: 10/6/2021

Client: **Apex Laboratories** Collection Date: 9/13/2021 4:20:00 PM

Project: A1I0619

Lab ID: 2109344-003 Matrix: Soil

Client Sample ID: HA-03-0921

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Extractable Petroleum Hydrocar	bons by NWEP	<u>'H</u>		Batch	n ID: 30	3794 Analyst: MM
Aliphatic Hydrocarbon (C8-C10)	ND	46.4		mg/Kg-dry	1	10/5/2021 8:53:50 AM
Aliphatic Hydrocarbon (C10-C12)	ND	23.2	*	mg/Kg-dry	1	10/5/2021 8:53:50 AM
Aliphatic Hydrocarbon (C12-C16)	ND	23.2		mg/Kg-dry	1	10/5/2021 8:53:50 AM
Aliphatic Hydrocarbon (C16-C21)	ND	23.2		mg/Kg-dry	1	10/5/2021 8:53:50 AM
Aliphatic Hydrocarbon (C21-C34)	ND	23.2		mg/Kg-dry	1	10/5/2021 8:53:50 AM
Aromatic Hydrocarbon (C8-C10)	ND	46.4		mg/Kg-dry	1	10/5/2021 9:19:58 PM
Aromatic Hydrocarbon (C10-C12)	ND	23.2	*	mg/Kg-dry	1	10/5/2021 9:19:58 PM
Aromatic Hydrocarbon (C12-C16)	ND	23.2		mg/Kg-dry	1	10/5/2021 9:19:58 PM
Aromatic Hydrocarbon (C16-C21)	ND	23.2		mg/Kg-dry	1	10/5/2021 9:19:58 PM
Aromatic Hydrocarbon (C21-C34)	107	23.2		mg/Kg-dry	1	10/5/2021 9:19:58 PM
Surr: 1-Chlorooctadecane	65.3	60 - 140		%Rec	1	10/5/2021 8:53:50 AM
Surr: o-Terphenyl	82.1	60 - 140		%Rec	1	10/5/2021 9:19:58 PM

NOTES:

^{* -} Associated LCS does not meet acceptance criteria; refer to QC summary.

Volatile Petroleum Hydrocarbons by	NWVPH		Batch	ID: 33	8811 Analyst: SLL
Aliphatic Hydrocarbon (C5-C6)	16.0	10.8	mg/Kg-dry	1	9/24/2021 3:58:14 AM
Aliphatic Hydrocarbon (C6-C8)	7.97	6.49	mg/Kg-dry	1	9/24/2021 3:58:14 AM
Aliphatic Hydrocarbon (C8-C10)	ND	10.8	mg/Kg-dry	1	9/24/2021 3:58:14 AM
Aliphatic Hydrocarbon (C10-C12)	ND	2.16	mg/Kg-dry	1	9/24/2021 3:58:14 AM
Aromatic Hydrocarbon (C8-C10)	ND	13.0	mg/Kg-dry	1	9/24/2021 3:58:14 AM
Aromatic Hydrocarbon (C10-C12)	ND	2.16	mg/Kg-dry	1	9/24/2021 3:58:14 AM
Aromatic Hydrocarbon (C12-C13)	ND	2.16	mg/Kg-dry	1	9/24/2021 3:58:14 AM
Benzene	ND	2.59	mg/Kg-dry	1	9/24/2021 3:58:14 AM
Toluene	ND	2.16	mg/Kg-dry	1	9/24/2021 3:58:14 AM
Ethylbenzene	ND	7.35	mg/Kg-dry	1	9/24/2021 3:58:14 AM
m,p-Xylene	ND	4.32	mg/Kg-dry	1	9/24/2021 3:58:14 AM
o-Xylene	ND	2.16	mg/Kg-dry	1	9/24/2021 3:58:14 AM
Naphthalene	ND	11.2	mg/Kg-dry	1	9/24/2021 3:58:14 AM
Methyl tert-butyl ether (MTBE)	ND	4.76	mg/Kg-dry	1	9/24/2021 3:58:14 AM
Surr: 1,4-Difluorobenzene	77.7	65 - 140	%Rec	1	9/24/2021 3:58:14 AM
Surr: Bromofluorobenzene	95.0	65 - 140	%Rec	1	9/24/2021 3:58:14 AM
Sample Moisture (Percent Moisture)	<u>.</u>		Batch	ID: R	70083 Analyst: cb

0.500

58.2

Percent Moisture

9/23/2021 10:16:16 AM



Batch ID: R70083

Work Order: **2109344**Date Reported: **10/6/2021**

Analyst: cb

Client: Apex Laboratories Collection Date: 9/14/2021 5:00:00 PM

Project: A1I0619

Lab ID: 2109344-004 **Matrix:** Soil

Client Sample ID: DU-01-0921-After Processing

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Extractable Petroleum Hydrocar	bons by NWEP	<u>'H</u>		Batch	n ID: 33	3794 Analyst: MM
Aliphatic Hydrocarbon (C8-C10)	ND	18.1		mg/Kg-dry	1	10/5/2021 11:33:53 AM
Aliphatic Hydrocarbon (C10-C12)	ND	9.04	*	mg/Kg-dry	1	10/5/2021 11:33:53 AM
Aliphatic Hydrocarbon (C12-C16)	ND	9.04		mg/Kg-dry	1	10/5/2021 11:33:53 AM
Aliphatic Hydrocarbon (C16-C21)	ND	9.04		mg/Kg-dry	1	10/5/2021 11:33:53 AM
Aliphatic Hydrocarbon (C21-C34)	17.0	9.04		mg/Kg-dry	1	10/5/2021 11:33:53 AM
Aromatic Hydrocarbon (C8-C10)	ND	18.1		mg/Kg-dry	1	10/4/2021 7:34:38 PM
Aromatic Hydrocarbon (C10-C12)	ND	9.04	*	mg/Kg-dry	1	10/4/2021 7:34:38 PM
Aromatic Hydrocarbon (C12-C16)	ND	9.04		mg/Kg-dry	1	10/4/2021 7:34:38 PM
Aromatic Hydrocarbon (C16-C21)	11.9	9.04		mg/Kg-dry	1	10/4/2021 7:34:38 PM
Aromatic Hydrocarbon (C21-C34)	138	9.04		mg/Kg-dry	1	10/4/2021 7:34:38 PM
Surr: 1-Chlorooctadecane	83.1	60 - 140		%Rec	1	10/5/2021 11:33:53 AM
Surr: o-Terphenyl	83.7	60 - 140		%Rec	1	10/4/2021 7:34:38 PM

NOTES:

Sample Moisture (Percent Moisture)

Percent Moisture 1.51 0.500 wt% 1 9/23/2021 10:16:16 AM

Original

^{* -} Associated LCS does not meet acceptance criteria; refer to QC summary.



Work Order: 2109344 Date Reported: 10/6/2021

Analyst: cb

Apex Laboratories Collection Date: 9/15/2021 4:30:00 PM Client:

Batch ID: R70083

Project: A1I0619

Lab ID: 2109344-005 Matrix: Soil

Client Sample ID: DU-02-0921-After Processing

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Extractable Petroleum Hydrocar	bons by NWEP	<u>H</u>		Batch	n ID: 33	794 Analyst: MM
Aliphatic Hydrocarbon (C8-C10)	ND	20.0		mg/Kg-dry	1	10/5/2021 3:07:12 PM
Aliphatic Hydrocarbon (C10-C12)	ND	9.99	*	mg/Kg-dry	1	10/5/2021 3:07:12 PM
Aliphatic Hydrocarbon (C12-C16)	ND	9.99		mg/Kg-dry	1	10/5/2021 3:07:12 PM
Aliphatic Hydrocarbon (C16-C21)	ND	9.99		mg/Kg-dry	1	10/5/2021 3:07:12 PM
Aliphatic Hydrocarbon (C21-C34)	ND	9.99		mg/Kg-dry	1	10/5/2021 3:07:12 PM
Aromatic Hydrocarbon (C8-C10)	ND	20.0		mg/Kg-dry	1	10/4/2021 11:07:30 PM
Aromatic Hydrocarbon (C10-C12)	ND	9.99	*	mg/Kg-dry	1	10/4/2021 11:07:30 PM
Aromatic Hydrocarbon (C12-C16)	ND	9.99		mg/Kg-dry	1	10/4/2021 11:07:30 PM
Aromatic Hydrocarbon (C16-C21)	ND	9.99		mg/Kg-dry	1	10/4/2021 11:07:30 PM
Aromatic Hydrocarbon (C21-C34)	25.5	9.99		mg/Kg-dry	1	10/4/2021 11:07:30 PM
Surr: 1-Chlorooctadecane	68.6	60 - 140		%Rec	1	10/5/2021 3:07:12 PM
Surr: o-Terphenyl	64.3	60 - 140		%Rec	1	10/4/2021 11:07:30 PM
· ·						

NOTES:

Sample Moisture (Percent Moisture)

Percent Moisture 0.500 wt% 9/23/2021 10:16:16 AM 2.30

Original

^{* -} Associated LCS does not meet acceptance criteria; refer to QC summary.



Work Order: 2109344 Date Reported: 10/6/2021

Client: Apex Laboratories Collection Date: 9/13/2021 4:25:00 PM

Project: A1I0619

Lab ID: 2109344-006 Matrix: Soil

Client Sample ID: HA-1003-0921

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Extractable Petroleum Hydrocar	bons by NWEP	<u>H</u>		Batch	n ID: 30	3794 Analyst: MM
Aliphatic Hydrocarbon (C8-C10)	ND	59.3		mg/Kg-dry	1	10/5/2021 4:00:20 PM
Aliphatic Hydrocarbon (C10-C12)	ND	29.6	*	mg/Kg-dry	1	10/5/2021 4:00:20 PM
Aliphatic Hydrocarbon (C12-C16)	ND	29.6		mg/Kg-dry	1	10/5/2021 4:00:20 PM
Aliphatic Hydrocarbon (C16-C21)	ND	29.6		mg/Kg-dry	1	10/5/2021 4:00:20 PM
Aliphatic Hydrocarbon (C21-C34)	291	29.6		mg/Kg-dry	1	10/5/2021 4:00:20 PM
Aromatic Hydrocarbon (C8-C10)	ND	59.3		mg/Kg-dry	1	10/5/2021 12:00:48 AM
Aromatic Hydrocarbon (C10-C12)	ND	29.6	*	mg/Kg-dry	1	10/5/2021 12:00:48 AM
Aromatic Hydrocarbon (C12-C16)	ND	29.6		mg/Kg-dry	1	10/5/2021 12:00:48 AM
Aromatic Hydrocarbon (C16-C21)	ND	29.6		mg/Kg-dry	1	10/5/2021 12:00:48 AM
Aromatic Hydrocarbon (C21-C34)	263	29.6		mg/Kg-dry	1	10/5/2021 12:00:48 AM
Surr: 1-Chlorooctadecane	90.1	60 - 140		%Rec	1	10/5/2021 4:00:20 PM
Surr: o-Terphenyl	74.2	60 - 140		%Rec	1	10/5/2021 12:00:48 AM

NOTES:

^{* -} Associated LCS does not meet acceptance criteria; refer to QC summary.

Volatile Petroleum Hydrocarbons	by NWVPH			Batch	ID: 33	3787 Analyst: SLL
Aliphatic Hydrocarbon (C5-C6)	21.6	17.9		mg/Kg-dry	1	9/22/2021 10:37:08 PM
Aliphatic Hydrocarbon (C6-C8)	72.9	10.8		mg/Kg-dry	1	9/22/2021 10:37:08 PM
Aliphatic Hydrocarbon (C8-C10)	ND	17.9		mg/Kg-dry	1	9/22/2021 10:37:08 PM
Aliphatic Hydrocarbon (C10-C12)	16.5	3.58		mg/Kg-dry	1	9/22/2021 10:37:08 PM
Aromatic Hydrocarbon (C8-C10)	ND	21.5		mg/Kg-dry	1	9/22/2021 10:37:08 PM
Aromatic Hydrocarbon (C10-C12)	ND	3.58		mg/Kg-dry	1	9/22/2021 10:37:08 PM
Aromatic Hydrocarbon (C12-C13)	13.3	3.58		mg/Kg-dry	1	9/22/2021 10:37:08 PM
Benzene	ND	4.30	Q	mg/Kg-dry	1	9/22/2021 10:37:08 PM
Toluene	ND	3.58	Q	mg/Kg-dry	1	9/22/2021 10:37:08 PM
Ethylbenzene	ND	12.2	Q	mg/Kg-dry	1	9/22/2021 10:37:08 PM
m,p-Xylene	ND	7.17	Q	mg/Kg-dry	1	9/22/2021 10:37:08 PM
o-Xylene	ND	3.58	Q	mg/Kg-dry	1	9/22/2021 10:37:08 PM
Naphthalene	ND	18.6		mg/Kg-dry	1	9/22/2021 10:37:08 PM
Methyl tert-butyl ether (MTBE)	ND	7.89		mg/Kg-dry	1	9/22/2021 10:37:08 PM
Surr: 1,4-Difluorobenzene	78.7	65 - 140		%Rec	1	9/22/2021 10:37:08 PM
Surr: Bromofluorobenzene	97.0	65 - 140		%Rec	1	9/22/2021 10:37:08 PM

NOTES:

Sample Moisture (Percent Moisture) Batch ID: R70083 Analyst: cb

Percent Moisture 67.4 0.500 wt% 1 9/23/2021 10:16:16 AM

Q - Associated calibration verification is below acceptance criteria. Result may be low-biased.



Work Order: **2109344**Date Reported: **10/6/2021**

Client: Apex Laboratories Collection Date: 9/14/2021 5:00:00 PM

Project: A1I0619

Lab ID: 2109344-007 **Matrix:** Soil

Client Sample ID: DU-01-0921-As Received

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Petroleum Hydrocarbon	s by NWVPH			Batch	n ID: 3	3811 Analyst: SLL
Aliphatic Hydrocarbon (C5-C6)	3.72	2.68		mg/Kg-dry	1	9/24/2021 4:37:21 AM
Aliphatic Hydrocarbon (C6-C8)	3.34	1.61		mg/Kg-dry	1	9/24/2021 4:37:21 AM
Aliphatic Hydrocarbon (C8-C10)	ND	2.68		mg/Kg-dry	1	9/24/2021 4:37:21 AM
Aliphatic Hydrocarbon (C10-C12)	1.87	0.536		mg/Kg-dry	1	9/24/2021 4:37:21 AM
Aromatic Hydrocarbon (C8-C10)	ND	3.21		mg/Kg-dry	1	9/24/2021 4:37:21 AM
Aromatic Hydrocarbon (C10-C12)	0.591	0.536		mg/Kg-dry	1	9/24/2021 4:37:21 AM
Aromatic Hydrocarbon (C12-C13)	ND	0.536		mg/Kg-dry	1	9/24/2021 4:37:21 AM
Benzene	ND	0.643		mg/Kg-dry	1	9/24/2021 4:37:21 AM
Toluene	ND	0.536		mg/Kg-dry	1	9/24/2021 4:37:21 AM
Ethylbenzene	ND	1.82		mg/Kg-dry	1	9/24/2021 4:37:21 AM
m,p-Xylene	ND	1.07		mg/Kg-dry	1	9/24/2021 4:37:21 AM
o-Xylene	ND	0.536		mg/Kg-dry	1	9/24/2021 4:37:21 AM
Naphthalene	ND	2.79		mg/Kg-dry	1	9/24/2021 4:37:21 AM
Methyl tert-butyl ether (MTBE)	ND	1.18		mg/Kg-dry	1	9/24/2021 4:37:21 AM
Surr: 1,4-Difluorobenzene	77.2	65 - 140		%Rec	1	9/24/2021 4:37:21 AM
Surr: Bromofluorobenzene	92.7	65 - 140		%Rec	1	9/24/2021 4:37:21 AM
Sample Moisture (Percent Moist	ure)			Batch	n ID: F	R70083 Analyst: cb
Percent Moisture	1.29	0.500		wt%	1	9/23/2021 10:16:16 AM



Work Order: **2109344**Date Reported: **10/6/2021**

Client: Apex Laboratories Collection Date: 9/15/2021 4:30:00 PM

Project: A1I0619

Lab ID: 2109344-008 **Matrix:** Soil

Client Sample ID: DU-02-0921-As Received

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Petroleum Hydrocarbon	s by NWVPH			Batch	n ID: 3	33811 Analyst: SLL
Aliphatic Hydrocarbon (C5-C6)	5.44	3.56		mg/Kg-dry	1	9/24/2021 5:55:05 AM
Aliphatic Hydrocarbon (C6-C8)	2.51	2.14		mg/Kg-dry	1	9/24/2021 5:55:05 AM
Aliphatic Hydrocarbon (C8-C10)	ND	3.56		mg/Kg-dry	1	9/24/2021 5:55:05 AM
Aliphatic Hydrocarbon (C10-C12)	2.50	0.712		mg/Kg-dry	1	9/24/2021 5:55:05 AM
Aromatic Hydrocarbon (C8-C10)	ND	4.27		mg/Kg-dry	1	9/24/2021 5:55:05 AM
Aromatic Hydrocarbon (C10-C12)	1.41	0.712		mg/Kg-dry	1	9/24/2021 5:55:05 AM
Aromatic Hydrocarbon (C12-C13)	ND	0.712		mg/Kg-dry	1	9/24/2021 5:55:05 AM
Benzene	ND	0.855		mg/Kg-dry	1	9/24/2021 5:55:05 AM
Toluene	ND	0.712		mg/Kg-dry	1	9/24/2021 5:55:05 AM
Ethylbenzene	ND	2.42		mg/Kg-dry	1	9/24/2021 5:55:05 AM
m,p-Xylene	ND	1.42		mg/Kg-dry	1	9/24/2021 5:55:05 AM
o-Xylene	ND	0.712		mg/Kg-dry	1	9/24/2021 5:55:05 AM
Naphthalene	ND	3.70		mg/Kg-dry	1	9/24/2021 5:55:05 AM
Methyl tert-butyl ether (MTBE)	ND	1.57		mg/Kg-dry	1	9/24/2021 5:55:05 AM
Surr: 1,4-Difluorobenzene	78.9	65 - 140		%Rec	1	9/24/2021 5:55:05 AM
Surr: Bromofluorobenzene	93.9	65 - 140		%Rec	1	9/24/2021 5:55:05 AM
Sample Moisture (Percent Moist	ure)			Batch	n ID: F	R70083 Analyst: cb
Percent Moisture	2.40	0.500		wt%	1	9/23/2021 10:16:16 AM



Work Order: **2109344**Date Reported: **10/6/2021**

Client: Apex Laboratories Collection Date: 9/16/2021 2:35:00 PM

Project: A1I0619

Lab ID: 2109344-009 **Matrix:** Soil

Client Sample ID: SB18-9-10-0921

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Extractable Petroleum Hydrocar	bons by NWEI	<u>PH</u>		Batch	n ID: 33	3794 Analyst: MM
Aliphatic Hydrocarbon (C8-C10)	ND	21.6		mg/Kg-dry	1	10/5/2021 5:46:51 PM
Aliphatic Hydrocarbon (C10-C12)	ND	10.8	*	mg/Kg-dry	1	10/5/2021 5:46:51 PM
Aliphatic Hydrocarbon (C12-C16)	100	10.8		mg/Kg-dry	1	10/5/2021 5:46:51 PM
Aliphatic Hydrocarbon (C16-C21)	ND	10.8		mg/Kg-dry	1	10/5/2021 5:46:51 PM
Aliphatic Hydrocarbon (C21-C34)	454	10.8		mg/Kg-dry	1	10/5/2021 5:46:51 PM
Aromatic Hydrocarbon (C8-C10)	ND	21.6		mg/Kg-dry	1	10/5/2021 1:47:12 AM
Aromatic Hydrocarbon (C10-C12)	ND	10.8	*	mg/Kg-dry	1	10/5/2021 1:47:12 AM
Aromatic Hydrocarbon (C12-C16)	12.0	10.8		mg/Kg-dry	1	10/5/2021 1:47:12 AM
Aromatic Hydrocarbon (C16-C21)	17.4	10.8		mg/Kg-dry	1	10/5/2021 1:47:12 AM
Aromatic Hydrocarbon (C21-C34)	270	10.8		mg/Kg-dry	1	10/5/2021 1:47:12 AM
Surr: 1-Chlorooctadecane	82.8	60 - 140		%Rec	1	10/5/2021 5:46:51 PM
Surr: o-Terphenyl	78.4	60 - 140		%Rec	1	10/5/2021 1:47:12 AM

NOTES:

^{* -} Associated LCS does not meet acceptance criteria; refer to QC summary.

Volatile Petroleum Hydrocarbons	olatile Petroleum Hydrocarbons by NWVPH			Batch ID: 33811 Analy			
Aliphatic Hydrocarbon (C5-C6)	7.51	4.94	mg/Kg-dry	1	9/24/2021 7:12:36 AM		
Aliphatic Hydrocarbon (C6-C8)	6.73	2.96	mg/Kg-dry	1	9/24/2021 7:12:36 AM		
Aliphatic Hydrocarbon (C8-C10)	ND	4.94	mg/Kg-dry	1	9/24/2021 7:12:36 AM		
Aliphatic Hydrocarbon (C10-C12)	3.09	0.988	mg/Kg-dry	1	9/24/2021 7:12:36 AM		
Aromatic Hydrocarbon (C8-C10)	ND	5.93	mg/Kg-dry	1	9/24/2021 7:12:36 AM		
Aromatic Hydrocarbon (C10-C12)	1.30	0.988	mg/Kg-dry	1	9/24/2021 7:12:36 AM		
Aromatic Hydrocarbon (C12-C13)	ND	0.988	mg/Kg-dry	1	9/24/2021 7:12:36 AM		
Benzene	ND	1.19	mg/Kg-dry	1	9/24/2021 7:12:36 AM		
Toluene	ND	0.988	mg/Kg-dry	1	9/24/2021 7:12:36 AM		
Ethylbenzene	ND	3.36	mg/Kg-dry	1	9/24/2021 7:12:36 AM		
m,p-Xylene	ND	1.98	mg/Kg-dry	1	9/24/2021 7:12:36 AM		
o-Xylene	ND	0.988	mg/Kg-dry	1	9/24/2021 7:12:36 AM		
Naphthalene	ND	5.14	mg/Kg-dry	1	9/24/2021 7:12:36 AM		
Methyl tert-butyl ether (MTBE)	ND	2.17	mg/Kg-dry	1	9/24/2021 7:12:36 AM		
Surr: 1,4-Difluorobenzene	78.4	65 - 140	%Rec	1	9/24/2021 7:12:36 AM		
Surr: Bromofluorobenzene	93.6	65 - 140	%Rec	1	9/24/2021 7:12:36 AM		
Sample Moisture (Percent Moistur	r <u>e)</u>		Batch	ID: R	70083 Analyst: cb		

0.500

11.6

Percent Moisture

9/23/2021 10:16:16 AM



Work Order: **2109344**Date Reported: **10/6/2021**

Client: Apex Laboratories Collection Date: 9/16/2021 5:25:00 PM

Project: A1l0619

Lab ID: 2109344-010 **Matrix:** Water

Client Sample ID: EB01-0921

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Extractable Petroleum Hydrocar	bons by NWEF	<u> </u>		Bato	h ID: 3	3813 Analyst: MM
Aliphatic Hydrocarbon (C8-C10)	ND	78.7		μg/L	1	10/1/2021 5:09:56 AM
Aliphatic Hydrocarbon (C10-C12)	ND	39.4		μg/L	1	10/1/2021 5:09:56 AM
Aliphatic Hydrocarbon (C12-C16)	ND	39.4		μg/L	1	10/1/2021 5:09:56 AM
Aliphatic Hydrocarbon (C16-C21)	ND	39.4		μg/L	1	10/1/2021 5:09:56 AM
Aliphatic Hydrocarbon (C21-C34)	ND	39.4		μg/L	1	10/1/2021 5:09:56 AM
Aromatic Hydrocarbon (C8-C10)	ND	78.7		μg/L	1	9/30/2021 4:45:06 PM
Aromatic Hydrocarbon (C10-C12)	ND	39.4		μg/L	1	9/30/2021 4:45:06 PM
Aromatic Hydrocarbon (C12-C16)	ND	39.4		μg/L	1	9/30/2021 4:45:06 PM
Aromatic Hydrocarbon (C16-C21)	ND	39.4		μg/L	1	9/30/2021 4:45:06 PM
Aromatic Hydrocarbon (C21-C34)	ND	39.4		μg/L	1	9/30/2021 4:45:06 PM
Surr: 1-Chlorooctadecane	84.1	60 - 140		%Rec	1	10/1/2021 5:09:56 AM
Surr: o-Terphenyl	84.7	60 - 140		%Rec	1	9/30/2021 4:45:06 PM
Volatile Petroleum Hydrocarbon	s by NWVPH			Bato	h ID: 3	3789 Analyst: SLL
Aliphatic Hydrocarbon (C5-C6)	58.2	25.0		μg/L	1	9/29/2021 7:21:45 PM
Aliphatic Hydrocarbon (C6-C8)	ND	45.0		μg/L	1	9/29/2021 7:21:45 PM
Aliphatic Hydrocarbon (C8-C10)	ND	20.0		μg/L	1	9/29/2021 7:21:45 PM
Aliphatic Hydrocarbon (C10-C12)	33.0	25.0		μg/L	1	9/29/2021 7:21:45 PM
Aromatic Hydrocarbon (C8-C10)	ND	50.0		μg/L	1	9/29/2021 7:21:45 PM
Aromatic Hydrocarbon (C10-C12)	ND	20.0		μg/L	1	9/29/2021 7:21:45 PM
Aromatic Hydrocarbon (C12-C13)	ND	25.0		μg/L	1	9/29/2021 7:21:45 PM
Benzene	ND	20.0		μg/L	1	9/29/2021 7:21:45 PM
Toluene	ND	25.0		μg/L	1	9/29/2021 7:21:45 PM
Ethylbenzene	ND	25.0		μg/L	1	9/29/2021 7:21:45 PM
m,p-Xylene	ND	40.0		μg/L	1	9/29/2021 7:21:45 PM
o-Xylene	ND	20.0		μg/L	1	9/29/2021 7:21:45 PM
Naphthalene	ND	40.0		μg/L	1	9/29/2021 7:21:45 PM
Methyl tert-butyl ether (MTBE)	ND	25.0		μg/L	1	9/29/2021 7:21:45 PM
Surr: 1,4-Difluorobenzene	78.7	65 - 140		%Rec	1	9/29/2021 7:21:45 PM
Surr: Bromofluorobenzene	96.8	65 - 140		%Rec	1	9/29/2021 7:21:45 PM



Work Order: **2109344**Date Reported: **10/6/2021**

Client: Apex Laboratories Collection Date: 9/16/2021 5:55:00 PM

Project: A1I0619

Lab ID: 2109344-011 **Matrix:** Water

Client Sample ID: EB02-0921

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Extractable Petroleum Hydrocar	bons by NWEF	<u> </u>		Bato	h ID: 3:	3813 Analyst: MM
Aliphatic Hydrocarbon (C8-C10)	ND	79.2		μg/L	1	10/1/2021 7:49:35 AM
Aliphatic Hydrocarbon (C10-C12)	ND	39.6		μg/L	1	10/1/2021 7:49:35 AM
Aliphatic Hydrocarbon (C12-C16)	ND	39.6		μg/L	1	10/1/2021 7:49:35 AM
Aliphatic Hydrocarbon (C16-C21)	ND	39.6		μg/L	1	10/1/2021 7:49:35 AM
Aliphatic Hydrocarbon (C21-C34)	ND	39.6		μg/L	1	10/1/2021 7:49:35 AM
Aromatic Hydrocarbon (C8-C10)	ND	79.2		μg/L	1	9/30/2021 7:24:33 PM
Aromatic Hydrocarbon (C10-C12)	ND	39.6		μg/L	1	9/30/2021 7:24:33 PM
Aromatic Hydrocarbon (C12-C16)	ND	39.6		μg/L	1	9/30/2021 7:24:33 PM
Aromatic Hydrocarbon (C16-C21)	ND	39.6		μg/L	1	9/30/2021 7:24:33 PM
Aromatic Hydrocarbon (C21-C34)	ND	39.6		μg/L	1	9/30/2021 7:24:33 PM
Surr: 1-Chlorooctadecane	87.8	60 - 140		%Rec	1	10/1/2021 7:49:35 AM
Surr: o-Terphenyl	88.5	60 - 140		%Rec	1	9/30/2021 7:24:33 PM
Volatile Petroleum Hydrocarbon	s by NWVPH			Bato	h ID: 3	3789 Analyst: SLL
Aliphatic Hydrocarbon (C5-C6)	55.3	25.0		μg/L	1	9/29/2021 8:00:39 PM
Aliphatic Hydrocarbon (C6-C8)	ND	45.0		μg/L	1	9/29/2021 8:00:39 PM
Aliphatic Hydrocarbon (C8-C10)	ND	20.0		μg/L	1	9/29/2021 8:00:39 PM
Aliphatic Hydrocarbon (C10-C12)	ND	25.0		μg/L	1	9/29/2021 8:00:39 PM
Aromatic Hydrocarbon (C8-C10)	ND	50.0		μg/L	1	9/29/2021 8:00:39 PM
Aromatic Hydrocarbon (C10-C12)	ND	20.0		μg/L	1	9/29/2021 8:00:39 PM
Aromatic Hydrocarbon (C12-C13)	ND	25.0		μg/L	1	9/29/2021 8:00:39 PM
Benzene	ND	20.0		μg/L	1	9/29/2021 8:00:39 PM
Toluene	ND	25.0		μg/L	1	9/29/2021 8:00:39 PM
Ethylbenzene	ND	25.0		μg/L	1	9/29/2021 8:00:39 PM
m,p-Xylene	ND	40.0		μg/L	1	9/29/2021 8:00:39 PM
o-Xylene	ND	20.0		μg/L	1	9/29/2021 8:00:39 PM
Naphthalene	ND	40.0		μg/L	1	9/29/2021 8:00:39 PM
Methyl tert-butyl ether (MTBE)	ND	25.0		μg/L	1	9/29/2021 8:00:39 PM
Surr: 1,4-Difluorobenzene	81.3	65 - 140		%Rec	1	9/29/2021 8:00:39 PM
Surr: Bromofluorobenzene	101	65 - 140		%Rec	1	9/29/2021 8:00:39 PM



Work Order: **2109344**Date Reported: **10/6/2021**

Client: Apex Laboratories Collection Date: 9/16/2021 10:30:00 AM

Project: A1I0619

Lab ID: 2109344-012 **Matrix:** Water

Client Sample ID: SW04-0921

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Extractable Petroleum Hydrocar	bons by NWEF	<u> </u>		Bato	h ID: 3	3813 Analyst: MM
Aliphatic Hydrocarbon (C8-C10)	ND	79.4		μg/L	1	10/1/2021 8:42:46 AM
Aliphatic Hydrocarbon (C10-C12)	ND	39.7		μg/L	1	10/1/2021 8:42:46 AM
Aliphatic Hydrocarbon (C12-C16)	ND	39.7		μg/L	1	10/1/2021 8:42:46 AM
Aliphatic Hydrocarbon (C16-C21)	ND	39.7		μg/L	1	10/1/2021 8:42:46 AM
Aliphatic Hydrocarbon (C21-C34)	ND	39.7		μg/L	1	10/1/2021 8:42:46 AM
Aromatic Hydrocarbon (C8-C10)	ND	79.4		μg/L	1	9/30/2021 8:17:41 PM
Aromatic Hydrocarbon (C10-C12)	ND	39.7		μg/L	1	9/30/2021 8:17:41 PM
Aromatic Hydrocarbon (C12-C16)	ND	39.7		μg/L	1	9/30/2021 8:17:41 PM
Aromatic Hydrocarbon (C16-C21)	ND	39.7		μg/L	1	9/30/2021 8:17:41 PM
Aromatic Hydrocarbon (C21-C34)	ND	39.7		μg/L	1	9/30/2021 8:17:41 PM
Surr: 1-Chlorooctadecane	70.9	60 - 140		%Rec	1	10/1/2021 8:42:46 AM
Surr: o-Terphenyl	80.4	60 - 140		%Rec	1	9/30/2021 8:17:41 PM
Volatile Petroleum Hydrocarbon	s by NWVPH			Bato	h ID: 3	3789 Analyst: SLL
Aliphatic Hydrocarbon (C5-C6)	62.4	25.0		μg/L	1	9/29/2021 8:39:38 PM
Aliphatic Hydrocarbon (C6-C8)	ND	45.0		μg/L	1	9/29/2021 8:39:38 PM
Aliphatic Hydrocarbon (C8-C10)	ND	20.0		μg/L	1	9/29/2021 8:39:38 PM
Aliphatic Hydrocarbon (C10-C12)	ND	25.0		μg/L	1	9/29/2021 8:39:38 PM
Aromatic Hydrocarbon (C8-C10)	ND	50.0		μg/L	1	9/29/2021 8:39:38 PM
Aromatic Hydrocarbon (C10-C12)	ND	20.0		μg/L	1	9/29/2021 8:39:38 PM
Aromatic Hydrocarbon (C12-C13)	ND	25.0		μg/L	1	9/29/2021 8:39:38 PM
Benzene	ND	20.0		μg/L	1	9/29/2021 8:39:38 PM
Toluene	ND	25.0		μg/L	1	9/29/2021 8:39:38 PM
Ethylbenzene	ND	25.0		μg/L	1	9/29/2021 8:39:38 PM
m,p-Xylene	ND	40.0		μg/L	1	9/29/2021 8:39:38 PM
o-Xylene	ND	20.0		μg/L	1	9/29/2021 8:39:38 PM
Naphthalene	ND	40.0		μg/L	1	9/29/2021 8:39:38 PM
Methyl tert-butyl ether (MTBE)	ND	25.0		μg/L	1	9/29/2021 8:39:38 PM
Surr: 1,4-Difluorobenzene	80.5	65 - 140		%Rec	1	9/29/2021 8:39:38 PM
Surr: Bromofluorobenzene	101	65 - 140		%Rec	1	9/29/2021 8:39:38 PM



Work Order: **2109344**Date Reported: **10/6/2021**

Client: Apex Laboratories Collection Date: 9/16/2021 11:35:00 AM

Project: A1I0619

Lab ID: 2109344-013 **Matrix:** Water

Client Sample ID: SW05-0921

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Extractable Petroleum Hydrocar	bons by NWEF	<u> </u>		Bato	h ID: 3:	3813 Analyst: MM
Aliphatic Hydrocarbon (C8-C10)	ND	79.3		μg/L	1	10/1/2021 9:36:10 AM
Aliphatic Hydrocarbon (C10-C12)	ND	39.6		μg/L	1	10/1/2021 9:36:10 AM
Aliphatic Hydrocarbon (C12-C16)	ND	39.6		μg/L	1	10/1/2021 9:36:10 AM
Aliphatic Hydrocarbon (C16-C21)	ND	39.6		μg/L	1	10/1/2021 9:36:10 AM
Aliphatic Hydrocarbon (C21-C34)	ND	39.6		μg/L	1	10/1/2021 9:36:10 AM
Aromatic Hydrocarbon (C8-C10)	ND	79.3		μg/L	1	9/30/2021 9:10:50 PM
Aromatic Hydrocarbon (C10-C12)	ND	39.6		μg/L	1	9/30/2021 9:10:50 PM
Aromatic Hydrocarbon (C12-C16)	ND	39.6		μg/L	1	9/30/2021 9:10:50 PM
Aromatic Hydrocarbon (C16-C21)	ND	39.6		μg/L	1	9/30/2021 9:10:50 PM
Aromatic Hydrocarbon (C21-C34)	ND	39.6		μg/L	1	9/30/2021 9:10:50 PM
Surr: 1-Chlorooctadecane	78.4	60 - 140		%Rec	1	10/1/2021 9:36:10 AM
Surr: o-Terphenyl	82.5	60 - 140		%Rec	1	9/30/2021 9:10:50 PM
Volatile Petroleum Hydrocarbon	s by NWVPH			Bato	h ID: 3	3789 Analyst: SLL
Aliphatic Hydrocarbon (C5-C6)	60.5	25.0		μg/L	1	9/29/2021 9:18:37 PM
Aliphatic Hydrocarbon (C6-C8)	ND	45.0		μg/L	1	9/29/2021 9:18:37 PM
Aliphatic Hydrocarbon (C8-C10)	ND	20.0		μg/L	1	9/29/2021 9:18:37 PM
Aliphatic Hydrocarbon (C10-C12)	ND	25.0		μg/L	1	9/29/2021 9:18:37 PM
Aromatic Hydrocarbon (C8-C10)	ND	50.0		μg/L	1	9/29/2021 9:18:37 PM
Aromatic Hydrocarbon (C10-C12)	ND	20.0		μg/L	1	9/29/2021 9:18:37 PM
Aromatic Hydrocarbon (C12-C13)	ND	25.0		μg/L	1	9/29/2021 9:18:37 PM
Benzene	ND	20.0		μg/L	1	9/29/2021 9:18:37 PM
Toluene	ND	25.0		μg/L	1	9/29/2021 9:18:37 PM
Ethylbenzene	ND	25.0		μg/L	1	9/29/2021 9:18:37 PM
m,p-Xylene	ND	40.0		μg/L	1	9/29/2021 9:18:37 PM
o-Xylene	ND	20.0		μg/L	1	9/29/2021 9:18:37 PM
Naphthalene	ND	40.0		μg/L	1	9/29/2021 9:18:37 PM
Methyl tert-butyl ether (MTBE)	ND	25.0		μg/L	1	9/29/2021 9:18:37 PM
Surr: 1,4-Difluorobenzene	81.3	65 - 140		%Rec	1	9/29/2021 9:18:37 PM
Surr: Bromofluorobenzene	101	65 - 140		%Rec	1	9/29/2021 9:18:37 PM



Work Order: **2109344**Date Reported: **10/6/2021**

Client: Apex Laboratories Collection Date: 9/16/2021 3:00:00 PM

Project: A1l0619

Lab ID: 2109344-014 **Matrix:** Water

Client Sample ID: SW06-0921

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Extractable Petroleum Hydrocar	bons by NWE	<u> </u>		Bato	ch ID: 33	Analyst: MM
Aliphatic Hydrocarbon (C8-C10)	ND	79.6		μg/L	1	10/5/2021 9:47:18 AM
Aliphatic Hydrocarbon (C10-C12)	ND	39.8		μg/L	1	10/5/2021 9:47:18 AM
Aliphatic Hydrocarbon (C12-C16)	ND	39.8		μg/L	1	10/5/2021 9:47:18 AM
Aliphatic Hydrocarbon (C16-C21)	ND	39.8		μg/L	1	10/5/2021 9:47:18 AM
Aliphatic Hydrocarbon (C21-C34)	ND	39.8		μg/L	1	10/5/2021 9:47:18 AM
Aromatic Hydrocarbon (C8-C10)	ND	79.6		μg/L	1	9/30/2021 10:03:54 PM
Aromatic Hydrocarbon (C10-C12)	ND	39.8		μg/L	1	9/30/2021 10:03:54 PM
Aromatic Hydrocarbon (C12-C16)	ND	39.8		μg/L	1	9/30/2021 10:03:54 PM
Aromatic Hydrocarbon (C16-C21)	ND	39.8		μg/L	1	9/30/2021 10:03:54 PM
Aromatic Hydrocarbon (C21-C34)	ND	39.8		μg/L	1	9/30/2021 10:03:54 PM
Surr: 1-Chlorooctadecane	70.9	60 - 140		%Rec	1	10/5/2021 9:47:18 AM
Surr: o-Terphenyl	65.6	60 - 140		%Rec	1	9/30/2021 10:03:54 PM
Volatile Petroleum Hydrocarbon	s by NWVPH			Bato	ch ID: 33	3789 Analyst: SLL
Aliphatic Hydrocarbon (C5-C6)	49.5	25.0		μg/L	1	9/29/2021 9:57:22 PM
Aliphatic Hydrocarbon (C6-C8)	ND	45.0		μg/L	1	9/29/2021 9:57:22 PM
Aliphatic Hydrocarbon (C8-C10)	ND	20.0		μg/L	1	9/29/2021 9:57:22 PM
Aliphatic Hydrocarbon (C10-C12)	ND	25.0		μg/L	1	9/29/2021 9:57:22 PM
Aromatic Hydrocarbon (C8-C10)	ND	50.0		μg/L	1	9/29/2021 9:57:22 PM
Aromatic Hydrocarbon (C10-C12)	ND	20.0		μg/L	1	9/29/2021 9:57:22 PM
Aromatic Hydrocarbon (C12-C13)	ND	25.0		μg/L	1	9/29/2021 9:57:22 PM
Benzene	ND	20.0		μg/L	1	9/29/2021 9:57:22 PM
Toluene	ND	25.0		μg/L	1	9/29/2021 9:57:22 PM
Ethylbenzene	ND	25.0		μg/L	1	9/29/2021 9:57:22 PM
m,p-Xylene	ND	40.0		μg/L	1	9/29/2021 9:57:22 PM
o-Xylene	ND	20.0		μg/L	1	9/29/2021 9:57:22 PM
Naphthalene	ND	40.0		μg/L	1	9/29/2021 9:57:22 PM
Methyl tert-butyl ether (MTBE)	ND	25.0		μg/L	1	9/29/2021 9:57:22 PM
Surr: 1,4-Difluorobenzene	80.9	65 - 140		%Rec	1	9/29/2021 9:57:22 PM
Surr: Bromofluorobenzene	100	65 - 140		%Rec	1	9/29/2021 9:57:22 PM



Work Order: **2109344**Date Reported: **10/6/2021**

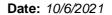
Client: Apex Laboratories Collection Date: 9/16/2021 3:15:00 PM

Project: A1l0619

Lab ID: 2109344-015 **Matrix:** Water

Client Sample ID: SW1006-0921

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Extractable Petroleum Hydrocar	bons by NWEF	<u> </u>		Bato	h ID: 33	8813 Analyst: MM
Aliphatic Hydrocarbon (C8-C10)	116	79.5		μg/L	1	10/1/2021 11:23:12 AM
Aliphatic Hydrocarbon (C10-C12)	ND	39.7		μg/L	1	10/1/2021 11:23:12 AM
Aliphatic Hydrocarbon (C12-C16)	ND	39.7		μg/L	1	10/1/2021 11:23:12 AM
Aliphatic Hydrocarbon (C16-C21)	ND	39.7		μg/L	1	10/1/2021 11:23:12 AM
Aliphatic Hydrocarbon (C21-C34)	ND	39.7		μg/L	1	10/1/2021 11:23:12 AM
Aromatic Hydrocarbon (C8-C10)	ND	79.5		μg/L	1	9/30/2021 10:57:13 PM
Aromatic Hydrocarbon (C10-C12)	ND	39.7		μg/L	1	9/30/2021 10:57:13 PM
Aromatic Hydrocarbon (C12-C16)	ND	39.7		μg/L	1	9/30/2021 10:57:13 PM
Aromatic Hydrocarbon (C16-C21)	ND	39.7		μg/L	1	9/30/2021 10:57:13 PM
Aromatic Hydrocarbon (C21-C34)	ND	39.7		μg/L	1	9/30/2021 10:57:13 PM
Surr: 1-Chlorooctadecane	83.8	60 - 140		%Rec	1	10/1/2021 11:23:12 AM
Surr: o-Terphenyl	83.2	60 - 140		%Rec	1	9/30/2021 10:57:13 PM
Volatile Petroleum Hydrocarbon	s by NWVPH			Bato	h ID: 33	Analyst: SLL
Aliphatic Hydrocarbon (C5-C6)	41.9	25.0		μg/L	1	9/29/2021 10:36:02 PM
Aliphatic Hydrocarbon (C6-C8)	47.8	45.0		μg/L	1	9/29/2021 10:36:02 PM
Aliphatic Hydrocarbon (C8-C10)	ND	20.0		μg/L	1	9/29/2021 10:36:02 PM
Aliphatic Hydrocarbon (C10-C12)	ND	25.0		μg/L	1	9/29/2021 10:36:02 PM
Aromatic Hydrocarbon (C8-C10)	ND	50.0		μg/L	1	9/29/2021 10:36:02 PM
Aromatic Hydrocarbon (C10-C12)	ND	20.0		μg/L	1	9/29/2021 10:36:02 PM
Aromatic Hydrocarbon (C12-C13)	ND	25.0		μg/L	1	9/29/2021 10:36:02 PM
Benzene	ND	20.0		μg/L	1	9/29/2021 10:36:02 PM
Toluene	ND	25.0		μg/L	1	9/29/2021 10:36:02 PM
Ethylbenzene	ND	25.0		μg/L	1	9/29/2021 10:36:02 PM
m,p-Xylene	ND	40.0		μg/L	1	9/29/2021 10:36:02 PM
o-Xylene	ND	20.0		μg/L	1	9/29/2021 10:36:02 PM
Naphthalene	ND	40.0		μg/L	1	9/29/2021 10:36:02 PM
Methyl tert-butyl ether (MTBE)	ND	25.0		μg/L	1	9/29/2021 10:36:02 PM
Surr: 1,4-Difluorobenzene	83.1	65 - 140		%Rec	1	9/29/2021 10:36:02 PM
Surr: Bromofluorobenzene	101	65 - 140		%Rec	1	9/29/2021 10:36:02 PM





Project:

QC SUMMARY REPORT

CLIENT: Apex Laboratories

A1I0619

Extractable Petroleum Hydrocarbons by NWEPH

Sample ID: MB-33794	SampType: MBLK			Units: mg/Kg		Prep Dat	te: 9/23/20	21	RunNo: 703	349	
Client ID: MBLKS	Batch ID: 33794				Analysis Date: 10/4/2021				SeqNo: 142		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aromatic Hydrocarbon (C8-C10)	ND	20.0									
Aromatic Hydrocarbon (C10-C12)	ND	10.0									*
Aromatic Hydrocarbon (C12-C16)	ND	10.0									
Aromatic Hydrocarbon (C16-C21)	ND	10.0									
Aromatic Hydrocarbon (C21-C34)	ND	10.0									
Surr: o-Terphenyl	84.4		100.0		84.4	60	140				
NOTES:											

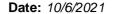
^{* -} Associated LCS does not meet acceptance criteria; refer to QC summary.

Sample ID: LCS-33794	SampType: LCS			Units: mg/Kg-dry			Prep Date: 9/23/2021			RunNo: 70349		
Client ID: LCSS	Batch ID: 33794					Analysis Date: 10/4/2021			SeqNo: 142			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Aromatic Hydrocarbon (C8-C10)	156	44.4	554.7	0	28.2	16.9	130					
Aromatic Hydrocarbon (C10-C12)	138	22.2	277.3	0	49.6	70	130				S	
Aromatic Hydrocarbon (C12-C16)	197	22.2	277.3	0	71.0	70	130					
Aromatic Hydrocarbon (C16-C21)	217	22.2	277.3	0	78.2	70	130					
Aromatic Hydrocarbon (C21-C34)	209	22.2	277.3	0	75.3	70	130					
Surr: o-Terphenyl	201		221.9		90.7	60	140					
NOTES:												

S - Outlying spike recovery observed (C10-C12). Samples will be qualified with a *.

Sample ID: 2109344-004AMS	SampType: MS			Units: mg/Kg-dry Prep Date			te: 9/23/20	21	RunNo: 70 3		
Client ID: DU-01-0921-After Proce	Batch ID: 33794					Analysis Da	te: 10/4/20	21	SeqNo: 142	28060	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aromatic Hydrocarbon (C8-C10)	101	18.6	233.1	0	43.2	11.8	130				
Aromatic Hydrocarbon (C10-C12)	72.7	9.32	116.5	0	62.4	70	130				S
Aromatic Hydrocarbon (C12-C16)	83.0	9.32	116.5	0	71.2	70	130				
Aromatic Hydrocarbon (C16-C21)	102	9.32	116.5	11.85	77.1	70	130				
Aromatic Hydrocarbon (C21-C34)	251	9.32	116.5	138.1	96.6	70	130				

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QC SUMMARY REPORT

CLIENT: Apex Laboratories

A1I0619

Extractable Petroleum Hydrocarbons by NWEPH

Sample ID: 2109344-004AMS	SampType: MS			Units: mg/Kg-dry		Prep Date: 9/23/2021			RunNo: 703		
Client ID: DU-01-0921-After Proce	Batch ID: 33794					Analysis Da	te: 10/4/202	21	SeqNo: 142	8060	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: o-Terphenyl	74.5		93.24		79.9	60	140				

NOTES:

Project:

S - Outlying spike recovery(ies) observed for (C10-C12). A duplicate analysis was performed and recovered within range.

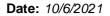
Sample ID: 2109344-004AMSD Client ID: DU-01-0921-After Proce	SampType: MSD Batch ID: 33794			Units: mg/k	•	Prep Da	te: 9/23/20		RunNo: 703 SegNo: 142		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit		%RPD	RPDLimit	Qual
Aromatic Hydrocarbon (C8-C10)	121	20.2	252.8	0	47.8	11.8	130	100.7	18.2	30	
Aromatic Hydrocarbon (C10-C12)	90.2	10.1	126.4	0	71.3	70	130	72.71	21.5	30	
Aromatic Hydrocarbon (C12-C16)	90.4	10.1	126.4	0	71.5	70	130	82.95	8.61	30	
Aromatic Hydrocarbon (C16-C21)	109	10.1	126.4	11.85	76.6	70	130	101.7	6.69	30	
Aromatic Hydrocarbon (C21-C34)	267	10.1	126.4	138.1	102	70	130	250.7	6.48	30	
Surr: o-Terphenyl	81.7		101.1		80.8	60	140		0		

Sample ID: MB-33794	SampType: MBLK	·		Units: mg/Kg		Prep Da	te: 9/23/2 0	RunNo: 70 3			
Client ID: MBLKS	Batch ID: 33794				Analysis Date: 10/5/2021				SeqNo: 142		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aliphatic Hydrocarbon (C8-C10)	ND	20.0									
Aliphatic Hydrocarbon (C10-C12)	ND	10.0									*
Aliphatic Hydrocarbon (C12-C16)	ND	10.0									
Aliphatic Hydrocarbon (C16-C21)	ND	10.0									
Aliphatic Hydrocarbon (C21-C34)	ND	10.0									
Surr: 1-Chlorooctadecane	89.7		100.0		89.7	60	140				

NOTES:

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^{* -} Associated LCS does not meet acceptance criteria; refer to QC summary.





Project:

QC SUMMARY REPORT

CLIENT: Apex Laboratories

A1I0619

Extractable Petroleum Hydrocarbons by NWEPH

Sample ID: LCS-33794	SampType: LCS			Units: mg/K	g-dry	Prep Da	te: 9/23/20	21	RunNo: 70 3	348	
Client ID: LCSS	Batch ID: 33794					Analysis Date: 10/5/2021				28125	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aliphatic Hydrocarbon (C8-C10)	114	44.4	554.7	0	20.6	15.7	130				
Aliphatic Hydrocarbon (C10-C12)	116	22.2	277.3	0	41.8	70	130				S
Aliphatic Hydrocarbon (C12-C16)	194	22.2	277.3	0	70.0	70	130				
Aliphatic Hydrocarbon (C16-C21)	205	22.2	277.3	0	73.9	70	130				
Aliphatic Hydrocarbon (C21-C34)	202	22.2	277.3	0	73.0	70	130				
Surr: 1-Chlorooctadecane	216		221.9		97.2	60	140				
NOTES:											

S - Outlying spike recovery(ies) observed for (C10-C12).

Sample ID: 2109344-004AMS	SampType: MS			Units: mg/k	Prep Da	te: 9/23/20	21	RunNo: 703			
Client ID: DU-01-0921-After Proce	Batch ID: 33794		Analysis Date: 10/5/2021					SeqNo: 142	8130		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aliphatic Hydrocarbon (C8-C10)	85.8	18.6	233.1	0	36.8	10.3	130				
Aliphatic Hydrocarbon (C10-C12)	66.4	9.32	116.5	0	56.9	70	130				S
Aliphatic Hydrocarbon (C12-C16)	90.2	9.32	116.5	0	77.4	70	130				
Aliphatic Hydrocarbon (C16-C21)	91.7	9.32	116.5	0	78.7	70	130				
Aliphatic Hydrocarbon (C21-C34)	101	9.32	116.5	16.95	72.2	70	130				
Surr: 1-Chlorooctadecane	86.2		93.24		92.4	60	140				

NOTES:

S - Outlying spike recovery(ies) observed (C10-C12).

Sample ID: 2109344-004AMSD	SampType: MSD				g-dry	Prep Date: 9/23/2021			RunNo: 703		
Client ID: DU-01-0921-After Proce	-After Proce Batch ID: 33794 Analysis Date: 10/5/2021					SeqNo: 142					
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aliphatic Hydrocarbon (C8-C10)	82.5	20.2	252.8	0	32.6	10.3	130	85.81	3.95	30	
Aliphatic Hydrocarbon (C10-C12)	62.1	10.1	126.4	0	49.1	70	130	66.37	6.68	30	S
Aliphatic Hydrocarbon (C12-C16)	90.8	10.1	126.4	0	71.9	70	130	90.22	0.674	30	
Aliphatic Hydrocarbon (C16-C21)	92.5	10.1	126.4	0	73.2	70	130	91.71	0.864	30	
Aliphatic Hydrocarbon (C21-C34)	95.5	10.1	126.4	16.95	62.1	70	130	101.1	5.68	30	S

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Date: 10/6/2021



Work Order: 2109344

QC SUMMARY REPORT

CLIENT: Apex Laboratories

A1I0619

Extractable Petroleum Hydrocarbons by NWEPH

Sample ID: 2109344-004AMSD	SampType: MSD			Units: mg/	Kg-dry	Prep Da	te: 9/23/20	21	RunNo: 703	48	
Client ID: DU-01-0921-After Proce	Batch ID: 33794					Analysis Da	te: 10/5/20	21	SeqNo: 142	8131	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 1-Chlorooctadecane	85.6		101.1		84.6	60	140		0		

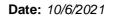
NOTES:

Project:

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S - Outlying spike recovery(ies) observed (C10-C12).

S - Outlying spike recovery(ies) observed. A duplicate analysis was performed and recovered within range (C21-C34).



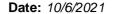


QC SUMMARY REPORT

CLIENT: Apex Laboratories

Project: A1I0619							Extr	actable F	Petroleum I	Hydrocarb	ons by N	IWEP
Sample ID: MB-33813	SampType	e: MBLK			Units: µg/L		Prep Da	te: 9/23/20	21	RunNo: 702	284	
Client ID: MBLKW	Batch ID:	33813					Analysis Da	te: 9/30/20	21	SeqNo: 142	26537	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aromatic Hydrocarbon (C8-C10)		ND	78.7		0	0						
Aromatic Hydrocarbon (C10-C12)		ND	39.3		0	0						
Aromatic Hydrocarbon (C12-C16)		ND	39.3		0	0						
Aromatic Hydrocarbon (C16-C21)		ND	39.3		0	0						
Aromatic Hydrocarbon (C21-C34)		ND	39.3		0	0						
Surr: o-Terphenyl		320		393.5		81.2	60	140				
Sample ID: LCS-33813	SampType	e: LCS			Units: µg/L		Prep Da	te: 9/23/20)21	RunNo: 702	284	
Client ID: LCSW	Batch ID:	33813					Analysis Da	te: 9/30/20	21	SeqNo: 142	26538	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aromatic Hydrocarbon (C8-C10)		492	79.8	997.7	0	49.3	24.3	130				
Aromatic Hydrocarbon (C10-C12)		355	39.9	498.9	0	71.2	70	130				
Aromatic Hydrocarbon (C12-C16)		382	39.9	498.9	0	76.6	70	130				
Aromatic Hydrocarbon (C16-C21)		428	39.9	498.9	0	85.7	70	130				
Aromatic Hydrocarbon (C21-C34)		521	39.9	498.9	0	104	70	130				
Surr: o-Terphenyl		350		399.1		87.7	60	140				
Sample ID: LCSD-33813	SampType	e: LCSD			Units: μg/L		Prep Da	te: 9/23/20)21	RunNo: 702	284	
Client ID: LCSW02	Batch ID:	33813					Analysis Da	te: 9/30/20	21	SeqNo: 142	6539	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aromatic Hydrocarbon (C8-C10)		403	79.4	991.9	0	40.7	24.3	130	491.7	19.7	20	
Aromatic Hydrocarbon (C10-C12)		301	39.7	496.0	0	60.7	70	130	355.3	16.6	20	S
Aromatic Hydrocarbon (C12-C16)		324	39.7	496.0	0	65.4	70	130	382.1	16.4	20	S
Aromatic Hydrocarbon (C16-C21)		403	39.7	496.0	0	81.3	70	130	427.6	5.86	20	
Aromatic Hydrocarbon (C21-C34)		523	39.7	496.0	0	105	70	130	520.7	0.446	20	
Surr: o-Terphenyl		334		396.8		84.1	60	140		0		

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QC SUMMARY REPORT

RunNo: 70284

CLIENT: Apex Laboratories

Extractable Petroleum Hydrocarbons by NWEPH

Project: A1I0619

Aliphatic Hydrocarbon (C8-C10)

Sample ID: LCSD-33813

Units: µg/L Prep Date: 9/23/2021

Client ID: **LCSW02** Batch ID: **33813** Analysis Date: **9/30/2021** SeqNo: **1426539**

Analyte Result RL SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

NOTES:

S - Outlying spike recovery(ies) observed. A duplicate analysis was performed and recovered within range.

465

79.8

997.7

SampType: LCSD

Sample ID: 2109344-010BMS	SampType: MS			Units: µg/L		Prep Date:	9/23/2021	RunNo: 70284	
Client ID: EB01-0921	Batch ID: 33813					Analysis Date:	9/30/2021	SeqNo: 1426542	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit F	lighLimit RPD Ref Val	%RPD RPDLimit	Qual
Aromatic Hydrocarbon (C8-C10)	529	79.7	996.1	0	53.1	6.65	130		
Aromatic Hydrocarbon (C10-C12)	356	39.8	498.0	0	71.4	70	130		
Aromatic Hydrocarbon (C12-C16)	379	39.8	498.0	7.597	74.6	70	130		
Aromatic Hydrocarbon (C16-C21)	425	39.8	498.0	23.97	80.5	70	130		
Aromatic Hydrocarbon (C21-C34)	520	39.8	498.0	0	104	70	130		
Surr: o-Terphenyl	363		398.4		91.2	60	140		
Sample ID: MB-33813	SampType: MBLK			Units: µg/L		Prep Date:	9/23/2021	RunNo: 70283	
Client ID: MBLKW	Batch ID: 33813					Analysis Date:	10/1/2021	SeqNo: 1426711	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit H	lighLimit RPD Ref Val	%RPD RPDLimit	Qual
Aliphatic Hydrocarbon (C8-C10)	ND	78.7		0	0				
Aliphatic Hydrocarbon (C10-C12)	ND	39.3		0	0				
Aliphatic Hydrocarbon (C12-C16)	ND	39.3		0	0				
Aliphatic Hydrocarbon (C16-C21)	ND	39.3		0	0				
Aliphatic Hydrocarbon (C21-C34)	ND	39.3		0	0				
Surr: 1-Chlorooctadecane	327		393.5		83.0	60	140		
Sample ID: LCS-33813	SampType: LCS			Units: µg/L		Prep Date:	9/23/2021	RunNo: 70283	
Client ID: LCSW	Batch ID: 33813					Analysis Date:	10/1/2021	SeqNo: 1426712	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit F	lighLimit RPD Ref Val	%RPD RPDLimit	Qual

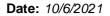
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0

46.6

11.7

130





Project:

QC SUMMARY REPORT

CLIENT: Apex Laboratories

A1I0619

Extractable Petroleum Hydrocarbons by NWEPH

Sample ID: LCS-33813	SampType: LCS			Units: µg/L		Prep Da	te: 9/23/2021		RunNo: 702		
Client ID: LCSW	Batch ID: 33813			Analysis Date: 10/1/2021				21	SeqNo: 142	26712	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aliphatic Hydrocarbon (C10-C12)	354	39.9	498.9	0	70.9	70	130				
Aliphatic Hydrocarbon (C12-C16)	382	39.9	498.9	0	76.6	70	130				
Aliphatic Hydrocarbon (C16-C21)	385	39.9	498.9	0	77.3	70	130				
Aliphatic Hydrocarbon (C21-C34)	438	39.9	498.9	0	87.8	70	130				
Surr: 1-Chlorooctadecane	348		399.1		87.1	60	140				

Sample ID: LCSD-33813	SampType: LCSD			Units: µg/L		Prep Da	te: 9/23/20	21	RunNo: 702	RunNo: 70283		
Client ID: LCSW02	Batch ID: 33813					Analysis Da	te: 10/1/20	21	SeqNo: 142	26713		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Aliphatic Hydrocarbon (C8-C10)	362	79.4	991.9	0	36.5	11.7	130	465.2	24.9	20	R	
Aliphatic Hydrocarbon (C10-C12)	288	39.7	496.0	0	58.0	70	130	353.7	20.5	20	RS	
Aliphatic Hydrocarbon (C12-C16)	367	39.7	496.0	0	74.0	70	130	382.0	4.05	20		
Aliphatic Hydrocarbon (C16-C21)	336	39.7	496.0	0	67.8	70	130	385.4	13.6	20	S	
Aliphatic Hydrocarbon (C21-C34)	395	39.7	496.0	0	79.6	70	130	438.2	10.4	20		
Surr: 1-Chlorooctadecane	330		396.8		83.2	60	140		0			

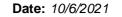
NOTES:

R - High RPD observed.

Sample ID: 2109344-010BMS	SampType: MS			Units: µg/L		Prep Da	te: 9/23/20	21	RunNo: 702	283	
Client ID: EB01-0921	Batch ID: 33813				Analysis Date: 10/1/2021			21	SeqNo: 142	26730	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aliphatic Hydrocarbon (C8-C10)	505	79.7	996.1	0	50.7	8	130				
Aliphatic Hydrocarbon (C10-C12)	353	39.8	498.0	0	70.9	70	130				
Aliphatic Hydrocarbon (C12-C16)	382	39.8	498.0	0	76.7	70	130				
Aliphatic Hydrocarbon (C16-C21)	387	39.8	498.0	0	77.7	70	130				
Aliphatic Hydrocarbon (C21-C34)	438	39.8	498.0	0	88.0	70	130				
Surr: 1-Chlorooctadecane	361		398.4		90.5	60	140				

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S - Outlying spike recovery(ies) observed. A duplicate analysis was performed and recovered within range.





Project:

QC SUMMARY REPORT

CLIENT: Apex Laboratories

Extractable Petroleum Hydrocarbons by NWEPH

Sample ID: 2109344-010BMS SampType: MS

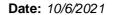
A1I0619

Units: µg/L Prep Date: 9/23/2021 RunNo: 70283

Client ID: **EB01-0921** Batch ID: **33813** Analysis Date: **10/1/2021** SeqNo: **1426730**

Analyte Result RL SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

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QC SUMMARY REPORT

CLIENT: Apex Laboratories

Volatile Petroleum Hydrocarbons by NWVPH

Sample ID: LCS-33787	SampType: LCS			Units: mg/Kg		Prep Dat	te: 9/22/20	21	RunNo: 70 3	355	
Client ID: LCSS	Batch ID: 33787					Analysis Dat	te: 9/22/20	21	SeqNo: 142	27662	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aliphatic Hydrocarbon (C5-C6)	23.4	2.50	30.00	0	78.1	70	130				
Aliphatic Hydrocarbon (C6-C8)	10.2	1.50	10.00	0	102	70	130				
Aliphatic Hydrocarbon (C8-C10)	9.59	2.50	10.00	0	95.9	70	130				
Aliphatic Hydrocarbon (C10-C12)	10.7	0.500	10.00	0	107	70	130				
Aromatic Hydrocarbon (C8-C10)	31.5	3.00	40.00	0	78.6	70	130				
Aromatic Hydrocarbon (C10-C12)	9.71	0.500	10.00	0	97.1	70	130				
Aromatic Hydrocarbon (C12-C13)	9.92	0.500	10.00	0	99.2	70	130				
Benzene	7.63	0.600	10.00	0	76.3	70	130				
Toluene	7.61	0.500	10.00	0	76.1	70	130				
Ethylbenzene	7.38	1.70	10.00	0	73.8	70	130				
m,p-Xylene	15.1	1.00	20.00	0	75.4	70	130				
o-Xylene	8.17	0.500	10.00	0	81.7	70	130				
Naphthalene	9.39	2.60	10.00	0	93.9	70	130				
Methyl tert-butyl ether (MTBE)	10.1	1.10	10.00	0	101	70	130				
Surr: 1,4-Difluorobenzene	2.42		2.500		97.0	65	140				
Surr: Bromofluorobenzene	2.48		2.500		99.2	65	140				
Sample ID: MB-33787	SampType: MBLK			Units: mg/Kg		Prep Dat	te: 9/22/20	21	RunNo: 70 3		

Sample ID: MB-33787	SampType: MBLK			Units: mg/Kg		Prep Date: 9/22/2021	RunNo: 70355
Client ID: MBLKS	Batch ID: 33787					Analysis Date: 9/22/2021	SeqNo: 1427639
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Aliphatic Hydrocarbon (C5-C6)	ND	2.50		0	0		
Aliphatic Hydrocarbon (C6-C8)	ND	1.50		0	0		
Aliphatic Hydrocarbon (C8-C10)	ND	2.50		0	0		
Aliphatic Hydrocarbon (C10-C12)	ND	0.500		0	0		
Aromatic Hydrocarbon (C8-C10)	ND	3.00		0	0		
Aromatic Hydrocarbon (C10-C12)	ND	0.500		0	0		
Aromatic Hydrocarbon (C12-C13)	ND	0.500		0	0		
Benzene	ND	0.600		0	0		Q
Toluene	ND	0.500		0	0		Q

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Project:

QC SUMMARY REPORT

CLIENT: Apex Laboratories

A1I0619

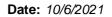
Volatile Petroleum Hydrocarbons by NWVPH

Sample ID: MB-33787	SampType: MBLK			Units: mg/Kg		Prep Dat	te: 9/22/202	:1	RunNo: 70 3	555	
Client ID: MBLKS	Batch ID: 33787					Analysis Da	te: 9/22/202	21	SeqNo: 142	7639	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ethylbenzene	ND	1.70		0	0						Q
m,p-Xylene	ND	1.00		0	0						Q
o-Xylene	ND	0.500		0	0						Q
Naphthalene	ND	2.60		0	0						
Methyl tert-butyl ether (MTBE)	ND	1.10		0	0						
Surr: 1,4-Difluorobenzene	1.91		2.500		76.2	65	140				
Surr: Bromofluorobenzene	2.33		2.500		93.0	65	140				

Q - Indicates an analyte with a continuing calibration that does not meet acceptance criteria

Sample ID: LCSD-33787	SampType	LCSD			Units: mg/Kg		Prep Date	e: 9/22/20	21	RunNo: 70 3	55	
Client ID: LCSS02	Batch ID:	33787					Analysis Date	e: 9/23/20	21	SeqNo: 142	7660	
Analyte	i	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aliphatic Hydrocarbon (C5-C6)		24.2	2.50	30.00	0	80.6	70	130	23.44	3.11	20	
Aliphatic Hydrocarbon (C6-C8)		10.6	1.50	10.00	0	106	70	130	10.16	4.64	20	
Aliphatic Hydrocarbon (C8-C10)		10.2	2.50	10.00	0	102	70	130	9.589	6.51	20	
Aliphatic Hydrocarbon (C10-C12)		10.3	0.500	10.00	0	103	70	130	10.70	3.41	20	
Aromatic Hydrocarbon (C8-C10)		36.6	3.00	40.00	0	91.4	70	130	31.46	15.0	20	
Aromatic Hydrocarbon (C10-C12)		11.0	0.500	10.00	0	110	70	130	9.711	12.3	20	
Aromatic Hydrocarbon (C12-C13)		11.9	0.500	10.00	0	119	70	130	9.918	18.3	20	
Benzene		8.69	0.600	10.00	0	86.9	70	130	7.629	13.0	20	
Toluene		8.73	0.500	10.00	0	87.3	70	130	7.606	13.7	20	
Ethylbenzene		8.68	1.70	10.00	0	86.8	70	130	7.378	16.3	20	
m,p-Xylene		17.3	1.00	20.00	0	86.4	70	130	15.09	13.5	20	
o-Xylene		9.15	0.500	10.00	0	91.5	70	130	8.171	11.3	20	
Naphthalene		11.7	2.60	10.00	0	117	70	130	9.387	21.8	20	
Methyl tert-butyl ether (MTBE)		11.3	1.10	10.00	0	113	70	130	10.10	11.1	20	
Surr: 1,4-Difluorobenzene		2.64		2.500		106	65	140		0		
Surr: Bromofluorobenzene		2.64		2.500		105	65	140		0		

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QC SUMMARY REPORT

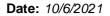
CLIENT: Apex Laboratories

Volatile Petroleum Hydrocarbons by NWVPH

Sample ID: LCS-33811	SampType: LCS			Units: mg/Kg		Prep Dat	e: 9/23/20	21	RunNo: 703	52	
Client ID: LCSS	Batch ID: 33811					Analysis Dat	e: 9/24/20	21	SeqNo: 142	7581	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aliphatic Hydrocarbon (C5-C6)	29.0	2.50	30.00	0	96.5	70	130				
Aliphatic Hydrocarbon (C6-C8)	9.66	1.50	10.00	0	96.6	70	130				
Aliphatic Hydrocarbon (C8-C10)	9.57	2.50	10.00	0	95.7	70	130				
Aliphatic Hydrocarbon (C10-C12)	9.84	0.500	10.00	0	98.4	70	130				
Aromatic Hydrocarbon (C8-C10)	38.3	3.00	40.00	0	95.8	70	130				
Aromatic Hydrocarbon (C10-C12)	9.92	0.500	10.00	0	99.2	70	130				
Aromatic Hydrocarbon (C12-C13)	10.3	0.500	10.00	0	103	70	130				
Benzene	8.91	0.600	10.00	0	89.1	70	130				
Toluene	9.05	0.500	10.00	0	90.5	70	130				
Ethylbenzene	9.20	1.70	10.00	0	92.0	70	130				
m,p-Xylene	18.4	1.00	20.00	0	92.0	70	130				
o-Xylene	9.48	0.500	10.00	0	94.8	70	130				
Naphthalene	9.43	2.60	10.00	0	94.3	70	130				
Methyl tert-butyl ether (MTBE)	10.0	1.10	10.00	0	100	70	130				
Surr: 1,4-Difluorobenzene	2.39		2.500		95.4	65	140				
Surr: Bromofluorobenzene	2.41		2.500		96.4	65	140				
Sample ID: MB-33811	SampType: MRI K			Units: ma/Ka		Prep Dat	e: 9/23/20		RunNo: 70 3	.50	

Sample ID: MB-33811	SampType: MBLK			Units: mg/Kg		Prep Date: 9/23/2021	RunNo: 70352
Client ID: MBLKS	Batch ID: 33811					Analysis Date: 9/24/2021	SeqNo: 1427584
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Aliphatic Hydrocarbon (C5-C6)	ND	2.50		0	0		
Aliphatic Hydrocarbon (C6-C8)	ND	1.50		0	0		
Aliphatic Hydrocarbon (C8-C10)	ND	2.50		0	0		
Aliphatic Hydrocarbon (C10-C12)	ND	0.500		0	0		
Aromatic Hydrocarbon (C8-C10)	ND	3.00		0	0		
Aromatic Hydrocarbon (C10-C12)	ND	0.500		0	0		
Aromatic Hydrocarbon (C12-C13)	ND	0.500		0	0		
Benzene	ND	0.600		0	0		
Toluene	ND	0.500		0	0		

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Project:

QC SUMMARY REPORT

CLIENT: Apex Laboratories

A1I0619

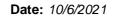
Volatile Petroleum Hydrocarbons by NWVPH

Sample ID: MB-33811	SampType: MBLK			Units: mg/Kg		Prep Da	te: 9/23/202	21	RunNo: 703	352	
Client ID: MBLKS	Batch ID: 33811					Analysis Da	te: 9/24/202	21	SeqNo: 142	27584	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ethylbenzene	ND	1.70		0	0						
m,p-Xylene	ND	1.00		0	0						
o-Xylene	ND	0.500		0	0						
Naphthalene	ND	2.60		0	0						
Methyl tert-butyl ether (MTBE)	ND	1.10		0	0						
Surr: 1,4-Difluorobenzene	1.93		2.500		77.0	65	140				
Surr: Bromofluorobenzene	2.30		2.500		91.9	65	140				

Sample ID: 2109344-007BMS	SampType: MS			Units: mg/k	(g-dry	Prep Da	te: 9/23/20	21	RunNo: 70 3	352	
Client ID: DU-01-0921-As Receive	Batch ID: 33811					Analysis Da	te: 9/24/20	21	SeqNo: 142	7575	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aliphatic Hydrocarbon (C5-C6)	31.0	2.68	32.14	3.720	84.8	70	130				
Aliphatic Hydrocarbon (C6-C8)	10.6	1.61	10.71	3.344	67.7	70	130				S
Aliphatic Hydrocarbon (C8-C10)	11.5	2.68	10.71	0	107	70	130				
Aliphatic Hydrocarbon (C10-C12)	10.3	0.536	10.71	1.869	78.8	70	130				
Aromatic Hydrocarbon (C8-C10)	40.1	3.21	42.86	0	93.5	70	130				
Aromatic Hydrocarbon (C10-C12)	11.2	0.536	10.71	0.5910	98.7	70	130				
Aromatic Hydrocarbon (C12-C13)	9.24	0.536	10.71	0	86.2	70	130				
Benzene	8.82	0.643	10.71	0	82.4	70	130				
Toluene	9.03	0.536	10.71	0	84.3	70	130				
Ethylbenzene	9.58	1.82	10.71	0	89.4	70	130				
m,p-Xylene	19.0	1.07	21.43	0	88.8	70	130				
o-Xylene	9.47	0.536	10.71	0	88.4	70	130				
Naphthalene	9.41	2.79	10.71	0	87.9	70	130				
Methyl tert-butyl ether (MTBE)	10.5	1.18	10.71	0	97.8	70	130				
Surr: 1,4-Difluorobenzene	2.53		2.679		94.5	65	140				
Surr: Bromofluorobenzene	2.58		2.679		96.5	65	140				
NOTES:											

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S - Outlying spike recoveries were associated with this sample.





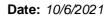
QC SUMMARY REPORT

CLIENT: Apex Laboratories

Volatile Petroleum Hydrocarbons by NWVPH

Project: A1I0619	oject: A1l0619 Volatile Petroleum Hydrocarbons by NWV							IWVP			
Sample ID: 2109344-008BDUP	SampType: DUP			Units: mg/K	g-dry	Prep Da	te: 9/23/20	21	RunNo: 70 3	352	
Client ID: DU-02-0921-As Receive	e Batch ID: 33811					Analysis Da	te: 9/24/20	21	SeqNo: 142	27577	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aliphatic Hydrocarbon (C5-C6)	4.72	3.56		0	0			5.437	14.1	25	
Aliphatic Hydrocarbon (C6-C8)	2.28	2.14		0	0			2.506	9.34	25	
Aliphatic Hydrocarbon (C8-C10)	ND	3.56		0	0			0		25	
Aliphatic Hydrocarbon (C10-C12)	1.91	0.712		0	0			2.502	27.0	25	
Aromatic Hydrocarbon (C8-C10)	ND	4.27		0	0			0		25	
Aromatic Hydrocarbon (C10-C12)	1.17	0.712		0	0			1.408	18.3	25	
Aromatic Hydrocarbon (C12-C13)	ND	0.712		0	0			0		25	
Benzene	ND	0.855		0	0			0		25	
Γoluene	ND	0.712		0	0			0		25	
Ethylbenzene	ND	2.42		0	0			0		25	
n,p-Xylene	ND	1.42		0	0			0		25	
o-Xylene	ND	0.712		0	0			0		25	
Naphthalene	ND	3.70		0	0			0		25	
Methyl tert-butyl ether (MTBE)	ND	1.57		0	0			0		25	
Surr: 1,4-Difluorobenzene	2.78		3.562		78.1	65	140		0		
Surr: Bromofluorobenzene	3.26		3.562		91.5	65	140		0		

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Project:

QC SUMMARY REPORT

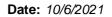
CLIENT: Apex Laboratories

A1I0619

Volatile Petroleum Hydrocarbons by NWVPH

Sample ID: LCS-33789	SampType: LCS			Units: µg/L		Prep Da	te: 9/22/20	21	RunNo: 703	333	
Client ID: LCSW	Batch ID: 33789					Analysis Da	te: 9/29/20	21	SeqNo: 142	27488	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aliphatic Hydrocarbon (C5-C6)	696	25.0	600.0	0	116	70	130				
Aliphatic Hydrocarbon (C6-C8)	188	45.0	200.0	0	94.0	70	130				
Aliphatic Hydrocarbon (C8-C10)	217	20.0	200.0	0	108	70	130				
Aliphatic Hydrocarbon (C10-C12)	201	25.0	200.0	0	101	70	130				
Aromatic Hydrocarbon (C8-C10)	1,020	50.0	800.0	0	128	70	130				
Aromatic Hydrocarbon (C10-C12)	208	20.0	200.0	0	104	70	130				
Aromatic Hydrocarbon (C12-C13)	188	25.0	200.0	0	94.0	70	130				
Benzene	242	20.0	200.0	0	121	70	130				
Toluene	248	25.0	200.0	0	124	70	130				
Ethylbenzene	257	25.0	200.0	0	128	70	130				
m,p-Xylene	494	40.0	400.0	0	123	70	130				
o-Xylene	246	20.0	200.0	0	123	70	130				
Naphthalene	198	40.0	200.0	0	99.1	70	130				
Methyl tert-butyl ether (MTBE)	223	25.0	200.0	0	112	70	130				
Surr: 1,4-Difluorobenzene	51.3		50.00		103	65	140				
Surr: Bromofluorobenzene	51.0		50.00		102	65	140				
Sample ID: MB-33789	SampType: MBLK			Units: µg/L		Prep Da	te: 9/22/20)21	RunNo: 70 3	333	
Client ID: MBLKW	Batch ID: 33789					Analysis Da	te: 9/29/20	21	SeqNo: 142	27487	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aliphatic Hydrocarbon (C5-C6)	ND	25.0		0	0						
Aliphatic Hydrocarbon (C6-C8)	ND	45.0		0	0						
Aliphatic Hydrocarbon (C8-C10)	ND	20.0		0	0						
Aliphatic Hydrocarbon (C10-C12)	ND	25.0		0	0						
Aromatic Hydrocarbon (C8-C10)	ND	50.0		0	0						
Aromatic Hydrocarbon (C10-C12)	ND	20.0		0	0						
Aromatic Hydrocarbon (C12-C13)	ND	25.0		0	0						
Benzene	ND	20.0		0	0						
Toluene	ND	25.0		0	0						

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QC SUMMARY REPORT

CLIENT: Apex Laboratories

Volatile Petroleum Hydrocarbons by NWVPH

Project:	A1I0619

Sample ID: MB-33789	SampType: MBLK			Units: µg/L		Prep Dat	te: 9/22/2021	RunNo: 7033	3	
Client ID: MBLKW	Batch ID: 33789					Analysis Dat	te: 9/29/2021	SeqNo: 1427	487	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit RPD Ref Val	%RPD	RPDLimit	Qual
Ethylbenzene	ND	25.0		0	0					
m,p-Xylene	ND	40.0		0	0					
o-Xylene	ND	20.0		0	0					
Naphthalene	ND	40.0		0	0					
Methyl tert-butyl ether (MTBE)	ND	25.0		0	0					
Surr: 1,4-Difluorobenzene	39.4		50.00		78.9	65	140			
Surr: Bromofluorobenzene	48.8		50.00		97.6	65	140			

Sample ID: LCSD-33789	SampType: LCSD			Units: µg/L		Prep Da	te: 9/22/20	21	RunNo: 703	333	
Client ID: LCSW02	Batch ID: 33789					Analysis Da	te: 9/30/20	21	SeqNo: 142	27486	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aliphatic Hydrocarbon (C5-C6)	658	25.0	600.0	0	110	70	130	695.7	5.57	20	
Aliphatic Hydrocarbon (C6-C8)	159	45.0	200.0	0	79.4	70	130	187.9	16.8	20	
Aliphatic Hydrocarbon (C8-C10)	184	20.0	200.0	0	92.1	70	130	216.9	16.4	20	
Aliphatic Hydrocarbon (C10-C12)	205	25.0	200.0	0	102	70	130	201.3	1.72	20	
Aromatic Hydrocarbon (C8-C10)	1,020	50.0	800.0	0	127	70	130	1,024	0.502	20	
Aromatic Hydrocarbon (C10-C12)	227	20.0	200.0	0	114	70	130	208.1	8.68	20	
Aromatic Hydrocarbon (C12-C13)	226	25.0	200.0	0	113	70	130	187.9	18.4	20	
Benzene	236	20.0	200.0	0	118	70	130	242.0	2.36	20	
Toluene	243	25.0	200.0	0	122	70	130	247.5	1.68	20	
Ethylbenzene	254	25.0	200.0	0	127	70	130	256.5	1.05	20	
m,p-Xylene	490	40.0	400.0	0	122	70	130	494.0	0.905	20	
o-Xylene	245	20.0	200.0	0	123	70	130	246.4	0.536	20	
Naphthalene	215	40.0	200.0	0	107	70	130	198.3	8.00	20	
Methyl tert-butyl ether (MTBE)	230	25.0	200.0	0	115	70	130	223.0	2.99	20	
Surr: 1,4-Difluorobenzene	51.9		50.00		104	65	140		0		
Surr: Bromofluorobenzene	53.8		50.00		108	65	140		0		

Original Page 34 of 40



Sample Log-In Check List

C	ient Name:	APEX	Work O	rder Numbe	r: 2109344	
Lo	ogged by:	Clare Griggs	Date Re	ceived:	9/22/2021	9:35:00 AM
Cha	in of Custo	ody				
		ustody complete?	Yes	✓	No 🗌	Not Present
2.	How was the	sample delivered?	<u>UPS</u>			
Log	ı İn					
_	Coolers are p	present?	Yes	✓	No 🗆	na 🗆
4.	Shipping conf	tainer/cooler in good condition?	Yes	•	No 🗆	
5.		s present on shipping container/cooler? ments for Custody Seals not intact)	Yes		No 🗌	Not Present 🗹
6.	Was an atten	npt made to cool the samples?	Yes	•	No 🗆	NA 🗌
7.	Were all item	s received at a temperature of >2°C to 6°C *	Yes	✓	No 🗆	na 🗆
8.	Sample(s) in	proper container(s)?	Yes	✓	No 🗆	
9.	Sufficient san	nple volume for indicated test(s)?	Yes	✓	No \square	
10.	Are samples	properly preserved?	Yes	✓	No 🗌	
11.	Was preserva	ative added to bottles?	Yes		No 🗸	NA 🗆
12.	Is there head	space in the VOA vials?	Yes		No 🗸	na 🗆
13.	Did all sample	es containers arrive in good condition(unbroken)?	Yes	✓	No \square	
14.	Does paperw	ork match bottle labels?	Yes	✓	No 🗌	
15.	Are matrices	correctly identified on Chain of Custody?	Yes	✓	No 🗌	
16.	Is it clear wha	at analyses were requested?	Yes	✓	No \square	
17.	Were all hold	ing times able to be met?	Yes	✓	No \square	
<u>Spe</u>	cial Handli	ing (if applicable)				
18.	Was client no	otified of all discrepancies with this order?	Yes		No \square	NA 🗸
	Person	Notified: Date:				
	By Who	m: Via:	еМа	il Phor	ne 🗌 Fax 🏻	In Person
	Regardi	ng:				
	Client In	structions:				
19.	Additional rer	narks:				

Item Information

Item #	Temp ⁰C
Sample 1	4.1
Sample 2	2.9

^{*} Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C

SUBCONTRACT ORDER

Apex Laboratories

OB 9/2014 A110619

09/30/21 17:00

09/30/21 17:00

Due

09/30/21 17:00

09/30/21 17:00

SENDING LABORATORY:

Apex Laboratories

6700 S.W. Sandburg Street

Tigard, OR 97223

Phone: (503) 718-2323 Fax: (503) 336-0745

Project Manager: Philip Nerenberg RECEIVING LABORATORY:

Fremont Analytical

3600 Fremont Avenue N.

Seattle, WA 98103

Phone: (206) 352-3790

Fax: (206) 352-7178

09/28/21 13:10 09/28/21 13:10

Expires

09/28/21 11:45 09/28/21 11:45

Sample Name: HA-01-0921		Soil	Sampled: 09/14/21 13:10	(A1I0619-06)
Analysis	Due	Expires	Comments	

NWTPH-EPH (Sub) NWTPH-VPH (Sub)

Containers Supplied:

(D)4 oz Glass Jar

(C)40 mL VOA - 5035 (MeOH)

Soil

Sampled:

09/14/21 11:45

(A1I0619-07)

NWTPH-EPH (Sub)

Analysis

NWTPH-VPH (Sub)

Containers Supplied:

(C)4 oz Glass Jar

Sample Name: HA-02-0921

(D)40 mL VOA - 5035 (MeOH)

Comments

Sample Name: HA-03-0921		Soil Samp	oled: 09/13/21 16:20	(A110619-08)
Analysis	Due	Expires	Comments	
NWTPH-EPH (Sub)	09/30/21 17:00	09/27/21 16:20		
NWTPH-VPH (Sub)	09/30/21 17:00	09/27/21 16:20		
Containers Supplied:				
(C)4 oz Glass Jar				
(D)40 mL VOA - 5035 (MeOH)				

Standard TAT

Released By

UPS (Shipper)

Released By

Date

UPS (Shipper)

Received By Date

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SUBCONTRACT ORDER

Apex Laboratories

003 9 no 4 A110619

15

	Soil S	Sampled:	09/13/21 16:25	(A1I0619-09)
Due	Expires	(Comments	
09/30/21 17:00 09/30/21 17:00 Caho M	09/27/21 16:25 09/27/21 16:25			
eived	Soil s	Sampled:	09/14/21 17:00	(A1I0619-10
Due	Expires		Comments	
09/30/21 17:00	09/28/21 17:00			
rocessing	Soil	Sampled:	09/14/21 17:00	(A1I0619-11
Due	Expires	- 0	Comments	
09/30/21 17:00	09/28/21 17:00		X.	
eived	Soil	Sampled:	09/15/21 16:30	(A1I0619-12
Due	Expires		Comments	
09/30/21 17:00	09/29/21 16:30			
rocessing	Soil	Sampled:	09/15/21 16:30	(A1I0619-13
Due	Expires		Comments	
09/30/21 17:00	09/29/21 16:30			
121	UPS	S (Shipper		
Date	9100	201	10. 11 4	127/21
	09/30/21 17:00 09/30/21 17:00 CAROM eived Due 09/30/21 17:00 Processing Due 09/30/21 17:00 Processing Due 09/30/21 17:00	09/30/21 17:00 09/27/21 16:25 09/30/21 17:00 09/27/21 16:25 09/30/21 17:00 09/27/21 16:25 09/30/21 17:00 09/28/21 17:00 09/30/21 17:00 09/28/21 17:00 09/30/21 17:00 09/28/21 17:00 09/30/21 17:00 09/28/21 17:00 09/30/21 17:00 09/29/21 16:30 09/30/21 17:00 09/29/21 16:30 O9/30/21 17:00 09/29/21 16:30 O9/30/21 17:00 09/29/21 16:30 O9/30/21 17:00 09/29/21 16:30 O9/30/21 17:00 O9/29/21 16:30 O9/29/21 O9/29/20	09/30/21 17:00 09/27/21 16:25 09/30/21 17:00 09/27/21 16:25	17:00

SUBCONTRACT ORDER

2109344

Apex Laboratories

OB 9 no 4 A110619

	Soil	Sampled:	09/13/21 16:25	(A110619-09)
Due	Expires		Comments	
09/30/21 17:00 09/30/21 17:00				
Received	Soil	Sampled:	09/14/21 17:00	(A1I0619-10)
Due	Expires		Comments	
09/30/21 17:00	09/28/21 17:0	00		
er Processing	Soil	Sampled:	09/14/21 17:00	(A1I0619-11)
Due	Expires		Comments	
9/20W09/30/21 17:00	09/28/21 17:0	00	1	
Received	Soil	Sampled:	09/15/21 16:30	(A1I0619-12)
Due	Expires		Comments	
09/30/21 17:00	09/29/21 16:3	30		
er Processing	Soil	Sampled:	09/15/21 16:30	(A1I0619-13)
	Expires		Comments	
Due	2.200			
Standar 2120 4 09/30/21 17:00	09/29/21 16:3	80		
	09/30/21 17:00 09/30/21 17:00 Received Due 09/30/21 17:00 er Processing Due 09/30/21 17:00 Received Due 09/30/21 17:00	09/30/21 17:00	O9/30/21 17:00 O9/27/21 16:25 O9/30/21 17:00 O9/27/21 16:25	O9/30/21 17:00 O9/27/21 16:25

Apex Laboratories A110619

cas grow

Date

Released By

Sample Name: SB18-9-10-0921 Soil Sampled: 09/16/21 14:35 (A1I0619-14) Analysis Due Expires Comments NWTPH-EPH (Sub) 09/30/21 17:00 09/30/21 14:35 NWTPH-VPH (Sub) 09/30/21 17:00 09/30/21 14:35 Containers Supplied: (C)40 mL VOA - 5035 (MeOH) (D)4 oz Glass Jar CoC lists 17 containers, received 18 Sample Name: EB01-0921 Water Sampled: 09/16/21 17:25 (A1I0619-15) Analysis Due Expires Comments NWTPH-EPH (Sub) 09/30/21 17:00 09/30/21 17:25 NWTPH-VPH (Sub) 09/30/21 17:00 09/30/21 17:25 Containers Supplied: (I)1 L Amber Glass - HCL (J)1 L Amber Glass - HCL (O)40 mL VOA - HCL (R)40 mL VOA - HCL CoC lists 14 containers, received 13 Sample Name: EB02-0921 Water 09/16/21 17:55 Sampled: (A1I0619-16) Analysis Comments Due Expires NWTPH-EPH (Sub) 09/30/21 17:00 09/30/21 17:55 NWTPH-VPH (Sub) 09/30/21 17:00 09/30/21 17:55 Containers Supplied: (G)1 L Amber Glass - HCL (L)40 mL VOA - HCL (M)40 mL VOA - HCL Sample Name: SW04-0921 Water Sampled: 09/16/21 10:30 (A1I0619-17) Analysis Due Expires Comments NWTPH-EPH (Sub) 09/30/21 17:00 09/30/21 10:30 NWTPH-VPH (Sub) 09/30/21 17:00 09/30/21 10:30 Containers Supplied: (I)1 L Amber Glass - HCL (J)1 L Amber Glass - HCL Standard TAT (O)40 mL VOA - HCL (P)40 mL VOA - HCL UPS (Shipper) Released By Received By Date UPS (Shipper)

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Date

Apex Laboratories

OB 9/2014 A110619

Sample Name: SW05-0921		Water Samp	oled: 09/16/21 11:35	(A1I0619-18
Analysis	Due	Expires	Comments	
NWTPH-EPH (Sub)	09/30/21 17:00	09/30/21 11:35		
NWTPH-VPH (Sub)	09/30/21 17:00	09/30/21 11:35		
Containers Supplied:				
(I)1 LAmber Glass - HCL				
(J)1 LAmber Glass - HCL				
(O)40 mL VOA - HCL				
(P)40 mL VOA - HCL				
Sample Name: SW06-0921		Water Samp	oled: 09/16/21 15:00	(A1I0619-19)
Analysis	Due	Expires	Comments	
NWTPH-EPH (Sub)	09/30/21 17:00	09/30/21 15:00		
NWTPH-VPH (Sub)	09/30/21 17:00	09/30/21 15:00		
Containers Supplied:	100000000000000000000000000000000000000			
(I)1 L Amber Glass - HCL				
(J)1 L Amber Glass - HCL				
(O)40 mL VOA - HCL				
(P)40 mL VOA - HCL				
Sample Name: SW1006-0921	,	Water Samp	led: 09/16/21 15:15	(A1I0619-20)
Analysis	Due	Expires	Comments	(111001)
NWTPH-EPH (Sub)	09/30/21 17:00	09/30/21 15:15		
NWTPH-VPH (Sub)	09/30/21 17:00	09/30/21 15:15		
Containers Supplied:				
(I)I L Amber Glass - HCL				
(J)1 L Amber Glass - HCL				
(O)40 mL VOA - HCL				
(P)40 mL VOA - HCL				

Standard TAT

Released By

Released By

UPS (Shipper)

Date

UPS (Shipper)

Received By

Date

Date

Page 40 of 40 4 of 4



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323 ORELAP ID: OR100062

Tuesday, November 16, 2021 Genevieve Schutzius GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209

RE: A1I0619 - Eatonville - 0171.067

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A1I0619, which was received by the laboratory on 9/17/2021 at 2:12:00PM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: pnerenberg@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample receipt, unless prior arrangements have been made.

	Cooler Receip					
	(See Cooler Receipt Form for details)					
Cooler #1	3.3 degC	Cooler #2	2.7 degC			
Cooler #3 Cooler #5	3.4 degC 4.8 degC	Cooler #4	1.4 degC			

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.

All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.





Apex Laboratories

Philip Nevenberg

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Page 1 of 173



ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water SolutionsProject:Eatonville55 SW Yamhill St, Ste 300Project Number:0171.067

Portland, OR 97209 Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

ANALYTICAL REPORT FOR SAMPLES

	SAMPLE INFO	RMATION		
Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
HA-01A-0921	A1I0619-01	Soil	09/14/21 13:05	09/17/21 14:12
HA-01B-0921	A1I0619-02	Soil	09/14/21 12:55	09/17/21 14:12
HA-01C(alt)-0921	A1I0619-03	Soil	09/14/21 12:40	09/17/21 14:12
HA-01D(alt)-0921	A1I0619-04	Soil	09/14/21 12:25	09/17/21 14:12
HA-01E(alt)-0921	A1I0619-05	Soil	09/14/21 12:15	09/17/21 14:12
HA-01-0921	A1I0619-06	Soil	09/14/21 13:10	09/17/21 14:12
HA-02-0921	A1I0619-07	Soil	09/14/21 11:45	09/17/21 14:12
HA-03-0921	A1I0619-08	Soil	09/13/21 16:20	09/17/21 14:12
HA-1003-0921	A1I0619-09	Soil	09/13/21 16:25	09/17/21 14:12
DU-01-0921As Received	A1I0619-10	Soil	09/14/21 17:00	09/17/21 14:12
DU-01-0921After Processing	A1I0619-11	Soil	09/14/21 17:00	09/17/21 14:12
DU-02-0921As Received	A1I0619-12	Soil	09/15/21 16:30	09/17/21 14:12
DU-02-0921After Processing	A1I0619-13	Soil	09/15/21 16:30	09/17/21 14:12
SB18-9-10-0921	A1I0619-14	Soil	09/16/21 14:35	09/17/21 14:12
EB01-0921	A1I0619-15	Water	09/16/21 17:25	09/17/21 14:12
EB02-0921	A1I0619-16	Water	09/16/21 17:55	09/17/21 14:12
SW04-0921	A1I0619-17	Water	09/16/21 10:30	09/17/21 14:12
SW05-0921	A1I0619-18	Water	09/16/21 11:35	09/17/21 14:12
SW06-0921	A1I0619-19	Water	09/16/21 15:00	09/17/21 14:12
SW1006-0921	A1I0619-20	Water	09/16/21 15:15	09/17/21 14:12
TB01-0921	A1I0619-21	Water	09/16/21 13:45	09/17/21 14:12

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Philip Nevenberg

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Philip Nerenberg, Lab Director



Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

	V	olatile Organ	ic Compound	ds by EPA 82	60D			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
IA-01-0921 (A1I0619-06)				Matrix: Soi	l	Batch:	1091097	COMP, H-01
Acetone	ND	2.90	5.79	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
Acrylonitrile	ND	0.290	0.579	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
Benzene	ND	0.0290	0.0579	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
Bromobenzene	ND	0.0724	0.145	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
Bromochloromethane	ND	0.145	0.290	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
Bromodichloromethane	ND	0.145	0.290	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
Bromoform	ND	0.290	0.579	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
Bromomethane	ND	2.90	2.90	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
2-Butanone (MEK)	ND	1.45	2.90	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
n-Butylbenzene	ND	0.145	0.290	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
sec-Butylbenzene	ND	0.145	0.290	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
tert-Butylbenzene	ND	0.145	0.290	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
Carbon disulfide	ND	1.45	2.90	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
Carbon tetrachloride	ND	0.145	0.290	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
Chlorobenzene	ND	0.0724	0.145	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
Chloroethane	ND	1.45	2.90	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
Chloroform	ND	0.145	0.290	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
Chloromethane	ND	0.724	1.45	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
2-Chlorotoluene	ND	0.145	0.290	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
4-Chlorotoluene	ND	0.145	0.290	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
Dibromochloromethane	ND	0.290	0.579	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
1,2-Dibromo-3-chloropropane	ND	0.724	1.45	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
1,2-Dibromoethane (EDB)	ND	0.145	0.290	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
Dibromomethane	ND	0.145	0.290	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
1,2-Dichlorobenzene	ND	0.0724	0.145	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
1,3-Dichlorobenzene	ND	0.0724	0.145	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
1,4-Dichlorobenzene	ND	0.0724	0.145	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
Dichlorodifluoromethane	ND	0.579	0.579	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
1,1-Dichloroethane	ND	0.0724	0.145	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
1,2-Dichloroethane (EDC)	ND	0.0724	0.145	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
1,1-Dichloroethene	ND	0.0724	0.145	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
cis-1,2-Dichloroethene	ND	0.0724	0.145	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
trans-1,2-Dichloroethene	ND	0.0724	0.145	mg/kg dry	50	09/29/21 15:16	5035A/8260D	

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: <u>Eatonville</u>
Project Number: **0171.067**

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

	v	olatile Organ	ic Compound	ds by EPA 82	60D			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-01-0921 (A1I0619-06)				Matrix: Soi	ı	Batch:	1091097	COMP, H-01
1,2-Dichloropropane	ND	0.0724	0.145	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
1,3-Dichloropropane	ND	0.145	0.290	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
2,2-Dichloropropane	ND	0.145	0.290	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
1,1-Dichloropropene	ND	0.145	0.290	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
cis-1,3-Dichloropropene	ND	0.145	0.290	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
trans-1,3-Dichloropropene	ND	0.145	0.290	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
Ethylbenzene	ND	0.0724	0.145	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
Hexachlorobutadiene	ND	0.290	0.579	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
2-Hexanone	ND	1.45	2.90	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
Isopropylbenzene	ND	0.145	0.290	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
4-Isopropyltoluene	ND	0.145	0.290	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
Methylene chloride	ND	1.45	2.90	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
4-Methyl-2-pentanone (MiBK)	ND	1.45	2.90	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
Methyl tert-butyl ether (MTBE)	ND	0.145	0.290	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
Naphthalene	ND	0.290	0.579	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
n-Propylbenzene	ND	0.0724	0.145	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
Styrene	ND	0.145	0.290	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
1,1,1,2-Tetrachloroethane	ND	0.0724	0.145	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
1,1,2,2-Tetrachloroethane	ND	0.145	0.290	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
Tetrachloroethene (PCE)	ND	0.0724	0.145	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
Toluene	ND	0.145	0.290	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
1,2,3-Trichlorobenzene	ND	0.724	1.45	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
1,2,4-Trichlorobenzene	ND	0.724	1.45	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
1,1,1-Trichloroethane	ND	0.0724	0.145	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
1,1,2-Trichloroethane	ND	0.0724	0.145	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
Trichloroethene (TCE)	ND	0.0724	0.145	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
Trichlorofluoromethane	ND	0.290	0.579	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
1,2,3-Trichloropropane	ND	0.145	0.290	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
1,2,4-Trimethylbenzene	ND	0.145	0.290	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
1,3,5-Trimethylbenzene	ND	0.145	0.290	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
Vinyl chloride	ND	0.0724	0.145	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
m,p-Xylene	ND	0.145	0.290	mg/kg dry	50	09/29/21 15:16	5035A/8260D	
o-Xylene	ND	0.0724	0.145	mg/kg dry	50	09/29/21 15:16	5035A/8260D	

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

	V	olatile Organ	ic Compou	nds by EPA 826	0D			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-01-0921 (A1I0619-06)				Matrix: Soil		Batch:	1091097	COMP, H-01
Surrogate: 1,4-Difluorobenzene (Surr)		Recove	ery: 109 %	Limits: 80-120 %	I	09/29/21 15:16	5035A/8260D	
Toluene-d8 (Surr)			97 %	80-120 %	1	09/29/21 15:16	5035A/8260D	
4-Bromofluorobenzene (Surr)			95 %	79-120 %	1	09/29/21 15:16	5035A/8260D	
HA-02-0921 (A1I0619-07)				Matrix: Soil		Batch:	1091097	H-01
Acetone	ND	4.00	7.99	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
Acrylonitrile	ND	0.400	0.799	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
Benzene	ND	0.0400	0.0799	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
Bromobenzene	ND	0.0999	0.200	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
Bromochloromethane	ND	0.200	0.400	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
Bromodichloromethane	ND	0.200	0.400	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
Bromoform	ND	0.400	0.799	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
Bromomethane	ND	4.00	4.00	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
2-Butanone (MEK)	ND	2.00	4.00	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
n-Butylbenzene	ND	0.200	0.400	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
sec-Butylbenzene	ND	0.200	0.400	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
tert-Butylbenzene	ND	0.200	0.400	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
Carbon disulfide	ND	2.00	4.00	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
Carbon tetrachloride	ND	0.200	0.400	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
Chlorobenzene	ND	0.0999	0.200	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
Chloroethane	ND	2.00	4.00	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
Chloroform	ND	0.200	0.400	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
Chloromethane	ND	0.999	2.00	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
2-Chlorotoluene	ND	0.200	0.400	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
4-Chlorotoluene	ND	0.200	0.400	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
Dibromochloromethane	ND	0.400	0.799	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
1,2-Dibromo-3-chloropropane	ND	0.999	2.00	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
1,2-Dibromoethane (EDB)	ND	0.200	0.400	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
Dibromomethane	ND	0.200	0.400	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
1,2-Dichlorobenzene	ND	0.0999	0.200	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
1,3-Dichlorobenzene	ND	0.0999	0.200	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
1,4-Dichlorobenzene	ND	0.0999	0.200	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
Dichlorodifluoromethane	ND	0.799	0.799	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
1,1-Dichloroethane	ND	0.0999	0.200	mg/kg dry	50	09/29/21 15:43	5035A/8260D	

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Philip Nerenberg, Lab Director

Philip Nevenberg

Page 5 of 173



Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: <u>Eatonville</u>
Project Number: **0171.067**

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

	V	olatile Organ	ic Compoun	ds by EPA 82	60D			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-02-0921 (A1I0619-07)				Matrix: Soi	l	Batch:	1091097	H-01
1,2-Dichloroethane (EDC)	ND	0.0999	0.200	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
1,1-Dichloroethene	ND	0.0999	0.200	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
cis-1,2-Dichloroethene	ND	0.0999	0.200	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
trans-1,2-Dichloroethene	ND	0.0999	0.200	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
1,2-Dichloropropane	ND	0.0999	0.200	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
1,3-Dichloropropane	ND	0.200	0.400	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
2,2-Dichloropropane	ND	0.200	0.400	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
1,1-Dichloropropene	ND	0.200	0.400	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
cis-1,3-Dichloropropene	ND	0.200	0.400	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
trans-1,3-Dichloropropene	ND	0.200	0.400	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
Ethylbenzene	ND	0.0999	0.200	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
Hexachlorobutadiene	ND	0.400	0.799	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
2-Hexanone	ND	2.00	4.00	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
Isopropylbenzene	ND	0.200	0.400	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
4-Isopropyltoluene	ND	0.200	0.400	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
Methylene chloride	ND	2.00	4.00	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
4-Methyl-2-pentanone (MiBK)	ND	2.00	4.00	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
Methyl tert-butyl ether (MTBE)	ND	0.200	0.400	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
Naphthalene	ND	0.400	0.799	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
n-Propylbenzene	ND	0.0999	0.200	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
Styrene	ND	0.200	0.400	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
1,1,1,2-Tetrachloroethane	ND	0.0999	0.200	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
1,1,2,2-Tetrachloroethane	ND	0.200	0.400	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
Tetrachloroethene (PCE)	ND	0.0999	0.200	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
Toluene	ND	0.200	0.400	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
1,2,3-Trichlorobenzene	ND	0.999	2.00	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
1,2,4-Trichlorobenzene	ND	0.999	2.00	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
1,1,1-Trichloroethane	ND	0.0999	0.200	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
1,1,2-Trichloroethane	ND	0.0999	0.200	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
Trichloroethene (TCE)	ND	0.0999	0.200	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
Trichlorofluoromethane	ND	0.400	0.799	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
1,2,3-Trichloropropane	ND	0.200	0.400	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
1,2,4-Trimethylbenzene	ND	0.200	0.400	mg/kg dry	50	09/29/21 15:43	5035A/8260D	

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: <u>Eatonville</u>
Project Number: **0171.067**

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

	V	olatile Organ	ic Compou	nds by EPA 826	60D			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
•	Kesuit	Lillit	Limit		Dilution	•		
HA-02-0921 (A1I0619-07)				Matrix: Soil		Batch:	1091097	H-01
1,3,5-Trimethylbenzene	ND	0.200	0.400	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
Vinyl chloride	ND	0.0999	0.200	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
m,p-Xylene	ND	0.200	0.400	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
o-Xylene	ND	0.0999	0.200	mg/kg dry	50	09/29/21 15:43	5035A/8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recov	ery: 111 %	Limits: 80-120 %	5 1	09/29/21 15:43	5035A/8260D	
Toluene-d8 (Surr)			97 %	80-120 %	5 1	09/29/21 15:43	5035A/8260D	
4-Bromofluorobenzene (Surr)			95 %	79-120 %	5 1	09/29/21 15:43	5035A/8260D	
HA-03-0921 (A1I0619-08)				Matrix: Soil		Batch:	1091097	H-01
Acetone	ND	5.29	10.6	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
Acrylonitrile	ND	0.529	1.06	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
Benzene	ND	0.0529	0.106	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
Bromobenzene	ND	0.132	0.264	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
Bromochloromethane	ND	0.264	0.529	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
Bromodichloromethane	ND	0.264	0.529	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
Bromoform	ND	0.529	1.06	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
Bromomethane	ND	5.29	5.29	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
2-Butanone (MEK)	ND	2.64	5.29	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
n-Butylbenzene	ND	0.264	0.529	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
sec-Butylbenzene	ND	0.264	0.529	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
tert-Butylbenzene	ND	0.264	0.529	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
Carbon disulfide	ND	2.64	5.29	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
Carbon tetrachloride	ND	0.264	0.529	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
Chlorobenzene	ND	0.132	0.264	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
Chloroethane	ND	2.64	5.29	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
Chloroform	ND	0.264	0.529	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
Chloromethane	ND	1.32	2.64	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
2-Chlorotoluene	ND	0.264	0.529	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
4-Chlorotoluene	ND	0.264	0.529	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
Dibromochloromethane	ND	0.529	1.06	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
1,2-Dibromo-3-chloropropane	ND	1.32	2.64	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
1,2-Dibromoethane (EDB)	ND	0.264	0.529	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
Dibromomethane	ND	0.264	0.529	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
1,2-Dichlorobenzene	ND	0.132	0.264	mg/kg dry	50	09/29/21 13:02	5035A/8260D	

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: <u>Eatonville</u>
Project Number: **0171.067**

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

	V	olatile Organ	ic Compoun	ds by EPA 82	60D			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-03-0921 (A1I0619-08)				Matrix: Soi	l	Batch:	1091097	H-01
1,3-Dichlorobenzene	ND	0.132	0.264	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
1,4-Dichlorobenzene	ND	0.132	0.264	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
Dichlorodifluoromethane	ND	1.06	1.06	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
1,1-Dichloroethane	ND	0.132	0.264	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
1,2-Dichloroethane (EDC)	ND	0.132	0.264	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
1,1-Dichloroethene	ND	0.132	0.264	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
cis-1,2-Dichloroethene	ND	0.132	0.264	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
trans-1,2-Dichloroethene	ND	0.132	0.264	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
1,2-Dichloropropane	ND	0.132	0.264	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
1,3-Dichloropropane	ND	0.264	0.529	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
2,2-Dichloropropane	ND	0.264	0.529	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
1,1-Dichloropropene	ND	0.264	0.529	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
cis-1,3-Dichloropropene	ND	0.264	0.529	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
trans-1,3-Dichloropropene	ND	0.264	0.529	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
Ethylbenzene	ND	0.132	0.264	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
Hexachlorobutadiene	ND	0.529	1.06	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
2-Hexanone	ND	2.64	5.29	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
Isopropylbenzene	ND	0.264	0.529	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
4-Isopropyltoluene	ND	0.264	0.529	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
Methylene chloride	ND	2.64	5.29	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
4-Methyl-2-pentanone (MiBK)	ND	2.64	5.29	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
Methyl tert-butyl ether (MTBE)	ND	0.264	0.529	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
Naphthalene	ND	0.529	1.06	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
n-Propylbenzene	ND	0.132	0.264	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
Styrene	ND	0.264	0.529	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
1,1,1,2-Tetrachloroethane	ND	0.132	0.264	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
1,1,2,2-Tetrachloroethane	ND	0.264	0.529	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
Tetrachloroethene (PCE)	ND	0.132	0.264	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
Foluene	ND	0.264	0.529	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
1,2,3-Trichlorobenzene	ND	1.32	2.64	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
1,2,4-Trichlorobenzene	ND	1.32	2.64	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
1.1.1-Trichloroethane	ND	0.132	0.264	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
1,1,2-Trichloroethane	ND ND	0.132	0.264	mg/kg dry	50	09/29/21 13:02	5035A/8260D	

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID: A1I0619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

	v	oiatile Organ	ic Compou	nds by EPA 826	עט			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-03-0921 (A1l0619-08)				Matrix: Soil		Batch:	1091097	H-01
Trichloroethene (TCE)	ND	0.132	0.264	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
Trichlorofluoromethane	ND	0.529	1.06	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
1,2,3-Trichloropropane	ND	0.264	0.529	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
1,2,4-Trimethylbenzene	ND	0.264	0.529	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
1,3,5-Trimethylbenzene	ND	0.264	0.529	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
Vinyl chloride	ND	0.132	0.264	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
m,p-Xylene	ND	0.264	0.529	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
o-Xylene	ND	0.132	0.264	mg/kg dry	50	09/29/21 13:02	5035A/8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recov	ery: 111 %	Limits: 80-120 %	I	09/29/21 13:02	5035A/8260D	
Toluene-d8 (Surr)			97 %	80-120 %	1	09/29/21 13:02	5035A/8260D	
4-Bromofluorobenzene (Surr)			99 %	79-120 %	I	09/29/21 13:02	5035A/8260D	
IA-1003-0921 (A1I0619-09)				Matrix: Soil		Batch:	1091097	H-01
Acetone	ND	6.42	12.8	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
Acrylonitrile	ND	0.642	1.28	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
Benzene	ND	0.0642	0.128	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
Bromobenzene	ND	0.161	0.321	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
Bromochloromethane	ND	0.321	0.642	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
Bromodichloromethane	ND	0.321	0.642	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
Bromoform	ND	0.642	1.28	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
Bromomethane	ND	6.42	6.42	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
2-Butanone (MEK)	ND	3.21	6.42	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
n-Butylbenzene	ND	0.321	0.642	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
sec-Butylbenzene	ND	0.321	0.642	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
tert-Butylbenzene	ND	0.321	0.642	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
Carbon disulfide	ND	3.21	6.42	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
Carbon tetrachloride	ND	0.321	0.642	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
Chlorobenzene	ND	0.161	0.321	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
Chloroethane	ND	3.21	6.42	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
Chloroform	ND	0.321	0.642	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
Chloromethane	ND	1.61	3.21	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
2-Chlorotoluene	ND	0.321	0.642	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
4-Chlorotoluene	ND	0.321	0.642	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
Dibromochloromethane	ND	0.642	1.28	mg/kg dry	50	09/29/21 13:28	5035A/8260D	

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: <u>Eatonville</u>
Project Number: **0171.067**

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

	V	olatile Organ	ic Compound	ds by EPA 826	60D			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-1003-0921 (A1l0619-09)						Batch:	1091097	H-01
1,2-Dibromo-3-chloropropane	ND	1.61	3.21	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
1,2-Dibromoethane (EDB)	ND	0.321	0.642	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
Dibromomethane	ND	0.321	0.642	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
1,2-Dichlorobenzene	ND	0.161	0.321	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
1,3-Dichlorobenzene	ND	0.161	0.321	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
1,4-Dichlorobenzene	ND	0.161	0.321	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
Dichlorodifluoromethane	ND	1.28	1.28	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
1,1-Dichloroethane	ND	0.161	0.321	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
1,2-Dichloroethane (EDC)	ND	0.161	0.321	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
1,1-Dichloroethene	ND	0.161	0.321	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
cis-1,2-Dichloroethene	ND	0.161	0.321	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
trans-1,2-Dichloroethene	ND	0.161	0.321	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
1,2-Dichloropropane	ND	0.161	0.321	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
1,3-Dichloropropane	ND	0.321	0.642	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
2,2-Dichloropropane	ND	0.321	0.642	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
1,1-Dichloropropene	ND	0.321	0.642	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
cis-1,3-Dichloropropene	ND	0.321	0.642	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
trans-1,3-Dichloropropene	ND	0.321	0.642	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
Ethylbenzene	ND	0.161	0.321	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
Hexachlorobutadiene	ND	0.642	1.28	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
2-Hexanone	ND	3.21	6.42	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
Isopropylbenzene	ND	0.321	0.642	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
4-Isopropyltoluene	ND	0.321	0.642	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
Methylene chloride	ND	3.21	6.42	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
4-Methyl-2-pentanone (MiBK)	ND	3.21	6.42	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
Methyl tert-butyl ether (MTBE)	ND	0.321	0.642	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
Naphthalene	ND	0.642	1.28	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
n-Propylbenzene	ND	0.161	0.321	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
Styrene	ND	0.321	0.642	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
1,1,1,2-Tetrachloroethane	ND	0.161	0.321	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
1,1,2,2-Tetrachloroethane	ND	0.321	0.642	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
Tetrachloroethene (PCE)	ND	0.161	0.321	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
Toluene	ND	0.321	0.642	mg/kg dry	50	09/29/21 13:28	5035A/8260D	

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: <u>Eatonville</u>
Project Number: **0171.067**

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

	V	olatile Organ	ic Compou	nds by EPA 826	עט			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Note
HA-1003-0921 (A1I0619-09)				Matrix: Soil		Batch:	1091097	H-01
1,2,3-Trichlorobenzene	ND	1.61	3.21	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
1,2,4-Trichlorobenzene	ND	1.61	3.21	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
1,1,1-Trichloroethane	ND	0.161	0.321	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
1,1,2-Trichloroethane	ND	0.161	0.321	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
Trichloroethene (TCE)	ND	0.161	0.321	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
Trichlorofluoromethane	ND	0.642	1.28	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
1,2,3-Trichloropropane	ND	0.321	0.642	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
1,2,4-Trimethylbenzene	ND	0.321	0.642	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
1,3,5-Trimethylbenzene	ND	0.321	0.642	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
Vinyl chloride	ND	0.161	0.321	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
m,p-Xylene	ND	0.321	0.642	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
o-Xylene	ND	0.161	0.321	mg/kg dry	50	09/29/21 13:28	5035A/8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recove	ery: 111 %	Limits: 80-120 %	1	09/29/21 13:28	5035A/8260D	
Toluene-d8 (Surr)			96 %	80-120 %	1	09/29/21 13:28	5035A/8260D	
4-Bromofluorobenzene (Surr)			97 %	79-120 %	1	09/29/21 13:28	5035A/8260D	
DU-01-0921As Received (A1I0619-10)				Matrix: Soil		Batch:	1091097	H-01
Acetone	ND	0.544	1.09	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
Acrylonitrile	ND	0.0544	0.109	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
Benzene	ND	0.00544	0.0109	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
Bromobenzene	ND	0.0136	0.0272	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
Bromochloromethane	ND	0.0272	0.0544	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
Bromodichloromethane	ND	0.0272	0.0544	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
Bromoform	ND	0.0544	0.109	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
Bromomethane	ND	0.544	0.544	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
2-Butanone (MEK)	ND	0.272	0.544	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
n-Butylbenzene	ND	0.0272	0.0544	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
sec-Butylbenzene	ND	0.0272	0.0544	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
tert-Butylbenzene	ND	0.0272	0.0544	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
Carbon disulfide	ND	0.272	0.544	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
Carbon tetrachloride	ND	0.0272	0.0544	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
Chlorobenzene	ND	0.0136	0.0272	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
Chloroethane	ND	0.272	0.544	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
Chloroform	ND	0.0272	0.0544	mg/kg dry	50	09/29/21 13:55	5035A/8260D	

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Philip Nerenberg, Lab Director

Philip Nevenberg

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project Number: Eatonville
Project Number: 0171.067
Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

A . 1 :	Sample	Detection	Reporting			Date		_ -
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
DU-01-0921As Received (A1I0619-10)				Matrix: Soil	<u> </u>	Batch: 1091097		H-01
Chloromethane	ND	0.136	0.272	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
2-Chlorotoluene	ND	0.0272	0.0544	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
4-Chlorotoluene	ND	0.0272	0.0544	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
Dibromochloromethane	ND	0.0544	0.109	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
1,2-Dibromo-3-chloropropane	ND	0.136	0.272	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
1,2-Dibromoethane (EDB)	ND	0.0272	0.0544	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
Dibromomethane	ND	0.0272	0.0544	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
1,2-Dichlorobenzene	ND	0.0136	0.0272	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
1,3-Dichlorobenzene	ND	0.0136	0.0272	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
1,4-Dichlorobenzene	ND	0.0136	0.0272	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
Dichlorodifluoromethane	ND	0.109	0.109	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
1,1-Dichloroethane	ND	0.0136	0.0272	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
1,2-Dichloroethane (EDC)	ND	0.0136	0.0272	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
1,1-Dichloroethene	ND	0.0136	0.0272	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
cis-1,2-Dichloroethene	ND	0.0136	0.0272	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
trans-1,2-Dichloroethene	ND	0.0136	0.0272	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
1,2-Dichloropropane	ND	0.0136	0.0272	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
1,3-Dichloropropane	ND	0.0272	0.0544	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
2,2-Dichloropropane	ND	0.0272	0.0544	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
1,1-Dichloropropene	ND	0.0272	0.0544	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
cis-1,3-Dichloropropene	ND	0.0272	0.0544	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
trans-1,3-Dichloropropene	ND	0.0272	0.0544	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
Ethylbenzene	ND	0.0136	0.0272	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
Hexachlorobutadiene	ND	0.0544	0.109	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
2-Hexanone	ND	0.272	0.544	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
Isopropylbenzene	ND	0.0272	0.0544	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
4-Isopropyltoluene	ND	0.0272	0.0544	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
Methylene chloride	ND	0.272	0.544	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
4-Methyl-2-pentanone (MiBK)	ND	0.272	0.544	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
Methyl tert-butyl ether (MTBE)	ND	0.0272	0.0544	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
Naphthalene	ND	0.0544	0.109	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
n-Propylbenzene	ND	0.0136	0.0272	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
Styrene	ND	0.0272	0.0544	mg/kg dry	50	09/29/21 13:55	5035A/8260D	

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Philip Nevenberg

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
DU-01-0921As Received (A1I0619-10)				Matrix: Soil		Batch: 1091097		H-01
1,1,1,2-Tetrachloroethane	ND	0.0136	0.0272	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
1,1,2,2-Tetrachloroethane	ND	0.0272	0.0544	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
Tetrachloroethene (PCE)	ND	0.0136	0.0272	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
Toluene	ND	0.0272	0.0544	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
1,2,3-Trichlorobenzene	ND	0.136	0.272	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
1,2,4-Trichlorobenzene	ND	0.136	0.272	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
1,1,1-Trichloroethane	ND	0.0136	0.0272	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
1,1,2-Trichloroethane	ND	0.0136	0.0272	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
Trichloroethene (TCE)	ND	0.0136	0.0272	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
Trichlorofluoromethane	ND	0.0544	0.109	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
1,2,3-Trichloropropane	ND	0.0272	0.0544	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
1,2,4-Trimethylbenzene	ND	0.0272	0.0544	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
1,3,5-Trimethylbenzene	ND	0.0272	0.0544	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
Vinyl chloride	ND	0.0136	0.0272	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
m,p-Xylene	ND	0.0272	0.0544	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
o-Xylene	ND	0.0136	0.0272	mg/kg dry	50	09/29/21 13:55	5035A/8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recove	ery: 108 %	Limits: 80-120 %	1	09/29/21 13:55	5035A/8260D	
Toluene-d8 (Surr)			98 %	80-120 %		09/29/21 13:55	5035A/8260D	
4-Bromofluorobenzene (Surr)			97 %	79-120 %	1	09/29/21 13:55	5035A/8260D	
DU-02-0921As Received (A1I0619-12)				Matrix: Soil		Batch:	1091097	
Acetone	ND	0.724	1.45	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
Acrylonitrile	ND	0.0724	0.145	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
Benzene	ND	0.00724	0.0145	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
Bromobenzene	ND	0.0181	0.0362	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
Bromochloromethane	ND	0.0362	0.0724	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
Bromodichloromethane	ND	0.0362	0.0724	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
Bromoform	ND	0.0724	0.145	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
Bromomethane	ND	0.724	0.724	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
2-Butanone (MEK)	ND	0.362	0.724	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
n-Butylbenzene	ND	0.0362	0.0724	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
sec-Butylbenzene	ND	0.0362	0.0724	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
tert-Butylbenzene	ND	0.0362	0.0724	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
Carbon disulfide	ND	0.362	0.724	mg/kg dry	50	09/29/21 14:22	5035A/8260D	

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: <u>Eatonville</u>
Project Number: **0171.067**

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

	V	olatile Organ	ic Compound	ds by EPA 82	60D			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
DU-02-0921As Received (A1I0619-12)				Matrix: Soil	1	Batch:	1091097	
Carbon tetrachloride	ND	0.0362	0.0724	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
Chlorobenzene	ND	0.0181	0.0362	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
Chloroethane	ND	0.362	0.724	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
Chloroform	ND	0.0362	0.0724	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
Chloromethane	ND	0.181	0.362	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
2-Chlorotoluene	ND	0.0362	0.0724	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
4-Chlorotoluene	ND	0.0362	0.0724	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
Dibromochloromethane	ND	0.0724	0.145	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
1,2-Dibromo-3-chloropropane	ND	0.181	0.362	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
1,2-Dibromoethane (EDB)	ND	0.0362	0.0724	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
Dibromomethane	ND	0.0362	0.0724	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
1,2-Dichlorobenzene	ND	0.0181	0.0362	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
1,3-Dichlorobenzene	ND	0.0181	0.0362	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
1,4-Dichlorobenzene	ND	0.0181	0.0362	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
Dichlorodifluoromethane	ND	0.145	0.145	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
1,1-Dichloroethane	ND	0.0181	0.0362	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
1,2-Dichloroethane (EDC)	ND	0.0181	0.0362	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
1,1-Dichloroethene	ND	0.0181	0.0362	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
cis-1,2-Dichloroethene	ND	0.0181	0.0362	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
trans-1,2-Dichloroethene	ND	0.0181	0.0362	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
1,2-Dichloropropane	ND	0.0181	0.0362	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
1,3-Dichloropropane	ND	0.0362	0.0724	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
2,2-Dichloropropane	ND	0.0362	0.0724	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
1,1-Dichloropropene	ND	0.0362	0.0724	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
cis-1,3-Dichloropropene	ND	0.0362	0.0724	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
trans-1,3-Dichloropropene	ND	0.0362	0.0724	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
Ethylbenzene	ND	0.0181	0.0362	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
Hexachlorobutadiene	ND	0.0724	0.145	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
2-Hexanone	ND	0.362	0.724	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
Isopropylbenzene	ND	0.0362	0.0724	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
4-Isopropyltoluene	ND	0.0362	0.0724	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
Methylene chloride	ND	0.362	0.724	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
4-Methyl-2-pentanone (MiBK)	ND	0.362	0.724	mg/kg dry	50	09/29/21 14:22	5035A/8260D	

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Philip Nerenberg, Lab Director

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project Number: Eatonville
Project Number: 0171.067
Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

	V	olatile Organic	Compou	nds by EPA 826	0D			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
DU-02-0921As Received (A1I0619-12)				Matrix: Soil		Batch:	1091097	
Methyl tert-butyl ether (MTBE)	ND	0.0362	0.0724	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
Naphthalene	ND	0.0724	0.145	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
n-Propylbenzene	ND	0.0181	0.0362	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
Styrene	ND	0.0362	0.0724	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
1,1,1,2-Tetrachloroethane	ND	0.0181	0.0362	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
1,1,2,2-Tetrachloroethane	ND	0.0362	0.0724	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
Tetrachloroethene (PCE)	ND	0.0181	0.0362	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
Toluene	ND	0.0362	0.0724	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
1,2,3-Trichlorobenzene	ND	0.181	0.362	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
1,2,4-Trichlorobenzene	ND	0.181	0.362	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
1,1,1-Trichloroethane	ND	0.0181	0.0362	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
1,1,2-Trichloroethane	ND	0.0181	0.0362	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
Trichloroethene (TCE)	ND	0.0181	0.0362	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
Trichlorofluoromethane	ND	0.0724	0.145	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
1,2,3-Trichloropropane	ND	0.0362	0.0724	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
1,2,4-Trimethylbenzene	ND	0.0362	0.0724	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
1,3,5-Trimethylbenzene	ND	0.0362	0.0724	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
Vinyl chloride	ND	0.0181	0.0362	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
m,p-Xylene	ND	0.0362	0.0724	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
o-Xylene	ND	0.0181	0.0362	mg/kg dry	50	09/29/21 14:22	5035A/8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recover	v: 112 %	Limits: 80-120 %	I	09/29/21 14:22	5035A/8260D	
Toluene-d8 (Surr)			98 %	80-120 %		09/29/21 14:22	5035A/8260D	
4-Bromofluorobenzene (Surr)			98 %	79-120 %	1	09/29/21 14:22	5035A/8260D	
SB18-9-10-0921 (A1l0619-14)				Matrix: Soil		Batch:	1091097	
Acetone	ND	0.871	1.74	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
Acrylonitrile	ND	0.0871	0.174	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
Benzene	ND	0.00871	0.0174	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
Bromobenzene	ND	0.0218	0.0435	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
Bromochloromethane	ND	0.0435	0.0871	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
Bromodichloromethane	ND	0.0435	0.0871	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
Bromoform	ND	0.0871	0.174	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
Bromomethane	ND	0.871	0.871	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
2-Butanone (MEK)	ND	0.435	0.871	mg/kg dry	50	09/29/21 14:49	5035A/8260D	

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Philip Nerenberg, Lab Director

Philip Nevenberg

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

	v	olatile Organ	ic Compoun	ds by EPA 82	60D			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SB18-9-10-0921 (A1I0619-14)				Matrix: Soi	İ	Batch:	1091097	
n-Butylbenzene	ND	0.0435	0.0871	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
sec-Butylbenzene	ND	0.0435	0.0871	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
tert-Butylbenzene	ND	0.0435	0.0871	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
Carbon disulfide	ND	0.435	0.871	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
Carbon tetrachloride	ND	0.0435	0.0871	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
Chlorobenzene	ND	0.0218	0.0435	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
Chloroethane	ND	0.435	0.871	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
Chloroform	ND	0.0435	0.0871	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
Chloromethane	ND	0.218	0.435	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
2-Chlorotoluene	ND	0.0435	0.0871	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
4-Chlorotoluene	ND	0.0435	0.0871	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
Dibromochloromethane	ND	0.0871	0.174	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
1,2-Dibromo-3-chloropropane	ND	0.218	0.435	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
1,2-Dibromoethane (EDB)	ND	0.0435	0.0871	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
Dibromomethane	ND	0.0435	0.0871	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
1,2-Dichlorobenzene	ND	0.0218	0.0435	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
1,3-Dichlorobenzene	ND	0.0218	0.0435	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
1,4-Dichlorobenzene	ND	0.0218	0.0435	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
Dichlorodifluoromethane	ND	0.174	0.174	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
1,1-Dichloroethane	ND	0.0218	0.0435	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
1,2-Dichloroethane (EDC)	ND	0.0218	0.0435	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
1,1-Dichloroethene	ND	0.0218	0.0435	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
cis-1,2-Dichloroethene	ND	0.0218	0.0435	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
trans-1,2-Dichloroethene	ND	0.0218	0.0435	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
1,2-Dichloropropane	ND	0.0218	0.0435	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
1,3-Dichloropropane	ND	0.0435	0.0871	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
2,2-Dichloropropane	ND	0.0435	0.0871	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
1,1-Dichloropropene	ND	0.0435	0.0871	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
cis-1,3-Dichloropropene	ND	0.0435	0.0871	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
trans-1,3-Dichloropropene	ND	0.0435	0.0871	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
Ethylbenzene	ND	0.0218	0.0435	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
Hexachlorobutadiene	ND	0.0871	0.174	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
2-Hexanone	ND	0.435	0.871	mg/kg dry	50	09/29/21 14:49	5035A/8260D	

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Philip Nerenberg, Lab Director

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
SB18-9-10-0921 (A1I0619-14)				Matrix: Soil		Batch:	1091097	
Isopropylbenzene	ND	0.0435	0.0871	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
4-Isopropyltoluene	ND	0.0435	0.0871	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
Methylene chloride	ND	0.435	0.871	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
4-Methyl-2-pentanone (MiBK)	ND	0.435	0.871	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
Methyl tert-butyl ether (MTBE)	ND	0.0435	0.0871	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
Naphthalene	ND	0.0871	0.174	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
n-Propylbenzene	ND	0.0218	0.0435	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
Styrene	ND	0.0435	0.0871	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
1,1,1,2-Tetrachloroethane	ND	0.0218	0.0435	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
1,1,2,2-Tetrachloroethane	ND	0.0435	0.0871	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
Tetrachloroethene (PCE)	0.0601	0.0218	0.0435	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
Toluene	ND	0.0435	0.0871	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
1,2,3-Trichlorobenzene	ND	0.218	0.435	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
1,2,4-Trichlorobenzene	ND	0.218	0.435	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
1,1,1-Trichloroethane	ND	0.0218	0.0435	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
1,1,2-Trichloroethane	ND	0.0218	0.0435	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
Trichloroethene (TCE)	ND	0.0218	0.0435	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
Trichlorofluoromethane	ND	0.0871	0.174	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
1,2,3-Trichloropropane	ND	0.0435	0.0871	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
1,2,4-Trimethylbenzene	ND	0.0435	0.0871	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
1,3,5-Trimethylbenzene	ND	0.0435	0.0871	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
Vinyl chloride	ND	0.0218	0.0435	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
m,p-Xylene	ND	0.0435	0.0871	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
o-Xylene	ND	0.0218	0.0435	mg/kg dry	50	09/29/21 14:49	5035A/8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery	v: 108 %	Limits: 80-120 %	1	09/29/21 14:49	5035A/8260D	
Toluene-d8 (Surr)			98 %	80-120 %		09/29/21 14:49	5035A/8260D	
4-Bromofluorobenzene (Surr)			95 %	79-120 %	I	09/29/21 14:49	5035A/8260D	
EB01-0921 (A1I0619-15)			Matrix: Water Batch: 1090931		1090931			
Acetone	ND	10.0	20.0	ug/L	1	09/24/21 16:23	EPA 8260D	
Acrylonitrile	ND	1.00	2.00	ug/L	1	09/24/21 16:23	EPA 8260D	
Benzene	ND	0.100	0.200	ug/L	1	09/24/21 16:23	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	09/24/21 16:23	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	09/24/21 16:23	EPA 8260D	

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Philip Nerenberg, Lab Director

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

		olatile Organ	ic Compound	us by EPA 8.	עטט∠			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EB01-0921 (A1I0619-15)				Matrix: Wa	iter	Batch:	1090931	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	09/24/21 16:23	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	09/24/21 16:23	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	09/24/21 16:23	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	09/24/21 16:23	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	09/24/21 16:23	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	09/24/21 16:23	EPA 8260D	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	09/24/21 16:23	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	09/24/21 16:23	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	09/24/21 16:23	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	09/24/21 16:23	EPA 8260D	
Chloroethane	ND	5.00	10.0	ug/L	1	09/24/21 16:23	EPA 8260D	
Chloroform	ND	0.500	1.00	ug/L	1	09/24/21 16:23	EPA 8260D	
Chloromethane	ND	2.50	5.00	ug/L	1	09/24/21 16:23	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	09/24/21 16:23	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	09/24/21 16:23	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	09/24/21 16:23	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	09/24/21 16:23	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	09/24/21 16:23	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	09/24/21 16:23	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	09/24/21 16:23	EPA 8260D	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	09/24/21 16:23	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	09/24/21 16:23	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	09/24/21 16:23	EPA 8260D	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	09/24/21 16:23	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	09/24/21 16:23	EPA 8260D	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	09/24/21 16:23	EPA 8260D	
eis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	09/24/21 16:23	EPA 8260D	
rans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	09/24/21 16:23	EPA 8260D	
,2-Dichloropropane	ND	0.250	0.500	ug/L	1	09/24/21 16:23	EPA 8260D	
,3-Dichloropropane	ND	0.500	1.00	ug/L	1	09/24/21 16:23	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	09/24/21 16:23	EPA 8260D	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	09/24/21 16:23	EPA 8260D	
ris-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	09/24/21 16:23	EPA 8260D	

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Philip Nerenberg, Lab Director

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project Number: Eatonville
Project Number: 0171.067
Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

		olatile Organic	Compour	nds by EPA 8260)D			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EB01-0921 (A1I0619-15)				Matrix: Water	•	Batch:	1090931	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	09/24/21 16:23	EPA 8260D	
Ethylbenzene	ND	0.250	0.500	ug/L	1	09/24/21 16:23	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	09/24/21 16:23	EPA 8260D	
2-Hexanone	ND	5.00	10.0	ug/L	1	09/24/21 16:23	EPA 8260D	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	09/24/21 16:23	EPA 8260D	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	09/24/21 16:23	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	09/24/21 16:23	EPA 8260D	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	09/24/21 16:23	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	09/24/21 16:23	EPA 8260D	
Naphthalene	ND	2.00	4.00	ug/L	1	09/24/21 16:23	EPA 8260D	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	09/24/21 16:23	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	09/24/21 16:23	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	09/24/21 16:23	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	09/24/21 16:23	EPA 8260D	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	09/24/21 16:23	EPA 8260D	
Toluene	ND	0.500	1.00	ug/L	1	09/24/21 16:23	EPA 8260D	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	09/24/21 16:23	EPA 8260D	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	09/24/21 16:23	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	09/24/21 16:23	EPA 8260D	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	09/24/21 16:23	EPA 8260D	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	09/24/21 16:23	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	09/24/21 16:23	EPA 8260D	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	09/24/21 16:23	EPA 8260D	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	09/24/21 16:23	EPA 8260D	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	09/24/21 16:23	EPA 8260D	
Vinyl chloride	ND	0.200	0.400	ug/L	1	09/24/21 16:23	EPA 8260D	
m,p-Xylene	ND	0.500	1.00	ug/L	1	09/24/21 16:23	EPA 8260D	
o-Xylene	ND	0.250	0.500	ug/L	1	09/24/21 16:23	EPA 8260D	
Vinyl acetate	ND	5.00	10.0	ug/L	1	09/24/21 16:23	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery	y: 104 %	Limits: 80-120 %	1	09/24/21 16:23	EPA 8260D	
Toluene-d8 (Surr)			101 %	80-120 %	1	09/24/21 16:23	EPA 8260D	
4-Bromofluorobenzene (Surr)			101 %	80-120 %	1	09/24/21 16:23	EPA 8260D	

EB02-0921 (A1I0619-16) Matrix: Water Batch: 1090931

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

		olatile Organ	ic Compound	us by EPA 8.	∠ 00D			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
B02-0921 (A1I0619-16)				Matrix: Wa	ater	Batch:	1090931	
Acetone	ND	10.0	20.0	ug/L	1	09/24/21 16:50	EPA 8260D	
Acrylonitrile	ND	1.00	2.00	ug/L	1	09/24/21 16:50	EPA 8260D	
Benzene	ND	0.100	0.200	ug/L	1	09/24/21 16:50	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	09/24/21 16:50	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	09/24/21 16:50	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	09/24/21 16:50	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	09/24/21 16:50	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	09/24/21 16:50	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	09/24/21 16:50	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	09/24/21 16:50	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	09/24/21 16:50	EPA 8260D	
ert-Butylbenzene	ND	0.500	1.00	ug/L	1	09/24/21 16:50	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	09/24/21 16:50	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	09/24/21 16:50	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	09/24/21 16:50	EPA 8260D	
Chloroethane	ND	5.00	10.0	ug/L	1	09/24/21 16:50	EPA 8260D	
Chloroform	ND	0.500	1.00	ug/L	1	09/24/21 16:50	EPA 8260D	
Chloromethane	ND	2.50	5.00	ug/L	1	09/24/21 16:50	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	09/24/21 16:50	EPA 8260D	
1-Chlorotoluene	ND	0.500	1.00	ug/L	1	09/24/21 16:50	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	09/24/21 16:50	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	09/24/21 16:50	EPA 8260D	
,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	09/24/21 16:50	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	09/24/21 16:50	EPA 8260D	
,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	09/24/21 16:50	EPA 8260D	
,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	09/24/21 16:50	EPA 8260D	
,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	09/24/21 16:50	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	09/24/21 16:50	EPA 8260D	
,1-Dichloroethane	ND	0.200	0.400	ug/L	1	09/24/21 16:50	EPA 8260D	
,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	09/24/21 16:50	EPA 8260D	
,1-Dichloroethene	ND	0.200	0.400	ug/L	1	09/24/21 16:50	EPA 8260D	
is-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	09/24/21 16:50	EPA 8260D	
rans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	09/24/21 16:50	EPA 8260D	

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Philip Nerenberg, Lab Director

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: <u>Eatonville</u>
Project Number: **0171.067**

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

		olatile Organ	ic Compound	us by EPA 8.	∠00 D			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EB02-0921 (A1I0619-16)				Matrix: Wa	ater	Batch:	1090931	
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	09/24/21 16:50	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	09/24/21 16:50	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	09/24/21 16:50	EPA 8260D	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	09/24/21 16:50	EPA 8260D	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	09/24/21 16:50	EPA 8260D	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	09/24/21 16:50	EPA 8260D	
Ethylbenzene	ND	0.250	0.500	ug/L	1	09/24/21 16:50	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	09/24/21 16:50	EPA 8260D	
2-Hexanone	ND	5.00	10.0	ug/L	1	09/24/21 16:50	EPA 8260D	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	09/24/21 16:50	EPA 8260D	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	09/24/21 16:50	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	09/24/21 16:50	EPA 8260D	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	09/24/21 16:50	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	09/24/21 16:50	EPA 8260D	
Naphthalene	ND	2.00	4.00	ug/L	1	09/24/21 16:50	EPA 8260D	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	09/24/21 16:50	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	09/24/21 16:50	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	09/24/21 16:50	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	09/24/21 16:50	EPA 8260D	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	09/24/21 16:50	EPA 8260D	
Toluene	ND	0.500	1.00	ug/L	1	09/24/21 16:50	EPA 8260D	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	09/24/21 16:50	EPA 8260D	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	09/24/21 16:50	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	09/24/21 16:50	EPA 8260D	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	09/24/21 16:50	EPA 8260D	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	09/24/21 16:50	EPA 8260D	
Frichlorofluoromethane	ND	1.00	2.00	ug/L	1	09/24/21 16:50	EPA 8260D	
,2,3-Trichloropropane	ND	0.500	1.00	ug/L ug/L	1	09/24/21 16:50	EPA 8260D	
,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	09/24/21 16:50	EPA 8260D	
,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L ug/L	1	09/24/21 16:50	EPA 8260D	
Vinyl chloride	ND	0.200	0.400	ug/L ug/L	1	09/24/21 16:50	EPA 8260D	
n,p-Xylene	ND	0.500	1.00	ug/L ug/L	1	09/24/21 16:50	EPA 8260D	
-Xylene	ND ND	0.250	0.500	ug/L ug/L	1	09/24/21 16:50	EPA 8260D	

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Philip Nerenberg, Lab Director

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: <u>Eatonville</u>
Project Number: **0171.067**

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

	V	olatile Organ	ic Compou	nds by EPA 826	0D			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EB02-0921 (A1l0619-16)				Matrix: Wate	r	Batch:	1090931	
Vinyl acetate	ND	5.00	10.0	ug/L	1	09/24/21 16:50	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recove	ery: 104 %	Limits: 80-120 %	1	09/24/21 16:50	EPA 8260D	
Toluene-d8 (Surr)			102 %	80-120 %	1	09/24/21 16:50	EPA 8260D	
4-Bromofluorobenzene (Surr)			101 %	80-120 %	1	09/24/21 16:50	EPA 8260D	
SW04-0921 (A1I0619-17)				Matrix: Wate	r	Batch:	1090931	
Acetone	ND	10.0	20.0	ug/L	1	09/24/21 17:17	EPA 8260D	
Acrylonitrile	ND	1.00	2.00	ug/L	1	09/24/21 17:17	EPA 8260D	
Benzene	ND	0.100	0.200	ug/L	1	09/24/21 17:17	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	09/24/21 17:17	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	09/24/21 17:17	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	09/24/21 17:17	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	09/24/21 17:17	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	09/24/21 17:17	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	09/24/21 17:17	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	09/24/21 17:17	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	09/24/21 17:17	EPA 8260D	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	09/24/21 17:17	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	09/24/21 17:17	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	09/24/21 17:17	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	09/24/21 17:17	EPA 8260D	
Chloroethane	ND	5.00	10.0	ug/L	1	09/24/21 17:17	EPA 8260D	
Chloroform	ND	0.500	1.00	ug/L	1	09/24/21 17:17	EPA 8260D	
Chloromethane	ND	2.50	5.00	ug/L	1	09/24/21 17:17	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	09/24/21 17:17	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	09/24/21 17:17	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	09/24/21 17:17	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	09/24/21 17:17	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	09/24/21 17:17	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	09/24/21 17:17	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	09/24/21 17:17	EPA 8260D	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	09/24/21 17:17	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	09/24/21 17:17	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	09/24/21 17:17	EPA 8260D	

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6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 0171.067

Project Number: 0171.067 Report ID:
Project Manager: Genevieve Schutzius A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

	V	olatile Organ	ic Compound	us by EPA 8.	∠60D			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW04-0921 (A1I0619-17)				Matrix: Wa	ater	Batch:	1090931	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	09/24/21 17:17	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	09/24/21 17:17	EPA 8260D	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	09/24/21 17:17	EPA 8260D	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	09/24/21 17:17	EPA 8260D	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	09/24/21 17:17	EPA 8260D	
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	09/24/21 17:17	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	09/24/21 17:17	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	09/24/21 17:17	EPA 8260D	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	09/24/21 17:17	EPA 8260D	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	09/24/21 17:17	EPA 8260D	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	09/24/21 17:17	EPA 8260D	
Ethylbenzene	ND	0.250	0.500	ug/L	1	09/24/21 17:17	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	09/24/21 17:17	EPA 8260D	
2-Hexanone	ND	5.00	10.0	ug/L	1	09/24/21 17:17	EPA 8260D	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	09/24/21 17:17	EPA 8260D	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	09/24/21 17:17	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	09/24/21 17:17	EPA 8260D	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	09/24/21 17:17	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	09/24/21 17:17	EPA 8260D	
Naphthalene	ND	2.00	4.00	ug/L	1	09/24/21 17:17	EPA 8260D	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	09/24/21 17:17	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	09/24/21 17:17	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	09/24/21 17:17	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	09/24/21 17:17	EPA 8260D	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	09/24/21 17:17	EPA 8260D	
Toluene	ND	0.500	1.00	ug/L	1	09/24/21 17:17	EPA 8260D	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	09/24/21 17:17	EPA 8260D	
,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	09/24/21 17:17	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	09/24/21 17:17	EPA 8260D	
,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	09/24/21 17:17	EPA 8260D	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	09/24/21 17:17	EPA 8260D	
Frichlorofluoromethane	ND	1.00	2.00	ug/L	1	09/24/21 17:17	EPA 8260D	
,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	09/24/21 17:17	EPA 8260D	

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6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

	V	olatile Organic	Compou	nds by EPA 826	0D			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW04-0921 (A1I0619-17)				Matrix: Wate	r	Batch:	1090931	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	09/24/21 17:17	EPA 8260D	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	09/24/21 17:17	EPA 8260D	
Vinyl chloride	ND	0.200	0.400	ug/L	1	09/24/21 17:17	EPA 8260D	
m,p-Xylene	ND	0.500	1.00	ug/L	1	09/24/21 17:17	EPA 8260D	
o-Xylene	ND	0.250	0.500	ug/L	1	09/24/21 17:17	EPA 8260D	
Vinyl acetate	ND	5.00	10.0	ug/L	1	09/24/21 17:17	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery	: 103 %	Limits: 80-120 %	1	09/24/21 17:17	EPA 8260D	
Toluene-d8 (Surr)			102 %	80-120 %	1	09/24/21 17:17	EPA 8260D	
4-Bromofluorobenzene (Surr)			100 %	80-120 %	1	09/24/21 17:17	EPA 8260D	
				Matrix: Wate	r	Batch:	1090931	
Acetone	ND	10.0	20.0	ug/L	1	09/24/21 17:45	EPA 8260D	
Acrylonitrile	ND	1.00	2.00	ug/L	1	09/24/21 17:45	EPA 8260D	
Benzene	ND	0.100	0.200	ug/L	1	09/24/21 17:45	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	09/24/21 17:45	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	09/24/21 17:45	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	09/24/21 17:45	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	09/24/21 17:45	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	09/24/21 17:45	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	09/24/21 17:45	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	09/24/21 17:45	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	09/24/21 17:45	EPA 8260D	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	09/24/21 17:45	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	09/24/21 17:45	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	09/24/21 17:45	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	09/24/21 17:45	EPA 8260D	
Chloroethane	ND	5.00	10.0	ug/L	1	09/24/21 17:45	EPA 8260D	
Chloroform	ND	0.500	1.00	ug/L	1	09/24/21 17:45	EPA 8260D	
Chloromethane	ND	2.50	5.00	ug/L	1	09/24/21 17:45	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	09/24/21 17:45	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	09/24/21 17:45	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	09/24/21 17:45	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	09/24/21 17:45	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	09/24/21 17:45	EPA 8260D	

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

	V	olatile Organ	ic Compound	as by EPA 8	260D			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW05-0921 (A1I0619-18)				Matrix: Wa	ater	Batch:	1090931	
Dibromomethane	ND	0.500	1.00	ug/L	1	09/24/21 17:45	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	09/24/21 17:45	EPA 8260D	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	09/24/21 17:45	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	09/24/21 17:45	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	09/24/21 17:45	EPA 8260D	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	09/24/21 17:45	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	09/24/21 17:45	EPA 8260D	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	09/24/21 17:45	EPA 8260D	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	09/24/21 17:45	EPA 8260D	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	09/24/21 17:45	EPA 8260D	
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	09/24/21 17:45	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	09/24/21 17:45	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	09/24/21 17:45	EPA 8260D	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	09/24/21 17:45	EPA 8260D	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	09/24/21 17:45	EPA 8260D	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	09/24/21 17:45	EPA 8260D	
Ethylbenzene	ND	0.250	0.500	ug/L	1	09/24/21 17:45	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	09/24/21 17:45	EPA 8260D	
2-Hexanone	ND	5.00	10.0	ug/L	1	09/24/21 17:45	EPA 8260D	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	09/24/21 17:45	EPA 8260D	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	09/24/21 17:45	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	09/24/21 17:45	EPA 8260D	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	09/24/21 17:45	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	09/24/21 17:45	EPA 8260D	
Naphthalene	ND	2.00	4.00	ug/L	1	09/24/21 17:45	EPA 8260D	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	09/24/21 17:45	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	09/24/21 17:45	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	09/24/21 17:45	EPA 8260D	
,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	09/24/21 17:45	EPA 8260D	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	09/24/21 17:45	EPA 8260D	
Гoluene	ND	0.500	1.00	ug/L	1	09/24/21 17:45	EPA 8260D	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	09/24/21 17:45	EPA 8260D	
,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	09/24/21 17:45	EPA 8260D	

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Philip Nerenberg, Lab Director

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

Report ID:

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 0171.067

Project Manager: Genevieve Schutzius A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

	V	olatile Organic	Compou	nds by EPA 826	עט			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW05-0921 (A1I0619-18)				Matrix: Wate	r	Batch:	1090931	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	09/24/21 17:45	EPA 8260D	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	09/24/21 17:45	EPA 8260D	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	09/24/21 17:45	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	09/24/21 17:45	EPA 8260D	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	09/24/21 17:45	EPA 8260D	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	09/24/21 17:45	EPA 8260D	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	09/24/21 17:45	EPA 8260D	
Vinyl chloride	ND	0.200	0.400	ug/L	1	09/24/21 17:45	EPA 8260D	
m,p-Xylene	ND	0.500	1.00	ug/L	1	09/24/21 17:45	EPA 8260D	
o-Xylene	ND	0.250	0.500	ug/L	1	09/24/21 17:45	EPA 8260D	
Vinyl acetate	ND	5.00	10.0	ug/L	1	09/24/21 17:45	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery	·: 104 %	Limits: 80-120 %	1	09/24/21 17:45	EPA 8260D	
Toluene-d8 (Surr)			102 %	80-120 %	1	09/24/21 17:45	EPA 8260D	
4-Bromofluorobenzene (Surr)			101 %	80-120 %	1	09/24/21 17:45	EPA 8260D	
SW06-0921 (A1I0619-19)				Matrix: Wate	r	Batch:	1090931	
Acetone	ND	10.0	20.0	ug/L	1	09/24/21 18:12	EPA 8260D	
Acrylonitrile	ND	1.00	2.00	ug/L	1	09/24/21 18:12	EPA 8260D	
Benzene	ND	0.100	0.200	ug/L	1	09/24/21 18:12	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	09/24/21 18:12	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	09/24/21 18:12	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	09/24/21 18:12	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	09/24/21 18:12	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	09/24/21 18:12	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	09/24/21 18:12	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	09/24/21 18:12	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	09/24/21 18:12	EPA 8260D	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	09/24/21 18:12	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	09/24/21 18:12	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	09/24/21 18:12	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	09/24/21 18:12	EPA 8260D	
Chloroethane	ND	5.00	10.0	ug/L	1	09/24/21 18:12	EPA 8260D	
Chloroform	ND	0.500	1.00	ug/L	1	09/24/21 18:12	EPA 8260D	
Chloromethane	ND	2.50	5.00	ug/L	1	09/24/21 18:12	EPA 8260D	

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Philip Nerenberg, Lab Director

Philip Nevenberg

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

	V	olatile Organ	ic Compound	us by EPA 8.	∠60D			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW06-0921 (A1I0619-19)				Matrix: Wa	ater	Batch:	1090931	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	09/24/21 18:12	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	09/24/21 18:12	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	09/24/21 18:12	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	09/24/21 18:12	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	09/24/21 18:12	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	09/24/21 18:12	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	09/24/21 18:12	EPA 8260D	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	09/24/21 18:12	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	09/24/21 18:12	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	09/24/21 18:12	EPA 8260D	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	09/24/21 18:12	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	09/24/21 18:12	EPA 8260D	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	09/24/21 18:12	EPA 8260D	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	09/24/21 18:12	EPA 8260D	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	09/24/21 18:12	EPA 8260D	
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	09/24/21 18:12	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	09/24/21 18:12	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	09/24/21 18:12	EPA 8260D	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	09/24/21 18:12	EPA 8260D	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	09/24/21 18:12	EPA 8260D	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	09/24/21 18:12	EPA 8260D	
Ethylbenzene	ND	0.250	0.500	ug/L	1	09/24/21 18:12	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	09/24/21 18:12	EPA 8260D	
2-Hexanone	ND	5.00	10.0	ug/L	1	09/24/21 18:12	EPA 8260D	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	09/24/21 18:12	EPA 8260D	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	09/24/21 18:12	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	09/24/21 18:12	EPA 8260D	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	09/24/21 18:12	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	09/24/21 18:12	EPA 8260D	
Naphthalene	ND	2.00	4.00	ug/L	1	09/24/21 18:12	EPA 8260D	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	09/24/21 18:12	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	09/24/21 18:12	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	09/24/21 18:12	EPA 8260D	

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Philip Nerenberg, Lab Director

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

Report ID:

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 0171.067

Project Manager: Genevieve Schutzius A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
SW06-0921 (A1I0619-19)				Matrix: Wate	r	Batch:	1090931	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	09/24/21 18:12	EPA 8260D	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	09/24/21 18:12	EPA 8260D	
Toluene	ND	0.500	1.00	ug/L	1	09/24/21 18:12	EPA 8260D	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	09/24/21 18:12	EPA 8260D	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	09/24/21 18:12	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	09/24/21 18:12	EPA 8260D	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	09/24/21 18:12	EPA 8260D	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	09/24/21 18:12	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	09/24/21 18:12	EPA 8260D	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	09/24/21 18:12	EPA 8260D	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	09/24/21 18:12	EPA 8260D	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	09/24/21 18:12	EPA 8260D	
Vinyl chloride	ND	0.200	0.400	ug/L	1	09/24/21 18:12	EPA 8260D	
m,p-Xylene	ND	0.500	1.00	ug/L	1	09/24/21 18:12	EPA 8260D	
o-Xylene	ND	0.250	0.500	ug/L	1	09/24/21 18:12	EPA 8260D	
Vinyl acetate	ND	5.00	10.0	ug/L	1	09/24/21 18:12	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery:	105 %	Limits: 80-120 %	1	09/24/21 18:12	EPA 8260D	
Toluene-d8 (Surr)			103 %	80-120 %		09/24/21 18:12	EPA 8260D	
4-Bromofluorobenzene (Surr)			100 %	80-120 %	1	09/24/21 18:12	EPA 8260D	
SW1006-0921 (A1I0619-20)				Matrix: Wate	r	Batch:	1090931	
Acetone	ND	10.0	20.0	ug/L	1	09/24/21 18:39	EPA 8260D	
Acrylonitrile	ND	1.00	2.00	ug/L	1	09/24/21 18:39	EPA 8260D	
Benzene	ND	0.100	0.200	ug/L	1	09/24/21 18:39	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	09/24/21 18:39	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	09/24/21 18:39	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	09/24/21 18:39	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	09/24/21 18:39	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	09/24/21 18:39	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	09/24/21 18:39	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	09/24/21 18:39	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	09/24/21 18:39	EPA 8260D	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	09/24/21 18:39	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	09/24/21 18:39	EPA 8260D	

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Philip Nerenberg, Lab Director

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: <u>Eatonville</u>
Project Number: **0171.067**

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

	V	olatile Organ	ic Compound	ds by EPA 8	260D			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW1006-0921 (A1I0619-20)		<u> </u>		Matrix: Wa	ater	Batch:	1090931	-
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	09/24/21 18:39	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	09/24/21 18:39	EPA 8260D	
Chloroethane	ND	5.00	10.0	ug/L	1	09/24/21 18:39	EPA 8260D	
Chloroform	ND	0.500	1.00	ug/L	1	09/24/21 18:39	EPA 8260D	
Chloromethane	ND	2.50	5.00	ug/L	1	09/24/21 18:39	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	09/24/21 18:39	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	09/24/21 18:39	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	09/24/21 18:39	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	09/24/21 18:39	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	09/24/21 18:39	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	09/24/21 18:39	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	09/24/21 18:39	EPA 8260D	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	09/24/21 18:39	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	09/24/21 18:39	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	09/24/21 18:39	EPA 8260D	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	09/24/21 18:39	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	09/24/21 18:39	EPA 8260D	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	09/24/21 18:39	EPA 8260D	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	09/24/21 18:39	EPA 8260D	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	09/24/21 18:39	EPA 8260D	
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	09/24/21 18:39	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	09/24/21 18:39	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	09/24/21 18:39	EPA 8260D	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	09/24/21 18:39	EPA 8260D	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	09/24/21 18:39	EPA 8260D	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	09/24/21 18:39	EPA 8260D	
Ethylbenzene	ND	0.250	0.500	ug/L	1	09/24/21 18:39	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	09/24/21 18:39	EPA 8260D	
2-Hexanone	ND	5.00	10.0	ug/L	1	09/24/21 18:39	EPA 8260D	
sopropylbenzene	ND	0.500	1.00	ug/L	1	09/24/21 18:39	EPA 8260D	
1-Isopropyltoluene	ND	0.500	1.00	ug/L	1	09/24/21 18:39	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	09/24/21 18:39	EPA 8260D	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	09/24/21 18:39	EPA 8260D	

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6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

	V	olatile Organic	Compou	nds by EPA 826	0D			
	Sample		Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
SW1006-0921 (A1I0619-20)				Matrix: Wate	r	Batch:	1090931	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	09/24/21 18:39	EPA 8260D	
Naphthalene	ND	2.00	4.00	ug/L	1	09/24/21 18:39	EPA 8260D	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	09/24/21 18:39	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	09/24/21 18:39	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	09/24/21 18:39	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	09/24/21 18:39	EPA 8260D	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	09/24/21 18:39	EPA 8260D	
Toluene	ND	0.500	1.00	ug/L	1	09/24/21 18:39	EPA 8260D	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	09/24/21 18:39	EPA 8260D	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	09/24/21 18:39	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	09/24/21 18:39	EPA 8260D	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	09/24/21 18:39	EPA 8260D	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	09/24/21 18:39	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	09/24/21 18:39	EPA 8260D	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	09/24/21 18:39	EPA 8260D	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	09/24/21 18:39	EPA 8260D	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	09/24/21 18:39	EPA 8260D	
Vinyl chloride	ND	0.200	0.400	ug/L	1	09/24/21 18:39	EPA 8260D	
m,p-Xylene	ND	0.500	1.00	ug/L	1	09/24/21 18:39	EPA 8260D	
o-Xylene	ND	0.250	0.500	ug/L	1	09/24/21 18:39	EPA 8260D	
Vinyl acetate	ND	5.00	10.0	ug/L	1	09/24/21 18:39	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery:	105 %	Limits: 80-120 %	1	09/24/21 18:39	EPA 8260D	
Toluene-d8 (Surr)			102 %	80-120 %	1	09/24/21 18:39	EPA 8260D	
4-Bromofluorobenzene (Surr)			100 %	80-120 %	1	09/24/21 18:39	EPA 8260D	
TB01-0921 (A1I0619-21)				Matrix: Wate	r	Batch:	1090931	
Acetone	ND	10.0	20.0	ug/L	1	09/24/21 15:56	EPA 8260D	
Acrylonitrile	ND	1.00	2.00	ug/L	1	09/24/21 15:56	EPA 8260D	
Benzene	ND	0.100	0.200	ug/L	1	09/24/21 15:56	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	09/24/21 15:56	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	09/24/21 15:56	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	09/24/21 15:56	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	09/24/21 15:56	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	09/24/21 15:56	EPA 8260D	

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Philip Nerenberg, Lab Director

Philip Nevenberg

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: <u>Eatonville</u>
Project Number: **0171.067**

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

	V	olatile Organ	ic Compound	ds by EPA 8	260D			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
TB01-0921 (A1I0619-21)				Matrix: W	ater	Batch:	1090931	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	09/24/21 15:56	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	09/24/21 15:56	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	09/24/21 15:56	EPA 8260D	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	09/24/21 15:56	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	09/24/21 15:56	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	09/24/21 15:56	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	09/24/21 15:56	EPA 8260D	
Chloroethane	ND	5.00	10.0	ug/L	1	09/24/21 15:56	EPA 8260D	
Chloroform	ND	0.500	1.00	ug/L	1	09/24/21 15:56	EPA 8260D	
Chloromethane	ND	2.50	5.00	ug/L	1	09/24/21 15:56	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	09/24/21 15:56	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	09/24/21 15:56	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	09/24/21 15:56	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	09/24/21 15:56	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	09/24/21 15:56	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	09/24/21 15:56	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	09/24/21 15:56	EPA 8260D	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	09/24/21 15:56	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	09/24/21 15:56	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	09/24/21 15:56	EPA 8260D	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	09/24/21 15:56	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	09/24/21 15:56	EPA 8260D	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	09/24/21 15:56	EPA 8260D	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	09/24/21 15:56	EPA 8260D	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	09/24/21 15:56	EPA 8260D	
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	09/24/21 15:56	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	09/24/21 15:56	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	09/24/21 15:56	EPA 8260D	
,1-Dichloropropene	ND	0.500	1.00	ug/L	1	09/24/21 15:56	EPA 8260D	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	09/24/21 15:56	EPA 8260D	
rans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	09/24/21 15:56	EPA 8260D	
Ethylbenzene	ND	0.250	0.500	ug/L	1	09/24/21 15:56	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	09/24/21 15:56	EPA 8260D	

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

			•	nds by EPA 826	עטי			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
ГВ01-0921 (A1I0619-21)				Matrix: Wate	ır	Batch:	1090931	
2-Hexanone	ND	5.00	10.0	ug/L	1	09/24/21 15:56	EPA 8260D	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	09/24/21 15:56	EPA 8260D	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	09/24/21 15:56	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	09/24/21 15:56	EPA 8260D	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	09/24/21 15:56	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	09/24/21 15:56	EPA 8260D	
Naphthalene	ND	2.00	4.00	ug/L	1	09/24/21 15:56	EPA 8260D	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	09/24/21 15:56	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	09/24/21 15:56	EPA 8260D	
1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	09/24/21 15:56	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	09/24/21 15:56	EPA 8260D	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	09/24/21 15:56	EPA 8260D	
Toluene	ND	0.500	1.00	ug/L	1	09/24/21 15:56	EPA 8260D	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	09/24/21 15:56	EPA 8260D	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	09/24/21 15:56	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	09/24/21 15:56	EPA 8260D	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	09/24/21 15:56	EPA 8260D	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	09/24/21 15:56	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	09/24/21 15:56	EPA 8260D	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	09/24/21 15:56	EPA 8260D	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	09/24/21 15:56	EPA 8260D	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	09/24/21 15:56	EPA 8260D	
Vinyl chloride	ND	0.200	0.400	ug/L	1	09/24/21 15:56	EPA 8260D	
n,p-Xylene	ND	0.500	1.00	ug/L	1	09/24/21 15:56	EPA 8260D	
o-Xylene	ND	0.250	0.500	ug/L	1	09/24/21 15:56	EPA 8260D	
Vinyl acetate	ND	5.00	10.0	ug/L	1	09/24/21 15:56	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recove	ery: 105 %	Limits: 80-120 %	5 1	09/24/21 15:56	EPA 8260D	
Toluene-d8 (Surr)			102 %	80-120 %		09/24/21 15:56	EPA 8260D	
4-Bromofluorobenzene (Surr)			104 %	80-120 %	<i>I</i>	09/24/21 15:56	EPA 8260D	

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

		Polychlorinat	ed Bipheny	ls by EPA 808	2A			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-01-0921 (A1I0619-06)				Matrix: Soil		Batch:	1090703	C-07
Aroclor 1016	ND	0.0245	0.0490	mg/kg dry	1	09/20/21 17:55	EPA 8082A	
Aroclor 1221	ND	0.0245	0.0490	mg/kg dry	1	09/20/21 17:55	EPA 8082A	
Aroclor 1232	ND	0.0245	0.0490	mg/kg dry	1	09/20/21 17:55	EPA 8082A	
Aroclor 1242	ND	0.0245	0.0490	mg/kg dry	1	09/20/21 17:55	EPA 8082A	
Aroclor 1248	ND	0.0245	0.0490	mg/kg dry	1	09/20/21 17:55	EPA 8082A	
Aroclor 1254	0.0704	0.0245	0.0490	mg/kg dry	1	09/20/21 17:55	EPA 8082A	P-09
Aroclor 1260	ND	0.0245	0.0490	mg/kg dry	1	09/20/21 17:55	EPA 8082A	A-01
Surrogate: Decachlorobiphenyl (Surr)		Recov	very: 89 %	Limits: 60-125 %	6 I	09/20/21 17:55	EPA 8082A	
HA-02-0921 (A1I0619-07)		Matrix: Soil Batch: 1090703		1090703	C-07			
Aroclor 1016	ND	0.0158	0.0316	mg/kg dry	1	09/20/21 19:08	EPA 8082A	
Aroclor 1221	ND	0.0158	0.0316	mg/kg dry	1	09/20/21 19:08	EPA 8082A	
Aroclor 1232	ND	0.0158	0.0316	mg/kg dry	1	09/20/21 19:08	EPA 8082A	
Aroclor 1242	ND	0.0158	0.0316	mg/kg dry	1	09/20/21 19:08	EPA 8082A	
Aroclor 1248	ND	0.0158	0.0316	mg/kg dry	1	09/20/21 19:08	EPA 8082A	
Aroclor 1254	ND	0.0158	0.0316	mg/kg dry	1	09/20/21 19:08	EPA 8082A	
Aroclor 1260	ND	0.0158	0.0316	mg/kg dry	1	09/20/21 19:08	EPA 8082A	
Surrogate: Decachlorobiphenyl (Surr)		Recov	very: 66 %	Limits: 60-125 %	6 I	09/20/21 19:08	EPA 8082A	
HA-03-0921 (A1I0619-08)				Matrix: Soil		Batch:	1090703	C-07
Aroclor 1016	ND	0.0206	0.0411	mg/kg dry	1	09/20/21 19:45	EPA 8082A	
Aroclor 1221	ND	0.0206	0.0411	mg/kg dry	1	09/20/21 19:45	EPA 8082A	
Aroclor 1232	ND	0.0206	0.0411	mg/kg dry	1	09/20/21 19:45	EPA 8082A	
Aroclor 1242	ND	0.0206	0.0411	mg/kg dry	1	09/20/21 19:45	EPA 8082A	
Aroclor 1248	ND	0.0206	0.0411	mg/kg dry	1	09/20/21 19:45	EPA 8082A	
Aroclor 1254	ND	0.0206	0.0411	mg/kg dry	1	09/20/21 19:45	EPA 8082A	
Aroclor 1260	ND	0.0206	0.0411	mg/kg dry	1	09/20/21 19:45	EPA 8082A	
Surrogate: Decachlorobiphenyl (Surr)		Recov	very: 75 %	Limits: 60-125 %	6 I	09/20/21 19:45	EPA 8082A	
HA-1003-0921 (A1I0619-09)				Matrix: Soil		Batch:	1090703	C-07
Aroclor 1016	ND	0.0206	0.0412	mg/kg dry	1	09/20/21 20:22	EPA 8082A	
Aroclor 1221	ND	0.0206	0.0412	mg/kg dry	1	09/20/21 20:22	EPA 8082A	
Aroclor 1232	ND	0.0206	0.0412	mg/kg dry	1	09/20/21 20:22	EPA 8082A	

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Philip Nerenberg, Lab Director

Philip Nevenberg

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project Number: Eatonville
Project Number: 0171.067
Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

		Polychlorinat	ed Bipheny	ls by EPA 8082	2 A			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-1003-0921 (A1I0619-09)				Matrix: Soil		Batch:	1090703	C-07
Aroclor 1242	ND	0.0206	0.0412	mg/kg dry	1	09/20/21 20:22	EPA 8082A	
Aroclor 1248	ND	0.0206	0.0412	mg/kg dry	1	09/20/21 20:22	EPA 8082A	
Aroclor 1254	ND	0.0206	0.0412	mg/kg dry	1	09/20/21 20:22	EPA 8082A	
Aroclor 1260	ND	0.0206	0.0412	mg/kg dry	1	09/20/21 20:22	EPA 8082A	
Surrogate: Decachlorobiphenyl (Surr)		Reco	very: 84 %	Limits: 60-125 %	6 I	09/20/21 20:22	EPA 8082A	
DU-01-0921After Processing (A1I0619-11)				Matrix: Soil		Batch:	21J1037	C-07
Aroclor 1016	ND	0.00480	0.00960	mg/kg dry	1	10/28/21 16:55	EPA 8082A	
Aroclor 1221	ND	0.00480	0.00960	mg/kg dry	1	10/28/21 16:55	EPA 8082A	
Aroclor 1232	ND	0.00480	0.00960	mg/kg dry	1	10/28/21 16:55	EPA 8082A	
Aroclor 1242	ND	0.00480	0.00960	mg/kg dry	1	10/28/21 16:55	EPA 8082A	
Aroclor 1248	ND	0.00480	0.00960	mg/kg dry	1	10/28/21 16:55	EPA 8082A	
Aroclor 1254	ND	0.00480	0.00960	mg/kg dry	1	10/28/21 16:55	EPA 8082A	
Aroclor 1260	ND	0.00960	0.00960	mg/kg dry	1	10/28/21 16:55	EPA 8082A	
Surrogate: Decachlorobiphenyl (Surr)		Recon	very: 91 %	Limits: 60-125 %	6 1	10/28/21 16:55	EPA 8082A	
DU-02-0921After Processing (A1I061	19-13)			Matrix: Soil		Batch:	21J1037	C-07
Aroclor 1016	ND	0.0101	0.0101	mg/kg dry	1	10/28/21 18:05	EPA 8082A	
Aroclor 1221	ND	0.00505	0.0101	mg/kg dry	1	10/28/21 18:05	EPA 8082A	
Aroclor 1232	ND	0.0101	0.0101	mg/kg dry	1	10/28/21 18:05	EPA 8082A	
Aroclor 1242	ND	0.0101	0.0101	mg/kg dry	1	10/28/21 18:05	EPA 8082A	
Aroclor 1248	ND	0.0172	0.0172	mg/kg dry	1	10/28/21 18:05	EPA 8082A	R-02
Aroclor 1254	ND	0.0556	0.0556	mg/kg dry	1	10/28/21 18:05	EPA 8082A	R-02
Aroclor 1260	0.0319	0.00505	0.0101	mg/kg dry	1	10/28/21 18:05	EPA 8082A	P-09
Surrogate: Decachlorobiphenyl (Surr)		Reco	very: 89 %	Limits: 60-125 %	6 1	10/28/21 18:05	EPA 8082A	
B18-9-10-0921 (A1l0619-14)				Matrix: Soil		Batch:	1090703	C-07
Aroclor 1016	ND	0.0128	0.0128	mg/kg dry	1	09/20/21 17:18	EPA 8082A	R-02
Aroclor 1221	ND	0.0547	0.0547	mg/kg dry	1	09/20/21 17:18	EPA 8082A	R-02
Aroclor 1232	ND	0.0326	0.0326	mg/kg dry	1	09/20/21 17:18	EPA 8082A	R-02
Aroclor 1242	ND	0.0169	0.0169	mg/kg dry	1	09/20/21 17:18	EPA 8082A	R-02
Aroclor 1248	ND	0.0116	0.0116	mg/kg dry	1	09/20/21 17:18	EPA 8082A	
Aroclor 1254	ND	0.0332	0.0332	mg/kg dry	1	09/20/21 17:18	EPA 8082A	R-02

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project Number: Eatonville
Project Number: 0171.067
Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

		Polychlorinat Polychlorinat	ed Bipheny	ls by EPA 808	2A			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SB18-9-10-0921 (A1I0619-14)				Matrix: Soil		Batch:	1090703	C-07
Aroclor 1260	ND	0.0268	0.0268	mg/kg dry	1	09/20/21 17:18	EPA 8082A	R-02
Surrogate: Decachlorobiphenyl (Surr)		Recov	very: 84 %	Limits: 60-125 %	6 I	09/20/21 17:18	EPA 8082A	
B01-0921 (A1I0619-15)				Matrix: Wat	er	Batch: 1091107		C-07
Aroclor 1016	ND	0.0595	0.119	ug/L	1	09/29/21 18:34	EPA 8082A	
Aroclor 1221	ND	0.0595	0.119	ug/L	1	09/29/21 18:34	EPA 8082A	
Aroclor 1232	ND	0.0595	0.119	ug/L	1	09/29/21 18:34	EPA 8082A	
Aroclor 1242	ND	0.0595	0.119	ug/L	1	09/29/21 18:34	EPA 8082A	
Aroclor 1248	ND	0.0595	0.119	ug/L	1	09/29/21 18:34	EPA 8082A	
Aroclor 1254	ND	0.0595	0.119	ug/L	1	09/29/21 18:34	EPA 8082A	
Aroclor 1260	ND	0.0595	0.119	ug/L	1	09/29/21 18:34	EPA 8082A	
Surrogate: Decachlorobiphenyl (Surr)		Recov	very: 68 %	Limits: 40-135 %	6 I	09/29/21 18:34	EPA 8082A	
B02-0921 (A1I0619-16)				Matrix: Wat	er	Batch:	1091107	C-07
Aroclor 1016	ND	0.0893	0.179	ug/L	1	09/29/21 17:23	EPA 8082A	
Aroclor 1221	ND	0.0893	0.179	ug/L	1	09/29/21 17:23	EPA 8082A	
Aroclor 1232	ND	0.0893	0.179	ug/L	1	09/29/21 17:23	EPA 8082A	
Aroclor 1242	ND	0.0893	0.179	ug/L	1	09/29/21 17:23	EPA 8082A	
Aroclor 1248	ND	0.0893	0.179	ug/L	1	09/29/21 17:23	EPA 8082A	
Aroclor 1254	ND	0.0893	0.179	ug/L	1	09/29/21 17:23	EPA 8082A	
Aroclor 1260	ND	0.0893	0.179	ug/L	1	09/29/21 17:23	EPA 8082A	
Surrogate: Decachlorobiphenyl (Surr)		Recov	very: 84 %	Limits: 40-135 %	6 I	09/29/21 17:23	EPA 8082A	
W04-0921 (A1I0619-17)				Matrix: Wat	er	Batch:	1091107	C-07
Aroclor 1016	ND	0.0476	0.0952	ug/L	1	09/29/21 17:41	EPA 8082A	
Aroclor 1221	ND	0.0476	0.0952	ug/L	1	09/29/21 17:41	EPA 8082A	
Aroclor 1232	ND	0.0476	0.0952	ug/L	1	09/29/21 17:41	EPA 8082A	
Aroclor 1242	ND	0.0476	0.0952	ug/L	1	09/29/21 17:41	EPA 8082A	
Aroclor 1248	ND	0.0476	0.0952	ug/L	1	09/29/21 17:41	EPA 8082A	
Aroclor 1254	ND	0.0476	0.0952	ug/L	1	09/29/21 17:41	EPA 8082A	
Aroclor 1260	ND	0.0476	0.0952	ug/L	1	09/29/21 17:41	EPA 8082A	
Surrogate: Decachlorobiphenyl (Surr)		Recov	very: 70 %	Limits: 40-135 %	6 I	09/29/21 17:41	EPA 8082A	

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Philip Nerenberg, Lab Director

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project Number: Eatonville
Project Number: 0171.067
Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

		Polychlorinate	ed Bipheny	ls by EPA 8082	Α			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Note
SW05-0921 (A1I0619-18)				Matrix: Wate	r	Batch:	1091107	C-07
Aroclor 1016	ND	0.0476	0.0952	ug/L	1	09/29/21 17:59	EPA 8082A	
Aroclor 1221	ND	0.0476	0.0952	ug/L	1	09/29/21 17:59	EPA 8082A	
Aroclor 1232	ND	0.0476	0.0952	ug/L	1	09/29/21 17:59	EPA 8082A	
Aroclor 1242	ND	0.0476	0.0952	ug/L	1	09/29/21 17:59	EPA 8082A	
Aroclor 1248	ND	0.0476	0.0952	ug/L	1	09/29/21 17:59	EPA 8082A	
Aroclor 1254	ND	0.0476	0.0952	ug/L	1	09/29/21 17:59	EPA 8082A	
Aroclor 1260	ND	0.0476	0.0952	ug/L	1	09/29/21 17:59	EPA 8082A	
Surrogate: Decachlorobiphenyl (Surr)		Recove	ery: 89 %	Limits: 40-135 %	1	09/29/21 17:59	EPA 8082A	
SW06-0921 (A1I0619-19)					r	Batch: 1091107		C-07
Aroclor 1016	ND	0.0472	0.0943	ug/L	1	09/29/21 18:16	EPA 8082A	
Aroclor 1221	ND	0.0472	0.0943	ug/L	1	09/29/21 18:16	EPA 8082A	
Aroclor 1232	ND	0.0472	0.0943	ug/L	1	09/29/21 18:16	EPA 8082A	
Aroclor 1242	ND	0.0472	0.0943	ug/L	1	09/29/21 18:16	EPA 8082A	
Aroclor 1248	ND	0.0472	0.0943	ug/L	1	09/29/21 18:16	EPA 8082A	
Aroclor 1254	ND	0.0943	0.0943	ug/L	1	09/29/21 18:16	EPA 8082A	
Aroclor 1260	ND	0.0472	0.0943	ug/L	1	09/29/21 18:16	EPA 8082A	
Surrogate: Decachlorobiphenyl (Surr)		Recove	ery: 83 %	Limits: 40-135 %	1	09/29/21 18:16	EPA 8082A	
SW1006-0921 (A1I0619-20)				Matrix: Wate	r	Batch:	1091107	C-07
Aroclor 1016	ND	0.0481	0.0962	ug/L	1	09/29/21 18:34	EPA 8082A	
Aroclor 1221	ND	0.0481	0.0962	ug/L	1	09/29/21 18:34	EPA 8082A	
Aroclor 1232	ND	0.0481	0.0962	ug/L	1	09/29/21 18:34	EPA 8082A	
Aroclor 1242	ND	0.0481	0.0962	ug/L	1	09/29/21 18:34	EPA 8082A	
Aroclor 1248	ND	0.0481	0.0962	ug/L	1	09/29/21 18:34	EPA 8082A	
Aroclor 1254	ND	0.0481	0.0962	ug/L	1	09/29/21 18:34	EPA 8082A	
Aroclor 1260	ND	0.0481	0.0962	ug/L	1	09/29/21 18:34	EPA 8082A	
Surrogate: Decachlorobiphenyl (Surr)		Recove	ery: 79 %	Limits: 40-135 %	1	09/29/21 18:34	EPA 8082A	

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Philip Nerenberg, Lab Director

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: <u>Eatonville</u>
Project Number: **0171.067**

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

	Sen	involatile Org	ань сопро	unds by EPA	UZ I UE			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-01-0921 (A1I0619-06RE1)				Matrix: Soil	1	Batch:	1090986	
Acenaphthene	ND	0.0663	0.133	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
Acenaphthylene	ND	0.0663	0.133	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
Anthracene	ND	0.0663	0.133	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
Benz(a)anthracene	0.0833	0.0663	0.133	mg/kg dry	20	09/27/21 16:55	EPA 8270E	J, Q-42
Benzo(a)pyrene	0.111	0.0997	0.199	mg/kg dry	20	09/27/21 16:55	EPA 8270E	J, Q-42
Benzo(b)fluoranthene	0.112	0.0997	0.199	mg/kg dry	20	09/27/21 16:55	EPA 8270E	J, Q-42
Benzo(k)fluoranthene	ND	0.0997	0.199	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
Benzo(g,h,i)perylene	0.0739	0.0663	0.133	mg/kg dry	20	09/27/21 16:55	EPA 8270E	J, Q-42
Chrysene	0.142	0.0663	0.133	mg/kg dry	20	09/27/21 16:55	EPA 8270E	Q-42
Dibenz(a,h)anthracene	ND	0.0663	0.133	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
Fluoranthene	0.242	0.0663	0.133	mg/kg dry	20	09/27/21 16:55	EPA 8270E	Q-42
Fluorene	ND	0.0663	0.133	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
Indeno(1,2,3-cd)pyrene	ND	0.0663	0.133	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
1-Methylnaphthalene	ND	0.133	0.266	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
2-Methylnaphthalene	ND	0.133	0.266	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
Naphthalene	0.265	0.133	0.266	mg/kg dry	20	09/27/21 16:55	EPA 8270E	J, Q-42
Phenanthrene	0.397	0.0663	0.133	mg/kg dry	20	09/27/21 16:55	EPA 8270E	Q-42
Pyrene	0.173	0.0663	0.133	mg/kg dry	20	09/27/21 16:55	EPA 8270E	Q-42
Carbazole	ND	0.0997	0.199	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
Dibenzofuran	ND	0.0663	0.133	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
2-Chlorophenol	ND	0.333	0.663	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
4-Chloro-3-methylphenol	ND	0.663	1.33	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
2,4-Dichlorophenol	ND	0.333	0.663	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
2,4-Dimethylphenol	ND	0.333	0.663	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
2,4-Dinitrophenol	ND	1.66	3.33	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
4,6-Dinitro-2-methylphenol	ND	1.66	3.33	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
2-Methylphenol	ND	0.166	0.333	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
3+4-Methylphenol(s)	ND	0.166	0.333	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
2-Nitrophenol	ND	0.663	1.33	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
4-Nitrophenol	ND	0.663	1.33	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
Pentachlorophenol (PCP)	ND	0.663	1.33	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
Phenol	0.179	0.133	0.266	mg/kg dry	20	09/27/21 16:55	EPA 8270E	J, Q-42
2,3,4,6-Tetrachlorophenol	ND	0.333	0.663	mg/kg dry	20	09/27/21 16:55	EPA 8270E	-

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Philip Nerenberg, Lab Director

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID: A1I0619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

	Sem	ivolatile Org	anic Compo	unds by EPA	8270E			
	Sample	Detection	Reporting	_ _ _		Date	_ 	
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
HA-01-0921 (A1I0619-06RE1)				Matrix: Soil	ı	Batch:	1090986	
2,3,5,6-Tetrachlorophenol	ND	0.333	0.663	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
2,4,5-Trichlorophenol	ND	0.333	0.663	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
Nitrobenzene	ND	0.663	1.33	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
2,4,6-Trichlorophenol	ND	0.333	0.663	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
Bis(2-ethylhexyl)phthalate	ND	0.997	1.99	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
Butyl benzyl phthalate	1.99	0.663	1.33	mg/kg dry	20	09/27/21 16:55	EPA 8270E	Q-42
Diethylphthalate	ND	0.663	1.33	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
Dimethylphthalate	ND	0.663	1.33	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
Di-n-butylphthalate	ND	0.663	1.33	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
Di-n-octyl phthalate	ND	0.663	1.33	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
N-Nitrosodimethylamine	ND	0.166	0.333	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
N-Nitroso-di-n-propylamine	ND	0.166	0.333	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
N-Nitrosodiphenylamine	ND	0.166	0.333	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
Bis(2-Chloroethoxy) methane	ND	0.166	0.333	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
Bis(2-Chloroethyl) ether	ND	0.166	0.333	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
2,2'-Oxybis(1-Chloropropane)	ND	0.166	0.333	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
Hexachlorobenzene	ND	0.0663	0.133	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
Hexachlorobutadiene	ND	0.166	0.333	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
Hexachlorocyclopentadiene	ND	0.333	0.663	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
Hexachloroethane	ND	0.166	0.333	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
2-Chloronaphthalene	ND	0.0663	0.133	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
1,2,4-Trichlorobenzene	ND	0.166	0.333	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
4-Bromophenyl phenyl ether	ND	0.166	0.333	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
4-Chlorophenyl phenyl ether	ND	0.166	0.333	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
Aniline	ND	0.333	0.663	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
4-Chloroaniline	ND	0.166	0.333	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
2-Nitroaniline	ND	1.33	2.66	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
3-Nitroaniline	ND	1.33	2.66	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
4-Nitroaniline	ND	1.33	2.66	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
2,4-Dinitrotoluene	ND	0.663	1.33	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
2,6-Dinitrotoluene	ND	0.663	1.33	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
Benzoic acid	ND	8.33	16.6	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
Benzyl alcohol	ND	0.663	0.663	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
•		-	-					

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Note
IA-01-0921 (A1I0619-06RE1)				Matrix: Soil		Batch:	1090986	
Isophorone	ND	0.166	0.333	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
Azobenzene (1,2-DPH)	ND	0.166	0.333	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
Bis(2-Ethylhexyl) adipate	ND	1.66	3.33	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
3,3'-Dichlorobenzidine	ND	1.33	2.66	mg/kg dry	20	09/27/21 16:55	EPA 8270E	Q-5
1,2-Dinitrobenzene	ND	1.66	3.33	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
1,3-Dinitrobenzene	ND	1.66	3.33	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
1,4-Dinitrobenzene	ND	1.66	3.33	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
Pyridine	ND	0.333	0.663	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
1,2-Dichlorobenzene	ND	0.166	0.333	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
1,3-Dichlorobenzene	ND	0.166	0.333	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
1,4-Dichlorobenzene	ND	0.166	0.333	mg/kg dry	20	09/27/21 16:55	EPA 8270E	
Surrogate: Nitrobenzene-d5 (Surr)		Reco	very: 63 %	Limits: 37-122 %	20	09/27/21 16:55	EPA 8270E	
2-Fluorobiphenyl (Surr)			74 %	44-120 %	20	09/27/21 16:55	EPA 8270E	
Phenol-d6 (Surr)			58 %	33-122 %	20	09/27/21 16:55	EPA 8270E	
p-Terphenyl-d14 (Surr)			74 %	54-127 %	20	09/27/21 16:55	EPA 8270E	
2-Fluorophenol (Surr)			52 %	35-120 %	20	09/27/21 16:55	EPA 8270E	
2,4,6-Tribromophenol (Surr)			97 %	39-132 %	20	09/27/21 16:55	EPA 8270E	
IA-02-0921 (A1I0619-07)				Matrix: Soil		Batch:	1090986	R-04
Acenaphthene	ND	0.0427	0.0858	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
Acenaphthylene	ND	0.0427	0.0858	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
Anthracene	ND	0.0427	0.0858	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
Benz(a)anthracene	ND	0.0427	0.0858	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
Benzo(a)pyrene	0.0687	0.0642	0.128	mg/kg dry	10	09/27/21 15:45	EPA 8270E	J
Benzo(b)fluoranthene	ND	0.0642	0.128	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
Benzo(k)fluoranthene	ND	0.0642	0.128	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
Benzo(g,h,i)perylene	ND	0.0427	0.0858	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
Chrysene	ND	0.0427	0.0858	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
Dibenz(a,h)anthracene	ND	0.0427	0.0858	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
Fluoranthene	ND	0.0427	0.0858	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
Fluorene	ND	0.0427	0.0858	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
Indeno(1,2,3-cd)pyrene	ND	0.0427	0.0858	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
1-Methylnaphthalene	ND	0.0858	0.171	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
		0.0000	0.1,1	d J				

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Philip Nerenberg, Lab Director

Philip Nevenberg

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

	Self		anic Compo	unus by EFA	JEI VE			
Analysta	Sample Result	Detection Limit	Reporting Limit	I I.: !+-	D:1-4:	Date Analyzed	Matha 1 D. C	NT 4
Analyte	Kesult	riitilt	LIIIII	Units	Dilution		Method Ref.	Notes
IA-02-0921 (A1I0619-07)				Matrix: Soi	l	Batch:	1090986	R-04
Naphthalene	ND	0.0858	0.171	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
Phenanthrene	ND	0.0427	0.0858	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
Pyrene	0.0551	0.0427	0.0858	mg/kg dry	10	09/27/21 15:45	EPA 8270E	J
Carbazole	ND	0.0642	0.128	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
Dibenzofuran	ND	0.0427	0.0858	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
2-Chlorophenol	ND	0.214	0.427	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
4-Chloro-3-methylphenol	ND	0.427	0.858	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
2,4-Dichlorophenol	ND	0.214	0.427	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
2,4-Dimethylphenol	ND	0.214	0.427	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
2,4-Dinitrophenol	ND	1.07	2.14	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
4,6-Dinitro-2-methylphenol	ND	1.07	2.14	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
2-Methylphenol	ND	0.107	0.214	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
3+4-Methylphenol(s)	ND	0.107	0.214	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
2-Nitrophenol	ND	0.427	0.858	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
4-Nitrophenol	ND	0.427	0.858	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
Pentachlorophenol (PCP)	ND	0.427	0.858	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
Phenol	0.0860	0.0858	0.171	mg/kg dry	10	09/27/21 15:45	EPA 8270E	J
2,3,4,6-Tetrachlorophenol	ND	0.214	0.427	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
2,3,5,6-Tetrachlorophenol	ND	0.214	0.427	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
2,4,5-Trichlorophenol	ND	0.214	0.427	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
Nitrobenzene	ND	0.427	0.858	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
2,4,6-Trichlorophenol	ND	0.214	0.427	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
Bis(2-ethylhexyl)phthalate	ND	0.642	1.28	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
Butyl benzyl phthalate	ND	0.427	0.858	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
Diethylphthalate	ND	0.427	0.858	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
Dimethylphthalate	ND	0.427	0.858	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
Di-n-butylphthalate	ND	0.427	0.858	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
Di-n-octyl phthalate	ND	0.427	0.858	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
N-Nitrosodimethylamine	ND	0.107	0.214	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
N-Nitroso-di-n-propylamine	ND	0.107	0.214	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
N-Nitrosodiphenylamine	ND	0.107	0.214	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
Bis(2-Chloroethoxy) methane	ND	0.107	0.214	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
Bis(2-Chloroethyl) ether	ND	0.214	0.214	mg/kg dry	10	09/27/21 15:45	EPA 8270E	

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Philip Nerenberg, Lab Director

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

			-	ounds by EPA 8				
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
IA-02-0921 (A1l0619-07)				Matrix: Soil		Batch:	1090986	R-04
2,2'-Oxybis(1-Chloropropane)	ND	0.107	0.214	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
Hexachlorobenzene	ND	0.0427	0.0858	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
Hexachlorobutadiene	ND	0.107	0.214	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
Hexachlorocyclopentadiene	ND	0.214	0.427	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
Hexachloroethane	ND	0.107	0.214	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
2-Chloronaphthalene	ND	0.0427	0.0858	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
1,2,4-Trichlorobenzene	ND	0.107	0.214	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
4-Bromophenyl phenyl ether	ND	0.107	0.214	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
4-Chlorophenyl phenyl ether	ND	0.107	0.214	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
Aniline	ND	0.427	0.427	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
4-Chloroaniline	ND	0.107	0.214	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
2-Nitroaniline	ND	0.858	1.71	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
3-Nitroaniline	ND	0.858	1.71	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
4-Nitroaniline	ND	0.858	1.71	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
2,4-Dinitrotoluene	ND	0.427	0.858	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
2,6-Dinitrotoluene	ND	0.427	0.858	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
Benzoic acid	ND	5.36	10.7	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
Benzyl alcohol	ND	0.214	0.427	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
Isophorone	ND	0.107	0.214	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
Azobenzene (1,2-DPH)	ND	0.107	0.214	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
Bis(2-Ethylhexyl) adipate	ND	1.07	2.14	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
3,3'-Dichlorobenzidine	ND	0.858	1.71	mg/kg dry	10	09/27/21 15:45	EPA 8270E	Q-52
1,2-Dinitrobenzene	ND	1.07	2.14	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
1,3-Dinitrobenzene	ND	1.07	2.14	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
1,4-Dinitrobenzene	ND	1.07	2.14	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
Pyridine	ND	0.214	0.427	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
1,2-Dichlorobenzene	ND	0.107	0.214	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
1,3-Dichlorobenzene	ND	0.107	0.214	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
1,4-Dichlorobenzene	ND	0.107	0.214	mg/kg dry	10	09/27/21 15:45	EPA 8270E	
Surrogate: Nitrobenzene-d5 (Surr)		Reco	very: 69 %	Limits: 37-122 %	10	09/27/21 15:45	EPA 8270E	
2-Fluorobiphenyl (Surr)			76 %	44-120 %		09/27/21 15:45	EPA 8270E	
Phenol-d6 (Surr)			61 %	33-122 %	10	09/27/21 15:45	EPA 8270E	
p-Terphenyl-d14 (Surr)			75 %	54-127 %		09/27/21 15:45	EPA 8270E	
2-Fluorophenol (Surr)			58 %	35-120 %	10	09/27/21 15:45	EPA 8270E	

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Philip Nerenberg, Lab Director

Philip Nevenberg

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID: A1I0619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

		nivolatile Orga						
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-02-0921 (A1I0619-07)				Matrix: Soil		Batch:	Batch: 1090986	
Surrogate: 2,4,6-Tribromophenol (Surr)		Recovery	: 103 %	Limits: 39-132 %	10	09/27/21 15:45	EPA 8270E	
HA-03-0921 (A1l0619-08)				Matrix: Soil		Batch:	1090986	R-04
Acenaphthene	ND	0.0534	0.107	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
Acenaphthylene	ND	0.0534	0.107	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
Anthracene	ND	0.0534	0.107	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
Benz(a)anthracene	ND	0.0534	0.107	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
Benzo(a)pyrene	ND	0.0803	0.161	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
Benzo(b)fluoranthene	ND	0.0803	0.161	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
Benzo(k)fluoranthene	ND	0.0803	0.161	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
Benzo(g,h,i)perylene	ND	0.0534	0.107	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
Chrysene	ND	0.0534	0.107	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
Dibenz(a,h)anthracene	ND	0.0534	0.107	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
Fluoranthene	ND	0.0534	0.107	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
Fluorene	ND	0.0534	0.107	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
Indeno(1,2,3-cd)pyrene	ND	0.0534	0.107	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
1-Methylnaphthalene	ND	0.107	0.214	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
2-Methylnaphthalene	ND	0.107	0.214	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
Naphthalene	ND	0.107	0.214	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
Phenanthrene	ND	0.0534	0.107	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
Pyrene	ND	0.0534	0.107	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
Carbazole	ND	0.0803	0.161	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
Dibenzofuran	ND	0.0534	0.107	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
2-Chlorophenol	ND	0.268	0.534	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
4-Chloro-3-methylphenol	ND	0.534	1.07	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
2,4-Dichlorophenol	ND	0.268	0.534	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
2,4-Dimethylphenol	ND	0.268	0.534	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
2,4-Dinitrophenol	ND	1.34	2.68	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
4,6-Dinitro-2-methylphenol	ND	1.34	2.68	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
2-Methylphenol	ND	0.134	0.268	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
3+4-Methylphenol(s)	0.198	0.134	0.268	mg/kg dry	10	09/27/21 16:20	EPA 8270E	J
2-Nitrophenol	ND	0.534	1.07	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
4-Nitrophenol	ND	0.534	1.07	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
Pentachlorophenol (PCP)	ND	0.534	1.07	mg/kg dry	10	09/27/21 16:20	EPA 8270E	

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Philip Nerenberg, Lab Director



Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

	Sen	nivolatile Org	anic Compo	unds by EPA	8270E			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Note
HA-03-0921 (A1I0619-08)				Matrix: Soi		Batch:	1090986	R-04
Phenol	0.169	0.107	0.214	mg/kg dry	10	09/27/21 16:20	EPA 8270E	J
2,3,4,6-Tetrachlorophenol	ND	0.268	0.534	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
2,3,5,6-Tetrachlorophenol	ND	0.268	0.534	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
2,4,5-Trichlorophenol	ND	0.268	0.534	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
Nitrobenzene	ND	0.534	1.07	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
2,4,6-Trichlorophenol	ND	0.268	0.534	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
Bis(2-ethylhexyl)phthalate	ND	0.803	1.61	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
Butyl benzyl phthalate	ND	0.534	1.07	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
Diethylphthalate	ND	0.534	1.07	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
Dimethylphthalate	ND	0.534	1.07	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
Di-n-butylphthalate	ND	0.534	1.07	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
Di-n-octyl phthalate	ND	0.534	1.07	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
N-Nitrosodimethylamine	ND	0.134	0.268	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
N-Nitroso-di-n-propylamine	ND	0.134	0.268	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
N-Nitrosodiphenylamine	ND	0.134	0.268	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
Bis(2-Chloroethoxy) methane	ND	0.134	0.268	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
Bis(2-Chloroethyl) ether	ND	0.482	0.482	mg/kg dry	10	09/27/21 16:20	EPA 8270E	R-02
2,2'-Oxybis(1-Chloropropane)	ND	0.134	0.268	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
Hexachlorobenzene	ND	0.0534	0.107	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
Hexachlorobutadiene	ND	0.134	0.268	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
Hexachlorocyclopentadiene	ND	0.268	0.534	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
Hexachloroethane	ND	0.134	0.268	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
2-Chloronaphthalene	ND	0.0534	0.107	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
1,2,4-Trichlorobenzene	ND	0.134	0.268	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
4-Bromophenyl phenyl ether	ND	0.134	0.268	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
4-Chlorophenyl phenyl ether	ND	0.134	0.268	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
Aniline	ND	0.268	0.534	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
4-Chloroaniline	ND	0.134	0.268	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
2-Nitroaniline	ND	1.07	2.14	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
3-Nitroaniline	ND	1.07	2.14	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
4-Nitroaniline	ND	1.07	2.14	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
2,4-Dinitrotoluene	ND	0.534	1.07	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
2,6-Dinitrotoluene	ND	0.534	1.07	mg/kg dry	10	09/27/21 16:20	EPA 8270E	

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Philip Nerenberg, Lab Director

Philip Nevenberg

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

	Sem	nivolatile Org	anic Compo	ounds by EPA 8	270E			
	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
HA-03-0921 (A1l0619-08)				Matrix: Soil		Batch:	1090986	R-04
Benzoic acid	7.73	6.71	13.4	mg/kg dry	10	09/27/21 16:20	EPA 8270E	J
Benzyl alcohol	ND	0.268	0.534	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
Isophorone	ND	0.134	0.268	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
Azobenzene (1,2-DPH)	ND	0.134	0.268	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
Bis(2-Ethylhexyl) adipate	ND	1.34	2.68	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
3,3'-Dichlorobenzidine	ND	1.07	2.14	mg/kg dry	10	09/27/21 16:20	EPA 8270E	Q-52
1,2-Dinitrobenzene	ND	1.34	2.68	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
1,3-Dinitrobenzene	ND	1.34	2.68	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
1,4-Dinitrobenzene	ND	1.34	2.68	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
Pyridine	ND	0.268	0.534	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
1,2-Dichlorobenzene	ND	0.134	0.268	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
1,3-Dichlorobenzene	ND	0.134	0.268	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
1,4-Dichlorobenzene	ND	0.134	0.268	mg/kg dry	10	09/27/21 16:20	EPA 8270E	
Surrogate: Nitrobenzene-d5 (Surr)		Reco	very: 85 %	Limits: 37-122 %	10	09/27/21 16:20	EPA 8270E	
2-Fluorobiphenyl (Surr)			92 %	44-120 %	10	09/27/21 16:20	EPA 8270E	
Phenol-d6 (Surr)			82 %	33-122 %		09/27/21 16:20	EPA 8270E	
p-Terphenyl-d14 (Surr)			88 %	54-127 %		09/27/21 16:20	EPA 8270E	
2-Fluorophenol (Surr)			68 %	35-120 %		09/27/21 16:20	EPA 8270E	
2,4,6-Tribromophenol (Surr)			114 %	39-132 %	10	09/27/21 16:20	EPA 8270E	
HA-1003-0921 (A1I0619-09)				Matrix: Soil		Batch:	1090986	R-04
Acenaphthene	ND	0.108	0.218	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
Acenaphthylene	ND	0.108	0.218	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
Anthracene	ND	0.108	0.218	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
Benz(a)anthracene	ND	0.108	0.218	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
Benzo(a)pyrene	ND	0.163	0.326	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
Benzo(b)fluoranthene	ND	0.163	0.326	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
Benzo(k)fluoranthene	ND	0.163	0.326	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
Benzo(g,h,i)perylene	ND	0.108	0.218	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
Chrysene	ND	0.108	0.218	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
Dibenz(a,h)anthracene	ND	0.108	0.218	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
Fluoranthene	ND	0.108	0.218	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
Fluorene	ND	0.108	0.218	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
Indeno(1,2,3-cd)pyrene	ND	0.108	0.218	mg/kg dry	20	09/27/21 14:35	EPA 8270E	

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Philip Nerenberg, Lab Director

Philip Nevenberg

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: <u>Eatonville</u>
Project Number: **0171.067**

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

		nivolatile Org	•	ands by EPA	OF LOE			
Amaluta	Sample	Detection	Reporting	T T 14	D:1+	Date	Modle - J.D. C	NT 4
Analyte	Result	Limit	Limit	Units	Dilution .	Analyzed	Method Ref.	Notes
HA-1003-0921 (A1I0619-09)				Matrix: Soil	<u> </u>	Batch:	1090986	R-04
1-Methylnaphthalene	ND	0.218	0.435	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
2-Methylnaphthalene	ND	0.218	0.435	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
Naphthalene	ND	0.218	0.435	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
Phenanthrene	ND	0.108	0.218	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
Pyrene	ND	0.108	0.218	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
Carbazole	ND	0.163	0.326	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
Dibenzofuran	ND	0.108	0.218	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
2-Chlorophenol	ND	0.544	1.08	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
4-Chloro-3-methylphenol	ND	1.08	2.18	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
2,4-Dichlorophenol	ND	0.544	1.08	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
2,4-Dimethylphenol	ND	0.544	1.08	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
2,4-Dinitrophenol	ND	2.72	5.44	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
4,6-Dinitro-2-methylphenol	ND	2.72	5.44	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
2-Methylphenol	ND	0.272	0.544	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
3+4-Methylphenol(s)	ND	0.272	0.544	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
2-Nitrophenol	ND	1.08	2.18	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
4-Nitrophenol	ND	1.08	2.18	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
Pentachlorophenol (PCP)	ND	1.08	2.18	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
Phenol	ND	0.218	0.435	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
2,3,4,6-Tetrachlorophenol	ND	0.544	1.08	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
2,3,5,6-Tetrachlorophenol	ND	0.544	1.08	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
2,4,5-Trichlorophenol	ND	0.544	1.08	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
Nitrobenzene	ND	1.08	2.18	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
2,4,6-Trichlorophenol	ND	0.544	1.08	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
Bis(2-ethylhexyl)phthalate	ND	1.63	3.26	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
Butyl benzyl phthalate	ND	1.08	2.18	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
Diethylphthalate	ND	1.08	2.18	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
Dimethylphthalate	ND	1.08	2.18	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
Di-n-butylphthalate	ND	1.08	2.18	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
Di-n-octyl phthalate	ND	1.08	2.18	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
N-Nitrosodimethylamine	ND	0.272	0.544	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
N-Nitroso-di-n-propylamine	ND	0.272	0.544	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
N-Nitrosodiphenylamine	ND	0.272	0.544	mg/kg dry	20	09/27/21 14:35	EPA 8270E	

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Philip Nerenberg, Lab Director

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

	Sen	nivolatile Org	anic Compo	ounds by EPA 8	3270E			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-1003-0921 (A1I0619-09)				Matrix: Soil		Batch:	1090986	R-04
Bis(2-Chloroethoxy) methane	ND	0.272	0.544	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
Bis(2-Chloroethyl) ether	ND	0.571	0.571	mg/kg dry	20	09/27/21 14:35	EPA 8270E	R-02
2,2'-Oxybis(1-Chloropropane)	ND	0.272	0.544	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
Hexachlorobenzene	ND	0.108	0.218	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
Hexachlorobutadiene	ND	0.272	0.544	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
Hexachlorocyclopentadiene	ND	0.544	1.08	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
Hexachloroethane	ND	0.272	0.544	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
2-Chloronaphthalene	ND	0.108	0.218	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
1,2,4-Trichlorobenzene	ND	0.272	0.544	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
4-Bromophenyl phenyl ether	ND	0.272	0.544	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
4-Chlorophenyl phenyl ether	ND	0.272	0.544	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
Aniline	ND	0.544	1.08	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
4-Chloroaniline	ND	0.272	0.544	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
2-Nitroaniline	ND	2.18	4.35	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
3-Nitroaniline	ND	2.18	4.35	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
4-Nitroaniline	ND	2.18	4.35	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
2,4-Dinitrotoluene	ND	1.08	2.18	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
2,6-Dinitrotoluene	ND	1.08	2.18	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
Benzoic acid	ND	13.6	27.2	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
Benzyl alcohol	ND	0.544	1.08	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
Isophorone	ND	0.272	0.544	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
Azobenzene (1,2-DPH)	ND	0.272	0.544	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
Bis(2-Ethylhexyl) adipate	ND	2.72	5.44	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
3,3'-Dichlorobenzidine	ND	2.18	4.35	mg/kg dry	20	09/27/21 14:35	EPA 8270E	Q-52
1,2-Dinitrobenzene	ND	2.72	5.44	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
1,3-Dinitrobenzene	ND	2.72	5.44	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
1,4-Dinitrobenzene	ND	2.72	5.44	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
Pyridine	ND	0.544	1.08	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
1,2-Dichlorobenzene	ND	0.272	0.544	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
1,3-Dichlorobenzene	ND	0.272	0.544	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
1,4-Dichlorobenzene	ND	0.272	0.544	mg/kg dry	20	09/27/21 14:35	EPA 8270E	
Surrogate: Nitrobenzene-d5 (Surr)		Reco	very: 82 %	Limits: 37-122 %	20	09/27/21 14:35	EPA 8270E	
2-Fluorobiphenyl (Surr)			95 %	44-120 %	20	09/27/21 14:35	EPA 8270E	

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Philip Nerenberg, Lab Director

Philip Nevenberg

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project Number: Eatonville
Project Number: 0171.067
Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

	Sen	nivolatile Org	anic Compo	ounds by EPA 8	270E			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-1003-0921 (A1I0619-09)				Matrix: Soil		Batch:	1090986	R-04
Surrogate: Phenol-d6 (Surr)		Reco	very: 69 %	Limits: 33-122 %	20	09/27/21 14:35	EPA 8270E	
p-Terphenyl-d14 (Surr)			87 %	54-127 %	20	09/27/21 14:35	EPA 8270E	
2-Fluorophenol (Surr)			72 %	35-120 %	20	09/27/21 14:35	EPA 8270E	
2,4,6-Tribromophenol (Surr)			113 %	39-132 %	20	09/27/21 14:35	EPA 8270E	
DU-01-0921After Processing (A1I061	9-11)			Matrix: Soil		Batch:	21J0772	H-06
Acenaphthene	ND	0.0532	0.107	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
Acenaphthylene	ND	0.0532	0.107	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
Anthracene	0.0700	0.0532	0.107	mg/kg dry	40	10/21/21 21:18	EPA 8270E	J
Benz(a)anthracene	0.738	0.0532	0.107	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
Benzo(a)pyrene	1.05	0.0800	0.160	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
Benzo(b)fluoranthene	1.13	0.0800	0.160	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
Benzo(k)fluoranthene	0.367	0.0800	0.160	mg/kg dry	40	10/21/21 21:18	EPA 8270E	M-05
Benzo(g,h,i)perylene	0.844	0.0532	0.107	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
Chrysene	0.944	0.0532	0.107	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
Dibenz(a,h)anthracene	0.186	0.0532	0.107	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
Fluoranthene	0.695	0.0532	0.107	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
Fluorene	ND	0.0532	0.107	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
Indeno(1,2,3-cd)pyrene	0.693	0.0532	0.107	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
1-Methylnaphthalene	ND	0.107	0.213	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
2-Methylnaphthalene	ND	0.107	0.213	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
Naphthalene	ND	0.107	0.213	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
Phenanthrene	0.245	0.0532	0.107	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
Pyrene	1.01	0.0532	0.107	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
Carbazole	ND	0.0800	0.160	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
Dibenzofuran	ND	0.0532	0.107	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
2-Chlorophenol	ND	0.267	0.532	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
4-Chloro-3-methylphenol	ND	0.532	1.07	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
2,4-Dichlorophenol	ND	0.267	0.532	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
2,4-Dimethylphenol	ND	0.267	0.532	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
2,4-Dinitrophenol	ND	1.33	2.67	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
4,6-Dinitro-2-methylphenol	ND	1.33	2.67	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
2-Methylphenol	ND	0.133	0.267	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
3+4-Methylphenol(s)	ND	0.133	0.267	mg/kg dry	40	10/21/21 21:18	EPA 8270E	

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Philip Nerenberg, Lab Director

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Note
OU-01-0921After Processing (A1I0619-1	1)			Matrix: Soil		Batch:	21J0772	H-06
2-Nitrophenol	ND	0.532	1.07	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
4-Nitrophenol	ND	0.532	1.07	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
Pentachlorophenol (PCP)	ND	0.532	1.07	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
Phenol	ND	0.107	0.213	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
2,3,4,6-Tetrachlorophenol	ND	0.267	0.532	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
2,3,5,6-Tetrachlorophenol	ND	0.267	0.532	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
2,4,5-Trichlorophenol	ND	0.267	0.532	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
Nitrobenzene	ND	0.532	1.07	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
2,4,6-Trichlorophenol	ND	0.267	0.532	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
Bis(2-ethylhexyl)phthalate	ND	0.800	1.60	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
Butyl benzyl phthalate	ND	0.532	1.07	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
Diethylphthalate	ND	0.532	1.07	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
Dimethylphthalate	ND	0.532	1.07	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
Di-n-butylphthalate	ND	0.532	1.07	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
Di-n-octyl phthalate	ND	0.532	1.07	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
N-Nitrosodimethylamine	ND	0.133	0.267	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
N-Nitroso-di-n-propylamine	ND	0.133	0.267	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
N-Nitrosodiphenylamine	ND	0.133	0.267	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
Bis(2-Chloroethoxy) methane	ND	0.133	0.267	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
Bis(2-Chloroethyl) ether	ND	0.133	0.267	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
2,2'-Oxybis(1-Chloropropane)	ND	0.133	0.267	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
Hexachlorobenzene	ND	0.0532	0.107	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
Hexachlorobutadiene	ND	0.133	0.267	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
Hexachlorocyclopentadiene	ND	0.267	0.532	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
Hexachloroethane	ND	0.133	0.267	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
2-Chloronaphthalene	ND	0.0532	0.107	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
1,2,4-Trichlorobenzene	ND	0.133	0.267	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
4-Bromophenyl phenyl ether	ND	0.133	0.267	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
l-Chlorophenyl phenyl ether	ND	0.133	0.267	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
Aniline	ND	0.267	0.532	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
1-Chloroaniline	ND	0.133	0.267	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
2-Nitroaniline	ND	1.07	2.13	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
-Nitroaniline	ND	1.07	2.13	mg/kg dry	40	10/21/21 21:18	EPA 8270E	

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Philip Nerenberg, Lab Director



Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

			· ·	ounds by EPA 8				
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
DU-01-0921After Processing (A1I061				Matrix: Soil	>	•	21J0772	H-06
•	,	1.07	2.12		40	10/21/21 21:18	EPA 8270E	
4-Nitroaniline	ND ND	1.07	2.13	mg/kg dry	40	10/21/21 21:18	EPA 8270E EPA 8270E	
2,4-Dinitrotoluene	ND ND	0.532	1.07	mg/kg dry	40	10/21/21 21:18	EPA 8270E EPA 8270E	
2,6-Dinitrotoluene		0.532	1.07	mg/kg dry	40	10/21/21 21:18	EPA 8270E EPA 8270E	
Benzoic acid	ND	6.68	13.3	mg/kg dry	40			
Benzyl alcohol	ND	0.267	0.532	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
Isophorone	ND	0.133	0.267	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
Azobenzene (1,2-DPH)	ND	0.133	0.267	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
Bis(2-Ethylhexyl) adipate	ND	1.33	2.67	mg/kg dry	40	10/21/21 21:18	EPA 8270E	0.50
3,3'-Dichlorobenzidine	ND	1.07	2.13	mg/kg dry	40	10/21/21 21:18	EPA 8270E	Q-52
1,2-Dinitrobenzene	ND	1.33	2.67	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
1,3-Dinitrobenzene	ND	1.33	2.67	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
1,4-Dinitrobenzene	ND	1.33	2.67	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
Pyridine	ND	0.267	0.532	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
1,2-Dichlorobenzene	ND	0.133	0.267	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
1,3-Dichlorobenzene	ND	0.133	0.267	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
1,4-Dichlorobenzene	ND	0.133	0.267	mg/kg dry	40	10/21/21 21:18	EPA 8270E	
Surrogate: Nitrobenzene-d5 (Surr)		Reco	very: 61 %	Limits: 37-122 %	40	10/21/21 21:18	EPA 8270E	S-05
2-Fluorobiphenyl (Surr)			98 %	44-120 %		10/21/21 21:18	EPA 8270E	S-05
Phenol-d6 (Surr)			73 %	33-122 %		10/21/21 21:18	EPA 8270E	S-05
p-Terphenyl-d14 (Surr)			64 %	54-127 %		10/21/21 21:18	EPA 8270E	S-05
2-Fluorophenol (Surr)			48 %	35-120 %		10/21/21 21:18	EPA 8270E	S-05
2,4,6-Tribromophenol (Surr)			63 %	39-132 %	40	10/21/21 21:18	EPA 8270E	S-05
DU-02-0921After Processing (A1I061	9-13)			Matrix: Soil		Batch:	21J0772	H-06
Acenaphthene	ND	0.0542	0.109	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
Acenaphthylene	ND	0.0542	0.109	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
Anthracene	ND	0.0542	0.109	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
Benz(a)anthracene	0.166	0.0542	0.109	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
Benzo(a)pyrene	0.238	0.0816	0.163	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
Benzo(b)fluoranthene	0.238	0.0816	0.163	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
Benzo(k)fluoranthene	0.102	0.0816	0.163	mg/kg dry	40	10/21/21 21:51	EPA 8270E	J
Benzo(g,h,i)perylene	0.166	0.0542	0.109	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
Chrysene	0.182	0.0542	0.109	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
Dibenz(a,h)anthracene	ND	0.0542	0.109	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
Dioenz(a,ii)anunacene	עויו	0.0374	0.107	mg/kg ury	70	10.21.21.21.21	L 02/01	

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Philip Nerenberg, Lab Director

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water SolutionsProject:Eatonville55 SW Yamhill St, Ste 300Project Number:0171.067

Portland, OR 97209 Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Note
0U-02-0921After Processing (A1I	10619-13)			Matrix: Soil	1	Batch:	21J0772	H-06
Fluoranthene	0.215	0.0542	0.109	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
Fluorene	ND	0.0542	0.109	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
Indeno(1,2,3-cd)pyrene	0.133	0.0542	0.109	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
1-Methylnaphthalene	ND	0.109	0.217	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
2-Methylnaphthalene	ND	0.109	0.217	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
Naphthalene	ND	0.109	0.217	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
Phenanthrene	0.173	0.0542	0.109	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
Pyrene	0.321	0.0542	0.109	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
Carbazole	ND	0.0816	0.163	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
Dibenzofuran	ND	0.0542	0.109	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
2-Chlorophenol	ND	0.272	0.542	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
4-Chloro-3-methylphenol	ND	0.542	1.09	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
2,4-Dichlorophenol	ND	0.272	0.542	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
2,4-Dimethylphenol	ND	0.272	0.542	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
2,4-Dinitrophenol	ND	1.36	2.72	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
4,6-Dinitro-2-methylphenol	ND	1.36	2.72	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
2-Methylphenol	ND	0.136	0.272	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
3+4-Methylphenol(s)	ND	0.136	0.272	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
2-Nitrophenol	ND	0.542	1.09	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
4-Nitrophenol	ND	0.542	1.09	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
Pentachlorophenol (PCP)	ND	0.542	1.09	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
Phenol	ND	0.109	0.217	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
2,3,4,6-Tetrachlorophenol	ND	0.272	0.542	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
2,3,5,6-Tetrachlorophenol	ND	0.272	0.542	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
2,4,5-Trichlorophenol	ND	0.272	0.542	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
Nitrobenzene	ND	0.542	1.09	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
2,4,6-Trichlorophenol	ND	0.272	0.542	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
Bis(2-ethylhexyl)phthalate	ND	0.816	1.63	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
Butyl benzyl phthalate	ND	0.542	1.09	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
Diethylphthalate	ND	0.542	1.09	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
Dimethylphthalate	ND	0.542	1.09	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
Di-n-butylphthalate	ND	0.542	1.09	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
Di-n-octyl phthalate	ND	0.542	1.09	mg/kg dry	40	10/21/21 21:51	EPA 8270E	

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Philip Nerenberg, Lab Director



Portland, OR 97209

ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water SolutionsProject:Eatonville55 SW Yamhill St, Ste 300Project Number:0171.067

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

	Sample	Detection	Reporting	_ 		Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
0U-02-0921After Processing (A1I0619-	13)			Matrix: Soil	1	Batch:	21J0772	H-06
N-Nitrosodimethylamine	ND	0.136	0.272	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
N-Nitroso-di-n-propylamine	ND	0.136	0.272	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
N-Nitrosodiphenylamine	ND	0.136	0.272	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
Bis(2-Chloroethoxy) methane	ND	0.136	0.272	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
Bis(2-Chloroethyl) ether	ND	0.136	0.272	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
2,2'-Oxybis(1-Chloropropane)	ND	0.136	0.272	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
Hexachlorobenzene	ND	0.0542	0.109	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
Hexachlorobutadiene	ND	0.136	0.272	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
Hexachlorocyclopentadiene	ND	0.272	0.542	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
Hexachloroethane	ND	0.136	0.272	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
2-Chloronaphthalene	ND	0.0542	0.109	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
1,2,4-Trichlorobenzene	ND	0.136	0.272	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
4-Bromophenyl phenyl ether	ND	0.136	0.272	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
4-Chlorophenyl phenyl ether	ND	0.136	0.272	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
Aniline	ND	0.272	0.542	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
4-Chloroaniline	ND	0.136	0.272	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
2-Nitroaniline	ND	1.09	2.17	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
3-Nitroaniline	ND	1.09	2.17	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
4-Nitroaniline	ND	1.09	2.17	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
2,4-Dinitrotoluene	ND	0.542	1.09	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
2,6-Dinitrotoluene	ND	0.542	1.09	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
Benzoic acid	ND	6.81	13.6	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
Benzyl alcohol	ND	0.272	0.542	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
Isophorone	ND	0.136	0.272	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
Azobenzene (1,2-DPH)	ND	0.136	0.272	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
Bis(2-Ethylhexyl) adipate	ND	1.36	2.72	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
3,3'-Dichlorobenzidine	ND	1.09	2.17	mg/kg dry	40	10/21/21 21:51	EPA 8270E	Q-52
,2-Dinitrobenzene	ND	1.36	2.72	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
,3-Dinitrobenzene	ND	1.36	2.72	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
,4-Dinitrobenzene	ND	1.36	2.72	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
Pyridine	ND	0.272	0.542	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
,2-Dichlorobenzene	ND	0.136	0.272	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
,3-Dichlorobenzene	ND	0.136	0.272	mg/kg dry	40	10/21/21 21:51	EPA 8270E	

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Philip Nerenberg, Lab Director



Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

	Sen	nivolatile Organ	nic Comp	ounds by EPA 8	270E			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
OU-02-0921After Processing (A1I061	9-13)			Matrix: Soil		Batch:	21J0772	H-06
1,4-Dichlorobenzene	ND	0.136	0.272	mg/kg dry	40	10/21/21 21:51	EPA 8270E	
Surrogate: Nitrobenzene-d5 (Surr)		Recovery	y: 63 %	Limits: 37-122 %	40	10/21/21 21:51	EPA 8270E	S-05
2-Fluorobiphenyl (Surr)			91 %	44-120 %	40	10/21/21 21:51	EPA 8270E	S-05
Phenol-d6 (Surr)			71 %	33-122 %	40	10/21/21 21:51	EPA 8270E	S-05
p-Terphenyl-d14 (Surr)			69 %	54-127 %		10/21/21 21:51	EPA 8270E	S-05
2-Fluorophenol (Surr)			41 %	35-120 %		10/21/21 21:51	EPA 8270E	S-05
2,4,6-Tribromophenol (Surr)			69 %	39-132 %	40	10/21/21 21:51	EPA 8270E	S-05
SB18-9-10-0921 (A1I0619-14RE1)				Matrix: Soil		Batch:	1090986	R-04
Acenaphthene	ND	0.310	0.623	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
Acenaphthylene	ND	0.310	0.623	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
Anthracene	ND	0.310	0.623	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
Benz(a)anthracene	ND	0.310	0.623	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
Benzo(a)pyrene	ND	0.466	0.933	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
Benzo(b)fluoranthene	ND	0.466	0.933	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
Benzo(k)fluoranthene	ND	0.466	0.933	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
Benzo(g,h,i)perylene	ND	0.310	0.623	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
Chrysene	ND	0.310	0.623	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
Dibenz(a,h)anthracene	ND	0.310	0.623	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
Fluoranthene	ND	0.310	0.623	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
Fluorene	ND	0.310	0.623	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
Indeno(1,2,3-cd)pyrene	ND	0.310	0.623	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
1-Methylnaphthalene	ND	0.623	1.24	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
2-Methylnaphthalene	ND	0.623	1.24	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
Naphthalene	ND	0.623	1.24	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
Phenanthrene	ND	0.310	0.623	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
Pyrene	ND	0.310	0.623	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
Carbazole	ND	0.466	0.933	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
Dibenzofuran	ND	0.310	0.623	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
2-Chlorophenol	ND	1.56	3.10	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
4-Chloro-3-methylphenol	ND ND	3.10	6.23		40	09/27/21 15:10	EPA 8270E	
* *	ND ND	1.56	3.10	mg/kg dry	40	09/27/21 15:10	EPA 8270E EPA 8270E	
2,4-Dichlorophenol				mg/kg dry				
2,4-Dimethylphenol	ND	1.56	3.10	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
2,4-Dinitrophenol	ND	7.77	15.6	mg/kg dry	40	09/27/21 15:10	EPA 8270E	

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Philip Nerenberg, Lab Director

Philip Nevenberg

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6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

	Sem	nivolatile Org	anic Compo	unds by EPA	8270E			
	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
B18-9-10-0921 (A1I0619-14RE1)				Matrix: Soi	I	Batch:	1090986	R-04
4,6-Dinitro-2-methylphenol	ND	7.77	15.6	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
2-Methylphenol	ND	0.777	1.56	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
3+4-Methylphenol(s)	ND	0.777	1.56	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
2-Nitrophenol	ND	3.10	6.23	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
4-Nitrophenol	ND	3.10	6.23	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
Pentachlorophenol (PCP)	3.16	3.10	6.23	mg/kg dry	40	09/27/21 15:10	EPA 8270E	J
Phenol	ND	0.623	1.24	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
2,3,4,6-Tetrachlorophenol	ND	1.56	3.10	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
2,3,5,6-Tetrachlorophenol	ND	1.56	3.10	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
2,4,5-Trichlorophenol	ND	1.56	3.10	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
Nitrobenzene	ND	3.10	6.23	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
2,4,6-Trichlorophenol	ND	1.56	3.10	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
Bis(2-ethylhexyl)phthalate	ND	4.66	9.33	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
Butyl benzyl phthalate	ND	3.10	6.23	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
Diethylphthalate	ND	3.10	6.23	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
Dimethylphthalate	ND	3.10	6.23	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
Di-n-butylphthalate	ND	3.10	6.23	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
Di-n-octyl phthalate	ND	3.10	6.23	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
N-Nitrosodimethylamine	ND	0.777	1.56	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
N-Nitroso-di-n-propylamine	ND	0.777	1.56	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
N-Nitrosodiphenylamine	ND	0.777	1.56	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
Bis(2-Chloroethoxy) methane	ND	0.777	1.56	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
Bis(2-Chloroethyl) ether	ND	0.777	1.56	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
2,2'-Oxybis(1-Chloropropane)	ND	0.777	1.56	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
Hexachlorobenzene	ND	0.310	0.623	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
Hexachlorobutadiene	ND	0.777	1.56	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
Hexachlorocyclopentadiene	ND	1.56	3.10	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
Hexachloroethane	ND	0.777	1.56	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
2-Chloronaphthalene	ND	0.310	0.623	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
1,2,4-Trichlorobenzene	ND	0.777	1.56	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
4-Bromophenyl phenyl ether	ND	0.777	1.56	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
4-Chlorophenyl phenyl ether	ND	0.777	1.56	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
Aniline	ND	1.56	3.10	mg/kg dry	40	09/27/21 15:10	EPA 8270E	

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Philip Nerenberg, Lab Director



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6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

	Sen	nivolatile Org	anic Compo	ounds by EPA 8	270E			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SB18-9-10-0921 (A1I0619-14RE1)				Matrix: Soil		Batch:	1090986	R-04
4-Chloroaniline	ND	0.777	1.56	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
2-Nitroaniline	ND	6.23	12.4	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
3-Nitroaniline	ND	6.23	12.4	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
4-Nitroaniline	ND	6.23	12.4	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
2,4-Dinitrotoluene	ND	3.10	6.23	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
2,6-Dinitrotoluene	ND	3.10	6.23	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
Benzoic acid	ND	38.9	77.7	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
Benzyl alcohol	ND	1.56	3.10	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
Isophorone	ND	0.777	1.56	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
Azobenzene (1,2-DPH)	ND	0.777	1.56	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
Bis(2-Ethylhexyl) adipate	ND	7.77	15.6	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
3,3'-Dichlorobenzidine	ND	6.23	12.4	mg/kg dry	40	09/27/21 15:10	EPA 8270E	Q-52
1,2-Dinitrobenzene	ND	7.77	15.6	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
1,3-Dinitrobenzene	ND	7.77	15.6	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
1,4-Dinitrobenzene	ND	7.77	15.6	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
Pyridine	ND	1.56	3.10	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
1,2-Dichlorobenzene	ND	0.777	1.56	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
1,3-Dichlorobenzene	ND	0.777	1.56	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
1,4-Dichlorobenzene	ND	0.777	1.56	mg/kg dry	40	09/27/21 15:10	EPA 8270E	
Surrogate: Nitrobenzene-d5 (Surr)		Reco	very: 69 %	Limits: 37-122 %	40	09/27/21 15:10	EPA 8270E	S-05
2-Fluorobiphenyl (Surr)			76 %	44-120 %	40	09/27/21 15:10	EPA 8270E	S-05
Phenol-d6 (Surr)			32 %	33-122 %		09/27/21 15:10	EPA 8270E	S-05
p-Terphenyl-d14 (Surr)			81 %	54-127 %		09/27/21 15:10	EPA 8270E	S-05
2-Fluorophenol (Surr)			55 %	35-120 %		09/27/21 15:10	EPA 8270E	S-05
2,4,6-Tribromophenol (Surr)			238 %	39-132 %	40	09/27/21 15:10	EPA 8270E	S-05
EB01-0921 (A1I0619-15)				Matrix: Wate	r	Batch:	1090906	
Acenaphthene	ND	0.0133	0.0267	ug/L	1	09/24/21 00:19	EPA 8270E	
Acenaphthylene	ND	0.0133	0.0267	ug/L	1	09/24/21 00:19	EPA 8270E	
Anthracene	ND	0.0133	0.0267	ug/L	1	09/24/21 00:19	EPA 8270E	
Benz(a)anthracene	ND	0.0133	0.0267	ug/L	1	09/24/21 00:19	EPA 8270E	
Benzo(a)pyrene	ND	0.0200	0.0400	ug/L	1	09/24/21 00:19	EPA 8270E	
Benzo(b)fluoranthene	ND	0.0200	0.0400	ug/L	1	09/24/21 00:19	EPA 8270E	
Benzo(k)fluoranthene	ND	0.0200	0.0400	ug/L	1	09/24/21 00:19	EPA 8270E	

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Philip Nerenberg, Lab Director

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

	Sem	nivolatile Orga	anic Compou	unds by EP#	4 8270E			
	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
EB01-0921 (A1I0619-15)				Matrix: Wa	ater	Batch:	1090906	
Benzo(g,h,i)perylene	ND	0.0133	0.0267	ug/L	1	09/24/21 00:19	EPA 8270E	
Chrysene	ND	0.0133	0.0267	ug/L	1	09/24/21 00:19	EPA 8270E	
Dibenz(a,h)anthracene	ND	0.0133	0.0267	ug/L	1	09/24/21 00:19	EPA 8270E	
Fluoranthene	ND	0.0133	0.0267	ug/L	1	09/24/21 00:19	EPA 8270E	
Fluorene	ND	0.0133	0.0267	ug/L	1	09/24/21 00:19	EPA 8270E	
Indeno(1,2,3-cd)pyrene	ND	0.0133	0.0267	ug/L	1	09/24/21 00:19	EPA 8270E	
1-Methylnaphthalene	ND	0.0267	0.0533	ug/L	1	09/24/21 00:19	EPA 8270E	
2-Methylnaphthalene	ND	0.0267	0.0533	ug/L	1	09/24/21 00:19	EPA 8270E	
Naphthalene	ND	0.0267	0.0533	ug/L	1	09/24/21 00:19	EPA 8270E	
Phenanthrene	ND	0.0133	0.0267	ug/L	1	09/24/21 00:19	EPA 8270E	
Pyrene	ND	0.0133	0.0267	ug/L	1	09/24/21 00:19	EPA 8270E	
Carbazole	ND	0.0200	0.0400	ug/L	1	09/24/21 00:19	EPA 8270E	
Dibenzofuran	ND	0.0133	0.0267	ug/L	1	09/24/21 00:19	EPA 8270E	
2-Chlorophenol	ND	0.0667	0.133	ug/L	1	09/24/21 00:19	EPA 8270E	
4-Chloro-3-methylphenol	ND	0.133	0.267	ug/L	1	09/24/21 00:19	EPA 8270E	
2,4-Dichlorophenol	ND	0.0667	0.133	ug/L	1	09/24/21 00:19	EPA 8270E	
2,4-Dimethylphenol	ND	0.0667	0.133	ug/L	1	09/24/21 00:19	EPA 8270E	
2,4-Dinitrophenol	ND	0.333	0.667	ug/L	1	09/24/21 00:19	EPA 8270E	
4,6-Dinitro-2-methylphenol	ND	0.333	0.667	ug/L	1	09/24/21 00:19	EPA 8270E	
2-Methylphenol	ND	0.0333	0.0667	ug/L	1	09/24/21 00:19	EPA 8270E	
3+4-Methylphenol(s)	ND	0.0333	0.0667	ug/L	1	09/24/21 00:19	EPA 8270E	
2-Nitrophenol	ND	0.133	0.267	ug/L	1	09/24/21 00:19	EPA 8270E	
4-Nitrophenol	ND	0.133	0.267	ug/L	1	09/24/21 00:19	EPA 8270E	
Pentachlorophenol (PCP)	ND	0.133	0.267	ug/L	1	09/24/21 00:19	EPA 8270E	
Phenol	ND	0.267	0.533	ug/L	1	09/24/21 00:19	EPA 8270E	
2,3,4,6-Tetrachlorophenol	ND	0.0667	0.133	ug/L	1	09/24/21 00:19	EPA 8270E	
2,3,5,6-Tetrachlorophenol	ND	0.0667	0.133	ug/L	1	09/24/21 00:19	EPA 8270E	
2,4,5-Trichlorophenol	ND	0.0667	0.133	ug/L	1	09/24/21 00:19	EPA 8270E	
Nitrobenzene	ND	0.133	0.267	ug/L	1	09/24/21 00:19	EPA 8270E	
2,4,6-Trichlorophenol	ND	0.0667	0.133	ug/L	1	09/24/21 00:19	EPA 8270E	
Bis(2-ethylhexyl)phthalate	ND	0.267	0.533	ug/L	1	09/24/21 00:19	EPA 8270E	
Butyl benzyl phthalate	ND	0.267	0.533	ug/L	1	09/24/21 00:19	EPA 8270E	
Diethylphthalate	ND	0.267	0.533	ug/L	1	09/24/21 00:19	EPA 8270E	

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Philip Nerenberg, Lab Director

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

Report ID:

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 0171.067

Project Manager: Genevieve Schutzius A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
EB01-0921 (A1I0619-15)				Matrix: W	ater	Batch:	1090906	
Dimethylphthalate	ND	0.267	0.533	ug/L	1	09/24/21 00:19	EPA 8270E	
Di-n-butylphthalate	ND	0.267	0.533	ug/L	1	09/24/21 00:19	EPA 8270E	
Di-n-octyl phthalate	ND	0.267	0.533	ug/L	1	09/24/21 00:19	EPA 8270E	
N-Nitrosodimethylamine	ND	0.0333	0.0667	ug/L	1	09/24/21 00:19	EPA 8270E	
N-Nitroso-di-n-propylamine	ND	0.0333	0.0667	ug/L	1	09/24/21 00:19	EPA 8270E	
N-Nitrosodiphenylamine	ND	0.0333	0.0667	ug/L	1	09/24/21 00:19	EPA 8270E	
Bis(2-Chloroethoxy) methane	ND	0.0333	0.0667	ug/L	1	09/24/21 00:19	EPA 8270E	
Bis(2-Chloroethyl) ether	ND	0.0333	0.0667	ug/L	1	09/24/21 00:19	EPA 8270E	
2,2'-Oxybis(1-Chloropropane)	ND	0.0333	0.0667	ug/L	1	09/24/21 00:19	EPA 8270E	
Hexachlorobenzene	ND	0.0133	0.0267	ug/L	1	09/24/21 00:19	EPA 8270E	
Hexachlorobutadiene	ND	0.0333	0.0667	ug/L	1	09/24/21 00:19	EPA 8270E	
Hexachlorocyclopentadiene	ND	0.0667	0.133	ug/L	1	09/24/21 00:19	EPA 8270E	
Hexachloroethane	ND	0.0333	0.0667	ug/L	1	09/24/21 00:19	EPA 8270E	
2-Chloronaphthalene	ND	0.0133	0.0267	ug/L	1	09/24/21 00:19	EPA 8270E	
1,2,4-Trichlorobenzene	ND	0.0333	0.0667	ug/L	1	09/24/21 00:19	EPA 8270E	
4-Bromophenyl phenyl ether	ND	0.0333	0.0667	ug/L	1	09/24/21 00:19	EPA 8270E	
4-Chlorophenyl phenyl ether	ND	0.0333	0.0667	ug/L	1	09/24/21 00:19	EPA 8270E	
Aniline	ND	0.0667	0.133	ug/L	1	09/24/21 00:19	EPA 8270E	
4-Chloroaniline	ND	0.0333	0.0667	ug/L	1	09/24/21 00:19	EPA 8270E	
2-Nitroaniline	ND	0.267	0.533	ug/L	1	09/24/21 00:19	EPA 8270E	
3-Nitroaniline	ND	0.267	0.533	ug/L	1	09/24/21 00:19	EPA 8270E	
4-Nitroaniline	ND	0.267	0.533	ug/L	1	09/24/21 00:19	EPA 8270E	Q-30
2,4-Dinitrotoluene	ND	0.133	0.267	ug/L	1	09/24/21 00:19	EPA 8270E	
2,6-Dinitrotoluene	ND	0.133	0.267	ug/L	1	09/24/21 00:19	EPA 8270E	
Benzoic acid	ND	1.67	3.33	ug/L	1	09/24/21 00:19	EPA 8270E	
Benzyl alcohol	ND	0.133	0.267	ug/L	1	09/24/21 00:19	EPA 8270E	
Isophorone	ND	0.0333	0.0667	ug/L	1	09/24/21 00:19	EPA 8270E	
Azobenzene (1,2-DPH)	ND	0.0333	0.0667	ug/L	1	09/24/21 00:19	EPA 8270E	
Bis(2-Ethylhexyl) adipate	ND	0.333	0.667	ug/L	1	09/24/21 00:19	EPA 8270E	
3,3'-Dichlorobenzidine	ND	0.667	1.33	ug/L	1	09/24/21 00:19	EPA 8270E	Q-52
1,2-Dinitrobenzene	ND	0.333	0.667	ug/L	1	09/24/21 00:19	EPA 8270E	
1,3-Dinitrobenzene	ND	0.333	0.667	ug/L	1	09/24/21 00:19	EPA 8270E	
1,4-Dinitrobenzene	ND	0.333	0.667	ug/L	1	09/24/21 00:19	EPA 8270E	

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Philip Nerenberg, Lab Director

Philip Nevenberg

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: <u>Eatonville</u>
Project Number: **0171.067**

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E												
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes				
B01-0921 (A1I0619-15)				Matrix: Wate	r	Batch:	1090906					
Pyridine	ND	0.133	0.267	ug/L	1	09/24/21 00:19	EPA 8270E					
1,2-Dichlorobenzene	ND	0.0333	0.0667	ug/L	1	09/24/21 00:19	EPA 8270E					
1,3-Dichlorobenzene	ND	0.0333	0.0667	ug/L	1	09/24/21 00:19	EPA 8270E					
1,4-Dichlorobenzene	ND	0.0333	0.0667	ug/L	1	09/24/21 00:19	EPA 8270E					
Surrogate: Nitrobenzene-d5 (Surr)		Recover	y: 55 %	Limits: 44-120 %	1	09/24/21 00:19	EPA 8270E					
2-Fluorobiphenyl (Surr)			47 %	44-120 %	I	09/24/21 00:19	EPA 8270E					
Phenol-d6 (Surr)			19 %	10-133 %	1	09/24/21 00:19	EPA 8270E					
p-Terphenyl-d14 (Surr)			95 %	50-134 %	1	09/24/21 00:19	EPA 8270E					
2-Fluorophenol (Surr)			28 %	19-120 %		09/24/21 00:19	EPA 8270E					
2,4,6-Tribromophenol (Surr)			78 %	43-140 %	I	09/24/21 00:19	EPA 8270E					
B02-0921 (A1I0619-16)	Matrix: Water Batch:				1090906							
Acenaphthene	ND	0.0175	0.0351	ug/L	1	09/24/21 00:54	EPA 8270E					
Acenaphthylene	ND	0.0175	0.0351	ug/L	1	09/24/21 00:54	EPA 8270E					
Anthracene	ND	0.0175	0.0351	ug/L	1	09/24/21 00:54	EPA 8270E					
Benz(a)anthracene	ND	0.0175	0.0351	ug/L	1	09/24/21 00:54	EPA 8270E					
Benzo(a)pyrene	ND	0.0263	0.0526	ug/L	1	09/24/21 00:54	EPA 8270E					
Benzo(b)fluoranthene	ND	0.0263	0.0526	ug/L	1	09/24/21 00:54	EPA 8270E					
Benzo(k)fluoranthene	ND	0.0263	0.0526	ug/L	1	09/24/21 00:54	EPA 8270E					
Benzo(g,h,i)perylene	ND	0.0175	0.0351	ug/L	1	09/24/21 00:54	EPA 8270E					
Chrysene	ND	0.0175	0.0351	ug/L	1	09/24/21 00:54	EPA 8270E					
Dibenz(a,h)anthracene	ND	0.0175	0.0351	ug/L	1	09/24/21 00:54	EPA 8270E					
Fluoranthene	ND	0.0175	0.0351	ug/L	1	09/24/21 00:54	EPA 8270E					
Fluorene	ND	0.0175	0.0351	ug/L	1	09/24/21 00:54	EPA 8270E					
Indeno(1,2,3-cd)pyrene	ND	0.0175	0.0351	ug/L	1	09/24/21 00:54	EPA 8270E					
1-Methylnaphthalene	ND	0.0351	0.0702	ug/L	1	09/24/21 00:54	EPA 8270E					
2-Methylnaphthalene	ND	0.0351	0.0702	ug/L	1	09/24/21 00:54	EPA 8270E					
Naphthalene	ND	0.0351	0.0702	ug/L	1	09/24/21 00:54	EPA 8270E					
Phenanthrene	ND	0.0175	0.0351	ug/L	1	09/24/21 00:54	EPA 8270E					
Pyrene	ND	0.0175	0.0351	ug/L	1	09/24/21 00:54	EPA 8270E					
Carbazole	ND	0.0263	0.0526	ug/L	1	09/24/21 00:54	EPA 8270E					
Dibenzofuran	ND	0.0175	0.0351	ug/L	1	09/24/21 00:54	EPA 8270E					
2-Chlorophenol	ND	0.0877	0.175	ug/L	1	09/24/21 00:54	EPA 8270E					
4-Chloro-3-methylphenol	ND	0.175	0.351	ug/L	1	09/24/21 00:54	EPA 8270E					

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Philip Nerenberg, Lab Director

Philip Nevenberg

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: <u>Eatonville</u>
Project Number: **0171.067**

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

	Sen	iivoiatile Org	anic Compou	unus by EPA	- 04/UE			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EB02-0921 (A1I0619-16)				Matrix: Wa	ater	Batch:	1090906	
2,4-Dichlorophenol	ND	0.0877	0.175	ug/L	1	09/24/21 00:54	EPA 8270E	
2,4-Dimethylphenol	ND	0.0877	0.175	ug/L	1	09/24/21 00:54	EPA 8270E	
2,4-Dinitrophenol	ND	0.439	0.877	ug/L	1	09/24/21 00:54	EPA 8270E	
4,6-Dinitro-2-methylphenol	ND	0.439	0.877	ug/L	1	09/24/21 00:54	EPA 8270E	
2-Methylphenol	ND	0.0439	0.0877	ug/L	1	09/24/21 00:54	EPA 8270E	
3+4-Methylphenol(s)	ND	0.0439	0.0877	ug/L	1	09/24/21 00:54	EPA 8270E	
2-Nitrophenol	ND	0.175	0.351	ug/L	1	09/24/21 00:54	EPA 8270E	
4-Nitrophenol	ND	0.175	0.351	ug/L	1	09/24/21 00:54	EPA 8270E	
Pentachlorophenol (PCP)	ND	0.175	0.351	ug/L	1	09/24/21 00:54	EPA 8270E	
Phenol	ND	0.351	0.702	ug/L	1	09/24/21 00:54	EPA 8270E	
2,3,4,6-Tetrachlorophenol	ND	0.0877	0.175	ug/L	1	09/24/21 00:54	EPA 8270E	
2,3,5,6-Tetrachlorophenol	ND	0.0877	0.175	ug/L	1	09/24/21 00:54	EPA 8270E	
2,4,5-Trichlorophenol	ND	0.0877	0.175	ug/L	1	09/24/21 00:54	EPA 8270E	
Nitrobenzene	ND	0.175	0.351	ug/L	1	09/24/21 00:54	EPA 8270E	
2,4,6-Trichlorophenol	ND	0.0877	0.175	ug/L	1	09/24/21 00:54	EPA 8270E	
Bis(2-ethylhexyl)phthalate	ND	0.351	0.702	ug/L	1	09/24/21 00:54	EPA 8270E	
Butyl benzyl phthalate	ND	0.351	0.702	ug/L	1	09/24/21 00:54	EPA 8270E	
Diethylphthalate	ND	0.351	0.702	ug/L	1	09/24/21 00:54	EPA 8270E	
Dimethylphthalate	ND	0.351	0.702	ug/L	1	09/24/21 00:54	EPA 8270E	
Di-n-butylphthalate	ND	0.351	0.702	ug/L	1	09/24/21 00:54	EPA 8270E	
Di-n-octyl phthalate	ND	0.351	0.702	ug/L	1	09/24/21 00:54	EPA 8270E	
N-Nitrosodimethylamine	ND	0.0439	0.0877	ug/L	1	09/24/21 00:54	EPA 8270E	
N-Nitroso-di-n-propylamine	ND	0.0439	0.0877	ug/L	1	09/24/21 00:54	EPA 8270E	
N-Nitrosodiphenylamine	ND	0.0439	0.0877	ug/L	1	09/24/21 00:54	EPA 8270E	
Bis(2-Chloroethoxy) methane	ND	0.0439	0.0877	ug/L	1	09/24/21 00:54	EPA 8270E	
Bis(2-Chloroethyl) ether	ND	0.0439	0.0877	ug/L	1	09/24/21 00:54	EPA 8270E	
2,2'-Oxybis(1-Chloropropane)	ND	0.0439	0.0877	ug/L	1	09/24/21 00:54	EPA 8270E	
Hexachlorobenzene	ND	0.0175	0.0351	ug/L	1	09/24/21 00:54	EPA 8270E	
Hexachlorobutadiene	ND	0.0439	0.0877	ug/L	1	09/24/21 00:54	EPA 8270E	
Hexachlorocyclopentadiene	ND	0.0877	0.175	ug/L	1	09/24/21 00:54	EPA 8270E	
Hexachloroethane	ND	0.0439	0.0877	ug/L	1	09/24/21 00:54	EPA 8270E	
2-Chloronaphthalene	ND	0.0175	0.0351	ug/L	1	09/24/21 00:54	EPA 8270E	
,2,4-Trichlorobenzene	ND	0.0439	0.0877	ug/L	1	09/24/21 00:54	EPA 8270E	

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Philip Nerenberg, Lab Director

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: <u>Eatonville</u>
Project Number: **0171.067**

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

	Sen	nivolatile Organ	ic comp	ourius by EPA 8	ZI VE			
Analyte	Sample Result	Detection 1 Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EB02-0921 (A1I0619-16)				Matrix: Wate	r	Batch:	1090906	
4-Bromophenyl phenyl ether	ND	0.0439	0.0877	ug/L	1	09/24/21 00:54	EPA 8270E	
4-Chlorophenyl phenyl ether	ND	0.0439	0.0877	ug/L	1	09/24/21 00:54	EPA 8270E	
Aniline	ND	0.0877	0.175	ug/L	1	09/24/21 00:54	EPA 8270E	
4-Chloroaniline	ND	0.0439	0.0877	ug/L	1	09/24/21 00:54	EPA 8270E	
2-Nitroaniline	ND	0.351	0.702	ug/L	1	09/24/21 00:54	EPA 8270E	
3-Nitroaniline	ND	0.351	0.702	ug/L	1	09/24/21 00:54	EPA 8270E	
4-Nitroaniline	ND	0.351	0.702	ug/L	1	09/24/21 00:54	EPA 8270E	Q-30
2,4-Dinitrotoluene	ND	0.175	0.351	ug/L	1	09/24/21 00:54	EPA 8270E	
2,6-Dinitrotoluene	ND	0.175	0.351	ug/L	1	09/24/21 00:54	EPA 8270E	
Benzoic acid	ND	2.19	4.39	ug/L	1	09/24/21 00:54	EPA 8270E	
Benzyl alcohol	ND	0.175	0.351	ug/L	1	09/24/21 00:54	EPA 8270E	
Isophorone	ND	0.0439	0.0877	ug/L	1	09/24/21 00:54	EPA 8270E	
Azobenzene (1,2-DPH)	ND	0.0439	0.0877	ug/L	1	09/24/21 00:54	EPA 8270E	
Bis(2-Ethylhexyl) adipate	ND	0.439	0.877	ug/L	1	09/24/21 00:54	EPA 8270E	
3,3'-Dichlorobenzidine	ND	0.877	1.75	ug/L	1	09/24/21 00:54	EPA 8270E	Q-52
1,2-Dinitrobenzene	ND	0.439	0.877	ug/L	1	09/24/21 00:54	EPA 8270E	
1,3-Dinitrobenzene	ND	0.439	0.877	ug/L	1	09/24/21 00:54	EPA 8270E	
1,4-Dinitrobenzene	ND	0.439	0.877	ug/L	1	09/24/21 00:54	EPA 8270E	
Pyridine	ND	0.175	0.351	ug/L	1	09/24/21 00:54	EPA 8270E	
1,2-Dichlorobenzene	ND	0.0439	0.0877	ug/L	1	09/24/21 00:54	EPA 8270E	
1,3-Dichlorobenzene	ND	0.0439	0.0877	ug/L	1	09/24/21 00:54	EPA 8270E	
1,4-Dichlorobenzene	ND	0.0439	0.0877	ug/L	1	09/24/21 00:54	EPA 8270E	
Surrogate: Nitrobenzene-d5 (Surr)		Recovery	: 72 %	Limits: 44-120 %	1	09/24/21 00:54	EPA 8270E	
2-Fluorobiphenyl (Surr)		_	62 %	44-120 %	1	09/24/21 00:54	EPA 8270E	
Phenol-d6 (Surr)			23 %	10-133 %	1	09/24/21 00:54	EPA 8270E	
p-Terphenyl-d14 (Surr)			88 %	50-134 %	1	09/24/21 00:54	EPA 8270E	
2-Fluorophenol (Surr)			36 %	19-120 %	1	09/24/21 00:54	EPA 8270E	
2,4,6-Tribromophenol (Surr)			77 %	43-140 %	1	09/24/21 00:54	EPA 8270E	
SW04-0921 (A1I0619-17RE2)	Matrix: Water Batch: 1090906		1090906					
Acenaphthene	ND	0.00971	0.0194	ug/L	1	09/24/21 11:13	EPA 8270E	
Acenaphthylene	ND	0.00971	0.0194	ug/L	1	09/24/21 11:13	EPA 8270E	
Anthracene	ND	0.00971	0.0194	ug/L	1	09/24/21 11:13	EPA 8270E	
Benz(a)anthracene	ND	0.00971	0.0194	ug/L	1	09/24/21 11:13	EPA 8270E	

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Philip Nerenberg, Lab Director

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: <u>Eatonville</u>
Project Number: **0171.067**

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Note
W04-0921 (A1I0619-17RE2)				Matrix: Wa	ater	Batch:	1090906	
Benzo(a)pyrene	ND	0.0146	0.0291	ug/L	1	09/24/21 11:13	EPA 8270E	
Benzo(b)fluoranthene	ND	0.0146	0.0291	ug/L	1	09/24/21 11:13	EPA 8270E	
Benzo(k)fluoranthene	ND	0.0146	0.0291	ug/L	1	09/24/21 11:13	EPA 8270E	
Benzo(g,h,i)perylene	ND	0.00971	0.0194	ug/L	1	09/24/21 11:13	EPA 8270E	
Chrysene	ND	0.00971	0.0194	ug/L	1	09/24/21 11:13	EPA 8270E	
Dibenz(a,h)anthracene	ND	0.00971	0.0194	ug/L	1	09/24/21 11:13	EPA 8270E	
Fluoranthene	ND	0.00971	0.0194	ug/L	1	09/24/21 11:13	EPA 8270E	
Fluorene	ND	0.00971	0.0194	ug/L	1	09/24/21 11:13	EPA 8270E	
Indeno(1,2,3-cd)pyrene	ND	0.00971	0.0194	ug/L	1	09/24/21 11:13	EPA 8270E	
1-Methylnaphthalene	ND	0.0194	0.0388	ug/L	1	09/24/21 11:13	EPA 8270E	
2-Methylnaphthalene	ND	0.0194	0.0388	ug/L	1	09/24/21 11:13	EPA 8270E	
Naphthalene	ND	0.0194	0.0388	ug/L	1	09/24/21 11:13	EPA 8270E	
Phenanthrene	ND	0.00971	0.0194	ug/L	1	09/24/21 11:13	EPA 8270E	
Pyrene	ND	0.00971	0.0194	ug/L	1	09/24/21 11:13	EPA 8270E	
Carbazole	ND	0.0146	0.0291	ug/L	1	09/24/21 11:13	EPA 8270E	
Dibenzofuran	ND	0.00971	0.0194	ug/L	1	09/24/21 11:13	EPA 8270E	
2-Chlorophenol	ND	0.0485	0.0971	ug/L	1	09/24/21 11:13	EPA 8270E	
4-Chloro-3-methylphenol	ND	0.0971	0.194	ug/L	1	09/24/21 11:13	EPA 8270E	
2,4-Dichlorophenol	ND	0.0485	0.0971	ug/L	1	09/24/21 11:13	EPA 8270E	
2,4-Dimethylphenol	ND	0.0485	0.0971	ug/L	1	09/24/21 11:13	EPA 8270E	
2,4-Dinitrophenol	ND	0.243	0.485	ug/L	1	09/24/21 11:13	EPA 8270E	
4,6-Dinitro-2-methylphenol	ND	0.243	0.485	ug/L	1	09/24/21 11:13	EPA 8270E	
2-Methylphenol	ND	0.0243	0.0485	ug/L	1	09/24/21 11:13	EPA 8270E	
3+4-Methylphenol(s)	ND	0.0243	0.0485	ug/L	1	09/24/21 11:13	EPA 8270E	
2-Nitrophenol	ND	0.0971	0.194	ug/L	1	09/24/21 11:13	EPA 8270E	
l-Nitrophenol	ND	0.0971	0.194	ug/L	1	09/24/21 11:13	EPA 8270E	
Pentachlorophenol (PCP)	ND	0.0971	0.194	ug/L	1	09/24/21 11:13	EPA 8270E	
henol	ND	0.194	0.388	ug/L	1	09/24/21 11:13	EPA 8270E	
,3,4,6-Tetrachlorophenol	ND	0.0485	0.0971	ug/L	1	09/24/21 11:13	EPA 8270E	
,3,5,6-Tetrachlorophenol	ND	0.0485	0.0971	ug/L	1	09/24/21 11:13	EPA 8270E	
,4,5-Trichlorophenol	ND	0.0485	0.0971	ug/L	1	09/24/21 11:13	EPA 8270E	
Vitrobenzene	ND	0.0971	0.194	ug/L	1	09/24/21 11:13	EPA 8270E	
,4,6-Trichlorophenol	ND	0.0371	0.0971	ug/L ug/L	1	09/24/21 11:13	EPA 8270E	

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Philip Nerenberg, Lab Director

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

	Sen	nivolatile Org	anic Compo	unds by EPA	4 8270E			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW04-0921 (A1I0619-17RE2)			<u> </u>	Matrix: W	ater	Batch:	1090906	
Bis(2-ethylhexyl)phthalate	ND	0.194	0.388	ug/L	1	09/24/21 11:13	EPA 8270E	
Butyl benzyl phthalate	ND	0.194	0.388	ug/L	1	09/24/21 11:13	EPA 8270E	
Diethylphthalate	0.215	0.194	0.388	ug/L	1	09/24/21 11:13	EPA 8270E	J
Dimethylphthalate	ND	0.194	0.388	ug/L	1	09/24/21 11:13	EPA 8270E	
Di-n-butylphthalate	ND	0.194	0.388	ug/L	1	09/24/21 11:13	EPA 8270E	
Di-n-octyl phthalate	ND	0.194	0.388	ug/L	1	09/24/21 11:13	EPA 8270E	
N-Nitrosodimethylamine	ND	0.0243	0.0485	ug/L	1	09/24/21 11:13	EPA 8270E	
N-Nitroso-di-n-propylamine	ND	0.0243	0.0485	ug/L	1	09/24/21 11:13	EPA 8270E	
N-Nitrosodiphenylamine	ND	0.0243	0.0485	ug/L	1	09/24/21 11:13	EPA 8270E	
Bis(2-Chloroethoxy) methane	ND	0.0243	0.0485	ug/L	1	09/24/21 11:13	EPA 8270E	
Bis(2-Chloroethyl) ether	ND	0.0243	0.0485	ug/L	1	09/24/21 11:13	EPA 8270E	
2,2'-Oxybis(1-Chloropropane)	ND	0.0243	0.0485	ug/L	1	09/24/21 11:13	EPA 8270E	
Hexachlorobenzene	ND	0.00971	0.0194	ug/L	1	09/24/21 11:13	EPA 8270E	
Hexachlorobutadiene	ND	0.0243	0.0485	ug/L	1	09/24/21 11:13	EPA 8270E	
Hexachlorocyclopentadiene	ND	0.0485	0.0971	ug/L	1	09/24/21 11:13	EPA 8270E	
Hexachloroethane	ND	0.0243	0.0485	ug/L	1	09/24/21 11:13	EPA 8270E	
2-Chloronaphthalene	ND	0.00971	0.0194	ug/L	1	09/24/21 11:13	EPA 8270E	
1,2,4-Trichlorobenzene	ND	0.0243	0.0485	ug/L	1	09/24/21 11:13	EPA 8270E	
4-Bromophenyl phenyl ether	ND	0.0243	0.0485	ug/L	1	09/24/21 11:13	EPA 8270E	
4-Chlorophenyl phenyl ether	ND	0.0243	0.0485	ug/L	1	09/24/21 11:13	EPA 8270E	
Aniline	ND	0.0485	0.0971	ug/L	1	09/24/21 11:13	EPA 8270E	
4-Chloroaniline	ND	0.0243	0.0485	ug/L	1	09/24/21 11:13	EPA 8270E	
2-Nitroaniline	ND	0.194	0.388	ug/L	1	09/24/21 11:13	EPA 8270E	
3-Nitroaniline	ND	0.194	0.388	ug/L	1	09/24/21 11:13	EPA 8270E	
4-Nitroaniline	ND	0.194	0.388	ug/L	1	09/24/21 11:13	EPA 8270E	Q-30
2,4-Dinitrotoluene	ND	0.0971	0.194	ug/L	1	09/24/21 11:13	EPA 8270E	
2,6-Dinitrotoluene	ND	0.0971	0.194	ug/L	1	09/24/21 11:13	EPA 8270E	
Benzoic acid	ND	1.21	2.43	ug/L	1	09/24/21 11:13	EPA 8270E	
Benzyl alcohol	ND	0.0971	0.194	ug/L	1	09/24/21 11:13	EPA 8270E	
sophorone	ND	0.0243	0.0485	ug/L	1	09/24/21 11:13	EPA 8270E	
Azobenzene (1,2-DPH)	ND	0.0243	0.0485	ug/L	1	09/24/21 11:13	EPA 8270E	
Bis(2-Ethylhexyl) adipate	ND	0.485	0.485	ug/L	1	09/24/21 11:13	EPA 8270E	
3,3'-Dichlorobenzidine	ND	0.485	0.971	ug/L	1	09/24/21 11:13	EPA 8270E	Q-52

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project Number: Eatonville
Project Number: 0171.067
Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

	Sen	nivolatile Organ	ic Comp	ounds by EPA 8	3270E			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW04-0921 (A1I0619-17RE2)				Matrix: Wate	er	Batch:	1090906	
1,2-Dinitrobenzene	ND	0.243	0.485	ug/L	1	09/24/21 11:13	EPA 8270E	
1,3-Dinitrobenzene	ND	0.243	0.485	ug/L	1	09/24/21 11:13	EPA 8270E	
1,4-Dinitrobenzene	ND	0.243	0.485	ug/L	1	09/24/21 11:13	EPA 8270E	
Pyridine	ND	0.0971	0.194	ug/L	1	09/24/21 11:13	EPA 8270E	
1,2-Dichlorobenzene	ND	0.0243	0.0485	ug/L	1	09/24/21 11:13	EPA 8270E	
1,3-Dichlorobenzene	ND	0.0243	0.0485	ug/L	1	09/24/21 11:13	EPA 8270E	
1,4-Dichlorobenzene	ND	0.0243	0.0485	ug/L	1	09/24/21 11:13	EPA 8270E	
Surrogate: Nitrobenzene-d5 (Surr)		Recovery	v: 64 %	Limits: 44-120 %	<i>I</i>	09/24/21 11:13	EPA 8270E	Q-41
2-Fluorobiphenyl (Surr)			58 %	44-120 %	1	09/24/21 11:13	EPA 8270E	
Phenol-d6 (Surr)			21 %	10-133 %		09/24/21 11:13	EPA 8270E	
p-Terphenyl-d14 (Surr)			109 %	50-134 %		09/24/21 11:13	EPA 8270E	
2-Fluorophenol (Surr)			31 %	19-120 %		09/24/21 11:13	EPA 8270E	
2,4,6-Tribromophenol (Surr)			79 %	43-140 %	1	09/24/21 11:13	EPA 8270E	
W05-0921 (A1I0619-18RE1)				Matrix: Wate	er	Batch:	1090906	
Acenaphthene	ND	0.00962	0.0192	ug/L	1	09/24/21 11:48	EPA 8270E	
Acenaphthylene	ND	0.00962	0.0192	ug/L	1	09/24/21 11:48	EPA 8270E	
Anthracene	ND	0.00962	0.0192	ug/L	1	09/24/21 11:48	EPA 8270E	
Benz(a)anthracene	ND	0.00962	0.0192	ug/L	1	09/24/21 11:48	EPA 8270E	
Benzo(a)pyrene	ND	0.0144	0.0288	ug/L	1	09/24/21 11:48	EPA 8270E	
Benzo(b)fluoranthene	ND	0.0144	0.0288	ug/L	1	09/24/21 11:48	EPA 8270E	
Benzo(k)fluoranthene	ND	0.0144	0.0288	ug/L	1	09/24/21 11:48	EPA 8270E	
Benzo(g,h,i)perylene	ND	0.00962	0.0192	ug/L	1	09/24/21 11:48	EPA 8270E	
Chrysene	ND	0.00962	0.0192	ug/L	1	09/24/21 11:48	EPA 8270E	
Dibenz(a,h)anthracene	ND	0.00962	0.0192	ug/L	1	09/24/21 11:48	EPA 8270E	
Fluoranthene	ND	0.00962	0.0192	ug/L	1	09/24/21 11:48	EPA 8270E	
Fluorene	ND	0.00962	0.0192	ug/L	1	09/24/21 11:48	EPA 8270E	
Indeno(1,2,3-cd)pyrene	ND	0.00962	0.0192	ug/L	1	09/24/21 11:48	EPA 8270E	
1-Methylnaphthalene	ND	0.0192	0.0385	ug/L	1	09/24/21 11:48	EPA 8270E	
2-Methylnaphthalene	ND	0.0192	0.0385	ug/L	1	09/24/21 11:48	EPA 8270E	
Naphthalene	0.0192	0.0192	0.0385	ug/L	1	09/24/21 11:48	EPA 8270E	J
Phenanthrene	ND	0.00962	0.0192	ug/L	1	09/24/21 11:48	EPA 8270E	
Pyrene	ND	0.00962	0.0192	ug/L	1	09/24/21 11:48	EPA 8270E	
Carbazole	ND	0.0144	0.0288	ug/L	1	09/24/21 11:48	EPA 8270E	

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6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

	Sen	nivolatile Org	anic Compo	unds by EP/	4 8270E			
	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
SW05-0921 (A1I0619-18RE1)				Matrix: Wa	ater	Batch:	1090906	
Dibenzofuran	ND	0.00962	0.0192	ug/L	1	09/24/21 11:48	EPA 8270E	_
2-Chlorophenol	ND	0.0481	0.0962	ug/L	1	09/24/21 11:48	EPA 8270E	
4-Chloro-3-methylphenol	ND	0.0962	0.192	ug/L	1	09/24/21 11:48	EPA 8270E	
2,4-Dichlorophenol	ND	0.0481	0.0962	ug/L	1	09/24/21 11:48	EPA 8270E	
2,4-Dimethylphenol	ND	0.0481	0.0962	ug/L	1	09/24/21 11:48	EPA 8270E	
2,4-Dinitrophenol	ND	0.240	0.481	ug/L	1	09/24/21 11:48	EPA 8270E	
4,6-Dinitro-2-methylphenol	ND	0.240	0.481	ug/L	1	09/24/21 11:48	EPA 8270E	
2-Methylphenol	ND	0.0240	0.0481	ug/L	1	09/24/21 11:48	EPA 8270E	
3+4-Methylphenol(s)	ND	0.0240	0.0481	ug/L	1	09/24/21 11:48	EPA 8270E	
2-Nitrophenol	ND	0.0962	0.192	ug/L	1	09/24/21 11:48	EPA 8270E	
4-Nitrophenol	ND	0.0962	0.192	ug/L	1	09/24/21 11:48	EPA 8270E	
Pentachlorophenol (PCP)	ND	0.0962	0.192	ug/L	1	09/24/21 11:48	EPA 8270E	
Phenol	ND	0.192	0.385	ug/L	1	09/24/21 11:48	EPA 8270E	
2,3,4,6-Tetrachlorophenol	ND	0.0481	0.0962	ug/L	1	09/24/21 11:48	EPA 8270E	
2,3,5,6-Tetrachlorophenol	ND	0.0481	0.0962	ug/L	1	09/24/21 11:48	EPA 8270E	
2,4,5-Trichlorophenol	ND	0.0481	0.0962	ug/L	1	09/24/21 11:48	EPA 8270E	
Nitrobenzene	ND	0.0962	0.192	ug/L	1	09/24/21 11:48	EPA 8270E	
2,4,6-Trichlorophenol	ND	0.0481	0.0962	ug/L	1	09/24/21 11:48	EPA 8270E	
Bis(2-ethylhexyl)phthalate	ND	0.192	0.385	ug/L	1	09/24/21 11:48	EPA 8270E	
Butyl benzyl phthalate	ND	0.192	0.385	ug/L	1	09/24/21 11:48	EPA 8270E	
Diethylphthalate	ND	0.192	0.385	ug/L	1	09/24/21 11:48	EPA 8270E	
Dimethylphthalate	ND	0.192	0.385	ug/L	1	09/24/21 11:48	EPA 8270E	
Di-n-butylphthalate	ND	0.192	0.385	ug/L	1	09/24/21 11:48	EPA 8270E	
Di-n-octyl phthalate	ND	0.192	0.385	ug/L	1	09/24/21 11:48	EPA 8270E	
N-Nitrosodimethylamine	ND	0.0240	0.0481	ug/L	1	09/24/21 11:48	EPA 8270E	
N-Nitroso-di-n-propylamine	ND	0.0240	0.0481	ug/L	1	09/24/21 11:48	EPA 8270E	
N-Nitrosodiphenylamine	ND	0.0240	0.0481	ug/L	1	09/24/21 11:48	EPA 8270E	
Bis(2-Chloroethoxy) methane	ND	0.0240	0.0481	ug/L	1	09/24/21 11:48	EPA 8270E	
Bis(2-Chloroethyl) ether	ND	0.0240	0.0481	ug/L	1	09/24/21 11:48	EPA 8270E	
2,2'-Oxybis(1-Chloropropane)	ND	0.0240	0.0481	ug/L	1	09/24/21 11:48	EPA 8270E	
Hexachlorobenzene	ND	0.00962	0.0192	ug/L	1	09/24/21 11:48	EPA 8270E	
Hexachlorobutadiene	ND	0.0240	0.0481	ug/L	1	09/24/21 11:48	EPA 8270E	
Hexachlorocyclopentadiene	ND	0.0481	0.0962	ug/L	1	09/24/21 11:48	EPA 8270E	
					_			

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Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

Report ID:

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 0171.067

Project Manager: Genevieve Schutzius A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

Hexachloroethane		
Hexachloroethane	Method Ref.	Notes
2-Chloronaphthalene ND 0.00962 0.0192 ug/L 1 09/24/21 11:48 1,2,4-Trichlorobenzene ND 0.0240 0.0481 ug/L 1 09/24/21 11:48 4-Bromophenyl phenyl ether ND 0.0240 0.0481 ug/L 1 09/24/21 11:48 4-Chlorophenyl phenyl ether ND 0.0240 0.0481 ug/L 1 09/24/21 11:48 4-Chlorophenyl phenyl ether ND 0.0481 0.0962 ug/L 1 09/24/21 11:48 4-Chlorophenyl phenyl ether ND 0.0481 0.0962 ug/L 1 09/24/21 11:48 4-Chlorophenyl phenyl ether ND 0.0481 0.0962 ug/L 1 09/24/21 11:48 4-Chlorophenyl phenyl ether ND 0.0240 0.0481 ug/L 1 09/24/21 11:48 4-Chlorophenyl phenyl ether ND 0.0192 0.385 ug/L 1 09/24/21 11:48 2-Nitrophiline ND 0.192 0.385 ug/L 1 09/24/21 11:48 4-	: 1090906	
2-Chloronaphthalene ND 0.00962 0.0192 ug/L 1 09/24/21 11:48 1,2,4-Trichlorobenzene ND 0.0240 0.0481 ug/L 1 09/24/21 11:48 4-Bromophenyl phenyl ether ND 0.0240 0.0481 ug/L 1 09/24/21 11:48 4-Chlorophenyl phenyl ether ND 0.0240 0.0481 ug/L 1 09/24/21 11:48 4-Chlorophenyl phenyl ether ND 0.0481 0.0962 ug/L 1 09/24/21 11:48 4-Chlorophenyl phenyl ether ND 0.0481 0.0962 ug/L 1 09/24/21 11:48 4-Chlorophenyl phenyl ether ND 0.0481 0.0962 ug/L 1 09/24/21 11:48 4-Chlorophenyl phenyl ether ND 0.0240 0.0481 ug/L 1 09/24/21 11:48 4-Chlorophenyl phenyl ether ND 0.0192 0.385 ug/L 1 09/24/21 11:48 2-Nitrophiline ND 0.192 0.385 ug/L 1 09/24/21 11:48 4-	EPA 8270E	
## A-Bromophenyl phenyl ether ND 0.0240 0.0481 ug/L 1 0.924/21 11:48 ## A-Chlorophenyl phenyl ether ND 0.0240 0.0481 ug/L 1 0.924/21 11:48 ## A-Chlorophenyl phenyl ether ND 0.0240 0.0481 ug/L 1 0.924/21 11:48 ## A-Chlorophenyl phenyl ether ND 0.0240 0.0481 ug/L 1 0.924/21 11:48 ## A-Chlorophenyl phenyl ether ND 0.0240 0.0481 ug/L 1 0.924/21 11:48 ## A-Chlorophenyl phenyl ether ND 0.0240 0.0481 ug/L 1 0.924/21 11:48 ## A-Chlorophenyl phenyl ether ND 0.0192 0.385 ug/L 1 0.924/21 11:48 ## A-Nitroaniline ND 0.192 0.385 ug/L 1 0.924/21 11:48 ## A-Nitroaniline ND 0.192 0.385 ug/L 1 0.924/21 11:48 ## A-Nitroaniline ND 0.0962 0.192 ug/L 1 0.924/21 11:48 ## Benzoic acid ND 0.0962 0.192 ug/L 1 0.924/21 11:48 ## Benzoic acid ND 0.0962 0.192 ug/L 1 0.924/21 11:48 ## Benzoic acid ND 0.0962 0.192 ug/L 1 0.924/21 11:48 ## Benzoic acid ND 0.0962 0.192 ug/L 1 0.924/21 11:48 ## Benzoic acid ND 0.0240 0.0481 ug/L 1 0.924/21 11:48 ## Bis(2-Ethylhexyl) adipate ND 0.0240 0.0481 ug/L 1 0.924/21 11:48 ## Bis(2-Ethylhexyl) adipate ND 0.240 0.481 ug/L 1 0.924/21 11:48 ## Bis(2-Ethylhexyl) adipate ND 0.240 0.481 ug/L 1 0.924/21 11:48 ## Bis(2-Ethylhexyl) adipate ND 0.240 0.481 ug/L 1 0.924/21 11:48 ## Bis(2-Ethylhexyl) adipate ND 0.240 0.481 ug/L 1 0.924/21 11:48 ## Bis(2-Ethylhexyl) adipate ND 0.240 0.481 ug/L 1 0.924/21 11:48 ## Bis(2-Ethylhexyl) adipate ND 0.240 0.481 ug/L 1 0.924/21 11:48 ## Bis(2-Ethylhexyl) adipate ND 0.0240 0.481 ug/L 1 0.924/21 11:48 ## Bis(2-Ethylhexyl) adipate ND 0.0240 0.481 ug/L 1 0.924/21 11:48 ## Bis(2-Ethylhexyl) adipate ND 0.0240 0.481 ug/L 1 0.924/21 11:48 ## Bis(2-Ethylhexyl) adipate ND 0.0240 0.481 ug/L 1 0.924/21 11:48 ## Bis(2-Ethylhexyl) adipate ND 0.0240 0.481 ug/L 1 0.924/21 11:48 ## Bis(2-Ethylhexyl) adipate ND 0.0240 0.0481 ug/L 1 0.924/21 11:48 ## Bis(2-Ethylhexyl) ## Bis(2-Ethylhexyl) ## Bis(2-Ethylhe	EPA 8270E	
A-Chlorophenyl phenyl ether ND 0.0240 0.0481 0.0962 ug/L 1 09/24/21 11:48 Aniline ND 0.0481 0.0962 ug/L 1 09/24/21 11:48 4-Chloroaniline ND 0.0240 0.0481 ug/L 1 09/24/21 11:48 4-Chloroaniline ND 0.0240 0.0481 ug/L 1 09/24/21 11:48 2-Nitroaniline ND 0.192 0.385 ug/L 1 09/24/21 11:48 4-Nitroaniline ND 0.192 0.385 ug/L 1 09/24/21 11:48 4-Nitroaniline ND 0.192 0.385 ug/L 1 09/24/21 11:48 4-Nitroaniline ND 0.0962 0.192 ug/L 1 09/24/21 11:48 2,4-Dinitrotoluene ND 0.0962 0.192 ug/L 1 09/24/21 11:48 Benzoic acid ND 0.0962 0.192 ug/L 1 09/24/21 11:48 Benzyl alcohol ND 0.0962 0.192 ug/L 1 09/24/21 11:48 Benzyl alcohol ND 0.0962 0.192 ug/L 1 09/24/21 11:48 Benzyl alcohol ND 0.0962 0.192 ug/L 1 09/24/21 11:48 Benzyl alcohol ND 0.0962 0.192 ug/L 1 09/24/21 11:48 Benzyl alcohol ND 0.0962 0.192 ug/L 1 09/24/21 11:48 Bis(2-Ethylhexyl) adipate ND 0.0240 0.0481 ug/L 1 09/24/21 11:48 1,2-Dinitrobenzene ND 0.240 0.481 ug/L 1 09/24/21 11:48 1,3-Dinitrobenzene ND 0.0240 0.481 ug/L 1 09/24/21 11:48 1,4-Dinitrobenzene ND 0.0240 0.481 ug/L 1 09/24/21 11:48 1,4-Dinitrobenzene ND 0.0962 0.192 ug/L 1 09/24/21 11:48 1,4-Dinitrobenzene ND 0.0240 0.481 ug/L 1 09/24/21 11:48 1,4-Dinitrobenzene ND 0.0962 0.192 ug/L 1 09/24/21 11:48 1,4-Dinitrobenzene ND 0.0962 0.192 ug/L 1 09/24/21 11:48 1,4-Dinitrobenzene ND 0.0962 0.0982 ug/L 1 09/24/21 11:48 1,4-Dinitrobenzene ND 0.0962 0.0982 ug/L 1 09/24/21 11:48 1,4-Dinitrobenzene ND 0.0962 0.0982 ug/L 1 09/24/21 11:48 1 09/24/21 11	EPA 8270E	
Aniline ND 0.0481 0.0962 ug/L 1 09/24/21 11:48 4-Chloroaniline ND 0.0240 0.0481 ug/L 1 09/24/21 11:48 2-Nitroaniline ND 0.192 0.385 ug/L 1 09/24/21 11:48 3-Nitroaniline ND 0.192 0.385 ug/L 1 09/24/21 11:48 4-Nitroaniline ND 0.0962 0.192 ug/L 1 09/24/21 11:48 2,4-Dinitrotoluene ND 0.0962 0.192 ug/L 1 09/24/21 11:48 2,6-Dinitrotoluene ND 0.0240 0.0481 ug/L 1 09/24/21 11:48 Benzo/a acid ND 0.0240 0.0481 ug/L	EPA 8270E	
4-Chloroaniline ND 0.0240 0.0481 ug/L 1 09/24/21 11:48 2-Nitroaniline ND 0.192 0.385 ug/L 1 09/24/21 11:48 3-Nitroaniline ND 0.192 0.385 ug/L 1 09/24/21 11:48 4-Nitroaniline ND 0.192 0.385 ug/L 1 09/24/21 11:48 2,4-Dinitrotoluene ND 0.0962 0.192 ug/L 1 09/24/21 11:48 2,6-Dinitrotoluene ND 0.0962 0.192 ug/L 1 09/24/21 11:48 2,6-Dinitrotoluene ND 0.0962 0.192 ug/L 1 09/24/21 11:48 2,6-Dinitrotoluene ND 0.0962 0.192 ug/L 1 09/24/21 11:48 Benzoic acid ND 0.0962 0.192 ug/L 1 09/24/21 11:48 Benzoic acid ND 0.0962 0.192 ug/L 1 09/24/21 11:48 Benzoic acid ND 0.0240 0.0481 ug/L	EPA 8270E	
2-Nitroaniline ND 0.192 0.385 ug/L 1 09/24/21 11:48 3-Nitroaniline ND 0.192 0.385 ug/L 1 09/24/21 11:48 4-Nitroaniline ND 0.192 0.385 ug/L 1 09/24/21 11:48 2,4-Dinitrotoluene ND 0.0962 0.192 ug/L 1 09/24/21 11:48 2,6-Dinitrotoluene ND 0.0962 0.192 ug/L 1 09/24/21 11:48 Benzoic acid ND 1.20 2.40 ug/L 1 09/24/21 11:48 Benzoic acid ND 0.0962 0.192 ug/L 1 09/24/21 11:48 Benzoic acid ND 0.0962 0.192 ug/L 1 09/24/21 11:48 Benzoic acid ND 0.0962 0.192 ug/L 1 09/24/21 11:48 Benzoic acid ND 0.0962 0.192 ug/L 1 09/24/21 11:48 Benzoic acid ND 0.0240 0.0481 ug/L 1	EPA 8270E	
3-Nitroaniline ND 0.192 0.385 ug/L 1 09/24/21 11:48	EPA 8270E	
3-Nitroaniline ND 0.192 0.385 ug/L 1 09/24/21 11:48	EPA 8270E	
2,4-Dinitrotoluene ND 0.0962 0.192 ug/L 1 09/24/21 11:48 2,6-Dinitrotoluene ND 0.0962 0.192 ug/L 1 09/24/21 11:48 Benzoic acid ND 1.20 2.40 ug/L 1 09/24/21 11:48 Benzyl alcohol ND 0.0962 0.192 ug/L 1 09/24/21 11:48 Isophorone ND 0.0240 0.0481 ug/L 1 09/24/21 11:48 Azobenzene (1,2-DPH) ND 0.0240 0.0481 ug/L 1 09/24/21 11:48 Bis(2-Ethylhexyl) adipate ND 0.240 0.481 ug/L 1 09/24/21 11:48 Bis(2-Ethylhexyl) adipate ND 0.240 0.481 ug/L 1 09/24/21 11:48 Bis(2-Ethylhexyl) adipate ND 0.240 0.481 ug/L 1 09/24/21 11:48 1,2-Dinitrobenzene ND 0.240 0.481 ug/L 1 09/24/21 11:48 1,4-Dinitrobenzene ND 0.0240	EPA 8270E	
2,4-Dinitrotoluene ND 0.0962 0.192 ug/L 1 09/24/21 11:48 2,6-Dinitrotoluene ND 0.0962 0.192 ug/L 1 09/24/21 11:48 Benzoic acid ND 1.20 2.40 ug/L 1 09/24/21 11:48 Benzyl alcohol ND 0.0962 0.192 ug/L 1 09/24/21 11:48 Isophorone ND 0.0240 0.0481 ug/L 1 09/24/21 11:48 Azobenzene (1,2-DPH) ND 0.0240 0.0481 ug/L 1 09/24/21 11:48 Bis(2-Ethylhexyl) adipate ND 0.240 0.0481 ug/L 1 09/24/21 11:48 Bis(2-Ethylhexyl) adipate ND 0.240 0.481 ug/L 1 09/24/21 11:48 Bis(2-Ethylhexyl) adipate ND 0.240 0.481 ug/L 1 09/24/21 11:48 1,2-Dichlorobenzene ND 0.240 0.481 ug/L 1 09/24/21 11:48 1,4-Dinitrobenzene ND 0.0240	EPA 8270E	Q-30
2,6-Dinitrotoluene	EPA 8270E	
Benzoic acid ND 1.20 2.40 ug/L 1 09/24/21 11:48 Benzyl alcohol ND 0.0962 0.192 ug/L 1 09/24/21 11:48 Isophorone ND 0.0240 0.0481 ug/L 1 09/24/21 11:48 Azobenzene (1,2-DPH) ND 0.0240 0.0481 ug/L 1 09/24/21 11:48 Bis(2-Ethylhexyl) adipate ND 0.240 0.481 ug/L 1 09/24/21 11:48 3,3'-Dichlorobenzidine ND 0.481 0.962 ug/L 1 09/24/21 11:48 1,2-Dinitrobenzene ND 0.240 0.481 ug/L 1 09/24/21 11:48 1,3-Dinitrobenzene ND 0.240 0.481 ug/L 1 09/24/21 11:48 1,4-Dinitrobenzene ND 0.240 0.481 ug/L 1 09/24/21 11:48 1,2-Dichlorobenzene ND 0.0962 0.192 ug/L 1 09/24/21 11:48 1,2-Dichlorobenzene ND 0.0240 0.	EPA 8270E	
Benzyl alcohol ND 0.0962 0.192 ug/L 1 09/24/21 11:48 Isophorone ND 0.0240 0.0481 ug/L 1 09/24/21 11:48 Azobenzene (1,2-DPH) ND 0.0240 0.0481 ug/L 1 09/24/21 11:48 Bis(2-Ethylhexyl) adipate ND 0.240 0.481 ug/L 1 09/24/21 11:48 3,3'-Dichlorobenzidine ND 0.481 0.962 ug/L 1 09/24/21 11:48 1,2-Dinitrobenzene ND 0.240 0.481 ug/L 1 09/24/21 11:48 1,3-Dinitrobenzene ND 0.240 0.481 ug/L 1 09/24/21 11:48 1,4-Dinitrobenzene ND 0.240 0.481 ug/L 1 09/24/21 11:48 1,4-Dinitrobenzene ND 0.0240 0.481 ug/L 1 09/24/21 11:48 1,2-Dichlorobenzene ND 0.0962 0.192 ug/L 1 09/24/21 11:48 1,2-Dichlorobenzene ND 0.0240 0.0481 ug/L 1 09/24/21 11:48 1,3-Dichlorobenzene ND 0.0240 0.0481 ug/L 1 09/24/21 11:48 1,4-Dichlorobenzene ND 0.0240 0.0481 ug/L 1 0.09/24/21 11:48 1,4-Dichlorobenzene ND 0.0240 0.0481 ug/L 1 0.09/24/21 11:48 1,4-Dichlorobenzene 0.0240 0.0481 ug/L 1 0.0424/21 11:48 1,4-Dichlorobenzene 0.0240 0.0481 ug/L 1 0.0424/21 11:48 1,4-Dichlorobenzene 0.0	EPA 8270E	
Surrogate: Nitrobenzene ND 0.0240 0.0481 ug/L 1 09/24/21 11:48	EPA 8270E	
Azobenzene (1,2-DPH) ND 0.0240 0.0481 ug/L 1 09/24/21 11:48 Bis(2-Ethylhexyl) adipate ND 0.240 0.481 ug/L 1 09/24/21 11:48 3,3'-Dichlorobenzidine ND 0.481 0.962 ug/L 1 09/24/21 11:48 1,2-Dinitrobenzene ND 0.240 0.481 ug/L 1 09/24/21 11:48 1,3-Dinitrobenzene ND 0.240 0.481 ug/L 1 09/24/21 11:48 1,4-Dinitrobenzene ND 0.240 0.481 ug/L 1 09/24/21 11:48 1,4-Dinitrobenzene ND 0.240 0.481 ug/L 1 09/24/21 11:48 Pyridine ND 0.0962 0.192 ug/L 1 09/24/21 11:48 1,2-Dichlorobenzene ND 0.0240 0.0481 ug/L 1 09/24/21 11:48 1,3-Dichlorobenzene ND 0.0240 0.0481 ug/L 1 09/24/21 11:48 1,3-Dichlorobenzene ND 0.0240 0.0481 ug/L 1 09/24/21 11:48 1,4-Dichlorobenzene ND 0.0240 0.0481 ug/L 1 09/24/21 11:48 1,5-Pichlorobenzene ND 0.0240 0.0481 ug/L 1 09/24/21 11:48 1,5-Pichlorobenzene ND 0.0240 0.0481 ug/L 1 09/24/21 11:48 1,5-Pichlorobenzene ND 0.0240 0.0481 ug/L 1 09/24/21 11:48 2-Fluorobiphenyl (Surr)	EPA 8270E	
Bis(2-Ethylhexyl) adipate ND 0.240 0.481 ug/L 1 09/24/21 11:48 3,3'-Dichlorobenzidine ND 0.481 0.962 ug/L 1 09/24/21 11:48 1,2-Dinitrobenzene ND 0.240 0.481 ug/L 1 09/24/21 11:48 1,3-Dinitrobenzene ND 0.240 0.481 ug/L 1 09/24/21 11:48 1,4-Dinitrobenzene ND 0.240 0.481 ug/L 1 09/24/21 11:48 Pyridine ND 0.0962 0.192 ug/L 1 09/24/21 11:48 1,2-Dichlorobenzene ND 0.0240 0.0481 ug/L 1 09/24/21 11:48 1,4-Dichlorobenzene ND 0.0240 0.0481 ug/L 1 09/24/21 11:48 1,4-Dichlorobenzene ND 0.0240 0.0481 ug/L 1 09/24/21 11:48 2-Fluorobiphenyl (Surr) 54 % Limits: 44-120 % 1 09/24/21 11:48 Phenol-d6 (Surr) 109/24/21 11:48 109/24/21 11:48	EPA 8270E	
3,3'-Dichlorobenzidine ND 0.481 0.962 ug/L 1 09/24/21 11:48 1,2-Dinitrobenzene ND 0.240 0.481 ug/L 1 09/24/21 11:48 1,3-Dinitrobenzene ND 0.240 0.481 ug/L 1 09/24/21 11:48 1,4-Dinitrobenzene ND 0.240 0.481 ug/L 1 09/24/21 11:48 1,4-Dinitrobenzene ND 0.0240 0.481 ug/L 1 09/24/21 11:48 1,2-Dichlorobenzene ND 0.0962 0.192 ug/L 1 09/24/21 11:48 1,2-Dichlorobenzene ND 0.0240 0.0481 ug/L 1 09/24/21 11:48 1,3-Dichlorobenzene ND 0.0240 0.0481 ug/L 1 09/24/21 11:48 1,4-Dichlorobenzene ND 0.0240 0.0481 ug/L 1 09/24/2	EPA 8270E	
1,2-Dinitrobenzene ND 0.240 0.481 ug/L 1 09/24/21 11:48 1,3-Dinitrobenzene ND 0.240 0.481 ug/L 1 09/24/21 11:48 1,4-Dinitrobenzene ND 0.240 0.481 ug/L 1 09/24/21 11:48 Pyridine ND 0.0962 0.192 ug/L 1 09/24/21 11:48 1,2-Dichlorobenzene ND 0.0240 0.0481 ug/L 1 09/24/21 11:48 1,3-Dichlorobenzene ND 0.0240 0.0481 ug/L 1 09/24/21 11:48 1,3-Dichlorobenzene ND 0.0240 0.0481 ug/L 1 09/24/21 11:48 1,4-Dichlorobenzene ND 0.0240 0.0481 ug/L 1 09/24/21 11:48 1,4-Dichlorobenzene ND 0.0240 0.0481 ug/L 1 09/24/21 11:48 1,4-Dichlorobenzene ND 0.0240 0.0481 ug/L 1 09/24/21 11:48 2-Fluorobiphenyl (Surr) 64 % Limits: 44-120 % 1 09/24/21 11:48 2-Fluorobiphenyl (Surr) 19% 10-133 % 1 09/24/21 11:48 p-Terphenyl-d14 (Surr) 101 % 50-134 % 1 09/24/21 11:48 2-Fluorophenol (Surr) 101 % 50-134 % 1 09/24/21 11:48	EPA 8270E	Q-52
1,3-Dinitrobenzene ND 0.240 0.481 ug/L 1 09/24/21 11:48 1,4-Dinitrobenzene ND 0.240 0.481 ug/L 1 09/24/21 11:48 Pyridine ND 0.0962 0.192 ug/L 1 09/24/21 11:48 1,2-Dichlorobenzene ND 0.0240 0.0481 ug/L 1 09/24/21 11:48 1,3-Dichlorobenzene ND 0.0240 0.0481 ug/L 1 09/24/21 11:48 1,4-Dichlorobenzene ND 0.0240 0.0481 ug/L 1 09/24/21 11:48 2-Fluorobiphenzene-d5 (Surr) Recovery: 64 % Limits: 44-120 % 1 09/24/21 11:48 2-Fluorobiphenyl (Surr) 54 % Limits: 44-120 % 1 09/24/21 11:48 Phenol-d6 (Surr) 19 % 10-133 % 1 09/24/21 11:48 101 % 50-134 % 1 09/24/21 11:48 2-Fluorophenol (Surr) 30 % 19-120 % 1 09/24/21 11:48	EPA 8270E	
1,4-Dinitrobenzene ND 0.240 0.481 ug/L 1 09/24/21 11:48 Pyridine ND 0.0962 0.192 ug/L 1 09/24/21 11:48 1,2-Dichlorobenzene ND 0.0240 0.0481 ug/L 1 09/24/21 11:48 1,3-Dichlorobenzene ND 0.0240 0.0481 ug/L 1 09/24/21 11:48 1,4-Dichlorobenzene ND 0.0240 0.0481 ug/L 1 09/24/21 11:48 Surrogate: Nitrobenzene-d5 (Surr) Recovery: 64 % Limits: 44-120 % 1 09/24/21 11:48 2-Fluorobiphenyl (Surr) 54 % Limits: 44-120 % 1 09/24/21 11:48 Phenol-d6 (Surr) 19 % 10-133 % 1 09/24/21 11:48 101 % 50-134 % 1 09/24/21 11:48 2-Fluorophenol (Surr) 101 % 50-134 % 1 09/24/21 11:48 30 % 19-120 % 1 09/24/21 11:48	EPA 8270E	
Pyridine ND 0.0962 0.192 ug/L 1 09/24/21 11:48 1,2-Dichlorobenzene ND 0.0240 0.0481 ug/L 1 09/24/21 11:48 1,3-Dichlorobenzene ND 0.0240 0.0481 ug/L 1 09/24/21 11:48 1,4-Dichlorobenzene ND 0.0240 0.0481 ug/L 1 09/24/21 11:48 Surrogate: Nitrobenzene-d5 (Surr) Recovery: 64 % Limits: 44-120 % 1 09/24/21 11:48 2-Fluorobiphenyl (Surr) 54 % Limits: 44-120 % 1 09/24/21 11:48 Phenol-d6 (Surr) 19 % 10-133 % 1 09/24/21 11:48 p-Terphenyl-d14 (Surr) 101 % 50-134 % 1 09/24/21 11:48 2-Fluorophenol (Surr) 30 % 19-120 % 1 09/24/21 11:48	EPA 8270E	
1,2-Dichlorobenzene ND 0.0240 0.0481 ug/L 1 09/24/21 11:48 1,3-Dichlorobenzene ND 0.0240 0.0481 ug/L 1 09/24/21 11:48 1,4-Dichlorobenzene ND 0.0240 0.0481 ug/L 1 09/24/21 11:48 1,4-Dichlorobenzene ND 0.0240 0.0481 ug/L 1 09/24/21 11:48 Surrogate: Nitrobenzene-d5 (Surr) Recovery: 64 % Limits: 44-120 % 1 09/24/21 11:48 2-Fluorobiphenyl (Surr) 54 % 44-120 % 1 09/24/21 11:48 Phenol-d6 (Surr) 19 % 10-133 % 1 09/24/21 11:48 p-Terphenyl-d14 (Surr) 101 % 50-134 % 1 09/24/21 11:48 2-Fluorophenol (Surr) 30 % 19-120 % 1 09/24/21 11:48	EPA 8270E	
1,3-Dichlorobenzene ND 0.0240 0.0481 ug/L 1 09/24/21 11:48 1,4-Dichlorobenzene ND 0.0240 0.0481 ug/L 1 09/24/21 11:48 Surrogate: Nitrobenzene-d5 (Surr) Recovery: 64 % Limits: 44-120 % 1 09/24/21 11:48 2-Fluorobiphenyl (Surr) 54 % Limits: 44-120 % 1 09/24/21 11:48 Phenol-d6 (Surr) 19 % 10-133 % 1 09/24/21 11:48 p-Terphenyl-d14 (Surr) 101 % 50-134 % 1 09/24/21 11:48 2-Fluorophenol (Surr) 30 % 19-120 % 1 09/24/21 11:48	EPA 8270E	
1,4-Dichlorobenzene ND 0.0240 0.0481 ug/L 1 09/24/21 11:48 Surrogate: Nitrobenzene-d5 (Surr) Recovery: 64 % Limits: 44-120 % 1 09/24/21 11:48 2-Fluorobiphenyl (Surr) 54 % 44-120 % 1 09/24/21 11:48 Phenol-d6 (Surr) 19 % 10-133 % 1 09/24/21 11:48 p-Terphenyl-d14 (Surr) 101 % 50-134 % 1 09/24/21 11:48 2-Fluorophenol (Surr) 30 % 19-120 % 1 09/24/21 11:48	EPA 8270E	
2-Fluorobiphenyl (Surr) 54 % 44-120 % 1 09/24/21 11:48 Phenol-d6 (Surr) 19 % 10-133 % 1 09/24/21 11:48 p-Terphenyl-d14 (Surr) 101 % 50-134 % 1 09/24/21 11:48 2-Fluorophenol (Surr) 30 % 19-120 % 1 09/24/21 11:48	EPA 8270E	
Phenol-d6 (Surr) 19 % 10-133 % 1 09/24/21 11:48 p-Terphenyl-d14 (Surr) 101 % 50-134 % 1 09/24/21 11:48 2-Fluorophenol (Surr) 30 % 19-120 % 1 09/24/21 11:48	EPA 8270E	Q-41
p-Terphenyl-d14 (Surr) 101 % 50-134 % 1 09/24/21 11:48 2-Fluorophenol (Surr) 30 % 19-120 % 1 09/24/21 11:48	EPA 8270E	_
2-Fluorophenol (Surr) 30 % 19-120 % 1 09/24/21 11:48	EPA 8270E	
	EPA 8270E	
2.47.00 1 1 1/0 1	EPA 8270E	
2,4,6-Tribromophenol (Surr) 71 % 43-140 % 1 09/24/21 11:48	EPA 8270E	
SW06-0921 (A1I0619-19RE1) Matrix: Water Batch	: 1090906	
Acenaphthene ND 0.00943 0.0189 ug/L 1 09/24/21 12:24	EPA 8270E	

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Philip Nerenberg, Lab Director

Philip Nevenberg

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID: A1I0619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Note
W06-0921 (A1I0619-19RE1)				Matrix: Wa	ater	Batch:	1090906	
Acenaphthylene	ND	0.00943	0.0189	ug/L	1	09/24/21 12:24	EPA 8270E	
Anthracene	ND	0.00943	0.0189	ug/L	1	09/24/21 12:24	EPA 8270E	
Benz(a)anthracene	ND	0.00943	0.0189	ug/L	1	09/24/21 12:24	EPA 8270E	
Benzo(a)pyrene	ND	0.0142	0.0283	ug/L	1	09/24/21 12:24	EPA 8270E	
Benzo(b)fluoranthene	ND	0.0142	0.0283	ug/L	1	09/24/21 12:24	EPA 8270E	
Benzo(k)fluoranthene	ND	0.0142	0.0283	ug/L	1	09/24/21 12:24	EPA 8270E	
Benzo(g,h,i)perylene	ND	0.00943	0.0189	ug/L	1	09/24/21 12:24	EPA 8270E	
Chrysene	ND	0.00943	0.0189	ug/L	1	09/24/21 12:24	EPA 8270E	
Dibenz(a,h)anthracene	ND	0.00943	0.0189	ug/L	1	09/24/21 12:24	EPA 8270E	
Fluoranthene	ND	0.00943	0.0189	ug/L	1	09/24/21 12:24	EPA 8270E	
Fluorene	ND	0.00943	0.0189	ug/L	1	09/24/21 12:24	EPA 8270E	
Indeno(1,2,3-cd)pyrene	ND	0.00943	0.0189	ug/L	1	09/24/21 12:24	EPA 8270E	
1-Methylnaphthalene	ND	0.0189	0.0377	ug/L	1	09/24/21 12:24	EPA 8270E	
2-Methylnaphthalene	ND	0.0189	0.0377	ug/L	1	09/24/21 12:24	EPA 8270E	
Naphthalene	ND	0.0189	0.0377	ug/L	1	09/24/21 12:24	EPA 8270E	
Phenanthrene	ND	0.00943	0.0189	ug/L	1	09/24/21 12:24	EPA 8270E	
Pyrene	ND	0.00943	0.0189	ug/L	1	09/24/21 12:24	EPA 8270E	
Carbazole	ND	0.0142	0.0283	ug/L	1	09/24/21 12:24	EPA 8270E	
Dibenzofuran	ND	0.00943	0.0189	ug/L	1	09/24/21 12:24	EPA 8270E	
2-Chlorophenol	ND	0.0472	0.0943	ug/L	1	09/24/21 12:24	EPA 8270E	
4-Chloro-3-methylphenol	ND	0.0943	0.189	ug/L	1	09/24/21 12:24	EPA 8270E	
2,4-Dichlorophenol	ND	0.0472	0.0943	ug/L	1	09/24/21 12:24	EPA 8270E	
2,4-Dimethylphenol	ND	0.0472	0.0943	ug/L	1	09/24/21 12:24	EPA 8270E	
2,4-Dinitrophenol	ND	0.236	0.472	ug/L	1	09/24/21 12:24	EPA 8270E	
1,6-Dinitro-2-methylphenol	ND	0.236	0.472	ug/L	1	09/24/21 12:24	EPA 8270E	
2-Methylphenol	ND	0.0236	0.0472	ug/L	1	09/24/21 12:24	EPA 8270E	
+4-Methylphenol(s)	ND	0.0236	0.0472	ug/L	1	09/24/21 12:24	EPA 8270E	
-Nitrophenol	ND	0.0943	0.189	ug/L	1	09/24/21 12:24	EPA 8270E	
-Nitrophenol	ND	0.0943	0.189	ug/L	1	09/24/21 12:24	EPA 8270E	
entachlorophenol (PCP)	ND	0.0943	0.189	ug/L	1	09/24/21 12:24	EPA 8270E	
henol	ND	0.189	0.377	ug/L	1	09/24/21 12:24	EPA 8270E	
,3,4,6-Tetrachlorophenol	ND	0.0472	0.0943	ug/L	1	09/24/21 12:24	EPA 8270E	
3,5,6-Tetrachlorophenol	ND	0.0472	0.0943	ug/L ug/L	1	09/24/21 12:24	EPA 8270E	

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Philip Nevenberg

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Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Date Analyzed	Method Ref.	Note
W06-0921 (A1I0619-19RE1)				Matrix: W	ater	Batch:	1090906	
2,4,5-Trichlorophenol	ND	0.0472	0.0943	ug/L	1	09/24/21 12:24	EPA 8270E	
Nitrobenzene	ND	0.0943	0.189	ug/L	1	09/24/21 12:24	EPA 8270E	
2,4,6-Trichlorophenol	ND	0.0472	0.0943	ug/L	1	09/24/21 12:24	EPA 8270E	
Bis(2-ethylhexyl)phthalate	ND	0.189	0.377	ug/L	1	09/24/21 12:24	EPA 8270E	
Butyl benzyl phthalate	ND	0.189	0.377	ug/L	1	09/24/21 12:24	EPA 8270E	
Diethylphthalate	ND	0.189	0.377	ug/L	1	09/24/21 12:24	EPA 8270E	
Dimethylphthalate	ND	0.189	0.377	ug/L	1	09/24/21 12:24	EPA 8270E	
Di-n-butylphthalate	ND	0.189	0.377	ug/L	1	09/24/21 12:24	EPA 8270E	
Di-n-octyl phthalate	ND	0.189	0.377	ug/L	1	09/24/21 12:24	EPA 8270E	
N-Nitrosodimethylamine	ND	0.0236	0.0472	ug/L	1	09/24/21 12:24	EPA 8270E	
N-Nitroso-di-n-propylamine	ND	0.0236	0.0472	ug/L	1	09/24/21 12:24	EPA 8270E	
N-Nitrosodiphenylamine	ND	0.0236	0.0472	ug/L	1	09/24/21 12:24	EPA 8270E	
Bis(2-Chloroethoxy) methane	ND	0.0236	0.0472	ug/L	1	09/24/21 12:24	EPA 8270E	
Bis(2-Chloroethyl) ether	ND	0.0236	0.0472	ug/L	1	09/24/21 12:24	EPA 8270E	
2,2'-Oxybis(1-Chloropropane)	ND	0.0236	0.0472	ug/L	1	09/24/21 12:24	EPA 8270E	
Hexachlorobenzene	ND	0.00943	0.0189	ug/L	1	09/24/21 12:24	EPA 8270E	
Hexachlorobutadiene	ND	0.0236	0.0472	ug/L	1	09/24/21 12:24	EPA 8270E	
Hexachlorocyclopentadiene	ND	0.0472	0.0943	ug/L	1	09/24/21 12:24	EPA 8270E	
Hexachloroethane	ND	0.0236	0.0472	ug/L	1	09/24/21 12:24	EPA 8270E	
-Chloronaphthalene	ND	0.00943	0.0189	ug/L	1	09/24/21 12:24	EPA 8270E	
,2,4-Trichlorobenzene	ND	0.0236	0.0472	ug/L	1	09/24/21 12:24	EPA 8270E	
1-Bromophenyl phenyl ether	ND	0.0236	0.0472	ug/L	1	09/24/21 12:24	EPA 8270E	
-Chlorophenyl phenyl ether	ND	0.0236	0.0472	ug/L	1	09/24/21 12:24	EPA 8270E	
Aniline	ND	0.0472	0.0943	ug/L	1	09/24/21 12:24	EPA 8270E	
I-Chloroaniline	ND	0.0236	0.0472	ug/L	1	09/24/21 12:24	EPA 8270E	
2-Nitroaniline	ND	0.189	0.377	ug/L	1	09/24/21 12:24	EPA 8270E	
-Nitroaniline	ND	0.189	0.377	ug/L	1	09/24/21 12:24	EPA 8270E	
-Nitroaniline	ND	0.189	0.377	ug/L	1	09/24/21 12:24	EPA 8270E	Q-3
,4-Dinitrotoluene	ND	0.0943	0.189	ug/L	1	09/24/21 12:24	EPA 8270E	
,6-Dinitrotoluene	ND	0.0943	0.189	ug/L	1	09/24/21 12:24	EPA 8270E	
Benzoic acid	ND	1.18	2.36	ug/L	1	09/24/21 12:24	EPA 8270E	
Benzyl alcohol	ND	0.0943	0.189	ug/L	1	09/24/21 12:24	EPA 8270E	
sophorone	ND	0.0236	0.0472	ug/L	1	09/24/21 12:24	EPA 8270E	

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Philip Nevenberg

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Philip Nerenberg, Lab Director



Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

Report ID:

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: <u>Eatonville</u>
Project Number: **0171.067**

Project Manager: Genevieve Schutzius A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
SW06-0921 (A1I0619-19RE1)				Matrix: Wate	r	Batch:	1090906	
Azobenzene (1,2-DPH)	ND	0.0236	0.0472	ug/L	1	09/24/21 12:24	EPA 8270E	
Bis(2-Ethylhexyl) adipate	ND	0.236	0.472	ug/L	1	09/24/21 12:24	EPA 8270E	
3,3'-Dichlorobenzidine	ND	0.472	0.943	ug/L	1	09/24/21 12:24	EPA 8270E	Q-52
1,2-Dinitrobenzene	ND	0.236	0.472	ug/L	1	09/24/21 12:24	EPA 8270E	
1,3-Dinitrobenzene	ND	0.236	0.472	ug/L	1	09/24/21 12:24	EPA 8270E	
1,4-Dinitrobenzene	ND	0.236	0.472	ug/L	1	09/24/21 12:24	EPA 8270E	
Pyridine	ND	0.0943	0.189	ug/L	1	09/24/21 12:24	EPA 8270E	
1,2-Dichlorobenzene	ND	0.0236	0.0472	ug/L	1	09/24/21 12:24	EPA 8270E	
1,3-Dichlorobenzene	ND	0.0236	0.0472	ug/L	1	09/24/21 12:24	EPA 8270E	
1,4-Dichlorobenzene	ND	0.0236	0.0472	ug/L	1	09/24/21 12:24	EPA 8270E	
Surrogate: Nitrobenzene-d5 (Surr)		Reco	very: 63 %	Limits: 44-120 %	I	09/24/21 12:24	EPA 8270E	Q-41
2-Fluorobiphenyl (Surr)			57 %	44-120 %	1	09/24/21 12:24	EPA 8270E	
Phenol-d6 (Surr)			17 %	10-133 %	1	09/24/21 12:24	EPA 8270E	
p-Terphenyl-d14 (Surr)			92 %	50-134 %	1	09/24/21 12:24	EPA 8270E	
2-Fluorophenol (Surr)			30 %	19-120 %		09/24/21 12:24	EPA 8270E	
2,4,6-Tribromophenol (Surr)			64 %	43-140 %	I	09/24/21 12:24	EPA 8270E	
SW1006-0921 (A1I0619-20RE1)				Matrix: Wate	r	Batch:	1090906	
Acenaphthene	ND	0.00935	0.0187	ug/L	1	09/24/21 12:59	EPA 8270E	
Acenaphthylene	ND	0.00935	0.0187	ug/L	1	09/24/21 12:59	EPA 8270E	
Anthracene	ND	0.00935	0.0187	ug/L	1	09/24/21 12:59	EPA 8270E	
Benz(a)anthracene	ND	0.00935	0.0187	ug/L	1	09/24/21 12:59	EPA 8270E	
Benzo(a)pyrene	ND	0.0140	0.0280	ug/L	1	09/24/21 12:59	EPA 8270E	
Benzo(b)fluoranthene	ND	0.0140	0.0280	ug/L	1	09/24/21 12:59	EPA 8270E	
Benzo(k)fluoranthene	ND	0.0140	0.0280	ug/L	1	09/24/21 12:59	EPA 8270E	
Benzo(g,h,i)perylene	ND	0.00935	0.0187	ug/L	1	09/24/21 12:59	EPA 8270E	
Chrysene	ND	0.00935	0.0187	ug/L	1	09/24/21 12:59	EPA 8270E	
Dibenz(a,h)anthracene	ND	0.00935	0.0187	ug/L	1	09/24/21 12:59	EPA 8270E	
Fluoranthene	ND	0.00935	0.0187	ug/L	1	09/24/21 12:59	EPA 8270E	
Fluorene	ND	0.00935	0.0187	ug/L	1	09/24/21 12:59	EPA 8270E	
Indeno(1,2,3-cd)pyrene	ND	0.00935	0.0187	ug/L	1	09/24/21 12:59	EPA 8270E	
1-Methylnaphthalene	ND	0.0187	0.0374	ug/L	1	09/24/21 12:59	EPA 8270E	
2-Methylnaphthalene	ND	0.0187	0.0374	ug/L	1	09/24/21 12:59	EPA 8270E	
Naphthalene	ND	0.0187	0.0374	ug/L	1	09/24/21 12:59	EPA 8270E	

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Philip Nerenberg, Lab Director

Philip Nevenberg

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: <u>Eatonville</u>
Project Number: **0171.067**

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

1	Sen	nivolatile Orga	anic compot	unus by EPA	- 02/UE			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW1006-0921 (A1I0619-20RE1)				Matrix: Wa	iter	Batch:	1090906	
Phenanthrene	ND	0.00935	0.0187	ug/L	1	09/24/21 12:59	EPA 8270E	
Pyrene	ND	0.00935	0.0187	ug/L	1	09/24/21 12:59	EPA 8270E	
Carbazole	ND	0.0140	0.0280	ug/L	1	09/24/21 12:59	EPA 8270E	
Dibenzofuran	ND	0.00935	0.0187	ug/L	1	09/24/21 12:59	EPA 8270E	
2-Chlorophenol	ND	0.0467	0.0935	ug/L	1	09/24/21 12:59	EPA 8270E	
4-Chloro-3-methylphenol	ND	0.0935	0.187	ug/L	1	09/24/21 12:59	EPA 8270E	
2,4-Dichlorophenol	ND	0.0467	0.0935	ug/L	1	09/24/21 12:59	EPA 8270E	
2,4-Dimethylphenol	ND	0.0467	0.0935	ug/L	1	09/24/21 12:59	EPA 8270E	
2,4-Dinitrophenol	ND	0.234	0.467	ug/L	1	09/24/21 12:59	EPA 8270E	
4,6-Dinitro-2-methylphenol	ND	0.234	0.467	ug/L	1	09/24/21 12:59	EPA 8270E	
2-Methylphenol	ND	0.0234	0.0467	ug/L	1	09/24/21 12:59	EPA 8270E	
3+4-Methylphenol(s)	ND	0.0234	0.0467	ug/L	1	09/24/21 12:59	EPA 8270E	
2-Nitrophenol	ND	0.0935	0.187	ug/L	1	09/24/21 12:59	EPA 8270E	
4-Nitrophenol	ND	0.0935	0.187	ug/L	1	09/24/21 12:59	EPA 8270E	
Pentachlorophenol (PCP)	ND	0.0935	0.187	ug/L	1	09/24/21 12:59	EPA 8270E	
Phenol	ND	0.187	0.374	ug/L	1	09/24/21 12:59	EPA 8270E	
2,3,4,6-Tetrachlorophenol	ND	0.0467	0.0935	ug/L	1	09/24/21 12:59	EPA 8270E	
2,3,5,6-Tetrachlorophenol	ND	0.0467	0.0935	ug/L	1	09/24/21 12:59	EPA 8270E	
2,4,5-Trichlorophenol	ND	0.0467	0.0935	ug/L	1	09/24/21 12:59	EPA 8270E	
Nitrobenzene	ND	0.0935	0.187	ug/L	1	09/24/21 12:59	EPA 8270E	
2,4,6-Trichlorophenol	ND	0.0467	0.0935	ug/L	1	09/24/21 12:59	EPA 8270E	
Bis(2-ethylhexyl)phthalate	ND	0.187	0.374	ug/L	1	09/24/21 12:59	EPA 8270E	
Butyl benzyl phthalate	ND	0.187	0.374	ug/L	1	09/24/21 12:59	EPA 8270E	
Diethylphthalate	ND	0.187	0.374	ug/L	1	09/24/21 12:59	EPA 8270E	
Dimethylphthalate	ND	0.187	0.374	ug/L	1	09/24/21 12:59	EPA 8270E	
Di-n-butylphthalate	ND	0.187	0.374	ug/L	1	09/24/21 12:59	EPA 8270E	
Di-n-octyl phthalate	ND	0.187	0.374	ug/L	1	09/24/21 12:59	EPA 8270E	
N-Nitrosodimethylamine	ND	0.0234	0.0467	ug/L	1	09/24/21 12:59	EPA 8270E	
N-Nitroso-di-n-propylamine	ND	0.0234	0.0467	ug/L	1	09/24/21 12:59	EPA 8270E	
N-Nitrosodiphenylamine	ND	0.0234	0.0467	ug/L	1	09/24/21 12:59	EPA 8270E	
Bis(2-Chloroethoxy) methane	ND	0.0234	0.0467	ug/L	1	09/24/21 12:59	EPA 8270E	
Bis(2-Chloroethyl) ether	ND	0.0234	0.0467	ug/L	1	09/24/21 12:59	EPA 8270E	
2,2'-Oxybis(1-Chloropropane)	ND	0.0234	0.0467	ug/L	1	09/24/21 12:59	EPA 8270E	

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Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: <u>Eatonville</u>
Project Number: **0171.067**

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

	Sen	nivolatile Orga	ınıc Compo	unds by EPA 8	32/0E			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW1006-0921 (A1I0619-20RE1)			<u> </u>	Matrix: Wate	er	Batch:	1090906	
Hexachlorobenzene	ND	0.00935	0.0187	ug/L	1	09/24/21 12:59	EPA 8270E	
Hexachlorobutadiene	ND	0.0234	0.0467	ug/L	1	09/24/21 12:59	EPA 8270E	
Hexachlorocyclopentadiene	ND	0.0467	0.0935	ug/L	1	09/24/21 12:59	EPA 8270E	
Hexachloroethane	ND	0.0234	0.0467	ug/L	1	09/24/21 12:59	EPA 8270E	
2-Chloronaphthalene	ND	0.00935	0.0187	ug/L	1	09/24/21 12:59	EPA 8270E	
1,2,4-Trichlorobenzene	ND	0.0234	0.0467	ug/L	1	09/24/21 12:59	EPA 8270E	
4-Bromophenyl phenyl ether	ND	0.0234	0.0467	ug/L	1	09/24/21 12:59	EPA 8270E	
4-Chlorophenyl phenyl ether	ND	0.0234	0.0467	ug/L	1	09/24/21 12:59	EPA 8270E	
Aniline	ND	0.0467	0.0935	ug/L	1	09/24/21 12:59	EPA 8270E	
4-Chloroaniline	ND	0.0234	0.0467	ug/L	1	09/24/21 12:59	EPA 8270E	
2-Nitroaniline	ND	0.187	0.374	ug/L	1	09/24/21 12:59	EPA 8270E	
3-Nitroaniline	ND	0.187	0.374	ug/L	1	09/24/21 12:59	EPA 8270E	
4-Nitroaniline	ND	0.187	0.374	ug/L	1	09/24/21 12:59	EPA 8270E	Q-30
2,4-Dinitrotoluene	ND	0.0935	0.187	ug/L	1	09/24/21 12:59	EPA 8270E	
2,6-Dinitrotoluene	ND	0.0935	0.187	ug/L	1	09/24/21 12:59	EPA 8270E	
Benzoic acid	ND	1.17	2.34	ug/L	1	09/24/21 12:59	EPA 8270E	
Benzyl alcohol	ND	0.0935	0.187	ug/L	1	09/24/21 12:59	EPA 8270E	
Isophorone	ND	0.0234	0.0467	ug/L	1	09/24/21 12:59	EPA 8270E	
Azobenzene (1,2-DPH)	ND	0.0234	0.0467	ug/L	1	09/24/21 12:59	EPA 8270E	
Bis(2-Ethylhexyl) adipate	ND	0.467	0.467	ug/L	1	09/24/21 12:59	EPA 8270E	
3,3'-Dichlorobenzidine	ND	0.467	0.935	ug/L	1	09/24/21 12:59	EPA 8270E	Q-52
1,2-Dinitrobenzene	ND	0.234	0.467	ug/L	1	09/24/21 12:59	EPA 8270E	
1,3-Dinitrobenzene	ND	0.234	0.467	ug/L	1	09/24/21 12:59	EPA 8270E	
1,4-Dinitrobenzene	ND	0.234	0.467	ug/L	1	09/24/21 12:59	EPA 8270E	
Pyridine	ND	0.0935	0.187	ug/L	1	09/24/21 12:59	EPA 8270E	
1,2-Dichlorobenzene	ND	0.0234	0.0467	ug/L	1	09/24/21 12:59	EPA 8270E	
1,3-Dichlorobenzene	ND	0.0234	0.0467	ug/L	1	09/24/21 12:59	EPA 8270E	
1,4-Dichlorobenzene	ND	0.0234	0.0467	ug/L	1	09/24/21 12:59	EPA 8270E	
Surrogate: Nitrobenzene-d5 (Surr)		Recove	ery: 68 %	Limits: 44-120 %	5 I	09/24/21 12:59	EPA 8270E	Q-41
2-Fluorobiphenyl (Surr)			59 %	44-120 %		09/24/21 12:59	EPA 8270E	
Phenol-d6 (Surr)			19 %	10-133 %		09/24/21 12:59	EPA 8270E	
p-Terphenyl-d14 (Surr)			99 %	50-134 %		09/24/21 12:59	EPA 8270E	
2-Fluorophenol (Surr)			31 %	19-120 %		09/24/21 12:59	EPA 8270E	
2,4,6-Tribromophenol (Surr)			79 %	43-140 %	1	09/24/21 12:59	EPA 8270E	

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Philip Nerenberg, Lab Director

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

Report ID:

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 0171.067

A1I0619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

Project Manager: Genevieve Schutzius

	Sem	ivolatile Org	janic Compou	ınds by EP	A 8270E			
	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes

Apex Laboratories

Philip Nevenberg

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Philip Nerenberg, Lab Director



Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

		Total Meta	als by EPA 60	20B (ICPMS)				
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-01-0921 (A1I0619-06)				Matrix: Soi	I			
Batch: 1091171								
Arsenic	4.20	1.26	2.53	mg/kg dry	10	10/01/21 04:39	EPA 6020B	
Barium	70.4	1.26	2.53	mg/kg dry	10	10/01/21 04:39	EPA 6020B	
Beryllium	ND	1.26	2.53	mg/kg dry	10	10/01/21 04:39	EPA 6020B	
Cadmium	2.44	0.253	0.505	mg/kg dry	10	10/01/21 04:39	EPA 6020B	
Chromium	12.4	1.26	2.53	mg/kg dry	10	10/01/21 04:39	EPA 6020B	
Cobalt	7.08	1.26	2.53	mg/kg dry	10	10/01/21 04:39	EPA 6020B	
Copper	125	2.53	5.05	mg/kg dry	10	10/01/21 04:39	EPA 6020B	
Lead	131	0.253	0.505	mg/kg dry	10	10/01/21 04:39	EPA 6020B	
Nickel	17.9	2.53	5.05	mg/kg dry	10	10/01/21 04:39	EPA 6020B	
Selenium	ND	1.26	2.53	mg/kg dry	10	10/01/21 04:39	EPA 6020B	
Thallium	ND	0.253	0.505	mg/kg dry	10	10/01/21 04:39	EPA 6020B	
Vanadium	20.3	2.53	5.05	mg/kg dry	10	10/01/21 04:39	EPA 6020B	
Zinc	3750	5.05	10.1	mg/kg dry	10	10/01/21 04:39	EPA 6020B	
HA-02-0921 (A1I0619-07)				Matrix: Soi	I			
Batch: 1091171								
Arsenic	5.08	1.59	3.19	mg/kg dry	10	10/01/21 04:44	EPA 6020B	
Barium	63.5	1.59	3.19	mg/kg dry	10	10/01/21 04:44	EPA 6020B	
Beryllium	ND	1.59	3.19	mg/kg dry	10	10/01/21 04:44	EPA 6020B	
Cadmium	0.988	0.319	0.638	mg/kg dry	10	10/01/21 04:44	EPA 6020B	
Chromium	12.9	1.59	3.19	mg/kg dry	10	10/01/21 04:44	EPA 6020B	
Cobalt	5.71	1.59	3.19	mg/kg dry	10	10/01/21 04:44	EPA 6020B	
Copper	43.0	3.19	6.38	mg/kg dry	10	10/01/21 04:44	EPA 6020B	
Lead	57.5	0.319	0.638	mg/kg dry	10	10/01/21 04:44	EPA 6020B	
Nickel	14.9	3.19	6.38	mg/kg dry	10	10/01/21 04:44	EPA 6020B	
Selenium	ND	1.59	3.19	mg/kg dry	10	10/01/21 04:44	EPA 6020B	
Thallium	ND	0.319	0.638	mg/kg dry	10	10/01/21 04:44	EPA 6020B	
Vanadium	22.6	3.19	6.38	mg/kg dry	10	10/01/21 04:44	EPA 6020B	
Zinc	2490	6.38	12.8	mg/kg dry	10	10/01/21 04:44	EPA 6020B	
HA-03-0921 (A1I0619-08)				Matrix: Soi	l			
Batch: 1091171								
Arsenic	4.37	2.02	4.05	mg/kg dry	10	10/01/21 04:48	EPA 6020B	

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)											
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes			
HA-03-0921 (A1I0619-08)				Matrix: Soil	1						
Barium	57.8	2.02	4.05	mg/kg dry	10	10/01/21 04:48	EPA 6020B				
Beryllium	ND	2.02	4.05	mg/kg dry	10	10/01/21 04:48	EPA 6020B				
Cadmium	0.805	0.405	0.810	mg/kg dry	10	10/01/21 04:48	EPA 6020B	J			
Chromium	11.7	2.02	4.05	mg/kg dry	10	10/01/21 04:48	EPA 6020B				
Cobalt	2.60	2.02	4.05	mg/kg dry	10	10/01/21 04:48	EPA 6020B	J			
Copper	28.9	4.05	8.10	mg/kg dry	10	10/01/21 04:48	EPA 6020B				
Lead	58.1	0.405	0.810	mg/kg dry	10	10/01/21 04:48	EPA 6020B				
Nickel	10.6	4.05	8.10	mg/kg dry	10	10/01/21 04:48	EPA 6020B				
Selenium	ND	2.02	4.05	mg/kg dry	10	10/01/21 04:48	EPA 6020B				
Thallium	ND	0.405	0.810	mg/kg dry	10	10/01/21 04:48	EPA 6020B				
Vanadium	31.0	4.05	8.10	mg/kg dry	10	10/01/21 04:48	EPA 6020B				
Zinc	400	8.10	16.2	mg/kg dry	10	10/01/21 04:48	EPA 6020B				
HA-1003-0921 (A1l0619-09)				Matrix: Soil	1						
Batch: 1091171											
Arsenic	3.99	2.10	4.20	mg/kg dry	10	10/01/21 05:02	EPA 6020B	J			
Barium	60.2	2.10	4.20	mg/kg dry	10	10/01/21 05:02	EPA 6020B				
Beryllium	ND	2.10	4.20	mg/kg dry	10	10/01/21 05:02	EPA 6020B				
Cadmium	1.66	0.420	0.840	mg/kg dry	10	10/01/21 05:02	EPA 6020B				
Chromium	11.0	2.10	4.20	mg/kg dry	10	10/01/21 05:02	EPA 6020B				
Cobalt	2.43	2.10	4.20	mg/kg dry	10	10/01/21 05:02	EPA 6020B	J			
Copper	29.9	4.20	8.40	mg/kg dry	10	10/01/21 05:02	EPA 6020B				
Lead	65.5	0.420	0.840	mg/kg dry	10	10/01/21 05:02	EPA 6020B				
Nickel	9.92	4.20	8.40	mg/kg dry	10	10/01/21 05:02	EPA 6020B				
Selenium	ND	2.10	4.20	mg/kg dry	10	10/01/21 05:02	EPA 6020B				
Thallium	ND	0.420	0.840	mg/kg dry	10	10/01/21 05:02	EPA 6020B				
Vanadium	32.8	4.20	8.40	mg/kg dry	10	10/01/21 05:02	EPA 6020B				
Zinc	701	8.40	16.8	mg/kg dry	10	10/01/21 05:02	EPA 6020B				
DU-01-0921After Processing (A1IC)619-11)			Matrix: Soil	1						
Batch: 21J1074											
Arsenic	17.7	0.499	0.999	mg/kg dry	10	10/29/21 00:17	EPA 6020B				
Barium	70.3	0.499	0.999	mg/kg dry	10	10/29/21 00:17	EPA 6020B				
Beryllium	0.259	0.0999	0.200	mg/kg dry	10	10/29/21 00:17	EPA 6020B				

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: <u>Eatonville</u>
Project Number: **0171.067**

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

		Total Meta	ls by EPA 60	20B (ICPMS)				
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
DU-01-0921After Processing (A1I0	619-11)			Matrix: Soi	I			
Cadmium	0.264	0.0999	0.200	mg/kg dry	10	10/29/21 00:17	EPA 6020B	
Chromium	28.6	0.499	0.999	mg/kg dry	10	10/29/21 00:17	EPA 6020B	
Cobalt	10.9	0.499	0.999	mg/kg dry	10	10/29/21 00:17	EPA 6020B	
Copper	125	0.999	2.00	mg/kg dry	10	10/29/21 00:17	EPA 6020B	
Lead	6000	0.0999	0.200	mg/kg dry	10	10/29/21 00:17	EPA 6020B	
Nickel	26.4	0.999	2.00	mg/kg dry	10	10/29/21 00:17	EPA 6020B	
Selenium	ND	0.499	0.999	mg/kg dry	10	10/29/21 00:17	EPA 6020B	
Thallium	0.185	0.0999	0.200	mg/kg dry	10	10/29/21 00:17	EPA 6020B	J
Vanadium	56.1	0.999	2.00	mg/kg dry	10	10/29/21 00:17	EPA 6020B	
Zinc	132	2.00	3.99	mg/kg dry	10	10/29/21 00:17	EPA 6020B	
DU-02-0921After Processing (A1I0	619-13)			Matrix: Soi	I			
Batch: 21J1074								
Arsenic	6.75	0.500	1.00	mg/kg dry	10	10/29/21 00:22	EPA 6020B	
Barium	104	0.500	1.00	mg/kg dry	10	10/29/21 00:22	EPA 6020B	
Beryllium	0.291	0.100	0.200	mg/kg dry	10	10/29/21 00:22	EPA 6020B	
Cadmium	1.58	0.100	0.200	mg/kg dry	10	10/29/21 00:22	EPA 6020B	
Chromium	34.4	0.500	1.00	mg/kg dry	10	10/29/21 00:22	EPA 6020B	
Cobalt	11.8	0.500	1.00	mg/kg dry	10	10/29/21 00:22	EPA 6020B	
Copper	90.8	1.00	2.00	mg/kg dry	10	10/29/21 00:22	EPA 6020B	
Lead	197	0.100	0.200	mg/kg dry	10	10/29/21 00:22	EPA 6020B	
Nickel	40.7	1.00	2.00	mg/kg dry	10	10/29/21 00:22	EPA 6020B	
Selenium	ND	0.500	1.00	mg/kg dry	10	10/29/21 00:22	EPA 6020B	
Thallium	0.100	0.100	0.200	mg/kg dry	10	10/29/21 00:22	EPA 6020B	J
Vanadium	48.1	1.00	2.00	mg/kg dry	10	10/29/21 00:22	EPA 6020B	
Zinc	436	2.00	4.00	mg/kg dry	10	10/29/21 00:22	EPA 6020B	
SB18-9-10-0921 (A1I0619-14)				Matrix: Soi	1			
Batch: 1091171								
Arsenic	30.5	0.652	1.30	mg/kg dry	10	10/01/21 05:06	EPA 6020B	
Barium	150	0.652	1.30	mg/kg dry	10	10/01/21 05:06	EPA 6020B	
Beryllium	ND	0.652	1.30	mg/kg dry	10	10/01/21 05:06	EPA 6020B	
Cadmium	2.31	0.130	0.261	mg/kg dry	10	10/01/21 05:06	EPA 6020B	
Chromium	45.0	0.652	1.30	mg/kg dry	10	10/01/21 05:06	EPA 6020B	

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323 ORELAP ID: OR100062

GSI Water SolutionsProject:Eatonville55 SW Yamhill St, Ste 300Project Number:0171.067

Portland, OR 97209 Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

		Total Meta	ils by EPA 60	20B (ICPMS)				
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SB18-9-10-0921 (A1I0619-14)				Matrix: Soi	I			
Cobalt	13.8	0.652	1.30	mg/kg dry	10	10/01/21 05:06	EPA 6020B	
Copper	164	1.30	2.61	mg/kg dry	10	10/01/21 05:06	EPA 6020B	
Lead	260	0.130	0.261	mg/kg dry	10	10/01/21 05:06	EPA 6020B	
Nickel	50.2	1.30	2.61	mg/kg dry	10	10/01/21 05:06	EPA 6020B	
Selenium	ND	0.652	1.30	mg/kg dry	10	10/01/21 05:06	EPA 6020B	
Thallium	ND	0.130	0.261	mg/kg dry	10	10/01/21 05:06	EPA 6020B	
Vanadium	27.2	1.30	2.61	mg/kg dry	10	10/01/21 05:06	EPA 6020B	
Zinc	977	2.61	5.21	mg/kg dry	10	10/01/21 05:06	EPA 6020B	
======================================				Matrix: Wa	ter			
Batch: 1091096								
Arsenic	ND	0.500	1.00	ug/L	1	10/06/21 13:16	EPA 6020B	
Barium	ND	1.00	2.00	ug/L	1	10/06/21 13:16	EPA 6020B	
Beryllium	ND	0.100	0.200	ug/L	1	10/06/21 13:16	EPA 6020B	
Cadmium	ND	0.100	0.200	ug/L	1	10/06/21 13:16	EPA 6020B	
Chromium	ND	1.00	2.00	ug/L	1	10/06/21 13:16	EPA 6020B	
Cobalt	ND	0.500	1.00	ug/L	1	10/06/21 13:16	EPA 6020B	
Copper	ND	1.00	2.00	ug/L	1	10/06/21 13:16	EPA 6020B	
Lead	ND	0.110	0.200	ug/L	1	10/06/21 13:16	EPA 6020B	
Nickel	ND	1.00	2.00	ug/L	1	10/06/21 13:16	EPA 6020B	
Selenium	ND	0.500	1.00	ug/L	1	10/06/21 13:16	EPA 6020B	
Thallium	ND	0.100	0.200	ug/L	1	10/06/21 13:16	EPA 6020B	
Vanadium	ND	1.00	2.00	ug/L	1	10/06/21 13:16	EPA 6020B	
Zinc	ND	2.00	4.00	ug/L	1	10/06/21 13:16	EPA 6020B	
EB02-0921 (A1I0619-16)				Matrix: Wat	ter			
Batch: 1091096								
Arsenic	ND	0.500	1.00	ug/L	1	10/06/21 13:20	EPA 6020B	
Barium	ND	1.00	2.00	ug/L	1	10/06/21 13:20	EPA 6020B	
Beryllium	ND	0.100	0.200	ug/L	1	10/06/21 13:20	EPA 6020B	
Cadmium	ND	0.100	0.200	ug/L	1	10/06/21 13:20	EPA 6020B	
Chromium	ND	1.00	2.00	ug/L	1	10/06/21 13:20	EPA 6020B	
Cobalt	ND	0.500	1.00	ug/L	1	10/06/21 13:20	EPA 6020B	
Copper	ND	1.00	2.00	ug/L	1	10/06/21 13:20	EPA 6020B	

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

		Total Meta	ils by EPA 60	20B (ICPMS	S)			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EB02-0921 (A1I0619-16)				Matrix: W	ater			
Lead	ND	0.110	0.200	ug/L	1	10/06/21 13:20	EPA 6020B	
Nickel	ND	1.00	2.00	ug/L	1	10/06/21 13:20	EPA 6020B	
Selenium	ND	0.500	1.00	ug/L	1	10/06/21 13:20	EPA 6020B	
Thallium	ND	0.100	0.200	ug/L	1	10/06/21 13:20	EPA 6020B	
Vanadium	ND	1.00	2.00	ug/L	1	10/06/21 13:20	EPA 6020B	
Zinc	ND	2.00	4.00	ug/L	1	10/06/21 13:20	EPA 6020B	
SW04-0921 (A1I0619-17)				Matrix: W	ater			
Batch: 1091096								
Arsenic	ND	0.500	1.00	ug/L	1	10/06/21 13:25	EPA 6020B	
Barium	3.71	1.00	2.00	ug/L	1	10/06/21 13:25	EPA 6020B	
Beryllium	ND	0.100	0.200	ug/L	1	10/06/21 13:25	EPA 6020B	
Cadmium	ND	0.100	0.200	ug/L	1	10/06/21 13:25	EPA 6020B	
Chromium	ND	1.00	2.00	ug/L	1	10/06/21 13:25	EPA 6020B	
Cobalt	ND	0.500	1.00	ug/L	1	10/06/21 13:25	EPA 6020B	
Copper	1.24	1.00	2.00	ug/L	1	10/06/21 13:25	EPA 6020B	J
Lead	0.437	0.110	0.200	ug/L	1	10/06/21 13:25	EPA 6020B	
Nickel	ND	1.00	2.00	ug/L	1	10/06/21 13:25	EPA 6020B	
Selenium	ND	0.500	1.00	ug/L	1	10/06/21 13:25	EPA 6020B	
Thallium	ND	0.100	0.200	ug/L	1	10/06/21 13:25	EPA 6020B	
Vanadium	1.31	1.00	2.00	ug/L	1	10/06/21 13:25	EPA 6020B	J
Zinc	33.9	2.00	4.00	ug/L	1	10/06/21 13:25	EPA 6020B	
SW05-0921 (A1I0619-18)				Matrix: W	ater			
Batch: 1091096								
Arsenic	ND	0.500	1.00	ug/L	1	10/06/21 13:30	EPA 6020B	
Barium	5.19	1.00	2.00	ug/L	1	10/06/21 13:30	EPA 6020B	
Beryllium	ND	0.100	0.200	ug/L	1	10/06/21 13:30	EPA 6020B	
Cadmium	ND	0.100	0.200	ug/L	1	10/06/21 13:30	EPA 6020B	
Chromium	ND	1.00	2.00	ug/L	1	10/06/21 13:30	EPA 6020B	
Cobalt	ND	0.500	1.00	ug/L	1	10/06/21 13:30	EPA 6020B	
Copper	2.85	1.00	2.00	ug/L	1	10/06/21 13:30	EPA 6020B	
Lead	1.17	0.110	0.200	ug/L	1	10/06/21 13:30	EPA 6020B	
Nickel	ND	1.00	2.00	ug/L	1	10/06/21 13:30	EPA 6020B	

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

		Total Meta	als by EPA 60	20B (ICPMS	3)			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW05-0921 (A1I0619-18)				Matrix: W	ater			
Selenium	ND	0.500	1.00	ug/L	1	10/06/21 13:30	EPA 6020B	
Thallium	ND	0.100	0.200	ug/L	1	10/06/21 13:30	EPA 6020B	
Vanadium	1.31	1.00	2.00	ug/L	1	10/06/21 13:30	EPA 6020B	J
Zinc	43.7	2.00	4.00	ug/L	1	10/06/21 13:30	EPA 6020B	
SW06-0921 (A1I0619-19)				Matrix: W	ater			
Batch: 1091096								
Arsenic	ND	0.500	1.00	ug/L	1	10/06/21 13:34	EPA 6020B	
Barium	2.01	1.00	2.00	ug/L	1	10/06/21 13:34	EPA 6020B	
Beryllium	ND	0.100	0.200	ug/L	1	10/06/21 13:34	EPA 6020B	
Cadmium	ND	0.100	0.200	ug/L	1	10/06/21 13:34	EPA 6020B	
Chromium	ND	1.00	2.00	ug/L	1	10/06/21 13:34	EPA 6020B	
Cobalt	ND	0.500	1.00	ug/L	1	10/06/21 13:34	EPA 6020B	
Copper	ND	1.00	2.00	ug/L	1	10/06/21 13:34	EPA 6020B	
Lead	ND	0.110	0.200	ug/L	1	10/06/21 13:34	EPA 6020B	
Nickel	ND	1.00	2.00	ug/L	1	10/06/21 13:34	EPA 6020B	
Selenium	ND	0.500	1.00	ug/L	1	10/06/21 13:34	EPA 6020B	
Thallium	ND	0.100	0.200	ug/L	1	10/06/21 13:34	EPA 6020B	
Vanadium	1.67	1.00	2.00	ug/L	1	10/06/21 13:34	EPA 6020B	J
Zinc	ND	2.00	4.00	ug/L	1	10/06/21 13:34	EPA 6020B	
				Matrix: W	ater			
Batch: 1091096								
Arsenic	ND	0.500	1.00	ug/L	1	10/06/21 13:39	EPA 6020B	
Barium	1.96	1.00	2.00	ug/L	1	10/06/21 13:39	EPA 6020B	J
Beryllium	ND	0.100	0.200	ug/L	1	10/06/21 13:39	EPA 6020B	
Cadmium	ND	0.100	0.200	ug/L	1	10/06/21 13:39	EPA 6020B	
Chromium	ND	1.00	2.00	ug/L	1	10/06/21 13:39	EPA 6020B	
Cobalt	ND	0.500	1.00	ug/L	1	10/06/21 13:39	EPA 6020B	
Copper	ND	1.00	2.00	ug/L	1	10/06/21 13:39	EPA 6020B	
Lead	ND	0.110	0.200	ug/L	1	10/06/21 13:39	EPA 6020B	
Nickel	ND	1.00	2.00	ug/L	1	10/06/21 13:39	EPA 6020B	
Selenium	ND	0.500	1.00	ug/L	1	10/06/21 13:39	EPA 6020B	
Thallium	ND	0.100	0.200	ug/L	1	10/06/21 13:39	EPA 6020B	

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)										
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes		
SW1006-0921 (A1I0619-20)		Matrix: Water								
Vanadium	1.72	1.00	2.00	ug/L	1	10/06/21 13:39	EPA 6020B	J		
Zinc	ND	2.00	4.00	ug/L	1	10/06/21 13:39	EPA 6020B			

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: <u>Eatonville</u>
Project Number: **0171.067**

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

			etals by EPA	2020D (10P)				
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
B01-0921 (A1I0619-15)				Matrix: W	ater			
Batch: 1091019								
Arsenic	ND	0.500	1.00	ug/L	1	10/03/21 03:35	EPA 6020B (Diss)	
Barium	ND	0.500	1.00	ug/L	1	10/03/21 03:35	EPA 6020B (Diss)	
Beryllium	ND	0.100	0.200	ug/L	1	10/03/21 03:35	EPA 6020B (Diss)	
Cadmium	ND	0.100	0.200	ug/L	1	10/03/21 03:35	EPA 6020B (Diss)	
Chromium	ND	1.00	2.00	ug/L	1	10/03/21 03:35	EPA 6020B (Diss)	
Cobalt	ND	0.500	1.00	ug/L	1	10/03/21 03:35	EPA 6020B (Diss)	
Copper	ND	1.00	2.00	ug/L	1	10/03/21 03:35	EPA 6020B (Diss)	
Lead	ND	0.100	0.200	ug/L	1	10/03/21 03:35	EPA 6020B (Diss)	
Nickel	ND	1.00	2.00	ug/L	1	10/03/21 03:35	EPA 6020B (Diss)	
Thallium	ND	0.100	0.200	ug/L	1	10/03/21 03:35	EPA 6020B (Diss)	
Vanadium	ND	1.00	2.00	ug/L	1	10/03/21 03:35	EPA 6020B (Diss)	
Zinc	ND	2.00	4.00	ug/L	1	10/03/21 03:35	EPA 6020B (Diss)	
B01-0921 (A1I0619-15RE1)				Matrix: Wa	ater			
Batch: 1091019								
Selenium	ND	0.500	1.00	ug/L	1	10/03/21 22:55	EPA 6020B (Diss)	
B02-0921 (A1I0619-16)				Matrix: W	ater			
Batch: 1091023								
Arsenic	ND	0.500	1.00	ug/L	1	10/03/21 04:51	EPA 6020B (Diss)	FILT1
Barium	0.586	0.500	1.00	ug/L	1	10/03/21 04:51	EPA 6020B (Diss)	J, FILT
Cadmium	ND	0.100	0.200	ug/L	1	10/03/21 04:51	EPA 6020B (Diss)	FILT1
Chromium	ND	1.00	2.00	ug/L	1	10/03/21 04:51	EPA 6020B (Diss)	FILT1
Cobalt	ND	0.500	1.00	ug/L	1	10/03/21 04:51	EPA 6020B (Diss)	FILT1
Copper	ND	1.00	2.00	ug/L	1	10/03/21 04:51	EPA 6020B (Diss)	FILT
Lead	ND	0.100	0.200	ug/L	1	10/03/21 04:51	EPA 6020B (Diss)	FILT
Nickel	ND	1.00	2.00	ug/L	1	10/03/21 04:51	EPA 6020B (Diss)	FILT
Гhallium	ND	0.100	0.200	ug/L	1	10/03/21 04:51	EPA 6020B (Diss)	FILT
Vanadium	1.42	1.00	2.00	ug/L	1	10/03/21 04:51	EPA 6020B (Diss)	J, FIL
Zinc	ND	2.00	4.00	ug/L	1	10/03/21 04:51	EPA 6020B (Diss)	FILT

Batch: 1091023

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

		Dissolved M	etals by EPA	6020B (ICP	MS)			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EB02-0921 (A1I0619-16RE1)				Matrix: W	ater			
Selenium	ND	0.500	1.00	ug/L	1	10/03/21 23:50	EPA 6020B (Diss)	FILT1
EB02-0921 (A1I0619-16RE2)				Matrix: W	ater			
Batch: 1091023								
Beryllium	ND	0.100	0.200	ug/L	1	11/11/21 16:35	EPA 6020B (Diss)	
SW04-0921 (A1I0619-17)				Matrix: W	ater			
Batch: 1091019								
Arsenic	ND	0.500	1.00	ug/L	1	10/03/21 03:40	EPA 6020B (Diss)	
Barium	3.77	0.500	1.00	ug/L	1	10/03/21 03:40	EPA 6020B (Diss)	
Beryllium	ND	0.100	0.200	ug/L	1	10/03/21 03:40	EPA 6020B (Diss)	
Cadmium	ND	0.100	0.200	ug/L	1	10/03/21 03:40	EPA 6020B (Diss)	
Chromium	ND	1.00	2.00	ug/L	1	10/03/21 03:40	EPA 6020B (Diss)	
Cobalt	ND	0.500	1.00	ug/L	1	10/03/21 03:40	EPA 6020B (Diss)	
Copper	1.10	1.00	2.00	ug/L	1	10/03/21 03:40	EPA 6020B (Diss)	J
Lead	ND	0.100	0.200	ug/L	1	10/03/21 03:40	EPA 6020B (Diss)	
Nickel	ND	1.00	2.00	ug/L	1	10/03/21 03:40	EPA 6020B (Diss)	
Thallium	ND	0.100	0.200	ug/L	1	10/03/21 03:40	EPA 6020B (Diss)	
Vanadium	1.84	1.00	2.00	ug/L	1	10/03/21 03:40	EPA 6020B (Diss)	J
Zinc	34.4	2.00	4.00	ug/L	1	10/03/21 03:40	EPA 6020B (Diss)	
SW04-0921 (A1I0619-17RE1)				Matrix: W	ater			
Batch: 1091019								
Selenium	ND	0.500	1.00	ug/L	1	10/03/21 23:01	EPA 6020B (Diss)	
SW05-0921 (A1I0619-18)				Matrix: W	ater			
Batch: 1091019								
Arsenic	ND	0.500	1.00	ug/L	1	10/03/21 03:45	EPA 6020B (Diss)	
Barium	5.09	0.500	1.00	ug/L	1	10/03/21 03:45	EPA 6020B (Diss)	
Beryllium	ND	0.100	0.200	ug/L	1	10/03/21 03:45	EPA 6020B (Diss)	
Cadmium	ND	0.100	0.200	ug/L	1	10/03/21 03:45	EPA 6020B (Diss)	
Chromium	ND	1.00	2.00	ug/L	1	10/03/21 03:45	EPA 6020B (Diss)	
Cobalt	ND	0.500	1.00	ug/L	1	10/03/21 03:45	EPA 6020B (Diss)	
Copper	1.61	1.00	2.00	ug/L	1	10/03/21 03:45	EPA 6020B (Diss)	J
Lead	0.107	0.100	0.200	ug/L	1	10/03/21 03:45	EPA 6020B (Diss)	J

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: <u>Eatonville</u>
Project Number: **0171.067**

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

		Dissolved M	etals by EPA	6020B (ICP	MS)			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW05-0921 (A1I0619-18)				Matrix: W	ater			
Nickel	ND	1.00	2.00	ug/L	1	10/03/21 03:45	EPA 6020B (Diss)	
Thallium	ND	0.100	0.200	ug/L	1	10/03/21 03:45	EPA 6020B (Diss)	
Vanadium	1.55	1.00	2.00	ug/L	1	10/03/21 03:45	EPA 6020B (Diss)	J
Zinc	41.1	2.00	4.00	ug/L	1	10/03/21 03:45	EPA 6020B (Diss)	
SW05-0921 (A1I0619-18RE1)				Matrix: W	ater			
Batch: 1091019								
Selenium	ND	0.500	1.00	ug/L	1	10/03/21 23:06	EPA 6020B (Diss)	
SW06-0921 (A1I0619-19)				Matrix: W	ater			
Batch: 1091019								
Arsenic	ND	0.500	1.00	ug/L	1	10/03/21 03:50	EPA 6020B (Diss)	
Barium	1.95	0.500	1.00	ug/L	1	10/03/21 03:50	EPA 6020B (Diss)	
Beryllium	ND	0.100	0.200	ug/L	1	10/03/21 03:50	EPA 6020B (Diss)	
Cadmium	ND	0.100	0.200	ug/L	1	10/03/21 03:50	EPA 6020B (Diss)	
Chromium	ND	1.00	2.00	ug/L	1	10/03/21 03:50	EPA 6020B (Diss)	
Cobalt	ND	0.500	1.00	ug/L	1	10/03/21 03:50	EPA 6020B (Diss)	
Copper	ND	1.00	2.00	ug/L	1	10/03/21 03:50	EPA 6020B (Diss)	
Lead	ND	0.100	0.200	ug/L	1	10/03/21 03:50	EPA 6020B (Diss)	
Nickel	ND	1.00	2.00	ug/L	1	10/03/21 03:50	EPA 6020B (Diss)	
Thallium	ND	0.100	0.200	ug/L	1	10/03/21 03:50	EPA 6020B (Diss)	
Vanadium	1.99	1.00	2.00	ug/L	1	10/03/21 03:50	EPA 6020B (Diss)	J
Zinc	ND	2.00	4.00	ug/L	1	10/03/21 03:50	EPA 6020B (Diss)	
W06-0921 (A1I0619-19RE1)				Matrix: W	ater			
Batch: 1091019								
Selenium	ND	0.500	1.00	ug/L	1	10/03/21 23:12	EPA 6020B (Diss)	
SW1006-0921 (A1I0619-20)				Matrix: W	ater			
Batch: 1091019								
Arsenic	ND	0.500	1.00	ug/L	1	10/03/21 03:55	EPA 6020B (Diss)	
Barium	1.86	0.500	1.00	ug/L	1	10/03/21 03:55	EPA 6020B (Diss)	
Beryllium	ND	0.100	0.200	ug/L	1	10/03/21 03:55	EPA 6020B (Diss)	
Cadmium	ND	0.100	0.200	ug/L	1	10/03/21 03:55	EPA 6020B (Diss)	
Chromium	ND	1.00	2.00	ug/L	1	10/03/21 03:55	EPA 6020B (Diss)	

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6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

		Dissolved M	etals by EPA	6020B (ICP	MS)			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW1006-0921 (A1I0619-20)				Matrix: W	ater			
Cobalt	ND	0.500	1.00	ug/L	1	10/03/21 03:55	EPA 6020B (Diss)	
Copper	ND	1.00	2.00	ug/L	1	10/03/21 03:55	EPA 6020B (Diss)	
Lead	ND	0.100	0.200	ug/L	1	10/03/21 03:55	EPA 6020B (Diss)	
Nickel	ND	1.00	2.00	ug/L	1	10/03/21 03:55	EPA 6020B (Diss)	
Thallium	ND	0.100	0.200	ug/L	1	10/03/21 03:55	EPA 6020B (Diss)	
Vanadium	2.01	1.00	2.00	ug/L	1	10/03/21 03:55	EPA 6020B (Diss)	
Zinc	ND	2.00	4.00	ug/L	1	10/03/21 03:55	EPA 6020B (Diss)	
SW1006-0921 (A1I0619-20RE1)				Matrix: W	ater			
Batch: 1091019								
Selenium	ND	0.500	1.00	ug/L	1	10/03/21 23:28	EPA 6020B (Diss)	

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6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

	Total Hexav	alent Chrom	ium by Color	imetric Spect	trophoton	netry		
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-01-0921 (A1I0619-06)				Matrix: Soil	I	Batch:	1090991	
Chromium (VI)	ND	4.90	9.80	mg/kg dry	10	09/29/21 16:19	EPA 7196A	Q-42, R-04
HA-02-0921 (A1I0619-07)				Matrix: Soil	1	Batch:	1090991	
Chromium (VI)	ND	6.35	12.7	mg/kg dry	10	09/29/21 16:26	EPA 7196A	R-04
HA-03-0921 (A1I0619-08)				Matrix: Soil		Batch:	1090991	
Chromium (VI)	ND	8.24	16.5	mg/kg dry	10	09/29/21 16:27	EPA 7196A	R-04
HA-1003-0921 (A1I0619-09)				Matrix: Soil		Batch:	1090991	
Chromium (VI)	ND	8.32	16.6	mg/kg dry	10	09/29/21 16:29	EPA 7196A	R-04
DU-01-0921After Processing (A1I	0619-11)			Matrix: Soil	I	Batch: 1090991 09/29/21 16:29 EPA 7196A Batch: 21K0136		
Chromium (VI)	ND	1.03	2.06	mg/kg dry	5	11/04/21 11:22	EPA 7196A	H-06, Q-42, Q-57, R-04
DU-02-0921After Processing (A1I	0619-13)			Matrix: Soil	I	Batch:	21K0136	
Chromium (VI)	ND	2.08	4.17	mg/kg dry	10	11/04/21 11:29	EPA 7196A	H-06, Q-57, R-04
SB18-9-10-0921 (A1I0619-14)	SB18-9-10-0921 (A1I0619-14)			Matrix: Soil Batch: 1090991			1090991	
Chromium (VI)	ND	2.32	4.64	mg/kg dry	10	09/29/21 16:30	EPA 7196A	R-04

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6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project Number: Eatonville
Project Number: 0171.067
Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

		De	mand Param	eters				
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-01-0921 (A1I0619-06RE2)				Matrix: So	il			
Batch: 1090883								
Total Organic Carbon	150000	200	200	mg/kg	1	09/28/21 16:58	SM 5310 B MOD	
HA-02-0921 (A1I0619-07RE2)				Matrix: So	il			
Batch: 1090883								
Total Organic Carbon	110000	200	200	mg/kg	1	09/28/21 17:30	SM 5310 B MOD	
HA-03-0921 (A1I0619-08RE1)				Matrix: So	il			
Batch: 1090883								
Total Organic Carbon	180000	200	200	mg/kg	1	09/28/21 15:51	SM 5310 B MOD	
HA-1003-0921 (A1I0619-09RE1)				Matrix: So	il			
Batch: 1090883								
Total Organic Carbon	240000	200	200	mg/kg	1	09/28/21 16:02	SM 5310 B MOD	
DU-01-0921After Processing(A1I061	9-11)			Matrix: So	il			
Batch: 21J0826								
Total Organic Carbon	11000	200	200	mg/kg	1	10/26/21 15:12	SM 5310 B MOD	H-06
DU-02-0921After Processing(A1I061	9-13)			Matrix: So	il			
Batch: 21J0826								
Total Organic Carbon	41000	200	200	mg/kg	1	10/26/21 15:45	SM 5310 B MOD	H-06
SB18-9-10-0921 (A1I0619-14RE1)				Matrix: So	il			
Batch: 1090883	<u> </u>							
Total Organic Carbon	64000	200	200	mg/kg	1	09/28/21 16:13	SM 5310 B MOD	

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6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

Total Organic Carbon (N	on-Purgeable	e) by Persulfa	ate Oxidatio	n by Stand	ard Method 531	10C	
Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
			Matrix: W	ater	Batch:	1091000	
ND	0.750	1.50	mg/L	1	09/28/21 02:47	SM 5310 C	
			Matrix: W	ater	Batch:	1091000	
ND	0.750	1.50	mg/L	1	09/28/21 03:18	SM 5310 C	
			Matrix: W	ater	Batch:	1091000	
2.03	0.750	1.50	mg/L	1	09/28/21 03:47	SM 5310 C	
			Matrix: W	ater	Batch:	1091000	
1.29	0.750	1.50	mg/L	1	09/28/21 04:17	SM 5310 C	J
			Matrix: W	ater	Batch:	1091000	
1.18	0.750	1.50	mg/L	1	09/28/21 04:47	SM 5310 C	J
))			Matrix: Water Batch: 1091000				
1.18	0.750	1.50	mg/L	1	09/28/21 05:17	SM 5310 C	J
	Sample Result ND ND 1.29 1.18	ND 0.750	ND Detection Reporting Limit ND 0.750 1.50 ND 0.750 1.50 ND 0.750 1.50 1.29 0.750 1.50 1.18 0.750 1.50	Sample Detection Reporting Units	Sample Detection Reporting Limit Units Dilution	Sample Detection Reporting Units Dilution Date	Result Limit Limit Units Dilution Analyzed Method Ref.

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6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

		Pe	ercent Dry W	eight					
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes	
HA-01-0921 (A1l0619-06)				Matrix: So	il	Batch:	1090769		
% Solids	40.1	1.00	1.00	%	1	09/22/21 08:03	EPA 8000D		
HA-02-0921 (A1l0619-07)				Matrix: So	il	Batch:	1090769		
% Solids	31.0	1.00	1.00	%	1	09/22/21 08:03	EPA 8000D		
HA-03-0921 (A1l0619-08)				Matrix: So	il	Batch:	1090769		
% Solids	24.3	1.00	1.00	%	1	09/22/21 08:03	EPA 8000D		
HA-1003-0921 (A1l0619-09)				Matrix: So	il	Batch:	Batch: 1090769 9/22/21 08:03 EPA 8000D Batch: 1090769		
% Solids	24.1	1.00	1.00	%	1	09/22/21 08:03	EPA 8000D		
DU-01-0921As Received (A1I0619-1	0)			Matrix: So	il	Batch:	1090769		
% Solids	98.6	1.00	1.00	%	1	09/22/21 08:03	EPA 8000D		
DU-01-0921After Processing(A1I06	319-11)			Matrix: So	il	Batch:	21J0863	H-02	
% Solids	98.4	1.00	1.00	%	1	10/26/21 07:45	EPA 8000D		
DU-02-0921As Received (A1I0619-1	2)			Matrix: So	il	Batch:	1090769		
% Solids	97.7	1.00	1.00	%	1	09/22/21 08:03	EPA 8000D		
DU-02-0921After Processing (A1I06	619-13)			Matrix: So	il	Batch:	21J0863	H-02	
% Solids	97.2	1.00	1.00	%	1	10/26/21 07:45	EPA 8000D		
SB18-9-10-0921 (A1I0619-14)				Matrix: So	il	Batch:	1090769		
% Solids	84.5	1.00	1.00	%	1	09/22/21 08:03	EPA 8000D		

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6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

ANALYTICAL SAMPLE RESULTS

Lab Filtration										
	Sample	Detection	Reporting			Date				
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes		
EB01-0921 (A1I0619-15)				Matrix: Water Batch: 1090709						
Lab Filtration (prep only)	PREP			N/A	1	09/20/21 15:40	NA	H-13		

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6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID: A1I0619 - 11 16 21 1140

Weck Laboratories, Inc.

ANALYTICAL SAMPLE RESULTS (Subcontracted)

		Hexav	alent Chromi	um by IC				
	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
EB01-0921 (A1I0619-15)				Matrix: W	ater	Batch:	W1I1952	
Batch: W1I1952								
Chromium 6+, Dissolved	0.044		0.020	ug/l	1	09/29/21 14:04	EPA 218.6	
Chromium 6+	0.092		0.020	ug/l	1	09/29/21 14:16	EPA 218.6	
EB02-0921 (A1I0619-16)				Matrix: W	ater	Batch:	W1I1952	
Batch: W1I1952								
Chromium 6+	0.046		0.020	ug/l	1	09/29/21 14:51	EPA 218.6	
SW04-0921 (A1I0619-17)				Matrix: W	ater	Batch:	W1I1952	
Batch: W1I1952								
Chromium 6+, Dissolved	0.057		0.020	ug/l	1	09/29/21 15:03	EPA 218.6	
Chromium 6+	0.052		0.020	ug/l	1	09/29/21 15:15	EPA 218.6	
SW05-0921 (A1I0619-18)				Matrix: W	ater	Batch:	W1I1952	
Batch: W1I1952								
Chromium 6+, Dissolved	0.14		0.020	ug/l	1	09/29/21 15:26	EPA 218.6	
Chromium 6+	0.14		0.020	ug/l	1	09/29/21 15:38	EPA 218.6	
SW06-0921 (A1I0619-19)				Matrix: W	ater	Batch:	W1I1952	
Batch: W1I1952								
Chromium 6+, Dissolved	0.31		0.020	ug/l	1	09/29/21 15:50	EPA 218.6	
Chromium 6+	0.31		0.020	ug/l	1	09/29/21 16:02	EPA 218.6	
SW1006-0921 (A1I0619-20)				Matrix: Water Batch: W1I1952				
Batch: W1I1952								
Chromium 6+, Dissolved	0.31		0.020	ug/l	1	09/29/21 16:14	EPA 218.6	
Chromium 6+	0.31		0.020	ug/l	1	09/29/21 16:25	EPA 218.6	

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

Report ID:

GSI Water Solutions Project: 55 SW Yamhill St, Ste 300 Project Number: 0171.067 Portland, OR 97209

Project Manager: Genevieve Schutzius A1I0619 - 11 16 21 1140

QUALITY CONTROL (QC) SAMPLE RESULTS

Eatonville

Volatile Organic Compounds by EPA 8260D Detection % REC RPD Reporting Spike Source Dilution Analyte Result Limit Units % REC RPD Limit Amount Result Limits Limit Notes Batch 1090931 - EPA 5030B Water Blank (1090931-BLK1) Prepared: 09/24/21 08:00 Analyzed: 09/24/21 11:25 EPA 8260D ND 10.0 20.0 ug/L Acetone ND 2.00 Acrylonitrile 1.00 ug/L 1 Benzene ND 0.100 0.200 ug/L 1 Bromobenzene ND 0.250 0.500 ug/L 1 Bromochloromethane ND 0.500 1.00 ug/L 1 ND Bromodichloromethane 0.500 1.00 ug/L 1 Bromoform ND 0.500 1.00 ug/L 1 5.00 Bromomethane ND 5.00 ug/L 1 2-Butanone (MEK) ND 5.00 10.0 ug/L 1 n-Butylbenzene ND 0.500 1.00 1 ug/L sec-Butylbenzene ND 0.500 1.00 ug/L 1 ND 0.500 tert-Butylbenzene 1.00 1 ug/L ---Carbon disulfide ND 5.00 10.0 ug/L 1 Carbon tetrachloride ND 0.500 1.00 ug/L 1 Chlorobenzene ND 0.250 0.500 ug/L 1 Chloroethane ND 5.00 10.0 ug/L 1 ---Chloroform ND 0.500 1.00 ug/L 1 ND 2.50 5.00 Chloromethane 1 ug/L 2-Chlorotoluene ND 0.500 1.00 ug/L 1 4-Chlorotoluene ND 0.500 1.00 ug/L 1 Dibromochloromethane ND 0.500 1.00 ug/L 1 1,2-Dibromo-3-chloropropane ND 2.50 5.00 ug/L 1 1,2-Dibromoethane (EDB) ND 0.250 0.500 ug/L 1 ug/L Dibromomethane ND 0.500 1.00 1 0.250 1,2-Dichlorobenzene ND 0.500 ug/L 1 1,3-Dichlorobenzene ND 0.250 0.500 ug/L 1 1,4-Dichlorobenzene ND 0.250 0.500 ug/L 1 Dichlorodifluoromethane ND 0.500 1.00 ug/L 1 ---1,1-Dichloroethane ND 0.200 0.400ug/L 1 0.200 1,2-Dichloroethane (EDC) ND 0.400ug/L 1 1,1-Dichloroethene ND 0.200 0.400ug/L 1 cis-1,2-Dichloroethene ND 0.200 0.400 ug/L 1

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trans-1,2-Dichloroethene

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Philip Nerenberg, Lab Director

ug/L

1

0.200

ND

0.400



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6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions Project: 55 SW Yamhill St, Ste 300 Project Number: 0171.067 Portland, OR 97209

Report ID: Project Manager: Genevieve Schutzius A1I0619 - 11 16 21 1140

QUALITY CONTROL (QC) SAMPLE RESULTS

Eatonville

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1090931 - EPA 5030B							Wat	ter				
Blank (1090931-BLK1)			Prepared	: 09/24/21	08:00 Anal	yzed: 09/24/	/21 11:25					
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1							
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1							
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1							
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1							
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1							
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1							
Ethylbenzene	ND	0.250	0.500	ug/L	1							
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1							
2-Hexanone	ND	5.00	10.0	ug/L	1							
Isopropylbenzene	ND	0.500	1.00	ug/L	1							
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1							
Methylene chloride	ND	5.00	10.0	ug/L	1							
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1							
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1							
Naphthalene	ND	2.00	4.00	ug/L	1							
n-Propylbenzene	ND	0.250	0.500	ug/L	1							
Styrene	ND	0.500	1.00	ug/L	1							
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1							
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1							
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1							
Toluene	ND	0.500	1.00	ug/L	1							
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1							
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1							
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1							
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1							
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1							
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1							
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1							
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1							
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1							
Vinyl chloride	ND	0.200	0.400	ug/L	1							
m,p-Xylene	ND	0.500	1.00	ug/L ug/L	1							
o-Xylene	ND	0.250	0.500	ug/L ug/L	1							
Surr: 1 4-Diffuorobenzene (Surr)	1,2	Recov		Limits: 80		D:L	ution: Ir					

Surr: 1,4-Difluorobenzene (Surr) Recovery: 103 % Limits: 80-120 % Dilution: 1x

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Page 89 of 173 Philip Nerenberg, Lab Director



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6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions Project: **Eatonville** 55 SW Yamhill St, Ste 300 Project Number: 0171.067 Portland, OR 97209

Project Manager: Genevieve Schutzius

Report ID: A1I0619 - 11 16 21 1140

QUALITY CONTROL (QC) SAMPLE RESULTS

		•	Volatile Or	ganic Co	mpounds	by EPA 8	3260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1090931 - EPA 5030B							Wa	ter				
Blank (1090931-BLK1)			Prepared	: 09/24/21	08:00 Anal	yzed: 09/24	/21 11:25					
Surr: Toluene-d8 (Surr)		Recov	very: 102 %	Limits: 80	0-120 %	Dilı	ution: 1x					
4-Bromofluorobenzene (Surr)			105 %	80	0-120 %		"					
LCS (1090931-BS1)			Prepared	: 09/24/21	08:00 Anal	yzed: 09/24	/21 08:49					
EPA 8260D												
Acetone	37.2	10.0	20.0	ug/L	1	40.0		93	80-120%			
Acrylonitrile	21.0	1.00	2.00	ug/L	1	20.0		105	80-120%			
Benzene	19.8	0.100	0.200	ug/L	1	20.0		99	80-120%			
Bromobenzene	18.4	0.250	0.500	ug/L	1	20.0		92	80-120%			
Bromochloromethane	21.7	0.500	1.00	ug/L	1	20.0		109	80-120%			
Bromodichloromethane	21.6	0.500	1.00	ug/L	1	20.0		108	80-120%			
Bromoform	17.9	0.500	1.00	ug/L	1	20.0		89	80-120%			
Bromomethane	21.9	5.00	5.00	ug/L	1	20.0		110	80-120%			
2-Butanone (MEK)	42.3	5.00	10.0	ug/L	1	40.0		106	80-120%			
n-Butylbenzene	23.6	0.500	1.00	ug/L	1	20.0		118	80-120%			
sec-Butylbenzene	22.7	0.500	1.00	ug/L	1	20.0		113	80-120%			
tert-Butylbenzene	20.7	0.500	1.00	ug/L	1	20.0		103	80-120%			
Carbon disulfide	20.9	5.00	10.0	ug/L	1	20.0		105	80-120%			
Carbon tetrachloride	21.4	0.500	1.00	ug/L	1	20.0		107	80-120%			
Chlorobenzene	19.7	0.250	0.500	ug/L	1	20.0		99	80-120%			
Chloroethane	24.4	5.00	10.0	ug/L	1	20.0		122	80-120%			ICV-01, Q
Chloroform	20.9	0.500	1.00	ug/L	1	20.0		105	80-120%			
Chloromethane	33.9	2.50	5.00	ug/L	1	20.0		170	80-120%			Q
2-Chlorotoluene	19.5	0.500	1.00	ug/L	1	20.0		97	80-120%			
4-Chlorotoluene	20.0	0.500	1.00	ug/L	1	20.0		100	80-120%			
Dibromochloromethane	18.8	0.500	1.00	ug/L	1	20.0		94	80-120%			
1,2-Dibromo-3-chloropropane	19.3	2.50	5.00	ug/L	1	20.0		96	80-120%			
1,2-Dibromoethane (EDB)	20.5	0.250	0.500	ug/L	1	20.0		103	80-120%			
Dibromomethane	20.6	0.500	1.00	ug/L	1	20.0		103	80-120%			
1,2-Dichlorobenzene	21.5	0.250	0.500	ug/L	1	20.0		108	80-120%			
1,3-Dichlorobenzene	20.4	0.250	0.500	ug/L	1	20.0		102	80-120%			
1,4-Dichlorobenzene	19.4	0.250	0.500	ug/L	1	20.0		97	80-120%			
Dichlorodifluoromethane	19.0	0.500	1.00	ug/L	1	20.0		95	80-120%			
1,1-Dichloroethane	20.3	0.200	0.400	ug/L	1	20.0		102	80-120%			

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Page 90 of 173 Philip Nerenberg, Lab Director



Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: <u>Eatonville</u>
Project Number: **0171.067**

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1090931 - EPA 5030B							Wa	ter				
LCS (1090931-BS1)			Prepared	: 09/24/21	08:00 Anal	yzed: 09/24	/21 08:49					
1,2-Dichloroethane (EDC)	20.9	0.200	0.400	ug/L	1	20.0		104	80-120%			
1,1-Dichloroethene	19.6	0.200	0.400	ug/L	1	20.0		98	80-120%			
cis-1,2-Dichloroethene	20.2	0.200	0.400	ug/L	1	20.0		101	80-120%			
trans-1,2-Dichloroethene	19.9	0.200	0.400	ug/L	1	20.0		100	80-120%			
1,2-Dichloropropane	20.0	0.250	0.500	ug/L	1	20.0		100	80-120%			
1,3-Dichloropropane	20.6	0.500	1.00	ug/L	1	20.0		103	80-120%			
2,2-Dichloropropane	25.4	0.500	1.00	ug/L	1	20.0		127	80-120%			Q-56
1,1-Dichloropropene	20.9	0.500	1.00	ug/L	1	20.0		104	80-120%			
cis-1,3-Dichloropropene	18.9	0.500	1.00	ug/L	1	20.0		95	80-120%			
trans-1,3-Dichloropropene	19.3	0.500	1.00	ug/L	1	20.0		96	80-120%			
Ethylbenzene	20.4	0.250	0.500	ug/L	1	20.0		102	80-120%			
Hexachlorobutadiene	25.8	2.50	5.00	ug/L	1	20.0		129	80-120%			Q-56
2-Hexanone	38.8	5.00	10.0	ug/L	1	40.0		97	80-120%			
Isopropylbenzene	21.8	0.500	1.00	ug/L	1	20.0		109	80-120%			
4-Isopropyltoluene	22.9	0.500	1.00	ug/L	1	20.0		114	80-120%			
Methylene chloride	21.4	5.00	10.0	ug/L	1	20.0		107	80-120%			
4-Methyl-2-pentanone (MiBK)	41.8	5.00	10.0	ug/L	1	40.0		105	80-120%			
Methyl tert-butyl ether (MTBE)	20.0	0.500	1.00	ug/L	1	20.0		100	80-120%			
Naphthalene	19.1	2.00	4.00	ug/L	1	20.0		96	80-120%			
n-Propylbenzene	20.5	0.250	0.500	ug/L	1	20.0		102	80-120%			
Styrene	21.1	0.500	1.00	ug/L	1	20.0		105	80-120%			
1,1,1,2-Tetrachloroethane	20.2	0.200	0.400	ug/L	1	20.0		101	80-120%			
1,1,2,2-Tetrachloroethane	20.0	0.250	0.500	ug/L	1	20.0		100	80-120%			
Tetrachloroethene (PCE)	19.1	0.200	0.400	ug/L	1	20.0		96	80-120%			
Toluene	19.2	0.500	1.00	ug/L	1	20.0		96	80-120%			
1,2,3-Trichlorobenzene	27.1	1.00	2.00	ug/L	1	20.0		135	80-120%			Q-56
1,2,4-Trichlorobenzene	22.2	1.00	2.00	ug/L	1	20.0		111	80-120%			
1,1,1-Trichloroethane	21.8	0.200	0.400	ug/L	1	20.0		109	80-120%			
1,1,2-Trichloroethane	20.3	0.250	0.500	ug/L	1	20.0		102	80-120%			
Trichloroethene (TCE)	19.3	0.200	0.400	ug/L	1	20.0		96	80-120%			
Trichlorofluoromethane	23.0	1.00	2.00	ug/L	1	20.0		115	80-120%			
1,2,3-Trichloropropane	20.4	0.500	1.00	ug/L	1	20.0		102	80-120%			
1,2,4-Trimethylbenzene	23.4	0.500	1.00	ug/L	1	20.0		117	80-120%			
1,3,5-Trimethylbenzene	22.2	0.500	1.00	ug/L	1	20.0		111	80-120%			

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions Project: **Eatonville** 55 SW Yamhill St, Ste 300 Project Number: 0171.067 Portland, OR 97209

Project Manager: Genevieve Schutzius

Report ID: A1I0619 - 11 16 21 1140

QUALITY CONTROL (QC) SAMPLE RESULTS

			Volatile Or	ganic Co	mpounds	by EPA 8	260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
atch 1090931 - EPA 5030B							Wa	ter				
.CS (1090931-BS1)			Prepared	: 09/24/21	08:00 Anal	yzed: 09/24	/21 08:49					
inyl chloride	19.6	0.200	0.400	ug/L	1	20.0		98	80-120%			
ı,p-Xylene	40.7	0.500	1.00	ug/L	1	40.0		102	80-120%			
-Xylene	20.3	0.250	0.500	ug/L	1	20.0		101	80-120%			
urr: 1,4-Difluorobenzene (Surr)		Reco	overy: 99 %	Limits: 80	0-120 %	Dilı	ution: 1x					
Toluene-d8 (Surr)			99 %	80	-120 %		"					
4-Bromofluorobenzene (Surr)			90 %	80)-120 %		"					
Ouplicate (1090931-DUP1)			Prepared	: 09/24/21	08:41 Anal	lyzed: 09/24	/21 12:46					
OC Source Sample: Non-SDG (A1	10880-01)											
cetone	ND	10.0	20.0	ug/L	1		ND				30%	
crylonitrile	ND	1.00	2.00	ug/L	1		ND				30%	
Benzene	ND	0.100	0.200	ug/L	1		ND				30%	
Fromobenzene	ND	0.250	0.500	ug/L	1		ND				30%	
romochloromethane	ND	0.500	1.00	ug/L	1		ND				30%	
romodichloromethane	ND	0.500	1.00	ug/L	1		ND				30%	
Bromoform	ND	0.500	1.00	ug/L	1		ND				30%	
Fromomethane	ND	5.00	5.00	ug/L	1		ND				30%	
-Butanone (MEK)	ND	5.00	10.0	ug/L	1		ND				30%	
-Butylbenzene	ND	0.500	1.00	ug/L	1		ND				30%	
ec-Butylbenzene	ND	0.500	1.00	ug/L	1		ND				30%	
ert-Butylbenzene	ND	0.500	1.00	ug/L	1		ND				30%	
Carbon disulfide	ND	5.00	10.0	ug/L	1		ND				30%	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1		ND				30%	
Chlorobenzene	ND	0.250	0.500	ug/L	1		ND				30%	
Chloroethane	ND	5.00	10.0	ug/L	1		ND				30%	
Chloroform	ND	0.500	1.00	ug/L	1		ND				30%	
Chloromethane	ND	2.50	5.00	ug/L	1		ND				30%	
-Chlorotoluene	ND	0.500	1.00	ug/L	1		ND				30%	
-Chlorotoluene	ND	0.500	1.00	ug/L	1		ND				30%	
Dibromochloromethane	ND	0.500	1.00	ug/L	1		ND				30%	
,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L ug/L	1		ND				30%	
,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L ug/L	1		ND				30%	
Dibromomethane	ND	0.500	1.00	ug/L ug/L	1		ND				30%	
,2-Dichlorobenzene	ND	0.250	0.500	ug/L ug/L	1		ND			-	30%	

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Page 92 of 173 Philip Nerenberg, Lab Director



Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
Project: Eatonville

55 SW Yamhill St, Ste 300
Project Number: 0171.067

Portland, OR 97209
Project Manager: Genevieve Schutzius

A110619 - 11 16 21 1140

Report ID:

30%

30%

30%

30%

30%

QUALITY CONTROL (QC) SAMPLE RESULTS Volatile Organic Compounds by EPA 8260D

% REC RPD Detection Reporting Spike Source % REC Analyte Result Units Dilution RPD Limit Limit Amount Result Limits Limit Notes Batch 1090931 - EPA 5030B Water **Duplicate (1090931-DUP1)** Prepared: 09/24/21 08:41 Analyzed: 09/24/21 12:46 QC Source Sample: Non-SDG (A1I0880-01) 1,3-Dichlorobenzene ND 0.250 0.500 ug/L 1 ND 30% ND 0.250 0.500 1,4-Dichlorobenzene ug/L 1 ND 30% Dichlorodifluoromethane ND 0.500 1.00 ug/L 1 ND 30% 1,1-Dichloroethane ND 0.200 0.400ug/L 1 ND 30% 1,2-Dichloroethane (EDC) ND 0.200 0.400 1 ND 30% ug/L ------ND 0.200 1,1-Dichloroethene 0.400 ug/L 1 ND 30% cis-1,2-Dichloroethene ND 0.200 0.400ug/L 1 ND 30% trans-1,2-Dichloroethene ND 0.400 ND 30% 0.200 ug/L 1 1,2-Dichloropropane ND 0.250 0.500 ug/L 1 ND 30% 1,3-Dichloropropane ND 0.500 1.00 ug/L 1 ND 30% 2,2-Dichloropropane ND 0.500 1.00 ug/L 1 ND 30% ND 0.500 1.00 30% 1,1-Dichloropropene ug/L 1 ND cis-1,3-Dichloropropene ND 0.500 1.00 ug/L 1 ND 30% ND 0.500 1.00 30% trans-1,3-Dichloropropene ug/L 1 ND 0.250 ug/L Ethylbenzene ND 0.500 1 ND 30% ND Hexachlorobutadiene 2.50 5.00 ug/L 1 ND ___ 30% 2-Hexanone ND 5.00 10.0 ug/L 1 ND 30% ND 0.500 30% Isopropylbenzene 1.00 1 ND ug/L 4-Isopropyltoluene ND 0.500 1.00 ug/L 1 ND 30% ND 10.0 Methylene chloride 5.00 ND 30% ug/L 1 4-Methyl-2-pentanone (MiBK) ND 5.00 10.0 ug/L 1 ND 30% Methyl tert-butyl ether (MTBE) ND 0.500 1.00 ug/L 1 ND ------30% Naphthalene ND 2.00 4.00 ug/L 1 ND 30% ND 0.500 ug/L 30% n-Propylbenzene 0.250 1 ND ND 0.500 1.00 30% Styrene ug/L 1 ND ND 0.200 0.400 ND 30% 1.1.1.2-Tetrachloroethane ug/L 1 1,1,2,2-Tetrachloroethane ND 0.250 0.500 ND 30% ug/L 1 ND ug/L Tetrachloroethene (PCE) 0.200 0.400 1 ---ND 30%

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1,2,3-Trichlorobenzene

1,2,4-Trichlorobenzene

1,1,1-Trichloroethane

1,1,2-Trichloroethane

ND

ND

ND

ND

ND

0.500

1.00

1.00

0.200

0.250

1.00

2.00

2.00

0.400

0.500

ug/L

ug/L

ug/L

ug/L

ug/L

1

1

1

1

1

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ND

ND

ND

ND

ND

Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water SolutionsProject:Eatonville55 SW Yamhill St, Ste 300Project Number:0171.067Report ID:Portland, OR 97209Project Manager:Genevieve SchutziusA110619 - 11 16 21 1140

QUALITY CONTROL (QC) SAMPLE RESULTS

		,	Volatile Or	ganic Co	mpounds	by EPA 8	3260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1090931 - EPA 5030B							Wa	ter				
Duplicate (1090931-DUP1)			Prepared	1: 09/24/21	08:41 Ana	yzed: 09/24/	/21 12:46					
QC Source Sample: Non-SDG (A11	[0880-01]											
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1		ND				30%	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1		ND				30%	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1		ND				30%	
,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1		ND				30%	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1		ND				30%	
Vinyl chloride	ND	0.200	0.400	ug/L	1		ND				30%	
n,p-Xylene	ND	0.500	1.00	ug/L	1		ND				30%	
o-Xylene	ND	0.250	0.500	ug/L	1		ND				30%	
Surr: 1,4-Difluorobenzene (Surr)		Recov	very: 103 %	Limits: 80)-120 %	Dilı	ution: 1x					
Toluene-d8 (Surr)			103 %	80	-120 %		"					
4-Bromofluorobenzene (Surr)			102 %	80	-120 %		"					
QC Source Sample: Non-SDG (A11	<u>[0584-17]</u>											
EPA 8260D Acetone	39.4	10.0	20.0	110/J	1	40.0	ND	99	39-160%			
	21.1	1.00	2.00	ug/L ug/L	1	20.0	ND ND	105	63-135%			
Acrylonitrile Benzene	21.1	0.100	0.200		1	20.0	ND ND	105	79-120%			
Bromobenzene				ug/L								
Bromobenzene Bromochloromethane	19.7 22.9	0.250 0.500	0.500 1.00	ug/L	1	20.0 20.0	ND ND	98 115	80-120% 78-123%			
Bromochloromethane	23.4	0.500	1.00	ug/L ug/L	1	20.0	ND ND	117	79-125%			
Bromoform	20.1	0.500	1.00	ug/L ug/L	1	20.0	ND ND	100	66-130%			
Bromomethane	21.1	5.00	5.00	ug/L ug/L	1	20.0	ND	100	53-141%			
2-Butanone (MEK)	42.4	5.00	10.0	ug/L	1	40.0	ND	106	56-143%			
a-Butylbenzene	24.3	0.500	1.00	ug/L ug/L	1	20.0	ND	122	75-128%			
ec-Butylbenzene	23.6	0.500	1.00	ug/L ug/L	1	20.0	ND	118	77-126%			
· ·		0.500	1.00	ug/L ug/L	1	20.0	ND	108	78-124%			
ert-Butylbenzene	2.L.n			₆ , ∟		20.0	1,12					
	21.6 23.2		10.0	ug/L	1	20.0	ND	116	64-133%			
Carbon disulfide	23.2	5.00	10.0 1.00	ug/L ug/L	1	20.0 20.0	ND ND	116 117	64-133% 72-136%			
ert-Butylbenzene Carbon disulfide Carbon tetrachloride Chlorobenzene	23.2 23.3		10.0 1.00 0.500	ug/L	1 1 1	20.0 20.0 20.0	ND ND ND	117	72-136%			
Carbon disulfide Carbon tetrachloride	23.2	5.00 0.500	1.00	_	1	20.0	ND					ICV (

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

Report ID:

GSI Water Solutions Project: Eatonville
55 SW Yamhill St, Ste 300 Project Number: 0171.067

Portland, OR 97209 Project Manager: Genevieve

23.0

23.2

21.9

42.9

20.5

19.2

21.2

15.1

0.500

0.500

5.00

5.00

0.500

2.00

0.250

0.500

1.00

1.00

10.0

10.0

1.00

4.00

0.500

1.00

ug/L

ug/L

ug/L

ug/L

ug/L

ug/L

ug/L

ug/L

1

1

1

1

1

1

1

1

Project Manager: Genevieve Schutzius A110619 - 11 16 21 1140

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

% REC RPD Detection Reporting Spike Source Analyte Result Limit Units Dilution % REC RPD Limit Amount Result Limits Limit Notes Batch 1090931 - EPA 5030B Water Matrix Spike (1090931-MS1) Prepared: 09/24/21 08:41 Analyzed: 09/24/21 15:02 QC Source Sample: Non-SDG (A1I0584-17) Chloromethane 39.0 2.50 5.00 ug/L 1 20.0 ND 195 50-139% Q-54j 20.2 0.500 1.00 20.0 2-Chlorotoluene ug/L 1 ND 101 79-122% 4-Chlorotoluene 20.8 0.500 1.00 ug/L 1 20.0 ND 104 78-122% Dibromochloromethane 20.2 0.500 1.00 ug/L 1 20.0 ND 101 74-126% 1,2-Dibromo-3-chloropropane 19.6 2.50 5.00 1 20.0 ND 98 62-128% ug/L 0.500 20.0 ND 1,2-Dibromoethane (EDB) 21.3 0.250 ug/L 1 106 77-121% ug/L Dibromomethane 21.6 0.500 1.00 1 20.0 ND 108 79-123% 22.5 20.0 ND 1.2-Dichlorobenzene 0.250 0.500 ug/L 1 112 80-120% 1,3-Dichlorobenzene 21.5 0.250 0.500 ug/L 1 20.0 ND 108 80-120% 1,4-Dichlorobenzene 20.1 0.250 0.500 ug/L 1 20.0 ND 100 79-120% Dichlorodifluoromethane 20.1 0.500 1.00 ug/L 1 20.0 ND 100 32-152% 22.0 0.200 0.400 20.0 ND 77-125% 1.1-Dichloroethane ug/L 1 110 20.0 1,2-Dichloroethane (EDC) 22.0 0.200 0.400 ug/L 1 ND 110 73-128% 20.0 20.6 0.200 0.400 ND 103 71-131% 1,1-Dichloroethene ug/L 1 ug/L cis-1,2-Dichloroethene 22.0 0.200 0.400 1 20.0 ND 110 78-123% trans-1,2-Dichloroethene 21.3 0.200 0.400 ug/L 1 20.0 ND 107 75-124% ___ 1,2-Dichloropropane 21.4 0.250 0.500 ug/L 1 20.0 ND 107 78-122% 21.4 0.500 20.0 ND 107 1,3-Dichloropropane 1.00 1 80-120% ug/L 20.0 60-139% 2,2-Dichloropropane 24.0 0.500 1.00 ug/L 1 ND 120 0.500 1.00 20.0 ND 79-125% 1,1-Dichloropropene 22.4 ug/L 1 112 0.500 20.0 ND 90 75-124% cis-1,3-Dichloropropene 18.0 1.00 ug/L 1 trans-1,3-Dichloropropene 19.6 0.500 1.00 ug/L 1 20.0 ND 98 73-127% ---Ethylbenzene 21.6 0.250 0.500 ug/L 1 20.0 ND 108 79-121% 25.7 20.0 ND 66-134% Q-541 Hexachlorobutadiene 2.50 5.00 1 128 ug/L 39.4 5.00 10.0 40.0 ND 99 57-139% 2-Hexanone ug/L 1

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Isopropylbenzene

4-Isopropyltoluene

Methylene chloride

Naphthalene

Styrene

n-Propylbenzene

4-Methyl-2-pentanone (MiBK)

Methyl tert-butyl ether (MTBE)

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20.0

20.0

20.0

40.0

20.0

20.0

20.0

20.0

ND

ND

ND

ND

ND

ND

ND

ND

115

116

109

107

102

96

106

76

72-131%

77-127%

74-124%

67-130%

71-124%

61-128%

76-126%

78-123%

Q-01



Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D Detection % REC RPD Reporting Spike Source Analyte Result Limit Units Dilution % REC RPD Limit Amount Result Limits Limit Notes Batch 1090931 - EPA 5030B Water Matrix Spike (1090931-MS1) Prepared: 09/24/21 08:41 Analyzed: 09/24/21 15:02 QC Source Sample: Non-SDG (A1I0584-17) 1,1,1,2-Tetrachloroethane 21.3 0.200 0.400 ug/L 1 20.0 ND 106 78-124% 0.250 0.500 20.0 1,1,2,2-Tetrachloroethane 20.7 ug/L 1 ND 103 71-121% ug/L 74-129% Tetrachloroethene (PCE) 20.3 0.200 0.400 1 20.0 ND 101 Toluene 20.3 0.500 1.00 ug/L 1 20.0 ND 102 80-121% 1,2,3-Trichlorobenzene 28.1 1.00 2.00 ug/L 1 20.0 ND 140 69-129% Q-54b 23.0 1.00 2.00 20.0 1,2,4-Trichlorobenzene ug/L 1 ND 115 69-130% 1,1,1-Trichloroethane 23.7 0.200 0.400ug/L 1 20.0 ND 118 74-131% 1,1,2-Trichloroethane 0.250 0.500 20.0 ND 105 80-120% 21.0 ug/L 1 20.0 Trichloroethene (TCE) 20.7 0.200 0.400 ug/L 1 ND 103 79-123% Trichlorofluoromethane 24.9 1.00 2.00 ug/L 1 20.0 ND 125 65-141% 1,2,3-Trichloropropane 20.8 0.500 1.00 ug/L 1 20.0 ND 104 73-122% 1,2,4-Trimethylbenzene 0.500 1.00 20.0 ND 76-124% 21.2 ug/L 1 106 0.500 20.0 75-124% 1,3,5-Trimethylbenzene 21.9 1.00 ug/L 1 ND 110 20.0 Vinyl chloride 20.9 0.200 0.400 ND 105 58-137% ug/L 1 0.500 1.00 40.0 m,p-Xylene 42.6 ug/L 1 ND 107 80-121% o-Xylene 21.7 0.250 0.500 ug/L 20.0 ND 108 78-122% ---Surr: 1,4-Difluorobenzene (Surr) Dilution: 1x Recovery: 99 % Limits: 80-120 % 97 % Toluene-d8 (Surr) 80-120 %

80-120 %

90 %

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4-Bromofluorobenzene (Surr)

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6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project Number: Eatonville
Project Number: 0171.067
Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D % REC RPD Detection Reporting Spike Source Analyte Result Units Dilution % REC RPD Limit Limit Amount Result Limits Limit Notes Batch 1091097 - EPA 5035A Soil Blank (1091097-BLK1) Prepared: 09/29/21 09:00 Analyzed: 09/29/21 11:14 5035A/8260D ND 0.333 0.667 mg/kg wet Acetone 0.0667 ND 0.0333 50 Acrylonitrile mg/kg wet Benzene ND 0.00333 0.00667 mg/kg wet 50 Bromobenzene ND 0.00833 0.0167 mg/kg wet 50 Bromochloromethane ND 0.0167 0.0333 mg/kg wet 50 ND Bromodichloromethane 0.0167 0.0333 mg/kg wet 50 Bromoform ND 0.0333 0.0667 mg/kg wet 50 0.333 0.333 Bromomethane ND mg/kg wet 50 2-Butanone (MEK) ND 0.167 0.333 mg/kg wet 50 n-Butylbenzene ND 0.0167 0.0333 mg/kg wet 50 sec-Butylbenzene ND 0.0167 0.0333 mg/kg wet 50 0.0333 ND 0.0167 tert-Butylbenzene mg/kg wet 50 ---Carbon disulfide ND 0.167 0.333 mg/kg wet 50 Carbon tetrachloride ND 0.0167 0.0333 mg/kg wet 50 Chlorobenzene ND 0.00833 0.0167 mg/kg wet 50 Chloroethane ND 0.167 0.333 mg/kg wet 50 ------Chloroform ND 0.0167 0.0333 mg/kg wet 50 0.0833 0.167 Chloromethane ND mg/kg wet 50 2-Chlorotoluene ND 0.0167 0.0333 mg/kg wet 50 4-Chlorotoluene ND 0.0167 0.0333 mg/kg wet 50 Dibromochloromethane ND 0.03330.0667 mg/kg wet 50 1,2-Dibromo-3-chloropropane ND 0.0833 0.167 mg/kg wet 50 0.0167 1,2-Dibromoethane (EDB) ND 0.0333 mg/kg wet 50 Dibromomethane ND 0.0167 0.0333 mg/kg wet 50 0.00833 1,2-Dichlorobenzene ND 0.0167 mg/kg wet 50 1,3-Dichlorobenzene ND 0.00833 0.0167 mg/kg wet 50 1,4-Dichlorobenzene ND 0.008330.0167 mg/kg wet 50 Dichlorodifluoromethane ND 0.0667 0.0667 mg/kg wet 50 ---1,1-Dichloroethane ND 0.0167 0.00833mg/kg wet 50 0.00833 1,2-Dichloroethane (EDC) ND 0.0167 mg/kg wet 50 mg/kg wet 1,1-Dichloroethene ND 0.00833 50 0.0167 cis-1,2-Dichloroethene ND 0.00833 0.0167 mg/kg wet 50 0.00833 0.0167 trans-1,2-Dichloroethene ND mg/kg wet 50

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Philip Nerenberg, Lab Director

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions Project: 55 SW Yamhill St, Ste 300 Project Number: 0171.067 Portland, OR 97209

Report ID: Project Manager: Genevieve Schutzius A1I0619 - 11 16 21 1140

QUALITY CONTROL (QC) SAMPLE RESULTS Volatile Organic Compounds by EPA 8260D

Eatonville

% REC RPD Detection Reporting Spike Source Analyte Result Units Dilution % REC RPD Limit Limit Amount Result Limits Limit Notes Batch 1091097 - EPA 5035A Soil Blank (1091097-BLK1) Prepared: 09/29/21 09:00 Analyzed: 09/29/21 11:14 ND 0.00833 0.0167 50 1,2-Dichloropropane mg/kg wet ND 0.0167 0.0333 mg/kg wet 50 1,3-Dichloropropane ---2,2-Dichloropropane ND 0.0167 0.0333 mg/kg wet 50 1,1-Dichloropropene ND 0.0167 0.0333 mg/kg wet 50 ND 0.0167 0.0333mg/kg wet cis-1,3-Dichloropropene 50 trans-1,3-Dichloropropene ND 0.0167 0.0333 mg/kg wet 50 0.00833 mg/kg wet Ethylbenzene ND 0.0167 50 0.0333 Hexachlorobutadiene ND 0.0667 mg/kg wet 50 0.167 2-Hexanone ND 0.333 mg/kg wet 50 Isopropylbenzene ND 0.0167 0.0333 mg/kg wet 50 ND 0.0167 0.0333 mg/kg wet 50 4-Isopropyltoluene 0.167 Methylene chloride ND 0.333 mg/kg wet 50 ND 4-Methyl-2-pentanone (MiBK) 0.167 0.333 mg/kg wet 50 ---0.0167 Methyl tert-butyl ether (MTBE) ND 0.0333 mg/kg wet 50 Naphthalene ND 0.0333 mg/kg wet 0.0667 50 n-Propylbenzene ND 0.00833 0.0167 mg/kg wet 50 0.0167 0.0333 Styrene ND mg/kg wet 50 1,1,1,2-Tetrachloroethane ND 0.00833 mg/kg wet 0.0167 50 ND 1.1.2.2-Tetrachloroethane 0.0167 0.0333 mg/kg wet 50 ---------Tetrachloroethene (PCE) ND 0.00833 0.0167 mg/kg wet 50 Toluene ND 0.0167 0.0333 mg/kg wet 50 1,2,3-Trichlorobenzene ND 0.0833 0.167 mg/kg wet 50 1,2,4-Trichlorobenzene ND 0.0833 0.167 mg/kg wet 50 1,1,1-Trichloroethane ND 0.00833 0.0167 mg/kg wet 50 ND 0.00833 1,1,2-Trichloroethane 0.0167 mg/kg wet 50 ---Trichloroethene (TCE) ND 0.00833 0.0167 mg/kg wet 50

Surr: 1,4-Difluorobenzene (Surr) Recovery: 108 % Limits: 80-120 % Dilution: 1x

0.0333

0.0167

0.0167

0.0167

0.00833

0.0167

0.00833

0.0667

0.0333

0.0333

0.0333

0.0167

0.0333

0.0167

mg/kg wet

mg/kg wet

mg/kg wet

mg/kg wet

mg/kg wet

mg/kg wet

mg/kg wet

50

50

50

50

50

50

50

ND

ND

ND

ND

ND

ND

ND

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Trichlorofluoromethane

1,2,3-Trichloropropane

1,2,4-Trimethylbenzene

1,3,5-Trimethylbenzene

Vinyl chloride

m,p-Xylene

o-Xylene

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Page 98 of 173 Philip Nerenberg, Lab Director



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6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: <u>Eatonville</u>
Project Number: **0171.067**

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

QUALITY CONTROL (QC) SAMPLE RESULTS

		\	/olatile Or	ganic Con	npounds	by EPA 8	3260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1091097 - EPA 5035A							So	il				
Blank (1091097-BLK1)			Prepared	: 09/29/21 0	9:00 Ana	lyzed: 09/29	/21 11:14					
Surr: Toluene-d8 (Surr)		Reco	very: 98 %	Limits: 80-	120 %	Dili	ution: 1x					
4-Bromofluorobenzene (Surr)			97 %	79-	120 %		"					
LCS (1091097-BS1)			Prepared	: 09/29/21 0	9:00 Ana	lyzed: 09/29	/21 10:20					
5035A/8260D												
Acetone	1.91	0.500	1.00	mg/kg we	t 50	2.00		96	80-120%			
Acrylonitrile	1.05	0.0500	0.100	mg/kg we	t 50	1.00		105	80-120%			
Benzene	1.18	0.00500	0.0100	mg/kg we	t 50	1.00		118	80-120%			
Bromobenzene	1.04	0.0125	0.0250	mg/kg we	t 50	1.00		104	80-120%			
Bromochloromethane	1.13	0.0250	0.0500	mg/kg we	t 50	1.00		113	80-120%			
Bromodichloromethane	1.24	0.0250	0.0500	mg/kg we	t 50	1.00		124	80-120%			Q-:
Bromoform	0.947	0.0500	0.100	mg/kg we	t 50	1.00		95	80-120%			
Bromomethane	1.60	0.500	0.500	mg/kg we	t 50	1.00		160	80-120%			Q-:
2-Butanone (MEK)	1.98	0.250	0.500	mg/kg we	t 50	2.00		99	80-120%			
n-Butylbenzene	0.981	0.0250	0.0500	mg/kg we	t 50	1.00		98	80-120%			
sec-Butylbenzene	1.04	0.0250	0.0500	mg/kg we	t 50	1.00		104	80-120%			
tert-Butylbenzene	0.954	0.0250	0.0500	mg/kg we	t 50	1.00		95	80-120%			
Carbon disulfide	1.40	0.250	0.500	mg/kg we	t 50	1.00		140	80-120%			Q-:
Carbon tetrachloride	1.30	0.0250	0.0500	mg/kg we	t 50	1.00		130	80-120%			Q-:
Chlorobenzene	1.07	0.0125	0.0250	mg/kg we	t 50	1.00		107	80-120%			
Chloroethane	1.41	0.250	0.500	mg/kg we	t 50	1.00		141	80-120%			Q-:
Chloroform	1.24	0.0250	0.0500	mg/kg we	t 50	1.00		124	80-120%			Q-:
Chloromethane	0.891	0.125	0.250	mg/kg we	t 50	1.00		89	80-120%			
2-Chlorotoluene	1.05	0.0250	0.0500	mg/kg we	t 50	1.00		105	80-120%			
4-Chlorotoluene	1.01	0.0250	0.0500	mg/kg we	t 50	1.00		101	80-120%			
Dibromochloromethane	0.970	0.0500	0.100	mg/kg we	t 50	1.00		97	80-120%			
1,2-Dibromo-3-chloropropane	0.836	0.125	0.250	mg/kg we	t 50	1.00		84	80-120%			
1,2-Dibromoethane (EDB)	1.09	0.0250	0.0500	mg/kg we	t 50	1.00		109	80-120%			
Dibromomethane	1.14	0.0250	0.0500	mg/kg we	t 50	1.00		114	80-120%			
1,2-Dichlorobenzene	1.00	0.0125	0.0250	mg/kg we		1.00		100	80-120%			
1,3-Dichlorobenzene	1.04	0.0125	0.0250	mg/kg we		1.00		104	80-120%			
1,4-Dichlorobenzene	1.03	0.0125	0.0250	mg/kg we		1.00		103	80-120%			
Dichlorodifluoromethane	0.760	0.100	0.100	mg/kg we		1.00		76	80-120%			Q-:
1,1-Dichloroethane	1.14	0.0125	0.0250	mg/kg we		1.00		114	80-120%			

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Philip Nerenberg, Lab Director

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions Project:

55 SW Yamhill St, Ste 300 Project Nur

Portland, OR 97209 Project Mar

Project Number: 0171.067 Report ID:
Project Manager: Genevieve Schutzius A110619 - 11 16 21 1140

QUALITY CONTROL (QC) SAMPLE RESULTS

Eatonville

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1091097 - EPA 5035A							Soi	il				
LCS (1091097-BS1)			Prepared	: 09/29/21 0	9:00 Ana	lyzed: 09/29/	/21 10:20					
1,2-Dichloroethane (EDC)	1.14	0.0125	0.0250	mg/kg we	t 50	1.00		114	80-120%			
1,1-Dichloroethene	1.47	0.0125	0.0250	mg/kg we	t 50	1.00		147	80-120%			Q-56
cis-1,2-Dichloroethene	1.20	0.0125	0.0250	mg/kg we	t 50	1.00		120	80-120%			
trans-1,2-Dichloroethene	1.22	0.0125	0.0250	mg/kg we	t 50	1.00		122	80-120%			Q-56
1,2-Dichloropropane	1.20	0.0125	0.0250	mg/kg we	t 50	1.00		120	80-120%			
1,3-Dichloropropane	1.05	0.0250	0.0500	mg/kg we	t 50	1.00		105	80-120%			
2,2-Dichloropropane	1.35	0.0250	0.0500	mg/kg we	t 50	1.00		135	80-120%			Q-56
1,1-Dichloropropene	1.25	0.0250	0.0500	mg/kg we	t 50	1.00		125	80-120%			Q-56
cis-1,3-Dichloropropene	1.19	0.0250	0.0500	mg/kg we	t 50	1.00		119	80-120%			
trans-1,3-Dichloropropene	1.04	0.0250	0.0500	mg/kg we	t 50	1.00		104	80-120%			
Ethylbenzene	1.01	0.0125	0.0250	mg/kg we	t 50	1.00		101	80-120%			
Hexachlorobutadiene	0.916	0.0500	0.100	mg/kg we	t 50	1.00		92	80-120%			
2-Hexanone	1.61	0.250	0.500	mg/kg we	t 50	2.00		80	80-120%			
Isopropylbenzene	1.02	0.0250	0.0500	mg/kg we	t 50	1.00		102	80-120%			
4-Isopropyltoluene	1.02	0.0250	0.0500	mg/kg we	t 50	1.00		102	80-120%			
Methylene chloride	1.18	0.250	0.500	mg/kg we	t 50	1.00		118	80-120%			
4-Methyl-2-pentanone (MiBK)	1.64	0.250	0.500	mg/kg we	t 50	2.00		82	80-120%			
Methyl tert-butyl ether (MTBE)	1.16	0.0250	0.0500	mg/kg we	t 50	1.00		116	80-120%			
Naphthalene	0.882	0.0500	0.100	mg/kg we	t 50	1.00		88	80-120%			
n-Propylbenzene	1.04	0.0125	0.0250	mg/kg we	t 50	1.00		104	80-120%			
Styrene	0.990	0.0250	0.0500	mg/kg we	t 50	1.00		99	80-120%			
1,1,1,2-Tetrachloroethane	1.17	0.0125	0.0250	mg/kg we	t 50	1.00		117	80-120%			
1,1,2,2-Tetrachloroethane	0.937	0.0250	0.0500	mg/kg we	t 50	1.00		94	80-120%			
Tetrachloroethene (PCE)	1.14	0.0125	0.0250	mg/kg we	t 50	1.00		114	80-120%			
Toluene	1.04	0.0250	0.0500	mg/kg we	t 50	1.00		104	80-120%			
1,2,3-Trichlorobenzene	0.993	0.125	0.250	mg/kg we	t 50	1.00		99	80-120%			
1,2,4-Trichlorobenzene	0.954	0.125	0.250	mg/kg we	t 50	1.00		95	80-120%			
1,1,1-Trichloroethane	1.31	0.0125	0.0250	mg/kg we	t 50	1.00		131	80-120%			Q-56
1,1,2-Trichloroethane	1.07	0.0125	0.0250	mg/kg we	t 50	1.00		107	80-120%			
Trichloroethene (TCE)	1.27	0.0125	0.0250	mg/kg we	t 50	1.00		127	80-120%			Q-56
Trichlorofluoromethane	1.35	0.0500	0.100	mg/kg we		1.00		135	80-120%			Q-56
1,2,3-Trichloropropane	0.992	0.0250	0.0500	mg/kg we		1.00		99	80-120%			
1,2,4-Trimethylbenzene	1.05	0.0250	0.0500	mg/kg we		1.00		105	80-120%			
1,3,5-Trimethylbenzene	1.08	0.0250	0.0500	mg/kg we		1.00		108	80-120%			

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water SolutionsProject:Eatonville55 SW Yamhill St, Ste 300Project Number:0171.067Report ID:Portland, OR 97209Project Manager:Genevieve SchutziusA110619 - 11 16 21 1140

QUALITY CONTROL (QC) SAMPLE RESULTS

			Volatile Or	ganic Con	npounds	by EPA 8	260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1091097 - EPA 5035A							Soi	il				
LCS (1091097-BS1)			Prepared	: 09/29/21 0	9:00 Ana	lyzed: 09/29	/21 10:20					
/inyl chloride	1.02	0.0125	0.0250	mg/kg we	t 50	1.00		102	80-120%			
n,p-Xylene	1.98	0.0250	0.0500	mg/kg we	t 50	2.00		99	80-120%			
-Xylene	0.970	0.0125	0.0250	mg/kg we	t 50	1.00		97	80-120%			
Surr: 1,4-Difluorobenzene (Surr)		Recov	ery: 108 %	Limits: 80-	120 %	Dilı	ution: 1x					
Toluene-d8 (Surr)			96 %	80-	120 %		"					
4-Bromofluorobenzene (Surr)			96 %	79-	120 %		"					
Duplicate (1091097-DUP1)			Prepared	: 09/23/21 1	0:15 Ana	lyzed: 09/29/	/21 17:04					
OC Source Sample: Non-SDG (A1	<u>10984-01)</u>											
Acetone	ND	0.939	1.88	mg/kg dr	y 50		ND				30%	
Acrylonitrile	ND	0.0939	0.188	mg/kg dr	y 50		ND				30%	
Benzene	ND	0.00939	0.0188	mg/kg dr	y 50		ND				30%	
Bromobenzene	ND	0.0235	0.0469	mg/kg dr	y 50		ND				30%	
Bromochloromethane	ND	0.0469	0.0939	mg/kg dr	y 50		ND				30%	
Bromodichloromethane	ND	0.0469	0.0939	mg/kg dr	y 50		ND				30%	
Bromoform	ND	0.0939	0.188	mg/kg dr	y 50		ND				30%	
Bromomethane	ND	0.939	0.939	mg/kg dr	y 50		ND				30%	
-Butanone (MEK)	ND	0.469	0.939	mg/kg dr	y 50		ND				30%	
-Butylbenzene	ND	0.0469	0.0939	mg/kg dr	y 50		ND				30%	
ec-Butylbenzene	0.0985	0.0469	0.0939	mg/kg dr	y 50		0.111			12	30%	
ert-Butylbenzene	ND	0.0469	0.0939	mg/kg dr	y 50		ND				30%	
Carbon disulfide	ND	0.469	0.939	mg/kg dr	y 50		ND				30%	
Carbon tetrachloride	ND	0.0469	0.0939	mg/kg dr	y 50		ND				30%	
Chlorobenzene	ND	0.0235	0.0469	mg/kg dr	y 50		ND				30%	
Chloroethane	ND	0.469	0.939	mg/kg dr	y 50		ND				30%	
Chloroform	ND	0.0469	0.0939	mg/kg dr	y 50		ND				30%	
Chloromethane	ND	0.235	0.469	mg/kg dr	y 50		ND				30%	
-Chlorotoluene	ND	0.0469	0.0939	mg/kg dr	y 50		ND				30%	
-Chlorotoluene	ND	0.0469	0.0939	mg/kg dr	y 50		ND				30%	
Dibromochloromethane	ND	0.0939	0.188	mg/kg dr	y 50		ND				30%	
,2-Dibromo-3-chloropropane	ND	0.235	0.469	mg/kg dr	y 50		ND				30%	
,2-Dibromoethane (EDB)	ND	0.0469	0.0939	mg/kg dr	y 50		ND				30%	
Dibromomethane	ND	0.0469	0.0939	mg/kg dr	y 50		ND				30%	
,2-Dichlorobenzene	ND	0.0235	0.0469	mg/kg dr	y 50		ND				30%	

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions Project: **Eatonville** 55 SW Yamhill St, Ste 300 Project Number: 0171.067 Portland, OR 97209

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D RPD Detection Reporting Spike Source % REC Analyte Result Units Dilution % REC RPD Limit Limit Amount Result Limits Limit Notes Batch 1091097 - EPA 5035A Soil **Duplicate (1091097-DUP1)** Prepared: 09/23/21 10:15 Analyzed: 09/29/21 17:04 QC Source Sample: Non-SDG (A1I0984-01) mg/kg dry 1,3-Dichlorobenzene ND 0.0235 0.0469 50 ND 30% 0.0235 0.0469 1,4-Dichlorobenzene ND mg/kg dry 50 ND 30% Dichlorodifluoromethane ND 0.188 0.188 mg/kg dry 50 ND 30% 1,1-Dichloroethane ND 0.0235 0.0469 mg/kg dry 50 ND 30% 1,2-Dichloroethane (EDC) ND 0.0235 0.0469 mg/kg dry 50 ND 30% ------ND 0.0235 1,1-Dichloroethene 0.0469 mg/kg dry 50 ND 30% cis-1,2-Dichloroethene ND 0.02350.0469 mg/kg dry 50 ND 30% trans-1,2-Dichloroethene 0.023530% ND 0.0469 mg/kg dry 50 ND 1,2-Dichloropropane ND 0.0235 0.0469 mg/kg dry 50 ND 30% 1,3-Dichloropropane ND 0.0469 0.0939 mg/kg dry 50 ND 30% 2,2-Dichloropropane ND 0.0469 0.0939 mg/kg dry 50 ND 30% ND 0.0469 0.0939 30% 1,1-Dichloropropene mg/kg dry 50 ND cis-1,3-Dichloropropene ND 0.0469 0.0939 mg/kg dry 50 ND 30% ND 0.0469 0.0939 30% trans-1,3-Dichloropropene mg/kg dry 50 ND 0.0235 Ethylbenzene ND 0.0469 mg/kg dry 50 ND 30% ND Hexachlorobutadiene 0.0939 0.188 mg/kg dry 50 ND ___ 30% 2-Hexanone ND 0.469 0.939 mg/kg dry 50 ND 30% ND 30% Isopropylbenzene 0.0469 0.0939 mg/kg dry 50 ND 4-Isopropyltoluene ND 0.0469 0.0939 mg/kg dry 50 ND 30% ND 0.939 Methylene chloride 0.469 mg/kg dry 50 ND 30% 4-Methyl-2-pentanone (MiBK) R-02 ND 1.50 1.50 mg/kg dry 50 ND 30% Methyl tert-butyl ether (MTBE) ND 0.0469 0.0939 mg/kg dry 50 ND ------30% Naphthalene ND 0.0939 0.188 mg/kg dry 50 ND 30% ND 0.0235 30% n-Propylbenzene 0.0469 mg/kg dry 50 ND ND 0.0469 0.0939 30% Styrene mg/kg dry 50 ND ND 0.0235 0.0469 ND 30% 1.1.1.2-Tetrachloroethane mg/kg dry 50 1,1,2,2-Tetrachloroethane ND 0.0939 0.0939 mg/kg dry ND 30% 50 ND 0.0235 Tetrachloroethene (PCE) 0.0469 mg/kg dry 50 ND 30% ND 0.0469 0.0939 mg/kg dry 50 ND 30% ND 0.235 0.469 30% 1.2.3-Trichlorobenzene mg/kg dry 50 ND ---1,2,4-Trichlorobenzene ND 0.235 0.469 mg/kg dry 50 ND 30% 0.0235 1,1,1-Trichloroethane ND 0.0469 50 ND 30% mg/kg dry 1,1,2-Trichloroethane ND 0.0235 0.0469 mg/kg dry 50 ND 30%

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Page 102 of 173 Philip Nerenberg, Lab Director



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6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water SolutionsProject:Eatonville55 SW Yamhill St, Ste 300Project Number:0171.067Report ID:Portland, OR 97209Project Manager:Genevieve SchutziusA110619 - 11 16 21 1140

QUALITY CONTROL (QC) SAMPLE RESULTS

		\	/olatile Or	ganic Cor	npounds	by EPA 8	3260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1091097 - EPA 5035A							Soi	I				
Duplicate (1091097-DUP1)			Prepared	: 09/23/21 1	0:15 Ana	lyzed: 09/29/	/21 17:04					
QC Source Sample: Non-SDG (A1	10984-01)											
Trichloroethene (TCE)	ND	0.0235	0.0469	mg/kg dr	y 50		ND				30%	
Trichlorofluoromethane	ND	0.0939	0.188	mg/kg dr	y 50		ND				30%	
,2,3-Trichloropropane	ND	0.0469	0.0939	mg/kg dr	y 50		ND				30%	
,2,4-Trimethylbenzene	ND	0.0469	0.0939	mg/kg dr	y 50		ND				30%	
,3,5-Trimethylbenzene	ND	0.0469	0.0939	mg/kg dr	y 50		ND				30%	
Vinyl chloride	ND	0.0235	0.0469	mg/kg dr	y 50		ND				30%	
n,p-Xylene	ND	0.0469	0.0939	mg/kg dr	y 50		ND				30%	
-Xylene	ND	0.0235	0.0469	mg/kg dr	y 50		ND				30%	
urr: 1,4-Difluorobenzene (Surr)		Recove	ery: 109 %	Limits: 80-	-120 %	Dilı	ution: 1x					
Toluene-d8 (Surr)			94 %	80-	120 %		"					
4-Bromofluorobenzene (Surr)			98 %	79-	120 %		"					
QC Source Sample: Non-SDG (A1	<u>10984-02)</u> ND	0.959	1.92	mg/kg dr	y 50		ND				30%	
QC Source Sample: Non-SDG (A1												
Acrylonitrile	ND ND	0.939	0.192	mg/kg dr	•		ND ND				30%	
Renzene	ND ND	0.00959	0.192	mg/kg dr	•		ND ND				30%	
Bromobenzene	ND	0.00939	0.0192	mg/kg dr	•		ND				30%	
Bromochloromethane	ND ND	0.0240	0.0480	mg/kg dr	•		ND ND				30%	
Bromodichloromethane	ND ND	0.0480	0.0959	mg/kg dr	•		ND ND				30%	
Bromoform	ND ND	0.0480	0.192	mg/kg dr	•		ND ND				30%	
Bromomethane	ND	0.0939	0.192	mg/kg dr	-		ND ND				30%	
2-Butanone (MEK)	ND	0.480	0.959	mg/kg dr	•		ND ND				30%	
a-Butylbenzene	0.934	0.0480	0.0959	mg/kg dr	,		ND				30%	Q
ec-Butylbenzene	0.934	0.0480	0.0959	mg/kg dr	•		ND ND				30%	Q
ert-Butylbenzene	0.463 ND	0.0480	0.0959		•		ND ND				30%	V
Carbon disulfide	ND ND	0.0939	0.0939	mg/kg dr	-		ND ND				30%	
Carbon distillide Carbon tetrachloride	ND ND	0.480	0.939	mg/kg dr	•		ND ND				30%	
Chlorobenzene	ND ND	0.0480	0.0939	mg/kg dr mg/kg dr	•		ND ND				30%	
Chloroethane	ND ND	0.0240	0.0480				ND ND				30%	
Chloroform	ND ND	0.480	0.939	mg/kg dr	-		ND ND				30%	
				mg/kg dr	•							
Chloromethane	ND	0.240	0.480	mg/kg dr			ND				30%	
2-Chlorotoluene	ND	0.0480	0.0959	mg/kg dr	y 50		ND				30%	

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6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

Report ID:

GSI Water Solutions
Project: Eatonville

55 SW Yamhill St, Ste 300
Project Number: 0171.067

Portland, OR 97209
Project Manager: Genevieve Schutzius

Project Manager: Genevieve Schutzius A110619 - 11 16 21 1140

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D % REC RPD Detection Reporting Spike Source Analyte Result Units Dilution % REC RPD Limit Limit Amount Result Limits Limit Notes Batch 1091097 - EPA 5035A Soil **Duplicate (1091097-DUP2)** Prepared: 09/23/21 13:20 Analyzed: 09/29/21 17:58 QC Source Sample: Non-SDG (A1I0984-02) mg/kg dry 4-Chlorotoluene ND 0.0480 0.0959 50 ND 30% ND 0.0959 0.192 Dibromochloromethane mg/kg dry 50 ND 30% 1,2-Dibromo-3-chloropropane ND 0.240 0.480 mg/kg dry 50 ND 30% 1,2-Dibromoethane (EDB) ND 0.0480 0.0959 mg/kg dry 50 ND 30% Dibromomethane ND 0.0480 0.0959 mg/kg dry 50 ND 30% ------ND 0.0240 1,2-Dichlorobenzene 0.0480mg/kg dry 50 ND 30% 1,3-Dichlorobenzene ND 0.02400.0480mg/kg dry 50 ND 30% 30% ND 1,4-Dichlorobenzene ND 0.0240 0.0480 mg/kg dry 50 Dichlorodifluoromethane ND 0.192 0.192 mg/kg dry 50 ND 30% 1,1-Dichloroethane ND 0.0240 0.0480 mg/kg dry 50 ND 30% 1,2-Dichloroethane (EDC) ND 0.0240 0.0480 mg/kg dry 50 ND 30% 1,1-Dichloroethene ND 0.02400.048030% mg/kg dry 50 ND cis-1,2-Dichloroethene ND 0.0240 0.0480mg/kg dry 50 ND 30% ND 0.0240 0.0480 30% trans-1,2-Dichloroethene mg/kg dry 50 ND 0.0240 1,2-Dichloropropane ND 0.0480 mg/kg dry 50 ND 30% 1,3-Dichloropropane ND 0.0480 0.0959 mg/kg dry 50 ND ___ 30% 2,2-Dichloropropane ND 0.0480 0.0959 mg/kg dry 50 ND 30% ND 30% 1,1-Dichloropropene 0.0480 0.0959 mg/kg dry 50 ND cis-1,3-Dichloropropene ND 0.0480 0.0959 mg/kg dry 50 ND 30% 0.0480 0.0959 trans-1,3-Dichloropropene ND mg/kg dry 50 ND 30% ND 0.0240 mg/kg dry Ethylbenzene 0.0480 50 ND 30% 0.0959 Hexachlorobutadiene ND 0.192 mg/kg dry 50 ND ---30% 2-Hexanone ND 0.959 0.959 mg/kg dry 50 ND 30% 0.0508 0.0480 ND 30% Q-05, J Isopropylbenzene 0.0959 mg/kg dry 50 0.0480 0.0959 30% Q-05 4-Isopropyltoluene 0.164 mg/kg dry 50 ND 0.480 30% ND 0.959 ND Methylene chloride mg/kg dry 50 4-Methyl-2-pentanone (MiBK) ND 6.23 6.23 mg/kg dry ND 30% R-02 50 ND Methyl tert-butyl ether (MTBE) 0.0480 0.0959 mg/kg dry 50 ND ------30% Naphthalene ND 0.0959 0.192 mg/kg dry 50 ND 30% 0.229 0.0240 0.0480 mg/kg dry ND 30% Q-05 n-Propylbenzene 50 Styrene ND 0.0480 0.0959 mg/kg dry 50 ND 30% 0.0240 ND 0.0480 50 ND 30% 1.1.1.2-Tetrachloroethane mg/kg dry 1,1,2,2-Tetrachloroethane ND 0.1920.192 mg/kg dry 50 ND 30% R-02

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6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water SolutionsProject:Eatonville55 SW Yamhill St, Ste 300Project Number:0171.067Report ID:Portland, OR 97209Project Manager:Genevieve SchutziusA110619 - 11 16 21 1140

QUALITY CONTROL (QC) SAMPLE RESULTS

		\	/olatile Or	ganic Cor	npounds	by EPA 8	3260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1091097 - EPA 5035A							Soi	I				
Duplicate (1091097-DUP2)			Prepared	: 09/23/21 1	3:20 Ana	lyzed: 09/29	/21 17:58					
QC Source Sample: Non-SDG (A1	10984-02)											
Tetrachloroethene (PCE)	ND	0.0240	0.0480	mg/kg dr	y 50		ND				30%	
Toluene	ND	0.0480	0.0959	mg/kg dr	y 50		ND				30%	
,2,3-Trichlorobenzene	ND	0.240	0.480	mg/kg dr	y 50		ND				30%	
,2,4-Trichlorobenzene	ND	0.240	0.480	mg/kg dr	y 50		ND				30%	
,1,1-Trichloroethane	ND	0.0240	0.0480	mg/kg dr	y 50		ND				30%	
,1,2-Trichloroethane	ND	0.0240	0.0480	mg/kg dr	y 50		ND				30%	
Trichloroethene (TCE)	ND	0.0240	0.0480	mg/kg dr	y 50		ND				30%	
Trichlorofluoromethane	ND	0.0959	0.192	mg/kg dr	y 50		ND				30%	
,2,3-Trichloropropane	ND	0.0480	0.0959	mg/kg dr	y 50		ND				30%	
,2,4-Trimethylbenzene	ND	0.0480	0.0959	mg/kg dr	y 50		ND				30%	
,3,5-Trimethylbenzene	ND	0.0480	0.0959	mg/kg dr	y 50		ND				30%	
Vinyl chloride	ND	0.0240	0.0480	mg/kg dr	y 50		ND				30%	
n,p-Xylene	ND	0.0480	0.0959	mg/kg dr	y 50		ND				30%	
o-Xylene	ND	0.0240	0.0480	mg/kg dr	y 50		ND				30%	
urr: 1,4-Difluorobenzene (Surr)		Recov	ery: 113 %	Limits: 80-	-120 %	Dilt	ution: 1x					
Toluene-d8 (Surr)			94 %	80-	120 %		"					
4-Bromofluorobenzene (Surr)			100 %	79-	120 %		"					
Matrix Spike (1091097-MS1)			Prepared	: 09/23/21 1	5:30 Ana	lyzed: 09/29	/21 18:51					
QC Source Sample: Non-SDG (A1	10984-03)											
5035A/8260D												
Acetone	2.67	0.695	1.39	mg/kg dr	y 50	2.78	ND	96	36-164%			
Acrylonitrile	1.55	0.0695	0.139	mg/kg dr	y 50	1.39	ND	106	65-134%			
Benzene	1.58	0.00695	0.0139	mg/kg dr	y 50	1.39	ND	114	77-121%			
Bromobenzene	1.41	0.0174	0.0347	mg/kg dr	-	1.39	ND	102	78-121%			
Bromochloromethane	1.47	0.0347	0.0695	mg/kg dr	y 50	1.39	ND	105	78-125%			
Bromodichloromethane	1.71	0.0347	0.0695	mg/kg dr	-	1.39	ND	123	75-127%			Q-
Bromoform	1.37	0.0695	0.139	mg/kg dr	y 50	1.39	ND	98	67-132%			
Bromomethane	2.31	0.695	0.695	mg/kg dr	-	1.39	ND	166	53-143%			Q-
-Butanone (MEK)	2.75	0.347	0.695	mg/kg dr	y 50	2.78	ND	99	51-148%			
-Butylbenzene	1.53	0.0347	0.0695	mg/kg dr	-	1.39	0.147	100	70-128%			
				-								
ec-Butylbenzene	1.53	0.0347	0.0695	mg/kg dr	y 50	1.39	0.0945	103	73-126%			

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions Project: **Eatonville** 55 SW Yamhill St, Ste 300 Project Number: 0171.067 Portland, OR 97209

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D RPD Detection Reporting Spike Source % REC Result Units Dilution % REC **RPD** Analyte Limit Limit Amount Result Limits Limit Notes Batch 1091097 - EPA 5035A Soil Matrix Spike (1091097-MS1) Prepared: 09/23/21 15:30 Analyzed: 09/29/21 18:51 QC Source Sample: Non-SDG (A110984-03) mg/kg dry Carbon disulfide 1.84 0.347 0.695 50 1.39 ND 132 63-132% Q-54d 0.0347 0.0695 Q-54 Carbon tetrachloride 1.71 mg/kg dry 50 1.39 ND 123 70-135% Chlorobenzene 1.39 0.0174 0.0347 mg/kg dry 50 1.39 ND 100 79-120% Q-54e Chloroethane 2.12 0.347 0.695 mg/kg dry 50 1.39 ND 153 59-139% Chloroform 0.0347 0.0695 mg/kg dry 50 1.39 ND 119 78-123% Q-54g 1.66 ---1.39 Chloromethane 1.12 0.174 0.347 mg/kg dry 50 ND 80 50-136% 2-Chlorotoluene 1.43 0.0347 0.0695mg/kg dry 50 1.39 ND 103 75-122% 99 4-Chlorotoluene 1.37 0.0347 0.0695 mg/kg dry 50 1.39 ND 72-124% Dibromochloromethane 1.35 0.0695 0.139 mg/kg dry 50 1.39 ND 97 74-126% 1,2-Dibromo-3-chloropropane 1.41 0.174 0.347 mg/kg dry 50 1.39 ND 102 61-132% 1,2-Dibromoethane (EDB) 1.52 0.0347 0.0695 mg/kg dry 50 1.39 ND 109 78-122% 0.0347 0.0695 1.39 78-125% Dibromomethane 1.53 mg/kg dry 50 ND 110 1,2-Dichlorobenzene 1.34 0.0174 0.0347 mg/kg dry 50 1.39 ND 97 78-121% 1.41 0.0174 1.39 ND 102 77-121% 1,3-Dichlorobenzene 0.0347 mg/kg dry 50 1,4-Dichlorobenzene 1.35 0.0174 0.0347 mg/kg dry 50 1.39 ND 97 75-120% Dichlorodifluoromethane 0.918 0.139 0.139 mg/kg dry 50 1.39 ND 66 29-149% ___ O-54m 1,1-Dichloroethane 1.65 0.0174 0.0347 mg/kg dry 50 1.39 ND 119 76-125% 0.0174 1.39 1,2-Dichloroethane (EDC) 1.51 0.0347 mg/kg dry 50 ND 108 73-128% 1.39 70-131% Q-54f 1,1-Dichloroethene 1.96 0.0174 0.0347mg/kg dry 50 ND 141 0.0174 cis-1,2-Dichloroethene 1.54 0.0347 mg/kg dry 50 1.39 ND 77-123% 111 0.0174 1.39 74-125% Q-54c trans-1,2-Dichloroethene 1.58 0.0347 mg/kg dry 50 ND 114 0.0174 1,2-Dichloropropane 1.68 0.0347 mg/kg dry 50 1.39 ND 121 76-123% ---1,3-Dichloropropane 1.43 0.0347 0.0695mg/kg dry 50 1.39 ND 103 77-121% 0.0347 1.39 124 Q-54b 2,2-Dichloropropane 1.73 0.0695 mg/kg dry 50 ND 67-133% ---0.0347 76-125% Q-54i 1,1-Dichloropropene 1.60 0.0695 mg/kg dry 50 1.39 ND 115 1.56 0.0347 0.0695 1.39 ND 112 74-126% cis-1,3-Dichloropropene mg/kg dry 50 trans-1,3-Dichloropropene 1.39 0.0347 0.0695 1.39 ND 100 71-130% mg/kg dry 50 Ethylbenzene 0.0174 1.34 0.0347 mg/kg dry 50 1.39 ND 96 76-122% Hexachlorobutadiene 1.43 0.0695 0.139 mg/kg dry 50 1.39 ND 103 61-135% 2-Hexanone 3.03 0.347 0.695 2.78 ND 92 mg/kg dry 50 53-145% Isopropylbenzene 1.42 0.0347 0.0695 mg/kg dry 50 1.39 ND 102 68-134% 0.0347 4-Isopropyltoluene 1.43 0.0695 50 1.39 ND 103 73-127% mg/kg dry Methylene chloride 1.55 0.347 0.695 mg/kg dry 50 1.39 ND 111 70-128%

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Page 106 of 173 Philip Nerenberg, Lab Director



Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions Project:

55 SW Yamhill St, Ste 300 Project Nu.

Portland, OR 97209 Project Mar

Project Number: **0171.067**Project Manager: **Genevieve Schutzius**

Eatonville

Report ID: A1I0619 - 11 16 21 1140

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D Detection % REC RPD Reporting Spike Source Analyte Result Units Dilution % REC RPD Limit Limit Amount Result Limits Limit Notes Batch 1091097 - EPA 5035A Soil Matrix Spike (1091097-MS1) Prepared: 09/23/21 15:30 Analyzed: 09/29/21 18:51 QC Source Sample: Non-SDG (A110984-03) 4-Methyl-2-pentanone (MiBK) 3.46 0.347 0.695 mg/kg dry 50 2.78 ND 80 65-135% Methyl tert-butyl ether (MTBE) 0.0347 0.0695 1.56 mg/kg dry 50 1.39 ND 112 73-125% Naphthalene 1.43 0.0695 0.139 mg/kg dry 50 1.39 ND 103 62-129% n-Propylbenzene 1.45 0.0174 0.0347 mg/kg dry 50 1.39 0.0556 101 73-125% 1.47 0.0347 0.0695 mg/kg dry 50 1.39 ND 106 76-124% Styrene 1,1,1,2-Tetrachloroethane 0.0174 1.39 78-125% 1.56 0.0347 mg/kg dry 50 ND 112 1,1,2,2-Tetrachloroethane 1.33 0.03470.0695mg/kg dry 50 1.39 ND 96 70-124% Tetrachloroethene (PCE) 0.0174 1.39 104 73-128% 1.45 0.0347 mg/kg dry 50 ND Toluene 1.34 0.0347 0.0695 mg/kg dry 50 1.39 ND 96 77-121% 1,2,3-Trichlorobenzene 1.39 0.174 0.347 mg/kg dry 50 1.39 ND 100 66-130% 1,2,4-Trichlorobenzene 1.39 0.174 0.347 mg/kg dry 50 1.39 ND 100 67-129% 0.0174 Q-54a 1,1,1-Trichloroethane 1.71 0.0347 mg/kg dry 1.39 ND 73-130% 50 123 0.0174 1,1,2-Trichloroethane 1.54 0.0347 mg/kg dry 50 1.39 ND 111 78-121% Q-54k Trichloroethene (TCE) 1.70 0.0174 0.0347 mg/kg dry 1.39 ND 77-123% 50 122 0.0695 Q-54b Trichlorofluoromethane 1.71 0.139 mg/kg dry 50 1.39 ND 123 62-140% 1,2,3-Trichloropropane 1.38 0.0347 0.0695 mg/kg dry 50 1.39 ND 99 73-125% 1,2,4-Trimethylbenzene 1.41 0.0347 0.0695 mg/kg dry 50 1.39 ND 101 75-123% 1,3,5-Trimethylbenzene 1.44 0.0347 1.39 0.0695mg/kg dry 50 ND 104 73-124% Vinyl chloride 1.30 0.0174 1.39 ND 94 56-135% 0.0347mg/kg dry 50 0.0347 0.0695 2.78 m,p-Xylene mg/kg dry 50 ND 94 77-124% 2.61 1.36 0.0174 0.0347 1.39 ND 98 77-123% o-Xylene mg/kg dry 50 Surr: 1,4-Difluorobenzene (Surr) Recovery: 110 % Limits: 80-120 % Dilution: 1x Toluene-d8 (Surr) 80-120 % 95% 4-Bromofluorobenzene (Surr) 103 % 79-120 %

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

Report ID:

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: <u>Eatonville</u>
Project Number: **0171.067**

Project Manager: Genevieve Schutzius A110619 - 11 16 21 1140

QUALITY CONTROL (QC) SAMPLE RESULTS

			Polychlor	inated Bi	phenyls	by EPA 8	082A					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1090703 - EPA 3546							Soi	il				
Blank (1090703-BLK1)			Prepared	: 09/20/21 0	7:42 Ana	lyzed: 09/20	0/21 17:18					C-07
EPA 8082A												
Aroclor 1016	ND	0.00455	0.00909	mg/kg we	et 1							
Aroclor 1221	ND	0.00455	0.00909	mg/kg we	et 1							
Aroclor 1232	ND	0.00455	0.00909	mg/kg we	et 1							
Aroclor 1242	ND	0.00455	0.00909	mg/kg we	et 1							
Aroclor 1248	ND	0.00455	0.00909	mg/kg we	et 1							
Aroclor 1254	ND	0.00455	0.00909	mg/kg we	et 1							
Aroclor 1260	ND	0.00455	0.00909	mg/kg we	et 1							
Surr: Decachlorobiphenyl (Surr)		Recove	ery: 100 %	Limits: 60-	-125 %	Dii	lution: Ix					
LCS (1090703-BS1)			Prepared	: 09/20/21 0	7:42 Ana	lyzed: 09/20	0/21 17:37					C-07
EPA 8082A												
Aroclor 1016	0.199	0.00500	0.0100	mg/kg we	et 1	0.250		80	47-134%			
Aroclor 1260	0.231	0.00500	0.0100	mg/kg we	et 1	0.250		92	53-140%			
Surr: Decachlorobiphenyl (Surr)		Reco	very: 97%	Limits: 60-	-125 %	Dii	lution: Ix					
Duplicate (1090703-DUP1)			Prepared	: 09/20/21 0	7:42 Ana	lyzed: 09/20	0/21 18:32					C-07
QC Source Sample: HA-01-0921	(A1I0619-06)										
EPA 8082A												
Aroclor 1016	ND	0.0122	0.0244	mg/kg dr	y 1		ND				30%	
Aroclor 1221	ND	0.0122	0.0244	mg/kg dr	y 1		ND				30%	
Aroclor 1232	ND	0.0122	0.0244	mg/kg dr	y 1		ND				30%	
Aroclor 1242	ND	0.0122	0.0244	mg/kg dr	y 1		ND				30%	
Aroclor 1248	ND	0.0122	0.0244	mg/kg dr	y 1		ND				30%	
Aroclor 1254	0.0489	0.0122	0.0244	mg/kg dr	y 1		0.0704			36	30%	P-12, Q-0
Aroclor 1260	0.0157	0.0122	0.0244	mg/kg dr	y 1		ND				30%	Q-05,
Surr: Decachlorobiphenyl (Surr)		Reco	very: 68 %	Limits: 60-	-125 %	Dii	lution: 1x					
Matrix Spike (1090703-MS1)			Prepared	: 09/20/21 0	7:42 Ana	lyzed: 09/20	0/21 19:45					C-07
OC Source Sample: Non-SDG (A	110626-03)											
EPA 8082A												
Aroclor 1016	0.257	0.00860	0.0172	mg/kg dr	v 1	0.430	ND	60	47-134%			

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6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

QUALITY CONTROL (QC) SAMPLE RESULTS

Polychlorinated Biphenyls by EPA 8082A Detection Reporting Spike Source % REC **RPD** % REC Analyte Result Ĺimit Units Dilution Amount Result Limits RPD Limit Limit Notes Batch 1090703 - EPA 3546 Soil Matrix Spike (1090703-MS1) Prepared: 09/20/21 07:42 Analyzed: 09/20/21 19:45 C-07 QC Source Sample: Non-SDG (A1I0626-03) Dilution: 1x Surr: Decachlorobiphenyl (Surr) Recovery: 67% Limits: 60-125 %

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ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

QUALITY CONTROL (QC) SAMPLE RESULTS

Polychlorinated Biphenyls by EPA 8082A												
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1091107 - EPA 3510C(Neutral pH)					Wa	ter				
Blank (1091107-BLK1)	Prepared: 09/29/21 10:35 Analyzed: 09/29/21 17:23										C-07	
EPA 8082A												
Aroclor 1016	ND	0.0455	0.0909	ug/L	1							
Aroclor 1221	ND	0.0455	0.0909	ug/L	1							
Aroclor 1232	ND	0.0455	0.0909	ug/L	1							
Aroclor 1242	ND	0.0455	0.0909	ug/L	1							
Aroclor 1248	ND	0.0455	0.0909	ug/L	1							
Aroclor 1254	ND	0.0455	0.0909	ug/L	1							
Aroclor 1260	ND	0.0455	0.0909	ug/L	1							
Surr: Decachlorobiphenyl (Surr)	Recovery: 88 % Limits: 40-135 % Dilution: 1x											
LCS (1091107-BS1)	Prepared: 09/29/21 10:35 Analyzed: 09/29/21 17:41											C-07
EPA 8082A												
Aroclor 1016	1.96	0.0500	0.100	ug/L	1	2.50		79	46-129%			
Aroclor 1260	2.32	0.0500	0.100	ug/L	1	2.50		93	45-134%			
Surr: Decachlorobiphenyl (Surr)		Reco	very: 91 %	Limits: 40	0-135 %	Dilt	ution: 1x					
LCS Dup (1091107-BSD1)			Prepared	l: 09/29/21	10:35 Ana	lyzed: 09/29	/21 17:59					C-07, Q-19
EPA 8082A												
Aroclor 1016	1.80	0.0500	0.100	ug/L	1	2.50		72	46-129%	9	30%	
Aroclor 1260	2.15	0.0500	0.100	ug/L	1	2.50		86	45-134%	7	30%	
Surr: Decachlorobiphenyl (Surr)		Reco	very: 94%	Limits: 40	0-135 %	Dilution: 1x						

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6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions Project: **Eatonville** 55 SW Yamhill St, Ste 300 Project Number: 0171.067 Portland, OR 97209

Project Manager: Genevieve Schutzius

Report ID: A1I0619 - 11 16 21 1140

QUALITY CONTROL (QC) SAMPLE RESULTS

			Polychlori	inated Bi	phenyls	by EPA 8	082A					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 21J1037 - EPA 3546							Soi	il				
Blank (21J1037-BLK1)			Prepared	: 10/28/21 0	7:26 Anal	yzed: 10/28	8/21 16:20					C-07
EPA 8082A												
Aroclor 1016	ND	0.00455	0.00909	mg/kg we	et 1							
Aroclor 1221	ND	0.00455	0.00909	mg/kg we	et 1							
Aroclor 1232	ND	0.00455	0.00909	mg/kg we	et 1							
Aroclor 1242	ND	0.00455	0.00909	mg/kg we	et 1							
Aroclor 1248	ND	0.00455	0.00909	mg/kg we	et 1							
Aroclor 1254	ND	0.00455	0.00909	mg/kg we	et 1							
Aroclor 1260	ND	0.00455	0.00909	mg/kg we	et 1							
Surr: Decachlorobiphenyl (Surr)		Reco	very: 91 %	Limits: 60-	125 %	Dii	lution: 1x					
LCS (21J1037-BS1)			Prepared:	: 10/28/21 0	7:26 Anal	yzed: 10/28	8/21 16:37					C-07
EPA 8082A												
Aroclor 1016	0.206	0.00500	0.0100	mg/kg we	et 1	0.250		83	47-134%			
Aroclor 1260	0.190	0.00500	0.0100	mg/kg we	et 1	0.250		76	53-140%			
Surr: Decachlorobiphenyl (Surr)		Reco	very: 97%	Limits: 60-		Dii	lution: 1x					
Duplicate (21J1037-DUP1)			Prepared:	: 10/28/21 0	7:26 Anal	yzed: 10/28	8/21 17:30					C-07
QC Source Sample: DU-01-0921	After Proce	ssing (A1I0619	-11)									
EPA 8082A			<u></u>									
Aroclor 1016	ND	0.00498	0.00997	mg/kg dr	v 1		ND				30%	
Aroclor 1221	ND	0.00498	0.00997	mg/kg dr			ND				30%	
Aroclor 1232	ND	0.00498	0.00997	mg/kg dr			ND				30%	
Aroclor 1242	ND	0.00498	0.00997	mg/kg dr			ND				30%	
Aroclor 1248	ND	0.00498	0.00997	mg/kg dr			ND				30%	
Aroclor 1254	ND	0.00498	0.00997	mg/kg dr			ND				30%	
Aroclor 1260	ND	0.00498	0.00997	mg/kg dr			ND				30%	
Surr: Decachlorobiphenyl (Surr)	TVD		very: 78 %	Limits: 60-			lution: 1x				2070	
Matrix Spiles (21 I 1027 MS2)			Duama: 1	. 10/20/21 0	7.26 A1	kura di 10/20	0/21 10.40					C 07
Matrix Spike (21J1037-MS2)			rrepared	: 10/28/21 0	7.20 Anal	yzeu: 10/29	7/21 10:40					C-07
OC Source Sample: DU-02-0921 EPA 8082A	After Proces	ssing (A110619	<u>-13)</u>									
Aroclor 1016	0.204	0.00512	0.0102	mg/kg dr	y 1	0.256	ND	80	47-134%			
Aroclor 1260	0.205	0.00512	0.0102	mg/kg dr		0.256	0.0319	68	53-140%			

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6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions Project: 55 SW Yamhill St, Ste 300 Project Number: 0171.067 Portland, OR 97209 Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

QUALITY CONTROL (QC) SAMPLE RESULTS

Eatonville

Polychlorinated Biphenyls by EPA 8082A Detection Reporting Spike Source % REC **RPD** % REC Analyte Result Ĺimit Units Dilution Amount Result Limits RPD Limit Limit Notes Batch 21J1037 - EPA 3546 Soil Matrix Spike (21J1037-MS2) Prepared: 10/28/21 07:26 Analyzed: 10/29/21 10:40 C-07 QC Source Sample: DU-02-0921---After Processing (A1I0619-13) Dilution: 1x Surr: Decachlorobiphenyl (Surr) Recovery: 89 % Limits: 60-125 %

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

Report ID:

GSI Water Solutions
Project: Eatonville

55 SW Yamhill St, Ste 300
Project Number: 0171.067

Portland, OR 97209
Project Manager: Genevieve Schutzius

Project Manager: Genevieve Schutzius A110619 - 11 16 21 1140

QUALITY CONTROL (QC) SAMPLE RESULTS Semivolatile Organic Compounds by EPA 8270E

Detection Reporting Spike Source % REC **RPD** Amount % REC Limits RPD Analyte Result Ĺimit Units Dilution Result Limit Notes Limit

Batch 1090906 - EPA 3510C (A	Acid/Base N	eutral)					Wa	iter		
Blank (1090906-BLK1)			Prepared: (09/23/21 12	:07 Anal	yzed: 09/23	/21 18:40			
EPA 8270E										
Acenaphthene	ND	0.00909	0.0182	ug/L	1				 	
Acenaphthylene	ND	0.00909	0.0182	ug/L	1				 	
Anthracene	ND	0.00909	0.0182	ug/L	1				 	
Benz(a)anthracene	ND	0.00909	0.0182	ug/L	1				 	
Benzo(a)pyrene	ND	0.0136	0.0273	ug/L	1				 	
Benzo(b)fluoranthene	ND	0.0136	0.0273	ug/L	1				 	
Benzo(k)fluoranthene	ND	0.0136	0.0273	ug/L	1				 	
Benzo(g,h,i)perylene	ND	0.00909	0.0182	ug/L	1				 	
Chrysene	ND	0.00909	0.0182	ug/L	1				 	
Dibenz(a,h)anthracene	ND	0.00909	0.0182	ug/L	1				 	
Fluoranthene	ND	0.00909	0.0182	ug/L	1				 	
Fluorene	ND	0.00909	0.0182	ug/L	1				 	
Indeno(1,2,3-cd)pyrene	ND	0.00909	0.0182	ug/L	1				 	
1-Methylnaphthalene	ND	0.0182	0.0364	ug/L	1				 	
2-Methylnaphthalene	ND	0.0182	0.0364	ug/L	1				 	
Naphthalene	ND	0.0182	0.0364	ug/L	1				 	
Phenanthrene	ND	0.00909	0.0182	ug/L	1				 	
Pyrene	ND	0.00909	0.0182	ug/L	1				 	
Carbazole	ND	0.0136	0.0273	ug/L	1				 	
Dibenzofuran	ND	0.00909	0.0182	ug/L	1				 	
2-Chlorophenol	ND	0.0455	0.0909	ug/L	1				 	
4-Chloro-3-methylphenol	ND	0.0909	0.182	ug/L	1				 	
2,4-Dichlorophenol	ND	0.0455	0.0909	ug/L	1				 	
2,4-Dimethylphenol	ND	0.0455	0.0909	ug/L	1				 	
2,4-Dinitrophenol	ND	0.227	0.455	ug/L	1				 	
4,6-Dinitro-2-methylphenol	ND	0.227	0.455	ug/L	1				 	
2-Methylphenol	ND	0.0227	0.0455	ug/L	1				 	
3+4-Methylphenol(s)	ND	0.0227	0.0455	ug/L	1				 	
2-Nitrophenol	ND	0.0909	0.182	ug/L	1				 	
4-Nitrophenol	ND	0.0909	0.182	ug/L	1				 	
Pentachlorophenol (PCP)	ND	0.0909	0.182	ug/L	1				 	
Phenol	ND	0.182	0.364	ug/L	1				 	
2,3,4,6-Tetrachlorophenol	ND	0.0455	0.0909	ug/L	1				 	

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water SolutionsProject:Eatonville55 SW Yamhill St, Ste 300Project Number:0171.067Portland, OR 97209Project Manager:Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1090906 - EPA 3510C (Acid/Base	Neutral)					Wa	ter				
Blank (1090906-BLK1)			Prepared	: 09/23/21	12:07 Ana	yzed: 09/23	/21 18:40					
2,3,5,6-Tetrachlorophenol	ND	0.0455	0.0909	ug/L	1							
2,4,5-Trichlorophenol	ND	0.0455	0.0909	ug/L	1							
Nitrobenzene	ND	0.0909	0.182	ug/L	1							
2,4,6-Trichlorophenol	ND	0.0455	0.0909	ug/L	1							
Bis(2-ethylhexyl)phthalate	ND	0.182	0.364	ug/L	1							
Butyl benzyl phthalate	ND	0.182	0.364	ug/L	1							
Diethylphthalate	ND	0.182	0.364	ug/L	1							
Dimethylphthalate	ND	0.182	0.364	ug/L	1							
Di-n-butylphthalate	ND	0.182	0.364	ug/L	1							
Di-n-octyl phthalate	ND	0.182	0.364	ug/L	1							
N-Nitrosodimethylamine	ND	0.0227	0.0455	ug/L	1							
N-Nitroso-di-n-propylamine	ND	0.0227	0.0455	ug/L	1							
N-Nitrosodiphenylamine	ND	0.0227	0.0455	ug/L	1							
Bis(2-Chloroethoxy) methane	ND	0.0227	0.0455	ug/L	1							
Bis(2-Chloroethyl) ether	ND	0.0227	0.0455	ug/L	1							
2,2'-Oxybis(1-Chloropropane)	ND	0.0227	0.0455	ug/L	1							
Hexachlorobenzene	ND	0.00909	0.0182	ug/L	1							
Hexachlorobutadiene	ND	0.0227	0.0455	ug/L	1							
Hexachlorocyclopentadiene	ND	0.0455	0.0909	ug/L	1							
Hexachloroethane	ND	0.0227	0.0455	ug/L	1							
2-Chloronaphthalene	ND	0.00909	0.0182	ug/L	1							
1,2,4-Trichlorobenzene	ND	0.0227	0.0455	ug/L	1							
4-Bromophenyl phenyl ether	ND	0.0227	0.0455	ug/L	1							
4-Chlorophenyl phenyl ether	ND	0.0227	0.0455	ug/L	1							
Aniline	ND	0.0455	0.0909	ug/L	1							
4-Chloroaniline	ND	0.0227	0.0455	ug/L	1							
2-Nitroaniline	ND	0.182	0.364	ug/L	1							
3-Nitroaniline	ND	0.182	0.364	ug/L	1							
4-Nitroaniline	ND	0.182	0.364	ug/L	1							Q-
2,4-Dinitrotoluene	ND	0.0909	0.182	ug/L	1							•
2.6-Dinitrotoluene	ND	0.0909	0.182	ug/L	1							
Benzoic acid	ND	1.14	2.27	ug/L	1							
Benzyl alcohol	ND	0.0909	0.182	ug/L ug/L	1							
Isophorone	ND	0.0303	0.162	ug/L ug/L	1							

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project Number: **0171.067**Project Manager: **Genevieve Schutzius**

Eatonville

Report ID: A110619 - 11 16 21 1140

QUALITY CONTROL (QC) SAMPLE RESULTS

Project:

		Sei	mivolatile	Organic	Compour	ds by EP	A 8270E					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1090906 - EPA 3510C (A	cid/Base	Neutral)					Wa	ter				
Blank (1090906-BLK1)			Prepared	1: 09/23/21	12:07 Ana	lyzed: 09/23	/21 18:40					
Azobenzene (1,2-DPH)	ND	0.0227	0.0455	ug/L	1							
Bis(2-Ethylhexyl) adipate	0.227	0.227	0.455	ug/L	1							B-02
3,3'-Dichlorobenzidine	ND	0.455	0.909	ug/L	1							Q-
1,2-Dinitrobenzene	ND	0.227	0.455	ug/L	1							
1,3-Dinitrobenzene	ND	0.227	0.455	ug/L	1							
1,4-Dinitrobenzene	ND	0.227	0.455	ug/L	1							
Pyridine	ND	0.0909	0.182	ug/L	1							
1,2-Dichlorobenzene	ND	0.0227	0.0455	ug/L	1							
1,3-Dichlorobenzene	ND	0.0227	0.0455	ug/L	1							
1,4-Dichlorobenzene	ND	0.0227	0.0455	ug/L	1							
Surr: Nitrobenzene-d5 (Surr)		Reco	very: 58 %	Limits: 4	4-120 %	Dilt	ution: 1x					
2-Fluorobiphenyl (Surr)			50 %	44	4-120 %		"					
Phenol-d6 (Surr)			20 %	10	0-133 %		"					
p-Terphenyl-d14 (Surr)			98 %	50	0-134 %		"					
2-Fluorophenol (Surr)			32 %	19	0-120 %		"					
2,4,6-Tribromophenol (Surr)			73 %	43	B-140 %		"					
LCS (1090906-BS1)			Prepared	1: 09/23/21	12:07 Ana	lyzed: 09/23	/21 20:49					
EPA 8270E												
Acenaphthene	2.74	0.0200	0.0400	ug/L	2	4.00		69	47-122%			
Acenaphthylene	3.02	0.0200	0.0400	ug/L	2	4.00		75	41-130%			
Anthracene	3.49	0.0200	0.0400	ug/L	2	4.00		87	57-123%			
Benz(a)anthracene	3.58	0.0200	0.0400	ug/L	2	4.00		90	58-125%			
Benzo(a)pyrene	3.81	0.0300	0.0600	ug/L	2	4.00		95	54-128%			
Benzo(b)fluoranthene	3.78	0.0300	0.0600	ug/L	2	4.00		94	53-131%			
Benzo(k)fluoranthene	3.88	0.0300	0.0600	ug/L	2	4.00		97	57-129%			
Benzo(g,h,i)perylene	3.77	0.0200	0.0400	ug/L	2	4.00		94	50-134%			
Chrysene	3.65	0.0200	0.0400	ug/L	2	4.00		91	59-123%			
Dibenz(a,h)anthracene	3.90	0.0200	0.0400	ug/L	2	4.00		98	51-134%			
Fluoranthene	3.94	0.0200	0.0400	ug/L	2	4.00		99	57-128%			
Fluorene	3.11	0.0200	0.0400	ug/L	2	4.00		78	52-124%			
Indeno(1,2,3-cd)pyrene	3.63	0.0200	0.0400	ug/L	2	4.00		91	52-134%			
1-Methylnaphthalene	2.41	0.0400	0.0800	ug/L	2	4.00		60	41-120%			
2-Methylnaphthalene	2.38	0.0400	0.0800	ug/L	2	4.00		59	40-121%			

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions Eatonville Project: 55 SW Yamhill St, Ste 300 Project Number: 0171.067 Portland, OR 97209

Project Manager: Genevieve Schutzius

Report ID: A1I0619 - 11 16 21 1140

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Reporting Detection Spike Source % REC **RPD** % REC Limits RPD Result Ĺimit Units Dilution Amount Result Limit Notes Limit

Analyte	Result	Limit	Limit	Units	Dilution	Amount	Result	% REC	% REC Limits	RPD	Limit	Notes
Batch 1090906 - EPA 3510C (Acid/Base	Neutral)					Wa	ter				
LCS (1090906-BS1)			Prepared	: 09/23/21	12:07 Anal	yzed: 09/23/	/21 20:49					
Naphthalene	2.33	0.0400	0.0800	ug/L	2	4.00		58	40-121%			
Phenanthrene	3.39	0.0200	0.0400	ug/L	2	4.00		85	59-120%			
Pyrene	4.00	0.0200	0.0400	ug/L	2	4.00		100	57-126%			
Carbazole	3.40	0.0300	0.0600	ug/L	2	4.00		85	60-122%			
Dibenzofuran	2.84	0.0200	0.0400	ug/L	2	4.00		71	53-120%			
2-Chlorophenol	2.74	0.100	0.200	ug/L	2	4.00		69	38-120%			
4-Chloro-3-methylphenol	3.05	0.200	0.400	ug/L	2	4.00		76	52-120%			
2,4-Dichlorophenol	3.03	0.100	0.200	ug/L	2	4.00		76	47-121%			
2,4-Dimethylphenol	2.69	0.100	0.200	ug/L	2	4.00		67	31-124%			
2,4-Dinitrophenol	5.97	0.500	1.00	ug/L	2	4.00		149	23-143%			Q-29, Q-4
4,6-Dinitro-2-methylphenol	5.19	0.500	1.00	ug/L	2	4.00		130	44-137%			Q-4
2-Methylphenol	2.59	0.0500	0.100	ug/L	2	4.00		65	30-120%			
3+4-Methylphenol(s)	2.45	0.0500	0.100	ug/L	2	4.00		61	29-120%			
2-Nitrophenol	3.25	0.200	0.400	ug/L	2	4.00		81	47-123%			Q-4
4-Nitrophenol	1.24	0.200	0.400	ug/L	2	4.00		31	10-120%			
Pentachlorophenol (PCP)	3.77	0.200	0.400	ug/L	2	4.00		94	35-138%			
Phenol	1.37	0.400	0.800	ug/L	2	4.00		34	10-120%			
2,3,4,6-Tetrachlorophenol	3.53	0.100	0.200	ug/L	2	4.00		88	50-128%			
2,3,5,6-Tetrachlorophenol	3.66	0.100	0.200	ug/L	2	4.00		92	50-121%			
2,4,5-Trichlorophenol	3.09	0.100	0.200	ug/L	2	4.00		77	53-123%			
Nitrobenzene	3.27	0.200	0.400	ug/L	2	4.00		82	45-121%			
2,4,6-Trichlorophenol	3.15	0.100	0.200	ug/L	2	4.00		79	50-125%			
Bis(2-ethylhexyl)phthalate	3.68	0.400	0.800	ug/L	2	4.00		92	55-135%			
Butyl benzyl phthalate	3.66	0.400	0.800	ug/L	2	4.00		91	53-134%			
Diethylphthalate	3.57	0.400	0.800	ug/L	2	4.00		89	56-125%			
Dimethylphthalate	3.35	0.400	0.800	ug/L	2	4.00		84	45-127%			
Di-n-butylphthalate	4.21	0.400	0.800	ug/L	2	4.00		105	59-127%			
Di-n-octyl phthalate	3.63	0.400	0.800	ug/L	2	4.00		91	51-140%			
N-Nitrosodimethylamine	1.80	0.0500	0.100	ug/L	2	4.00		45	10-120%			
N-Nitroso-di-n-propylamine	3.32	0.0500	0.100	ug/L	2	4.00		83	49-120%			
N-Nitrosodiphenylamine	3.46	0.0500	0.100	ug/L	2	4.00		86	51-123%			
Bis(2-Chloroethoxy) methane	3.08	0.0500	0.100	ug/L	2	4.00		77	48-120%			
Bis(2-Chloroethyl) ether	3.21	0.0500	0.100	ug/L	2	4.00		80	43-120%			
2,2'-Oxybis(1-Chloropropane)	3.52	0.0500	0.100	ug/L	2	4.00		88	37-130%			Q-4

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Page 116 of 173 Philip Nerenberg, Lab Director



Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions Project: **Eatonville** 55 SW Yamhill St, Ste 300 Project Number: 0171.067 Portland, OR 97209

Project Manager: Genevieve Schutzius

Report ID: A1I0619 - 11 16 21 1140

QUALITY CONTROL (QC) SAMPLE RESULTS

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1090906 - EPA 3510C (Acid/Base	Neutral)					Wa	ter				
LCS (1090906-BS1)			Prepared	: 09/23/21	12:07 Ana	lyzed: 09/23	/21 20:49					
Hexachlorobenzene	3.32	0.0200	0.0400	ug/L	2	4.00		83	53-125%			
Hexachlorobutadiene	1.82	0.0500	0.100	ug/L	2	4.00		45	22-124%			
Hexachlorocyclopentadiene	2.28	0.100	0.200	ug/L	2	4.00		57	10-127%			
Hexachloroethane	1.94	0.0500	0.100	ug/L	2	4.00		49	21-120%			
2-Chloronaphthalene	2.52	0.0200	0.0400	ug/L	2	4.00		63	40-120%			
1,2,4-Trichlorobenzene	1.99	0.0500	0.100	ug/L	2	4.00		50	29-120%			
4-Bromophenyl phenyl ether	3.32	0.0500	0.100	ug/L	2	4.00		83	55-124%			
4-Chlorophenyl phenyl ether	3.02	0.0500	0.100	ug/L	2	4.00		76	53-121%			
Aniline	1.87	0.100	0.200	ug/L	2	4.00		47	10-120%			
4-Chloroaniline	1.51	0.0500	0.100	ug/L	2	4.00		38	33-120%			
2-Nitroaniline	3.28	0.400	0.800	ug/L	2	4.00		82	55-127%			
3-Nitroaniline	1.87	0.400	0.800	ug/L	2	4.00		47	41-128%			
4-Nitroaniline	2.02	0.400	0.800	ug/L	2	4.00		50	54-128%			Q-3
2,4-Dinitrotoluene	3.89	0.200	0.400	ug/L	2	4.00		97	57-128%			
2,6-Dinitrotoluene	3.61	0.200	0.400	ug/L	2	4.00		90	57-124%			
Benzoic acid	4.26	2.50	2.50	ug/L	2	8.00		53	10-120%			
Benzyl alcohol	1.74	0.200	0.400	ug/L	2	4.00		43	31-120%			
Isophorone	3.34	0.0500	0.100	ug/L	2	4.00		83	42-124%			
Azobenzene (1,2-DPH)	3.59	0.0500	0.100	ug/L	2	4.00		90	61-120%			
Bis(2-Ethylhexyl) adipate	4.13	0.500	1.00	ug/L	2	4.00		103	57-136%			B-0
3,3'-Dichlorobenzidine	3.14	1.00	2.00	ug/L	2	8.00		39	27-129%			
1,2-Dinitrobenzene	3.59	0.500	1.00	ug/L	2	4.00		90	59-120%			
1,3-Dinitrobenzene	3.97	0.500	1.00	ug/L	2	4.00		99	49-128%			Q-4
1,4-Dinitrobenzene	4.13	0.500	1.00	ug/L	2	4.00		103	72-130%			Q-4
Pyridine	1.89	0.200	0.400	ug/L	2	4.00		47	10-120%			
1,2-Dichlorobenzene	1.94	0.0500	0.100	ug/L	2	4.00		49	32-120%			
1,3-Dichlorobenzene	1.85	0.0500	0.100	ug/L	2	4.00		46	28-120%			
1,4-Dichlorobenzene	1.89	0.0500	0.100	ug/L	2	4.00		47	29-120%			
Surr: Nitrobenzene-d5 (Surr)		Reco	very: 85 %	Limits: 4	4-120 %	Dilı	ution: 2x					
2-Fluorobiphenyl (Surr)			67 %	44	4-120 %		"					
Phenol-d6 (Surr)			28 %	10	0-133 %		"					
p-Terphenyl-d14 (Surr)			91 %	50	0-134 %		"					
2-Fluorophenol (Surr)			41 %	19	9-120 %		"					
2,4,6-Tribromophenol (Surr)			95 %	43	3-140 %		"					

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions Project: 55 SW Yamhill St, Ste 300 Project Number: 0171.067 Portland, OR 97209

Report ID: Project Manager: Genevieve Schutzius A110619 - 11 16 21 1140

QUALITY CONTROL (QC) SAMPLE RESULTS

Eatonville

Semivolatile Organic Compounds by EPA 8270E Detection % REC RPD Reporting Spike Source Analyte Result Limit Units Dilution Amount Result % REC RPD Limit Limits Limit Notes Batch 1090906 - EPA 3510C (Acid/Base Neutral) Water LCS Dup (1090906-BSD1) Prepared: 09/23/21 12:07 Analyzed: 09/23/21 21:24 Q-19 EPA 8270E 2.78 0.0200 70 Acenaphthene 0.0400 ug/L 2 4.00 47-122% 1 30% Acenaphthylene 3.05 0.0200 0.0400 2 4.00 76 41-130% 1 30% ug/L 2 Anthracene 3.39 0.02000.0400 ug/L 4.00 85 57-123% 3 30% 3.55 0.0200 0.0400 2 4.00 89 58-125% 1 30% Benz(a)anthracene ug/L Benzo(a)pyrene 3.69 0.03000.0600ug/L 2 4.00 92 54-128% 3 30% Benzo(b)fluoranthene 3.67 0.0300 0.0600 ug/L 2 4.00 92 53-131% 3 30% 57-129% 0.0300 2 4.00 3 Benzo(k)fluoranthene 3.77 0.0600 ug/L 94 30% Benzo(g,h,i)perylene 0.0200 ug/L 2 50-134% 3.68 0.0400 4.00 92 2 30% 2 91 Chrysene 3.65 0.0200 0.0400ug/L 4.00 59-123% 0.02 30% Dibenz(a,h)anthracene 3.80 0.0200 0.0400 2 4.00 95 51-134% 3 30% ug/L 2 Fluoranthene 3.80 0.02000.0400 ug/L 4.00 95 57-128% 4 30% Fluorene 3.11 0.02000.0400ug/L 2 4.00 78 52-124% 0.03 30% 2 3.51 0.0200 0.0400 4.00 88 52-134% 30% Indeno(1,2,3-cd)pyrene ug/L 3 ug/L 2 1-Methylnaphthalene 2.48 0.0400 0.0800 4.00 62 41-120% 3 30% 2-Methylnaphthalene 0.0400 0.0800 2 4.00 40-121% 3 2.46 ug/L 61 30% 2 4.00 Naphthalene 2.39 0.0400 0.0800 ug/L 60 40-121% 3 30% 0.0200 0.0400 2 Phenanthrene 3.29 ug/L 4.00 82 59-120% 3 30% Pyrene 3.84 0.02000.0400ug/L 2 4.00 96 57-126% 4 30% 2 Carbazole 3.81 0.0300 0.0600 4.00 95 60-122% 11 30% ug/L 0.0200 Dibenzofuran 2.92 0.0400 ug/L 2 4.00 73 53-120% 3 30% 2.78 2-Chlorophenol 0.100 0.200 2 4.00 69 38-120% 1 30% ug/L 2.98 0.200 0.400 2 52-120% 2 4-Chloro-3-methylphenol ug/L 4.00 74 30% 2 0.100 0.200 4.00 78 47-121% 30% 2,4-Dichlorophenol 3.13 ug/L 3 2,4-Dimethylphenol 2.50 0.100 0.200 ug/L 2 4.00 63 31-124% 7 30% 0.500 1.00 2 4.00 30% Q-41 2,4-Dinitrophenol 5.66 142 23-143% 5 ug/L 4,6-Dinitro-2-methylphenol 0.500 1.00 2 4.00 129 44-137% 0.3 30% Q-41 5.18 ug/L 2 2-Methylphenol 2.50 0.0500 0.100 ug/L 4.00 62 30-120% 4 30% 3+4-Methylphenol(s) 2.45 0.0500 0.100 2 4.00 61 29-120% 0.2 30% ug/L 2 3.40 0.200 0.400 4.00 85 47-123% 4 30% O-41 2-Nitrophenol ug/L 4-Nitrophenol 1.19 0.200 0.400 ug/L 2 4.00 30 10-120% 4 30% Pentachlorophenol (PCP) 3.71 0.200 0.400 2 4.00 93 35-138% 2 30% ug/L 1.39 0.400 0.800 ug/L 2 4.00 35 10-120% 2 30% 0.100 0.200 2 4.00 89 0.8 2,3,4,6-Tetrachlorophenol 3.56 ug/L 50-128% 30% ---

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Page 118 of 173 Philip Nerenberg, Lab Director



Portland, OR 97209

ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water SolutionsProject:Eatonville55 SW Yamhill St, Ste 300Project Number:0171.067

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1090906 - EPA 3510C (A	Acid/Base	Neutral)					Wa	ter				
LCS Dup (1090906-BSD1)			Prepared	: 09/23/21	12:07 Anal	yzed: 09/23	/21 21:24					Q-19
2,3,5,6-Tetrachlorophenol	3.65	0.100	0.200	ug/L	2	4.00		91	50-121%	0.4	30%	
2,4,5-Trichlorophenol	3.21	0.100	0.200	ug/L	2	4.00		80	53-123%	4	30%	
Nitrobenzene	3.29	0.200	0.400	ug/L	2	4.00		82	45-121%	0.7	30%	
2,4,6-Trichlorophenol	3.20	0.100	0.200	ug/L	2	4.00		80	50-125%	2	30%	
Bis(2-ethylhexyl)phthalate	3.50	0.400	0.800	ug/L	2	4.00		88	55-135%	5	30%	
Butyl benzyl phthalate	3.60	0.400	0.800	ug/L	2	4.00		90	53-134%	2	30%	
Diethylphthalate	3.44	0.400	0.800	ug/L	2	4.00		86	56-125%	4	30%	
Dimethylphthalate	3.29	0.400	0.800	ug/L	2	4.00		82	45-127%	2	30%	
Di-n-butylphthalate	3.96	0.400	0.800	ug/L	2	4.00		99	59-127%	6	30%	
Di-n-octyl phthalate	3.50	0.400	0.800	ug/L	2	4.00		87	51-140%	4	30%	
N-Nitrosodimethylamine	1.87	0.0500	0.100	ug/L	2	4.00		47	10-120%	4	30%	
N-Nitroso-di-n-propylamine	3.33	0.0500	0.100	ug/L	2	4.00		83	49-120%	0.5	30%	
N-Nitrosodiphenylamine	3.55	0.0500	0.100	ug/L	2	4.00		89	51-123%	3	30%	
Bis(2-Chloroethoxy) methane	3.11	0.0500	0.100	ug/L	2	4.00		78	48-120%	0.9	30%	
Bis(2-Chloroethyl) ether	3.39	0.0500	0.100	ug/L	2	4.00		85	43-120%	5	30%	
2,2'-Oxybis(1-Chloropropane)	3.51	0.0500	0.100	ug/L	2	4.00		88	37-130%	0.2	30%	Q-41
Hexachlorobenzene	3.15	0.0200	0.0400	ug/L	2	4.00		79	53-125%	5	30%	
Hexachlorobutadiene	1.92	0.0500	0.100	ug/L	2	4.00		48	22-124%	5	30%	
Hexachlorocyclopentadiene	2.27	0.100	0.200	ug/L	2	4.00		57	10-127%	0.06	30%	
Hexachloroethane	1.95	0.0500	0.100	ug/L	2	4.00		49	21-120%	0.1	30%	
2-Chloronaphthalene	2.59	0.0200	0.0400	ug/L	2	4.00		65	40-120%	3	30%	
1,2,4-Trichlorobenzene	2.08	0.0500	0.100	ug/L	2	4.00		52	29-120%	5	30%	
4-Bromophenyl phenyl ether	3.29	0.0500	0.100	ug/L	2	4.00		82	55-124%	1	30%	
4-Chlorophenyl phenyl ether	3.03	0.0500	0.100	ug/L	2	4.00		76	53-121%	0.2	30%	
Aniline	2.26	0.100	0.200	ug/L	2	4.00		57	10-120%	19	30%	
4-Chloroaniline	2.31	0.0500	0.100	ug/L	2	4.00		58	33-120%	42	30%	Q-24
2-Nitroaniline	3.53	0.400	0.800	ug/L	2	4.00		88	55-127%	7	30%	
3-Nitroaniline	2.83	0.400	0.800	ug/L	2	4.00		71	41-128%	41	30%	Q-24
4-Nitroaniline	2.72	0.400	0.800	ug/L	2	4.00		68	54-128%	30	30%	
2,4-Dinitrotoluene	3.82	0.200	0.400	ug/L	2	4.00		95	57-128%	2	30%	
2,6-Dinitrotoluene	3.63	0.200	0.400	ug/L	2	4.00		91	57-124%	0.4	30%	
Benzoic acid	3.75	2.50	2.50	ug/L	2	8.00		47	10-120%	13	30%	
Benzyl alcohol	1.83	0.200	0.400	ug/L	2	4.00		46	31-120%	5	30%	
Isophorone	3.40	0.0500	0.100	ug/L	2	4.00		85	42-124%	2	30%	

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions Project: 55 SW Yamhill St, Ste 300 Project Number: 0171.067 Portland, OR 97209

Report ID: Project Manager: Genevieve Schutzius A1I0619 - 11 16 21 1140

QUALITY CONTROL (QC) SAMPLE RESULTS

Eatonville

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1090906 - EPA 3510C (A	Acid/Base	Neutral)					Wa	ter				
LCS Dup (1090906-BSD1)			Prepared	1: 09/23/21	12:07 Ana	lyzed: 09/23/	/21 21:24					Q-19
Azobenzene (1,2-DPH)	3.58	0.0500	0.100	ug/L	2	4.00		90	61-120%	0.2	30%	
Bis(2-Ethylhexyl) adipate	3.99	0.500	1.00	ug/L	2	4.00		100	57-136%	3	30%	B-02
3,3'-Dichlorobenzidine	7.56	1.00	2.00	ug/L	2	8.00		94	27-129%	83	30%	Q-24
1,2-Dinitrobenzene	3.59	0.500	1.00	ug/L	2	4.00		90	59-120%	0.05	30%	
1,3-Dinitrobenzene	3.94	0.500	1.00	ug/L	2	4.00		99	49-128%	0.8	30%	Q-41
1,4-Dinitrobenzene	4.08	0.500	1.00	ug/L	2	4.00		102	72-130%	1	30%	Q-41
Pyridine	1.88	0.200	0.400	ug/L	2	4.00		47	10-120%	0.6	30%	
1,2-Dichlorobenzene	1.99	0.0500	0.100	ug/L	2	4.00		50	32-120%	2	30%	
1,3-Dichlorobenzene	1.92	0.0500	0.100	ug/L	2	4.00		48	28-120%	3	30%	
1,4-Dichlorobenzene	1.95	0.0500	0.100	ug/L	2	4.00		49	29-120%	3	30%	
Surr: Nitrobenzene-d5 (Surr)		Reco	very: 87%	Limits: 4	4-120 %	Dilı	ttion: 2x					
2-Fluorobiphenyl (Surr)			68 %	44	4-120 %		"					
Phenol-d6 (Surr)			28 %	10	0-133 %		"					
p-Terphenyl-d14 (Surr)			87 %	50	0-134 %		"					
2-Fluorophenol (Surr)			42 %	19	0-120 %		"					
2,4,6-Tribromophenol (Surr)			91 %	43	3-140 %		"					

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Page 120 of 173 Philip Nerenberg, Lab Director



Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project Number: Eatonville
Project Number: 0171.067
Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E Detection % REC RPD Reporting Spike Source Analyte Result Limit Units Dilution Result % REC RPD Limit Amount Limits Limit Notes Batch 1090986 - EPA 3546 Soil Blank (1090986-BLK2) Prepared: 09/27/21 07:49 Analyzed: 09/27/21 12:16 EPA 8270E ND 0.00125 0.00250 mg/kg wet Acenaphthene ND 0.00125 0.00250 mg/kg wet Acenaphthylene 1 Anthracene ND 0.00125 0.00250 mg/kg wet ND 0.00125 0.00250 mg/kg wet Benz(a)anthracene 1 ND 0.00188 0.00375 mg/kg wet Benzo(a)pyrene 1 ND 0.00188 Benzo(b)fluoranthene 0.00375 mg/kg wet 1 ---Benzo(k)fluoranthene ND 0.00188 0.00375mg/kg wet 0.00125 0.00250 ND mg/kg wet Benzo(g,h,i)perylene 1 Chrysene ND 0.00125 0.00250 mg/kg wet 1 Dibenz(a,h)anthracene ND 0.00125 0.00250 mg/kg wet 1 Fluoranthene ND 0.00125 0.00250mg/kg wet 1 ND 0.00125 Fluorene 0.00250 mg/kg wet 1 --mg/kg wet Indeno(1,2,3-cd)pyrene ND 0.00125 0.00250 0.00584 0.00250 0.00500 mg/kg wet В 1-Methylnaphthalene 1 В 0.00250 2-Methylnaphthalene 0.0133 0.00500mg/kg wet Naphthalene 0.00278 0.00250 0.00500 mg/kg wet 1 B-02, J ------Phenanthrene ND 0.001250.00250mg/kg wet 0.00125 0.00250 Pyrene ND mg/kg wet 1 ---Carbazole ND 0.001880.00375 mg/kg wet 1 Dibenzofuran ND 0.00125 0.00250 mg/kg wet 1 2-Chlorophenol ND 0.006250.0125mg/kg wet 4-Chloro-3-methylphenol ND 0.0125 0.0250 mg/kg wet 1 0.00625 2,4-Dichlorophenol ND 0.0125mg/kg wet 2,4-Dimethylphenol ND 0.00625 0.0125 mg/kg wet 1 0.0312 0.06252,4-Dinitrophenol ND mg/kg wet 1 4,6-Dinitro-2-methylphenol ND 0.0312 0.0625 mg/kg wet 1 2-Methylphenol ND 0.003120.00625 mg/kg wet 1 0.00312 3+4-Methylphenol(s) ND 0.00625 mg/kg wet 1 ------2-Nitrophenol ND 0.0125 0.0250mg/kg wet 1 0.0125 4-Nitrophenol ND 0.0250 mg/kg wet 1 Pentachlorophenol (PCP) ND 0.0125 0.0250 mg/kg wet 1 Phenol ND 0.00250 0.00500 mg/kg wet 1 ND 0.00625 0.0125 2,3,4,6-Tetrachlorophenol mg/kg wet 1

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project Number: Eatonville
Project Number: 0171.067
Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Detection Reporting Spike Source % REC **RPD** Amount % REC Analyte Result Ĺimit Units Dilution Result Limits RPD Limit Notes Limit

Batch 1090986 - EPA 3546							So	il		
Blank (1090986-BLK2)			Prepared:	09/27/21 07:4	9 Anal	yzed: 09/27	/21 12:16			
2,3,5,6-Tetrachlorophenol	ND	0.00625	0.0125	mg/kg wet	1				 	
2,4,5-Trichlorophenol	ND	0.00625	0.0125	mg/kg wet	1				 	
Nitrobenzene	ND	0.0125	0.0250	mg/kg wet	1				 	
2,4,6-Trichlorophenol	ND	0.00625	0.0125	mg/kg wet	1				 	
Bis(2-ethylhexyl)phthalate	ND	0.0188	0.0375	mg/kg wet	1				 	
Butyl benzyl phthalate	ND	0.0125	0.0250	mg/kg wet	1				 	
Diethylphthalate	ND	0.0125	0.0250	mg/kg wet	1				 	
Dimethylphthalate	ND	0.0125	0.0250	mg/kg wet	1				 	
Di-n-butylphthalate	ND	0.0125	0.0250	mg/kg wet	1				 	
Di-n-octyl phthalate	ND	0.0125	0.0250	mg/kg wet	1				 	
N-Nitrosodimethylamine	ND	0.00312	0.00625	mg/kg wet	1				 	
N-Nitroso-di-n-propylamine	ND	0.00312	0.00625	mg/kg wet	1				 	
N-Nitrosodiphenylamine	ND	0.00312	0.00625	mg/kg wet	1				 	
Bis(2-Chloroethoxy) methane	ND	0.00312	0.00625	mg/kg wet	1				 	
Bis(2-Chloroethyl) ether	ND	0.00312	0.00625	mg/kg wet	1				 	
2,2'-Oxybis(1-Chloropropane)	ND	0.00312	0.00625	mg/kg wet	1				 	
Hexachlorobenzene	ND	0.00125	0.00250	mg/kg wet	1				 	
Hexachlorobutadiene	ND	0.00312	0.00625	mg/kg wet	1				 	
Hexachlorocyclopentadiene	ND	0.00625	0.0125	mg/kg wet	1				 	
Hexachloroethane	ND	0.00312	0.00625	mg/kg wet	1				 	
2-Chloronaphthalene	ND	0.00125	0.00250	mg/kg wet	1				 	
1,2,4-Trichlorobenzene	ND	0.00312	0.00625	mg/kg wet	1				 	
4-Bromophenyl phenyl ether	ND	0.00312	0.00625	mg/kg wet	1				 	
4-Chlorophenyl phenyl ether	ND	0.00312	0.00625	mg/kg wet	1				 	
Aniline	ND	0.00625	0.0125	mg/kg wet	1				 	
4-Chloroaniline	ND	0.00312	0.00625	mg/kg wet	1				 	
2-Nitroaniline	ND	0.0250	0.0500	mg/kg wet	1				 	
3-Nitroaniline	ND	0.0250	0.0500	mg/kg wet	1				 	
1-Nitroaniline	ND	0.0250	0.0500	mg/kg wet	1				 	
2,4-Dinitrotoluene	ND	0.0125	0.0250	mg/kg wet	1				 	
2,6-Dinitrotoluene	ND	0.0125	0.0250	mg/kg wet	1				 	
Benzoic acid	ND	0.157	0.312	mg/kg wet	1				 	
Benzyl alcohol	ND	0.00625	0.0125	mg/kg wet	1				 	
sophorone	ND	0.00312	0.00625	mg/kg wet	1				 	

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Philip Nerenberg, Lab Director

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions Project: 55 SW Yamhill St, Ste 300 Project Number: 0171.067 Portland, OR 97209 Project Manager: Genevieve Schutzius

Report ID: A1I0619 - 11 16 21 1140

QUALITY CONTROL (QC) SAMPLE RESULTS

Eatonville

		Sei	mivolatile (Jrganic C	ompour	as by EP	A 8270E					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1090986 - EPA 3546							Soi	il				
Blank (1090986-BLK2)			Prepared	: 09/27/21 0	7:49 Ana	lyzed: 09/27	/21 12:16					
Azobenzene (1,2-DPH)	ND	0.00312	0.00625	mg/kg we	et 1							
Bis(2-Ethylhexyl) adipate	ND	0.0312	0.0625	mg/kg we	et 1							
3,3'-Dichlorobenzidine	ND	0.0250	0.0500	mg/kg we	et 1							Q-
1,2-Dinitrobenzene	ND	0.0312	0.0625	mg/kg we	et 1							
1,3-Dinitrobenzene	ND	0.0312	0.0625	mg/kg we	et 1							
1,4-Dinitrobenzene	ND	0.0312	0.0625	mg/kg we	et 1							
Pyridine	ND	0.00625	0.0125	mg/kg we	et 1							
1,2-Dichlorobenzene	ND	0.00312	0.00625	mg/kg we	et 1							
1,3-Dichlorobenzene	ND	0.00312	0.00625	mg/kg we	et 1							
1,4-Dichlorobenzene	ND	0.00312	0.00625	mg/kg we	et 1							
Surr: Nitrobenzene-d5 (Surr)		Reco	very: 82 %	Limits: 37-	-122 %	Dilı	ution: 1x					
2-Fluorobiphenyl (Surr)			88 %	44-	120 %		"					
Phenol-d6 (Surr)			76 %	33-	122 %		"					
p-Terphenyl-d14 (Surr)			84 %	54-	127 %		"					
2-Fluorophenol (Surr)			81 %	35-	120 %		"					
2,4,6-Tribromophenol (Surr)			88 %	39-	132 %		"					
LCS (1090986-BS2)			Prepared	: 09/27/21 0	7:49 Ana	lyzed: 09/27	/21 12:51					Q-18
EPA 8270E												
Acenaphthene	0.443	0.00532	0.0107	mg/kg we	et 4	0.533		83	40-123%			
Acenaphthylene	0.474	0.00532	0.0107	mg/kg we	et 4	0.533		89	32-132%			
Anthracene	0.480	0.00532	0.0107	mg/kg we	et 4	0.533		90	47-123%			
Benz(a)anthracene	0.483	0.00532	0.0107	mg/kg we	et 4	0.533		91	49-126%			
Benzo(a)pyrene	0.503	0.00800	0.0160	mg/kg we	et 4	0.533		94	45-129%			
Benzo(b)fluoranthene	0.517	0.00800	0.0160	mg/kg we	et 4	0.533		97	45-132%			
Benzo(k)fluoranthene	0.529	0.00800	0.0160	mg/kg we	et 4	0.533		99	47-132%			
Benzo(g,h,i)perylene	0.511	0.00532	0.0107	mg/kg we	et 4	0.533		96	43-134%			
Chrysene	0.492	0.00532	0.0107	mg/kg we	et 4	0.533		92	50-124%			
Dibenz(a,h)anthracene	0.496	0.00532	0.0107	mg/kg we		0.533		93	45-134%			
Fluoranthene	0.491	0.00532	0.0107	mg/kg we	et 4	0.533		92	50-127%			
Fluorene	0.435	0.00532	0.0107	mg/kg we	et 4	0.533		82	43-125%			
Indeno(1,2,3-cd)pyrene	0.471	0.00532	0.0107	mg/kg we		0.533		88	45-133%			
1-Methylnaphthalene	0.474	0.0107	0.0213	mg/kg we	et 4	0.533		89	40-120%			
2-Methylnaphthalene	0.471	0.0107	0.0213	mg/kg we	et 4	0.533		88	38-122%			

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Page 123 of 173 Philip Nerenberg, Lab Director



Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions Project: 55 SW Yamhill St, Ste 300 Project Number: 0171.067 Portland, OR 97209 Project Manager: Genevieve Schutzius

Report ID: A1I0619 - 11 16 21 1140

QUALITY CONTROL (QC) SAMPLE RESULTS

Eatonville

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1090986 - EPA 3546							So	il				
LCS (1090986-BS2)			Prepared	: 09/27/21 0	7:49 Anal	yzed: 09/27/	/21 12:51					Q-18
Naphthalene	0.443	0.0107	0.0213	mg/kg we	t 4	0.533		83	35-123%			B-02
Phenanthrene	0.448	0.00532	0.0107	mg/kg we	t 4	0.533		84	50-121%			
Pyrene	0.487	0.00532	0.0107	mg/kg we	t 4	0.533		91	47-127%			
Carbazole	0.457	0.00800	0.0160	mg/kg we	t 4	0.533		86	50-123%			
Dibenzofuran	0.461	0.00532	0.0107	mg/kg we	t 4	0.533		86	44-120%			
2-Chlorophenol	0.453	0.0267	0.0532	mg/kg we	t 4	0.533		85	34-121%			
4-Chloro-3-methylphenol	0.452	0.0532	0.107	mg/kg we	t 4	0.533		85	45-122%			
2,4-Dichlorophenol	0.464	0.0267	0.0532	mg/kg we	t 4	0.533		87	40-122%			
2,4-Dimethylphenol	0.494	0.0267	0.0532	mg/kg we	t 4	0.533		93	30-127%			
2,4-Dinitrophenol	0.492	0.133	0.267	mg/kg we	t 4	0.533		92	10-137%			
4,6-Dinitro-2-methylphenol	0.517	0.133	0.267	mg/kg we	t 4	0.533		97	29-132%			
2-Methylphenol	0.443	0.0133	0.0267	mg/kg we	t 4	0.533		83	32-122%			
3+4-Methylphenol(s)	0.466	0.0133	0.0267	mg/kg we	t 4	0.533		87	34-120%			
2-Nitrophenol	0.532	0.0532	0.107	mg/kg we	t 4	0.533		100	36-123%			
4-Nitrophenol	0.369	0.0532	0.107	mg/kg we	t 4	0.533		69	30-132%			Q-31
Pentachlorophenol (PCP)	0.463	0.0532	0.107	mg/kg we	t 4	0.533		87	25-133%			
Phenol	0.425	0.0107	0.0213	mg/kg we	t 4	0.533		80	34-121%			
2,3,4,6-Tetrachlorophenol	0.498	0.0267	0.0532	mg/kg we	t 4	0.533		93	44-125%			
2,3,5,6-Tetrachlorophenol	0.503	0.0267	0.0532	mg/kg we	t 4	0.533		94	40-120%			
2,4,5-Trichlorophenol	0.476	0.0267	0.0532	mg/kg we	t 4	0.533		89	41-124%			
Nitrobenzene	0.407	0.0532	0.107	mg/kg we	t 4	0.533		76	34-122%			
2,4,6-Trichlorophenol	0.485	0.0267	0.0532	mg/kg we	t 4	0.533		91	39-126%			
Bis(2-ethylhexyl)phthalate	0.487	0.0800	0.160	mg/kg we	t 4	0.533		91	51-133%			
Butyl benzyl phthalate	0.505	0.0532	0.107	mg/kg we	t 4	0.533		95	48-132%			
Diethylphthalate	0.450	0.0532	0.107	mg/kg we	t 4	0.533		84	50-124%			
Dimethylphthalate	0.460	0.0532	0.107	mg/kg we	t 4	0.533		86	48-124%			
Di-n-butylphthalate	0.503	0.0532	0.107	mg/kg we	t 4	0.533		94	51-128%			
Di-n-octyl phthalate	0.508	0.0532	0.107	mg/kg we	t 4	0.533		95	45-140%			
N-Nitrosodimethylamine	0.420	0.0133	0.0267	mg/kg we	t 4	0.533		79	23-120%			
N-Nitroso-di-n-propylamine	0.467	0.0133	0.0267	mg/kg we	t 4	0.533		88	36-120%			
N-Nitrosodiphenylamine	0.475	0.0133	0.0267	mg/kg we		0.533		89	38-127%			
Bis(2-Chloroethoxy) methane	0.458	0.0133	0.0267	mg/kg we		0.533		86	36-121%			
Bis(2-Chloroethyl) ether	0.427	0.0133	0.0267	mg/kg we		0.533		80	31-120%			
2,2'-Oxybis(1-Chloropropane)	0.425	0.0133	0.0267	mg/kg we		0.533		80	33-131%			

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Page 124 of 173 Philip Nerenberg, Lab Director



Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions Project: 55 SW Yamhill St, Ste 300 Project Number: 0171.067 Portland, OR 97209

Report ID: Project Manager: Genevieve Schutzius A110619 - 11 16 21 1140

QUALITY CONTROL (QC) SAMPLE RESULTS

Eatonville

Semivolatile Organic Compounds by EPA 8270E Detection % REC RPD Reporting Spike Source Analyte Result Limit Units Dilution % REC RPD Limit Amount Result Limits Limit Notes Batch 1090986 - EPA 3546 Soil LCS (1090986-BS2) Prepared: 09/27/21 07:49 Analyzed: 09/27/21 12:51 Q-18 0.452 0.00532 0.0107 mg/kg wet 0.533 85 45-122% Hexachlorobenzene Hexachlorobutadiene 0.431 0.0133 0.0267 mg/kg wet 4 0.533 81 32-123% ---------Hexachlorocyclopentadiene 0.416 0.0267 0.0532 mg/kg wet 4 0.533 78 10-140% Hexachloroethane 0.426 0.0133 0.0267 mg/kg wet 4 0.533 80 28-120% 91 2-Chloronaphthalene 0.486 0.00532 0.0107 mg/kg wet 4 0.533 41-120% 83 1,2,4-Trichlorobenzene 0.442 0.0133 0.0267 mg/kg wet 4 0.533 34-120% 0.0133 4-Bromophenyl phenyl ether 0.475 0.0267 mg/kg wet 4 0.533 89 46-124% 0.0133 87 4-Chlorophenyl phenyl ether 0.466 0.0267 mg/kg wet 4 0.533 45-121% Q-31 0.0267 0.0532 Aniline 0.322 mg/kg wet 4 0.533 60 10-120% 4-Chloroaniline 0.3520.0133 0.0267 mg/kg wet 4 0.533 66 17-120% 2-Nitroaniline 0.500 0.107 0.213 mg/kg wet 4 0.533 94 44-127% 0.107 3-Nitroaniline 0.403 0.213 mg/kg wet 4 0.533 76 33-120% 0.107 0.213 0.533 81 70-138% O-31 4-Nitroaniline 0.434 mg/kg wet 4 ---2,4-Dinitrotoluene 0.490 0.0532 0.107 mg/kg wet 4 0.533 92 48-126% 2,6-Dinitrotoluene 0.4800.0532 0.107 4 0.533 90 46-124% mg/kg wet Benzoic acid 0.814 0.668 0.668 mg/kg wet 4 1.07 76 10-140% 0.0267 0.0532 0.533 Q-31 Benzyl alcohol 0.308 mg/kg wet 4 58 29-122% 0.481 0.0133 0.0267 mg/kg wet 4 0.533 90 30-122% Isophorone 0.441 0.0133 0.0267 4 0.533 83 39-125% Azobenzene (1,2-DPH) mg/kg wet ---Bis(2-Ethylhexyl) adipate 0.492 0.133 0.267 mg/kg wet 4 0.533 92 61-121% 3,3'-Dichlorobenzidine 2.08 0.107 0.213 4 1.07 195 22-121% O-29 mg/kg wet 1,2-Dinitrobenzene 0.481 0.133 0.267 mg/kg wet 4 0.533 90 44-120% 1,3-Dinitrobenzene 0.477 0.133 0.267 mg/kg wet 4 0.533 89 43-127% 1,4-Dinitrobenzene 0.466 0.133 0.267 mg/kg wet 4 0.533 87 37-132% 0.309 0.0267 0.0532 4 0.533 Pyridine mg/kg wet 58 10-120% ---1,2-Dichlorobenzene 0.422 0.0133 0.0267 mg/kg wet 4 0.533 79 33-120% 0.415 0.0133 0.0267 4 0.533 78 30-120% 1.3-Dichlorobenzene mg/kg wet ---1,4-Dichlorobenzene 0.407 0.0133 0.0267 mg/kg wet 4 0.533 76 31-120% Surr: Nitrobenzene-d5 (Surr) Recovery: 74 % Limits: 37-122 % Dilution: 4x 44-120 % 2-Fluorobiphenyl (Surr) 89 % Phenol-d6 (Surr) 77% 33-122 % p-Terphenyl-d14 (Surr) 87% 54-127 % 2-Fluorophenol (Surr) 79 % 35-120 % 2,4,6-Tribromophenol (Surr) 84 % 39-132 %

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Page 125 of 173 Philip Nerenberg, Lab Director



Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions Project: **Eatonville** 55 SW Yamhill St, Ste 300 Project Number: 0171.067 Portland, OR 97209

Project Manager: Genevieve Schutzius

Report ID: A1I0619 - 11 16 21 1140

QUALITY CONTROL (QC) SAMPLE RESULTS

		Se	mivolatile (Organic C	ompour	ds by EP	A 8270E					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1090986 - EPA 3546							Soi	I				
Duplicate (1090986-DUP2)			Prepared	: 09/27/21 0	07:49 Ana	lyzed: 09/27	//21 17:29					R-04
QC Source Sample: HA-01-0921 EPA 8270E	(A1I0619-06	<u>RE1)</u>										
Acenaphthene	ND	0.0661	0.133	mg/kg dr	y 20		ND				30%	
Acenaphthylene	ND	0.0661	0.133	mg/kg dr	y 20		ND				30%	
Anthracene	ND	0.0661	0.133	mg/kg dr	y 20		ND				30%	
Benz(a)anthracene	ND	0.0661	0.133	mg/kg dr	y 20		0.0833			***	30%	Q-04
Benzo(a)pyrene	ND	0.0994	0.199	mg/kg dr	y 20		0.111			***	30%	Q-04
Benzo(b)fluoranthene	ND	0.0994	0.199	mg/kg dr	y 20		0.112			***	30%	Q-0
Benzo(k)fluoranthene	ND	0.0994	0.199	mg/kg dr	y 20		ND				30%	
Benzo(g,h,i)perylene	ND	0.0661	0.133	mg/kg dr	y 20		0.0739			***	30%	Q-0
Chrysene	0.0687	0.0661	0.133	mg/kg dr	y 20		0.142			70	30%	Q-04,
Dibenz(a,h)anthracene	ND	0.0661	0.133	mg/kg dr	y 20		ND				30%	
Fluoranthene	ND	0.0661	0.133	mg/kg dr	y 20		0.242			***	30%	Q-04
Fluorene	ND	0.0661	0.133	mg/kg dr	y 20		ND				30%	
Indeno(1,2,3-cd)pyrene	ND	0.0661	0.133	mg/kg dr	y 20		ND				30%	
1-Methylnaphthalene	ND	0.133	0.265	mg/kg dr	y 20		ND				30%	
2-Methylnaphthalene	ND	0.133	0.265	mg/kg dr	y 20		ND				30%	
Naphthalene	0.178	0.133	0.265	mg/kg dr	y 20		0.265			39	30%	Q-04,
Phenanthrene	0.108	0.0661	0.133	mg/kg dr	y 20		0.397			115	30%	Q-04,
Pyrene	ND	0.0661	0.133	mg/kg dr	y 20		0.173			***	30%	Q-04
Carbazole	ND	0.0994	0.199	mg/kg dr	y 20		ND				30%	
Dibenzofuran	ND	0.0661	0.133	mg/kg dr	y 20		ND				30%	
2-Chlorophenol	ND	0.332	0.661	mg/kg dr	y 20		ND				30%	
4-Chloro-3-methylphenol	ND	0.661	1.33	mg/kg dr	y 20		ND				30%	
2,4-Dichlorophenol	ND	0.332	0.661	mg/kg dr	y 20		ND				30%	
2,4-Dimethylphenol	ND	0.332	0.661	mg/kg dr	y 20		ND				30%	
2,4-Dinitrophenol	ND	1.66	3.32	mg/kg dr	y 20		ND				30%	
4,6-Dinitro-2-methylphenol	ND	1.66	3.32	mg/kg dr	y 20		ND				30%	
2-Methylphenol	ND	0.166	0.332	mg/kg dr	y 20		ND				30%	
3+4-Methylphenol(s)	ND	0.166	0.332	mg/kg dr	y 20		ND				30%	
2-Nitrophenol	ND	0.661	1.33	mg/kg dr	•		ND				30%	
4-Nitrophenol	ND	0.661	1.33	mg/kg dr	•		ND				30%	
Pentachlorophenol (PCP)	ND	0.661	1.33	mg/kg dr	•		ND				30%	

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Page 126 of 173 Philip Nerenberg, Lab Director



Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water SolutionsProject:Eatonville55 SW Yamhill St, Ste 300Project Number:0171.067

Portland, OR 97209 Project Manager: Genevieve Schutzius

Report ID: A1I0619 - 11 16 21 1140

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1090986 - EPA 3546							Soi	l				
Duplicate (1090986-DUP2)			Prepared	: 09/27/21 ()7:49 Anal	yzed: 09/27/	/21 17:29					R-04
QC Source Sample: HA-01-0921	(A1I0619-06	RE1)										
Phenol	ND	0.133	0.265	mg/kg dr	y 20		0.179			***	30%	Q-04
2,3,4,6-Tetrachlorophenol	ND	0.332	0.661	mg/kg dr	y 20		ND				30%	
2,3,5,6-Tetrachlorophenol	ND	0.332	0.661	mg/kg dr	y 20		ND				30%	
2,4,5-Trichlorophenol	ND	0.332	0.661	mg/kg dr	y 20		ND				30%	
Nitrobenzene	ND	0.661	1.33	mg/kg dr	y 20		ND				30%	
2,4,6-Trichlorophenol	ND	0.332	0.661	mg/kg dr	y 20		ND				30%	
Bis(2-ethylhexyl)phthalate	ND	0.994	1.99	mg/kg dr	y 20		ND				30%	
Butyl benzyl phthalate	ND	0.661	1.33	mg/kg dr	y 20		1.99			***	30%	Q-04
Diethylphthalate	ND	0.661	1.33	mg/kg dr	y 20		ND				30%	
Dimethylphthalate	ND	0.661	1.33	mg/kg dr	y 20		ND				30%	
Di-n-butylphthalate	ND	0.661	1.33	mg/kg dr	y 20		ND				30%	
Di-n-octyl phthalate	ND	0.661	1.33	mg/kg dr	y 20		ND				30%	
N-Nitrosodimethylamine	ND	0.166	0.332	mg/kg dr	y 20		ND				30%	
N-Nitroso-di-n-propylamine	ND	0.166	0.332	mg/kg dr			ND				30%	
N-Nitrosodiphenylamine	ND	0.166	0.332	mg/kg dr	y 20		ND				30%	
Bis(2-Chloroethoxy) methane	ND	0.166	0.332	mg/kg dr	y 20		ND				30%	
Bis(2-Chloroethyl) ether	ND	0.166	0.332	mg/kg dr	y 20		ND				30%	
2,2'-Oxybis(1-Chloropropane)	ND	0.166	0.332	mg/kg dr	y 20		ND				30%	
Hexachlorobenzene	ND	0.0661	0.133	mg/kg dr	y 20		ND				30%	
Hexachlorobutadiene	ND	0.166	0.332	mg/kg dr	y 20		ND				30%	
Hexachlorocyclopentadiene	ND	0.332	0.661	mg/kg dr	•		ND				30%	
Hexachloroethane	ND	0.166	0.332	mg/kg dr	•		ND				30%	
2-Chloronaphthalene	ND	0.0661	0.133	mg/kg dr	-		ND				30%	
1,2,4-Trichlorobenzene	ND	0.166	0.332	mg/kg dr	•		ND				30%	
4-Bromophenyl phenyl ether	ND	0.166	0.332	mg/kg dr	y 20		ND				30%	
4-Chlorophenyl phenyl ether	ND	0.166	0.332	mg/kg dr			ND				30%	
Aniline	ND	0.332	0.661	mg/kg dr			ND				30%	
4-Chloroaniline	ND	0.166	0.332	mg/kg dr	•		ND				30%	
2-Nitroaniline	ND	1.33	2.65	mg/kg dr	•		ND				30%	
3-Nitroaniline	ND	1.33	2.65	mg/kg dr	•		ND				30%	
4-Nitroaniline	ND	1.33	2.65	mg/kg dr	•		ND				30%	
2,4-Dinitrotoluene	ND	0.661	1.33	mg/kg dr	•		ND				30%	
2,6-Dinitrotoluene	ND	0.661	1.33	mg/kg dr	,		ND				30%	

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6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1090986 - EPA 3546							Soi	ı				
Duplicate (1090986-DUP2)			Prepared	1: 09/27/21 0	7:49 Ana	lyzed: 09/27	/21 17:29					R-04
QC Source Sample: HA-01-0921	(A1I0619-06	RE1)										
Benzoic acid	ND	8.30	16.6	mg/kg dr	y 20		ND				30%	
Benzyl alcohol	ND	0.332	0.661	mg/kg dr	y 20		ND				30%	
Isophorone	ND	0.166	0.332	mg/kg dr	y 20		ND				30%	
Azobenzene (1,2-DPH)	ND	0.166	0.332	mg/kg dr	y 20		ND				30%	
Bis(2-Ethylhexyl) adipate	ND	1.66	3.32	mg/kg dr	y 20		ND				30%	
3,3'-Dichlorobenzidine	ND	1.33	2.65	mg/kg dr	y 20		ND				30%	Q-52
1,2-Dinitrobenzene	ND	1.66	3.32	mg/kg dr	y 20		ND				30%	
1,3-Dinitrobenzene	ND	1.66	3.32	mg/kg dr	y 20		ND				30%	
1,4-Dinitrobenzene	ND	1.66	3.32	mg/kg dr	y 20		ND				30%	
Pyridine	ND	0.332	0.661	mg/kg dr	y 20		ND				30%	
1,2-Dichlorobenzene	ND	0.166	0.332	mg/kg dr	y 20		ND				30%	
1,3-Dichlorobenzene	ND	0.166	0.332	mg/kg dr	y 20		ND				30%	
1,4-Dichlorobenzene	ND	0.166	0.332	mg/kg dr	y 20		ND				30%	
Surr: Nitrobenzene-d5 (Surr)		Reco	overy: 70 %	Limits: 37-	-122 %	Dilt	ution: 20x					
2-Fluorobiphenyl (Surr)			82 %	44-	120 %		"					
Phenol-d6 (Surr)			61 %	33-	122 %		"					
p-Terphenyl-d14 (Surr)			84 %	54-	127 %		"					
2-Fluorophenol (Surr)			61 %	35-	120 %		"					
2,4,6-Tribromophenol (Surr)			110 %	39-	132 %		"					

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project Number: Eatonville
Project Number: 0171.067
Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E Detection % REC RPD Reporting Spike Source Analyte Result Limit Units Dilution Result % REC RPD Limit Amount Limits Limit Notes Batch 21J0772 - EPA 3546 Soil Blank (21J0772-BLK2) Prepared: 10/21/21 14:38 Analyzed: 10/21/21 18:32 EPA 8270E ND 0.00125 0.00250 mg/kg wet Acenaphthene ND 0.00125 0.00250 mg/kg wet Acenaphthylene 1 Anthracene ND 0.00125 0.00250 mg/kg wet Benz(a)anthracene ND 0.00125 0.00250 mg/kg wet 1 ND 0.00188 0.00375 mg/kg wet Benzo(a)pyrene 1 ND 0.00188 Benzo(b)fluoranthene 0.00375 mg/kg wet 1 ------Benzo(k)fluoranthene ND 0.00188 0.00375mg/kg wet 0.00125 0.00250 ND mg/kg wet Benzo(g,h,i)perylene 1 Chrysene ND 0.00125 0.00250 mg/kg wet 1 Dibenz(a,h)anthracene ND 0.00125 0.00250 mg/kg wet 1 Fluoranthene ND 0.001250.00250mg/kg wet 1 ND 0.00125 Fluorene 0.00250 mg/kg wet 1 --mg/kg wet Indeno(1,2,3-cd)pyrene ND 0.00125 0.00250 1 ND 0.00250 0.00500 mg/kg wet 1-Methylnaphthalene 1 0.00250 2-Methylnaphthalene ND 0.00500mg/kg wet Naphthalene ND 0.00250 0.00500 mg/kg wet 1 ---------Phenanthrene ND 0.001250.00250mg/kg wet 0.00125 0.00250 Pyrene ND mg/kg wet 1 ---------Carbazole ND 0.001880.00375 mg/kg wet 1 Dibenzofuran ND 0.00125 0.00250 mg/kg wet 1 2-Chlorophenol ND 0.006250.0125mg/kg wet 4-Chloro-3-methylphenol ND 0.0125 0.0250 mg/kg wet 1 0.00625 2,4-Dichlorophenol ND 0.0125mg/kg wet 2,4-Dimethylphenol ND 0.00625 0.0125 mg/kg wet 1 0.0312 0.06252,4-Dinitrophenol ND mg/kg wet 1 4,6-Dinitro-2-methylphenol ND 0.0312 0.0625 mg/kg wet 1 2-Methylphenol ND 0.003120.00625 mg/kg wet 1 0.00312 3+4-Methylphenol(s) ND 0.00625 mg/kg wet 1 ------2-Nitrophenol ND 0.0125 0.0250mg/kg wet 1 0.0125 4-Nitrophenol ND 0.0250 mg/kg wet 1 Pentachlorophenol (PCP) ND 0.0125 0.0250 mg/kg wet 1 Phenol ND 0.00250 0.00500 mg/kg wet 1 ND 0.00625 0.0125 2,3,4,6-Tetrachlorophenol mg/kg wet 1

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6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions Project: 55 SW Yamhill St, Ste 300 Project Number: 0171.067 Portland, OR 97209 Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

QUALITY CONTROL (QC) SAMPLE RESULTS Semivolatile Organic Compounds by EPA 8270E

Eatonville

Detection Reporting Spike Source % REC **RPD** % REC Analyte Result Ĺimit Units Dilution Amount Result Limits RPD Limit Notes Limit

N-Nitroso-di-n-propylamine ND 0.00312 0.00625 mg/kg wet 1	Batch 21J0772 - EPA 3546							So	il		
2,4,5-Trichlorophenol ND 0.00625 0.0125 mg/kg wet 1	Blank (21J0772-BLK2)			Prepared:	: 10/21/21 14:3	88 Anal	yzed: 10/21/	/21 18:32			
Nitrosenzene ND	2,3,5,6-Tetrachlorophenol	ND	0.00625	0.0125	mg/kg wet	1				 	
2,4,6-Trichlorophenol ND 0.00625 0.0125 mg/kg wet 1	2,4,5-Trichlorophenol	ND	0.00625	0.0125	mg/kg wet	1				 	
Bis(2-chtylhexyl)phthalate	Nitrobenzene	ND	0.0125	0.0250	mg/kg wet	1				 	
Buryl benzyl phthalate ND 0.0125 0.0250 mg/kg wet 1	2,4,6-Trichlorophenol	ND	0.00625	0.0125	mg/kg wet	1				 	
Diethylphthalate ND 0.0125 0.0250 mg/kg wet 1 <td>Bis(2-ethylhexyl)phthalate</td> <td>ND</td> <td>0.0188</td> <td>0.0375</td> <td>mg/kg wet</td> <td>1</td> <td></td> <td></td> <td></td> <td> </td> <td></td>	Bis(2-ethylhexyl)phthalate	ND	0.0188	0.0375	mg/kg wet	1				 	
Dimethylphthalate ND 0.0125 0.0250 mg/kg wet 1	Butyl benzyl phthalate	ND	0.0125	0.0250	mg/kg wet	1				 	
Di-n-butylphthalate ND 0.0125 0.0250 mg/kg wet 1	Diethylphthalate	ND	0.0125	0.0250	mg/kg wet	1				 	
Di-n-octyl phthalate ND 0.0125 0.0250 mg/kg wet 1 N-Nitrosodimethylamine ND 0.00312 0.00625 mg/kg wet 1 N-Nitrosodimethylamine ND 0.00312 0.00625 mg/kg wet 1 N-Nitrosodimethylamine ND 0.00312 0.00625 mg/kg wet 1 N-Nitrosodimethylamine ND 0.00312 0.00625 mg/kg wet 1 N-Nitrosodimethylamine ND 0.00312 0.00625 mg/kg wet 1 N-Nitrosodimethylamine ND 0.00312 0.00625 mg/kg wet 1 N-Nitrosodimethylamine ND 0.00312 0.00625 mg/kg wet 1 N-Nitrosodimethylamine ND 0.00312 0.00625 mg/kg wet 1 N-Nitrosodimethylamine ND 0.00312 0.00625 mg/kg wet 1 N-NITROSOMINE ND 0.00312 0.00625 mg/kg wet 1 N-NITROSOMINE ND 0.00312 0.00625 mg/kg wet 1 ND ND ND	Dimethylphthalate	ND	0.0125	0.0250	mg/kg wet	1				 	
N-Nitrosodimethylamine ND 0.00312 0.00625 mg/kg wet 1	Di-n-butylphthalate	ND	0.0125	0.0250	mg/kg wet	1				 	
N-Nitroso-di-n-propylamine ND 0.00312 0.00625 mg/kg wet 1	Di-n-octyl phthalate	ND	0.0125	0.0250	mg/kg wet	1				 	
N-Nitrosodiphenylamine ND 0.00312 0.00625 mg/kg wet 1 0.00625 mg/k	N-Nitrosodimethylamine	ND	0.00312	0.00625	mg/kg wet	1				 	
Bis(2-Chloroethoxy) methane ND 0.00312 0.00625 mg/kg wet 1 Bis(2-Chloroethyl) ether ND 0.00312 0.00625 mg/kg wet 1 </td <td>N-Nitroso-di-n-propylamine</td> <td>ND</td> <td>0.00312</td> <td>0.00625</td> <td>mg/kg wet</td> <td>1</td> <td></td> <td></td> <td></td> <td> </td> <td></td>	N-Nitroso-di-n-propylamine	ND	0.00312	0.00625	mg/kg wet	1				 	
Bis(2-Chloroethyl) ether	N-Nitrosodiphenylamine	ND	0.00312	0.00625	mg/kg wet	1				 	
2,2'-Oxybis(1-Chloropropane) ND 0.00312 0.00625 mg/kg wet 1	Bis(2-Chloroethoxy) methane	ND	0.00312	0.00625	mg/kg wet	1				 	
Hexachlorobenzene ND 0.00125 0.00250 mg/kg wet 1	Bis(2-Chloroethyl) ether	ND	0.00312	0.00625	mg/kg wet	1				 	
Hexachlorobutadiene ND 0.00312 0.00625 mg/kg wet 1	2,2'-Oxybis(1-Chloropropane)	ND	0.00312	0.00625	mg/kg wet	1				 	
Hexachlorocyclopentadiene ND 0.00625 0.0125 mg/kg wet 1	Hexachlorobenzene	ND	0.00125	0.00250	mg/kg wet	1				 	
Hexachloroethane	Hexachlorobutadiene	ND	0.00312	0.00625	mg/kg wet	1				 	
2-Chloronaphthalene ND 0.00125 0.00250 mg/kg wet 1 1,2,4-Trichlorobenzene ND 0.00312 0.00625 mg/kg wet 1 1,2,4-Trichlorobenzene ND 0.00312 0.00625 mg/kg wet 1	Hexachlorocyclopentadiene	ND	0.00625	0.0125	mg/kg wet	1				 	
1,2,4-Trichlorobenzene ND 0.00312 0.00625 mg/kg wet 1	Hexachloroethane	ND	0.00312	0.00625	mg/kg wet	1				 	
4-Bromophenyl phenyl ether ND 0.00312 0.00625 mg/kg wet 1	2-Chloronaphthalene	ND	0.00125	0.00250	mg/kg wet	1				 	
4-Chlorophenyl phenyl ether ND 0.00312 0.00625 mg/kg wet 1	1,2,4-Trichlorobenzene	ND	0.00312	0.00625	mg/kg wet	1				 	
Aniline ND 0.00625 0.0125 mg/kg wet 1	4-Bromophenyl phenyl ether	ND	0.00312	0.00625	mg/kg wet	1				 	
4-Chloroaniline ND 0.00312 0.00625 mg/kg wet 1	4-Chlorophenyl phenyl ether	ND	0.00312	0.00625	mg/kg wet	1				 	
2-Nitroaniline ND 0.0250 0.0500 mg/kg wet 1	Aniline	ND	0.00625	0.0125	mg/kg wet	1				 	
3-Nitroaniline ND 0.0250 0.0500 mg/kg wet 1	4-Chloroaniline	ND	0.00312	0.00625	mg/kg wet	1				 	
3-Nitroaniline ND 0.0250 0.0500 mg/kg wet 1	2-Nitroaniline	ND	0.0250	0.0500	mg/kg wet	1				 	
4-Nitroaniline ND 0.0250 0.0500 mg/kg wet 1 2,4-Dinitrotoluene ND 0.0125 0.0250 mg/kg wet 1	3-Nitroaniline	ND	0.0250	0.0500		1				 	
2,4-Dinitrotoluene ND 0.0125 0.0250 mg/kg wet 1	4-Nitroaniline	ND	0.0250	0.0500		1				 	
2,6-Dinitrotoluene ND 0.0125 0.0250 mg/kg wet 1	2,4-Dinitrotoluene	ND	0.0125	0.0250		1				 	
Benzoic acid ND 0.157 0.312 mg/kg wet 1	2,6-Dinitrotoluene	ND	0.0125	0.0250		1				 	
Benzyl alcohol ND 0.00625 0.0125 mg/kg wet 1	Benzoic acid	ND	0.157	0.312		1				 	
	Benzyl alcohol	ND	0.00625	0.0125		1				 	
	Isophorone	ND	0.00312	0.00625		1				 	

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Page 130 of 173 Philip Nerenberg, Lab Director



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6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

Report ID:

GSI Water SolutionsProject:Eatonville55 SW Yamhill St, Ste 300Project Number:0171.067Portland, OR 97209Project Manager:Genevieve

Project Manager: Genevieve Schutzius A110619 - 11 16 21 1140

QUALITY CONTROL (QC) SAMPLE RESULTS

		Ser	nivolatile (Organic (Compour	ds by EP	A 8270E					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 21J0772 - EPA 3546							So	il				
Blank (21J0772-BLK2)			Prepared	: 10/21/21 1	4:38 Ana	yzed: 10/21	/21 18:32					
Azobenzene (1,2-DPH)	ND	0.00312	0.00625	mg/kg w	et 1							
Bis(2-Ethylhexyl) adipate	ND	0.0312	0.0625	mg/kg w	et 1							
3,3'-Dichlorobenzidine	ND	0.0250	0.0500	mg/kg w	et 1							Q-:
1,2-Dinitrobenzene	ND	0.0312	0.0625	mg/kg w	et 1							
1,3-Dinitrobenzene	ND	0.0312	0.0625	mg/kg w	et 1							
1,4-Dinitrobenzene	ND	0.0312	0.0625	mg/kg w	et 1							
Pyridine	ND	0.00625	0.0125	mg/kg w	et 1							
1,2-Dichlorobenzene	ND	0.00312	0.00625	mg/kg w	et 1							
1,3-Dichlorobenzene	ND	0.00312	0.00625	mg/kg w	et 1							
1,4-Dichlorobenzene	ND	0.00312	0.00625	mg/kg w								
Surr: Nitrobenzene-d5 (Surr)		Reco	very: 88 %	Limits: 37	-122 %	Dilı	ution: 1x					Q-41
2-Fluorobiphenyl (Surr)			80 %	44-	120 %		"					*
Phenol-d6 (Surr)			89 %	33-	-122 %		"					
p-Terphenyl-d14 (Surr)			90 %	54-	127 %		"					
2-Fluorophenol (Surr)			85 %	35-	120 %		"					
2,4,6-Tribromophenol (Surr)			93 %	39-	-132 %		"					Q-41
LCS (21J0772-BS2)			Prepared	: 10/21/21 1	4:38 Ana	yzed: 10/21	/21 19:08					Q-18
EPA 8270E												
Acenaphthene	0.467	0.00266	0.00534	mg/kg w	et 2	0.533		88	40-123%			
Acenaphthylene	0.509	0.00266	0.00534	mg/kg w	et 2	0.533		95	32-132%			
Anthracene	0.501	0.00266	0.00534	mg/kg w	et 2	0.533		94	47-123%			
Benz(a)anthracene	0.508	0.00266	0.00534	mg/kg w	et 2	0.533		95	49-126%			
Benzo(a)pyrene	0.529	0.00400	0.00800	mg/kg w	et 2	0.533		99	45-129%			
Benzo(b)fluoranthene	0.505	0.00400	0.00800	mg/kg w	et 2	0.533		95	45-132%			
Benzo(k)fluoranthene	0.506	0.00400	0.00800	mg/kg w	et 2	0.533		95	47-132%			
Benzo(g,h,i)perylene	0.466	0.00266	0.00534	mg/kg w	et 2	0.533		87	43-134%			
Chrysene	0.485	0.00266	0.00534	mg/kg w	et 2	0.533		91	50-124%			
Dibenz(a,h)anthracene	0.515	0.00266	0.00534	mg/kg w	et 2	0.533		97	45-134%			
Fluoranthene	0.521	0.00266	0.00534	mg/kg w	et 2	0.533		98	50-127%			
Fluorene	0.484	0.00266	0.00534	mg/kg w	et 2	0.533		91	43-125%			
Indeno(1,2,3-cd)pyrene	0.451	0.00266	0.00534	mg/kg w		0.533		85	45-133%			
1-Methylnaphthalene	0.460	0.00534	0.0107	mg/kg w	et 2	0.533		86	40-120%			
2-Methylnaphthalene	0.445	0.00534	0.0107	mg/kg w		0.533		83	38-122%			

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6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

Report ID:

GSI Water SolutionsProject:Eatonville55 SW Yamhill St, Ste 300Project Number:0171.067Portland, OR 97209Project Manager:Genevieve

Project Manager: Genevieve Schutzius A110619 - 11 16 21 1140

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 21J0772 - EPA 3546							So	il				
LCS (21J0772-BS2)			Prepared:	10/21/21 1	4:38 Ana	lyzed: 10/21	/21 19:08					Q-18
Naphthalene	0.459	0.00534	0.0107	mg/kg we	et 2	0.533		86	35-123%			
Phenanthrene	0.475	0.00266	0.00534	mg/kg we	et 2	0.533		89	50-121%			
Pyrene	0.524	0.00266	0.00534	mg/kg we	et 2	0.533		98	47-127%			
Carbazole	0.588	0.00400	0.00800	mg/kg we	et 2	0.533		110	50-123%			
Dibenzofuran	0.472	0.00266	0.00534	mg/kg we	et 2	0.533		89	44-120%			
2-Chlorophenol	0.514	0.0133	0.0266	mg/kg we	et 2	0.533		96	34-121%			
4-Chloro-3-methylphenol	0.510	0.0266	0.0534	mg/kg we	et 2	0.533		96	45-122%			
2,4-Dichlorophenol	0.522	0.0133	0.0266	mg/kg we	et 2	0.533		98	40-122%			
2,4-Dimethylphenol	0.559	0.0133	0.0266	mg/kg we	et 2	0.533		105	30-127%			
2,4-Dinitrophenol	0.614	0.0666	0.133	mg/kg we	et 2	0.533		115	10-137%			Q-41
4,6-Dinitro-2-methylphenol	0.622	0.0666	0.133	mg/kg we	et 2	0.533		117	29-132%			Q-41
2-Methylphenol	0.512	0.00666	0.0133	mg/kg we	et 2	0.533		96	32-122%			
3+4-Methylphenol(s)	0.531	0.00666	0.0133	mg/kg we	et 2	0.533		100	34-120%			
2-Nitrophenol	0.557	0.0266	0.0534	mg/kg we	et 2	0.533		104	36-123%			
4-Nitrophenol	0.540	0.0266	0.0534	mg/kg we	et 2	0.533		101	30-132%			
Pentachlorophenol (PCP)	0.474	0.0266	0.0534	mg/kg we	et 2	0.533		89	25-133%			
Phenol	0.565	0.00534	0.0107	mg/kg we	et 2	0.533		106	34-121%			Q-41
2,3,4,6-Tetrachlorophenol	0.525	0.0133	0.0266	mg/kg we	et 2	0.533		98	44-125%			
2,3,5,6-Tetrachlorophenol	0.560	0.0133	0.0266	mg/kg we	et 2	0.533		105	40-120%			
2,4,5-Trichlorophenol	0.536	0.0133	0.0266	mg/kg we	et 2	0.533		101	41-124%			
Nitrobenzene	0.530	0.0266	0.0534	mg/kg we	et 2	0.533		99	34-122%			
2,4,6-Trichlorophenol	0.546	0.0133	0.0266	mg/kg we	et 2	0.533		102	39-126%			
Bis(2-ethylhexyl)phthalate	0.489	0.0400	0.0800	mg/kg we	et 2	0.533		92	51-133%			
Butyl benzyl phthalate	0.497	0.0266	0.0534	mg/kg we	et 2	0.533		93	48-132%			
Diethylphthalate	0.478	0.0266	0.0534	mg/kg we	et 2	0.533		90	50-124%			
Dimethylphthalate	0.481	0.0266	0.0534	mg/kg we	et 2	0.533		90	48-124%			
Di-n-butylphthalate	0.533	0.0266	0.0534	mg/kg we	et 2	0.533		100	51-128%			
Di-n-octyl phthalate	0.509	0.0266	0.0534	mg/kg we	et 2	0.533		96	45-140%			
N-Nitrosodimethylamine	0.494	0.00666	0.0133	mg/kg we	et 2	0.533		93	23-120%			
N-Nitroso-di-n-propylamine	0.501	0.00666	0.0133	mg/kg we	et 2	0.533		94	36-120%			
N-Nitrosodiphenylamine	0.532	0.00666	0.0133	mg/kg we	et 2	0.533		100	38-127%			
Bis(2-Chloroethoxy) methane	0.489	0.00666	0.0133	mg/kg we	et 2	0.533		92	36-121%			
Bis(2-Chloroethyl) ether	0.495	0.00666	0.0133	mg/kg we	et 2	0.533		93	31-120%			Q-41
2,2'-Oxybis(1-Chloropropane)	0.578	0.00666	0.0133	mg/kg we	et 2	0.533		108	33-131%			Q-41

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ORELAP ID: OR100062

Report ID:

O-41

Q-41

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GSI Water Solutions
Project: Eatonville

55 SW Yamhill St, Ste 300
Project Number: 0171.067

Portland, OR 97209
Project Manager: Genevieve Schutzius

Project Manager: Genevieve Schutzius A110619 - 11 16 21 1140

QUALITY CONTROL (QC) SAMPLE RESULTS Semivolatile Organic Compounds by EPA 8270E

Detection % REC RPD Reporting Spike Source Analyte Result Units Dilution % REC RPD Limit Limit Amount Result Limits Limit Notes Batch 21J0772 - EPA 3546 Soil LCS (21J0772-BS2) Prepared: 10/21/21 14:38 Analyzed: 10/21/21 19:08 Q-18 0.480 0.00266 0.00534 mg/kg wet 2 0.533 90 45-122% Hexachlorobenzene Hexachlorobutadiene 0.442 0.00666 0.0133 mg/kg wet 2 0.533 83 32-123% ---------Hexachlorocyclopentadiene 0.361 0.0133 0.0266 mg/kg wet 2 0.533 68 10-140% Hexachloroethane 0.431 0.006660.0133 mg/kg wet 2 0.533 81 28-120% 2-Chloronaphthalene 0.472 0.002660.00534mg/kg wet 2 0.533 88 41-120% 1,2,4-Trichlorobenzene 0.454 0.00666 0.0133 mg/kg wet 2 0.533 85 34-120% 0.00666 mg/kg wet 4-Bromophenyl phenyl ether 0.499 0.0133 2 0.533 94 46-124% 2 90 4-Chlorophenyl phenyl ether 0.481 0.006660.0133 mg/kg wet 0.533 45-121% 0.0133 2 Aniline 0.254 0.0266mg/kg wet 0.533 48 10-120% 4-Chloroaniline 0.212 0.00666 0.0133mg/kg wet 2 0.533 40 17-120% 2 2-Nitroaniline 0.549 0.0534 0.107mg/kg wet 0.533 103 44-127% 0.0534 3-Nitroaniline 0.557 0.107 mg/kg wet 2 0.533 104 33-120% 0.0534 2 0.533 104 70-138% 4-Nitroaniline 0.553 0.107 mg/kg wet ---2,4-Dinitrotoluene 0.562 0.0266 0.0534 mg/kg wet 2 0.533 105 48-126% 2,6-Dinitrotoluene 0.547 0.0266 0.0534 mg/kg wet 2 0.533 103 46-124% Benzoic acid 0.957 0.334 0.666 mg/kg wet 2 1.07 90 10-140% 0.0133 0.479 0.0266 2 0.533 90 Benzyl alcohol mg/kg wet 29-122% 0.516 0.00666 mg/kg wet 2 0.533 97 30-122% Isophorone 0.0133 0.524 0.00666 0.0133 2 0.533 98 39-125% Azobenzene (1,2-DPH) mg/kg wet ------Bis(2-Ethylhexyl) adipate 0.531 0.0666 0.133 mg/kg wet 2 0.533 100 61-121% 3,3'-Dichlorobenzidine 2.20 0.0534 0.107 2 1.07 206 22-121% E, Q-29, Q-41 mg/kg wet ---1,2-Dinitrobenzene 0.551 0.0666 0.133 mg/kg wet 2 0.533 103 44-120% 1,3-Dinitrobenzene 0.595 0.0666 0.133 mg/kg wet 2 0.533 111 43-127% Q-41 1,4-Dinitrobenzene 0.625 0.06660.133 mg/kg wet 2 0.533 117 37-132% Q-41 0.367 0.0133 2 0.533 69 Pyridine 0.0266 mg/kg wet 10-120% ------1,2-Dichlorobenzene 0.446 0.00666 0.0133 mg/kg wet 2 0.533 84 33-120% 0.448 0.00666 0.0133 2 0.533 84 30-120% 1.3-Dichlorobenzene mg/kg wet ------1,4-Dichlorobenzene 0.442 0.00666 0.0133 mg/kg wet 2 0.533 83 31-120%

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Surr: Nitrobenzene-d5 (Surr)

Phenol-d6 (Surr)

2-Fluorobiphenyl (Surr)

p-Terphenyl-d14 (Surr)

2-Fluorophenol (Surr)

2,4,6-Tribromophenol (Surr)

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Dilution: 2x

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Recovery:

99 %

83 %

96 %

87%

92 %

107 %

Limits: 37-122 %

44-120 %

33-122 %

54-127 %

35-120 %

39-132 %



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6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions Project: 55 SW Yamhill St, Ste 300 Project Number: 0171.067 Portland, OR 97209 Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

QUALITY CONTROL (QC) SAMPLE RESULTS

Eatonville

Semivolatile Organic Compounds by EPA 8270E Detection % REC RPD Reporting Spike Source Result Units Dilution % REC RPD Analyte Limit Limit Amount Result Limits Limit Notes Batch 21J0772 - EPA 3546 Soil Duplicate (21J0772-DUP3) H-02, R-04 Prepared: 10/21/21 14:38 Analyzed: 10/25/21 12:09 QC Source Sample: Non-SDG (A1J0343-02RE1) 0.00526 0.0106 ND 30% Acenaphthene ND mg/kg dry 4 ND 0.00526 0.0106 30% Acenaphthylene mg/kg dry 4 ND Anthracene ND 0.00526 0.0106 mg/kg dry ND 30% 4 Q-05, J Benz(a)anthracene 0.00528 0.00526 0.0106 mg/kg dry 4 ND 30% ___ 0.00828 0.00791 0.0158 mg/kg dry 4 ND Q-05, J Benzo(a)pyrene 30% Benzo(b)fluoranthene 0.0125 0.00791 0.0158 mg/kg dry 4 0.0101 22 30% 0.00791 0.0158 Benzo(k)fluoranthene ND mg/kg dry 4 ND 30% Q-05, J 0.00526 0.0106 4 ND Benzo(g,h,i)perylene 0.00640 mg/kg dry 30% --mg/kg dry 0.00610 0.00526 0.0106 4 ND 30% Q-05, J Chrysene 30% ND Dibenz(a,h)anthracene ND 0.00526 0.0106 mg/kg dry 4 ---------Fluoranthene 0.00610 0.00526 0.0106 mg/kg dry 4 0.00667 9 30% J 0.00526 0.0106 Fluorene ND mg/kg dry 4 ND 30% Indeno(1,2,3-cd)pyrene ND 0.00526 0.0106 mg/kg dry 4 ND 30% ND 0.0106 0.0211 1-Methylnaphthalene mg/kg dry 4 ND 30% ---2-Methylnaphthalene ND 0.0106 0.0211 mg/kg dry 4 ND 30% 0.0106 30% Naphthalene ND 0.0211 mg/kg dry 4 ND ---Phenanthrene 0.00643 0.00526 0.0106 4 0.00620 4 30% mg/kg dry 0.00526 0.0106 4 0.00692 30% Pyrene 0.00689 mg/kg dry 0.4 Carbazole ND 0.00791 0.0158mg/kg dry 4 ND 30% Dibenzofuran ND 0.00526 0.0106 4 ND 30% mg/kg dry ---2-Chlorophenol ND 0.02640.0526mg/kg dry 4 ND 30% ND 0.0526 0.106 4 30% 4-Chloro-3-methylphenol mg/kg dry ND ------2,4-Dichlorophenol ND 0.0264 0.0526 mg/kg dry 4 ND 30% 2,4-Dimethylphenol ND 0.0264 0.0526 4 ND 30% mg/kg dry 2,4-Dinitrophenol ND 0.132 0.264 mg/kg dry 4 ND 30% 4,6-Dinitro-2-methylphenol ND 0.132 0.264 4 ND 30% mg/kg dry ------0.0132 2-Methylphenol ND 0.0264 mg/kg dry 4 ND 30% 3+4-Methylphenol(s) ND 0.0132 0.0264 mg/kg dry 4 ND 30% 0.0526 2-Nitrophenol ND 0.106 mg/kg dry 4 ND 30% 4-Nitrophenol ND 0.0526 0.106 mg/kg dry 4 ND ------30% Pentachlorophenol (PCP) ND 0.0526 0.106 mg/kg dry 4 ND 30% Phenol ND 0.0106 0.0211 4 ND 30% mg/kg dry

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Page 134 of 173 Philip Nerenberg, Lab Director



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6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

30%

30%

30%

30%

30%

GSI Water SolutionsProject:Eatonville55 SW Yamhill St, Ste 300Project Number:0171.067Report ID:Portland, OR 97209Project Manager:Genevieve SchutziusA110619 - 11 16 21 1140

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

% REC RPD Detection Reporting Spike Source Analyte Result Units Dilution % REC RPD Limit Limit Amount Result Limits Limit Notes Batch 21J0772 - EPA 3546 Soil Duplicate (21J0772-DUP3) Prepared: 10/21/21 14:38 Analyzed: 10/25/21 12:09 H-02, R-04 QC Source Sample: Non-SDG (A1J0343-02RE1) mg/kg dry 2,3,4,6-Tetrachlorophenol ND 0.0264 0.0526 4 ND 30% 0.05260.0264 2,3,5,6-Tetrachlorophenol ND mg/kg dry 4 ND 30% 2,4,5-Trichlorophenol ND 0.0264 0.0526 mg/kg dry 4 ND 30% Nitrobenzene ND 0.05260.106mg/kg dry 4 ND 30% 2,4,6-Trichlorophenol ND 0.0264 0.0526 mg/kg dry 4 ND 30% ------ND 0.0791 Bis(2-ethylhexyl)phthalate 0.158 mg/kg dry 4 ND 30% Butyl benzyl phthalate 0.0587 0.05260.106 mg/kg dry 4 0.0594 30% 1 ND 0.0526 30% Diethylphthalate 0.106 mg/kg dry 4 ND Dimethylphthalate ND 0.0526 0.106 mg/kg dry 4 ND 30% O-05, J Di-n-butylphthalate 0.0605 0.0526 0.106 mg/kg dry 4 ND 30% Di-n-octyl phthalate ND 0.0526 0.106 mg/kg dry 4 ND 30% 0.0132 ND 0.026430% N-Nitrosodimethylamine mg/kg dry 4 ND N-Nitroso-di-n-propylamine ND 0.0132 0.0264 mg/kg dry 4 ND 30% N-Nitrosodiphenylamine ND 0.0132 0.0264 4 30% mg/kg dry ND 0.0132 Bis(2-Chloroethoxy) methane ND 0.0264 mg/kg dry 4 ND 30% Bis(2-Chloroethyl) ether ND 0.0132 0.0264 mg/kg dry 4 ND ___ 30% 2,2'-Oxybis(1-Chloropropane) ND 0.0132 0.0264 mg/kg dry 4 ND 30% ND 0.00526 0.0106 30% Hexachlorobenzene mg/kg dry 4 ND ---0.0132 Hexachlorobutadiene ND 0.0264mg/kg dry 4 ND 30% Hexachlorocyclopentadiene 0.0264 0.0526 ND mg/kg dry 4 ND 30% mg/kg dry ND 0.0132 Hexachloroethane 0.0264 4 ND 30% 0.00526 2-Chloronaphthalene ND 0.0106 mg/kg dry 4 ND ------30% 1,2,4-Trichlorobenzene ND 0.0132 0.0264 mg/kg dry 4 ND 30% 0.0132 ND 30% 4-Bromophenyl phenyl ether ND 0.0264mg/kg dry 4 0.0132 0.0264 30% 4-Chlorophenyl phenyl ether ND mg/kg dry 4 ND Aniline ND 0.0264 0.0526 4 ND 30% mg/kg dry 4-Chloroaniline ND 0.0132 0.0264 mg/kg dry ND 30% 4 ND 2-Nitroaniline 0.106 0.211 mg/kg dry 4 ---ND ---30%

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ND

ND

ND

ND

ND

0.106

0.106

0.0526

0.0526

0.661

0.211

0.211

0.106

0.106

1.32

mg/kg dry

mg/kg dry

mg/kg dry

mg/kg dry

mg/kg dry

4

4

4

4

4

3-Nitroaniline

4-Nitroaniline

Benzoic acid

2,4-Dinitrotoluene

2.6-Dinitrotoluene

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ND

ND

ND

ND

ND

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Page 135 of 173



Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

Report ID:

GSI Water SolutionsProject:Eatonville55 SW Yamhill St, Ste 300Project Number:0171.067Portland, OR 97209Project Manager:Genevieve

Project Manager: Genevieve Schutzius A110619 - 11 16 21 1140

QUALITY CONTROL (QC) SAMPLE RESULTS Semivolatile Organic Compounds by EPA 8270E

Detection Spike % REC RPD Reporting Source Dilution Analyte Result Limit Units Result % REC RPD Limit Amount Limits Limit Notes Batch 21J0772 - EPA 3546 Soil Duplicate (21J0772-DUP3) Prepared: 10/21/21 14:38 Analyzed: 10/25/21 12:09 H-02, R-04 QC Source Sample: Non-SDG (A1J0343-02RE1) Benzyl alcohol ND 0.0264 0.0526 mg/kg dry 4 ND 30% ND 0.0132 0.0264Isophorone mg/kg dry 4 ND 30% ND 0.0132 Azobenzene (1,2-DPH) 0.0264 mg/kg dry 4 ND 30% Bis(2-Ethylhexyl) adipate ND 0.132 0.264 mg/kg dry ND 30% 3,3'-Dichlorobenzidine ND 0.106 0.211 mg/kg dry 4 ND 30% Q-52 30% 1,2-Dinitrobenzene ND 0.1320.264 mg/kg dry 4 ND 0.132 1,3-Dinitrobenzene ND 0.264 mg/kg dry 4 ND 30% mg/kg dry ND 0.132 0.264 ND 30% 1,4-Dinitrobenzene 4 0.0264 Pyridine ND 0.0526 mg/kg dry 4 ND 30% 1,2-Dichlorobenzene ND 0.0132 0.0264 mg/kg dry 4 ND 30% 1,3-Dichlorobenzene ND 0.0132 0.0264 mg/kg dry 4 ND 30% 0.0132 0.0264 30% 1,4-Dichlorobenzene ND mg/kg dry ND 4 Surr: Nitrobenzene-d5 (Surr) Limits: 37-122 % Recovery: 96 % Dilution: 4x Q-41 2-Fluorobiphenyl (Surr) 85 % 44-120 %

33-122 %

54-127 %

35-120 %

39-132 %

77 %

90 %

73 %

102 %

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Phenol-d6 (Surr)

p-Terphenyl-d14 (Surr)

2-Fluorophenol (Surr)

2,4,6-Tribromophenol (Surr)

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Philip Nerenberg, Lab Director

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

QUALITY CONTROL (QC) SAMPLE RESULTS

			Total M	letals by	EPA 6020	B (ICPMS	5)					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1091096 - EPA 3015A							Wa	ter				
Blank (1091096-BLK1)			Prepared	: 09/29/21	09:04 Anal	yzed: 10/06	/21 11:47					
EPA 6020B												
Arsenic	ND	0.500	1.00	ug/L	1							
Barium	ND	1.00	2.00	ug/L	1							
Beryllium	ND	0.100	0.200	ug/L	1							
Cadmium	ND	0.100	0.200	ug/L	1							
Chromium	ND	1.00	2.00	ug/L	1							
Cobalt	ND	0.500	1.00	ug/L	1							
Copper	ND	1.00	2.00	ug/L	1							
Lead	ND	0.110	0.200	ug/L	1							
Nickel	ND	1.00	2.00	ug/L	1							
Selenium	ND	0.500	1.00	ug/L	1							
Thallium	ND	0.100	0.200	ug/L	1							
Vanadium	ND	1.00	2.00	ug/L	1							
Zinc	ND	2.00	4.00	ug/L	1							
LCS (1091096-BS1) <u>EPA 6020B</u>			Prepared	: 09/29/21	09:04 Anal	yzed: 10/06	/21 11:52					
Arsenic	58.3	0.500	1.00	ug/L	1	55.6		105	80-120%			
Barium	55.2	1.00	2.00	ug/L	1	55.6		99	80-120%			
Beryllium	27.2	0.100	0.200	ug/L	1	27.8		98	80-120%			
Cadmium	53.6	0.100	0.200	ug/L	1	55.6		96	80-120%			
Chromium	53.3	1.00	2.00	ug/L	1	55.6		96	80-120%			
Cobalt	53.4	0.500	1.00	ug/L	1	55.6		96	80-120%			
Copper	55.8	1.00	2.00	ug/L	1	55.6		100	80-120%			
Lead	55.5	0.110	0.200	ug/L	1	55.6		100	80-120%			
Nickel	56.7	1.00	2.00	ug/L	1	55.6		102	80-120%			
Selenium	29.0	0.500	1.00	ug/L	1	27.8		104	80-120%			
Γhallium	28.2	0.100	0.200	ug/L	1	27.8		101	80-120%			
Vanadium	53.8	1.00	2.00	ug/L	1	55.6		97	80-120%			
	53.3	2.00	4.00	ug/L	1	55.6		96	80-120%			
Zinc	33.3											
	33.3		Prepared	: 09/29/21	09:04 Anal	yzed: 10/06/	/21 12:29					
Duplicate (1091096-DUP1) QC Source Sample: Non-SDG (A			Prepared	: 09/29/21	09:04 Anal	yzed: 10/06/	/21 12:29					

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Philip Nerenberg, Lab Director

Philip Neimberg

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: <u>Eatonville</u>
Project Number: **0171.067**

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

QUALITY CONTROL (QC) SAMPLE RESULTS

			Total N	letals by	EPA 6020	B (ICPMS	S)						
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes	
Batch 1091096 - EPA 3015A							Wa	ter					
Duplicate (1091096-DUP1)			Prepared	: 09/29/21	09:04 Ana	lyzed: 10/06/	/21 12:29						
QC Source Sample: Non-SDG (A1	10605-03)												
Barium	21.2	1.00	2.00	ug/L	1		21.2			0.2	20%		
Beryllium	ND	0.100	0.200	ug/L	1		ND				20%		
Cadmium	ND	0.100	0.200	ug/L	1		ND				20%		
Chromium	ND	1.00	2.00	ug/L	1		ND				20%		
Cobalt	2.86	0.500	1.00	ug/L	1		2.81			2	20%		
Copper	1.13	1.00	2.00	ug/L	1		1.06			6	20%		
Lead	0.279	0.110	0.200	ug/L	1		0.262			6	20%		
Nickel	1.93	1.00	2.00	ug/L	1		2.11			9	20%		
Selenium	ND	0.500	1.00	ug/L	1		ND				20%		
Thallium	ND	0.100	0.200	ug/L	1		ND				20%		
Vanadium	3.56	1.00	2.00	ug/L	1		3.39			5	20%		
Zinc	9.59	2.00	4.00	ug/L	1		9.54			0.5	20%		
Matrix Spike (1091096-MS1)			Prepared	: 09/29/21	09:04 Ana	lyzed: 10/06/	/21 12:34						
QC Source Sample: Non-SDG (A1	110605-03)												
EPA 6020B													
Arsenic	57.5	0.500	1.00	ug/L	1	55.6	1.33	101	75-125%				
Barium	75.7	1.00	2.00	ug/L	1	55.6	21.2	98	75-125%				
Beryllium	28.8	0.100	0.200	ug/L	1	27.8	ND	104	75-125%				
Cadmium	53.7	0.100	0.200	ug/L	1	55.6	ND	97	75-125%				
Chromium	51.9	1.00	2.00	ug/L	1	55.6	ND	93	75-125%				
Cobalt	53.6	0.500	1.00	ug/L	1	55.6	2.81	91	75-125%				
Copper	53.5	1.00	2.00	ug/L	1	55.6	1.06	94	75-125%				
Lead	54.2	0.110	0.200	ug/L	1	55.6	0.262	97	75-125%				
Nickel	55.7	1.00	2.00	ug/L	1	55.6	2.11	96	75-125%				
Selenium	27.1	0.500	1.00	ug/L	1	27.8	ND	98	75-125%				
Thallium	27.4	0.100	0.200	ug/L	1	27.8	ND	99	75-125%				
Vanadium	56.1	1.00	2.00	ug/L	1	55.6	3.39	95	75-125%				
Zinc	60.0	2.00	4.00	ug/L	1	55.6	9.54	91	75-125%				

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

QUALITY CONTROL (QC) SAMPLE RESULTS

			Total N	letals by l	EPA 6020	B (ICPMS	5)					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1091171 - EPA 3051A							So	il				
Blank (1091171-BLK1)			Prepared	: 09/30/21 1	2:03 Anal	yzed: 10/01/	/21 03:37					
EPA 6020B												
Arsenic	ND	0.481	0.962	mg/kg we	t 10							
Barium	ND	0.481	0.962	mg/kg we	t 10							
Beryllium	ND	0.481	0.962	mg/kg we	t 10							
Cadmium	ND	0.0962	0.192	mg/kg we	t 10							
Chromium	ND	0.481	0.962	mg/kg we	t 10							
Cobalt	ND	0.481	0.962	mg/kg we	t 10							
Copper	ND	0.962	1.92	mg/kg we	t 10							
Lead	ND	0.0962	0.192	mg/kg we	t 10							
Nickel	ND	0.962	1.92	mg/kg we	t 10							
Selenium	ND	0.481	0.962	mg/kg we	t 10							
Thallium	ND	0.0962	0.192	mg/kg we	t 10							
Vanadium	ND	0.962	1.92	mg/kg we	t 10							
Zinc	ND	1.92	3.85	mg/kg we	t 10							
LCS (1091171-BS1) EPA 6020B			Prepared	: 09/30/21 1	2:03 Anal	yzed: 10/01/	/21 03:41					
Arsenic	48.8	0.500	1.00	mg/kg we	t 10	50.0		98	80-120%			
Barium	46.8	0.500	1.00	mg/kg we		50.0		94	80-120%			
Beryllium	24.4	0.500	1.00	mg/kg we	t 10	25.0		98	80-120%			
Cadmium	45.9	0.100	0.200	mg/kg we		50.0		92	80-120%			
Chromium	47.5	0.500	1.00	mg/kg we		50.0		95	80-120%			
Cobalt	46.7	0.500	1.00	mg/kg we		50.0		93	80-120%			
Copper	48.6	1.00	2.00	mg/kg we		50.0		97	80-120%			
Lead	47.9	0.100	0.200	mg/kg we		50.0		96	80-120%			
Nickel	48.2	1.00	2.00	mg/kg we		50.0		96	80-120%			
Selenium	25.1	0.500	1.00	mg/kg we		25.0		100	80-120%			
Thallium	23.9	0.100	0.200	mg/kg we		25.0		96	80-120%			
Vanadium	47.2	1.00	2.00	mg/kg we		50.0		94	80-120%			
Zinc	47.3	2.00	4.00	mg/kg we		50.0		95	80-120%			
				5 5 ··· •	-			-				
Duplicate (1091171-DUP1)			Prepared	: 09/30/21 1	2:03 Anal	yzed: 10/01/	/21 04:17					
QC Source Sample: Non-SDG (A)	110365-12)											
Arsenic	10.5	1.17	2.34	mg/kg dr	y 10		9.95			5	20%	

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Philip Nerenberg, Lab Director

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

QUALITY CONTROL (QC) SAMPLE RESULTS

			Total N	letals by	EPA 602	B (ICPMS	S)					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1091171 - EPA 3051A							Soi	il				
Duplicate (1091171-DUP1)			Prepared	: 09/30/21 1	2:03 Ana	lyzed: 10/01	/21 04:17					
QC Source Sample: Non-SDG (A	110365-12)											
Barium	77.5	1.17	2.34	mg/kg dr	y 10		73.1			6	20%	
Beryllium	1.26	1.17	2.34	mg/kg dr	y 10		ND				20%	
Cadmium	0.240	0.234	0.469	mg/kg dr	y 10		ND				20%	
Chromium	37.6	1.17	2.34	mg/kg dr	y 10		35.7			5	20%	
Cobalt	12.5	1.17	2.34	mg/kg dr	y 10		11.4			9	20%	
Copper	31.7	2.34	4.69	mg/kg dr	y 10		29.6			7	20%	
Lead	14.4	0.234	0.469	mg/kg dr	y 10		13.8			4	20%	
Nickel	31.5	2.34	4.69	mg/kg dr	y 10		29.1			8	20%	
Selenium	ND	1.17	2.34	mg/kg dr	y 10		ND				20%	
Thallium	0.247	0.234	0.469	mg/kg dr	y 10		ND				20%	
Vanadium	53.6	2.34	4.69	mg/kg dr	y 10		51.7			4	20%	
Zinc	106	4.69	9.37	mg/kg dr	y 10		99.9			6	20%	
Matrix Spike (1091171-MS1)			Prepared	: 09/30/21 1	2:03 Ana	lyzed: 10/01	/21 04:21					
QC Source Sample: Non-SDG (A	110365-12)					<u>-</u>						
EPA 6020B												
Arsenic	132	1.26	2.51	mg/kg dr	y 10	126	9.95	97	75-125%			
Barium	201	1.26	2.51	mg/kg dr	y 10	126	73.1	102	75-125%			
Beryllium	59.5	1.26	2.51	mg/kg dr	y 10	62.8	ND	95	75-125%			
Cadmium	116	0.251	0.502	mg/kg dr	y 10	126	ND	93	75-125%			
Chromium	172	1.26	2.51	mg/kg dr	y 10	126	35.7	108	75-125%			
Cobalt	127	1.26	2.51	mg/kg dr	y 10	126	11.4	92	75-125%			
Copper	151	2.51	5.02	mg/kg dr	-	126	29.6	97	75-125%			
Lead	126	0.251	0.502	mg/kg dr	-	126	13.8	90	75-125%			
Nickel	154	2.51	5.02	mg/kg dr		126	29.1	100	75-125%			
Selenium	60.6	1.26	2.51	mg/kg dr	-	62.8	ND	96	75-125%			
Thallium	58.7	0.251	0.502	mg/kg dr		62.8	ND	93	75-125%			
Vanadium	194	2.51	5.02	mg/kg dr		126	51.7	114	75-125%			
Zinc	228	5.02	10.0	mg/kg dr	-	126	99.9	102	75-125%			

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: <u>Eatonville</u>
Project Number: **0171.067**

Project Manager: Genevieve Schutzius

Report ID: A1I0619 - 11 16 21 1140

QUALITY CONTROL (QC) SAMPLE RESULTS

			Total M	letals by E	PA 6020	B (ICPMS	S)					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 21J1074 - EPA 3051A							Soi	I				
Blank (21J1074-BLK1)			Prepared	: 10/28/21 13	3:47 Ana	yzed: 10/29	/21 00:00					
EPA 6020B												
Arsenic	ND	0.481	0.962	mg/kg we	t 10							
Barium	ND	0.481	0.962	mg/kg we	t 10							
Beryllium	ND	0.0962	0.192	mg/kg we	t 10							
Cadmium	ND	0.0962	0.192	mg/kg we	t 10							
Chromium	ND	0.481	0.962	mg/kg we	t 10							
Cobalt	ND	0.481	0.962	mg/kg we	t 10							
Copper	ND	0.962	1.92	mg/kg we								
Lead	ND	0.0962	0.192	mg/kg we	t 10							
Nickel	ND	0.962	1.92	mg/kg we	t 10							
Selenium	ND	0.481	0.962	mg/kg we	t 10							
Thallium	ND	0.0962	0.192	mg/kg we								
Vanadium	ND	0.962	1.92	mg/kg we	t 10							
Zinc	ND	1.92	3.85	mg/kg we								
LCS (21J1074-BS1) EPA 6020B			Prepared	: 10/28/21 13	3:47 Ana	lyzed: 10/29	/21 00:13					
Arsenic	53.5	0.500	1.00	mg/kg we	t 10	50.0		107	80-120%			
Barium	49.3	0.500	1.00	mg/kg we		50.0		99	80-120%			
Beryllium	27.8	0.100	0.200	mg/kg we		25.0		111	80-120%			
Cadmium	50.7	0.100	0.200	mg/kg we		50.0		101	80-120%			
Chromium	50.9	0.500	1.00	mg/kg we		50.0		102	80-120%			
Cobalt	52.4	0.500	1.00	mg/kg we		50.0		105	80-120%			
Copper	54.7	1.00	2.00	mg/kg we		50.0		109	80-120%			
Lead	51.6	0.100	0.200	mg/kg we		50.0		103	80-120%			
Nickel	53.8	1.00	2.00	mg/kg we		50.0		108	80-120%			
Selenium	24.3	0.500	1.00	mg/kg we		25.0		97	80-120%			
Thallium	24.9	0.100	0.200	mg/kg we		25.0		99	80-120%			
Vanadium	53.5	1.00	2.00	mg/kg we		50.0		107	80-120%			
Zinc	52.6	2.00	4.00	mg/kg we		50.0		105	80-120%			
	52.0	2.00	7.00	mg/Rg WC	. 10	20.0		103	30 120/0			
Duplicate (21J1074-DUP1)			Prepared	: 10/28/21 13	3:47 Ana	yzed: 10/29	/21 00:30					
QC Source Sample: Non-SDG (A1	(J0272-02)											
Arsenic	5.19	0.524	1.05	mg/kg dry	10		4.90			6	20%	

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Philip Nerenberg, Lab Director

Philip Nevenberg



Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions Project: **Eatonville** 55 SW Yamhill St, Ste 300 Project Number: 0171.067 Portland, OR 97209

Project Manager: Genevieve Schutzius

Report ID: A1I0619 - 11 16 21 1140

QUALITY CONTROL (QC) SAMPLE RESULTS

			Total N	letals by	EPA 6020	B (ICPMS	S)					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 21J1074 - EPA 3051A							Soi	il				
Duplicate (21J1074-DUP1)			Prepared	: 10/28/21 1	3:47 Ana	lyzed: 10/29	/21 00:30					
QC Source Sample: Non-SDG (A	1J0272-02)											
Barium	139	0.524	1.05	mg/kg dr	y 10		136			3	20%	
Beryllium	0.539	0.105	0.209	mg/kg dr	y 10		0.572			6	20%	
Cadmium	0.301	0.105	0.209	mg/kg dr	y 10		0.335			11	20%	
Chromium	30.9	0.524	1.05	mg/kg dr	y 10		28.2			9	20%	
Cobalt	30.4	0.524	1.05	mg/kg dr	y 10		29.7			2	20%	
Copper	17.1	1.05	2.09	mg/kg dr	y 10		16.5			4	20%	
Lead	14.2	0.105	0.209	mg/kg dr	y 10		13.8			3	20%	
Nickel	17.9	1.05	2.09	mg/kg dr	y 10		17.0			5	20%	
Selenium	ND	0.524	1.05	mg/kg dr	y 10		ND				20%	
Thallium	0.171	0.105	0.209	mg/kg dr	y 10		0.147			15	20%	•
Vanadium	73.8	1.05	2.09	mg/kg dr	y 10		70.1			5	20%	
Zinc	56.5	2.09	4.19	mg/kg dr	y 10		54.7			3	20%	
Matrix Spike (21J1074-MS1)			Prepared	: 10/28/21 1	3:47 Ana	lyzed: 10/29	/21 00:34					
QC Source Sample: Non-SDG (A	1J0272-02)											
EPA 6020B												
Arsenic	59.2	0.525	1.05	mg/kg dr	y 10	52.5	4.90	104	75-125%			
Barium	194	0.525	1.05	mg/kg dr	y 10	52.5	136	112	75-125%			
Beryllium	29.6	0.105	0.210	mg/kg dr	y 10	26.2	0.572	111	75-125%			
Cadmium	53.3	0.105	0.210	mg/kg dr	y 10	52.5	0.335	101	75-125%			
Chromium	84.3	0.525	1.05	mg/kg dr	y 10	52.5	28.2	107	75-125%			
Cobalt	83.4	0.525	1.05	mg/kg dr	y 10	52.5	29.7	102	75-125%			
Copper	72.9	1.05	2.10	mg/kg dr	y 10	52.5	16.5	108	75-125%			
Lead	67.7	0.105	0.210	mg/kg dr	y 10	52.5	13.8	103	75-125%			
Nickel	74.8	1.05	2.10	mg/kg dr	y 10	52.5	17.0	110	75-125%			
Selenium	24.7	0.525	1.05	mg/kg dr	y 10	26.2	ND	94	75-125%			
Thallium	25.4	0.105	0.210	mg/kg dr	y 10	26.2	0.147	96	75-125%			
Vanadium	131	1.05	2.10	mg/kg dr	y 10	52.5	70.1	116	75-125%			
Zinc	114	2.10	4.20	mg/kg dr	y 10	52.5	54.7	113	75-125%			

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Page 142 of 173 Philip Nerenberg, Lab Director



Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions Project:

55 SW Yamhill St, Ste 300 Project Nur

Portland, OR 97209 Project Mar

Project Number: **0171.067**Project Manager: **Genevieve Schutzius**

Eatonville

Report ID: A110619 - 11 16 21 1140

QUALITY CONTROL (QC) SAMPLE RESULTS

			Dissolved	Metals	by EPA 60)20B (ICP	MS)					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1091019 - Matrix Matc	hed Direct I	nject					Wa	ter				
Blank (1091019-BLK1)			Prepared	: 09/27/21	15:02 Anal	yzed: 10/03	/21 02:33					
EPA 6020B (Diss)												
Arsenic	ND	0.500	1.00	ug/L	1							
Barium	ND	0.500	1.00	ug/L	1							
Cadmium	ND	0.100	0.200	ug/L	1							
Chromium	ND	1.00	2.00	ug/L	1							
Cobalt	ND	0.500	1.00	ug/L	1							
Copper	ND	1.00	2.00	ug/L	1							
Lead	ND	0.100	0.200	ug/L	1							
Nickel	ND	1.00	2.00	ug/L	1							
Γhallium	ND	0.100	0.200	ug/L	1							
Vanadium	ND	1.00	2.00	ug/L	1							
Zinc	ND	2.00	4.00	ug/L	1							
Blank (1091019-BLK2)			Prepared	: 09/27/21	15:02 Anal	yzed: 10/03	/21 22:28					
EPA 6020B (Diss)												
Selenium	ND	0.500	1.00	ug/L	1							Q-1
Blank (1091019-BLK3)			Prepared	: 09/27/21	15:02 Anal	yzed: 11/11/	/21 15:59					
EPA 6020B (Diss)												
Beryllium	ND	0.100	0.200	ug/L	1							Q-1
LCS (1091019-BS1)			Prepared	: 09/27/21	15:02 Anal	yzed: 10/03	/21 02:38					
EPA 6020B (Diss)												
Arsenic	56.5	0.500	1.00	ug/L	1	55.6		102	80-120%			
Barium	55.4	0.500	1.00	ug/L	1	55.6		100	80-120%			
Cadmium	52.0	0.100	0.200	ug/L	1	55.6		94	80-120%			
Chromium	53.0	1.00	2.00	ug/L	1	55.6		95	80-120%			
Cobalt	53.5	0.500	1.00	ug/L	1	55.6		96	80-120%			
Copper	55.7	1.00	2.00	ug/L	1	55.6		100	80-120%			
Lead	54.1	0.100	0.200	ug/L	1	55.6		97	80-120%			
Nickel	54.2	1.00	2.00	ug/L	1	55.6		98	80-120%			
Thallium	26.8	0.100	0.200	ug/L	1	27.8		97	80-120%			
	-0.0	0.200			-	• •						
Vanadium	54.1	1.00	2.00	ug/L	1	55.6		97	80-120%			

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Philip Nerenberg, Lab Director

Philip Neimberg

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

QUALITY CONTROL (QC) SAMPLE RESULTS

			Dissolved	Metals	by EPA 60	020B (ICP	MS)					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1091019 - Matrix Match	ed Direct I	nject					Wa	ter				
LCS (1091019-BS2)			Prepared	: 09/27/21	15:02 Anal	lyzed: 10/03	/21 22:34					
EPA 6020B (Diss)												
Selenium	27.6	0.500	1.00	ug/L	1	27.8		99	80-120%			Q-1
LCS (1091019-BS3)			Prepared	: 09/27/21	15:02 Ana	lyzed: 11/11	/21 16:04					
EPA 6020B (Diss)												
Beryllium	23.8	0.100	0.200	ug/L	1	27.8		86	80-120%			Q-16
Duplicate (1091019-DUP1)			Prepared	: 09/27/21	15:02 Anal	yzed: 10/03	/21 02:49					
QC Source Sample: Non-SDG (A	110437-01)											
Arsenic	11.2	0.500	1.00	ug/L	1		10.9			2	20%	
Barium	126	0.500	1.00	ug/L	1		123			2	20%	
Cadmium	ND	0.100	0.200	ug/L	1		ND				20%	
Chromium	ND	1.00	2.00	ug/L	1		ND				20%	
Cobalt	12.3	0.500	1.00	ug/L	1		11.9			3	20%	
Copper	ND	1.00	2.00	ug/L	1		ND				20%	
Lead	ND	0.100	0.200	ug/L	1		ND				20%	
Nickel	4.95	1.00	2.00	ug/L	1		4.81			3	20%	
Thallium	ND	0.100	0.200	ug/L	1		ND				20%	
Vanadium	4.09	1.00	2.00	ug/L	1		3.71			10	20%	
Zinc	2.41	2.00	4.00	ug/L	1		ND				20%	Q-05,
Duplicate (1091019-DUP2)			Prepared	: 09/27/21	15:02 Anal	yzed: 10/03	/21 22:44					
QC Source Sample: Non-SDG (A	110437-01RE	1)										
Selenium	ND	0.500	1.00	ug/L	1		ND				20%	Q-16
Duplicate (1091019-DUP3)			Prepared	: 09/27/21	15:02 Anal	lyzed: 11/11	/21 16:14					
QC Source Sample: Non-SDG (A	110437-01)											
Beryllium	ND	0.100	0.200	ug/L	1		ND				20%	Q-16
Matrix Spike (1091019-MS1)			Prepared	: 09/27/21	15:02 Anal	yzed: 10/03	/21 02:54					
OC Source Sample: Non-SDG (A EPA 6020B (Diss)	110437-01)											
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6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

QUALITY CONTROL (QC) SAMPLE RESULTS

Dissolved Metals by EPA 6020B (ICPMS)												
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1091019 - Matrix Matche	ed Direct	nject					Wa	ter				
Matrix Spike (1091019-MS1)			Prepared: 09/27/21 15:02 Analyzed: 10/03/21 02:54									
QC Source Sample: Non-SDG (A1	<u>10437-01)</u>											
Arsenic	68.5	0.500	1.00	ug/L	1	55.6	10.9	104	75-125%			
Barium	177	0.500	1.00	ug/L	1	55.6	123	97	75-125%			
Cadmium	53.2	0.100	0.200	ug/L	1	55.6	ND	96	75-125%			
Chromium	53.3	1.00	2.00	ug/L	1	55.6	ND	96	75-125%			
Cobalt	64.8	0.500	1.00	ug/L	1	55.6	11.9	95	75-125%			
Copper	54.6	1.00	2.00	ug/L	1	55.6	ND	98	75-125%			
Lead	53.6	0.100	0.200	ug/L	1	55.6	ND	97	75-125%			
Nickel	58.9	1.00	2.00	ug/L	1	55.6	4.81	97	75-125%			
Thallium	26.3	0.100	0.200	ug/L	1	27.8	ND	95	75-125%			
Vanadium	58.3	1.00	2.00	ug/L	1	55.6	3.71	98	75-125%			
Zinc	54.3	2.00	4.00	ug/L	1	55.6	ND	98	75-125%			
Matrix Spike (1091019-MS2)			Prepared	: 09/27/21	15:02 Anal	yzed: 10/03	/21 22:50					
QC Source Sample: Non-SDG (A1	I0437-01RE	21)										
EPA 6020B (Diss)												
Selenium	28.1	0.500	1.00	ug/L	1	27.8	ND	101	75-125%			Q-16
Matrix Spike (1091019-MS3)			Prepared	: 09/27/21	15:02 Anal	yzed: 11/11/	/21 16:20					
QC Source Sample: Non-SDG (A1	10437-01)											
EPA 6020B (Diss)												
Beryllium	24.8	0.100	0.200	ug/L	1	27.8	ND	89	75-125%			Q-10

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6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions Project: 55 SW Yamhill St, Ste 300 Project Number: 0171.067 Portland, OR 97209

Project Manager: Genevieve Schutzius

Report ID: A1I0619 - 11 16 21 1140

QUALITY CONTROL (QC) SAMPLE RESULTS

Eatonville

Dissolved Metals by EPA 6020B (ICPMS)												
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1091023 - Matrix Mat	ched Direct	nject					Wa	ter				
Blank (1091023-BLK1)			Prepared	: 09/27/21	16:10 Anal	yzed: 10/03	/21 04:41					
EPA 6020B (Diss)												
Arsenic	ND	0.500	1.00	ug/L	1							FILT
Barium	ND	0.500	1.00	ug/L	1							FILT
Cadmium	ND	0.100	0.200	ug/L	1							FILT
Chromium	ND	1.00	2.00	ug/L	1							FILT
Cobalt	ND	0.500	1.00	ug/L	1							FILT
Copper	ND	1.00	2.00	ug/L	1							FILT
Lead	ND	0.100	0.200	ug/L	1							FILT
Nickel	ND	1.00	2.00	ug/L	1							FILT
Γhallium	ND	0.100	0.200	ug/L	1							FILT
Vanadium	1.52	1.00	2.00	ug/L	1							FILT3,
Zinc	ND	2.00	4.00	ug/L	1							FILT
Blank (1091023-BLK2)			Prepared	: 09/27/21	16:10 Anal	yzed: 10/03	/21 23:39					
EPA 6020B (Diss)												
Selenium	ND	0.500	1.00	ug/L	1							FILT3, Q-1
Blank (1091023-BLK3)			Prepared	: 09/27/21	16:10 Anal	yzed: 11/11/	/21 16:25					
EPA 6020B (Diss)												
Beryllium	ND	0.100	0.200	ug/L	1							Q-1
LCS (1091023-BS1)			Prepared	: 09/27/21	16:10 Anal	yzed: 10/03	/21 04:46					
EPA 6020B (Diss)												
Arsenic	56.6	0.500	1.00	ug/L	1	55.6		102	80-120%			
Barium	55.1	0.500	1.00	ug/L	1	55.6		99	80-120%			
Cadmium	52.7	0.100	0.200	ug/L	1	55.6		95	80-120%			
Chromium	53.6	1.00	2.00	ug/L	1	55.6		96	80-120%			
Cobalt	54.0	0.500	1.00	ug/L	1	55.6		97	80-120%			
Copper	55.9	1.00	2.00	ug/L	1	55.6		101	80-120%			
Lead	52.8	0.100	0.200	ug/L	1	55.6		95	80-120%			
Nickel	54.6	1.00	2.00	ug/L	1	55.6		98	80-120%			
Thallium	26.4	0.100	0.200	ug/L	1	27.8		95	80-120%			
	***			6 -				-				
Vanadium	55.6	1.00	2.00	ug/L	1	55.6		100	80-120%			

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6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: <u>Eatonville</u>
Project Number: **0171.067**

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

QUALITY CONTROL (QC) SAMPLE RESULTS

			Dissolved	d Metals	by EPA 6	020B (ICP	MS)					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1091023 - Matrix Match	ed Direct I	Inject					Wa	ter				
LCS (1091023-BS2)			Prepared	: 09/27/21	16:10 Ana	yzed: 10/03	/21 23:45					
EPA 6020B (Diss)												
Selenium	28.3	0.500	1.00	ug/L	1	27.8		102	80-120%			Q-16, Q-4
LCS (1091023-BS3)			Prepared	: 09/27/21	16:10 Ana	lyzed: 11/11	/21 16:30					
EPA 6020B (Diss)												
Beryllium	24.2	0.100	0.200	ug/L	1	27.8		87	80-120%			Q-1
Duplicate (1091023-DUP1)			Prepared	: 09/27/21	16:10 Ana	lyzed: 10/03	/21 04:57					
QC Source Sample: EB02-0921 (A110619-16)											
EPA 6020B (Diss)												
Arsenic	ND	0.500	1.00	ug/L	1		ND				20%	
Barium	0.613	0.500	1.00	ug/L	1		0.586			4	20%	
Cadmium	ND	0.100	0.200	ug/L	1		ND				20%	
Chromium	ND	1.00	2.00	ug/L	1		ND				20%	
Cobalt	ND	0.500	1.00	ug/L	1		ND				20%	
Copper	ND	1.00	2.00	ug/L	1		ND				20%	
Lead	ND	0.100	0.200	ug/L	1		ND				20%	
Nickel	ND	1.00	2.00	ug/L	1		ND				20%	
Thallium	ND	0.100	0.200	ug/L	1		ND				20%	
Vanadium	1.33	1.00	2.00	ug/L	1		1.42			6	20%	
Zinc	ND	2.00	4.00	ug/L	1		ND				20%	
Duplicate (1091023-DUP2)			Prepared	: 09/27/21	16:10 Ana	yzed: 10/03	/21 23:56					
OC Source Sample: EB02-0921 (A110619-16F	<u>RE1)</u>										
EPA 6020B (Diss) Selenium	ND	0.500	1.00	ug/L	1		ND				20%	Q-1
Dunkasta (1001022 DUD2)			n ·		16.10	1 1 1 1 1 / 2 1	/21.16.46					
Duplicate (1091023-DUP3)			Prepared	: 09/27/21	16:10 Ana	lyzed: 11/11	/21 16:40					
OC Source Sample: EB02-0921 (EPA 6020B (Diss)	A110619-16)											
Beryllium	ND	0.100	0.200	ug/L	1		ND				20%	Q-1

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6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: <u>Eatonville</u>
Project Number: **0171.067**

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

QUALITY CONTROL (QC) SAMPLE RESULTS

			Dissolved	Metals	by EPA 60)20B (ICP	MS)					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1091023 - Matrix Matche	ed Direct	nject					Wa	ter				
Matrix Spike (1091023-MS1)			Prepared	: 09/27/21	16:10 Anal	yzed: 10/03/	/21 05:02					
QC Source Sample: EB02-0921 (A	110619-16)											
EPA 6020B (Diss)												
Arsenic	56.0	0.500	1.00	ug/L	1	55.6	ND	101	75-125%			
Barium	55.1	0.500	1.00	ug/L	1	55.6	0.586	98	75-125%			
Cadmium	52.1	0.100	0.200	ug/L	1	55.6	ND	94	75-125%			
Chromium	53.3	1.00	2.00	ug/L	1	55.6	ND	96	75-125%			
Cobalt	53.8	0.500	1.00	ug/L	1	55.6	ND	97	75-125%			
Copper	55.7	1.00	2.00	ug/L	1	55.6	ND	100	75-125%			
Lead	54.2	0.100	0.200	ug/L	1	55.6	ND	98	75-125%			
Nickel	54.4	1.00	2.00	ug/L	1	55.6	ND	98	75-125%			
Гhallium	27.1	0.100	0.200	ug/L	1	27.8	ND	98	75-125%			
Vanadium	55.4	1.00	2.00	ug/L	1	55.6	1.42	97	75-125%			
Zinc	53.4	2.00	4.00	ug/L	1	55.6	ND	96	75-125%			
Matrix Spike (1091023-MS2)			Prepared	: 09/27/21	16:10 Anal	yzed: 10/04/	/21 00:01					
QC Source Sample: EB02-0921 (A	.110619-16Б	RE1)										
EPA 6020B (Diss)												
Selenium	28.4	0.500	1.00	ug/L	1	27.8	ND	102	75-125%			Q-16, Q-4
Matrix Spike (1091023-MS3)			Prepared	: 09/27/21	16:10 Anal	yzed: 11/11/	/21 16:56					
QC Source Sample: EB02-0921 (A	.110619-16)											
EPA 6020B (Diss)												
Beryllium	23.7	0.100	0.200	ug/L	1	27.8	ND	85	75-125%			Q-1

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: <u>Eatonville</u>
Project Number: **0171.067**

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

QUALITY CONTROL (QC) SAMPLE RESULTS

		Total Hexa	valent Chr	omium by	/ Colorin	netric Spe	ectropho	tometry				
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1090991 - EPA 3060A							So	il				
Blank (1090991-BLK1)			Prepared	: 09/27/21 (8:32 Ana	lyzed: 09/29	9/21 16:18					
EPA 7196A												
Chromium (VI)	ND	0.225	0.450	mg/kg w	et 1							
LCS (1090991-BS1)			Prepared	: 09/27/21 (8:32 Ana	lyzed: 09/29	9/21 16:19					
EPA 7196A												
Chromium (VI)	16.6	0.225	0.450	mg/kg w	et 1	20.0		83	80-120%			
Duplicate (1090991-DUP1)			Prepared	: 09/27/21 (8:32 Ana	lyzed: 09/29	9/21 16:21					
QC Source Sample: HA-01-0921 (A	A110619-06	<u>)</u>										
EPA 7196A												
Chromium (VI)	ND	4.96	9.93	mg/kg dr	y 10		ND				20%	R-04
Matrix Spike (1090991-MS1)			Prepared	: 09/27/21 (8:32 Ana	lyzed: 09/29	9/21 16:23					
OC Source Sample: HA-01-0921 (A	<u> </u>)										
Chromium (VI)	ND	4.89	9.78	mg/kg dr	y 10	48.3	ND		75-125%			Cr6-02, R-04
Matrix Spike (1090991-MS2)			Prepared	: 09/27/21 (8:32 Ana	lyzed: 09/29	9/21 16:25					
QC Source Sample: HA-01-0921 (A	A110619-06)										
EPA 7196A												
Chromium (VI)	57.3	50.3	101	mg/kg dr	y 100	2850	ND	2	75-125%			Cr6-02, J
Post Spike (1090991-PS1)			Prepared	: 09/27/21 (8:32 Ana	lyzed: 09/29	9/21 16:25					
QC Source Sample: HA-01-0921 (A	A1I0619-06)										
EPA 7196A												
Chromium (VI)	3970			ug/L	10	3980	14.4	99	85-115%			R-04

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6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID: A1I0619 - 11 16 21 1140

QUALITY CONTROL (QC) SAMPLE RESULTS

		Total Hexa	valent Chr	omium b	y Colorin	netric Spe	ctropho	tometry				
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 21K0136 - EPA 3060A							So	il				
Blank (21K0136-BLK1)			Prepared	I: 11/03/21	12:23 Ana	lyzed: 11/04	/21 11:21					
EPA 7196A Chromium (VI)	ND	0.225	0.450	mg/kg w	ret 1							
LCS (21K0136-BS1)			Prepared	l: 11/03/21	12:23 Ana	lyzed: 11/04	/21 11:22					
EPA 7196A Chromium (VI)	17.6	0.225	0.450	mg/kg w	et 1	20.0		88	80-120%			
Duplicate (21K0136-DUP1)			Prepared	1: 11/03/21	12:23 Ana	lyzed: 11/04	/21 11:23					
QC Source Sample: DU-01-0921	After Proce	essing (A1I061	<u>9-11)</u>									
EPA 7196A Chromium (VI)	ND	1.02	2.05	mg/kg d	ry 5		ND				20%	Q-57, R-04
Matrix Spike (21K0136-MS1)			Prepared	1: 11/03/21	12:23 Ana	lyzed: 11/04	/21 11:24					
OC Source Sample: DU-01-0921	After Proce	essing (A1I061	9-11 <u>)</u>									
EPA 7196A Chromium (VI)	12.1	1.02	2.03	mg/kg d	ry 5	20.1	ND	60	75-125%			Q-01, Q-57
Matrix Spike (21K0136-MS2)			Prepared	l: 11/03/21	12:23 Ana	lyzed: 11/04	/21 11:24					
QC Source Sample: DU-01-0921 EPA 7196A	After Proce	essing (A1I061	9-11)									
Chromium (VI)	1170	20.6	41.1	mg/kg d	ry 100	1180	ND	99	75-125%			
Post Spike (21K0136-PS1)			Prepared	l: 11/03/21	12:23 Ana	lyzed: 11/04	/21 11:28					
QC Source Sample: DU-01-0921	After Proce	essing (A1I061	9-11 <u>)</u>									
EPA 7196A Chromium (VI)	1730			ug/L	5	1990	7.52	86	85-115%			Q-5°

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6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID: A1I0619 - 11 16 21 1140

QUALITY CONTROL (QC) SAMPLE RESULTS

				Demand	Paramet	ers						
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1090883 - PSEP-5310B T	ос						Sec	diment				
Blank (1090883-BLK1)			Prepared	: 09/23/21 (08:30 Ana	yzed: 09/27	/21 19:13					
SM 5310 B MOD Total Organic Carbon	ND	200	200	mg/kg	1							
LCS (1090883-BS1)			Prepared	: 09/23/21 (08:30 Ana	yzed: 09/27	/21 19:24					
SM 5310 B MOD Total Organic Carbon	9300	200	200	mg/kg	1	10000		93	88-111%			B-02
Duplicate (1090883-DUP5)			Prepared	: 09/23/21 (08:30 Ana	lyzed: 09/28	/21 17:09					
OC Source Sample: HA-01-0921 (ASM 5310 B MOD	A110619-06	RE2)										
Total Organic Carbon	190000	200	200	mg/kg	1		150000			25	27%	Q-16
Duplicate (1090883-DUP6)			Prepared	: 09/23/21 (08:30 Anal	lyzed: 09/28	/21 17:20					
OC Source Sample: HA-01-0921 (A	<u> </u>	<u>RE2)</u>										
Total Organic Carbon	210000	200	200	mg/kg	1		150000			32	27%	Q-04, Q-16

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: <u>Eatonville</u>
Project Number: **0171.067**

Project Manager: Genevieve Schutzius

Report ID: A1I0619 - 11 16 21 1140

QUALITY CONTROL (QC) SAMPLE RESULTS

				Demand	Paramet	ers						
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 21J0826 - PSEP-5310B	тос						Soi	I				
Blank (21J0826-BLK1)			Prepared	: 10/22/21	13:19 Anal	yzed: 10/26	/21 14:18					
SM 5310 B MOD Total Organic Carbon	ND	200	200	mg/kg	1							
Blank (21J0826-BLK2)			Prepared	: 10/22/21	13:19 Anal	yzed: 10/26	/21 14:29					
SM 5310 B MOD Total Organic Carbon	ND	200	200	mg/kg	1							A-01
Blank (21J0826-BLK3)			Prepared	: 10/22/21	13:19 Anal	lyzed: 10/26	/21 14:40					
SM 5310 B MOD Total Organic Carbon	ND	200	200	mg/kg	1							A-02
Blank (21J0826-BLK4)			Prepared	: 10/22/21	13:19 Anal	yzed: 10/26	/21 14:51					
SM 5310 B MOD Total Organic Carbon	ND	200	200	mg/kg	1							A-03
LCS (21J0826-BS1)			Prepared	: 10/22/21	13:19 Anal	lyzed: 10/26	/21 15:01					
SM 5310 B MOD Total Organic Carbon	9600	200	200	mg/kg	1	10000		96	88-111%			
Duplicate (21J0826-DUP1)			Prepared	: 10/22/21	13:19 Anal	lyzed: 10/26	/21 15:23					
QC Source Sample: DU-01-0921-	After Proce	essing (A1I061	9-11)									
SM 5310 B MOD Total Organic Carbon	12000	200	200	mg/kg	1		11000			5	27%	
Duplicate (21J0826-DUP2)			Prepared	: 10/22/21	13:19 Anal	lyzed: 10/26	/21 15:34					
QC Source Sample: DU-01-0921-	After Proce	essing (A1I061	<u>9-11)</u>									
SM 5310 B MOD Total Organic Carbon	12000	200	200	mg/kg	1		11000			3	27%	

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Project Number: **0171.067**

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

QUALITY CONTROL (QC) SAMPLE RESULTS

То	tal Organic	Carbon (N	lon-Purgea	ble) by l	Persulfate	Oxidatio	n by Sta	ndard Me	thod 531	0C		
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1091000 - Method Pre	ep: Aq						Wat	ter				
Blank (1091000-BLK1)			Prepared	: 09/27/21	11:27 Ana	yzed: 09/27	/21 19:50					
SM 5310 C Total Organic Carbon	ND	0.750	1.50	mg/L	1							
LCS (1091000-BS1)			Prepared	: 09/27/21	11:27 Ana	yzed: 09/27	/21 20:49					
SM 5310 C		0.750	1.50									
Total Organic Carbon	10.4	0.750	1.50	mg/L	1	10.0		104	90-114%			
Duplicate (1091000-DUP1)			Prepared	: 09/27/21	11:27 Ana	yzed: 09/27	/21 22:18					
QC Source Sample: Non-SDG	(A1I0631-03)											
Total Organic Carbon	2.04	0.750	1.50	mg/L	1		2.00			2	10%	
Matrix Spike (1091000-MS1)		Prepared	: 09/27/21	11:27 Ana	yzed: 09/27	/21 22:48					
QC Source Sample: Non-SDG ((A1I0631-03)											
Total Organic Carbon	12.2	0.758	1.52	mg/L	1	10.0	2.00	102	90-114%			

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Project Number: **0171.067**

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

QUALITY CONTROL (QC) SAMPLE RESULTS

				Percen	t Dry Weig	ght						
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1090769 - Total Solids (I	Ory Weigh	nt)					Soil					
Duplicate (1090769-DUP1)			Prepared	: 09/21/21	09:10 Anal	yzed: 09/22	/21 08:03					
QC Source Sample: Non-SDG (A1)												
% Solids	39.6	1.00	1.00	%	1		39.3			0.8	10%	
Duplicate (1090769-DUP2)			Prepared	: 09/21/21	09:10 Anal	yzed: 09/22	/21 08:03					
QC Source Sample: Non-SDG (A1)	<u>10584-10)</u>											
% Solids	83.7	1.00	1.00	%	1		82.8			1	10%	
Duplicate (1090769-DUP3)			Prepared	: 09/21/21	09:10 Anal	yzed: 09/22	/21 08:03					
QC Source Sample: DU-02-0921	As Received	d (A110619-12)	1									
<u>EPA 8000D</u> % Solids	98.2	1.00	1.00	%	1		97.7			0.5	10%	
Duplicate (1090769-DUP4)			Prepared	: 09/21/21	09:10 Anal	yzed: 09/22	/21 08:03					
QC Source Sample: Non-SDG (A1)	<u>[0640-03)</u>											
% Solids	81.6	1.00	1.00	%	1		82.6			1	10%	
Duplicate (1090769-DUP5)			Prepared	: 09/21/21	19:54 Anal	yzed: 09/22	/21 08:03					
QC Source Sample: Non-SDG (A1)												
% Solids	99.2	1.00	1.00	%	1		99.2			0.08	10%	
Duplicate (1090769-DUP6)			Prepared	: 09/21/21	19:54 Anal	yzed: 09/22	/21 08:03					
QC Source Sample: Non-SDG (A1)	10750-02)											
% Solids	99.2	1.00	1.00	%	1		99.1			0.1	10%	
Duplicate (1090769-DUP7)			Prepared	: 09/21/21	19:54 Anal	yzed: 09/22	/21 08:03					
QC Source Sample: Non-SDG (A1) % Solids	10750-03) 98.9	1.00	1.00	%	1		99.2			0.3	10%	
Duplicate (1090769-DUP8)			Prepared	: 09/21/21	19:54 Anal	yzed: 09/22	/21 08:03					
QC Source Sample: Non-SDG (A1) % Solids	10751-01) 99.2	1.00	1.00	%	1		99.2			0.02	10%	

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6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
Project: Eatonville

55 SW Yamhill St, Ste 300
Project Number: 0171.067

Portland, OR 97209
Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

QUALITY CONTROL (QC) SAMPLE RESULTS

				Percer	t Dry Wei	ght						
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1090769 - Tota	al Solids (Dry Weigh	nt)					Soil					

No Client related Batch QC samples analyzed for this batch. See notes page for more information.

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ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

QUALITY CONTROL (QC) SAMPLE RESULTS

				Percen	t Dry Wei	ght						
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 21J0863 - Total Solids (I	Ory Weigh	nt)					Soil	I				
Duplicate (21J0863-DUP1)			Prepared	: 10/25/21	07:49 Anal	yzed: 10/26	/21 07:45					
QC Source Sample: DU-01-0921	After Proce	essing (A1I061	<u>9-11)</u>									
EPA 8000D												
% Solids	98.5	1.00	1.00	%	1		98.4			0.1	10%	
Duplicate (21J0863-DUP2)			Prepared	: 10/25/21	07:49 Anal	yzed: 10/26	/21 07:45					
QC Source Sample: Non-SDG (A1	J0840-04)											
% Solids	64.9	1.00	1.00	%	1		65.3			0.6	10%	
Duplicate (21J0863-DUP3)			Prepared	: 10/25/21	07:49 Anal	yzed: 10/26	/21 07:45					
QC Source Sample: Non-SDG (A1	J0845-10)											
% Solids	86.4	1.00	1.00	%	1		86.5			0.06	10%	
Duplicate (21J0863-DUP4)			Prepared	: 10/25/21	07:49 Anal	yzed: 10/26	/21 07:45					
QC Source Sample: Non-SDG (A1	J0931-13)											
% Solids	93.8	1.00	1.00	%	1		93.2			0.6	10%	
Duplicate (21J0863-DUP5)			Prepared	: 10/25/21	19:20 Anal	yzed: 10/26	/21 07:45					
QC Source Sample: Non-SDG (A1	J0993-01)				·	·						
% Solids	83.3	1.00	1.00	%	1		86.3			4	10%	
Duplicate (21J0863-DUP6)			Prepared	: 10/25/21	19:20 Anal	yzed: 10/26	/21 07:45					
QC Source Sample: Non-SDG (A1	J0993-02)											
% Solids	82.7	1.00	1.00	%	1		84.3			2	10%	

No Client related Batch QC samples analyzed for this batch. See notes page for more information.

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ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: <u>Eatonville</u>
Project Number: **0171.067**

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

Weck Laboratories, Inc.

QUALITY CONTROL (QC) SAMPLE RESULTS

			Hex	avalent	Chromiu	n by IC						
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch W1I1952NONE (LC)							Wa	ter				
Blank (W1I1952-BLK1)			Prepared	: 09/29/21	10:00 Anal	yzed: 09/29	/21 11:14					
EPA 218.6												
Chromium 6+, Dissolved	ND		0.020	ug/l	1							
Chromium 6+	ND		0.020	ug/l	1							
LCS (W1I1952-BS1)			Prepared	: 09/29/21	10:00 Anal	yzed: 09/29	/21 11:26					
EPA 218.6												
Chromium 6+, Dissolved	5.02		0.020	ug/l	1	5.00		100	90-110%			
Chromium 6+	5.02		0.020	ug/l	1	5.00		100	90-110%			
Matrix Spike (W1I1952-MS1)			Prepared	: 09/29/21	10:00 Anal	yzed: 09/29	/21 11:43					
QC Source Sample: Non-SDG (1H2	7026-01)											
EPA 218.6												
Chromium 6+, Dissolved	5.67		0.020	ug/l	1	5.00	0.582	102	88-112%			
Chromium 6+	5.67		0.020	ug/l	1	5.00	0.582	102	88-112%			
Matrix Spike (W1I1952-MS2)			Prepared	: 09/29/21	10:00 Anal	yzed: 09/29	/21 12:06					
OC Source Sample: Non-SDG (1109 EPA 218.6	<u>9010-01)</u>											
Chromium 6+, Dissolved	5.23		0.020	ug/l	1	5.00	0.0611	103	88-112%			
Chromium 6+	5.23		0.020	ug/l	1	5.00	0.0495	104	88-112%			
Matrix Spike Dup (W1I1952-M	SD1)		Prepared	: 09/29/21	10:00 Anal	yzed: 09/29	/21 11:54					
QC Source Sample: Non-SDG (1H2	7026-01)											
Chromium 6+, Dissolved	5.73		0.020	ug/l	1	5.00	0.582	103	88-112%	0.9	10%	
Chromium 6+	5.73		0.020	ug/l	1	5.00	0.582	103	88-112%	0.9	10%	
Matrix Spike Dup (W1I1952-M	SD2)		Prepared	: 09/29/21	10:00 Anal	yzed: 09/29	/21 12:18					
QC Source Sample: Non-SDG (1109	0010-01)											
Chromium 6+, Dissolved	5.32		0.020	ug/l	1	5.00	0.0611	105	88-112%	2	10%	
Chromium 6+	5.32		0.020	ug/l	1	5.00	0.0495	105	88-112%	2	10%	

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6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

SAMPLE PREPARATION INFORMATION

		Volatile	Organic Compounds	by EPA 8260D			
Prep: EPA 5030B					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
Batch: 1090931							
A1I0619-15	Water	EPA 8260D	09/16/21 17:25	09/24/21 08:41	5mL/5mL	5mL/5mL	1.00
A1I0619-16	Water	EPA 8260D	09/16/21 17:55	09/24/21 08:41	5mL/5mL	5mL/5mL	1.00
A1I0619-17	Water	EPA 8260D	09/16/21 10:30	09/24/21 08:41	5mL/5mL	5mL/5mL	1.00
A1I0619-18	Water	EPA 8260D	09/16/21 11:35	09/24/21 08:41	5mL/5mL	5mL/5mL	1.00
A1I0619-19	Water	EPA 8260D	09/16/21 15:00	09/24/21 08:41	5mL/5mL	5mL/5mL	1.00
A1I0619-20	Water	EPA 8260D	09/16/21 15:15	09/24/21 08:41	5mL/5mL	5mL/5mL	1.00
A1I0619-21	Water	EPA 8260D	09/16/21 13:45	09/24/21 08:41	5mL/5mL	5mL/5mL	1.00
Prep: EPA 5035A					Sample	Default	RL Prej
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
Batch: 1091097							
A1I0619-06	Soil	5035A/8260D	09/14/21 13:10	09/14/21 13:10	14.51g/25mL	5g/5mL	1.72
A1I0619-07	Soil	5035A/8260D	09/14/21 11:45	09/14/21 11:45	13.95g/25mL	5g/5mL	1.79
A1I0619-08	Soil	5035A/8260D	09/13/21 16:20	09/13/21 16:20	13.83g/25mL	5g/5mL	1.81
A1I0619-09	Soil	5035A/8260D	09/13/21 16:25	09/13/21 16:25	10.71g/25mL	5g/5mL	2.33
A1I0619-10	Soil	5035A/8260D	09/14/21 17:00	09/14/21 17:00	236.38g/250mL	5g/5mL	1.06
	Soil	5035A/8260D	09/15/21 16:30	09/15/21 16:30	179.79g/250mL	5g/5mL	1.39
A1I0619-12	3011						

		Polych	nlorinated Biphenyls	by EPA 8082A			
Prep: EPA 3510C (N	eutral pH <u>)</u>				Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
Batch: 1091107							
A1I0619-15	Water	EPA 8082A	09/16/21 17:25	09/29/21 10:35	840mL/5mL	1000mL/5mL	1.19
A1I0619-16	Water	EPA 8082A	09/16/21 17:55	09/29/21 10:35	560mL/5mL	1000mL/5mL	1.79
A1I0619-17	Water	EPA 8082A	09/16/21 10:30	09/29/21 10:35	1050mL/5mL	1000mL/5mL	0.95
A1I0619-18	Water	EPA 8082A	09/16/21 11:35	09/29/21 10:35	1050 mL/5 mL	1000mL/5mL	0.95
A1I0619-19	Water	EPA 8082A	09/16/21 15:00	09/29/21 10:35	1060mL/5mL	1000mL/5mL	0.94
A1I0619-20	Water	EPA 8082A	09/16/21 15:15	09/29/21 10:35	1040mL/5mL	1000mL/5mL	0.96
Prep: EPA 3546					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
Batch: 1090703							
A1I0619-06	Soil	EPA 8082A	09/14/21 13:10	09/20/21 07:42	5.09g/5mL	10g/5mL	1.96
A1I0619-07	Soil	EPA 8082A	09/14/21 11:45	09/20/21 07:42	10.18g/5mL	10g/5mL	0.98

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ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

SAMPLE PREPARATION INFORMATION

	Polychlorinated Biphenyls by EPA 8082A										
Prep: EPA 3546					Sample	Default	RL Prep				
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor				
A1I0619-08	Soil	EPA 8082A	09/13/21 16:20	09/20/21 07:42	10.03g/5mL	10g/5mL	1.00				
A1I0619-09	Soil	EPA 8082A	09/13/21 16:25	09/20/21 07:42	10.08g/5mL	10g/5mL	0.99				
A1I0619-14	Soil	EPA 8082A	09/16/21 14:35	09/20/21 07:42	10.17g/5mL	10g/5mL	0.98				
Batch: 21J1037											
A1I0619-11	Soil	EPA 8082A	09/14/21 17:00	10/28/21 07:26	10.59g/5mL	10g/5mL	0.94				
A1I0619-13	Soil	EPA 8082A	09/15/21 16:30	10/28/21 07:26	10.18g/5mL	10g/5mL	0.98				

		Semivolat	ile Organic Compour	nds by EPA 8270E			
Prep: EPA 3510C (Ac	id/Base Neutral)				Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
Batch: 1090906							
A1I0619-15	Water	EPA 8270E	09/16/21 17:25	09/23/21 12:07	750mL/1mL	1000 mL/1 mL	1.33
A1I0619-16	Water	EPA 8270E	09/16/21 17:55	09/23/21 12:07	570mL/1mL	1000 mL/1 mL	1.75
A1I0619-17RE2	Water	EPA 8270E	09/16/21 10:30	09/23/21 12:07	1030 mL/1 mL	1000 mL/1 mL	0.97
A1I0619-18RE1	Water	EPA 8270E	09/16/21 11:35	09/23/21 12:07	1040 mL/1 mL	1000 mL/1 mL	0.96
A1I0619-19RE1	Water	EPA 8270E	09/16/21 15:00	09/23/21 12:07	1060 mL/1 mL	1000 mL/1 mL	0.94
A1I0619-20RE1	Water	EPA 8270E	09/16/21 15:15	09/23/21 12:07	1070mL/1mL	1000mL/1mL	0.94
Prep: EPA 3546					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
Batch: 1090986							
A1I0619-06RE1	Soil	EPA 8270E	09/14/21 13:10	09/27/21 07:49	15.01g/2mL	15g/2mL	1.00
A1I0619-07	Soil	EPA 8270E	09/14/21 11:45	09/27/21 07:49	15.04g/2mL	15g/2mL	1.00
A1I0619-08	Soil	EPA 8270E	09/13/21 16:20	09/27/21 07:49	15.4g/2mL	15g/2mL	0.97
A1I0619-09	Soil	EPA 8270E	09/13/21 16:25	09/27/21 07:49	15.27g/2mL	15g/2mL	0.98
A1I0619-14RE1	Soil	EPA 8270E	09/16/21 14:35	09/27/21 07:49	15.23g/10mL	15g/2mL	4.92
Batch: 21J0772							
A1I0619-11	Soil	EPA 8270E	09/14/21 17:00	10/21/21 14:38	15.24g/2mL	15g/2mL	0.98
A1I0619-13	Soil	EPA 8270E	09/15/21 16:30	10/21/21 14:38	15.14g/2mL	15g/2mL	0.99

Total Metals by EPA 6020B (ICPMS)									
Prep: EPA 3015A					Sample	Default	RL Prep		
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor		
Batch: 1091096									

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Philip Nerenberg, Lab Director

Philip Nevenberg

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

SAMPLE PREPARATION INFORMATION

		Tota	al Metals by EPA 602	0B (ICPMS)			
Prep: EPA 3015A					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
A1I0619-15	Water	EPA 6020B	09/16/21 17:25	09/29/21 09:04	45mL/50mL	45mL/50mL	1.00
A1I0619-16	Water	EPA 6020B	09/16/21 17:55	09/29/21 09:04	45mL/50mL	45mL/50mL	1.00
A1I0619-17	Water	EPA 6020B	09/16/21 10:30	09/29/21 09:04	45mL/50mL	45mL/50mL	1.00
A1I0619-18	Water	EPA 6020B	09/16/21 11:35	09/29/21 09:04	45mL/50mL	45mL/50mL	1.00
A1I0619-19	Water	EPA 6020B	09/16/21 15:00	09/29/21 09:04	45mL/50mL	45mL/50mL	1.00
A1I0619-20	Water	EPA 6020B	09/16/21 15:15	09/29/21 09:04	45mL/50mL	45mL/50mL	1.00
Prep: EPA 3051A					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
Batch: 1091171							
A1I0619-06	Soil	EPA 6020B	09/14/21 13:10	09/30/21 12:03	0.494g/50mL	0.5g/50mL	1.01
A1I0619-07	Soil	EPA 6020B	09/14/21 11:45	09/30/21 12:03	0.505g/50mL	0.5g/50mL	0.99
A1I0619-08	Soil	EPA 6020B	09/13/21 16:20	09/30/21 12:03	0.509g/50mL	0.5g/50mL	0.98
A1I0619-09	Soil	EPA 6020B	09/13/21 16:25	09/30/21 12:03	0.494g/50mL	0.5g/50mL	1.01
A1I0619-14	Soil	EPA 6020B	09/16/21 14:35	09/30/21 12:03	0.454g/50mL	0.5g/50mL	1.10
Batch: 21J1074							
A1I0619-11	Soil	EPA 6020B	09/14/21 17:00	10/28/21 13:47	0.509g/50mL	0.5g/50mL	0.98
A1I0619-13	Soil	EPA 6020B	09/15/21 16:30	10/28/21 13:47	0.514g/50mL	0.5g/50mL	0.97

		Dissolv	ed Metals by EPA 6	020B (ICPMS)		·	
Prep: Matrix Matched	Direct Inject				Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
Batch: 1091019							
A1I0619-15	Water	EPA 6020B (Diss)	09/16/21 17:25	09/27/21 15:02	45mL/50mL	45mL/50mL	1.00
A1I0619-15RE1	Water	EPA 6020B (Diss)	09/16/21 17:25	09/27/21 15:02	45mL/50mL	45 mL/50 mL	1.00
A1I0619-17	Water	EPA 6020B (Diss)	09/16/21 10:30	09/27/21 15:02	45mL/50mL	45 mL/50 mL	1.00
A1I0619-17RE1	Water	EPA 6020B (Diss)	09/16/21 10:30	09/27/21 15:02	45mL/50mL	45mL/50mL	1.00
A1I0619-18	Water	EPA 6020B (Diss)	09/16/21 11:35	09/27/21 15:02	45mL/50mL	45mL/50mL	1.00
A1I0619-18RE1	Water	EPA 6020B (Diss)	09/16/21 11:35	09/27/21 15:02	45mL/50mL	45 mL/50 mL	1.00
A1I0619-19	Water	EPA 6020B (Diss)	09/16/21 15:00	09/27/21 15:02	45mL/50mL	45mL/50mL	1.00
A1I0619-19RE1	Water	EPA 6020B (Diss)	09/16/21 15:00	09/27/21 15:02	45mL/50mL	45mL/50mL	1.00
A1I0619-20	Water	EPA 6020B (Diss)	09/16/21 15:15	09/27/21 15:02	45mL/50mL	45mL/50mL	1.00
A1I0619-20RE1	Water	EPA 6020B (Diss)	09/16/21 15:15	09/27/21 15:02	45mL/50mL	45 mL/50 mL	1.00
Batch: 1091023							
A1I0619-16	Water	EPA 6020B (Diss)	09/16/21 17:55	09/27/21 16:10	45mL/50mL	45mL/50mL	1.00

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Philip Nerenberg, Lab Director

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water SolutionsProject:Eatonville55 SW Yamhill St, Ste 300Project Number:0171.067

Portland, OR 97209 Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

SAMPLE PREPARATION INFORMATION

	Dissolved Metals by EPA 6020B (ICPMS)										
Prep: Matrix Matche	d Direct Inject				Sample	Default	RL Prep				
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor				
A1I0619-16RE1	Water	EPA 6020B (Diss)	09/16/21 17:55	09/27/21 16:10	45mL/50mL	45mL/50mL	1.00				
A1I0619-16RE2	Water	EPA 6020B (Diss)	09/16/21 17:55	09/27/21 16:10	45 mL/50 mL	45 mL/50 mL	1.00				

		Total Hexavalent	Chromium by Colorir	netric Spectrophoto	ometry		
Prep: EPA 3060A					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
Batch: 1090991							
A1I0619-06	Soil	EPA 7196A	09/14/21 13:10	09/27/21 08:32	2.5818g/100mL	2.5g/111mL	0.87
A1I0619-07	Soil	EPA 7196A	09/14/21 11:45	09/27/21 08:32	2.5703g/100mL	2.5g/111mL	0.88
A1I0619-08	Soil	EPA 7196A	09/13/21 16:20	09/27/21 08:32	2.5359g/100mL	2.5g/111mL	0.89
A1I0619-09	Soil	EPA 7196A	09/13/21 16:25	09/27/21 08:32	2.5299g/100mL	2.5g/111mL	0.89
A1I0619-14	Soil	EPA 7196A	09/16/21 14:35	09/27/21 08:32	2.585g/100mL	2.5g/111mL	0.87
Batch: 21K0136							
A1I0619-11	Soil	EPA 7196A	09/14/21 17:00	11/03/21 12:23	2.5052g/100mL	2.5g/111mL	0.90
A1I0619-13	Soil	EPA 7196A	09/15/21 16:30	11/03/21 12:23	2.5027g/100mL	2.5g/111mL	0.90

			Demand Parame	eters			
Prep: PSEP-5310B T	OC				Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
Batch: 1090883							
A1I0619-06RE2	Soil	SM 5310 B MOD	09/14/21 13:10	09/23/21 08:30			NA
A1I0619-07RE2	Soil	SM 5310 B MOD	09/14/21 11:45	09/23/21 08:30			NA
A1I0619-08RE1	Soil	SM 5310 B MOD	09/13/21 16:20	09/23/21 08:30			NA
A1I0619-09RE1	Soil	SM 5310 B MOD	09/13/21 16:25	09/23/21 08:30			NA
A1I0619-14RE1	Soil	SM 5310 B MOD	09/16/21 14:35	09/23/21 08:30			NA
Batch: 21J0826							
A1I0619-11	Soil	SM 5310 B MOD	09/14/21 17:00	10/22/21 13:19			NA
A1I0619-13	Soil	SM 5310 B MOD	09/15/21 16:30	10/22/21 13:19			NA

Total Organic Carbon (Non-Purgeable) by Persulfate Oxidation by Standard Method 5310C									
Prep: Method Prep: Aq					Sample	Default	RL Prep		
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor		
Batch: 1091000									

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

SAMPLE PREPARATION INFORMATION

	Total Orgar	Total Organic Carbon (Non-Purgeable) by Persulfate Oxidation by Standard Method 5310C									
Prep: Method Prep	: Aq				Sample	Default	RL Prep				
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor				
A1I0619-15	Water	SM 5310 C	09/16/21 17:25	09/27/21 10:39	40mL/40mL	40mL/40mL	1.00				
A1I0619-16	Water	SM 5310 C	09/16/21 17:55	09/27/21 10:39	40mL/40mL	40mL/40mL	1.00				
A1I0619-17	Water	SM 5310 C	09/16/21 10:30	09/27/21 10:39	40mL/40mL	40mL/40mL	1.00				
A1I0619-18	Water	SM 5310 C	09/16/21 11:35	09/27/21 10:39	40mL/40mL	40mL/40mL	1.00				
A1I0619-19	Water	SM 5310 C	09/16/21 15:00	09/27/21 10:39	40mL/40mL	40mL/40mL	1.00				
A1I0619-20	Water	SM 5310 C	09/16/21 15:15	09/27/21 10:39	40mL/40mL	40mL/40mL	1.00				

			Percent Dry We	ight			
Prep: Total Solids (Dry Weight)				Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
Batch: 1090769							
A1I0619-06	Soil	EPA 8000D	09/14/21 13:10	09/21/21 09:10			NA
A1I0619-07	Soil	EPA 8000D	09/14/21 11:45	09/21/21 09:10			NA
A1I0619-08	Soil	EPA 8000D	09/13/21 16:20	09/21/21 09:10			NA
A1I0619-09	Soil	EPA 8000D	09/13/21 16:25	09/21/21 09:10			NA
A1I0619-10	Soil	EPA 8000D	09/14/21 17:00	09/21/21 09:10			NA
A1I0619-12	Soil	EPA 8000D	09/15/21 16:30	09/21/21 09:10			NA
A1I0619-14	Soil	EPA 8000D	09/16/21 14:35	09/21/21 09:10			NA
Batch: 21J0863							
A1I0619-11	Soil	EPA 8000D	09/14/21 17:00	10/25/21 07:49			NA
A1I0619-13	Soil	EPA 8000D	09/15/21 16:30	10/25/21 07:49			NA

			Lab Filtration	1			
Prep: Method Prep:	: Aq				Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
Batch: 1090709							
A1I0619-15	Water	NA	09/16/21 17:25	09/20/21 15:40	50 mL / 50 mL	50 mL / 50 mL	NA

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6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

Weck Laboratories, Inc.

SAMPLE PREPARATION INFORMATION

_			Hexavalent Chromiu	m by IC			
Prep: NONE (LC)					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
Batch: W1I1952							
A1I0619-15	Water	EPA 218.6	09/16/21 17:25	09/29/21 10:00	5ml/5ml	5ml/5ml	1.00
A1I0619-16	Water	EPA 218.6	09/16/21 17:55	09/29/21 10:00	5ml/5ml	5ml/5ml	1.00
A1I0619-17	Water	EPA 218.6	09/16/21 10:30	09/29/21 10:00	5ml/5ml	5ml/5ml	1.00
A1I0619-18	Water	EPA 218.6	09/16/21 11:35	09/29/21 10:00	5ml/5ml	5ml/5ml	1.00
A1I0619-19	Water	EPA 218.6	09/16/21 15:00	09/29/21 10:00	5ml/5ml	5ml/5ml	1.00
A1I0619-20	Water	EPA 218.6	09/16/21 15:15	09/29/21 10:00	5ml/5ml	5ml/5ml	1.00

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6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water SolutionsProject:Eatonville55 SW Yamhill St, Ste 300Project Number:0171.067Report ID:Portland, OR 97209Project Manager:Genevieve SchutziusA110619 - 11 16 21 1140

QUALIFIER DEFINITIONS

Client Sample and Quality Control (QC) Sample Qualifier Definitions:

Laboratorie	

ex Laborato	<u>ories</u>
A-01	From grind batch 1090692.
A-01a	Sample results are less than MDL and duplicate results have a hit greater than the MDL. See duplicate results.
A-02	From grind batch 21J0337.
A-03	From grind batch 21J0439.
В	Analyte detected in an associated blank at a level above the MRL. (See Notes and Conventions below.)
B-02	Analyte detected in an associated blank at a level between one-half the MRL and the MRL. (See Notes and Conventions below.)
C-07	Extract has undergone Sulfuric Acid Cleanup by EPA 3665A, Sulfur Cleanup by EPA 3660B, and Florisil Cleanup by EPA 3620B in order to minimize matrix interference.
COMP	Sample is a composite of discrete samples. See prep information for details.
Cr6-02	Matrix Spike fails due to probable reducing conditions present in the sample. Sample results may be biased low.
E	Estimated Value. The result is above the calibration range of the instrument.
FILT1	Sample was lab filtered and acid preserved prior to analysis. See sample preparation section of report for date and time of filtration.
FILT3	This is a laboratory filtration blank, associated with filtration batch 1090747. See Prep page of report for associated samples.
H-01	This sample was analyzed outside the recommended holding time.
H-02	This sample was extracted outside of the recommended holding time.
H-06	This sample was received, or the analysis requested, outside the recommended holding time.
H-13	Sample filtration (and preservation, if required) was performed >15 minutes after sample collection. Consult regulator or permit manager to determine the usability of data for intended purpose.
ICV-01	Estimated Result. Initial Calibration Verification (ICV) failed high. There is no effect on non-detect results.
J	Estimated Result. Result detected below the lowest point of the calibration curve, but above the specified MDL.
M-05	Estimated results. Peak separation for structural isomers is insufficient for accurate quantification.
P-09	Due to weathering and/or the presence of an unknown mixture of PCB Congeners, the pattern does not match the standard used for calibration. Results are Estimated and based on the closest matching Aroclor.
P-12	Result estimated due to the presence of multiple PCB Aroclors and/or PCB congeners not defined as Aroclors.
Q-01	Spike recovery and/or RPD is outside acceptance limits.
Q-04	Spike recovery and/or RPD is outside control limits due to a non-homogeneous sample matrix.
Q-05	Analyses are not controlled on RPD values from sample and duplicate concentrations that are below 5 times the reporting level.
Q-16	Reanalysis of an original Batch QC sample.
Q-18	Matrix Spike results for this extraction batch are not reported due to the high dilution necessary for analysis of the source sample.

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6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water SolutionsProject:Eatonville55 SW Yamhill St, Ste 300Project Number:0171.067Report ID:Portland, OR 97209Project Manager:Genevieve SchutziusA110619 - 11 16 21 1140

Q-19	Blank Spike Duplicate (BSD) sample analyzed in place of Matrix Spike/Duplicate samples due to limited sample amount available for analysis.
Q-24	The RPD for this spike and spike duplicate is above established control limits. Recoveries for both the spike and spike duplicate are within control limits.
Q-29	Recovery for Lab Control Spike (LCS) is above the upper control limit. Data may be biased high.
Q-30	Recovery for Lab Control Spike (LCS) is below the lower control limit. Data may be biased low.
Q-31	Estimated Results. Recovery of Continuing Calibration Verification sample below lower control limit for this analyte. Results are likely biased low.
Q-41	Estimated Results. Recovery of Continuing Calibration Verification sample above upper control limit for this analyte. Results are likely biased high.
Q-42	Matrix Spike and/or Duplicate analysis was performed on this sample. % Recovery or RPD for this analyte is outside laboratory control limits. (Refer to the QC Section of Analytical Report.)
Q-52	Due to known erratic recoveries, the result and reporting levels for this analyte are reported as Estimated Values. This analyte may not have passed all QC requirements for this method.
Q-54	Daily Continuing Calibration Verification recovery for this analyte failed the $\pm -20\%$ criteria listed in EPA method 8260/8270 by $\pm 10\%$. The results are reported as Estimated Values.
Q-54a	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +11%. The results are reported as Estimated Values.
Q-54b	Daily Continuing Calibration Verification recovery for this analyte failed the $\pm -20\%$ criteria listed in EPA method 8260/8270 by $\pm 15\%$. The results are reported as Estimated Values.
Q-54c	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +2%. The results are reported as Estimated Values.
Q-54d	Daily Continuing Calibration Verification recovery for this analyte failed the $\pm -20\%$ criteria listed in EPA method 8260/8270 by $\pm 20\%$. The results are reported as Estimated Values.
Q-54e	Daily Continuing Calibration Verification recovery for this analyte failed the $\pm -20\%$ criteria listed in EPA method 8260/8270 by $\pm 21\%$. The results are reported as Estimated Values.
Q-54f	Daily Continuing Calibration Verification recovery for this analyte failed the $\pm -20\%$ criteria listed in EPA method 8260/8270 by $\pm 27\%$. The results are reported as Estimated Values.
Q-54g	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +4%. The results are reported as Estimated Values.
Q-54h	Daily Continuing Calibration Verification recovery for this analyte failed the $\pm -20\%$ criteria listed in EPA method 8260/8270 by $\pm 40\%$. The results are reported as Estimated Values.
Q-54i	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +5%. The results are reported as Estimated Values.
Q-54j	Daily Continuing Calibration Verification recovery for this analyte failed the $\pm -20\%$ criteria listed in EPA method 8260/8270 by $\pm 50\%$. The results are reported as Estimated Values.
Q-54k	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +7%. The results are reported as Estimated Values.

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water S	<u>olutions</u>	Project:	Eatonville	
55 SW Yamh	ill St, Ste 300	Project Number:	0171.067	Report ID:
Portland, Ol	R 97209	Project Manager:	Genevieve Schutzius	A110619 - 11 16 21 1140
0-541	Daily Continuing Calibration Verification reco	overy for this analyte fai	led the +/-20% criteria listed in EPA r	method 8260/8270 by +9%. The

ortimina, ort	11	oject ividinager. Genevieve bendezius	A110017 - 11 10 2
Q-54l	Daily Continuing Calibration Verification recovery for results are reported as Estimated Values.	this analyte failed the +/-20% criteria listed in EPA method $8260/82$	70 by +9%. The
Q-54m	Daily Continuing Calibration Verification recovery for results are reported as Estimated Values.	this analyte failed the +/-20% criteria listed in EPA method $8260/82$	70 by -4%. The
Q-55	Daily CCV/LCS recovery for this analyte was below t detection at the reporting level.	ne +/-20% criteria listed in EPA 8260, however there is adequate sens	sitivity to ensure
Q-56	Daily CCV/LCS recovery for this analyte was above to	ne +/-20% criteria listed in EPA 8260	
Q-57	Compensation for background color and/or turbidity h reagents except the color producing reagent have been	as been made by subtracting the absorbance of a second aliquot of sa added, in accordance with the method.	mple to which all
R-02	The Reporting Limit for this analyte has been raised to	account for interference from coeluting organic compounds present	in the sample.
R-04	Reporting levels elevated due to preparation and/or an	alytical dilution necessary for analysis.	
S-05	Surrogate recovery is estimated due to sample dilution	required for high analyte concentration and/or matrix interference.	

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water SolutionsProject:Eatonville55 SW Yamhill St, Ste 300Project Number:0171.067Report ID:Portland, OR 97209Project Manager:Genevieve SchutziusA110619 - 11 16 21 1140

REPORTING NOTES AND CONVENTIONS:

Abbreviations:

DET Analyte DETECTED at or above the detection or reporting limit.

ND Analyte NOT DETECTED at or above the detection or reporting limit.

NR Result Not Reported

RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

Detection Limits: Limit of Detection (LOD)

Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).

If no value is listed ('----'), then the data has not been evaluated below the Reporting Limit.

Reporting Limits: Limit of Quantitation (LOQ)

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

Reporting Conventions:

Basis: Results for soil samples are generally reported on a 100% dry weight basis.

The Result Basis is listed following the units as "dry", "wet", or " "(blank) designation.

"dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")

See Percent Solids section for details of dry weight analysis.

"wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.

"___" Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

QC Source:

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.

Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) may not be included in this report. Please request a Full QC report if this data is required.

Miscellaneous Notes:

"---" QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

"***" Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to ½ the Reporting Limit (RL).

- -For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.
- -For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.

For further details, please request a copy of this document.

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Philip Nerenberg, Lab Director

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water SolutionsProject:Eatonville55 SW Yamhill St, Ste 300Project Number:0171.067Report ID:Portland, OR 97209Project Manager:Genevieve SchutziusA110619 - 11 16 21 1140

REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks (Cont.):

Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.

'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level.

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

Sampling and Preservation Notes:

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

Apex Laboratories

Philip Nevenberg

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water SolutionsProject:Eatonville55 SW Yamhill St, Ste 300Project Number:0171.067Report ID:Portland, OR 97209Project Manager:Genevieve SchutziusA110619 - 11 16 21 1140

LABORATORY ACCREDITATION INFORMATION

ORELAP Certification ID: OR100062 (Primary Accreditation) -EPA ID: OR01039

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the <u>exception</u> of any analyte(s) listed below:

Apex Laboratories

Matrix Analysis TNI_ID Analyte TNI_ID Accreditation

All reported analytes are included in Apex Laboratories' current ORELAP scope.

Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation.

Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

Field Testing Parameters

Philip Nevenberg

Results for Field Tested data are provded by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

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Philip Nerenberg, Lab Director

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

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Philip Nerenberg, Lab Director

Philip Nevenberg

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID: A1I0619 - 11 16 21 1140

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Philip Nerenberg, Lab Director

Philip Nevenberg

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

	WO# AITOLEI9
COC/Contain	er Discrepancies
COC Reads	Container Reads/Comments
Discretes received to be composited into HA-01-0921:	HA-OIA time of 1305
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	HA-OIC (alt) time of 1240
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Philip Merenberg



Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323 ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 0171.067

Project Manager: Genevieve Schutzius

Report ID: A110619 - 11 16 21 1140

Client: [S]						- 10	
J		<u> </u>		Elem	ent WO#: A	11 101e19	
Project/Project #: <u>Eat 0</u> 7	vulle RI,	10171.0	167				
<u>Delivery Info</u> :	-6						
Date/time received: 9/17	21 @ 14	12	Ву:	3 <u> </u>			
Delivered by: ApexCl	lient X_ESS	FedE	xUPS_	Swift	_Senvoy	SDS_O	ther
Cooler Inspection Dat	te/time inspect	ted: 9/1	7/21_@_	1415	Ву:	(80)	31611
Chain of Custody included	? Yes	No	Cı	stody seals	Yes_	Nox	
Signed/dated by client?	Yes	No					
Signed/dated by Apex?	Yes _	No					
	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	3.3	2.7	3.4	1.4	4.8	-	
Received on ice? (Y/N)	<u>Y</u>	Υ	<u> </u>	<u> Y</u>	<u> </u>	_	
Γemp. blanks? (Y/N)	N	<u>Y</u>	_ Y	<u> </u>	_Y		
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Apex Laboratories

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Philip Nevenberg



November 23, 2021

Vista Work Order No. 2109161

Mr. Josh Bale GSI Water Solutions 55 SW Yamhill Street, Suite 300 Portland, OR 97204

Dear Mr. Bale,

Enclosed are the amended results for the sample set received at Vista Analytical Laboratory on September 18, 2021 under your Project Name 'Eatonville RI'.

Vista Analytical Laboratory is committed to serving you effectively. If you require additional information, please contact me at 916-673-1520 or by email at jfox@vista-analytical.com.

Thank you for choosing Vista as part of your analytical support team.

Sincerely,

Jamie Fox

Laboratory Director



Vista Analytical Laboratory certifies that the report herein meets all the requirements set forth by NELAP for those applicable test methods. Results relate only to the samples as received by the laboratory. This report should not be reproduced except in full without the written approval of Vista.

Vista Analytical Laboratory 1104 Windfield Way El Dorado Hills, CA 95762 ph; 916-673-1520 fx; 916-673-0106 www.vista-analytical.com

Vista Work Order No. 2109161 Case Narrative

Sample Condition on Receipt:

Four aqueous samples were received and stored securely in accordance with Vista standard operating procedures and EPA methodology. The samples were received in good condition and within the method temperature requirements. This report has been amended to revise the reporting format.

Analytical Notes:

EPA Method 1614

These samples were extracted and analyzed for selected PBDE congeners by EPA Method 1614 using a ZB-5MS GC column.

Holding Times

The samples were extracted and analyzed within the method hold times.

Quality Control

The Initial Calibration and Continuing Calibration Verifications met the method acceptance criteria.

A Method Blank and Ongoing Precision and Recovery (OPR) sample were extracted and analyzed with the preparation batch. The concentrations of BDE-47 and BDE-99 were above the estimated detection limits in the Method Blank. The analyte BDE-99 was detected in sample "SW06-0921", and the analyte BDE-47 was detected in all of the samples. No other analytes were detected in the Method Blank above the method quantitation limit. The OPR recoveries were within the method acceptance criteria.

Labeled standard recoveries for all QC and field samples were within method acceptance criteria.

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Certifications	19
Sample Receipt	22

Sample Inventory Report



Vista Sample ID	Client Sample ID	Sampled	Received	Components/Containers
2109161-01	SW04-0921	16-Sep-21 10:30	18-Sep-21 09:35	Amber Glass NM Bottle, 1L
				Amber Glass NM Bottle, 1L
2109161-02	SW05-0921	16-Sep-21 11:35	18-Sep-21 09:35	Amber Glass NM Bottle, 1L
				Amber Glass NM Bottle, 1L
2109161-03	SW06-0921	16-Sep-21 15:00	18-Sep-21 09:35	Amber Glass NM Bottle, 1L
				Amber Glass NM Bottle, 1L
2109161-04	SW1006-0921	16-Sep-21 15:15	18-Sep-21 09:35	Amber Glass NM Bottle, 1L
				Amber Glass NM Bottle, 1L

Vista Project: 2109161 Client Project: Eatonville RI

ANALYTICAL RESULTS



Sample ID: Method Blank EPA Method 1614

Client Data

Name: GSI Water Solutions

Project: Eatonville RI Matrix: Aqueous Laboratory Data

Lab Sample: B1I0137-BLK1

QC Batch: B1I0137 Date Extracted: 21-Sep-21 Sample Size: 1.00 L Column: ZB-5MS

Analyte	Conc. (pg/L)	EDL	EMPC	Qualifiers	Analyzed	Dilution
BDE-1	ND	7.65			29-Sep-21 23:00	1
BDE-2	ND	4.91			29-Sep-21 23:00	1
BDE-3	ND	4.35			29-Sep-21 23:00	1
BDE-10	ND	0.345			29-Sep-21 23:00	1
BDE-7	ND	0.325			29-Sep-21 23:00	1
BDE-8/11	ND	0.242			29-Sep-21 23:00	1
BDE-12	ND	0.230			29-Sep-21 23:00	1
BDE-13	ND	0.215			29-Sep-21 23:00	1
BDE-15	ND	0.174			29-Sep-21 23:00	1
BDE-30	ND	0.289			29-Sep-21 23:00	1
BDE-32	ND	0.220			29-Sep-21 23:00	1
BDE-17	ND		0.231		29-Sep-21 23:00	1
BDE-25	ND	0.330			29-Sep-21 23:00	1
BDE-28/33	ND		0.911		29-Sep-21 23:00	1
BDE-35/21	ND	0.212			29-Sep-21 23:00	1
BDE-37	ND	0.181			29-Sep-21 23:00	1
BDE-75/51	ND	0.183			29-Sep-21 23:00	1
BDE-49	ND		0.559		29-Sep-21 23:00	1
BDE-71	ND	0.257			29-Sep-21 23:00	1
BDE-47	14.5			J	29-Sep-21 23:00	1
BDE-66	ND		0.607		29-Sep-21 23:00	1
BDE-77	ND	0.187			29-Sep-21 23:00	1
BDE-79	ND	0.163			29-Sep-21 23:00	1
BDE-100	ND		3.55		29-Sep-21 23:00	1
BDE-119/120	ND		1.43		29-Sep-21 23:00	1
BDE-99	16.5			J	29-Sep-21 23:00	1
BDE-116	ND	3.45			29-Sep-21 23:00	1
BDE-118	ND		0.433		29-Sep-21 23:00	1
BDE-85	ND		1.52		29-Sep-21 23:00	1
BDE-126	ND	1.34			29-Sep-21 23:00	1
BDE-105	ND	2.64			29-Sep-21 23:00	1
BDE-155	ND	0.377			29-Sep-21 23:00	1
BDE-128/154	ND		1.81		29-Sep-21 23:00	1
BDE-153	ND		2.81		29-Sep-21 23:00	1
BDE-139	ND		1.52		29-Sep-21 23:00	1
BDE-140	ND	0.763	1.02		29-Sep-21 23:00	1
BDE-138	ND	1.62			29-Sep-21 23:00	1
BDE-166	ND	2.84			29-Sep-21 23:00	1
BDE-148/156/169	ND	2.74			29-Sep-21 23:00	1
BDE-175	ND	1.51			29-Sep-21 23:00	
BDE-184	ND	0.931			29-Sep-21 23:00	1
BDE-183/176	ND	0.521	2.23		29-Sep-21 23:00	
BDE-191	ND	2.12	2.20		29-Sep-21 23:00	1
BDE-180	ND	2.12			29-Sep-21 23:00	1
BDE-181/177	ND	2.20			29-Sep-21 23:00	1
BDE-190/171	ND	2.12			29-Sep-21 23:00	
BDE-201	ND	5.60			29-Sep-21 23:00	1
BDE-204	ND	5.09			29-Sep-21 23:00	i
BDE-204 BDE-197	ND	3.76			29-Sep-21 23:00	i
BDE-203/200	ND	6.84			29-Sep-21 23:00	
BDE-205	ND	14.8			29-Sep-21 23:00	1



Sample ID: Method Blank EPA Method 1614

Client Data

Name: GSI Water Solutions

Project: Eatonville RI Matrix: Aqueous Laboratory Data

Lab Sample: B1I0137-BLK1

QC Batch: B1I0137 Date Extracted: 21-Sep-21 Sample Size: 1.00 L Column: ZB-5MS

EMPC EDL Analyte Conc. (pg/L) Qualifiers Analyzed Dilution ND BDE-208 5.32 29-Sep-21 23:00 BDE-207 ND 6.06 29-Sep-21 23:00 BDF-206 ND 29-Sep-21 23:00 9 66

BDE-206	ND	9.66		29-Sep-21 23:00	1
BDE-209	ND	302		29-Sep-21 23:00	1
Labeled Standards	Type	% Recovery	Limits	Qualifiers Analyzed	Dilution
13C-BDE-3	IS	73.8	25 - 150	29-Sep-21 23:00	1
13C-BDE-15	IS	129	25 - 150	29-Sep-21 23:00	1
13C-BDE-28	IS	138	25 - 150	29-Sep-21 23:00	1
13C-BDE-47	IS	120	30 - 140	29-Sep-21 23:00	1
13C-BDE-77	IS	105	25 - 150	29-Sep-21 23:00	1
13C-BDE-100	IS	137	25 - 150	29-Sep-21 23:00	1
13C-BDE-99	IS	115	25 - 150	29-Sep-21 23:00	1
13C-BDE-118	IS	105	25 - 150	29-Sep-21 23:00	1
13C-BDE-155	IS	108	25 - 150	29-Sep-21 23:00	1
13C-BDE-154	IS	102	25 - 150	29-Sep-21 23:00	1
13C-BDE-153	IS	106	25 - 150	29-Sep-21 23:00	1
13C-BDE-138	IS	105	25 - 150	29-Sep-21 23:00	1
13C-BDE-169	IS	109	25 - 150	29-Sep-21 23:00	1
13C-BDE-183	IS	112	25 - 150	29-Sep-21 23:00	1
13C-BDE-180	IS	112	25 - 150	29-Sep-21 23:00	1
13C-BDE-204	IS	97.4	25 - 150	29-Sep-21 23:00	1
13C-BDE-197	IS	98.5	25 - 150	29-Sep-21 23:00	1
13C-BDE-205	IS	111	25 - 150	29-Sep-21 23:00	1
13C-BDE-207	IS	101	25 - 150	29-Sep-21 23:00	1
13C-BDE-206	IS	107	25 - 150	29-Sep-21 23:00	1
13C-BDE-209	IS	105	20 - 200	29-Sep-21 23:00	1
13C-BDE-126	CRS	113	30 - 135	29-Sep-21 23:00	1

EDL - Sample specifc estimated detection limit

EMPC - Estimated maximum possible concentration



Sample ID: OPR EPA Method 1614

Client Data

Name: GSI Water Solutions

Project: Eatonville RI

Matrix: Aqueous

Laboratory Data

Lab Sample: B1I0137-BS1

QC Batch: B1I0137 Date Extracted: 21-Sep-21 06:33

Sample Size: 1.00 L Column: ZB-5MS

Analyte	Amt Found (pg/L)	Spike Amt	% Recovery	Limits	Qualifiers	Analyzed	Dilution
BDE-1	535	500	107	50-150		29-Sep-21 18:59	1
BDE-2	594	500	119	50-150		29-Sep-21 18:59	1
BDE-3	542	500	108	50-150		29-Sep-21 18:59	1
BDE-10	401	500	80.3	50-150		29-Sep-21 18:59	1
BDE-7	400	500	80.0	50-150		29-Sep-21 18:59	1
BDE-8/11	1110	1000	111	50-150		29-Sep-21 18:59	1
BDE-12	431	500	86.2	50-150		29-Sep-21 18:59	1
BDE-13	546	500	109	50-150		29-Sep-21 18:59	1
BDE-15	514	500	103	50-150		29-Sep-21 18:59	1
BDE-30	380	500	76.1	50-150		29-Sep-21 18:59	1
BDE-32	531	500	106	50-150		29-Sep-21 18:59	1
BDE-17	523	500	105	50-150		29-Sep-21 18:59	1
BDE-25	513	500	103	50-150		29-Sep-21 18:59	1
BDE-28/33	1020	1000	102	50-150		29-Sep-21 18:59	
BDE-35/21	528	500	106	50-150		29-Sep-21 18:59	1
BDE-37	465	500	93.0	50-150		29-Sep-21 18:59	
BDE-75/51	2080	2000	104	50-150		29-Sep-21 18:59	1
BDE-49	1050	1000	105	50-150		29-Sep-21 18:59	
BDE-71	1030	1000	103	50-150		29-Sep-21 18:59	1
BDE-47	989	1000	98.9	50-150	В	29-Sep-21 18:59	
BDE-66	1110	1000	111	50-150		29-Sep-21 18:59	
BDE-77	954	1000	95.4	50-150		29-Sep-21 18:59	
BDE-79	879	1000	87.9	50-150		29-Sep-21 18:59	
BDE-100	967	1000	96.7	50-150		29-Sep-21 18:59	
BDE-119/120	1750	2000	87.4	50-150		29-Sep-21 18:59	1
BDE-99	970	1000	97.0	50-150	В	29-Sep-21 18:59	
BDE-116	897	1000	89.7	50-150		29-Sep-21 18:59	
BDE-118	967	1000	96.7	50-150		29-Sep-21 18:59	
BDE-85	1060	1000	106	50-150		29-Sep-21 18:59	
BDE-126	1010	1000	101	50-150		29-Sep-21 18:59	
BDE-105	1040	1000	104	50-150		29-Sep-21 18:59	1
BDE-155	970	1000	97.0	50-150		29-Sep-21 18:59	
BDE-128/154	1920	2000	96.2	50-150		29-Sep-21 18:59	1
BDE-153	948	1000	94.8	50-150		29-Sep-21 18:59	
BDE-139	976	1000	97.6	50-150		29-Sep-21 18:59	
BDE-140	1040	1000	104	50-150		29-Sep-21 18:59	
BDE-138	951	1000	95.1	50-150		29-Sep-21 18:59	
BDE-166	1030	1000	103	50-150		29-Sep-21 18:59	
BDE-148/156/169	1890	2000	94.6	50-150		29-Sep-21 18:59	
BDE-175	2000	2000	99.8	50-150		29-Sep-21 18:59	
BDE-184	2170	2000	108	50-150		29-Sep-21 18:59	
BDE-183/176	1920	2000	95.9	50-150		29-Sep-21 18:59	
BDE-191	2040	2000	102	50-150		29-Sep-21 18:59	
BDE-191	1930	2000	96.4	50-150		29-Sep-21 18:59	
BDE-181/177	2030	2000	101	50-150		29-Sep-21 18:59	
BDE-190/171	3770		94.2	50-150		29-Sep-21 18:59	
DDL-170/1/1	3770	4000	34.4	30-130		27-3cp-21 10.39	1



Sample ID: OPR EPA Method 1614

Client Data

Name: GSI Water Solutions

Project: Eatonville RI

Matrix: Aqueous

Laboratory Data

Lab Sample: B1I0137-BS1

QC Batch: B1I0137 Date Extracted: 21-Sep-21 06:33

Sample Size: 1.00 L Column: ZB-5MS

Analyte	Amt Found (pg/L)	Spike Amt	% Recovery	Limits	Qualifiers	Analyzed	Dilution
BDE-201	2070	2000	103	50-150		29-Sep-21 18:59	1
BDE-204	1880	2000	93.9	50-150		29-Sep-21 18:59	1
BDE-197	1870	2000	93.4	50-150		29-Sep-21 18:59	1
BDE-203/200	2180	2000	109	50-150		29-Sep-21 18:59	-1
BDE-205	1880	2000	94.0	50-150		29-Sep-21 18:59	
BDE-208	4990	5000	99.9	50-150		29-Sep-21 18:59	
BDE-207	4890	5000	97.8	50-150		29-Sep-21 18:59	
BDE-206	4960	5000	99.1	50-150		29-Sep-21 18:59	
BDE-209	5170	5000	103	50-150		29-Sep-21 18:59	1
Labeled Standards	Type		% Recovery	Limits	Qualifiers	Analyzed	Dilution
13C-BDE-3	IS		60.1	30-140		29-Sep-21 18:59	1
13C-BDE-15	IS		107	30-140		29-Sep-21 18:59	1
13C-BDE-28	IS		122	30-140		29-Sep-21 18:59	1
13C-BDE-47	IS		103	30-140		29-Sep-21 18:59	1
13C-BDE-77	IS		90.4	30-140		29-Sep-21 18:59	1
13C-BDE-100	IS		120	30-140		29-Sep-21 18:59	1
13C-BDE-99	IS		98.9	30-140		29-Sep-21 18:59	1
13C-BDE-118	IS		86.5	30-140		29-Sep-21 18:59	1
13C-BDE-155	IS		92.2	30-140		29-Sep-21 18:59	1
13C-BDE-154	IS		89.0	30-140		29-Sep-21 18:59	1
13C-BDE-153	IS		89.2	30-140		29-Sep-21 18:59	1
13C-BDE-138	IS		90.4	30-140		29-Sep-21 18:59	1
13C-BDE-169	IS		94.2	30-140		29-Sep-21 18:59	1
13C-BDE-183	IS		91.7	30-140		29-Sep-21 18:59	1
13C-BDE-180	IS		96.8	30-140		29-Sep-21 18:59	1
13C-BDE-204	IS		91.4	30-140		29-Sep-21 18:59	1
13C-BDE-197	IS		80.1	30-140		29-Sep-21 18:59	1
13C-BDE-205	IS		92.3	20-200		29-Sep-21 18:59	1
13C-BDE-207	IS		87.0	30-140		29-Sep-21 18:59	1
13C-BDE-206	IS		93.5	30-140		29-Sep-21 18:59	1
13C-BDE-209	IS		94.2	20-200		29-Sep-21 18:59	1
13C-BDE-126	CRS		100	40-125		29-Sep-21 18:59	1



Sample ID: SW04-0921 EPA Method 1614

Client Data

Name:

Project:

GSI Water Solutions Eatonville RI

Matrix: Aqueous
Date Collected: 16-Sep-21 10:30

Laboratory Data

Lab Sample: 2109161-01 QC Batch: B1I0137

Sample Size: 0.996 L

Date Received: Date Extracted: 18-Sep-21 09:35 21-Sep-21

Column: ZB-5MS

Analyte	Conc. (pg/L)	EDL	EMPC	Qualifiers	Analyzed	Dilution
BDE-1	ND	7.23			01-Oct-21 03:41	1
BDE-2	ND	4.64			01-Oct-21 03:41	1
BDE-3	ND	4.11			01-Oct-21 03:41	1
BDE-10	ND	0.420			01-Oct-21 03:41	1
BDE-7	ND	0.396			01-Oct-21 03:41	1
BDE-8/11	ND	0.294			01-Oct-21 03:41	1
BDE-12	ND	0.280			01-Oct-21 03:41	1
BDE-13	ND	0.262			01-Oct-21 03:41	1
BDE-15	ND		0.252		01-Oct-21 03:41	1
BDE-30	ND	0.279			01-Oct-21 03:41	1
BDE-32	ND	0.213			01-Oct-21 03:41	1
BDE-17	0.511			J	01-Oct-21 03:41	1
BDE-25	ND	0.319			01-Oct-21 03:41	1
BDE-28/33	ND		1.39		01-Oct-21 03:41	1
BDE-35/21	ND	0.204			01-Oct-21 03:41	1
BDE-37	ND	0.175			01-Oct-21 03:41	1
BDE-75/51	ND	0.317			01-Oct-21 03:41	1
BDE-49	ND	0.422			01-Oct-21 03:41	1
BDE-71	ND	0.444			01-Oct-21 03:41	1
BDE-47	15.3			J, B	01-Oct-21 03:41	1
BDE-66	ND	0.575		ν, Β	01-Oct-21 03:41	1
BDE-77	ND	0.321			01-Oct-21 03:41	1
BDE-79	ND	0.282			01-Oct-21 03:41	1
BDE-100	1.40	0.202		J	01-Oct-21 03:41	i
BDE-119/120	ND		0.984	,	01-Oct-21 03:41	1
BDE-99	ND		4.18		01-Oct-21 03:41	1
BDE-116	ND	4.82	4.10		01-Oct-21 03:41	1
BDE-118	ND	2.49			01-Oct-21 03:41	1
BDE-85	ND	2.90			01-Oct-21 03:41	1
BDE-126	ND	1.87			01-Oct-21 03:41	1
BDE-105	ND	3.68			01-Oct-21 03:41	1
BDE-155	ND	0.569			01-Oct-21 03:41	1
BDE-128/154	ND	0.962			01-Oct-21 03:41	1
BDE-153	ND	0.702	1.26		01-Oct-21 03:41	1
BDE-139	ND		0.864		01-Oct-21 03:41	1
BDE-140	ND	1.26	0.804		01-Oct-21 03:41	1
BDE-138	ND ND	1.66			01-Oct-21 03:41	1
BDE-166	ND	2.92			01-Oct-21 03:41	1
BDE-148/156/169	ND	2.85				1
BDE-175	ND ND	0.833			01-Oct-21 03:41 01-Oct-21 03:41	
BDE-1/3	ND ND					1
		0.512		T.	01-Oct-21 03:41	1
BDE-183/176	2.57	2.11		J	01-Oct-21 03:41	1
BDE-191	ND	3.11			01-Oct-21 03:41	1
BDE-180	ND ND	3.10			01-Oct-21 03:41	1
BDE-181/177 BDE-190/171	ND ND	3.23 3.10			01-Oct-21 03:41	1
BDE-190/171 BDE-201	ND ND				01-Oct-21 03:41	1
	ND	5.87			01-Oct-21 03:41	1
BDE-204	2.82 ND	4.14		1	01-Oct-21 03:41	1
BDE-197	ND ND	4.14			01-Oct-21 03:41	1
BDE-203/200	ND	7.54			01-Oct-21 03:41	1
BDE-205	ND	13.3			01-Oct-21 03:41	1



Sample ID: SW04-0921 EPA Method 1614

Client Data

Name: **GSI Water Solutions**

Project: Eatonville RI Matrix: Aqueous Date Collected: 16-Sep-21 10:30 Laboratory Data

2109161-01 Lab Sample: B110137 QC Batch: Sample Size:

0.996 L

Date Received: Date Extracted: 18-Sep-21 09:35 21-Sep-21

Column: ZB-5MS

Analyte	Conc. (pg/L)	EDL	EMPC	Qualifiers	Analyzed	Dilution
BDE-208	8.39			J	01-Oct-21 03:41	1
BDE-207	8.00			J	01-Oct-21 03:41	1
BDE-206	ND	10.4			01-Oct-21 03:41	1
BDE-209	ND	179			01-Oct-21 03:41	1
Labeled Standards	Туре	% Recovery	Limits	Qualifiers	Analyzed	Dilution
13C-BDF-3	IS	45.4	25 - 150		01-Oct-21 03:41	1

BDE-209	ND	179			01-Oct-21 03:41	1
Labeled Standards	Туре	% Recovery	Limits	Qualifiers	Analyzed	Dilution
13C-BDE-3	IS	45.4	25 - 150		01-Oct-21 03:41	1
13C-BDE-15	IS	90.7	25 - 150		01-Oct-21 03:41	1
13C-BDE-28	IS	102	25 - 150		01-Oct-21 03:41	1
13C-BDE-47	IS	94.4	30 - 140		01-Oct-21 03:41	1
13C-BDE-77	IS	81.2	25 - 150		01-Oct-21 03:41	1
13C-BDE-100	IS	120	25 - 150		01-Oct-21 03:41	1
13C-BDE-99	IS	99.2	25 - 150		01-Oct-21 03:41	1
13C-BDE-118	IS	88.3	25 - 150		01-Oct-21 03:41	1
13C-BDE-155	IS	91.8	25 - 150		01-Oct-21 03:41	1
13C-BDE-154	IS	85.5	25 - 150		01-Oct-21 03:41	1
13C-BDE-153	IS	86.9	25 - 150		01-Oct-21 03:41	1
13C-BDE-138	IS	91.0	25 - 150		01-Oct-21 03:41	1
13C-BDE-169	IS	92.5	25 - 150		01-Oct-21 03:41	1
13C-BDE-183	IS	90.7	25 - 150		01-Oct-21 03:41	1
13C-BDE-180	IS	92.3	25 - 150		01-Oct-21 03:41	1
13C-BDE-204	IS	82.0	25 - 150		01-Oct-21 03:41	1
13C-BDE-197	IS	73.8	25 - 150		01-Oct-21 03:41	1
13C-BDE-205	IS	95.4	25 - 150		01-Oct-21 03:41	1
13C-BDE-207	IS	84.6	25 - 150		01-Oct-21 03:41	1
13C-BDE-206	IS	92.9	25 - 150		01-Oct-21 03:41	1
13C-BDE-209	IS	127	20 - 200		01-Oct-21 03:41	1
13C-BDE-126	CRS	102	30 - 135		01-Oct-21 03:41	1

EDL - Sample specifc estimated detection limit

EMPC - Estimated maximum possible concentration



Sample ID: SW05-0921 EPA Method 1614

Client Data

Name: GSI Water Solutions Project: Eatonville RI

Matrix: Aqueous
Date Collected: 16-Sep-21 11:35

Laboratory Data

Lab Sample: 2109161-02 QC Batch: B1I0137

Sample Size: 1.01 L

Date Received: Date Extracted: 18-Sep-21 09:35 21-Sep-21

Column: ZB-5MS

Analyte	Conc. (pg/L)	EDL	EMPC	Qualifiers	Analyzed	Dilution
BDE-1	ND	6.30			01-Oct-21 04:41	1
BDE-2	ND	4.04			01-Oct-21 04:41	1
BDE-3	ND	3.58			01-Oct-21 04:41	1
BDE-10	ND	0.330			01-Oct-21 04:41	1
BDE-7	ND	0.311			01-Oct-21 04:41	1
BDE-8/11	ND	0.231			01-Oct-21 04:41	1
BDE-12	ND	0.220			01-Oct-21 04:41	1
BDE-13	ND	0.205			01-Oct-21 04:41	1
BDE-15	ND		0.714		01-Oct-21 04:41	1
BDE-30	ND	0.287			01-Oct-21 04:41	1
BDE-32	ND	0.219			01-Oct-21 04:41	1
BDE-17	ND		0.222		01-Oct-21 04:41	1
BDE-25	ND	0.328			01-Oct-21 04:41	1
BDE-28/33	ND		1.54		01-Oct-21 04:41	1
BDE-35/21	ND	0.210			01-Oct-21 04:41	1
BDE-37	ND	0.180			01-Oct-21 04:41	1
BDE-75/51	ND	0.172			01-Oct-21 04:41	1
BDE-49	ND	0.229			01-Oct-21 04:41	1
BDE-71	ND	0.241			01-Oct-21 04:41	1
BDE-47	16.4	0.211		J, B	01-Oct-21 04:41	i
BDE-66	ND	0.311		3, D	01-Oct-21 04:41	1
BDE-77	ND	0.174			01-Oct-21 04:41	1
BDE-79	ND	0.174			01-Oct-21 04:41	1
BDE-100	ND	0.133	1.13		01-Oct-21 04:41	1
BDE-119/120	ND ND	2.29	1.13			
BDE-99	ND	2.29	4.93		01-Oct-21 04:41	1
BDE-116	ND	5.17	4.93		01-Oct-21 04:41 01-Oct-21 04:41	1
						1
BDE-118	ND	2.66			01-Oct-21 04:41	1
BDE-85	ND	3.11			01-Oct-21 04:41	1
BDE-126	ND	2.01			01-Oct-21 04:41	1
BDE-105	ND	3.95			01-Oct-21 04:41	1
BDE-155	ND	0.373	2.12		01-Oct-21 04:41	1
BDE-128/154	ND	2 212	0.320		01-Oct-21 04:41	1
BDE-153	ND	0.757			01-Oct-21 04:41	1
BDE-139	ND	0.710			01-Oct-21 04:41	1
BDE-140	ND	0.775			01-Oct-21 04:41	1
BDE-138	ND	1.21			01-Oct-21 04:41	1
BDE-166	ND	2.13			01-Oct-21 04:41	1
BDE-148/156/169	ND	2.07			01-Oct-21 04:41	1
BDE-175	ND	0.884			01-Oct-21 04:41	1
BDE-184	ND	0.544			01-Oct-21 04:41	1
BDE-183/176	ND	0.766			01-Oct-21 04:41	1
BDE-191	ND	1.80			01-Oct-21 04:41	1
BDE-180	ND	1.80			01-Oct-21 04:41	1
BDE-181/177	ND	1.87			01-Oct-21 04:41	1
BDE-190/171	ND	1.80			01-Oct-21 04:41	1
BDE-201	ND	4.34			01-Oct-21 04:41	1
BDE-204	ND	3.95			01-Oct-21 04:41	1
BDE-197	ND		2.21		01-Oct-21 04:41	1
BDE-203/200	ND	5.18			01-Oct-21 04:41	1
BDE-205	ND	10.4			01-Oct-21 04:41	1



Sample ID: SW05-0921 EPA Method 1614

Client Data

Name: **GSI Water Solutions**

Project: Eatonville RI Matrix: Aqueous

Laboratory Data

2109161-02 Lab Sample: B110137 QC Batch:

Sample Size: $1.01\,\mathrm{L}$

Date Received: Date Extracted:

18-Sep-21 09:35 21-Sep-21

Column: ZB-5MS

Analyte	Conc. (pg/L)	EDL	EMPC	Qualifiers	Analyzed	Dilution
BDE-208	ND	8.02			01-Oct-21 04:41	1
BDE-207	ND	9.14			01-Oct-21 04:41	1
BDE-206	ND	14.8			01-Oct-21 04:41	1
BDE-209	ND	170			01-Oct-21 04:41	1
Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
13C-BDE-3	IS	54.9	25 - 150		01-Oct-21 04:41	1
13C-BDE-15	IS	106	25 - 150		01-Oct-21 04:41	1
13C-BDE-28	IS	118	25 - 150		01-Oct-21 04:41	1
13C-BDE-47	IS	103	30 - 140		01-Oct-21 04:41	1
13C-BDE-77	IS	90.2	25 - 150		01-Oct-21 04:41	1
13C-BDE-100	IS	127	25 - 150		01-Oct-21 04:41	1
13C-BDE-99	IS	106	25 - 150		01-Oct-21 04:41	1
13C-BDE-118	IS	92.5	25 - 150		01-Oct-21 04:41	1
13C-BDE-155	IS	99.2	25 - 150		01-Oct-21 04:41	1
13C-BDE-154	IS	94.3	25 - 150		01-Oct-21 04:41	1
13C-BDE-153	IS	95.0	25 - 150		01-Oct-21 04:41	1
13C-BDE-138	IS	98.1	25 - 150		01-Oct-21 04:41	1
13C-BDE-169	IS	100	25 - 150		01-Oct-21 04:41	1
13C-BDE-183	IS	101	25 - 150		01-Oct-21 04:41	1
13C-BDE-180	IS	102	25 - 150		01-Oct-21 04:41	1
13C-BDE-204	IS	91.8	25 - 150		01-Oct-21 04:41	1
13C-BDE-197	IS	78.8	25 - 150		01-Oct-21 04:41	1
13C-BDE-205	IS	103	25 - 150		01-Oct-21 04:41	1
13C-BDE-207	IS	91.9	25 - 150		01-Oct-21 04:41	1
13C-BDE-206	IS	96.8	25 - 150		01-Oct-21 04:41	1
13C-BDE-209	IS	125	20 - 200		01-Oct-21 04:41	1
13C-BDE-126	CRS	108	30 - 135		01-Oct-21 04:41	1

EDL - Sample specifc estimated detection limit

EMPC - Estimated maximum possible concentration



Sample ID: SW06-0921 EPA Method 1614

Client Data

Name: GSI Water Solutions Project: Eatonville RI

Matrix: Aqueous
Date Collected: 16-Sep-21 15:00

Laboratory Data

Lab Sample: 2109161-03 QC Batch: B1I0137

Sample Size: 0.998 L

Date Received: Date Extracted: 18-Sep-21 09:35 21-Sep-21

Column: ZB-5MS

Conc. (pg/L)	EDL	EMPC	Qualifiers	Analyzed	Dilution
ND	5.95			01-Oct-21 05:40	1
ND	3.82			01-Oct-21 05:40	1
ND	3.38			01-Oct-21 05:40	1
ND	0.326			01-Oct-21 05:40	1
ND	0.308			01-Oct-21 05:40	1
ND	0.228			01-Oct-21 05:40	1
ND	0.218			01-Oct-21 05:40	1
ND	0.203			01-Oct-21 05:40	1
ND	0.165			01-Oct-21 05:40	1
ND	0.234			01-Oct-21 05:40	1
ND	0.178			01-Oct-21 05:40	1
0.337			J	01-Oct-21 05:40	
ND	0.267			01-Oct-21 05:40	1
ND		0.813		01-Oct-21 05:40	1
ND	0.171			01-Oct-21 05:40	1
ND	0.146			01-Oct-21 05:40	1
	0.130			01-Oct-21 05:40	1
	0.172			A STATE OF THE PARTY OF THE PAR	
					1
			J. B		1
	0.227				1
					1
					1
			J		1
		0.649			1
			J. B		1
	5.89				1
					1
					1
					1
					1
					1
			J		1
					1
		1.65			1
	0.571				1
		0.380			1
	2.32				
					1
		2.67			
	1.53	777			
ND	6.82			01-Oct-21 05:40	
	ND ND ND ND ND ND ND ND ND ND ND ND ND N	ND 5.95 ND 3.82 ND 3.38 ND 0.326 ND 0.308 ND 0.228 ND 0.218 ND 0.218 ND 0.203 ND 0.165 ND 0.234 ND 0.178 0.337 ND 0.267 ND ND 0.171 ND 0.146 ND 0.130 ND 0.172 ND 0.181 15.1 ND 0.126 ND 0.126 ND 0.115 1.31 ND 0.126 ND 0.115 1.31 ND 7.23 ND 5.89 ND 3.04 ND 3.54 ND 0.280 2.47 5.93 ND 0.280 2.47 5.93 ND ND 0.571 ND ND 0.571 ND ND 0.390 ND ND 0.390 ND ND 1.53 ND 0.390 ND ND 1.53	ND 5.95 ND 3.82 ND 0.326 ND 0.326 ND 0.308 ND 0.228 ND 0.218 ND 0.203 ND 0.165 ND 0.234 ND 0.178 0.337 ND 0.267 ND 0.300 ND 0.171 ND 0.146 ND 0.130 ND 0.172 ND 0.181 15.1 ND 0.126 ND 0.126 ND 0.115 1.31 ND 0.227 ND 0.126 ND 0.115 1.31 ND 0.227 ND 0.227 ND 0.227 ND 0.227 ND 0.227 ND 0.227 ND 0.227 ND 0.227 ND 0.227 ND 0.227 ND 0.227 ND 0.227 ND 0.227 ND 0.227 ND 0.227 ND 0.227 ND 0.227 ND 0.304 ND 0.589 ND 3.04 ND 3.54 ND 2.29 ND 4.51 ND 0.280 2.47 5.93 ND 0.571 ND 0.380 ND 2.37 ND 0.634 ND 0.390 ND 2.37 ND 0.634 ND 0.390 ND 2.37 ND 0.634 ND 0.390 ND 2.67 ND 1.53 ND 1.53 ND 1.53 ND 1.53 ND 1.53 ND 1.53 ND 1.53 ND 1.53 ND 1.53 ND 2.89 ND 2.63 ND 1.77 ND 3.22	ND 5.95 ND 3.82 ND 0.326 ND 0.326 ND 0.328 ND 0.218 ND 0.218 ND 0.218 ND 0.203 ND 0.165 ND 0.234 ND 0.178 0.337 ND 0.167 ND 0.37 ND 0.267 ND 0.171 ND 0.146 ND 0.172 ND 0.130 ND 0.181 15.1 I.31 J, B ND 0.227 ND 0.126 ND 0.115 1.31 J, B ND 0.227 ND 0.15 1.31 ND 0.589 ND 3.54 ND 0.290 7.23 J, B ND 3.54 ND 0.280 2.47 5.93 J J ND 0.280 2.47 5.93 J J ND 0.571 ND 0.380 ND 0.390 ND 0.390 ND 0.390 ND 0.390 ND 0.390 ND 0.390 ND 0.300 ND 0.300 ND 0.300 ND 0.300 ND 0.300 ND 0.301 ND 0.301 ND 0.301 ND 0.571 ND 0.303 ND 0.304 ND 0.390 ND 0.390 ND 0.390 ND 0.390 ND 0.390 ND 0.390 ND 0.390 ND 0.390 ND 1.53 ND 1.53 ND 1.53 ND 1.53 ND 1.53 ND 1.53 ND 1.53 ND 1.53 ND 1.53 ND 2.289 ND 2.63 ND 1.77 ND 3.22	ND 5.95 01-0c-21 05-40 ND 3.82 01-0c-21 05-40 ND 3.82 01-0c-21 05-40 ND 3.82 01-0c-21 05-40 ND 0.326 01-0c-21 05-40 ND 0.326 01-0c-21 05-40 ND 0.328 01-0c-21 05-40 ND 0.228 01-0c-21 05-40 ND 0.228 01-0c-21 05-40 ND 0.228 01-0c-21 05-40 ND 0.218 01-0c-21 05-40 ND 0.203 01-0c-21 05-40 ND 0.165 01-0c-21 05-40 ND 0.165 01-0c-21 05-40 ND 0.178 01-0c-21 05-40 ND 0.178 01-0c-21 05-40 ND 0.337 J 01-0c-21 05-40 ND 0.507 01-0c-21 05-40 ND 0.171 01-0c-21 05-40 ND 0.171 01-0c-21 05-40 ND 0.172 01-0c-21 05-40 ND 0.172 01-0c-21 05-40 ND 0.172 01-0c-21 05-40 ND 0.181 01-0c-21 05-40 ND 0.195 ND 0.195 01-0c-21 05-40 ND 0.195 01-0c-21 05-40 ND 0.195 01-0c-21 05-40 ND 0.195 01-0c-21 05-40 ND 0.105 01-0c-21 05-40 ND 0.105 01-0c-21 05-40 ND 0.105 01-0c-21 05-40 ND 0.207 ND 0.589 J, B 01-0c-21 05-40 ND 0.591 ND 0.580 01-0c-21 05-40 ND 0.591 ND 0.580 01-0c-21 05-40 ND 0.591 ND 0.591 01-0c-21 05-40 ND 0.591 01-0



Sample ID: SW06-0921 EPA Method 1614

Client Data

Name: GSI Water Solutions

Project: Eatonville RI
Matrix: Aqueous
Date Collected: 16-Sep-21 15:00

Sample Size:

Lab Sample: 2109161-03 Date Received: 18-Sep-21 09:35

QC Batch: B1I0137 Date Extracted: 21-Sep-21
Sample Size: 0.998 L Column: ZB-5MS

Analyte	Conc. (pg/L)	EDL	EMPC	Qualifiers	Analyzed	Dilution
BDE-208	ND	4.35			01-Oct-21 05:40	1
BDE-207	ND	4.95			01-Oct-21 05:40	1
BDE-206	ND	8.14			01-Oct-21 05:40	1
BDE-209	ND	145			01-Oct-21 05:40	1
Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
13C-BDE-3	IS	37.1	25 - 150		01-Oct-21 05:40	1
13C-BDE-15	IS	84.9	25 - 150		01-Oct-21 05:40	1
13C-BDE-28	IS	102	25 - 150		01-Oct-21 05:40	1
13C-BDE-47	IS	92.0	30 - 140		01-Oct-21 05:40	1
13C-BDE-77	IS	83.9	25 - 150		01-Oct-21 05:40	1
13C-BDE-100	IS	111	25 - 150		01-Oct-21 05:40	1
13C-BDE-99	IS	94.6	25 - 150		01-Oct-21 05:40	1
13C-BDE-118	IS	84.7	25 - 150		01-Oct-21 05:40	1
13C-BDE-155	IS	86.5	25 - 150		01-Oct-21 05:40	1
13C-BDE-154	IS	83.7	25 - 150		01-Oct-21 05:40	1
13C-BDE-153	IS	86.4	25 - 150		01-Oct-21 05:40	1
13C-BDE-138	IS	89.5	25 - 150		01-Oct-21 05:40	1
13C-BDE-169	IS	91.7	25 - 150		01-Oct-21 05:40	1
13C-BDE-183	IS	89.8	25 - 150		01-Oct-21 05:40	1
13C-BDE-180	IS	96.2	25 - 150		01-Oct-21 05:40	1
13C-BDE-204	IS	82.4	25 - 150		01-Oct-21 05:40	1
13C-BDE-197	IS	77.1	25 - 150		01-Oct-21 05:40	1
13C-BDE-205	IS	91.0	25 - 150		01-Oct-21 05:40	1
13C-BDE-207	IS	86.2	25 - 150		01-Oct-21 05:40	1
13C-BDE-206	IS	88.8	25 - 150		01-Oct-21 05:40	1
13C-BDE-209	IS	109	20 - 200		01-Oct-21 05:40	1
13C-BDE-126	CRS	105	30 - 135		01-Oct-21 05:40	

EDL - Sample specifc estimated detection limit

EMPC - Estimated maximum possible concentration



Sample ID: SW1006-0921 EPA Method 1614

Client Data

Name: GSI Water Solutions Project: Eatonville RI

Matrix: Aqueous

Date Collected: 16-Sep-21 15:15

Laboratory Data

Lab Sample: 2109161-04 QC Batch: B1I0137

Sample Size: 1.01 L

Date Received: Date Extracted: 18-Sep-21 09:35 21-Sep-21

Column: ZB-5MS

Analyte	Conc. (pg/L)	EDL	EMPC	Qualifiers	Analyzed	Dilution
BDE-1	ND	7.29			01-Oct-21 06:40	1
BDE-2	ND	4.68			01-Oct-21 06:40	1
BDE-3	ND	4.15			01-Oct-21 06:40	1
BDE-10	ND	0.341			01-Oct-21 06:40	1
BDE-7	ND	0.322			01-Oct-21 06:40	1
BDE-8/11	ND	0.239			01-Oct-21 06:40	1
BDE-12	ND	0.228			01-Oct-21 06:40	1
BDE-13	ND	0.213			01-Oct-21 06:40	1
BDE-15	ND	0.172			01-Oct-21 06:40	1
BDE-30	ND	0.224			01-Oct-21 06:40	1
BDE-32	ND	0.170			01-Oct-21 06:40	1
BDE-17	ND		0.439		01-Oct-21 06:40	1
BDE-25	ND	0.255			01-Oct-21 06:40	1
BDE-28/33	ND		1.07		01-Oct-21 06:40	1
BDE-35/21	ND	0.164			01-Oct-21 06:40	1
BDE-37	ND	0.140			01-Oct-21 06:40	1
BDE-75/51	ND	0.207			01-Oct-21 06:40	1
BDE-49	ND	0.276			01-Oct-21 06:40	1
BDE-71	ND	0.290			01-Oct-21 06:40	1
BDE-47	15.8			J, B	01-Oct-21 06:40	1
BDE-66	ND	0.382		7,2	01-Oct-21 06:40	1
BDE-77	ND	0.213			01-Oct-21 06:40	1
BDE-79	ND	0.184			01-Oct-21 06:40	1
BDE-100	0.978	0.201		J	01-Oct-21 06:40	1
BDE-119/120	ND	1.59		· ·	01-Oct-21 06:40	1
BDE-99	ND	1,00	3.10		01-Oct-21 06:40	1
BDE-116	ND	3.47	5.10		01-Oct-21 06:40	1
BDE-118	ND	1.79			01-Oct-21 06:40	î
BDE-85	ND	2.09			01-Oct-21 06:40	1
BDE-126	ND	1.35			01-Oct-21 06:40	i
BDE-105	ND	2.66			01-Oct-21 06:40	1
BDE-155	ND	0.571			01-Oct-21 06:40	1
BDE-128/154	ND	0.928			01-Oct-21 06:40	1
BDE-153	ND	0.720	1.13		01-Oct-21 06:40	1
BDE-139	ND	1.08	1.15		01-Oct-21 06:40	1
BDE-140	ND	1.18			01-Oct-21 06:40	1
BDE-138	ND	1.59			01-Oct-21 06:40	1
BDE-166	ND	2.79			01-Oct-21 06:40	1
BDE-148/156/169	ND	2.84			01-Oct-21 06:40	1
BDE-175	ND	1.08			01-Oct-21 06:40	1
BDE-173	ND	0.665			01-Oct-21 06:40	1
BDE-183/176	ND	0.005	2.17		01-Oct-21 06:40	1
BDE-191	ND	2.27	2.17		01-Oct-21 06:40	1
BDE-191	ND	2.26			01-Oct-21 06:40	1
BDE-181/177	ND	2.36			01-Oct-21 06:40	1
BDE-190/171	ND	2.26			01-Oct-21 06:40	1
BDE-201	ND	5.62			01-Oct-21 06:40	1
BDE-204	ND	5.12			01-Oct-21 06:40	1
BDE-197	ND ND	3.87			01-Oct-21 06:40	1
BDE-197 BDE-203/200	ND	7.05			01-Oct-21 06:40	1
BDE-205/200	ND	14.5			01-Oct-21 06:40	1
DDE-203	ND	14.3			01-001-21 00:40	1



Sample ID: SW1006-0921 EPA Method 1614

Client Data

Name: GSI Water Solutions Project: Eatonville RI

Matrix:

Aqueous 16-Sep-21 15:15 Laboratory Data

Lab Sample: 2109161-04 QC Batch: B1I0137

Sample Size: 1.01 L

Date Received:
Date Extracted:

18-Sep-21 09:35 21-Sep-21

Column: ZB-5MS

Date Collected: 16-Sep-	21 15:15					
Analyte	Conc. (pg/L)	EDL	EMPC	Qualifiers	Analyzed	Dilution
BDE-208	ND	6.30			01-Oct-21 06:40	1
BDE-207	ND	7.18			01-Oct-21 06:40	1
BDE-206	ND	10.3			01-Oct-21 06:40	1
BDE-209	ND	198			01-Oct-21 06:40	1
Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
13C-BDE-3	IS	56.0	25 - 150		01-Oct-21 06:40	1
13C-BDE-15	IS	111	25 - 150		01-Oct-21 06:40	1
13C-BDE-28	IS	122	25 - 150		01-Oct-21 06:40	1
13C-BDE-47	IS	105	30 - 140		01-Oct-21 06:40	1
13C-BDE-77	IS	93.7	25 - 150		01-Oct-21 06:40	1
13C-BDE-100	IS	138	25 - 150		01-Oct-21 06:40	1
13C-BDE-99	IS	116	25 - 150		01-Oct-21 06:40	1
13C-BDE-118	IS	105	25 - 150		01-Oct-21 06:40	1
13C-BDE-155	IS	107	25 - 150		01-Oct-21 06:40	1
13C-BDE-154	IS	101	25 - 150		01-Oct-21 06:40	1
13C-BDE-153	IS	101	25 - 150		01-Oct-21 06:40	1
13C-BDE-138	IS	101	25 - 150		01-Oct-21 06:40	1
13C-BDE-169	IS	99.6	25 - 150		01-Oct-21 06:40	1
13C-BDE-183	IS	106	25 - 150		01-Oct-21 06:40	1
13C-BDE-180	IS	104	25 - 150		01-Oct-21 06:40	1
13C-BDE-204	IS	93.9	25 - 150		01-Oct-21 06:40	1
13C-BDE-197	IS	87.8	25 - 150		01-Oct-21 06:40	1
13C-BDE-205	IS	106	25 - 150		01-Oct-21 06:40	1
13C-BDE-207	IS	97.2	25 - 150		01-Oct-21 06:40	1
13C-BDE-206	IS	103	25 - 150		01-Oct-21 06:40	1
13C-BDE-209	IS	117	20 - 200		01-Oct-21 06:40	1
13C-BDE-126	CRS	109	30 - 135		01-Oct-21 06:40	1

EDL - Sample specifc estimated detection limit

EMPC - Estimated maximum possible concentration

DATA QUALIFIERS & ABBREVIATIONS

B This compound was also detected in the method blank

Conc. Concentration

CRS Cleanup Recovery Standard

D Dilution

DL Detection Limit

E The associated compound concentration exceeded the calibration range of the

instrument

H Recovery and/or RPD was outside laboratory acceptance limits

I Chemical Interference

IS Internal Standard

J The amount detected is below the Reporting Limit/LOQ

LOD Limit of Detection

LOQ Limit of Quantitation

M Estimated Maximum Possible Concentration (CA Region 2 projects only)

MDL Method Detection Limit

NA Not applicable

ND Not Detected

OPR Ongoing Precision and Recovery sample

P The reported concentration may include contribution from chlorinated diphenyl ether(s).

Q The ion transition ratio is outside of the acceptance criteria.

RL Reporting Limit

RL For 537.1, the reported RLs are the MRLs.

TEQ Toxic Equivalency, sum of the toxic equivalency factors (TEF) multiplied by the

sample concentrations.

TEQMax TEQ calculation that uses the detection limit as the concentration for non-detects

TEQMin TEQ calculation that uses zero as the concentration for non-detects

TEQRisk TEQ calculation that uses ½ the detection limit as the concentration for non-

detects

U Not Detected (specific projects only)

* See Cover Letter

Unless otherwise noted, solid sample results are reported in dry weight. Tissue samples are reported in wet weight.

Vista Analytical Laboratory Certifications

Accrediting Authority	Certificate Number
Alaska Department of Environmental Conservation	17-013
Arkansas Department of Environmental Quality	21-023-0
California Department of Health – ELAP	2892
DoD ELAP - A2LA Accredited - ISO/IEC 17025:2005	3091,01
Florida Department of Health	E87777-26
Hawaii Department of Health	N/A
Louisiana Department of Environmental Quality	01977
Maine Department of Health	2020018
Massachusetts Department of Environmental Protection	M-CA413
Michigan Department of Environmental Quality	9932
Minnesota Department of Health	1980678
New Hampshire Environmental Accreditation Program	207720
New Jersey Department of Environmental Protection	CA003
New York Department of Health	11411
Ohio Environmental Protection Agency	87778
Oregon Laboratory Accreditation Program	4042-016
Pennsylvania Department of Environmental Protection	017
Texas Commission on Environmental Quality	T104704189-21-12
Vermont Department of Health	VT-4042
Virginia Department of General Services	10769
Washington Department of Ecology	C584
Wisconsin Department of Natural Resources	998036160

Current certificates and lists of licensed parameters are located in the Quality Assurance office and are available upon request.

NELAP Accredited Test Methods

MATRIX: Air	
Description of Test	Method
Determination of Polychlorinated p- Dioxins & Polychlorinated Dibenzofurans	EPA 23
Polychlorinated Dibenzodioxins in Ambient Air by GC/HRMS	EPA TO-9A

MATRIX: Biological Tissue	
Description of Test	Method
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

Description of Test	Method
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613/1613B
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537.1
Determination of Per- and Polyfluoroalkyl Substances in Drinking Water by Isotope Dilution Anion Exchange Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry	EPA 533
Perfluorooctanesulonate (PFOS) and Perfluorooctanoate (PFOA) - Method for Unfiltered Samples Using Solid Phase Extraction and Liquid Chromatography/Mass Spectrometry	ISO 25101 2009

MATRIX: Non-Potable Water	
Description of Test	Method
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Dioxin by GC/HRMS	EPA 613
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

MATRIX: Solids	
Description of Test	Method
Tetra-Octa Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A



CHAIN OF CUSTODY

For Laborator	oratory Use Only			
Laboratory Proje	d1D: 21	19160	Temp:	5.0
Storage ID:	50	Storac	Secured:	Yes 13-16

	Analytical Laboratory						Storage ID:	Storage ID: U 12	17	Storage Secu	Storage Secured: Yes	
Project ID:	Earbornile RI	ZI	P.O.#: 0171, 067, 003	. 003	Sampler	Generose Schutzing		TAT (check one):	Standard: Rush (surcha	TAT Standard: [7] 21 days (check one); Rush (surcharge may apply)	8 (
						(name)			14 days	14 days 7 days Specify:	Specify:	1
nvoice to: Name	Name	Company		Address	SS		City		State	Ph#	+ax#	
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Relinquishe	Relinquished by (printed name and stonature)	Opposition (Date	Time	Receive	Received by (printed name and signature)	ignature)			Date	Time	
Generi	Genevieve Schutzius,	A Char	9/17/21	1030	Jushir	stin Bison Churan	AR Ba	1	180	16/8/	2886	
Relinquishe	Relinquished by (printed name and signature)	gnature)	Date	Time	Receive	Received by (printed name and signature)	ignature)			Date	Time	

Tracking No.: Tracki	SHIP TO: Vista Analytical Laboratory 1104 Windfield Way El Dorado Hills, CA 95762 (045) 673-4501 * E3-7/9161	oratory y 95762 ov /916) 67	3.0106	Method of Shipment:	Add Ans	Add Analysis(es) Requested	ested	E191 4	0628 40	/	0828 60	/	8991 V	191 40	62×8dy			
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## Location/Sample Description Osf 18 18 18 18 18 18 18 1	ATTN:			Tracking No.:			1	000	1	1	1	MAR PCB'S	SENERS	16	188 AG			
35 Pasc #3 3 A AD 36 Pasc #3 3 A AQ 37 A AQ 38 A AQ 39 A AQ 30 A AQ 30 A AQ 30 A AQ 30 A AQ 30 A AQ 30 A AQ 30 A AQ 30 A AQ 30 A AQ 40 AQ AQ AQ AQ AQ AQ AQ AQ AQ AQ	Sample ID	Date	Time	Location/Sample Description	inueno	*INEW	10	1,8155	8485	40	10/01	209 605	308~	OHM	300	Comm	ents	
35 Fase *3 3 A AQ 00 Spand *3 2 A AQ 15 Spand *3 2 A AQ 16 Spand *3 A AQ 17 Spand *3 A AQ 18 Spand *3 A AQ AN Bottle Preservation Type: TZ = Trizma,		12/01/6	C£ 0	Pase #1	\vdash	Ą	_			-	Н		Ļ.	П				
00 Spand #1 3 A AQ		2/10/21	1135	Base "3														
9 A #Q Bottle Preservation Type: TZ = Trizma,		414/21	1500	Spancy #1														
Bottie Preservation Type: TZ = Trizma,		12/11/21	1515	Spring*3														
DO Bottie Preservation Type: TZ = Trizma,				B II (* ee		+					+	$^{\pm}$		+				
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AN AN Bottle Preservation Type: TZ = Trizma.	pecial Instructions/Comments:							; 	!		Name		ovieve	Schutz	fur			
AN Bottle Preservation Type: TZ = Trizma,								SINI	END	0	ompany	1951						
Bottle Preservation Type: TZ = Trizma,								AND RE	SULTS TO:		Address		SW Yar			5.300		
Bottle Preservation Type: TZ = Trizma,											City		land		State	e: OR	Zip. 47202	
Bottle Preservation Type: TZ = Trizma,											Phone	930	420.5	800	Fax	×	1	
Bottle Preservation Type: TZ = Trizma.											Email	950	חשלמת		S 45. m	15 00.	٤	
	ontainer Types: A = 1 Liter Ambe.	r, G = Glass	Jar	Bottle Preservati	ion Type:	TZ = Trizma,		Matrix	Types: AQ	= Aqueor	s, DW =	Drinking	Water, EF	= Efflue	nt, PP = P	ulp/Paper	SD = Sediment.	
P = PUF, T = MM5, O = Other: O = Other: O = Other:	P = PUF, T = MMS, O = Other:			O = Other:				SI = S	ludge, SO =	Soil, WM	= Waste	water, B	= Blood/S	erum, O :	= Other:			

Work Order 2109161 Revision 1



Sample Log-In Checklist

Vista Work Orde	Date/Tim			Initials		10	antin	n: 1		5	
Samples Arrival:	09/18/1	2 (M35	initiars			elf/R		-2 N		
Delivered By:	FedEx	UPS	On Tra	ic GL	S	DHL		land livere		Oth	ner
Preservation:	(lo	e)	Bli	ue Ice	-	Techni Ice		Dry I	се	No	ne
Temp °C: 24	(uncorr	rected)	Probe us	. d. V /	(1)	Th			er ID:	Tn-	2
Temp °C: 2.3	(correc	ted)	Probe us	ea: Y	N	- Lin	ermo	met	er iD:	TK.	_
	表性主用符件	E TO BE		1 - 5	-	1000	7.00	200	VEC	NO	ALA
Chinning Contain	nos(a) Into a	42 V 1	社会社会		101	13.23	(E)	13	YES	NO	NA
Shipping Contain			der be						V	NO	NA
Shipping Custod	ly Seals Int	act?	S 224	1660	26					NO	NA
Shipping Custod	ly Seals Int	act? #283	8 220	166	55				V	NO	NA
Shipping Custod Airbill Shipping Docum	Trk	act? #283				Retair		Rei	VVV		
Shipping Custod Airbill Shipping Docum Shipping Contain	Trk :	act? #283 resent?	Vista	Clie		Retail	1	Ret	V		
Shipping Custod Airbill Shipping Docum Shipping Contain Chain of Custod	Trk nentation Pr	act? #283 resent?	Vista entation Pr	Clie	nt	Retain	n	Ret	VVV		
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Comments:

ID.: LR - SLC

Rev No.: 6

Rev Date: 07/16/2020

Page: 1 of 1

CoC/Label Reconciliation Report WO# 2109161

LabNumber	LabNumber CoC Sample ID		SampleAlias	Sample Date/Time	Container	BaseMatrix	Sample Comments
2109161-01	2109161-01 A SW04-0921	D	Base#1	16-Sep-21 10:30 🗔	Amber Glass NM Bottle, 1L	Vancous	
2109161-01	2109161-01 B SW04-0921	ď	Basc#1	16-Sep-21 10:30	Amber Glass NM Bottle, 1L	Aqueous	
2109161-02	2109161-02 A SW05-0921	Ð	Base #2	16-Sep-21 11:35	Amber Glass NM Bottle, 1L	Valueous	
2109161-02	2109161-02 B SW05-0921	Ē	Base #2	16-Sep-21 11:35 🖂	Amber Glass NM Boille, IL	Aqueous	
2109161-03	2109161-03 A SW06-0921		Spring #1	16-Sep-21 15:00	Amber Glass NM Bottle, 1L	Aqueous	
2109161-03	2109161-03 B SW06-0921	Þ	Spring #1	16-Sep-21 15:00 🖃	Amber Glass NM Boule, 1L	Aqueous	
2109161-04	2109161-04 A SW1006-0921	Þ	Spring #2	16-Sep-21 15:15	Amber Glass NM Bottle, 1L	Aqueous	
2109161-04	2109161-04 B SW1006-0921	ď	Spring #2	16-Sep-21 15:15	Amber Glass NM Bonle, 1L	Aqueons	

Checkmarks indicate that information on the COC reconciled with the sample label.

Any discrepancies are noted in the following columns.

	Yes	Yes No	NA	NA Comments:
Sample Container Intact?	2			
Sample Custody Seals Intact?			1	
Adequate Sample Volume?)			
Container Type Appropriate for Analysis(es)	1			
Preservation Documented: Na2S2O3 Trizma NH4CH3CO2 (N	None Or	Other		-

Verifed by/Date: MA og | Jola

Printed: 9/20/2021 12:36:14PM



3600 Fremont Ave. N.
Seattle, WA 98103
T: (206) 352-3790
F: (206) 352-7178
info@fremontanalytical.com

Apex Laboratories Philip Nerenberg 6700 SW Sandburg St Tigard, OR 97223

RE: A1K0892

Work Order Number: 2111482

December 09, 2021

Attention Philip Nerenberg:

Fremont Analytical, Inc. received 7 sample(s) on 11/23/2021 for the analyses presented in the following report.

Extractable Petroleum Hydrocarbons by NWEPH Volatile Petroleum Hydrocarbons by NWVPH

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Brianna Barnes Project Manager CC: Sub Data

DoD-ELAP Accreditation #79636 by PJLA, ISO/IEC 17025:2017 and QSM 5.3 for Environmental Testing ORELAP Certification: WA 100009 (NELAP Recognized) for Environmental Testing Washington State Department of Ecology Accredited for Environmental Testing, Lab ID C910

Date: 04/26/2023



CLIENT: Apex Laboratories Work Order Sample Summary

Project: A1K0892 Work Order: 2111482

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2111482-001	GW-PZ-01-1121	11/17/2021 5:40 PM	11/23/2021 10:43 AM
2111482-002	GW-PZ-02-1121	11/17/2021 3:35 PM	11/23/2021 10:43 AM
2111482-003	GW-PZ-03-1121	11/17/2021 12:05 PM	11/23/2021 10:43 AM
2111482-004	GW-PZ-04-1121	11/17/2021 10:32 AM	11/23/2021 10:43 AM
2111482-005	GW-Dup-1-1121	11/17/2021 3:40 PM	11/23/2021 10:43 AM
2111482-006	GW-Equipment-Blank-1121	11/17/2021 6:10 PM	11/23/2021 10:43 AM
2111482-007	GW-Trip-Blank-1121	11/17/2021 8:00 AM	11/23/2021 10:43 AM



Case Narrative

WO#: 2111482 Date: 12/9/2021

CLIENT: Apex Laboratories

Project: A1K0892

I. SAMPLE RECEIPT:

Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:

Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Rev 1: Results have been expressed to the MDL per client request. Detections between the MDL and PQL will be qualified with a J.



Qualifiers & Acronyms

WO#: 2111482

Date Reported: 12/9/2021

Qualifiers:

- * Associated LCS is outside of control limits
- B Analyte detected in the associated Method Blank
- D Dilution was required
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- I Analyte with an internal standard that does not meet established acceptance criteria
- J Analyte detected below Reporting Limit
- N Tentatively Identified Compound (TIC)
- Q Analyte with an initial or continuing calibration that does not meet established acceptance criteria
- S Spike recovery outside accepted recovery limits
- ND Not detected at the Method Detection Limit
- R High relative percent difference observed

Acronyms:

%Rec - Percent Recovery

CCB - Continued Calibration Blank

CCV - Continued Calibration Verification

DF - Dilution Factor

DUP - Sample Duplicate

HEM - Hexane Extractable Material

ICV - Initial Calibration Verification

LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate

MCL - Maximum Contaminant Level

MB or MBLANK - Method Blank

MDL - Method Detection Limit

MS/MSD - Matrix Spike / Matrix Spike Duplicate

PDS - Post Digestion Spike

Ref Val - Reference Value

REP - Sample Replicate

RL - Reporting Limit

RPD - Relative Percent Difference

SD - Serial Dilution

SGT - Silica Gel Treatment

SPK - Spike

Surr - Surrogate



Work Order: 2111482
Date Reported: 12/9/2021

Client: Apex Laboratories Collection Date: 11/17/2021 5:40:00 PM

Project: A1K0892

Lab ID: 2111482-001 **Matrix:** Water

Client Sample ID: GW-PZ-01-1121

Analyses	Result	RL	MDL	Qual	Units	DF	Date Analyzed
Extractable Petroleum Hydrocar	bons by NWEP	<u> </u>		Batcl	h ID: 3457	6	Analyst: MM
Aliphatic Hydrocarbon (C8-C10)	ND	79.9	39.6		μg/L	1	12/08/21 9:01:42
Aliphatic Hydrocarbon (C10-C12)	ND	39.9	20.6		μg/L	1	12/08/21 9:01:42
Aliphatic Hydrocarbon (C12-C16)	ND	39.9	9.84		μg/L	1	12/08/21 9:01:42
Aliphatic Hydrocarbon (C16-C21)	ND	39.9	14.3		µg/L	1	12/08/21 9:01:42
Aliphatic Hydrocarbon (C21-C34)	ND	39.9	22.6	*	μg/L	1	12/08/21 9:01:42
Aromatic Hydrocarbon (C8-C10)	ND	79.9	26.0		μg/L	1	12/07/21 20:38:44
Aromatic Hydrocarbon (C10-C12)	ND	39.9	8.89		μg/L	1	12/07/21 20:38:44
Aromatic Hydrocarbon (C12-C16)	ND	39.9	6.98		μg/L	1	12/07/21 20:38:44
Aromatic Hydrocarbon (C16-C21)	17.0	39.9	12.8	J	μg/L	1	12/07/21 20:38:44
Aromatic Hydrocarbon (C21-C34)	ND	39.9	26.5		μg/L	1	12/07/21 20:38:44
Surr: 1-Chlorooctadecane	55.1	60 - 140		S	%Rec	1	12/08/21 9:01:42
Surr: o-Terphenyl	73.2	60 - 140			%Rec	1	12/07/21 20:38:44

^{* -} Associated LCS does not meet acceptance criteria; refer to QC summary.

olatile Petroleum Hydrocarbons	by NWVPH			Batch	ID: 3457	8	Analyst: SLL
Aliphatic Hydrocarbon (C5-C6)	ND	25.0	7.24		μg/L	1	11/30/21 0:40:53
Aliphatic Hydrocarbon (C6-C8)	ND	45.0	22.1		μg/L	1	11/30/21 0:40:53
Aliphatic Hydrocarbon (C8-C10)	14.0	20.0	6.78	J	μg/L	1	11/30/21 0:40:53
Aliphatic Hydrocarbon (C10-C12)	ND	25.0	12.2		μg/L	1	11/30/21 0:40:53
Aromatic Hydrocarbon (C8-C10)	ND	50.0	35.5		μg/L	1	11/30/21 0:40:53
Aromatic Hydrocarbon (C10-C12)	ND	20.0	5.87		µg/L	1	11/30/21 0:40:53
Aromatic Hydrocarbon (C12-C13)	ND	25.0	7.76		µg/L	1	11/30/21 0:40:53
Benzene	ND	20.0	5.04		µg/L	1	11/30/21 0:40:53
Toluene	ND	25.0	5.92		μg/L	1	11/30/21 0:40:53
Ethylbenzene	ND	25.0	12.5		μg/L	1	11/30/21 0:40:53
m,p-Xylene	ND	40.0	13.8		μg/L	1	11/30/21 0:40:53
o-Xylene	ND	20.0	5.99		μg/L	1	11/30/21 0:40:53
Naphthalene	ND	40.0	19.6		μg/L	1	11/30/21 0:40:53
Methyl tert-butyl ether (MTBE)	ND	25.0	10.9		μg/L	1	11/30/21 0:40:53

S - Outlying surrogate recovery(ies) observed.



Work Order: 2111482

Date Reported: 12/9/2021

Client: Apex Laboratories Collection Date: 11/17/2021 5:40:00 PM

Project: A1K0892

Lab ID: 2111482-001 **Matrix:** Water

Client Sample ID: GW-PZ-01-1121

Analyses	Result	RL	MDL	Qual	Units	DF	Date Analyzed
Volatile Petroleum Hydrocarbons by NWVPH				Batch	n ID: 3457	8	Analyst: SLL
Surr: 1,4-Difluorobenzene	80.7	65 - 140	0		%Rec	1	11/30/21 0:40:53
Surr: Bromofluorobenzene	94.0	65 - 140	0		%Rec	1	11/30/21 0:40:53



Work Order: 2111482
Date Reported: 12/9/2021

Client: Apex Laboratories Collection Date: 11/17/2021 3:35:00 PM

Project: A1K0892

Lab ID: 2111482-002 **Matrix:** Water

Client Sample ID: GW-PZ-02-1121

Result	RL	MDL	Qual	Units	DF	Date Analyzed
bons by NWEP	<u>'H</u>		Batcl	h ID: 3457	6	Analyst: MM
ND	79.4	39.3		μg/L	1	12/08/21 9:54:36
ND	39.7	20.5		μg/L	1	12/08/21 9:54:36
ND	39.7	9.78		μg/L	1	12/08/21 9:54:36
ND	39.7	14.2		µg/L	1	12/08/21 9:54:36
ND	39.7	22.4	*	μg/L	1	12/08/21 9:54:36
ND	79.4	25.9		μg/L	1	12/07/21 21:31:48
ND	39.7	8.84		μg/L	1	12/07/21 21:31:48
ND	39.7	6.93		µg/L	1	12/07/21 21:31:48
ND	39.7	12.7		µg/L	1	12/07/21 21:31:48
ND	39.7	26.4		µg/L	1	12/07/21 21:31:48
50.3	60 - 140		S	%Rec	1	12/08/21 9:54:36
75.5	60 - 140			%Rec	1	12/07/21 21:31:48
	ND ND ND ND ND ND ND ND ND ND ND ND ND N	ND 79.4 ND 39.7 ND 39.7 ND 39.7 ND 39.7 ND 39.7 ND 39.7 ND 39.7 ND 39.7 ND 39.7 ND 39.7 ND 39.7 ND 39.7 ND 39.7 ND 39.7 ND 39.7	ND 79.4 39.3 ND 39.7 20.5 ND 39.7 9.78 ND 39.7 14.2 ND 39.7 22.4 ND 79.4 25.9 ND 39.7 8.84 ND 39.7 6.93 ND 39.7 6.93 ND 39.7 12.7 ND 39.7 26.4 50.3 60 - 140	ND 79.4 39.3 ND 39.7 20.5 * ND 39.7 9.78 ND 39.7 14.2 ND 39.7 22.4 * ND 79.4 25.9 ND 39.7 8.84 ND 39.7 6.93 ND 39.7 12.7 ND 39.7 26.4 50.3 60 - 140 S	ND 79.4 39.3 µg/L ND 39.7 20.5 * µg/L ND 39.7 9.78 µg/L ND 39.7 14.2 µg/L ND 39.7 22.4 * µg/L ND 79.4 25.9 µg/L ND 39.7 8.84 µg/L ND 39.7 8.84 µg/L ND 39.7 6.93 µg/L ND 39.7 6.93 µg/L ND 39.7 12.7 µg/L ND 39.7 12.7 µg/L ND 39.7 26.4 µg/L Solution S %Rec	Doons by NWEPH Batch ID: 34576 ND 79.4 39.3 µg/L 1 ND 39.7 20.5 * µg/L 1 ND 39.7 9.78 µg/L 1 ND 39.7 14.2 µg/L 1 ND 39.7 22.4 * µg/L 1 ND 79.4 25.9 µg/L 1 ND 39.7 8.84 µg/L 1 ND 39.7 6.93 µg/L 1 ND 39.7 12.7 µg/L 1 ND 39.7 26.4 µg/L 1 50.3 60 - 140 S %Rec 1

^{* -} Associated LCS does not meet acceptance criteria; refer to QC summary.

/olatile Petroleum Hydrocarbons	by NWVPH			Batch	D: 3457	8	Analyst: SLL
Aliphatic Hydrocarbon (C5-C6)	ND	25.0	7.24		μg/L	1	11/30/21 14:08:39
Aliphatic Hydrocarbon (C6-C8)	ND	45.0	22.1		μg/L	1	11/30/21 14:08:39
Aliphatic Hydrocarbon (C8-C10)	13.5	20.0	6.78	J	μg/L	1	11/30/21 14:08:39
Aliphatic Hydrocarbon (C10-C12)	ND	25.0	12.2		μg/L	1	11/30/21 14:08:39
Aromatic Hydrocarbon (C8-C10)	ND	50.0	35.5		µg/L	1	11/30/21 14:08:39
Aromatic Hydrocarbon (C10-C12)	ND	20.0	5.87		µg/L	1	11/30/21 14:08:39
Aromatic Hydrocarbon (C12-C13)	ND	25.0	7.76		µg/L	1	11/30/21 14:08:39
Benzene	ND	20.0	5.04		μg/L	1	11/30/21 14:08:39
Toluene	ND	25.0	5.92		µg/L	1	11/30/21 14:08:39
Ethylbenzene	ND	25.0	12.5		μg/L	1	11/30/21 14:08:39
m,p-Xylene	ND	40.0	13.8		μg/L	1	11/30/21 14:08:39
o-Xylene	ND	20.0	5.99		μg/L	1	11/30/21 14:08:39
Naphthalene	ND	40.0	19.6		μg/L	1	11/30/21 14:08:39
Methyl tert-butyl ether (MTBE)	ND	25.0	10.9		μg/L	1	11/30/21 14:08:39

S - Outlying surrogate recovery(ies) observed.



Work Order: 2111482
Date Reported: 12/9/2021

Client: Apex Laboratories Collection Date: 11/17/2021 3:35:00 PM

Project: A1K0892

Lab ID: 2111482-002 Matrix: Water

Client Sample ID: GW-PZ-02-1121

Analyses	Result	RL	MDL	Qual	Units	DF	Date Analyzed	
Volatile Petroleum Hydrocarbons by NWVPH				Batch	ch ID: 34578		Analyst: SLL	
Surr: 1,4-Difluorobenzene 75.9		65 - 140	0		%Rec	1	11/30/21 14:08:39	
Surr: Bromofluorobenzene	92.2	65 - 140	0		%Rec	1	11/30/21 14:08:39	



Work Order: 2111482
Date Reported: 12/9/2021

Client: Apex Laboratories Collection Date: 11/17/2021 12:05:00 PM

Project: A1K0892

Lab ID: 2111482-003 **Matrix:** Water

Client Sample ID: GW-PZ-03-1121

Analyses	Result	RL	MDL	Qual	Units	DF	Date Analyzed
Extractable Petroleum Hydrocar	bons by NWEP	<u>H</u>		Batch	n ID: 3457	6	Analyst: MM
Aliphatic Hydrocarbon (C8-C10)	ND	80.0	39.6		μg/L	1	12/08/21 10:47:40
Aliphatic Hydrocarbon (C10-C12)	ND	40.0	20.7	*	µg/L	1	12/08/21 10:47:40
Aliphatic Hydrocarbon (C12-C16)	ND	40.0	9.85		µg/L	1	12/08/21 10:47:40
Aliphatic Hydrocarbon (C16-C21)	ND	40.0	14.3		µg/L	1	12/08/21 10:47:40
Aliphatic Hydrocarbon (C21-C34)	ND	40.0	22.6		μg/L	1	12/08/21 10:47:40
Aromatic Hydrocarbon (C8-C10)	ND	80.0	26.1		μg/L	1	12/07/21 22:24:58
Aromatic Hydrocarbon (C10-C12)	ND	40.0	8.90		μg/L	1	12/07/21 22:24:58
Aromatic Hydrocarbon (C12-C16)	ND	40.0	6.98		μg/L	1	12/07/21 22:24:58
Aromatic Hydrocarbon (C16-C21)	168	40.0	12.8		μg/L	1	12/07/21 22:24:58
Aromatic Hydrocarbon (C21-C34)	93.6	40.0	26.6		µg/L	1	12/07/21 22:24:58
Surr: 1-Chlorooctadecane	51.1	60 - 140		S	%Rec	1	12/08/21 10:47:40
Surr: o-Terphenyl	76.1	60 - 140			%Rec	1	12/07/21 22:24:58

^{* -} Associated LCS does not meet acceptance criteria; refer to QC summary.

olatile Petroleum Hydrocarbons	by NWVPH			Batch	ID: 3457	8	Analyst: SLL
Aliphatic Hydrocarbon (C5-C6)	ND	25.0	7.24		μg/L	1	11/30/21 1:19:59
Aliphatic Hydrocarbon (C6-C8)	ND	45.0	22.1		μg/L	1	11/30/21 1:19:59
Aliphatic Hydrocarbon (C8-C10)	12.7	20.0	6.78	J	μg/L	1	11/30/21 1:19:59
Aliphatic Hydrocarbon (C10-C12)	ND	25.0	12.2		μg/L	1	11/30/21 1:19:59
Aromatic Hydrocarbon (C8-C10)	ND	50.0	35.5		μg/L	1	11/30/21 1:19:59
Aromatic Hydrocarbon (C10-C12)	ND	20.0	5.87		μg/L	1	11/30/21 1:19:59
Aromatic Hydrocarbon (C12-C13)	ND	25.0	7.76		μg/L	1	11/30/21 1:19:59
Benzene	ND	20.0	5.04		μg/L	1	11/30/21 1:19:59
Toluene	ND	25.0	5.92		μg/L	1	11/30/21 1:19:59
Ethylbenzene	ND	25.0	12.5		μg/L	1	11/30/21 1:19:59
m,p-Xylene	ND	40.0	13.8		μg/L	1	11/30/21 1:19:59
o-Xylene	ND	20.0	5.99		μg/L	1	11/30/21 1:19:59
Naphthalene	ND	40.0	19.6		μg/L	1	11/30/21 1:19:59
Methyl tert-butyl ether (MTBE)	ND	25.0	10.9		μg/L	1	11/30/21 1:19:59

S - Outlying surrogate recovery(ies) observed. A duplicate analysis was performed and recovered within range.



Work Order: 2111482
Date Reported: 12/9/2021

Client: Apex Laboratories Collection Date: 11/17/2021 12:05:00 PM

Project: A1K0892

Lab ID: 2111482-003 Matrix: Water

Client Sample ID: GW-PZ-03-1121

Analyses	Result	RL	MDL	Qual	Units	DF	Date Analyzed
Volatile Petroleum Hydrocarbons by NWVPH				Batch	n ID: 3457	8	Analyst: SLL
Surr: 1,4-Difluorobenzene	79.7	65 - 140	0		%Rec	1	11/30/21 1:19:59
Surr: Bromofluorobenzene	93.7	65 - 140	0		%Rec	1	11/30/21 1:19:59



Work Order: 2111482
Date Reported: 12/9/2021

Client: Apex Laboratories Collection Date: 11/17/2021 10:32:00 AM

Project: A1K0892

Lab ID: 2111482-004 **Matrix:** Water

Client Sample ID: GW-PZ-04-1121

Analyses	Result	RL	MDL	Qual	Units	DF	Date Analyzed
Extractable Petroleum Hydrocar	bons by NWEP	<u> </u>		Batch	n ID: 3457	6	Analyst: MM
Aliphatic Hydrocarbon (C8-C10)	ND	79.8	39.5		μg/L	1	12/08/21 12:33:45
Aliphatic Hydrocarbon (C10-C12)	ND	39.9	20.6		µg/L	1	12/08/21 12:33:45
Aliphatic Hydrocarbon (C12-C16)	ND	39.9	9.82		µg/L	1	12/08/21 12:33:45
Aliphatic Hydrocarbon (C16-C21)	ND	39.9	14.2		µg/L	1	12/08/21 12:33:45
Aliphatic Hydrocarbon (C21-C34)	ND	39.9	22.5		μg/L	1	12/08/21 12:33:45
Aromatic Hydrocarbon (C8-C10)	27.4	79.8	26.0	J	µg/L	1	12/08/21 0:11:11
Aromatic Hydrocarbon (C10-C12)	ND	39.9	8.88		μg/L	1	12/08/21 0:11:11
Aromatic Hydrocarbon (C12-C16)	ND	39.9	6.96		μg/L	1	12/08/21 0:11:11
Aromatic Hydrocarbon (C16-C21)	ND	39.9	12.7		μg/L	1	12/08/21 0:11:11
Aromatic Hydrocarbon (C21-C34)	ND	39.9	26.5		µg/L	1	12/08/21 0:11:11
Surr: 1-Chlorooctadecane	45.4	60 - 140		S	%Rec	1	12/08/21 12:33:45
Surr: o-Terphenyl	69.2	60 - 140			%Rec	1	12/08/21 0:11:11

^{* -} Associated LCS does not meet acceptance criteria; refer to QC summary.

olatile Petroleum Hydrocarbons	by NWVPH			Batch	ID: 3457	8	Analyst: SLL
Aliphatic Hydrocarbon (C5-C6)	ND	25.0	7.24		μg/L	1	11/30/21 1:59:01
Aliphatic Hydrocarbon (C6-C8)	ND	45.0	22.1		μg/L	1	11/30/21 1:59:01
Aliphatic Hydrocarbon (C8-C10)	12.4	20.0	6.78	J	µg/L	1	11/30/21 1:59:01
Aliphatic Hydrocarbon (C10-C12)	ND	25.0	12.2		μg/L	1	11/30/21 1:59:01
Aromatic Hydrocarbon (C8-C10)	ND	50.0	35.5		μg/L	1	11/30/21 1:59:01
Aromatic Hydrocarbon (C10-C12)	ND	20.0	5.87		µg/L	1	11/30/21 1:59:01
Aromatic Hydrocarbon (C12-C13)	ND	25.0	7.76		µg/L	1	11/30/21 1:59:01
Benzene	ND	20.0	5.04		µg/L	1	11/30/21 1:59:01
Toluene	ND	25.0	5.92		μg/L	1	11/30/21 1:59:01
Ethylbenzene	ND	25.0	12.5		μg/L	1	11/30/21 1:59:01
m,p-Xylene	ND	40.0	13.8		µg/L	1	11/30/21 1:59:01
o-Xylene	ND	20.0	5.99		μg/L	1	11/30/21 1:59:01
Naphthalene	ND	40.0	19.6		μg/L	1	11/30/21 1:59:01
Methyl tert-butyl ether (MTBE)	ND	25.0	10.9		μg/L	1	11/30/21 1:59:01

S - Outlying surrogate recovery(ies) observed.



Work Order: 2111482
Date Reported: 12/9/2021

Client: Apex Laboratories Collection Date: 11/17/2021 10:32:00 AM

Project: A1K0892

Lab ID: 2111482-004 **Matrix:** Water

Client Sample ID: GW-PZ-04-1121

Analyses	Result	RL	MDL	Qual	Units	DF	Date Analyzed
Volatile Petroleum Hydrocarbo			Batch	n ID: 3457	8	Analyst: SLL	
Surr: 1,4-Difluorobenzene	77.2	65 - 140	0		%Rec	1	11/30/21 1:59:01
Surr: Bromofluorobenzene	97.4	65 - 140	0		%Rec	1	11/30/21 1:59:01



Work Order: 2111482

Date Reported: 12/9/2021

Client: Apex Laboratories Collection Date: 11/17/2021 3:40:00 PM

Project: A1K0892

Lab ID: 2111482-005 **Matrix:** Water

Client Sample ID: GW-Dup-1-1121

Analyses	Result	RL	MDL	Qual	Units	DF	Date Analyzed
Extractable Petroleum Hydrocarbons by NWEPH				Batcl	n ID: 3457	6	Analyst: MM
Aliphatic Hydrocarbon (C8-C10)	ND	79.7	39.5		μg/L	1	12/08/21 13:26:46
Aliphatic Hydrocarbon (C10-C12)	ND	39.8	20.6		μg/L	1	12/08/21 13:26:46
Aliphatic Hydrocarbon (C12-C16)	ND	39.8	9.81		μg/L	1	12/08/21 13:26:46
Aliphatic Hydrocarbon (C16-C21)	ND	39.8	14.2		μg/L	1	12/08/21 13:26:46
Aliphatic Hydrocarbon (C21-C34)	ND	39.8	22.5		μg/L	1	12/08/21 13:26:46
Aromatic Hydrocarbon (C8-C10)	ND	79.7	26.0		μg/L	1	12/08/21 1:04:09
Aromatic Hydrocarbon (C10-C12)	ND	39.8	8.87		μg/L	1	12/08/21 1:04:09
Aromatic Hydrocarbon (C12-C16)	ND	39.8	6.96		μg/L	1	12/08/21 1:04:09
Aromatic Hydrocarbon (C16-C21)	ND	39.8	12.7		μg/L	1	12/08/21 1:04:09
Aromatic Hydrocarbon (C21-C34)	ND	39.8	26.5		μg/L	1	12/08/21 1:04:09
Surr: 1-Chlorooctadecane	47.2	60 - 140		S	%Rec	1	12/08/21 13:26:46
Surr: o-Terphenyl	67.6	60 - 140			%Rec	1	12/08/21 1:04:09

^{* -} Associated LCS does not meet acceptance criteria; refer to QC summary.

/olatile Petroleum Hydrocarbons	by NWVPH			Batch	ID: 3457	8	Analyst: SLL
Aliphatic Hydrocarbon (C5-C6)	ND	25.0	7.24		μg/L	1	11/30/21 14:48:07
Aliphatic Hydrocarbon (C6-C8)	ND	45.0	22.1		μg/L	1	11/30/21 14:48:07
Aliphatic Hydrocarbon (C8-C10)	12.7	20.0	6.78	J	μg/L	1	11/30/21 14:48:07
Aliphatic Hydrocarbon (C10-C12)	ND	25.0	12.2		μg/L	1	11/30/21 14:48:07
Aromatic Hydrocarbon (C8-C10)	ND	50.0	35.5		μg/L	1	11/30/21 14:48:07
Aromatic Hydrocarbon (C10-C12)	ND	20.0	5.87		μg/L	1	11/30/21 14:48:07
Aromatic Hydrocarbon (C12-C13)	ND	25.0	7.76		μg/L	1	11/30/21 14:48:07
Benzene	ND	20.0	5.04		μg/L	1	11/30/21 14:48:07
Toluene	ND	25.0	5.92		μg/L	1	11/30/21 14:48:07
Ethylbenzene	ND	25.0	12.5		μg/L	1	11/30/21 14:48:07
m,p-Xylene	ND	40.0	13.8		μg/L	1	11/30/21 14:48:07
o-Xylene	ND	20.0	5.99		μg/L	1	11/30/21 14:48:07
Naphthalene	ND	40.0	19.6		μg/L	1	11/30/21 14:48:07
Methyl tert-butyl ether (MTBE)	ND	25.0	10.9		μg/L	1	11/30/21 14:48:07

S - Outlying surrogate recovery(ies) observed.



Work Order: 2111482
Date Reported: 12/9/2021

Client: Apex Laboratories Collection Date: 11/17/2021 3:40:00 PM

Project: A1K0892

Lab ID: 2111482-005 Matrix: Water

Client Sample ID: GW-Dup-1-1121

Analyses	Result	RL	MDL	Qual	Units	DF	Date Analyzed
Volatile Petroleum Hydrocarbon	ns by NWVPH			Batch	n ID: 3457	8	Analyst: SLL
Surr: 1,4-Difluorobenzene	74.4	65 - 140	0		%Rec	1	11/30/21 14:48:07
Surr: Bromofluorobenzene	91.0	65 - 140	0		%Rec	1	11/30/21 14:48:07



Work Order: 2111482
Date Reported: 12/9/2021

Client: Apex Laboratories Collection Date: 11/17/2021 6:10:00 PM

Project: A1K0892

Lab ID: 2111482-006 **Matrix**: Water

Client Sample ID: GW-Equipment-Blank-1121

Analyses	Result	RL	MDL	Qual	Units	DF	Date Analyzed
Extractable Petroleum Hydrocarl	bons by NWEP	<u>H</u>		Batch	n ID: 3457	6	Analyst: MM
Aliphatic Hydrocarbon (C8-C10)	ND	79.8	39.5		μg/L	1	12/08/21 14:20:08
Aliphatic Hydrocarbon (C10-C12)	ND	39.9	20.6		μg/L	1	12/08/21 14:20:08
Aliphatic Hydrocarbon (C12-C16)	ND	39.9	9.84		μg/L	1	12/08/21 14:20:08
Aliphatic Hydrocarbon (C16-C21)	ND	39.9	14.3		µg/L	1	12/08/21 14:20:08
Aliphatic Hydrocarbon (C21-C34)	ND	39.9	22.6		μg/L	1	12/08/21 14:20:08
Aromatic Hydrocarbon (C8-C10)	ND	79.8	26.0		μg/L	1	12/08/21 1:57:33
Aromatic Hydrocarbon (C10-C12)	ND	39.9	8.89		μg/L	1	12/08/21 1:57:33
Aromatic Hydrocarbon (C12-C16)	ND	39.9	6.97		μg/L	1	12/08/21 1:57:33
Aromatic Hydrocarbon (C16-C21)	ND	39.9	12.8		μg/L	1	12/08/21 1:57:33
Aromatic Hydrocarbon (C21-C34)	27.9	39.9	26.5	J	μg/L	1	12/08/21 1:57:33
Surr: 1-Chlorooctadecane	77.6	60 - 140			%Rec	1	12/08/21 14:20:08
Surr: o-Terphenyl	81.1	60 - 140			%Rec	1	12/08/21 1:57:33

^{* -} Associated LCS does not meet acceptance criteria; refer to QC summary.

Volatile Petroleum Hydrocarbons	by NWVPH			Batc	h ID: 3457	8	Analyst: SLL
Aliphatic Hydrocarbon (C5-C6)	24.4	25.0	7.24	J	μg/L	1	11/30/21 15:27:04
Aliphatic Hydrocarbon (C6-C8)	ND	45.0	22.1		µg/L	1	11/30/21 15:27:04
Aliphatic Hydrocarbon (C8-C10)	12.9	20.0	6.78	J	µg/L	1	11/30/21 15:27:04
Aliphatic Hydrocarbon (C10-C12)	ND	25.0	12.2		µg/L	1	11/30/21 15:27:04
Aromatic Hydrocarbon (C8-C10)	ND	50.0	35.5		µg/L	1	11/30/21 15:27:04
Aromatic Hydrocarbon (C10-C12)	ND	20.0	5.87		µg/L	1	11/30/21 15:27:04
Aromatic Hydrocarbon (C12-C13)	ND	25.0	7.76		µg/L	1	11/30/21 15:27:04
Benzene	ND	20.0	5.04		µg/L	1	11/30/21 15:27:04
Toluene	ND	25.0	5.92		µg/L	1	11/30/21 15:27:04
Ethylbenzene	ND	25.0	12.5		µg/L	1	11/30/21 15:27:04
m,p-Xylene	ND	40.0	13.8		µg/L	1	11/30/21 15:27:04
o-Xylene	ND	20.0	5.99		μg/L	1	11/30/21 15:27:04
Naphthalene	ND	40.0	19.6		µg/L	1	11/30/21 15:27:04
Methyl tert-butyl ether (MTBE)	ND	25.0	10.9		µg/L	1	11/30/21 15:27:04
Surr: 1,4-Difluorobenzene	75.2	65 - 140	0		%Rec	1	11/30/21 15:27:04



Work Order: 2111482

Date Reported: 12/9/2021

Client: Apex Laboratories Collection Date: 11/17/2021 6:10:00 PM

Project: A1K0892

Lab ID: 2111482-006 Matrix: Water

Client Sample ID: GW-Equipment-Blank-1121

Analyses Result RL MDL Qual Units DF Date Analyzed

Volatile Petroleum Hydrocarbons by NWVPH

Surr: Bromofluorobenzene 91.8 65 - 140 0 %Rec 1 11/30/21 15:27:04



Work Order: 2111482
Date Reported: 12/9/2021

Client: Apex Laboratories Collection Date: 11/17/2021 8:00:00 AM

Project: A1K0892

Lab ID: 2111482-007 **Matrix:** Water

Client Sample ID: GW-Trip-Blank-1121

Analyses	Result	RL	MDL	Qual	Units	DF	Date Analyzed
Volatile Petroleum Hydrocarbon	s by NWVPH			Batch	ID: 3457	8	Analyst: SLL
Aliphatic Hydrocarbon (C5-C6)	ND	25.0	7.24		μg/L	1	11/29/21 19:29:17
Aliphatic Hydrocarbon (C6-C8)	ND	45.0	22.1		µg/L	1	11/29/21 19:29:17
Aliphatic Hydrocarbon (C8-C10)	13.9	20.0	6.78	J	µg/L	1	11/29/21 19:29:17
Aliphatic Hydrocarbon (C10-C12)	ND	25.0	12.2		µg/L	1	11/29/21 19:29:17
Aromatic Hydrocarbon (C8-C10)	ND	50.0	35.5		μg/L	1	11/29/21 19:29:17
Aromatic Hydrocarbon (C10-C12)	34.9	20.0	5.87		μg/L	1	11/29/21 19:29:17
Aromatic Hydrocarbon (C12-C13)	390	25.0	7.76		μg/L	1	11/29/21 19:29:17
Benzene	ND	20.0	5.04		μg/L	1	11/29/21 19:29:17
Toluene	ND	25.0	5.92		μg/L	1	11/29/21 19:29:17
Ethylbenzene	ND	25.0	12.5		μg/L	1	11/29/21 19:29:17
m,p-Xylene	ND	40.0	13.8		µg/L	1	11/29/21 19:29:17
o-Xylene	ND	20.0	5.99		μg/L	1	11/29/21 19:29:17
Naphthalene	ND	40.0	19.6	Q	μg/L	1	11/29/21 19:29:17
Methyl tert-butyl ether (MTBE)	ND	25.0	10.9		µg/L	1	11/29/21 19:29:17
Surr: 1,4-Difluorobenzene	69.1	65 - 140	0		%Rec	1	11/29/21 19:29:17
Surr: Bromofluorobenzene	90.0	65 - 140	0		%Rec	1	11/29/21 19:29:17

Q - Associated calibration verification is below acceptance criteria. Result may be low-biased.



Apex Laboratories CLIENT:

A1K0892 Project:

Extractable Petroleum Hydrocarbons by NWEPH

QC SUMMARY REPORT

Date: 12/9/2021

Sample ID: MB-34576	SampType: MBLK	¥		Units: µg/L		Prep Date:	: 11/29/2021	RunNo: 71826	
Client ID: MBLKW	Batch ID: 34576	92				Analysis Date	Analysis Date: 12/7/2021	SeqNo: 1465058	
Analyte	Result	R	SPK value	SPK Ref Val	%REC	LowLimit	%REC LowLimit HighLimit RPD Ref Val	I %RPD RPDLimit	t Qual
Aromatic Hydrocarbon (C8-C10)	QN	80.1		0	0				
Aromatic Hydrocarbon (C10-C12)	QN	40.0		0	0				
Aromatic Hydrocarbon (C12-C16)	QN	40.0		0	0				
Aromatic Hydrocarbon (C16-C21)	QN	40.0		0	0				
Aromatic Hydrocarbon (C21-C34)	QN	40.0		0	0				
Surr: o-Terphenyl	274		400.4		68.4	09	140		
Sample ID: LCS-34576	SampType: LCS			Units: µg/L		Prep Date	Prep Date: 11/29/2021	RunNo: 71826	
Client ID: LCSW	Batch ID: 34576	92			7	Analysis Date	Analysis Date: 12/7/2021	SeqNo: 1465059	
Analyte	Result	R	SPK value	SPK Rof Val	%REC	LowLimit	HighLimit RPD Ref Val	I %RPD RPDLimit	t Qual
Aromatic Hydrocarbon (C8-C10)	451	79.9	0.666	0	45.1	24.3	130		
Aromatic Hydrocarbon (C10-C12)	353	40.0	499.5	0	7.07	20	130		
Aromatic Hydrocarbon (C12-C16)	401	40.0	499.5	0	80.3	70	130		
Aromatic Hydrocarbon (C16-C21)	449	40.0	499.5	0	89.9	02	130		
Aromatic Hydrocarbon (C21-C34)	454	40.0	499.5	0	6.06	70	130		
Surr: o-Terphenyl	331		399.6		82.9	09	140		

Sample ID: LCSD-34576	SampType: LCSD			Units: pg/L		Prep Date:	e: 11/29/2021	1021	RunNo: 71826	826	
Client ID: LCSW02	Batch ID: 34576					Analysis Date:	e: 12/7/2021	121	SeqNo: 1465060	09059	
Analyte	Result	చ	SPK value	SPK value SPK Ref Val	%REC	LowLimit	HighLimit	%REC LowLimit HighLimit RPD Ref Val	%RPD	%RPD RPDLimit Qual	Qual
Aromatic Hydrocarbon (C8-C10)	378	6.62	998.7	0	37.9	24.3	130	450.9	17.6	20	
Aromatic Hydrocarbon (C10-C12)	310	39.9	499.3	0	62.1	70	130	353.0	12.9	20	S
Aromatic Hydrocarbon (C12-C16)	350	39.9	499.3	0	70.2	70	130	401.2	13.5	20	
Aromatic Hydrocarbon (C16-C21)	390	39.9	499.3	0	78.2	70	130	449.0	14.0	20	
Aromatic Hydrocarbon (C21-C34)	445	39.9	499.3	0	89.0	70	130	453.8	2.07	20	
Surr: o-Terphenyl	298		399.5		74.7	09	140		0		
NOTES:											

S - Outlying spike recovery(ies) observed. A duplicate analysis was performed and recovered within range.



2111482 Apex Laboratories

QC SUMMARY REPORT

Date: 12/9/2021

CLIENT: Project:

Project:	A1K0892						Extra	Extractable Petroleum Hydrocarbons by NWEPH	eum Hy	drocarbo	ons by N	WEP
Sample ID: 2111482-003BMS	2-003BMS	SampType: MS			Units: µg/L		Prep Date:	9: 11/29/2021	4	RunNo: 71826	56	
Client ID: GW-PZ-03-1121	-03-1121	Batch ID: 34576					Analysis Date: 12/7/2021	3: 12/7/2021	(J)	SeqNo: 1465065	2902	
Analyte		Result	RL	SPK value	SPK value SPK Ref Val	%REC	LowLimit	%REC LowLimit HighLimit RPD Ref Val	ef Val	%RPD	%RPD RPDLimit Qual	Qual
Aromatic Hydrocarbon (C8-C10)	on (C8-C10)	265	79.2	990.3	0	26.8	6.65	130				
Aromatic Hydrocarbon (C10-C12)	on (C10-C12)	253	39.6	495.1	0	51.0	70	130				S
Aromatic Hydrocarbon (C12-C16)	on (C12-C16)	327	39.6	495.1	0	0.99	70	130				S
Aromatic Hydrocarbon (C16-C21)	on (C16-C21)	368	39.6	495.1	167.7	40.4	02	130				S
Aromatic Hydrocarbon (C21-C34)	on (C21-C34)	202	39.6	495.1	93.56	83.1	70	130				
Surr: o-Terphenyl		304		396.1		76.8	09	140				
NOTES:												
S - Outlying spike recovery(ies) observed	recovery(ies)	observed.										

Sample ID: MB-34576	SampType: MBLK			Units: µg/L		Prep Date	Prep Date: 11/29/2021	RunNo: 71825	
Client ID: MBLKW	Batch ID: 34576					Analysis Date	Analysis Date: 12/8/2021	SeqNo: 1464992	
Analyte	Result	씸	SPK value	SPK value SPK Ref Val	%REC	LowLimit	%REC LowLimit HighLimit RPD Ref Val	II %RPD RPDLimit Qual	Qual
Aliphatic Hydrocarbon (C8-C10)	QN	80.1		0	0				
Aliphatic Hydrocarbon (C10-C12)	QN	40.0		0	0				*
Aliphatic Hydrocarbon (C12-C16)	QN	40.0		0	0				
Aliphatic Hydrocarbon (C16-C21)	QN	40.0		0	0				
Aliphatic Hydrocarbon (C21-C34)	Q	40.0		0	0				*
Surr: 1-Chlorooctadecane	258		400.4		64.5	09	140		

* - Associated LCS does not meet acceptance criteria; refer to QC summary.

Sample ID: LCS-34576	SampType: LCS			Units: µg/L		Prep Date	Prep Date: 11/29/2021	_	RunNo: 71825	25	
Client ID: LCSW	Batch ID: 34576					Analysis Date:	12/8/2021	3)	SeqNo: 1464993	4993	
Analyte	Result	귐	SPK value	SPK value SPK Ref Val	%REC	LowLimit	%REC LowLimit HighLimit RPD Ref Val	f Val	%RPD	%RPD RPDLimit Qual	Qua
Aliphatic Hydrocarbon (C8-C10)	310	79.9	0.666	0	31.1	11.7	130				
Aliphatic Hydrocarbon (C10-C12)	270	40.0	499.5	0	54.0	70	130				S
Aliphatic Hydrocarbon (C12-C16)	351	40.0	499.5	0	70.3	70	130				
Aliphatic Hydrocarbon (C16-C21)	373	40.0	499.5	0	74.6	70	130				
Aliphatic Hydrocarbon (C21-C34)	206	40.0	499.5	0	41.2	70	130				S
Surr: 1-Chlorooctadecane	302		399.6		75.6	09	140				



Apex Laboratories CLIENT:

A1K0892 Project:

Extractable Petroleum Hydrocarbons by NWEPH

QC SUMMARY REPORT

Date: 12/9/2021

Qual %RPD RPDLimit SeqNo: 1464993 RunNo: 71825 %REC LowLimit HighLimit RPD Ref Val Prep Date: 11/29/2021 Analysis Date: 12/8/2021 Units: µg/L SPK value SPK Ref Val ᠴ Batch ID: 34576 Result SampType: LCS Sample ID: LCS-34576 Client ID: LCSW Analyte

NOTES:

S - Outlying spike recovery observed for (C10-C12) & (C21-C34). Samples will be qualified with a *.

Sample ID: LCSD-34576	SampType: LCSD			Units: µg/L		Prep Date:	te: 11/29/2021	021	RunNo: 71825	825	
Client ID: LCSW02	Batch ID: 34576					Analysis Date:	te: 12/8/2021	121	SeqNo: 1464994	64994	
Analyte	Result	R	SPK value	SPK value SPK Ref Val	%REC		HighLimit	LowLimit HighLimit RPD Ref Val	%RPD	%RPD RPDLimit	Qual
Aliphatic Hydrocarbon (C8-C10)	259	79.9	7.866	0	25.9	11.7	130	310.2	18.1	20	
Aliphatic Hydrocarbon (C10-C12)	246	39.9	499.3	0	49.3	70	130	269.5	9.08	20	S
Aliphatic Hydrocarbon (C12-C16)	325	39.9	499.3	0	65.2	70	130	351.2	7.60	20	S
Aliphatic Hydrocarbon (C16-C21)	363	39.9	499.3	0	72.6	70	130	372.5	2.68	20	
Aliphatic Hydrocarbon (C21-C34)	209	39.9	499.3	0	41.9	70	130	205.8	1.55	20	S
Surr: 1-Chlorooctadecane	288		399.5		72.0	09	140		0		
NOTES.											

NOTES: S - Outlying spike recovery observed for (C12-C16) . A duplicate analysis was performed and recovered within range.

S - Outlying spike recovery observed for (C10-C12) & (C21-C34) . Samples will be qualified with a *.

Sample ID: 2111482-003BMS	SampType: MS			Units: µg/L		Prep Dat	Prep Date: 11/29/2021	RunNo: 71825		
Client ID: GW-PZ-03-1121	Batch ID: 34576					Analysis Dat	Analysis Date: 12/8/2021	SeqNo: 1464958		
Analyte	Result	R	SPK value	SPK value SPK Ref Val	%REC	LowLimit	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual	Limit	Qual
Aliphatic Hydrocarbon (C8-C10)	150	79.2	990.3	0	15.2	80	130			
Aliphatic Hydrocarbon (C10-C12)	195	39.6	495.1	0	39.4	70	130			S
Aliphatic Hydrocarbon (C12-C16)	308	39.6	495.1	0	62.1	70	130			S
Aliphatic Hydrocarbon (C16-C21)	347	39.6	495.1	0	70.0	20	130			
Aliphatic Hydrocarbon (C21-C34)	188	39.6	495.1	0	38.0	20	130			S
Surr: 1-Chlorooctadecane	280		396.1		9.07	09	140			

NOTES:

S - Outlying spike recovery observed for (C10-C12), (C12-C16) & (C21-C34).



2111482 Apex Laboratories A1K0892

CLIENT: Project:

QC SUMMARY REPORT

Date: 12/9/2021

Volatile Petroleum Hydrocarbons by NWVPH

riged:									N I I I
Sample ID: LCS-34578	SampType: LCS			Units: µg/L		Prep Date:	11/29/2021	RunNo: 71696	
Client ID: LCSW	Batch ID: 34578					Analysis Date: 11/29/2021	11/29/2021	SeqNo: 1461360	
Analyte	Result	చ	SPK value	SPK Ref Val	%REC	LowLimit Hi	HighLimit RPD Ref Val	%RPD RPDLimit	Qual
Aliphatic Hydrocarbon (C5-C6)	581	25.0	0.009	0	8.96	70	130		
Aliphatic Hydrocarbon (C6-C8)	193	45.0	200.0	0	96.4	20	130		
Aliphatic Hydrocarbon (C8-C10)	196	20.0	200.0	0	98.2	70	130		
Aliphatic Hydrocarbon (C10-C12)	196	25.0	200.0	0	98.2	20	130		
Aromatic Hydrocarbon (C8-C10)	874	20.0	800.0	0	109	70	130		
Aromatic Hydrocarbon (C10-C12)	173	20.0	200.0	0	86.5	70	130		
Aromatic Hydrocarbon (C12-C13)	172	25.0	200.0	0	86.1	70	130		
Benzene	205	20.0	200.0	0	102	20	130		
Toluene	209	25.0	200.0	0	105	20	130		
Ethylbenzene	214	25.0	200.0	0	107	70	130		
m,p-Xylene	381	40.0	400.0	0	95.2	70	130		
o-Xylene	213	20.0	200.0	0	107	70	130		
Naphthalene	165	40.0	200.0	0	82.4	20	130		
Methyl tert-butyl ether (MTBE)	194	25.0	200.0	0	97.0	20	130		
Surr: 1,4-Difluorobenzene	47.3		50.00		94.6	99	140		
Surr: Bromofluorobenzene	45.0		50.00		0.06	92	140		
Sample ID: MB-34578	SampType: MBLK			Units: µg/L		Prep Date:	11/29/2021	RunNo: 71696	
Client ID: MBLKW	Batch ID: 34578					Analysis Date:	11/29/2021	SeqNo: 1461359	
Analyte	Result	చ	SPK value	SPK Ref Val	%REC	LowLimit Hi	HighLimit RPD Ref Val	%RPD RPDLimit	Qual
Aliphatic Hydrocarbon (C5-C6)	22.4	25.0		0	0				٦
Aliphatic Hydrocarbon (C6-C8)	Q	45.0		0	0				
Aliphatic Hydrocarbon (C8-C10)	13.4	20.0		0	0				7
Aliphatic Hydrocarbon (C10-C12)	Q	25.0		0	0				
Aromatic Hydrocarbon (C8-C10)	QN	20.0		0	0				
Aromatic Hydrocarbon (C10-C12)	QN	20.0		0	0				
Aromatic Hydrocarbon (C12-C13)	QN	25.0		0	0				
Benzene	QN	20.0		0	0				
Toluene	QN	25.0		0	0				
Ethylbenzene	QN	25.0		0	0				



Work Order:

2111482 Apex Laboratories CLIENT: Project:

A1K0892

Volatile Petroleum Hydrocarbons by NWVPH

QC SUMMARY REPORT

Date: 12/9/2021

MBLKW Batch ID: 34578 Analysis Date: 11 Result RL SPK value SPK Ref Val %REC LowLimit HighLi ND 40.0 40.0 0 0 0 0 e ND 40.0 0 0 0 0 butly ether (MTBE) ND 25.0 0 0 0 0 Diffluorobenzene 37.3 50.00 74.7 65 7 mofluorobenzene 45.5 50.00 91.0 65 7	Sample ID: MB-34578	SampType: MBLK	: MBLK			Units: hg/L		Prep Dat	Prep Date: 11/29/2021	2021	RunNo: 71696	969	
ND 40.0 ND A0.0 A0.0 ND A0.0 A0.0 ND A0.0 A0	Client ID: MBLKW	Batch ID:	34578					Analysis Dat	e: 11/29/2	1021	SeqNo: 1461359	61359	
ND 40.0 0 0 ND 20.0 0 0 t-butyl ether (MTBE) ND 40.0 0 0 t-butyl ether (MTBE) ND 25.0 0 0 37.3 37.3 50.00 74.7 65 comofluorobenzene 45.5 50.00 91.0 65	Analyte		Result	R	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	%RPD RPDLimit Qual	Qua
ND 20.0 0 0 1-butyl ether (MTBE) ND 25.0 0 0 4-Diffuorobenzene 37.3 50.00 74.7 65 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	m,p-Xylene		QN	40.0		0	0						
ND 40.0 0 0 ityl ether (MTBE) ND 25.0 0 0 ifluorobenzene 37.3 50.00 74.7 65 ofluorobenzene 45.5 50.00 91.0 65	o-Xylene		N	20.0		0	0						
ND 25.0 0 0 0 37.3 50.00 74.7 65 45.5 50.00 91.0 65	Naphthalene		ND	40.0		0	0						Ø
37.3 50.00 74.7 65 45.5 50.00 91.0 65	Methyl tert-butyl ether (MTBE)		ND	25.0		0	0						
mofluorobenzene 45.5 50.00 91.0	Surr: 1,4-Difluorobenzene		37.3		50.00		74.7	65	140				
	Surr: Bromofluorobenzene		45.5		20.00		91.0	65	140				
NOIES	NOTES:												

Sample ID: 2111482-006AMS	SampType: MS			Units: µg/L		Prep Date:	e: 11/29/2021	021	RunNo: 71696	
Client ID: GW-Equipment-Blank-1 Batch ID:	-1 Batch ID: 34578					Analysis Date: 11/30/2021	e: 11/30/2	021	SeqNo: 1461354	
Analyte	Result	R	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit	nit Qual
Aliphatic Hydrocarbon (C5-C6)	269	25.0	0.009	24.45	95.5	70	130			
Aliphatic Hydrocarbon (C6-C8)	198	45.0	200.0	0	98.8	70	130			
Aliphatic Hydrocarbon (C8-C10)	197	20.0	200.0	12.91	92.1	20	130			
Aliphatic Hydrocarbon (C10-C12)	201	25.0	200.0	0	101	70	130			
Aromatic Hydrocarbon (C8-C10)	926	20.0	800.0	0	122	70	130			
Aromatic Hydrocarbon (C10-C12)	198	20.0	200.0	0	99.1	20	130			
Aromatic Hydrocarbon (C12-C13)	206	25.0	200.0	0	103	70	130			
Benzene	219	20.0	200.0	0	110	20	130			
Toluene	227	25.0	200.0	0	114	70	130			
Ethylbenzene	239	25.0	200.0	0	120	20	130			
m,p-Xylene	421	40.0	400.0	0	105	70	130			
o-Xylene	234	20.0	200.0	0	117	70	130			
Naphthalene	193	40.0	200.0	0	2.96	70	130			
Methyl tert-butyl ether (MTBE)	212	25.0	200.0	0	106	70	130			
Surr: 1,4-Difluorobenzene	48.8		50.00		7.76	99	140			
Surr: Bromofluorobenzene	48.7		20.00		97.4	99	140			



Work Order: 2111482
CLIENT: Apex Laboratories

QC SUMMARY REPORT

Date: 12/9/2021

CLIENT: Apex Laboratories Project: A1K0892	oratories						/olatile	Volatile Petroleum Hydrocarbons by NWVPH	eum Hydrocarbons by NWVPF	ons by N	WPP
Sample ID: 2111482-001ADUP	135			Units: µg/L		Prep Da	Prep Date: 11/29/2021	2021	RunNo: 71696	969	
Client ID: GW-PZ-01-1121	Batch ID: 34578					Analysis Date: 11/30/2021	te: 11/30/	1021	SeqNo: 1461345	31345	
Analyte	Result	R	SPK value	SPK value SPK Ref Val	%REC	LowLimit	HighLimit	%REC LowLimit HighLimit RPD Ref Val	%RPD	%RPD RPDLimit	Qual
Aliphatic Hydrocarbon (C5-C6)	QN	25.0		0	0			0	0	25	
Aliphatic Hydrocarbon (C6-C8)	QN	45.0		0	0			0	0	25	
Aliphatic Hydrocarbon (C8-C10)	13.7	20.0		0	0			13.96	2.13	25	7
Aliphatic Hydrocarbon (C10-C12)	ON (:	25.0		0	0			0	0	25	
Aromatic Hydrocarbon (C8-C10)	QN	20.0		0	0			0	0	25	
Aromatic Hydrocarbon (C10-C12)	Z) ND	20.0		0	0			0	0	25	
Aromatic Hydrocarbon (C12-C13)	3) ND	25.0		0	0			0	0	25	
Benzene	QN	20.0		0	0			0	0	25	
Toluene	QN	25.0		0	0			0	0	25	
Ethylbenzene	QN	25.0		0	0			0	0	25	
m,p-Xylene	QN	40.0		0	0			0	0	25	
o-Xylene	QN	20.0		0	0			0	0	25	
Naphthalene	QN	40.0		0	0			0	0	25	
Methyl tert-butyl ether (MTBE)	QV	25.0		0	0			0	0	25	
Surr: 1,4-Difluorobenzene	38.5		50.00		77.0	99	140		0		
Surr: Bromofluorobenzene	46.9		50.00		93.9	65	140		0		



Sample Log-In Check List

Client Name:	APEX		Work O	rder Numb	per: 21	11482	
Logged by:	Clare Griggs		Date Re	eceived:	11/	23/20	21 10:43:00 AM
Chain of Cus	tody						
1. Is Chain of	Custody complete?		Yes	~	No		Not Present
2. How was th	e sample delivered?		Fedl	<u>Ex</u>			
Log In							
3. Coolers are	procent?		Yes		No	T	NA 🗔
3. Coolers are	presenti		163	Œ.	140	brand.	140
4. Shipping co	ntainer/cooler in good condition?		Yes	~	No		
	als present on shipping container/ mments for Custody Seals not into		Yes		No		Not Present
6. Was an atte	empt made to cool the samples?		Yes	•	No		NA 🗔
7. Were all ite	ms received at a temperature of >	2°C to 6°C *	Yes	•	No	0	NA 🗔
8. Sample(s) i	n proper container(s)?		Yes	•	No		
	ample volume for indicated test(s)	?	Yes	[-2]	No		
10. Are sample	s properly preserved?		Yes	~	No		
11. Was preser	vative added to bottles?		Yes		No	~	NA 🗌
12 Is there hea	idspace in the VOA vials?		Yes		No	~	NA 🗔
	ples containers arrive in good cond	dition(unbroken)?	Yes	P-1	No		.,,
	work match bottle labels?		Yes	-	No		
15 Are matrice	s correctly identified on Chain of C	custody?	Yes	~	No	П	
	hat analyses were requested?		Yes	prime.	No		
	Iding times able to be met?		Yes		No		
Special Hand	lling (if applicable)						
1. S. C. T. S. C.	notified of all discrepancies with th	is order?	Yes		No		NA 🗸
73.	A control of the cont					_	
	n Notified:	Dat				_	=0.00
By Wh		Via	: eMa	ail Ph	one	Fax	In Person
Regard	771						
	Instructions:						
19. Additional re	emarks:						
Item Information							
	Item# T	emp °C					
Sample		3.2					

^{*} Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C

SUBCONTRACT ORDER

Apex Laboratories

OBUM AIKO892



2111482

SENDING LABORATORY:

Apex Laboratories

6700 S.W. Sandburg Street

Tigard, OR 97223 Phone: (503) 718-2323 Fax: (503) 336-0745

Project Manager: P

Philip Nerenberg

RECEIVING LABORATORY:

Fremont Analytical 3600 Fremont Avenue N. Seattle, WA 98103 Phone :(206) 352-3790

Fax: (206) 352-7178

Sample Name: GW-PZ-01-1121		Water	Sampled: 11/17/21 17:40	(A1K0892-01)
Analysis	Due	Expires	Comments	
NWTPH-EPH (Sub)	12/03/21 17:00	12/01/21 17:40		
NWTPH-VPH (Sub)	12/03/21 17:00	12/01/21 17:40		
Containers Supplied:				
(A)40 mL VOA - HCL				
(B)40 mL VOA - HCL				
(C)40 mL VOA - HCL				
(K)1 L Amber Glass - HCL				
(L)1 L Amber Glass - HCL				

Sample Name: GW-PZ-02-1121		Water	Sampled: 11/17/21 15:35	(A1K0892-02)
Analysis	Due	Expires	Comments	
NWTPH-EPH (Sub)	12/03/21 17:00	12/01/21 15:35		
NWTPH-VPH (Sub)	12/03/21 17:00	12/01/21 15:35		
Containers Supplied:				
(A)40 mL VOA - HCL				
(B)40 mL VOA - HCL				
(C)40 mL VOA - HCL				
(K)1 L Amber Glass - HCL				
(L)1 L Amber Glass - HCL				

Standard TAT

MANI	1/22/21	UPS (Shipper)	
Released By UPS (Shipper)	Date	Received By	Date 11/23/24 1843
Released By	Date	Received By	Date

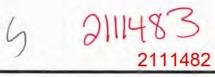
Page 25 of $^{27}_{Page 1 of 3}$

SUBCONTRACT ORDER

Apex Laboratories

OB 11/22M

A1K0892



Sample Name: GW-PZ-03-1121		Water	Sampled: 11/17/21 12:05	(A1K0892-03
Analysis	Due	Expires	Comments	
NWTPH-EPH (Sub)	12/03/21 17:00	12/01/21 12:05		
NWTPH-VPH (Sub)	12/03/21 17:00	12/01/21 12:05		
Containers Supplied:				
(A)40 mL VOA - HCL				
(B)40 mL VOA - HCL				
(C)40 mL VOA - HCL				
(K)1 L Amber Glass - HCL				
(L)I L Amber Glass - HCL				
Sample Name: GW-PZ-04-1121		Water	Sampled: 11/17/21 10:32	(A1K0892-04
Analysis	Due	Expires	Comments	4
NWTPH-EPH (Sub)	12/03/21 17:00	12/01/21 10:32		
NWTPH-VPH (Sub)	12/03/21 17:00	12/01/21 10:32		
Containers Supplied:				
(A)40 mL VOA - HCL				
(B)40 mL VOA - HCL				
(C)40 mL VOA - HCL				
(K)1 L Amber Glass - HCL				
(L)1 L Amber Glass - HCL				
Sample Name: GW-Dup-1-1121		Water	Sampled: 11/17/21 15:40	(A1K0892-06
Analysis	Due	Expires	Comments	
NWTPH-EPH (Sub)	12/03/21 17:00	12/01/21 15:40		
NWTPH-VPH (Sub)	12/03/21 17:00	12/01/21 15:40		
Containers Supplied:				
(A)40 mL VOA - HCL				
(B)40 mL VOA - HCL				
(C)40 mL VOA - HCL				
(K)1 L Amber Glass - HCL				
(L)1 L Amber Glass - HCL				

Standard TAT

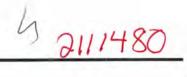
WAY	16/22/21	UPS (Shipper)	
Released By UPS (Shipper)	Date	Received By	Date
Released By	Date	Received By	Date Date

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SUBCONTRACT ORDER

Apex Laboratories

aburah A1K0892



Sample Name: GW-Equipment-Blank-11	121	Water	Sampled: 11/17/21 18:10	(A1K0892-07)
Analysis	Due	Expires	Comments	
NWTPH-EPH (Sub)	12/03/21 17:00	12/01/21 18:10		
NWTPH-VPH (Sub)	12/03/21 17:00	12/01/21 18:10		
Containers Supplied:				
(A)40 mL VOA - HCL				
(B)40 mL VOA - HCL				
(C)40 mL VOA - HCL				
(K)1 L Amber Glass - HCL				
(L)1 L Amber Glass - HCL				
			TB# 2966, container rea	nds Trip-Blank 1121 w/t
Sample Name: GW-Trip-Blank-1121		Water	Sampled: 11/17/21 08:00	(A1K0892-08)
Analysis	Due	Expires	Comments	
NWTPH-VPH (Sub)	12/03/21 17:00	12/01/21 08:00		
Containers Supplied:				
(A)40 mL VOA - HCL				

Standard TAT

Released By Date Received By Date

UPS (Shipper)

Released By Date

Received By Date

Received By Date

Received By Date

Page 27 of 27e 3 of 3



March 10, 2022

Vista Work Order No. 2202107

Mr. Josh Bale GSI Water Solutions 55 SW Yamhill Street, Suite 300 Portland, OR 97204

Dear Mr. Bale,

Enclosed are the results for the sample set received at Vista Analytical Laboratory on February 08, 2022 under your Project Name 'Eatonville'.

Vista Analytical Laboratory is committed to serving you effectively. If you require additional information, please contact me at 916-673-1520 or by email at jfox@vista-analytical.com.

Thank you for choosing Vista as part of your analytical support team.

Sincerely,

Jamie Fox

Laboratory Director



Vista Analytical Laboratory certifies that the report herein meets all the requirements set forth by NELAP for those applicable test methods. Results relate only to the samples as received by the laboratory. This report should not be reproduced except in full without the written approval of Vista.

Vista Analytical Laboratory 1104 Windfield Way El Dorado Hills, CA 95762 ph; 916-673-1520 fx; 916-673-0106 www.vista-analytical.com

Work Order 2202107 Page 1 of 51

Vista Work Order No. 2202107 Case Narrative

Sample Condition on Receipt:

Fifteen aqueous samples were received and stored securely in accordance with Vista standard operating procedures and EPA methodology. The samples were received in good condition and within the method temperature requirements. A sample ID discrepancy was noted for all of the samples between the container label and the Chain-of-Custody (CoC). The sample IDs have been reported as listed on the CoC. The collection date for sample "PZ-04_0222" was listed as "2/4/22" on the container label.

Analytical Notes:

EPA Method 1614

These samples were extracted and analyzed for selected PBDE congeners by EPA Method 1614 using a ZB-5MS GC column.

Holding Times

The samples were extracted and analyzed within the method hold times.

Quality Control

The Initial Calibration and Continuing Calibration Verifications met the method acceptance criteria.

A Method Blank and Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) were extracted and analyzed with the preparation batch. No analytes were detected above the method quantitation limit in the Method Blank. The LCS/LCSD recoveries and relative percent differences (RPD) were within the method acceptance criteria.

The labeled standard recovery outside the method acceptance criteria is listed in the table below:

QC Anomalies

LabNumber	SampleName	Analysis	Analyte	Flag	%Rec
2202107-09	SW14_0222	EPA Method 1614	13C-BDE-183	H	151

H = Recovery was outside laboratory acceptance criteria.

Work Order 2202107 Page 2 of 51

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Qualifiers	40
Certifications	41
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Work Order 2202107 Page 3 of 51

Sample Inventory Report



Vista Sample ID	Client Sample ID	Sampled	Received	Components/Containers
2202107-01	SW07_0222	02-Feb-22 11:00	08-Feb-22 13:03	Amber Glass NM Bottle, 1L
				Amber Glass NM Bottle, 1L
2202107-02	SW08_0222	02-Feb-22 12:10	08-Feb-22 13:03	Amber Glass NM Bottle, 1L
				Amber Glass NM Bottle, 1L
2202107-03	SW09_0222	02-Feb-22 13:25	08-Feb-22 13:03	Amber Glass NM Bottle, 1L
				Amber Glass NM Bottle, 1L
2202107-04	SW10_0222	02-Feb-22 14:22	08-Feb-22 13:03	Amber Glass NM Bottle, 1L
				Amber Glass NM Bottle, 1L
2202107-05	SW11_0222	02-Feb-22 15:15	08-Feb-22 13:03	Amber Glass NM Bottle, 1L
				Amber Glass NM Bottle, 1L
2202107-06	SW12_0222	02-Feb-22 16:00	08-Feb-22 13:03	Amber Glass NM Bottle, 1L
				Amber Glass NM Bottle, 1L
2202107-07	SW13_0222	02-Feb-22 17:25	08-Feb-22 13:03	Amber Glass NM Bottle, 1L
				Amber Glass NM Bottle, 1L
2202107-08	SW109_0222	02-Feb-22 13:30	08-Feb-22 13:03	Amber Glass NM Bottle, 1L
				Amber Glass NM Bottle, 1L
2202107-09	SW14_0222	04-Feb-22 14:55	08-Feb-22 13:03	Amber Glass NM Bottle, 1L
				Amber Glass NM Bottle, 1L
2202107-10	PZ-01_0222	04-Feb-22 12:35	08-Feb-22 13:03	Amber Glass NM Bottle, 1L
				Amber Glass NM Bottle, 1L
2202107-11	PZ-02_0222	04-Feb-22 10:40	08-Feb-22 13:03	Amber Glass NM Bottle, 1L
				Amber Glass NM Bottle, 1L
2202107-12	PZ-03_0222	03-Feb-22 15:15	08-Feb-22 13:03	Amber Glass NM Bottle, 1L
				Amber Glass NM Bottle, 1L
2202107-13	PZ-04_0222	03-Feb-22 12:05	08-Feb-22 13:03	Amber Glass NM Bottle, 1L
				Amber Glass NM Bottle, 1L
2202107-14	PZ-05_0222	04-Feb-22 13:45	08-Feb-22 13:03	Amber Glass NM Bottle, 1L
				Amber Glass NM Bottle, 1L
2202107-15	PZ-102_0222	04-Feb-22 10:50	08-Feb-22 13:03	Amber Glass NM Bottle, 1L
				Amber Glass NM Bottle, 1L

Vista Project: 2202107 Client Project: Eatonville

Work Order 2202107 Page 4 of 51

ANALYTICAL RESULTS

Work Order 2202107 Page 5 of 51



Sample ID: Method Blank EPA Method 1614

Client Data

Name: **GSI Water Solutions**

Project: Eatonville Matrix: Aqueous

Laboratory Data

Lab Sample: B22B176-BLK1

QC Batch: B22B176 Date Extracted: 18-Feb-22 Sample Size:

1.00 LColumn: ZB-5MS

Analyte	Conc. (pg/L)	EDL	EMPC	Qualifiers	Analyzed	Dilution
BDE-1	ND	7.39			26-Feb-22 17:23	1
BDE-2	ND	4.76			26-Feb-22 17:23	1
BDE-3	ND	4.21			26-Feb-22 17:23	1
BDE-10	ND	0.342			26-Feb-22 17:23	1
BDE-7	ND	0.324			26-Feb-22 17:23	1
BDE-8/11	ND	0.234			26-Feb-22 17:23	1
BDE-12	ND	0.222			26-Feb-22 17:23	1
BDE-13	ND	0.203			26-Feb-22 17:23	1
BDE-15	ND	0.168			26-Feb-22 17:23	1
BDE-30	ND	0.311			26-Feb-22 17:23	1
BDE-32	ND	0.230			26-Feb-22 17:23	1
BDE-17	ND	0.240			26-Feb-22 17:23	1
BDE-25	ND	0.337			26-Feb-22 17:23	1
BDE-28/33	ND		0.368		26-Feb-22 17:23	1
BDE-35/21	ND	0.204			26-Feb-22 17:23	1
BDE-37	ND	0.183			26-Feb-22 17:23	1
BDE-75/51	ND	0.169			26-Feb-22 17:23	1
BDE-49	ND	0.222			26-Feb-22 17:23	1
BDE-71	ND	0.236			26-Feb-22 17:23	1
BDE-47	4.85			J	26-Feb-22 17:23	1
BDE-66	ND	0.235			26-Feb-22 17:23	1
BDE-77	ND	0.132			26-Feb-22 17:23	1
BDE-79	ND	0.147			26-Feb-22 17:23	1
BDE-100	0.768			J	26-Feb-22 17:23	1
BDE-119/120	ND	1.11			26-Feb-22 17:23	1
BDE-99	ND		2.43		26-Feb-22 17:23	1
BDE-116	ND	1.96			26-Feb-22 17:23	1
BDE-118	ND	1.18			26-Feb-22 17:23	1
BDE-85	1.07			J	26-Feb-22 17:23	1
BDE-126	ND	0.802			26-Feb-22 17:23	1
BDE-105	ND	1.68			26-Feb-22 17:23	1
BDE-155	ND	0.296			26-Feb-22 17:23	1
BDE-128/154	ND	0.509			26-Feb-22 17:23	1
BDE-153	ND		0.889		26-Feb-22 17:23	1
BDE-139	ND		1.17		26-Feb-22 17:23	1
BDE-140	ND	0.576	-57-1		26-Feb-22 17:23	1
BDE-138	ND	1.05			26-Feb-22 17:23	1
BDE-166	ND	1.54			26-Feb-22 17:23	1
BDE-148/156/169	ND	1.78			26-Feb-22 17:23	1
BDE-175	ND		0.884		26-Feb-22 17:23	1
BDE-184	ND		0.543		26-Feb-22 17:23	1
BDE-183/176	2.32			J	26-Feb-22 17:23	1
BDE-191	ND	1.02			26-Feb-22 17:23	1
BDE-180	ND	0.924			26-Feb-22 17:23	1
BDE-181/177	ND	0.917			26-Feb-22 17:23	1
BDE-190/171	ND	0.964			26-Feb-22 17:23	1
BDE-201	ND	3.94			26-Feb-22 17:23	1
BDE-204	ND	3.57			26-Feb-22 17:23	1
BDE-197	ND		3.51		26-Feb-22 17:23	1
BDE-203/200	ND	4.00			26-Feb-22 17:23	1
BDE-205	ND	8.45			26-Feb-22 17:23	1

Work Order 2202107 Page 6 of 51



Sample ID: Method Blank EPA Method 1614

Client Data

Name: **GSI Water Solutions**

Project: Eatonville Matrix: Aqueous

Laboratory Data

B22B176-BLK1 Lab Sample:

B22B176 QC Batch: Date Extracted: 18-Feb-22 Sample Size:

1.00 L Column: ZB-5MS

Analyte	Conc. (pg/L)	EDL	EMPC	Qualifiers	Analyzed	Dilution
BDE-208	ND	2.01			26-Feb-22 17:23	1
BDE-207	ND		5.36		26-Feb-22 17:23	1
BDE-206	ND	4.21			26-Feb-22 17:23	1
BDE-209	ND	106			26-Feb-22 17:23	1
Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
13C-BDE-3	IS	49.7	25 - 150		26-Feb-22 17:23	1
13C-BDE-15	IS	91.2	25 - 150		26-Feb-22 17:23	1
13C-BDE-28	IS	103	25 - 150		26-Feb-22 17:23	1
13C-BDE-47	IS	109	30 - 140		26-Feb-22 17:23	1
13C-BDE-77	IS	116	25 - 150		26-Feb-22 17:23	1
13C-BDE-100	IS	115	25 - 150		26-Feb-22 17:23	1
13C-BDE-99	IS	99.3	25 - 150		26-Feb-22 17:23	1
13C-BDE-118	IS	91.2	25 - 150		26-Feb-22 17:23	1
13C-BDE-155	IS	96.4	25 - 150		26-Feb-22 17:23	1
13C-BDE-154	IS	97.6	25 - 150		26-Feb-22 17:23	1
13C-BDE-153	IS	99.8	25 - 150		26-Feb-22 17:23	1
13C-BDE-138	IS	102	25 - 150		26-Feb-22 17:23	1
13C-BDE-169	IS	105	25 - 150		26-Feb-22 17:23	1
13C-BDE-183	IS	106	25 - 150		26-Feb-22 17:23	1
13C-BDE-180	IS	111	25 - 150		26-Feb-22 17:23	1
13C-BDE-204	IS	98.3	25 - 150		26-Feb-22 17:23	1
13C-BDE-197	IS	97.8	25 - 150		26-Feb-22 17:23	1
13C-BDE-205	IS	88.6	25 - 150		26-Feb-22 17:23	1
13C-BDE-207	IS	107	25 - 150		26-Feb-22 17:23	1
13C-BDE-206	IS	96.5	25 - 150		26-Feb-22 17:23	1
13C-BDE-209	IS	76.9	20 - 200		26-Feb-22 17:23	1
13C-BDE-126	CRS	97.2	30 - 135		26-Feb-22 17:23	1

EDL - Sample specifc estimated detection limit

EMPC - Estimated maximum possible concentration

Work Order 2202107 Page 7 of 51



Sample ID: LCSD EPA Method 1614

Lab Sample:

B22B176-BSD1

Name: GSI Water Solutions

Project: Eatonville

Matrix: Aqueous QC Batch: B22B176 Date Extracted: 18-Feb-22
Date Analyzed: 26-Feb-22 14:26 Samp Size: 1.00/1.00 L Column: ZB-5MS

26-Feb-22 15:25

20-FC0-22 13.23	LCS	LCS	LCS	LCS	LCSD	LCSD	LCSD		LCSD	%Rec	RPD
Analyte	(pg/L)	Spike Amt	% Rec	Quals	(pg/L)	Spike Amt	% Rec	RPD	Quals		Limits
BDE-1	443	500	88.6		467	500	93.4	5.17		50-150	200
BDE-2	520	500	104		536	500	107	3.08		50-150	200
BDE-3	485	500	96.9		502	500	100	3.55		50-150	200
BDE-10	344	500	68.9		365	500	73.0	5.80		50-150	200
BDE-7	378	500	75.6		406	500	81.2	7.14		50-150	200
BDE-8/11	1090	1000	109		1120	1000	112	2.70		50-150	200
BDE-12	418	500	83.6		441	500	88.1	5.32		50-150	200
BDE-13	515	500	103		536	500	107	4.05		50-150	200
BDE-15	494	500	98.7		517	500	103	4.69		50-150	200
BDE-30	347	500	69.4		392	500	78.4	12.1		50-150	200
BDE-32	497	500	99.4		527	500	105	5.88		50-150	200
BDE-17	513	500	103		528	500	106	2.78		50-150	200
BDE-25	501	500	100		522	500	104	4.26		50-150	200
BDE-28/33	1090	1000	109		1060	1000	106	2.69		50-150	200
BDE-35/21	555	500	111		540	500	108	2.61		50-150	200
BDE-37	554	500	111		533	500	107	3.73		50-150	200
BDE-75/51	2090	2000	105		2180	2000	109	4.15		50-150	200
BDE-49	1060	1000	106		1100	1000	110	3.29		50-150	200
BDE-71	1050	1000	105		1100	1000	110	3.94		50-150	200
BDE-47	1020	1000	102	В	1070	1000	107	4.74	В	50-150	200
BDE-66	1070	1000	107		1160	1000	116	8.04		50-150	200
BDE-77	1030	1000	103		1100	1000	110	7.03		50-150	200
BDE-79	1120	1000	112		1000	1000	100	10.9		50-150	200
BDE-100	1030	1000	103	В	1070	1000	107	3.74	В	50-150	200
BDE-119/120	1970	2000	98.3	ь	2010	2000	100	1.97	ь	50-150	200
BDE-99	1030	1000	103		1070	1000	107	3.08		50-150	200
BDE-116	852	1000	85.2		879	1000	87.9	3.15		50-150	200
BDE-118	1030	1000	103		1070	1000	107	4.01		50-150	200
BDE-85	1080	1000	103	В	1160	1000	116	7.38	В	50-150	200
BDE-126	1090	1000	109	ь	1180	1000	118	7.39	Б	50-150	200
	1100	1000	110		1200						
BDE-105	1040		104			1000	120	8.58		50-150	200
BDE-155		1000			1070	1000	107	3.23		50-150	200
BDE-128/154	2050	2000	103		2120	2000	106	2.95		50-150	200
BDE-153	1000	1000	100		1060	1000	106	5.60		50-150	200
BDE-139	1030	1000	103		1070	1000	107	4.70		50-150	200
BDE-140	1070	1000	107		1130	1000	113	5.42		50-150	200
BDE-138	1020	1000	102		1090	1000	109	6.87		50-150	200
BDE-166	967	1000	96.7		1020	1000	102	5.56		50-150	200
BDE-148/156/169	2060	2000	103		2150	2000	108	4.27		50-150	200
BDE-175	2070	2000	103		2140	2000	107	3.22		50-150	200
BDE-184	2170	2000	109		2220	2000	111	2.25		50-150	200
BDE-183/176	2090	2000	104	В	2160	2000	108	3.44	В	50-150	200
BDE-191	2070	2000	104		2210	2000	111	6.62		50-150	200
BDE-180	2030	2000	101		2130	2000	106	4.82		50-150	200
BDE-181/177	1950	2000	97.4		2070	2000	104	6.12		50-150	200
BDE-190/171	4070	4000	102		4300	4000	108	5.57		50-150	200
BDE-201	2010	2000	101		2160	2000	108	6.82		50-150	200
BDE-204	1990	2000	99.6		2250	2000	112	12.0		50-150	200
BDE-197	2020	2000	101		2030	2000	102	0.647		50-150	200

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Sample ID: LCSD EPA Method 1614

Lab Sample:

B22B176-BSD1

Name: GSI Water Solutions

Project: Eatonville

Matrix:AqueousQC Batch:B22B176Date Extracted:18-Feb-22Date Analyzed:26-Feb-22 14:26Samp Size:1.00/1.00 LColumn:ZB-5MS

26-Feb-22 15:25

2010022											
Analyte	LCS (pg/L)	LCS Spike Amt	LCS % Rec	LCS Quals	LCSD (pg/L)	LCSD Spike Amt	LCSD % Rec	RPD	LCSD Quals	%Rec Limits	RPD Limits
BDE-203/200	1920	2000	96.0		2100	2000	105	8.84		50-150	200
BDE-205	1940	2000	96.9		2110	2000	105	8.35		50-150	200
BDE-208	4810	5000	96.1		5460	5000	109	12.7		50-150	200
BDE-207	5040	5000	101		5310	5000	106	5.25		50-150	200
BDE-206	5050	5000	101		5360	5000	107	6.06		50-150	200

BDE-209		5560	5000	111		5560	5000	111	0.0448		50-150	200
Labeled Standards	Туре			LCS % Rec	LCS Quals			LCSD % Rec		LCSD Quals	Limits	
13C-BDE-3	IS			48.0				46.0			30 - 140	
13C-BDE-15	IS			87.6				81.3			30 - 140	
13C-BDE-28	IS			106				94.0			30 - 140	
13C-BDE-47	IS			103				97.4			30 - 140	
13C-BDE-77	IS			121				89.4			30 - 140	
13C-BDE-100	IS			112				103			30 - 140	
13C-BDE-99	IS			99.4				89.8			30 - 140	
13C-BDE-118	IS			91.8				82.4			30 - 140	
13C-BDE-155	IS			95.7				86.7			30 - 140	
13C-BDE-154	IS			98.3				92.1			30 - 140	
13C-BDE-153	IS			96.7				91.2			30 - 140	
13C-BDE-138	IS			102				95.2			30 - 140	
13C-BDE-169	IS			103				98.0			30 - 140	
13C-BDE-183	IS			95.4				92.6			30 - 140	
13C-BDE-180	IS			100				95.0			30 - 140	
13C-BDE-204	IS			96.5				86.9			30 - 140	
13C-BDE-197	IS			98.1				92.0			30 - 140	
13C-BDE-205	IS			88.0				79.6			20 - 200	
13C-BDE-207	IS			101				90.3			30 - 140	
13C-BDE-206	IS			93.2				85.2			30 - 140	
13C-BDE-209	IS			72.8				66.9			20 - 200	
13C-BDE-126	CRS			100				95.5			40 - 125	

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Sample ID: SW07_0222 EPA Method 1614

Sample Size:

Client Data

Name:

GSI Water Solutions

Project: Eatonville
Matrix: Aqueous
Date Collected: 02-Feb-22 11:00

Laboratory Data

Lab Sample: 2202107-01 QC Batch: B22B176

B22B176 Date Extracted: 0.907 L Column:

Date Received: 08-Feb-22 13:03 Date Extracted: 18-Feb-22

Column: ZB-5MS

Analyte	Conc. (pg/L)	EDL	EMPC	Qualifiers	Analyzed	Dilution
BDE-1	ND	7.86			27-Feb-22 06:19	1
BDE-2	ND	5.07			27-Feb-22 06:19	1
BDE-3	ND	4.48			27-Feb-22 06:19	1
BDE-10	ND	0.350			27-Feb-22 06:19	1
BDE-7	ND	0.331			27-Feb-22 06:19	1
BDE-8/11	ND	0.239			27-Feb-22 06:19	1
BDE-12	ND	0.226			27-Feb-22 06:19	1
BDE-13	ND	0.207			27-Feb-22 06:19	1
BDE-15	ND	0.172			27-Feb-22 06:19	1
BDE-30	ND	0.404			27-Feb-22 06:19	1
BDE-32	ND	0.300			27-Feb-22 06:19	1
BDE-17	0.319			J	27-Feb-22 06:19	1
BDE-25	ND	0.439			27-Feb-22 06:19	1
BDE-28/33	ND		0.531		27-Feb-22 06:19	1
BDE-35/21	ND	0.265	200		27-Feb-22 06:19	1
BDE-37	ND	0.238			27-Feb-22 06:19	1
BDE-75/51	ND	0.157			27-Feb-22 06:19	1
BDE-49	ND	0.206			27-Feb-22 06:19	1
BDE-71	ND	0.218			27-Feb-22 06:19	1
BDE-47	7.28	0.210		J, B	27-Feb-22 06:19	1
BDE-66	ND	0.242		J, B	27-Feb-22 06:19	1
BDE-77	ND ND	0.136			27-Feb-22 06:19	1
BDE-77	ND	0.136			27-Feb-22 06:19	1
BDE-100	ND	0.130	0.974		27-Feb-22 06:19	1
BDE-119/120	ND ND	1.45	0.974			
BDE-99	ND	1.45	4.46		27-Feb-22 06:19 27-Feb-22 06:19	1
	ND	2.74	4.40			1
BDE-116					27-Feb-22 06:19	1
BDE-118	ND	1.65			27-Feb-22 06:19	1
BDE-85	ND	1.79			27-Feb-22 06:19	1
BDE-126	ND	1.12			27-Feb-22 06:19	1
BDE-105	ND	2.35			27-Feb-22 06:19	1
BDE-155	0.384		0.700	J	27-Feb-22 06:19	1
BDE-128/154	ND		0.632		27-Feb-22 06:19	1
BDE-153	ND		1.09		27-Feb-22 06:19	1
BDE-139	ND	12.304	0.980		27-Feb-22 06:19	1
BDE-140	ND	0.891			27-Feb-22 06:19	1
BDE-138	ND	1.08			27-Feb-22 06:19	1
BDE-166	ND	1.58			27-Feb-22 06:19	1
BDE-148/156/169	ND	1.69			27-Feb-22 06:19	1
BDE-175	ND	0.639			27-Feb-22 06:19	1
BDE-184	ND	0.490			27-Feb-22 06:19	1
BDE-183/176	ND		2.20		27-Feb-22 06:19	1
BDE-191	ND	1.13			27-Feb-22 06:19	1
BDE-180	ND	1.02			27-Feb-22 06:19	1
BDE-181/177	ND	1.01			27-Feb-22 06:19	1
BDE-190/171	ND	1.06			27-Feb-22 06:19	1
BDE-201	ND	3.28			27-Feb-22 06:19	1
BDE-204	ND	2.97			27-Feb-22 06:19	1
BDE-197	ND	2.07			27-Feb-22 06:19	1
BDE-203/200	ND	3.45			27-Feb-22 06:19	1
BDE-205	ND	7.26			27-Feb-22 06:19	1

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Sample ID: SW07_0222 EPA Method 1614

Client Data

Name: GSI Water Solutions

Project: Eatonville Matrix: Aqueous Laboratory Data

Sample Size:

Lab Sample: 2202107-01 QC Batch: B22B176 Date Received: Date Extracted: 08-Feb-22 13:03 18-Feb-22

0.907 L Column:

Z	3-51	MS	

Analyte	Conc. (pg/L)	EDL	EMPC	Qualifiers	Analyzed	Dilution
BDE-208	ND	3.49			27-Feb-22 06:19	1
BDE-207	8.14			J	27-Feb-22 06:19	1
BDE-206	ND	5.66			27-Feb-22 06:19	1
BDE-209	ND	107			27-Feb-22 06:19	1
Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
13C-BDE-3	IS	46.8	25 - 150		27-Feb-22 06:19	1
13C-BDE-15	IS	82.6	25 - 150		27-Feb-22 06:19	1
13C-BDE-28	IS	94.2	25 - 150		27-Feb-22 06:19	1
13C-BDE-47	IS	105	30 - 140		27-Feb-22 06:19	1
13C-BDE-77	IS	104	25 - 150		27-Feb-22 06:19	1
13C-BDE-100	IS	112	25 - 150		27-Feb-22 06:19	1
13C-BDE-99	IS	93.9	25 - 150		27-Feb-22 06:19	1
13C-BDE-118	IS	82.1	25 - 150		27-Feb-22 06:19	1
13C-BDE-155	IS	93.5	25 - 150		27-Feb-22 06:19	1
13C-BDE-154	IS	95.7	25 - 150		27-Feb-22 06:19	1
13C-BDE-153	IS	95.8	25 - 150		27-Feb-22 06:19	1
13C-BDE-138	IS	97.1	25 - 150		27-Feb-22 06:19	1
13C-BDE-169	IS	99.8	25 - 150		27-Feb-22 06:19	1
13C-BDE-183	IS	99.5	25 - 150		27-Feb-22 06:19	1
13C-BDE-180	IS	103	25 - 150		27-Feb-22 06:19	1
13C-BDE-204	IS	95.0	25 - 150		27-Feb-22 06:19	1
13C-BDE-197	IS	87.8	25 - 150		27-Feb-22 06:19	1
13C-BDE-205	IS	79.1	25 - 150		27-Feb-22 06:19	1
13C-BDE-207	IS	90.5	25 - 150		27-Feb-22 06:19	1
13C-BDE-206	IS	87.6	25 - 150		27-Feb-22 06:19	1
13C-BDE-209	IS	66.4	20 - 200		27-Feb-22 06:19	1
13C-BDE-126	CRS	98.9	30 - 135		27-Feb-22 06:19	1

EDL - Sample specifc estimated detection limit

EMPC - Estimated maximum possible concentration

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Sample ID: SW08_0222 EPA Method 1614

Sample Size:

Client Data

Name:

GSI Water Solutions

Project: Eatonville
Matrix: Aqueous
Date Collected: 02-Feb-22 12:10

Laboratory Data

Lab Sample: 2202107-02 QC Batch: B22B176 Date Received: Date Extracted: 08-Feb-22 13:03 18-Feb-22

0.866 L Column: ZB-5MS

Analyte	Conc. (pg/L)	EDL	EMPC	Qualifiers	Analyzed	Dilution
BDE-1	ND	9.19			27-Feb-22 07:18	1
BDE-2	ND	5.92			27-Feb-22 07:18	1
BDE-3	ND	5.24			27-Feb-22 07:18	1
BDE-10	ND	0.405			27-Feb-22 07:18	1
BDE-7	ND	0.383			27-Feb-22 07:18	1
BDE-8/11	ND	0.277			27-Feb-22 07:18	1
BDE-12	ND	0.262			27-Feb-22 07:18	1
BDE-13	ND	0.240			27-Feb-22 07:18	1
BDE-15	ND	0.199			27-Feb-22 07:18	1
BDE-30	ND	0.308			27-Feb-22 07:18	1
BDE-32	ND	0.228			27-Feb-22 07:18	1
BDE-17	ND	0.238			27-Feb-22 07:18	1
BDE-25	ND	0.334			27-Feb-22 07:18	1
BDE-28/33	ND		0.567		27-Feb-22 07:18	1
BDE-35/21	ND	0.202			27-Feb-22 07:18	1
BDE-37	ND	0.181			27-Feb-22 07:18	1
BDE-75/51	ND	0.211			27-Feb-22 07:18	1
BDE-49	ND	0.277			27-Feb-22 07:18	1
BDE-71	ND	0.294			27-Feb-22 07:18	1
BDE-47	7.36			J, B	27-Feb-22 07:18	1
BDE-66	ND	0.304		1,000	27-Feb-22 07:18	1
BDE-77	ND		0.149		27-Feb-22 07:18	1
BDE-79	ND	0.183			27-Feb-22 07:18	1
BDE-100	ND		1.18		27-Feb-22 07:18	1
BDE-119/120	ND	1.18			27-Feb-22 07:18	1
BDE-99	5.03			J	27-Feb-22 07:18	i
BDE-116	ND	2.12			27-Feb-22 07:18	1
BDE-118	ND	1.27			27-Feb-22 07:18	1
BDE-85	ND	1.38			27-Feb-22 07:18	1
BDE-126	ND	0.867			27-Feb-22 07:18	1
BDE-105	ND	1.81			27-Feb-22 07:18	1
BDE-155	ND	0.353			27-Feb-22 07:18	1
BDE-128/154	ND	0.580			27-Feb-22 07:18	1
BDE-153	ND	0.689			27-Feb-22 07:18	1
BDE-139	ND	0.002	0.984		27-Feb-22 07:18	1
BDE-140	ND	0.696	0.564		27-Feb-22 07:18	1
BDE-138	ND	1.03			27-Feb-22 07:18	1
BDE-166	ND	1.51			27-Feb-22 07:18	1
BDE-148/156/169	ND	1.73			27-Feb-22 07:18	1
BDE-175	ND	0.765			27-Feb-22 07:18	1
BDE-173	ND	0.586			27-Feb-22 07:18	1
BDE-183/176	ND	0.744			27-Feb-22 07:18	1
BDE-191	ND	1.16			27-Feb-22 07:18	1
BDE-191	ND	1.05			27-Feb-22 07:18 27-Feb-22 07:18	1
BDE-181/177	ND ND	1.03			27-Feb-22 07:18 27-Feb-22 07:18	1
BDE-190/171	ND	1.04			27-Feb-22 07:18 27-Feb-22 07:18	1
BDE-190/1/1	ND	2.72			27-Feb-22 07:18 27-Feb-22 07:18	1
BDE-201 BDE-204					27-Feb-22 07:18 27-Feb-22 07:18	
BDE-197	ND ND	2.47 1.76			27-Feb-22 07:18 27-Feb-22 07:18	1
	ND ND					1
BDE-203/200	ND	2.93			27-Feb-22 07:18	1
BDE-205	ND	5.97			27-Feb-22 07:18	1

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Sample ID: SW08_0222 EPA Method 1614

Client Data

Name: GSI Water Solutions

Project: Eatonville
Matrix: Aqueous
Date Collected: 02-Feb-22 12:10

Aqueous 02-Feb-22 12:10 Laboratory Data

Lab Sample: 2202107-02 QC Batch: B22B176

Sample Size: 0.866 L

Date Received:
Date Extracted:

08-Feb-22 13:03 18-Feb-22

Column: ZB-5MS

Analyte	Conc. (pg/L)	EDL	EMPC	Qualifiers	Analyzed	Dilution
BDE-208	ND	2.86			27-Feb-22 07:18	1
BDE-207	ND		6.25		27-Feb-22 07:18	1
BDE-206	ND	4.93			27-Feb-22 07:18	1
BDE-209	ND	95.8			27-Feb-22 07:18	1
Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
13C-BDE-3	IS	44.5	25 - 150		27-Feb-22 07:18	1
13C-BDE-15	IS	81.2	25 - 150		27-Feb-22 07:18	1
13C-BDE-28	IS	92.7	25 - 150		27-Feb-22 07:18	1
13C-BDE-47	IS	103	30 - 140		27-Feb-22 07:18	1
13C-BDE-77	IS	110	25 - 150		27-Feb-22 07:18	1
13C-BDE-100	IS	111	25 - 150		27-Feb-22 07:18	1
13C-BDE-99	IS	94.7	25 - 150		27-Feb-22 07:18	1
13C-BDE-118	IS	86.7	25 - 150		27-Feb-22 07:18	1
13C-BDE-155	IS	96.0	25 - 150		27-Feb-22 07:18	1
13C-BDE-154	IS	97.9	25 - 150		27-Feb-22 07:18	1
13C-BDE-153	IS	98.0	25 - 150		27-Feb-22 07:18	1
13C-BDE-138	IS	97.3	25 - 150		27-Feb-22 07:18	1
13C-BDE-169	IS	98.2	25 - 150		27-Feb-22 07:18	1
13C-BDE-183	IS	108	25 - 150		27-Feb-22 07:18	1
13C-BDE-180	IS	110	25 - 150		27-Feb-22 07:18	1
13C-BDE-204	IS	97.6	25 - 150		27-Feb-22 07:18	1
13C-BDE-197	IS	93.2	25 - 150		27-Feb-22 07:18	1
13C-BDE-205	IS	80.5	25 - 150		27-Feb-22 07:18	1
13C-BDE-207	IS	92.1	25 - 150		27-Feb-22 07:18	1
13C-BDE-206	IS	89.6	25 - 150		27-Feb-22 07:18	1
13C-BDE-209	IS	68.2	20 - 200		27-Feb-22 07:18	1
13C-BDE-126	CRS	93.8	30 - 135		27-Feb-22 07:18	1

EDL - Sample specifc estimated detection limit

EMPC - Estimated maximum possible concentration

Work Order 2202107 Page 13 of 51



Sample ID: SW09_0222 EPA Method 1614

Client Data

Name:

GSI Water Solutions

Project: Eatonville Matrix: Aqueous Date Collected: 02-Feb-22 13:25 Laboratory Data

2202107-03 Lab Sample: B22B176 QC Batch: Sample Size:

0.936 L

Date Received: Date Extracted: 08-Feb-22 13:03 18-Feb-22

Column: ZB-5MS

Analyte	Conc. (pg/L)	EDL	EMPC	Qualifiers	Analyzed	Dilution
BDE-1	ND	8.91			27-Feb-22 08:17	
BDE-2	ND	5.74			27-Feb-22 08:17	7 1
BDE-3	ND	5.08			27-Feb-22 08:17	7 1
BDE-10	ND	0.354			27-Feb-22 08:17	7 1
BDE-7	ND	0.335			27-Feb-22 08:17	7 1
BDE-8/11	ND	0.242			27-Feb-22 08:17	7 1
BDE-12	ND	0.229			27-Feb-22 08:17	7 1
BDE-13	ND	0.210			27-Feb-22 08:17	7 1
BDE-15	ND	0.174			27-Feb-22 08:17	7 1
BDE-30	ND	0.302			27-Feb-22 08:17	7 1
BDE-32	ND	0.224			27-Feb-22 08:17	7 1
BDE-17	ND	0.233			27-Feb-22 08:17	7 1
BDE-25	ND	0.328			27-Feb-22 08:17	7 1
BDE-28/33	ND		0.620		27-Feb-22 08:17	7 1
BDE-35/21	ND	0.198			27-Feb-22 08:17	7 1
BDE-37	ND	0.178			27-Feb-22 08:17	7 1
BDE-75/51	ND	0.100			27-Feb-22 08:17	7 1
BDE-49	ND	0.132			27-Feb-22 08:17	7 1
BDE-71	ND	0.140			27-Feb-22 08:17	
BDE-47	7.54			J, B	27-Feb-22 08:17	
BDE-66	ND	0.170			27-Feb-22 08:17	
BDE-77	ND	0.0959			27-Feb-22 08:17	
BDE-79	ND	0.0870			27-Feb-22 08:17	7 1
BDE-100	1.41			J, B	27-Feb-22 08:17	
BDE-119/120	ND	1.44			27-Feb-22 08:17	
BDE-99	ND		5.52		27-Feb-22 08:17	
BDE-116	ND	2.52			27-Feb-22 08:17	
BDE-118	ND	1.52			27-Feb-22 08:17	
BDE-85	ND	1.65			27-Feb-22 08:17	
BDE-126	ND	1.03			27-Feb-22 08:17	
BDE-105	ND	2.16			27-Feb-22 08:17	7 1
BDE-155	ND	0.353			27-Feb-22 08:17	
BDE-128/154	ND	0.625			27-Feb-22 08:17	
BDE-153	ND		1.92		27-Feb-22 08:17	
BDE-139	ND		1.36		27-Feb-22 08:17	
BDE-140	ND	0.707			27-Feb-22 08:17	
BDE-138	ND	0.877			27-Feb-22 08:17	
BDE-166	ND	1.29			27-Feb-22 08:17	
BDE-148/156/169	ND	1.35			27-Feb-22 08:17	
BDE-175	ND	0.702			27-Feb-22 08:17	7 1
BDE-184	ND	0.538			27-Feb-22 08:17	7 1
BDE-183/176	2.35			J, B	27-Feb-22 08:17	
BDE-191	ND	1.48			27-Feb-22 08:17	
BDE-180	ND	1.34			27-Feb-22 08:17	7 1
BDE-181/177	ND	1.33			27-Feb-22 08:17	
BDE-190/171	ND	1.40			27-Feb-22 08:17	
BDE-201	ND	2.73			27-Feb-22 08:17	
BDE-204	ND	2.48			27-Feb-22 08:17	
BDE-197	ND	1.83			27-Feb-22 08:17	
BDE-203/200	ND	3.05			27-Feb-22 08:17	
BDE-205	ND	6.17			27-Feb-22 08:17	

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Sample ID: SW09_0222 EPA Method 1614

Client Data

Name: GSI Water Solutions

Project: Eatonville Matrix: Aqueous

Matrix: Aqueous
Date Collected: 02-Feb-22 13:25

Laboratory Data

Lab Sample: 2202107-03 QC Batch: B22B176

Sample Size: 0.936 L

20 - 200

30 - 135

Date Received:
Date Extracted:

08-Feb-22 13:03 18-Feb-22

27-Feb-22 08:17

27-Feb-22 08:17

1

Column: ZB-5MS

Analyte	Conc. (pg/L)	EDL	EMPC	Qualifiers	Analyzed	Dilution
BDE-208	ND	2.75			27-Feb-22 08:17	1
BDE-207	ND		6.52		27-Feb-22 08:17	1
BDE-206	ND	5.34			27-Feb-22 08:17	1
BDE-209	ND	102			27-Feb-22 08:17	1
Labeled Standards	Туре	% Recovery	Limits	Qualifiers	Analyzed	Dilution
13C-BDE-3	IS	40.6	25 - 150		27-Feb-22 08:17	1
13C-BDE-15	IS	79.3	25 - 150		27-Feb-22 08:17	1
13C-BDE-28	IS	87.9	25 - 150		27-Feb-22 08:17	1
13C-BDE-47	IS	96.7	30 - 140		27-Feb-22 08:17	1
13C-BDE-77	IS	91.0	25 - 150		27-Feb-22 08:17	1
13C-BDE-100	IS	98.7	25 - 150		27-Feb-22 08:17	1
13C-BDE-99	IS	85.4	25 - 150		27-Feb-22 08:17	1
13C-BDE-118	IS	77.4	25 - 150		27-Feb-22 08:17	1
13C-BDE-155	IS	94.7	25 - 150		27-Feb-22 08:17	1
13C-BDE-154	IS	91.8	25 - 150		27-Feb-22 08:17	1
13C-BDE-153	IS	89.9	25 - 150		27-Feb-22 08:17	1
13C-BDE-138	IS	89.8	25 - 150		27-Feb-22 08:17	1
13C-BDE-169	IS	93.5	25 - 150		27-Feb-22 08:17	1
13C-BDE-183	IS	97.7	25 - 150		27-Feb-22 08:17	1
13C-BDE-180	IS	102	25 - 150		27-Feb-22 08:17	1
13C-BDE-204	IS	87.6	25 - 150		27-Feb-22 08:17	1
13C-BDE-197	IS	87.3	25 - 150		27-Feb-22 08:17	1
13C-BDE-205	IS	77.1	25 - 150		27-Feb-22 08:17	1
13C-BDE-207	IS	88.6	25 - 150		27-Feb-22 08:17	1
13C-BDE-206	IS	84.9	25 - 150		27-Feb-22 08:17	1

64.5

93.4

EDL - Sample specifc estimated detection limit

13C-BDE-209

13C-BDE-126

EMPC - Estimated maximum possible concentration

IS

CRS

Work Order 2202107 Page 15 of 51



08-Feb-22 13:03

Sample ID: SW10_0222 EPA Method 1614

Sample Size:

Client Data

Name:

GSI Water Solutions

Project: Eatonville

Matrix: Aqueous

Date Collected: 02-Feb-22 14:22

Laboratory Data

Lab Sample: 2202107-04 QC Batch: B22B176

B22B176 Date Extracted: 0.907 L Column:

Date Received:

e Extracted: 18-Feb-22

Column: ZB-5MS

Analyte	Conc. (pg/L)	EDL	EMPC	Qualifiers	Analyzed	Dilution
BDE-1	ND	7.58			27-Feb-22 09:16	1
BDE-2	ND	4.89			27-Feb-22 09:16	1
BDE-3	ND	4.32			27-Feb-22 09:16	1
BDE-10	ND	0.381			27-Feb-22 09:16	1
BDE-7	ND	0.360			27-Feb-22 09:16	1
BDE-8/11	ND	0.261			27-Feb-22 09:16	1
BDE-12	ND	0.246			27-Feb-22 09:16	1
BDE-13	ND	0.226			27-Feb-22 09:16	1
BDE-15	ND	0.187			27-Feb-22 09:16	1
BDE-30	ND	0.369			27-Feb-22 09:16	1
BDE-32	ND	0.274			27-Feb-22 09:16	1
BDE-17	ND	0.285			27-Feb-22 09:16	1
BDE-25	ND	0.401			27-Feb-22 09:16	1
BDE-28/33	0.673			J	27-Feb-22 09:16	1
BDE-35/21	ND	0.242			27-Feb-22 09:16	1
BDE-37	ND	0.217			27-Feb-22 09:16	1
BDE-75/51	ND	0.145			27-Feb-22 09:16	1
BDE-49	ND	0.190			27-Feb-22 09:16	
BDE-71	ND	0.202			27-Feb-22 09:16	1
BDE-47	9.30			J, B	27-Feb-22 09:16	
BDE-66	ND	0.232			27-Feb-22 09:16	
BDE-77	ND	0.130			27-Feb-22 09:16	
BDE-79	ND	0.125			27-Feb-22 09:16	1
BDE-100	1.50			J, B	27-Feb-22 09:16	1
BDE-119/120	ND	1.46			27-Feb-22 09:16	
BDE-99	ND		6.65		27-Feb-22 09:16	
BDE-116	ND	2.71			27-Feb-22 09:16	
BDE-118	ND	1.63			27-Feb-22 09:16	
BDE-85	ND	1.77			27-Feb-22 09:16	
BDE-126	ND	1.11			27-Feb-22 09:16	
BDE-105	ND	2.32			27-Feb-22 09:16	
BDE-155	ND	0.298			27-Feb-22 09:16	
BDE-128/154	ND		0.813		27-Feb-22 09:16	
BDE-153	ND		2.07		27-Feb-22 09:16	
BDE-139	ND	0.496			27-Feb-22 09:16	
BDE-140	ND	0.555			27-Feb-22 09:16	
BDE-138	ND	0.824			27-Feb-22 09:16	
BDE-166	ND	1.21			27-Feb-22 09:16	
BDE-148/156/169	ND	1.32			27-Feb-22 09:16	
BDE-175	ND	0.811			27-Feb-22 09:16	
BDE-184	ND	0.622			27-Feb-22 09:16	
BDE-183/176	ND		2.72		27-Feb-22 09:16	
BDE-191	ND	1.01			27-Feb-22 09:16	
BDE-180	ND	0.912			27-Feb-22 09:16	
BDE-181/177	ND	0.904			27-Feb-22 09:16	
BDE-190/171	ND	0.950			27-Feb-22 09:16	
BDE-201	ND	3.83			27-Feb-22 09:16	
BDE-204	ND	7077	2.21		27-Feb-22 09:16	
BDE-197	ND		1.21		27-Feb-22 09:16	
BDE-203/200	ND	4.04	3/7/2		27-Feb-22 09:16	
BDE-205	ND	8.29			27-Feb-22 09:16	

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Sample ID: SW10_0222 EPA Method 1614

Client Data

Name: **GSI Water Solutions**

Project: Eatonville Matrix: Aqueous 02-Feb-22 14:22

Laboratory Data

2202107-04 Lab Sample: B22B176 QC Batch:

Sample Size: 0.907 L

Date Received: Date Extracted: 08-Feb-22 13:03 18-Feb-22

Column: ZB-5MS

Analyte	Conc. (pg/L)	EDL	EMPC	Qualifiers	Analyzed	Dilution
BDE-208	ND		3.33		27-Feb-22 09:16	1
BDE-207	ND		4.36		27-Feb-22 09:16	1
BDE-206	ND	4.90			27-Feb-22 09:16	1
BDE-209	ND	110			27-Feb-22 09:16	1
Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
13C-BDE-3	IS	46.5	25 - 150	0	27-Feb-22 09:16	1
13C-BDE-15	IS	78.3	25 - 150	0	27-Feb-22 09:16	1
13C-BDE-28	IS	88.3	25 - 150	0	27-Feb-22 09:16	1
13C-BDE-47	IS	94.2	30 - 140)	27-Feb-22 09:16	1
13C-BDE-77	IS	90.4	25 - 150	0	27-Feb-22 09:16	1
13C-BDE-100	IS	104	25 - 150	0	27-Feb-22 09:16	1
13C-BDE-99	IS	88.9	25 - 150	0	27-Feb-22 09:16	1
13C-BDE-118	IS	81.8	25 - 150	0	27-Feb-22 09:16	1
13C-BDE-155	IS	89.4	25 - 150)	27-Feb-22 09:16	1
13C-BDE-154	IS	94.0	25 - 150	0	27-Feb-22 09:16	1
13C-BDE-153	IS	93.3	25 - 150	0	27-Feb-22 09:16	1
13C-BDE-138	IS	93.3	25 - 150	0	27-Feb-22 09:16	1
13C-BDE-169	IS	94.7	25 - 150	0	27-Feb-22 09:16	1
13C-BDE-183	IS	98.4	25 - 150	0	27-Feb-22 09:16	1
13C-BDE-180	IS	100	25 - 150	0	27-Feb-22 09:16	1
13C-BDE-204	IS	95.2	25 - 150	0	27-Feb-22 09:16	1
13C-BDE-197	IS	85.4	25 - 150	0	27-Feb-22 09:16	1
13C-BDE-205	IS	77.3	25 - 150	0	27-Feb-22 09:16	1
13C-BDE-207	IS	86.7	25 - 150	0	27-Feb-22 09:16	1
13C-BDE-206	IS	81.1	25 - 150	0	27-Feb-22 09:16	1
13C-BDE-209	IS	59.1	20 - 20	0	27-Feb-22 09:16	1
13C-BDE-126	CRS	92.7	30 - 13:	5	27-Feb-22 09:16	1

EDL - Sample specifc estimated detection limit

EMPC - Estimated maximum possible concentration

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Sample ID: SW11_0222 EPA Method 1614

Client Data

Name:

GSI Water Solutions

Project: Eatonville
Matrix: Aqueous
Date Collected: 02-Feb-22 15:15

Laboratory Data

Lab Sample: 2202107-05 QC Batch: B22B176 Date Received: Date Extracted: 08-Feb-22 13:03 18-Feb-22

Sample Size: 0.890 L Column: ZB-5MS

Analyte	Conc. (pg/L)	EDL	EMPC	Qualifiers	Analyzed	Dilution
BDE-1	ND	9.20			27-Feb-22 10:15	1
BDE-2	ND	5.93			27-Feb-22 10:15	1
BDE-3	ND	5.25			27-Feb-22 10:15	1
BDE-10	ND	0.359			27-Feb-22 10:15	1
BDE-7	ND	0.340			27-Feb-22 10:15	1
BDE-8/11	ND	0.246			27-Feb-22 10:15	1
BDE-12	ND	0.232			27-Feb-22 10:15	1
BDE-13	ND	0.213			27-Feb-22 10:15	1
BDE-15	ND	0.176			27-Feb-22 10:15	1
BDE-30	ND	0.311			27-Feb-22 10:15	1
BDE-32	ND	0.230			27-Feb-22 10:15	1
BDE-17	ND	0.240			27-Feb-22 10:15	1
BDE-25	ND	0.337			27-Feb-22 10:15	1
BDE-28/33	ND		0.410		27-Feb-22 10:15	1
BDE-35/21	ND	0.204			27-Feb-22 10:15	1
BDE-37	ND	0.183			27-Feb-22 10:15	1
BDE-75/51	ND	0.146			27-Feb-22 10:15	1
BDE-49	ND	0.191			27-Feb-22 10:15	1
BDE-71	ND	0.203			27-Feb-22 10:15	1
BDE-47	11.9			J, B	27-Feb-22 10:15	1
BDE-66	ND	0.227			27-Feb-22 10:15	1
BDE-77	ND		0.211		27-Feb-22 10:15	1
BDE-79	ND	0.126			27-Feb-22 10:15	1
BDE-100	1.86			J, B	27-Feb-22 10:15	1
BDE-119/120	ND	1.19			27-Feb-22 10:15	1
BDE-99	7.99			J	27-Feb-22 10:15	1
BDE-116	ND	2.18			27-Feb-22 10:15	1
BDE-118	ND	1.31			27-Feb-22 10:15	1
BDE-85	ND	1.43			27-Feb-22 10:15	1
BDE-126	ND	0.893			27-Feb-22 10:15	1
BDE-105	ND	1.87			27-Feb-22 10:15	1
BDE-155	ND	0.336			27-Feb-22 10:15	1
BDE-128/154	ND		1.09		27-Feb-22 10:15	1
BDE-153	ND		1.27		27-Feb-22 10:15	1
BDE-139	ND		0.731		27-Feb-22 10:15	1
BDE-140	ND	0.653	22		27-Feb-22 10:15	1
BDE-138	ND	1.07			27-Feb-22 10:15	1
BDE-166	ND	1.57			27-Feb-22 10:15	1
BDE-148/156/169	ND	1.90			27-Feb-22 10:15	1
BDE-175	ND	0.716			27-Feb-22 10:15	1
BDE-184	ND	0.549			27-Feb-22 10:15	1
BDE-183/176	ND		2.81		27-Feb-22 10:15	1
BDE-191	ND	1.28	777		27-Feb-22 10:15	1
BDE-180	ND	1.16			27-Feb-22 10:15	1
BDE-181/177	ND	1.15			27-Feb-22 10:15	1
BDE-190/171	ND	1.21			27-Feb-22 10:15	
BDE-201	ND	2.94			27-Feb-22 10:15	1
BDE-204	ND	2.67			27-Feb-22 10:15	1
BDE-197	ND	1.83			27-Feb-22 10:15	1
BDE-203/200	ND	3.05			27-Feb-22 10:15	i
BDE-205	ND	6.24			27-Feb-22 10:15	1

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Sample ID: SW11_0222 EPA Method 1614

Client Data

Name: GSI Water Solutions

Project: Eatonville
Matrix: Aqueous

d: 02-Feb-22 15:15

Laboratory Data

Lab Sample: 2202107-05 QC Batch: B22B176

Sample Size: 0.890 L

Date Received:
Date Extracted:

08-Feb-22 13:03 18-Feb-22

Column: ZB-5MS

Analyte	Conc. (ng/L)	EDL	EMPC	Oualifiers	Analyzed	Dilution
	Conc. (pg/L)		Lime	Quantiers		Dilution
BDE-208	ND	3.85			27-Feb-22 10:15	1
BDE-207	8.00	7.02		J	27-Feb-22 10:15	1
BDE-206	ND	6.12			27-Feb-22 10:15	1
BDE-209	ND	92.7	22.100	20020	27-Feb-22 10:15	1
Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
13C-BDE-3	IS	54.0	25 - 150		27-Feb-22 10:15	1
13C-BDE-15	IS	95.1	25 - 150		27-Feb-22 10:15	1
13C-BDE-28	IS	103	25 - 150		27-Feb-22 10:15	1
13C-BDE-47	IS	115	30 - 140		27-Feb-22 10:15	1
13C-BDE-77	IS	116	25 - 150		27-Feb-22 10:15	1
13C-BDE-100	IS	122	25 - 150		27-Feb-22 10:15	1
13C-BDE-99	IS	101	25 - 150		27-Feb-22 10:15	1
13C-BDE-118	IS	91.3	25 - 150		27-Feb-22 10:15	1
13C-BDE-155	IS	102	25 - 150		27-Feb-22 10:15	1
13C-BDE-154	IS	105	25 - 150		27-Feb-22 10:15	1
13C-BDE-153	IS	104	25 - 150		27-Feb-22 10:15	1
13C-BDE-138	IS	104	25 - 150		27-Feb-22 10:15	1
13C-BDE-169	IS	105	25 - 150		27-Feb-22 10:15	1
13C-BDE-183	IS	108	25 - 150		27-Feb-22 10:15	1
13C-BDE-180	IS	114	25 - 150		27-Feb-22 10:15	1
13C-BDE-204	IS	105	25 - 150		27-Feb-22 10:15	1
13C-BDE-197	IS	101	25 - 150		27-Feb-22 10:15	1
13C-BDE-205	IS	90.2	25 - 150		27-Feb-22 10:15	
13C-BDE-207	IS	102	25 - 150		27-Feb-22 10:15	
13C-BDE-206	IS	100	25 - 150		27-Feb-22 10:15	
13C-BDE-209	IS	72.8	20 - 200		27-Feb-22 10:15	
13C-BDE-126	CRS	97.5	30 - 135		27-Feb-22 10:15	

EDL - Sample specifc estimated detection limit

EMPC - Estimated maximum possible concentration

Work Order 2202107 Page 19 of 51



Sample ID: SW12_0222 EPA Method 1614

Sample Size:

Client Data

Name:

GSI Water Solutions

Project: Eatonville
Matrix: Aqueous
Date Collected: 02-Feb-22 16:00

Laboratory Data

Lab Sample: 2202107-06 QC Batch: B22B176

B22B176 Da 0.915 L Co

Date Received: 08-Feb-22 13:03 Date Extracted: 18-Feb-22

Column: ZB-5MS

Analyte	Conc. (pg/L)	EDL	EMPC	Qualifiers	Analyzed	Dilution
BDE-1	ND	6.93			27-Feb-22 11:14	1
BDE-2	ND	4.47			27-Feb-22 11:14	1
BDE-3	ND	3.95			27-Feb-22 11:14	1
BDE-10	ND	0.380			27-Feb-22 11:14	1
BDE-7	ND	0.359			27-Feb-22 11:14	1
BDE-8/11	ND	0.260			27-Feb-22 11:14	1
BDE-12	ND	0.246			27-Feb-22 11:14	1
BDE-13	ND	0.225			27-Feb-22 11:14	1
BDE-15	ND	0.187			27-Feb-22 11:14	1
BDE-30	ND	0.347			27-Feb-22 11:14	1
BDE-32	ND	0.257			27-Feb-22 11:14	1
BDE-17	ND	0.268			27-Feb-22 11:14	1
BDE-25	ND	0.377			27-Feb-22 11:14	1
BDE-28/33	ND		0.455		27-Feb-22 11:14	1
BDE-35/21	ND	0.227			27-Feb-22 11:14	1
BDE-37	ND	0.204			27-Feb-22 11:14	1
BDE-75/51	ND	0.203			27-Feb-22 11:14	1
BDE-49	ND	0.266			27-Feb-22 11:14	1
BDE-71	ND	0.283			27-Feb-22 11:14	1
BDE-47	6.17			J, B	27-Feb-22 11:14	1
BDE-66	ND	0.342			27-Feb-22 11:14	1
BDE-77	ND	0.192			27-Feb-22 11:14	1
BDE-79	ND	0.176			27-Feb-22 11:14	1
BDE-100	ND		0.985		27-Feb-22 11:14	1
BDE-119/120	ND	1.21			27-Feb-22 11:14	1
BDE-99	3.94	7.77		J	27-Feb-22 11:14	1
BDE-116	ND	2.21			27-Feb-22 11:14	1
BDE-118	ND	1.33			27-Feb-22 11:14	1
BDE-85	ND	1.45			27-Feb-22 11:14	1
BDE-126	ND	0.905			27-Feb-22 11:14	1
BDE-105	ND	1.89			27-Feb-22 11:14	1
BDE-155	ND	0.302			27-Feb-22 11:14	1
BDE-128/154	ND	0.486			27-Feb-22 11:14	1
BDE-153	ND	01100	1.13		27-Feb-22 11:14	1
BDE-139	ND		1.07		27-Feb-22 11:14	1
BDE-140	ND	0.550	1.07		27-Feb-22 11:14	1
BDE-138	ND	0.705			27-Feb-22 11:14	1
BDE-166	ND	1.04			27-Feb-22 11:14	1
BDE-148/156/169	ND	1.05			27-Feb-22 11:14	1
BDE-175	ND	0.508			27-Feb-22 11:14	i
BDE-184	ND	0.390			27-Feb-22 11:14	1
BDE-183/176	ND	0.570	1.83		27-Feb-22 11:14	1
BDE-191	ND	1.29	1100		27-Feb-22 11:14	1
BDE-180	ND	1.16			27-Feb-22 11:14	1
BDE-181/177	ND	1.15			27-Feb-22 11:14	1
BDE-190/171	ND	7.07	0.878		27-Feb-22 11:14	i
BDE-201	ND	1.90			27-Feb-22 11:14	1
BDE-204	ND	1.72			27-Feb-22 11:14	1
BDE-204 BDE-197	ND	1.20			27-Feb-22 11:14	1
BDE-203/200	ND	2.00			27-Feb-22 11:14	1
BDE-205	ND	4.29			27-Feb-22 11:14	1

Work Order 2202107 Page 20 of 51



Sample ID: SW12_0222 EPA Method 1614

Client Data

Name:

GSI Water Solutions

Project: Eatonville Matrix: Aqueous

Laboratory Data

2202107-06 Lab Sample: B22B176 QC Batch:

Sample Size: 0.915 L

Date Received: Date Extracted: 08-Feb-22 13:03 18-Feb-22

Column: ZB-5MS

Analyte	Conc. (pg/L)	EDL	EMPC	Qualifiers	Analyzed	Dilution
BDE-208	ND	4.03			27-Feb-22 11:14	1
BDE-207	ND	4.30			27-Feb-22 11:14	1
BDE-206	ND	5.95			27-Feb-22 11:14	1
BDE-209	ND	101			27-Feb-22 11:14	1
Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
13C-BDE-3	IS	51.0	25 - 150		27-Feb-22 11:14	1
13C-BDE-15	IS	85.8	25 - 150		27-Feb-22 11:14	1
13C-BDE-28	IS	94.8	25 - 150		27-Feb-22 11:14	1
13C-BDE-47	IS	102	30 - 140		27-Feb-22 11:14	1
13C-BDE-77	IS	94.8	25 - 150		27-Feb-22 11:14	1
13C-BDE-100	IS	111	25 - 150		27-Feb-22 11:14	1
13C-BDE-99	IS	94.2	25 - 150		27-Feb-22 11:14	1
13C-BDE-118	IS	85.7	25 - 150		27-Feb-22 11:14	1
13C-BDE-155	IS	93.5	25 - 150		27-Feb-22 11:14	1
13C-BDE-154	IS	96.6	25 - 150		27-Feb-22 11:14	1
13C-BDE-153	IS	97.4	25 - 150		27-Feb-22 11:14	1
13C-BDE-138	IS	97.5	25 - 150		27-Feb-22 11:14	1
13C-BDE-169	IS	101	25 - 150		27-Feb-22 11:14	1
13C-BDE-183	IS	100	25 - 150		27-Feb-22 11:14	1
13C-BDE-180	IS	105	25 - 150		27-Feb-22 11:14	1
13C-BDE-204	IS	94.7	25 - 150		27-Feb-22 11:14	1
13C-BDE-197	IS	95.4	25 - 150		27-Feb-22 11:14	1
13C-BDE-205	IS	79.9	25 - 150		27-Feb-22 11:14	1
13C-BDE-207	IS	91.3	25 - 150		27-Feb-22 11:14	1
13C-BDE-206	IS	88.7	25 - 150		27-Feb-22 11:14	1
13C-BDE-209	IS	67.9	20 - 200		27-Feb-22 11:14	1
13C-BDE-126	CRS	91.8	30 - 135		27-Feb-22 11:14	1

EDL - Sample specifc estimated detection limit

EMPC - Estimated maximum possible concentration

Work Order 2202107 Page 21 of 51



Sample ID: SW13_0222 EPA Method 1614

Client Data

Name:

GSI Water Solutions

Project: Eatonville
Matrix: Aqueous
Date Collected: 02-Feb-22 17:25

Laboratory Data

Lab Sample: 2202107-07 QC Batch: B22B176 Date Received: Date Extracted: 08-Feb-22 13:03 18-Feb-22

Sample Size: 0.924 L Column: ZB-5MS

Analyte	Conc. (pg/L)	EDL	EMPC	Qualifiers	Analyzed	Dilution
BDE-1	ND	7.14			27-Feb-22 12:13	1
BDE-2	ND	4.60			27-Feb-22 12:13	1
BDE-3	ND	4.07			27-Feb-22 12:13	1
BDE-10	ND	0.363			27-Feb-22 12:13	1
BDE-7	ND	0.344			27-Feb-22 12:13	1
BDE-8/11	ND	0.249			27-Feb-22 12:13	1
BDE-12	ND	0.235			27-Feb-22 12:13	1
BDE-13	ND	0.215			27-Feb-22 12:13	1
BDE-15	ND	0.179			27-Feb-22 12:13	1
BDE-30	ND	0.201			27-Feb-22 12:13	1
BDE-32	ND	0.149			27-Feb-22 12:13	1
BDE-17	ND	0.155			27-Feb-22 12:13	1
BDE-25	ND	0.218			27-Feb-22 12:13	1
BDE-28/33	ND		0.342		27-Feb-22 12:13	1
BDE-35/21	ND	0.131			27-Feb-22 12:13	1
BDE-37	ND	0.118			27-Feb-22 12:13	1
BDE-75/51	ND	0.129			27-Feb-22 12:13	1
BDE-49	ND		0.251		27-Feb-22 12:13	1
BDE-71	ND	0.179			27-Feb-22 12:13	1
BDE-47	7.53			J, B	27-Feb-22 12:13	1
BDE-66	ND	0.214			27-Feb-22 12:13	1
BDE-77	ND	7.22	0.158		27-Feb-22 12:13	1
BDE-79	ND	0.112			27-Feb-22 12:13	1
BDE-100	ND		0.543		27-Feb-22 12:13	1
BDE-119/120	ND		0.726		27-Feb-22 12:13	1
BDE-99	2.84			J	27-Feb-22 12:13	1
BDE-116	ND	2.35			27-Feb-22 12:13	1
BDE-118	ND	1.42			27-Feb-22 12:13	1
BDE-85	ND	1.54			27-Feb-22 12:13	1
BDE-126	ND	0.964			27-Feb-22 12:13	1
BDE-105	ND	2.02			27-Feb-22 12:13	1
BDE-155	ND	0.358			27-Feb-22 12:13	1
BDE-128/154	ND	0.585			27-Feb-22 12:13	1
BDE-153	ND	A.C. M.C.	0.776		27-Feb-22 12:13	1
BDE-139	0.837			J	27-Feb-22 12:13	1
BDE-140	ND	0.699			27-Feb-22 12:13	1
BDE-138	ND	0.954			27-Feb-22 12:13	1
BDE-166	ND	1.40			27-Feb-22 12:13	1
BDE-148/156/169	ND	1.49			27-Feb-22 12:13	1
BDE-175	ND	1.16			27-Feb-22 12:13	1
BDE-184	ND	0.888			27-Feb-22 12:13	1
BDE-183/176	2.08			J, B	27-Feb-22 12:13	1
BDE-191	ND	1.40		,,,,	27-Feb-22 12:13	1
BDE-180	ND	1.27			27-Feb-22 12:13	1
BDE-181/177	ND	1.26			27-Feb-22 12:13	1
BDE-190/171	ND	1.32			27-Feb-22 12:13	î
BDE-201	ND	1.94			27-Feb-22 12:13	1
BDE-204	ND	777.5	2.53		27-Feb-22 12:13	1
BDE-197	ND	1.22			27-Feb-22 12:13	1
BDE-203/200	ND	2.03			27-Feb-22 12:13	1
BDE-205	ND	4.15			27-Feb-22 12:13	1

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Sample ID: SW13_0222 EPA Method 1614

Sample Size:

Client Data

Name:

GSI Water Solutions

Project: Eatonville Matrix: Aqueous

Date Collected: 02-Feb-22 17:25

Laboratory Data

2202107-07 Lab Sample: B22B176 QC Batch:

0.924 L

Date Received: Date Extracted: 08-Feb-22 13:03 18-Feb-22

Column: ZB-5MS

Analyte	Conc. (pg/L)	EDL	EMPC	Qualifiers Analyzed	Dilution
BDE-208	ND	2.34		27-Feb-22 12:13	1
BDE-207	ND	2.50		27-Feb-22 12:13	1
BDE-206	ND	4.83		27-Feb-22 12:13	1
BDE-209	ND	123		27-Feb-22 12:13	1
Labeled Standards	Time	0/ D	Limita	Qualifians Analyzed	Dilution

BDE-209	ND	123		27-Feb-22 12:13	5 1
Labeled Standards	Type	% Recovery	Limits	Qualifiers Analyzed	Dilution
13C-BDE-3	IS	49.1	25 - 150	27-Feb-22 12:13	3 1
13C-BDE-15	IS	91.3	25 - 150	27-Feb-22 12:13	3 1
13C-BDE-28	IS	106	25 - 150	27-Feb-22 12:13	3 1
13C-BDE-47	IS	110	30 - 140	27-Feb-22 12:13	3 1
13C-BDE-77	IS	103	25 - 150	27-Feb-22 12:13	3 1
13C-BDE-100	IS	118	25 - 150	27-Feb-22 12:13	3 1
13C-BDE-99	IS	101	25 - 150	27-Feb-22 12:13	3 1
13C-BDE-118	IS	92.0	25 - 150	27-Feb-22 12:13	3 1
13C-BDE-155	IS	97.3	25 - 150	27-Feb-22 12:13	3 1
13C-BDE-154	IS	102	25 - 150	27-Feb-22 12:13	3 1
13C-BDE-153	IS	100	25 - 150	27-Feb-22 12:13	3 1
13C-BDE-138	IS	102	25 - 150	27-Feb-22 12:13	3 1
13C-BDE-169	IS	102	25 - 150	27-Feb-22 12:13	3 1
13C-BDE-183	IS	112	25 - 150	27-Feb-22 12:13	3 1
13C-BDE-180	IS	115	25 - 150	27-Feb-22 12:13	3 1
13C-BDE-204	IS	99.0	25 - 150	27-Feb-22 12:13	3 1
13C-BDE-197	IS	97.4	25 - 150	27-Feb-22 12:13	3 1
13C-BDE-205	IS	83.9	25 - 150	27-Feb-22 12:13	3 1
13C-BDE-207	IS	94.0	25 - 150	27-Feb-22 12:13	3 1
13C-BDE-206	IS	87.2	25 - 150	27-Feb-22 12:13	3 1
13C-BDE-209	IS	64.0	20 - 200	27-Feb-22 12:13	3 1
13C-BDE-126	CRS	101	30 - 135	27-Feb-22 12:13	3 1

EDL - Sample specifc estimated detection limit

EMPC - Estimated maximum possible concentration

Work Order 2202107 Page 23 of 51



Sample ID: SW109_0222 EPA Method 1614

Sample Size:

Client Data

Name:

GSI Water Solutions

Project: Eatonville

Matrix: Aqueous

Date Collected: 02-Feb-22 13:30

Laboratory Data

Lab Sample: 2202107-08 QC Batch: B22B176

B22B176 0.893 L

Date Received: Date Extracted: 08-Feb-22 13:03 18-Feb-22

Column: ZB-5MS

Analyte	Conc. (pg/L)	EDL	EMPC	Qualifiers	Analyzed	Dilution
BDE-1	ND	7.47			27-Feb-22 13:11	1
BDE-2	ND	4.81			27-Feb-22 13:11	1
BDE-3	ND	4.26			27-Feb-22 13:11	1
BDE-10	ND	0.391			27-Feb-22 13:11	1
BDE-7	ND	0.370			27-Feb-22 13:11	1
BDE-8/11	ND	0.268			27-Feb-22 13:11	1
BDE-12	ND	0.253			27-Feb-22 13:11	1
BDE-13	ND	0.232			27-Feb-22 13:11	1
BDE-15	ND	0.192			27-Feb-22 13:11	1
BDE-30	ND	0.297			27-Feb-22 13:11	1
BDE-32	ND	0.220			27-Feb-22 13:11	1
BDE-17	ND		0.333		27-Feb-22 13:11	1
BDE-25	ND	0.322			27-Feb-22 13:11	1
BDE-28/33	ND		1.10		27-Feb-22 13:11	1
BDE-35/21	ND	0.194			27-Feb-22 13:11	1
BDE-37	ND	0.175			27-Feb-22 13:11	1
BDE-75/51	ND	0.181			27-Feb-22 13:11	1
BDE-49	ND	0.237			27-Feb-22 13:11	1
BDE-71	ND	0.252			27-Feb-22 13:11	1
BDE-47	11.8	0.202		J, B	27-Feb-22 13:11	1
BDE-66	ND	0.242		ν, Β	27-Feb-22 13:11	1
BDE-77	ND	0.136			27-Feb-22 13:11	1
BDE-79	ND	0.157			27-Feb-22 13:11	1
BDE-100	ND	0.157	1.27		27-Feb-22 13:11	î
BDE-119/120	ND		0.796		27-Feb-22 13:11	1
BDE-99	ND		4.69		27-Feb-22 13:11	1
BDE-116	ND	1.66	4.05		27-Feb-22 13:11	i
BDE-118	ND	0.998			27-Feb-22 13:11	1
BDE-85	ND	1.08			27-Feb-22 13:11	1
BDE-126	ND ND	0.679			27-Feb-22 13:11 27-Feb-22 13:11	1
BDE-105	ND	1.42			27-Feb-22 13:11 27-Feb-22 13:11	1
BDE-155	ND	0.300			27-Feb-22 13:11 27-Feb-22 13:11	
BDE-128/154	ND ND	0.484			27-Feb-22 13:11 27-Feb-22 13:11	1
		0.464			27-Feb-22 13:11 27-Feb-22 13:11	
BDE-153	1.42		1.26	J		1
BDE-139 BDE-140	ND ND	0.591	1.26		27-Feb-22 13:11	1
BDE-138	ND ND	0.952			27-Feb-22 13:11 27-Feb-22 13:11	1
						1
BDE-166	ND	1.40			27-Feb-22 13:11	1
BDE-148/156/169	ND	1.49			27-Feb-22 13:11	1
BDE-175	ND	0.569			27-Feb-22 13:11	1
BDE-184	ND	0.437		LD	27-Feb-22 13:11	1
BDE-183/176	2.47	1.10		J, B	27-Feb-22 13:11	1
BDE-191	ND	1.42			27-Feb-22 13:11	1
BDE-180	ND	1.29			27-Feb-22 13:11	1
BDE-181/177	ND	1.27			27-Feb-22 13:11	1
BDE-190/171	ND	1.34			27-Feb-22 13:11	1
BDE-201	ND	2.59	1.10		27-Feb-22 13:11	1
BDE-204	ND		1.48		27-Feb-22 13:11	1
BDE-197	ND	2.01	1.13		27-Feb-22 13:11	1
BDE-203/200	ND	2.81			27-Feb-22 13:11	1
BDE-205	ND	6.35			27-Feb-22 13:11	1

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Sample ID: SW109_0222 EPA Method 1614

Client Data

Name:

GSI Water Solutions

Project: Eatonville Matrix: Aqueous

Date Collected: 02-Feb-22 13:30

Laboratory Data

Lab Sample: 2202107-08 QC Batch: B22B176

Sample Size: 0.893 L

Date Received:
Date Extracted:

08-Feb-22 13:03 18-Feb-22

Column: ZB-5MS

Analyte	Conc. (pg/L)	EDL	EMPC	Qualifiers	Analyzed	Dilution
BDE-208	5.35			J	27-Feb-22 13:11	1
BDE-207	ND	4.99			27-Feb-22 13:11	1
BDE-206	ND	8.50			27-Feb-22 13:11	1
BDE-209	ND	127			27-Feb-22 13:11	1
Labeled Standards	Tuna	0/ D	Limite	Qualifiana	Analyzad	Dilution

BDE-209	ND	127	27-Feb-2		2 15:11 1	
Labeled Standards	Type	% Recovery	Limits	Qualifiers Analyzed	Dilution	
13C-BDE-3	IS	44.6	25 - 150	27-Feb-22 13:11	1	
13C-BDE-15	IS	81.1	25 - 150	27-Feb-22 13:11	1	
13C-BDE-28	IS	93.1	25 - 150	27-Feb-22 13:11	1	
13C-BDE-47	IS	95.4	30 - 140	27-Feb-22 13:11	1	
13C-BDE-77	IS	107	25 - 150	27-Feb-22 13:11	1	
13C-BDE-100	IS	107	25 - 150	27-Feb-22 13:11	1	
13C-BDE-99	IS	92.3	25 - 150	27-Feb-22 13:11	1	
13C-BDE-118	IS	84.5	25 - 150	27-Feb-22 13:11	1	
13C-BDE-155	IS	90.3	25 - 150	27-Feb-22 13:11	1	
13C-BDE-154	IS	94.1	25 - 150	27-Feb-22 13:11	1	
13C-BDE-153	IS	92.8	25 - 150	27-Feb-22 13:11	1	
13C-BDE-138	IS	94.9	25 - 150	27-Feb-22 13:11	1	
13C-BDE-169	IS	97.6	25 - 150	27-Feb-22 13:11	1	
13C-BDE-183	IS	97.9	25 - 150	27-Feb-22 13:11	1	
13C-BDE-180	IS	103	25 - 150	27-Feb-22 13:11	1	
13C-BDE-204	IS	95.6	25 - 150	27-Feb-22 13:11	1	
13C-BDE-197	IS	87.6	25 - 150	27-Feb-22 13:11	1	
13C-BDE-205	IS	72.5	25 - 150	27-Feb-22 13:11	1	
13C-BDE-207	IS	90.5	25 - 150	27-Feb-22 13:11	1	
13C-BDE-206	IS	86.9	25 - 150	27-Feb-22 13:11	1	
13C-BDE-209	IS	60.3	20 - 200	27-Feb-22 13:11	1	
13C-BDE-126	CRS	94.5	30 - 135	27-Feb-22 13:11	1	

EDL - Sample specifc estimated detection limit

EMPC - Estimated maximum possible concentration

Work Order 2202107 Page 25 of 51



Sample ID: SW14_0222 EPA Method 1614

Client Data

Name:

GSI Water Solutions

Project: Eatonville
Matrix: Aqueous
Date Collected: 04-Feb-22 14:55

Laboratory Data

Lab Sample: 2202107-09 QC Batch: B22B176 Date Received: Date Extracted: 08-Feb-22 13:03 18-Feb-22

Sample Size: 0.946 L Column: ZB-5MS

Analyte	Conc. (pg/L)	EDL	EMPC	Qualifiers	Analyzed	Dilution
BDE-1	ND	8.11			28-Feb-22 16:57	1
BDE-2	ND	5.23			28-Feb-22 16:57	1
BDE-3	ND	4.62			28-Feb-22 16:57	1
BDE-10	ND	0.210			28-Feb-22 16:57	1
BDE-7	ND	0.199			28-Feb-22 16:57	1
BDE-8/11	ND	0.144			28-Feb-22 16:57	1
BDE-12	ND	0.136			28-Feb-22 16:57	1
BDE-13	ND	0.124			28-Feb-22 16:57	1
BDE-15	ND	0.103			28-Feb-22 16:57	1
BDE-30	ND	0.305			28-Feb-22 16:57	1
BDE-32	ND	0.226			28-Feb-22 16:57	1
BDE-17	ND		0.304		28-Feb-22 16:57	1
BDE-25	ND	0.331			28-Feb-22 16:57	1
BDE-28/33	0.984			J	28-Feb-22 16:57	1
BDE-35/21	ND	0.200			28-Feb-22 16:57	1
BDE-37	ND	0.179			28-Feb-22 16:57	1
BDE-75/51	ND	0.0887			28-Feb-22 16:57	1
BDE-49	ND	0.116			28-Feb-22 16:57	1
BDE-71	ND	0.123			28-Feb-22 16:57	1
BDE-47	8.13			J, B	28-Feb-22 16:57	1
BDE-66	ND	0.155			28-Feb-22 16:57	1
BDE-77	ND	0.0871			28-Feb-22 16:57	1
BDE-79	ND	0.0768			28-Feb-22 16:57	1
BDE-100	ND		1.00		28-Feb-22 16:57	1
BDE-119/120	ND		1.13		28-Feb-22 16:57	1
BDE-99	3.45			J	28-Feb-22 16:57	1
BDE-116	ND	1.99			28-Feb-22 16:57	1
BDE-118	ND	1.20			28-Feb-22 16:57	1
BDE-85	ND	1.30			28-Feb-22 16:57	1
BDE-126	ND	0.814			28-Feb-22 16:57	1
BDE-105	ND	1.70			28-Feb-22 16:57	1
BDE-155	ND	0.333			28-Feb-22 16:57	1
BDE-128/154	ND	0.560			28-Feb-22 16:57	1
BDE-153	ND		1.17		28-Feb-22 16:57	1
BDE-139	1.89			J	28-Feb-22 16:57	1
BDE-140	ND	0.749			28-Feb-22 16:57	1
BDE-138	ND	1.16			28-Feb-22 16:57	1
BDE-166	ND	1.71			28-Feb-22 16:57	1
BDE-148/156/169	ND	2.00			28-Feb-22 16:57	1
BDE-175	ND	1.26			28-Feb-22 16:57	1
BDE-184	ND	0.966			28-Feb-22 16:57	1
BDE-183/176	ND		1.52		28-Feb-22 16:57	1
BDE-191	ND	1.40			28-Feb-22 16:57	1
BDE-180	ND	1.26			28-Feb-22 16:57	1
BDE-181/177	ND	1.25			28-Feb-22 16:57	1
BDE-190/171	ND	1.32			28-Feb-22 16:57	1
BDE-201	ND	4.53			28-Feb-22 16:57	1
BDE-204	ND	4.10			28-Feb-22 16:57	1
BDE-197	ND	2.89			28-Feb-22 16:57	1-
BDE-203/200	ND	4.82			28-Feb-22 16:57	1
BDE-205	ND	11.7			28-Feb-22 16:57	1

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Sample ID: SW14_0222 EPA Method 1614

Client Data

Name: GSI Water Solutions

Project: Eatonville
Matrix: Aqueous

Date Collected: 04-Feb-22 14:55

Laboratory Data

Lab Sample: 2202107-09 QC Batch: B22B176

Sample Size: 0.946 L

Date Received:
Date Extracted:

08-Feb-22 13:03 18-Feb-22

Column: ZB-5MS

Analyte	Conc. (pg/L)	EDL	EMPC	Qualifiers Analyzed	Dilution
BDE-208	ND	4.71		28-Feb-22 16:57	1
BDE-207	ND		4.31	28-Feb-22 16:57	1
BDE-206	ND	8.78		28-Feb-22 16:57	1
BDE-209	ND	188		28-Feb-22 16:57	1
Labeled Standards	Type	0/ Decovery	Limits	Qualifiers Analyzed	Dilution

BDE-209	ND	188			28-Feb-22 16:57	1
Labeled Standards	Туре	% Recovery	Limits	Qualifiers	Analyzed	Dilution
13C-BDE-3	IS	42.7	25 - 150		28-Feb-22 16:57	1
13C-BDE-15	IS	98.3	25 - 150		28-Feb-22 16:57	1
13C-BDE-28	IS	124	25 - 150		28-Feb-22 16:57	1
13C-BDE-47	IS	114	30 - 140		28-Feb-22 16:57	1
13C-BDE-77	IS	101	25 - 150		28-Feb-22 16:57	1
13C-BDE-100	IS	146	25 - 150		28-Feb-22 16:57	1
13C-BDE-99	IS	120	25 - 150		28-Feb-22 16:57	1
13C-BDE-118	IS	105	25 - 150		28-Feb-22 16:57	1
13C-BDE-155	IS	117	25 - 150		28-Feb-22 16:57	1
13C-BDE-154	IS	118	25 - 150		28-Feb-22 16:57	1
13C-BDE-153	IS	106	25 - 150		28-Feb-22 16:57	1
13C-BDE-138	IS	93.9	25 - 150		28-Feb-22 16:57	1
13C-BDE-169	IS	89.4	25 - 150		28-Feb-22 16:57	1
13C-BDE-183	IS	151	25 - 150	Н	28-Feb-22 16:57	1
13C-BDE-180	IS	124	25 - 150		28-Feb-22 16:57	1
13C-BDE-204	IS	116	25 - 150		28-Feb-22 16:57	1
13C-BDE-197	IS	106	25 - 150		28-Feb-22 16:57	1
13C-BDE-205	IS	80.2	25 - 150		28-Feb-22 16:57	1
13C-BDE-207	IS	102	25 - 150		28-Feb-22 16:57	1
13C-BDE-206	IS	99.3	25 - 150		28-Feb-22 16:57	1
13C-BDE-209	IS	85.9	20 - 200		28-Feb-22 16:57	1
13C-BDE-126	CRS	109	30 - 135		28-Feb-22 16:57	1

EDL - Sample specifc estimated detection limit

EMPC - Estimated maximum possible concentration

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Sample ID: PZ-01_0222 EPA Method 1614

Client Data

Name:

GSI Water Solutions

Project: Eatonville
Matrix: Aqueous
Date Collected: 04-Feb-22 12:35

Laboratory Data

Lab Sample: 2202107-10 QC Batch: B22B176 Date Received: Date Extracted: 08-Feb-22 13:03 18-Feb-22

Sample Size: 0.804 L Column:

ZB-5MS

Analyte	Conc. (pg/L)	EDL	EMPC	Qualifiers	Analyzed	Dilution
BDE-1	ND	10.0			28-Feb-22 17:56	1
BDE-2	ND	6.44			28-Feb-22 17:56	1
BDE-3	ND	5.70			28-Feb-22 17:56	1
BDE-10	ND	0.390			28-Feb-22 17:56	1
BDE-7	ND	0.369			28-Feb-22 17:56	1
BDE-8/11	ND	0.267			28-Feb-22 17:56	1
BDE-12	ND	0.252			28-Feb-22 17:56	1
BDE-13	ND	0.231			28-Feb-22 17:56	1
BDE-15	ND	0.192			28-Feb-22 17:56	1
BDE-30	ND	0.396			28-Feb-22 17:56	1
BDE-32	ND	0.293			28-Feb-22 17:56	1
BDE-17	ND	0.305			28-Feb-22 17:56	1
BDE-25	ND	0.430			28-Feb-22 17:56	1
BDE-28/33	1.29			J	28-Feb-22 17:56	1
BDE-35/21	ND	0.259			28-Feb-22 17:56	1
BDE-37	ND	0.233			28-Feb-22 17:56	1
BDE-75/51	ND	0.230			28-Feb-22 17:56	1
BDE-49	ND	0.302			28-Feb-22 17:56	
BDE-71	ND	0.320			28-Feb-22 17:56	1
BDE-47	22.1			J, B	28-Feb-22 17:56	
BDE-66	ND	0.352			28-Feb-22 17:56	
BDE-77	ND	0.198			28-Feb-22 17:56	
BDE-79	ND	0.199			28-Feb-22 17:56	1
BDE-100	3.90			J, B	28-Feb-22 17:56	1
BDE-119/120	ND	3.07			28-Feb-22 17:56	
BDE-99	17.2			J	28-Feb-22 17:56	
BDE-116	ND	6.09			28-Feb-22 17:56	
BDE-118	ND	3.66			28-Feb-22 17:56	
BDE-85	ND	3.98			28-Feb-22 17:56	
BDE-126	ND	2.49			28-Feb-22 17:56	
BDE-105	ND	5.22			28-Feb-22 17:56	
BDE-155	ND	0.666			28-Feb-22 17:56	
BDE-128/154	2.73			1	28-Feb-22 17:56	
BDE-153	4.35			J	28-Feb-22 17:56	
BDE-139	1.60			J	28-Feb-22 17:56	
BDE-140	ND	1.48			28-Feb-22 17:56	
BDE-138	ND	1.90			28-Feb-22 17:56	
BDE-166	ND	2.79			28-Feb-22 17:56	
BDE-148/156/169	ND	3.32			28-Feb-22 17:56	
BDE-175	ND	1.45			28-Feb-22 17:56	
BDE-184	ND	1.11			28-Feb-22 17:56	
BDE-183/176	ND		2.10		28-Feb-22 17:56	
BDE-191	ND	5.17			28-Feb-22 17:56	
BDE-180	ND	4.68			28-Feb-22 17:56	
BDE-181/177	ND	4.64			28-Feb-22 17:56	
BDE-190/171	ND	4.88			28-Feb-22 17:56	
BDE-201	ND	11.8			28-Feb-22 17:56	
BDE-204	16.7	33.3		J	28-Feb-22 17:56	
BDE-197	5.89			J	28-Feb-22 17:56	
BDE-203/200	ND	13.7			28-Feb-22 17:56	
BDE-205	ND	29.9			28-Feb-22 17:56	

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08-Feb-22 13:03

Sample ID: PZ-01_0222 EPA Method 1614

Laboratory Data

Client Data

Name:

Project: Eatonville Matrix: Aqueous Date Collected: 04-Feb-22 12:35

Lab Sample: **GSI Water Solutions**

B22B176 QC Batch: Date Extracted: 18-Feb-22 Sample Size: 0.804 L Column: ZB-5MS

Date Received:

2202107-10

EMPC EDL Analyte Conc. (pg/L) Qualifiers Analyzed Dilution BDE-208 ND 24.2 28-Feb-22 17:56 BDE-207 ND 33.4 28-Feb-22 17:56 BDE-206 44.0 28-Feb-22 17:56 1 28-Feb-22 17:56

BDE-209	1710		28-Feb-22 17:56				
Labeled Standards	Type	% Recovery	Limits	Qualifiers Analyzed	Dilution		
13C-BDE-3	IS	51.8	25 - 150	28-Feb-22 17:56	1		
13C-BDE-15	IS	95.5	25 - 150	28-Feb-22 17:56	1		
13C-BDE-28	IS	128	25 - 150	28-Feb-22 17:56	1		
13C-BDE-47	IS	90.7	30 - 140	28-Feb-22 17:56	1		
13C-BDE-77	IS	89.6	25 - 150	28-Feb-22 17:56	1		
13C-BDE-100	IS	123	25 - 150	28-Feb-22 17:56	1		
13C-BDE-99	IS	98.0	25 - 150	28-Feb-22 17:56	1		
13C-BDE-118	IS	83.7	25 - 150	28-Feb-22 17:56	1		
13C-BDE-155	IS	90.2	25 - 150	28-Feb-22 17:56	1		
13C-BDE-154	IS	88.7	25 - 150	28-Feb-22 17:56	1		
13C-BDE-153	IS	79.4	25 - 150	28-Feb-22 17:56	1		
13C-BDE-138	IS	74.7	25 - 150	28-Feb-22 17:56	1		
13C-BDE-169	IS	68.4	25 - 150	28-Feb-22 17:56	1		
13C-BDE-183	IS	110	25 - 150	28-Feb-22 17:56	1		
13C-BDE-180	IS	88.0	25 - 150	28-Feb-22 17:56	1		
13C-BDE-204	IS	78.4	25 - 150	28-Feb-22 17:56	1		
13C-BDE-197	IS	73.6	25 - 150	28-Feb-22 17:56	1		
13C-BDE-205	IS	63.6	25 - 150	28-Feb-22 17:56	1		
13C-BDE-207	IS	78.8	25 - 150	28-Feb-22 17:56	1		
13C-BDE-206	IS	75.5	25 - 150	28-Feb-22 17:56	1		
13C-BDE-209	IS	73.7	20 - 200	28-Feb-22 17:56	1		
13C-BDE-126	CRS	99.7	30 - 135	28-Feb-22 17:56	1		

EDL - Sample specifc estimated detection limit

EMPC - Estimated maximum possible concentration

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Sample ID: PZ-02_0222 EPA Method 1614

Sample Size:

Client Data

Name:

GSI Water Solutions

Project: Eatonville
Matrix: Aqueous
Date Collected: 04-Feb-22 10:40

Laboratory Data

Lab Sample: 2202107-11 QC Batch: B22B176

0.779 L

Date Received: Date Extracted: 08-Feb-22 13:03 18-Feb-22

Column: ZB-5MS

Analyte	Conc. (pg/L)	EDL	EMPC	Qualifiers	Analyzed	Dilution
BDE-1	ND	13.3			28-Feb-22 18:55	1
BDE-2	ND	8.57			28-Feb-22 18:55	
BDE-3	ND	7.58			28-Feb-22 18:55	1
BDE-10	ND	0.406			28-Feb-22 18:55	1
BDE-7	ND	0.385			28-Feb-22 18:55	1
BDE-8/11	ND	0.278			28-Feb-22 18:55	1
BDE-12	ND	0.263			28-Feb-22 18:55	1
BDE-13	ND	0.241			28-Feb-22 18:55	1
BDE-15	ND	0.200			28-Feb-22 18:55	1
BDE-30	ND	0.575			28-Feb-22 18:55	1
BDE-32	ND	0.426			28-Feb-22 18:55	1
BDE-17	1.80			J	28-Feb-22 18:55	1
BDE-25	ND	0.625			28-Feb-22 18:55	1
BDE-28/33	ND		6.23		28-Feb-22 18:55	1
BDE-35/21	ND	0.377			28-Feb-22 18:55	1
BDE-37	ND	0.339			28-Feb-22 18:55	1
BDE-75/51	4.33			J	28-Feb-22 18:55	
BDE-49	12.7			J	28-Feb-22 18:55	
BDE-71	ND	0.443			28-Feb-22 18:55	
BDE-47	923			В	28-Feb-22 18:55	
BDE-66	11.0			J	28-Feb-22 18:55	
BDE-77	ND	0.307			28-Feb-22 18:55	
BDE-79	ND	0.276			28-Feb-22 18:55	
BDE-100	233			В	28-Feb-22 18:55	
BDE-119/120	ND	3.93			28-Feb-22 18:55	
BDE-99	1080				28-Feb-22 18:55	
BDE-116	ND	7.80			28-Feb-22 18:55	
BDE-118	ND	4.69			28-Feb-22 18:55	
BDE-85	55.5	1177		J, B	28-Feb-22 18:55	
BDE-126	ND	3.19		٠, ۵	28-Feb-22 18:55	
BDE-105	ND	6.68			28-Feb-22 18:55	
BDE-155	ND	0.00	4.64		28-Feb-22 18:55	
BDE-128/154	103		1	J	28-Feb-22 18:55	
BDE-153	95.1			J	28-Feb-22 18:55	
BDE-139	ND		13.9	,	28-Feb-22 18:55	
BDE-140	4.66		13.5	J	28-Feb-22 18:55	
BDE-138	ND		11.5		28-Feb-22 18:55	
BDE-166	ND	5.25	11.0		28-Feb-22 18:55	
BDE-148/156/169	ND	6.07			28-Feb-22 18:55	
BDE-175	ND	1.28			28-Feb-22 18:55	
BDE-184	1.15	1.20		J	28-Feb-22 18:55	
BDE-183/176	ND		4.34	•	28-Feb-22 18:55	
BDE-191	ND	2.40	4.54		28-Feb-22 18:55	
BDE-191	ND	2.17			28-Feb-22 18:55	
BDE-181/177	ND ND	2.17			28-Feb-22 18:55	
BDE-190/171	ND	2.26			28-Feb-22 18:55	
BDE-201	ND	10.8			28-Feb-22 18:55	
BDE-204	ND	10.0	41.6		28-Feb-22 18:55	
BDE-197	ND ND	6.84	41.0		28-Feb-22 18:55	
BDE-203/200	ND ND	11.4				
					28-Feb-22 18:55	
BDE-205	ND	24.3			28-Feb-22 18:55	1

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28-Feb-22 18:55

1

Sample ID: PZ-02_0222 EPA Method 1614

Client Data

Name: GSI Water Solutions

Project: Eatonville Matrix: Aqueous

Water Solutions Lab Sample:

 Lab Sample:
 2202107-11
 Date Received:
 08-Feb-22 13:03

 QC Batch:
 B22B176
 Date Extracted:
 18-Feb-22

 Sample Size:
 0.779 L
 Column:
 ZB-5MS

Date Collected: 04-Feb-					ZD-JWI3	
Analyte	Conc. (pg/L)	EDL	EMPC	Qualifiers	Analyzed	Dilution
BDE-208	ND	7.51			28-Feb-22 18:55	1
BDE-207	ND	8.02			28-Feb-22 18:55	1
BDE-206	ND	14.8			28-Feb-22 18:55	1
BDE-209	ND	255			28-Feb-22 18:55	1
Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
13C-BDE-3	IS	45.6	25 - 150		28-Feb-22 18:55	1
13C-BDE-15	IS	88.8	25 - 150		28-Feb-22 18:55	1
13C-BDE-28	IS	114	25 - 150		28-Feb-22 18:55	1
13C-BDE-47	IS	103	30 - 140		28-Feb-22 18:55	1
13C-BDE-77	IS	94.7	25 - 150		28-Feb-22 18:55	1
13C-BDE-100	IS	143	25 - 150		28-Feb-22 18:55	1
13C-BDE-99	IS	117	25 - 150		28-Feb-22 18:55	1
13C-BDE-118	IS	101	25 - 150		28-Feb-22 18:55	1
13C-BDE-155	IS	109	25 - 150		28-Feb-22 18:55	1
13C-BDE-154	IS	108	25 - 150		28-Feb-22 18:55	1
13C-BDE-153	IS	99.3	25 - 150		28-Feb-22 18:55	1
13C-BDE-138	IS	94.0	25 - 150		28-Feb-22 18:55	1
13C-BDE-169	IS	89.4	25 - 150		28-Feb-22 18:55	1
13C-BDE-183	IS	134	25 - 150		28-Feb-22 18:55	1
13C-BDE-180	IS	116	25 - 150		28-Feb-22 18:55	1
13C-BDE-204	IS	107	25 - 150		28-Feb-22 18:55	1
13C-BDE-197	IS	96.2	25 - 150		28-Feb-22 18:55	1
13C-BDE-205	IS	84.5	25 - 150		28-Feb-22 18:55	1
13C-BDE-207	IS	102	25 - 150		28-Feb-22 18:55	1
13C-BDE-206	IS	90.2	25 - 150		28-Feb-22 18:55	1
13C-BDE-209	IS	80.0	20 - 200		28-Feb-22 18:55	1
		7.75			The second second second	

87.8

30 - 135

EDL - Sample specifc estimated detection limit

13C-BDE-126

EMPC - Estimated maximum possible concentration

CRS

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Sample ID: PZ-03_0222 EPA Method 1614

Client Data

Name:

GSI Water Solutions

Project: Eatonville
Matrix: Aqueous
Date Collected: 03-Feb-22 15:15

Laboratory Data

Lab Sample: 2202107-12 QC Batch: B22B176 Date Received: Date Extracted: 08-Feb-22 13:03 18-Feb-22

Sample Size: 0.883 L Column: ZB-5MS

Analyte	Conc. (pg/L)	EDL	EMPC	Qualifiers	Analyzed	Dilution
BDE-1	ND	8.35			28-Feb-22 19:54	1
BDE-2	ND	5.38			28-Feb-22 19:54	1
BDE-3	ND	4.76			28-Feb-22 19:54	1
BDE-10	ND	0.319			28-Feb-22 19:54	1
BDE-7	ND	0.302			28-Feb-22 19:54	1
BDE-8/11	ND	0.218			28-Feb-22 19:54	1
BDE-12	ND	0.206			28-Feb-22 19:54	1
BDE-13	ND	0.189			28-Feb-22 19:54	1
BDE-15	ND	0.157			28-Feb-22 19:54	1
BDE-30	ND	0.269			28-Feb-22 19:54	1
BDE-32	ND	0.199			28-Feb-22 19:54	1
BDE-17	ND		0.225		28-Feb-22 19:54	1
BDE-25	ND	0.292			28-Feb-22 19:54	1
BDE-28/33	ND		0.696		28-Feb-22 19:54	1
BDE-35/21	ND	0.176			28-Feb-22 19:54	1
BDE-37	ND	0.158			28-Feb-22 19:54	1
BDE-75/51	ND	0.290			28-Feb-22 19:54	- 1
BDE-49	ND	0.380			28-Feb-22 19:54	1
BDE-71	ND	0.404			28-Feb-22 19:54	1
BDE-47	13.3			J, B	28-Feb-22 19:54	1
BDE-66	ND	0.416			28-Feb-22 19:54	1
BDE-77	ND	0.234			28-Feb-22 19:54	1
BDE-79	ND	0.251			28-Feb-22 19:54	1
BDE-100	2.27			J, B	28-Feb-22 19:54	1
BDE-119/120	ND	3.01			28-Feb-22 19:54	1
BDE-99	10.4			J	28-Feb-22 19:54	1
BDE-116	ND	5.88			28-Feb-22 19:54	1
BDE-118	ND	3.53			28-Feb-22 19:54	1
BDE-85	ND	3.84			28-Feb-22 19:54	1
BDE-126	ND	2.41			28-Feb-22 19:54	1
BDE-105	ND	5.04			28-Feb-22 19:54	1
BDE-155	ND	0.525			28-Feb-22 19:54	1
BDE-128/154	ND	0.525	1.34		28-Feb-22 19:54	1
BDE-153	ND	1.08	1.0 (28-Feb-22 19:54	1
BDE-139	ND	0.976			28-Feb-22 19:54	1
BDE-140	ND	1.09			28-Feb-22 19:54	1
BDE-138	ND	1.13			28-Feb-22 19:54	1
BDE-166	ND	1.66			28-Feb-22 19:54	1
BDE-148/156/169	ND	1.91			28-Feb-22 19:54	1
BDE-175	ND	0.753			28-Feb-22 19:54	i
BDE-184	ND	0.577			28-Feb-22 19:54	1
BDE-183/176	ND	0.577	2.49		28-Feb-22 19:54	1
BDE-191	ND	1.40	2.47		28-Feb-22 19:54	1
BDE-191	ND	1.26			28-Feb-22 19:54	1
BDE-181/177	ND	1.25			28-Feb-22 19:54	1
BDE-190/171	ND	1.32			28-Feb-22 19:54	1
BDE-190/171	ND	9.19			28-Feb-22 19:54	1
BDE-204	ND	2.13	10.2		28-Feb-22 19:54	1
BDE-197	ND ND		3.52		28-Feb-22 19:54	1
BDE-197 BDE-203/200	ND	10.2	3.34		28-Feb-22 19:54 28-Feb-22 19:54	1
BDE-205/200	ND	20.1			28-Feb-22 19:54	1
DDL-203	ND	20.1			20-1-00-22 19.34	

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Sample ID: PZ-03_0222 EPA Method 1614

Client Data

Name: **GSI Water Solutions**

Project: Eatonville Aqueous Matrix:

Laboratory Data

2202107-12 Lab Sample: B22B176 QC Batch:

Sample Size: 0.883 L

Date Received: Date Extracted:

08-Feb-22 13:03 18-Feb-22

Column: ZB-5MS

Analyte	Conc. (pg/L)	EDL	EMPC	Qualifiers	Analyzed	Dilution
BDE-208	ND	4.22			28-Feb-22 19:54	1
BDE-207	ND		7.19		28-Feb-22 19:54	1
BDE-206	ND	7.79			28-Feb-22 19:54	1
BDE-209	ND	188			28-Feb-22 19:54	1
Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
13C-BDE-3	IS	54.7	25 - 150		28-Feb-22 19:54	1
13C-BDE-15	IS	108	25 - 150		28-Feb-22 19:54	1
13C-BDE-28	IS	142	25 - 150		28-Feb-22 19:54	1
13C-BDE-47	IS	107	30 - 140		28-Feb-22 19:54	1
13C-BDE-77	IS	112	25 - 150		28-Feb-22 19:54	1
13C-BDE-100	IS	135	25 - 150		28-Feb-22 19:54	1
13C-BDE-99	IS	110	25 - 150		28-Feb-22 19:54	1
13C-BDE-118	IS	97.5	25 - 150		28-Feb-22 19:54	1
13C-BDE-155	IS	102	25 - 150		28-Feb-22 19:54	1
13C-BDE-154	IS	102	25 - 150		28-Feb-22 19:54	1
13C-BDE-153	IS	98.8	25 - 150		28-Feb-22 19:54	1
13C-BDE-138	IS	98.8	25 - 150		28-Feb-22 19:54	1
13C-BDE-169	IS	97.3	25 - 150		28-Feb-22 19:54	1
13C-BDE-183	IS	124	25 - 150		28-Feb-22 19:54	1
13C-BDE-180	IS	112	25 - 150		28-Feb-22 19:54	1
13C-BDE-204	IS	101	25 - 150		28-Feb-22 19:54	1
13C-BDE-197	IS	91.1	25 - 150		28-Feb-22 19:54	1
13C-BDE-205	IS	83.2	25 - 150		28-Feb-22 19:54	1
13C-BDE-207	IS	106	25 - 150		28-Feb-22 19:54	1
13C-BDE-206	IS	96.7	25 - 150		28-Feb-22 19:54	1
13C-BDE-209	IS	82.3	20 - 200		28-Feb-22 19:54	1
13C-BDE-126	CRS	103	30 - 135		28-Feb-22 19:54	1

EDL - Sample specifc estimated detection limit

EMPC - Estimated maximum possible concentration

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Sample ID: PZ-04_0222 EPA Method 1614

Client Data

Name:

GSI Water Solutions

Project: Eatonville
Matrix: Aqueous
Date Collected: 03-Feb-22 12:05

Laboratory Data

Lab Sample: 2202107-13 QC Batch: B22B176 Date Received: Date Extracted: 08-Feb-22 13:03 18-Feb-22

Sample Size: 0.890 L Col

Column: ZB-5MS

Analyte	Conc. (pg/L)	EDL	EMPC	Qualifiers	Analyzed	Dilution
BDE-1	ND	8.41			28-Feb-22 20:52	1
BDE-2	ND	5.42			28-Feb-22 20:52	1
BDE-3	ND	4.79			28-Feb-22 20:52	1
BDE-10	ND	0.363			28-Feb-22 20:52	1
BDE-7	ND	0.344			28-Feb-22 20:52	1
BDE-8/11	ND	0.249			28-Feb-22 20:52	1
BDE-12	ND	0.235			28-Feb-22 20:52	1
BDE-13	ND	0.216			28-Feb-22 20:52	1
BDE-15	ND	0.179			28-Feb-22 20:52	1
BDE-30	ND	0.399			28-Feb-22 20:52	1
BDE-32	ND	0.295			28-Feb-22 20:52	1
BDE-17	ND	0.308			28-Feb-22 20:52	1
BDE-25	ND	0.433			28-Feb-22 20:52	1
BDE-28/33	ND		1.24		28-Feb-22 20:52	1
BDE-35/21	ND	0.261			28-Feb-22 20:52	1
BDE-37	ND	0.235			28-Feb-22 20:52	1
BDE-75/51	ND	0.164			28-Feb-22 20:52	1
BDE-49	ND	0.216			28-Feb-22 20:52	1
BDE-71	ND	0.229			28-Feb-22 20:52	1
BDE-47	18.5			J, B	28-Feb-22 20:52	1
BDE-66	ND	0.255			28-Feb-22 20:52	1
BDE-77	ND	0.144			28-Feb-22 20:52	1
BDE-79	ND	0.142			28-Feb-22 20:52	1
BDE-100	ND		2.30		28-Feb-22 20:52	1
BDE-119/120	ND	2.65			28-Feb-22 20:52	1
BDE-99	11.9			J	28-Feb-22 20:52	1
BDE-116	ND	5.55			28-Feb-22 20:52	1
BDE-118	ND	3.34			28-Feb-22 20:52	1
BDE-85	ND	3.63			28-Feb-22 20:52	1
BDE-126	ND	2.27			28-Feb-22 20:52	1
BDE-105	ND	4.76			28-Feb-22 20:52	1
BDE-155	ND	0.533			28-Feb-22 20:52	1
BDE-128/154	ND		1.67		28-Feb-22 20:52	1
BDE-153	ND		1.69		28-Feb-22 20:52	1
BDE-139	ND		1.19		28-Feb-22 20:52	1
BDE-140	ND	1.14			28-Feb-22 20:52	1
BDE-138	ND	1.52			28-Feb-22 20:52	1
BDE-166	ND	2.23			28-Feb-22 20:52	1
BDE-148/156/169	ND	2.47			28-Feb-22 20:52	1
BDE-175	ND	0.867			28-Feb-22 20:52	1
BDE-184	ND	0.665			28-Feb-22 20:52	1
BDE-183/176	ND		2.52		28-Feb-22 20:52	1
BDE-191	ND	2.52			28-Feb-22 20:52	1
BDE-180	ND	2.28			28-Feb-22 20:52	
BDE-181/177	ND	2.26			28-Feb-22 20:52	1
BDE-190/171	ND	2.37			28-Feb-22 20:52	
BDE-201	ND	9.73			28-Feb-22 20:52	1
BDE-204	ND		22.8		28-Feb-22 20:52	1
BDE-197	ND		5.59		28-Feb-22 20:52	1
BDE-203/200	ND	10.6			28-Feb-22 20:52	1
BDE-205	ND	21.7			28-Feb-22 20:52	

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Sample ID: PZ-04_0222 EPA Method 1614

Client Data

Name: **GSI Water Solutions**

Project: Eatonville Matrix: Aqueous

Laboratory Data

Lab Sample: 2202107-13 B22B176 QC Batch:

Sample Size: 0.890 L

Date Received: Date Extracted: 08-Feb-22 13:03 18-Feb-22

Column:

ZB-5MS

28-Feb-22 20:52

1

Analyte	Conc. (pg/L)	EDL	EMPC	Qualifiers	Analyzed	Dilution
BDE-208	ND		10.4		28-Feb-22 20:52	1
BDE-207	ND		19.0		28-Feb-22 20:52	1
BDE-206	ND	21.3			28-Feb-22 20:52	1
BDE-209	ND	255			28-Feb-22 20:52	1
Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
13C-BDE-3	IS	53.8	25 - 150		28-Feb-22 20:52	1
13C-BDE-15	IS	99.3	25 - 150		28-Feb-22 20:52	1
13C-BDE-28	IS	129	25 - 150		28-Feb-22 20:52	1
13C-BDE-47	IS	102	30 - 140		28-Feb-22 20:52	1
13C-BDE-77	IS	103	25 - 150		28-Feb-22 20:52	1
13C-BDE-100	IS	134	25 - 150		28-Feb-22 20:52	1
13C-BDE-99	IS	107	25 - 150		28-Feb-22 20:52	1
13C-BDE-118	IS	92.5	25 - 150		28-Feb-22 20:52	1
13C-BDE-155	IS	98.6	25 - 150		28-Feb-22 20:52	1
13C-BDE-154	IS	98.8	25 - 150		28-Feb-22 20:52	1
13C-BDE-153	IS	93.0	25 - 150		28-Feb-22 20:52	1
13C-BDE-138	IS	87.5	25 - 150		28-Feb-22 20:52	1
13C-BDE-169	IS	83.9	25 - 150		28-Feb-22 20:52	1
13C-BDE-183	IS	112	25 - 150		28-Feb-22 20:52	1
13C-BDE-180	IS	99.3	25 - 150		28-Feb-22 20:52	1
13C-BDE-204	IS	92.5	25 - 150		28-Feb-22 20:52	1
13C-BDE-197	IS	96.4	25 - 150		28-Feb-22 20:52	1
13C-BDE-205	IS	81.8	25 - 150		28-Feb-22 20:52	1
13C-BDE-207	IS	97.4	25 - 150		28-Feb-22 20:52	1
13C-BDE-206	IS	88.0	25 - 150		28-Feb-22 20:52	1
13C-BDE-209	IS	77.2	20 - 200		28-Feb-22 20:52	1

30 - 135

103

EDL - Sample specifc estimated detection limit

13C-BDE-126

EMPC - Estimated maximum possible concentration

CRS

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Sample ID: PZ-05_0222 EPA Method 1614

Sample Size:

Client Data

Name:

GSI Water Solutions

Project: Eatonville
Matrix: Aqueous
Date Collected: 04-Feb-22 13:45

Laboratory Data

Lab Sample: 2202107-14 QC Batch: B22B176

 2202107-14
 Date Received:

 B22B176
 Date Extracted:

 0.918 L
 Column:

08-Feb-22 13:03 18-Feb-22

Column: ZB-5MS

Analyte	Conc. (pg/L)	EDL	EMPC	Qualifiers	Analyzed	Dilution
BDE-1	ND	8.72			28-Feb-22 22:50	1
BDE-2	ND	5.62			28-Feb-22 22:50	1
BDE-3	ND	4.97			28-Feb-22 22:50	1
BDE-10	ND	0.331			28-Feb-22 22:50	1
BDE-7	ND	0.313			28-Feb-22 22:50	1
BDE-8/11	ND	0.226			28-Feb-22 22:50	1
BDE-12	ND	0.214			28-Feb-22 22:50	1
BDE-13	ND	0.196			28-Feb-22 22:50	1
BDE-15	ND	0.162			28-Feb-22 22:50	1
BDE-30	ND	0.310			28-Feb-22 22:50	1
BDE-32	ND	0.229			28-Feb-22 22:50	1
BDE-17	ND	0.239			28-Feb-22 22:50	1
BDE-25	ND	0.336			28-Feb-22 22:50	1
BDE-28/33	0.729			J	28-Feb-22 22:50	1
BDE-35/21	ND	0.203			28-Feb-22 22:50	1
BDE-37	ND	0.182			28-Feb-22 22:50	1
BDE-75/51	ND	0.173			28-Feb-22 22:50	1
BDE-49	ND	0.227			28-Feb-22 22:50	1
BDE-71	ND	0.241			28-Feb-22 22:50	1
BDE-47	14.7	7.77		J, B	28-Feb-22 22:50	1
BDE-66	ND	0.254		,,,,,	28-Feb-22 22:50	1
BDE-77	ND	0.143			28-Feb-22 22:50	1
BDE-79	ND	0.150			28-Feb-22 22:50	1
BDE-100	2.62	0.120		J, B	28-Feb-22 22:50	1
BDE-119/120	ND	3.48		V, 2	28-Feb-22 22:50	1
BDE-99	10.6	3.40		J	28-Feb-22 22:50	1
BDE-116	ND	6.10			28-Feb-22 22:50	1
BDE-118	ND	3.67			28-Feb-22 22:50	i
BDE-85	ND	3.99			28-Feb-22 22:50	ì
BDE-126	ND	2.50			28-Feb-22 22:50	1
BDE-105	ND	5.23			28-Feb-22 22:50	1
BDE-155	ND	0.689			28-Feb-22 22:50	1
BDE-128/154	ND	1.12			28-Feb-22 22:50	1
BDE-153	2.83	1.12		J	28-Feb-22 22:50	1
BDE-139	ND		1.27	,	28-Feb-22 22:50	1
BDE-140	ND	1.33	1.27		28-Feb-22 22:50	1
BDE-138	ND	1.64			28-Feb-22 22:50	1
BDE-166	ND	2.42			28-Feb-22 22:50	
BDE-148/156/169	ND	2.60			28-Feb-22 22:50	1
BDE-175	ND	0.670			28-Feb-22 22:50	
BDE-184	ND	0.514			28-Feb-22 22:50	
BDE-183/176	2.99	0.514		J, B	28-Feb-22 22:50	
BDE-191	ND	2.44		J, B	28-Feb-22 22:50	
BDE-191	ND	2.44			28-Feb-22 22:50	
BDE-181/177	ND ND	2.19			28-Feb-22 22:50	
BDE-190/171	ND	2.30			28-Feb-22 22:50	
BDE-201	ND	7.59			28-Feb-22 22:50	
BDE-201 BDE-204		1.33	17.0		28-Feb-22 22:50	
BDE-204 BDE-197	ND ND		4.59		28-Feb-22 22:50 28-Feb-22 22:50	
BDE-197 BDE-203/200	ND ND	8.43	4.39		28-Feb-22 22:50 28-Feb-22 22:50	
BDE-205	ND	15.6			28-Feb-22 22:50	1

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Sample ID: PZ-05_0222 EPA Method 1614

Client Data

Name:

GSI Water Solutions

Project: Eatonville
Matrix: Aqueous
Date Collected: 04-Feb-22 13:45

Laboratory Data

Lab Sample: 2202107-14 QC Batch: B22B176

0.918 L

Date Received:

Date Extracted:

08-Feb-22 13:03 18-Feb-22

Column:

ZB-5MS

Analyte	Conc. (pg/L)	EDL	EMPC	Qualifiers Analyzed	Dilution
BDE-208	ND	5.55		28-Feb-22 22:50	1
BDE-207	ND	5.93		28-Feb-22 22:50	1
BDE-206	ND	10.5		28-Feb-22 22:50	1
BDE-209	ND	280		28-Feb-22 22:50	1

Sample Size:

BDE-209	ND	280		28-Feb-22 22:50	1
Labeled Standards	Type	% Recovery	Limits	Qualifiers Analyzed	Dilution
13C-BDE-3	IS	48.7	25 - 150	28-Feb-22 22:50) 1
13C-BDE-15	IS	86.3	25 - 150	28-Feb-22 22:50) 1
13C-BDE-28	IS	115	25 - 150	28-Feb-22 22:50	1
13C-BDE-47	IS	86.7	30 - 140	28-Feb-22 22:50) 1
13C-BDE-77	IS	89.6	25 - 150	28-Feb-22 22:50) 1
13C-BDE-100	IS	106	25 - 150	28-Feb-22 22:50) 1
13C-BDE-99	IS	92.2	25 - 150	28-Feb-22 22:50) 1
13C-BDE-118	IS	84.4	25 - 150	28-Feb-22 22:50	1
13C-BDE-155	IS	84.0	25 - 150	28-Feb-22 22:50	1
13C-BDE-154	IS	85.6	25 - 150	28-Feb-22 22:50) 1
13C-BDE-153	IS	86.4	25 - 150	28-Feb-22 22:50	1
13C-BDE-138	IS	88.5	25 - 150	28-Feb-22 22:50) 1
13C-BDE-169	IS	93.0	25 - 150	28-Feb-22 22:50) 1
13C-BDE-183	IS	108	25 - 150	28-Feb-22 22:50) 1
13C-BDE-180	IS	95.9	25 - 150	28-Feb-22 22:50	1
13C-BDE-204	IS	87.9	25 - 150	28-Feb-22 22:50) 1
13C-BDE-197	IS	77.7	25 - 150	28-Feb-22 22:50) 1
13C-BDE-205	IS	76.5	25 - 150	28-Feb-22 22:50) 1
13C-BDE-207	IS	85.3	25 - 150	28-Feb-22 22:50	1
13C-BDE-206	IS	78.2	25 - 150	28-Feb-22 22:50) 1
13C-BDE-209	IS	52.4	20 - 200	28-Feb-22 22:50) 1
13C-BDE-126	CRS	94.7	30 - 135	28-Feb-22 22:50) 1

EDL - Sample specifc estimated detection limit

EMPC - Estimated maximum possible concentration

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Sample ID: PZ-102_0222 EPA Method 1614

Sample Size:

Client Data

Name:

GSI Water Solutions

Project: Eatonville
Matrix: Aqueous
Date Collected: 04 Feb 22 10

Laboratory Data

Lab Sample: 2202107-15 QC Batch: B22B176

0.753 L

Date Received: Date Extracted: 08-Feb-22 13:03 18-Feb-22

Column:

ZB-5MS

Date Collected: 04-Feb	-22 10:50					
Analyte	Conc. (pg/L)	EDL	EMPC	Qualifiers	Analyzed	Dilution
BDE-1	ND	10.1			28-Feb-22 21:51	1
BDE-2	ND	6.48			28-Feb-22 21:51	
BDE-3	ND	5.74			28-Feb-22 21:51	1
BDE-10	ND	0.425			28-Feb-22 21:51	1
BDE-7	ND	0.402			28-Feb-22 21:51	1
BDE-8/11	ND	0.291			28-Feb-22 21:51	1
BDE-12	ND	0.275			28-Feb-22 21:51	1
BDE-13	ND	0.252			28-Feb-22 21:51	1
BDE-15	ND	0.209			28-Feb-22 21:51	1
BDE-30	ND	0.411			28-Feb-22 21:51	1
BDE-32	ND	0.305			28-Feb-22 21:51	1
BDE-17	ND	0.317			28-Feb-22 21:51	1
BDE-25	ND	0.446			28-Feb-22 21:51	1
BDE-28/33	1.30			J	28-Feb-22 21:51	1
BDE-35/21	ND	0.269			28-Feb-22 21:51	1
BDE-37	ND	0.242			28-Feb-22 21:51	1
BDE-75/51	ND	0.219			28-Feb-22 21:51	1
BDE-49	ND		0.693		28-Feb-22 21:51	
BDE-71	ND	0.305			28-Feb-22 21:51	
BDE-47	25.3			J, B	28-Feb-22 21:51	
BDE-66	ND	0.334		.,	28-Feb-22 21:51	1
BDE-77	ND	0.188			28-Feb-22 21:51	1
BDE-79	ND	0.190			28-Feb-22 21:51	1
BDE-100	ND		2.83		28-Feb-22 21:51	
BDE-119/120	ND	2.91	3000		28-Feb-22 21:51	1
BDE-99	14.7			J	28-Feb-22 21:51	
BDE-116	ND	5.55			28-Feb-22 21:51	1
BDE-118	ND	3.34			28-Feb-22 21:51	
BDE-85	ND	3.63			28-Feb-22 21:51	1
BDE-126	ND	2.27			28-Feb-22 21:51	1
BDE-105	ND	4.76			28-Feb-22 21:51	1
BDE-155	ND	0.689			28-Feb-22 21:51	
BDE-128/154	ND	1.10			28-Feb-22 21:51	
BDE-153	2.82	1.10		J	28-Feb-22 21:51	1
BDE-139	ND	1.22		,	28-Feb-22 21:51	1
BDE-140	ND ND	1.37			28-Feb-22 21:51	
BDE-138	ND ND	1.78			28-Feb-22 21:51	
BDE-166	ND	2.61			28-Feb-22 21:51	
BDE-148/156/169						
The state of the s	ND	3.04			28-Feb-22 21:51	
BDE-175	ND	0.611			28-Feb-22 21:51	
BDE-184	ND	0.468	2.01		28-Feb-22 21:51	
BDE-183/176	ND	2.05	3.81		28-Feb-22 21:51	
BDE-191	ND	3.05			28-Feb-22 21:51	
BDE-180	ND	2.75			28-Feb-22 21:51	
BDE-181/177	ND	2.73			28-Feb-22 21:51	
BDE-190/171	ND	2.87			28-Feb-22 21:51	
BDE-201	ND	10.9			28-Feb-22 21:51	
BDE-204	20.8			J	28-Feb-22 21:51	
BDE-197	ND		8.91		28-Feb-22 21:51	
BDE-203/200	ND	11.4			28-Feb-22 21:51	
BDE-205	ND	24.8			28-Feb-22 21:51	1

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Sample ID: PZ-102_0222 EPA Method 1614

Client Data

Name: GSI Water Solutions

Project: Eatonville Matrix: Aqueous

Date Collected: 04-Feb-22 10:50

Laboratory Data

Lab Sample: 2202107-15 QC Batch: B22B176

Sample Size: 0.753 L

Date Received:
Date Extracted:

08-Feb-22 13:03 18-Feb-22

Column:

ZB-5MS

Analyte	Conc. (pg/L)	EDL	EMPC	Qualifiers	Analyzed	Dilution
BDE-208	ND	7.54			28-Feb-22 21:51	1
BDE-207	ND	8.06			28-Feb-22 21:51	1
BDE-206	ND	15.0			28-Feb-22 21:51	1
BDE-209	ND	310			28-Feb-22 21:51	1
Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution

BDE-209	ND	310		28-Feb-22 21:51	1
Labeled Standards	Type	% Recovery	Limits	Qualifiers Analyzed	Dilution
13C-BDE-3	IS	45.3	25 - 150	28-Feb-22 21:51	1
13C-BDE-15	IS	82.2	25 - 150	28-Feb-22 21:51	1
13C-BDE-28	IS	115	25 - 150	28-Feb-22 21:51	1
13C-BDE-47	IS	92.8	30 - 140	28-Feb-22 21:51	1
13C-BDE-77	IS	93.4	25 - 150	28-Feb-22 21:51	1
13C-BDE-100	IS	127	25 - 150	28-Feb-22 21:51	1
13C-BDE-99	IS	107	25 - 150	28-Feb-22 21:51	1
13C-BDE-118	IS	93.5	25 - 150	28-Feb-22 21:51	1
13C-BDE-155	IS	96.5	25 - 150	28-Feb-22 21:51	1
13C-BDE-154	IS	100	25 - 150	28-Feb-22 21:51	1
13C-BDE-153	IS	94.3	25 - 150	28-Feb-22 21:51	1
13C-BDE-138	IS	88.8	25 - 150	28-Feb-22 21:51	1
13C-BDE-169	IS	86.9	25 - 150	28-Feb-22 21:51	1
13C-BDE-183	IS	117	25 - 150	28-Feb-22 21:51	1
13C-BDE-180	IS	107	25 - 150	28-Feb-22 21:51	1
13C-BDE-204	IS	107	25 - 150	28-Feb-22 21:51	1
13C-BDE-197	IS	89.0	25 - 150	28-Feb-22 21:51	1
13C-BDE-205	IS	78.9	25 - 150	28-Feb-22 21:51	1
13C-BDE-207	IS	97.3	25 - 150	28-Feb-22 21:51	1
13C-BDE-206	IS	85.0	25 - 150	28-Feb-22 21:51	1
13C-BDE-209	IS	65.5	20 - 200	28-Feb-22 21:51	1
13C-BDE-126	CRS	105	30 - 135	28-Feb-22 21:51	1

EDL - Sample specifc estimated detection limit

EMPC - Estimated maximum possible concentration

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DATA QUALIFIERS & ABBREVIATIONS

B This compound was also detected in the method blank

Conc. Concentration

CRS Cleanup Recovery Standard

D Dilution

DL Detection Limit

E The associated compound concentration exceeded the calibration range of the

instrument

H Recovery and/or RPD was outside laboratory acceptance limits

I Chemical Interference

IS Internal Standard

J The amount detected is below the Reporting Limit/LOQ

LOD Limit of Detection

LOQ Limit of Quantitation

M Estimated Maximum Possible Concentration (CA Region 2 projects only)

MDL Method Detection Limit

NA Not applicable

ND Not Detected

OPR Ongoing Precision and Recovery sample

P The reported concentration may include contribution from chlorinated diphenyl ether(s).

Q The ion transition ratio is outside of the acceptance criteria.

RL Reporting Limit

RL For 537.1, the reported RLs are the MRLs.

TEQ Toxic Equivalency, sum of the toxic equivalency factors (TEF) multiplied by the

sample concentrations.

TEQMax TEQ calculation that uses the detection limit as the concentration for non-detects

TEQMin TEQ calculation that uses zero as the concentration for non-detects

TEQRisk TEQ calculation that uses ½ the detection limit as the concentration for non-

detects

U Not Detected (specific projects only)

* See Cover Letter

Unless otherwise noted, solid sample results are reported in dry weight. Tissue samples are reported in wet weight.

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Vista Analytical Laboratory Certifications

Accrediting Authority	Certificate Number
Alaska Department of Environmental Conservation	17-013
Arkansas Department of Environmental Quality	21-023-0
California Department of Health – ELAP	2892
DoD ELAP - A2LA Accredited - ISO/IEC 17025:2005	3091,01
Florida Department of Health	E87777-26
Hawaii Department of Health	N/A
Louisiana Department of Environmental Quality	01977
Maine Department of Health	2020018
Massachusetts Department of Environmental Protection	M-CA413
Michigan Department of Environmental Quality	9932
Minnesota Department of Health	1980678
New Hampshire Environmental Accreditation Program	207720
New Jersey Department of Environmental Protection	CA003
New York Department of Health	11411
Ohio Environmental Protection Agency	87778
Oregon Laboratory Accreditation Program	4042-016
Pennsylvania Department of Environmental Protection	017
Texas Commission on Environmental Quality	T104704189-21-12
Vermont Department of Health	VT-4042
Virginia Department of General Services	10769
Washington Department of Ecology	C584
Wisconsin Department of Natural Resources	998036160

Current certificates and lists of licensed parameters are located in the Quality Assurance office and are available upon request.

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NELAP Accredited Test Methods

MATRIX: Air	
Description of Test	Method
Determination of Polychlorinated p- Dioxins & Polychlorinated Dibenzofurans	EPA 23
Polychlorinated Dibenzodioxins in Ambient Air by GC/HRMS	EPA TO-9A

MATRIX: Biological Tissue	
Description of Test	Method
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

MATRIX: Drinking Water	
Description of Test	Method
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613/1613B
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537.1
Determination of Per- and Polyfluoroalkyl Substances in Drinking Water by Isotope Dilution Anion Exchange Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry	EPA 533
Perfluorooctanesulonate (PFOS) and Perfluorooctanoate (PFOA) - Method for Unfiltered Samples Using Solid Phase Extraction and Liquid Chromatography/Mass Spectrometry	ISO 25101 2009

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MATRIX: Non-Potable Water	
Description of Test	Method
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Dioxin by GC/HRMS	EPA 613
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

MATRIX: Solids	
Description of Test	Method
Tetra-Octa Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

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1000

Laboratory Project ID:	1702/07	Temp;	37
Storage ID: WY-1		Storage Secured:	Yes N No

Laboratory Project ID: 1202/04 Temp: 1.5 ° Storage ID: WY-1 Storage Secured: Yes Id No	Grevievieve Schurbus (check one): Rush (surcharge may apply) (hame)
Laboratory Storage ID:	Schutois
	Grenevieve
OF CUSTODY	Sampler:
HAIN OF CL	540.1710
ਠ	P.O.#:
Vista Analytical Laboratory	Eathmille
20	Project ID:

Invoice to: Name Company		Address		City	State	State Ph# Fax#	Fax#
Josh Bale GISI		55 SW	55 SWYAMMIII #260	Portland	00	971-300.850a	3503
Relinquished by (printed name and signature)	Date	Time	Received by (printed name and signature)	d signature)		Date	Time
Genevieve Schukins	3/5/22	1000	Nowy, Just 14			00/08/02 13:03	13:03
Relinquished by (printed name and signature)	Date	Time	Received by (printed name and signature)	d signature)		Date	Time

SHIP TO: Vista Analytical Laboratory 1104 Windfield Way El Dorado Hills, CA 95762	aboratory /ay 3A 95762	73-0106	Method of Shipment:	Add Analysis(es) Requested	5181 AC	0828 260	8991 80	624864	
0701-010 (010)	rax (310) 0	2010-61	TO A VES	Container(s)	, h	T I		>	
ATTN:			Tracking No.:	///	\$00.000 \$00.000 \$00.000	1	Stan	155 40	
Sample ID	Date	Time	Location/Sample Description	Amen att stes	1 8/65/18/18/18/18/18/18/18/18/18/18/18/18/18/	W. 101	JOHN HAM	Mod E	Comments
Swot-bass	relete	1100		JED 1					
SWOS-0332		1310		2 A M			\		
smod-coss		3261		2 4 10			/		
SW10-0333		1422		2 A NO			7		
Swil- uss		1513		2 A AO			7		
SWIA-0332		1600		2 A 10			1		
SW13-0332		173		2 # AD			7		
Sw109-0233	+	1330		2 A NO			7		
SW14-0222	2/4/20	1455							
Special Instructions/Comments:	Boille	S 20	Bottles do not have "03	to pos" see		Name: 10	Name: Josh Bulk	-	
	end	- please	add to	/D.	SEND DOCUMENTATION AND RESULTS TO:	Company: GST St	GST Mamhil		007 #
						Phone: 44	Phone: 471.200.5502	1.1	State: DK. Zip: 9 1201 Fax:
						Email: 54	Email: bale@gsiws	vs. com	N

Page: 1 of 1

Matrix Types: AQ = Aqueous, DW = Drinking Water, EF = Effluent, PP = Pulp/Paper, SD = Sediment,

Bottle Preservation Type: TZ = Trizma,

Container Types: A = 1 Liter Amber, G = Glass Jar

P = PUF, T = MM5, O = Other:

O = Other:

SL = Sludge, SO = Soil, WW = Waslewater, B = Blood/Serum, O = Other.

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Vista Analytical Laboratory	CHAIN OF		CUSTODY	For Laboratory Use Only Laboratory Project ID: Storage ID:	202107	Temp: Storage Secured:	Temp: 15 °C
Project 10: Edtenville	P.O.# 0171.000	2	Sampler: & Schutzuer	TAT (chec	Standard: Standard: K one): Rush (surcharg	21 days e may apply) 7 days Specify:	scify:
Invoice to: Name Company Josh Bule CAST		Address		City	State Ph# $Q \neq I$.	971. 200.8 502	Fax# So &
Relinquished by (printed name and signature) Geneware Struckaru	Date 3/5734	Time /000	Received by (printed name and signature)	iture)	0100	Date Time	Time 12:03
Relinquished by (printed name and signature)	Date	Time	Received by (printed name and signature)	iture)		Date	Time

SHIP TO: Vista Analytical Laboratory 1104 Windfield Way El Dorado Hills, CA 95762	aboratory /ay :A 95762		Method of Shipment:	Add An	alysis(e	Add Analysis(es) Requested	1	E191 4	0628 6	062	0828 6	0,0	8991 4	p191 4	62488	\		
(916) 6/3-1520 Fax (916) 6/3-0106	Fax (916) b.	/3-0106	CAIN	O	Container(s)	er(s)	1	EP		\	EP	\	EP		5			
ATTN		7	Tracking No.:	1	1	00	302100	00	-			1	AR PCB'S	/	100	1		
Sample ID	Date	Time	Location/Sample Description	Anueno	Sari	Willem STES	00000	137.87.85 127.87.85	27.8165	\sim	PAYON	1000	308	PAN HAS	WOOD ED	\	Comments	4
P2-01-0233	3/4/22	(235		2	Ł					_								
PE-03-0333	24/22	1940		12	AA	ATO ATO	1						1					
P2-03_003	2/3/22 15/5	5151		17	AA	40							1			ľ		17
P2-04-033	23/22 126/2	5921		1 2	M A	RO							1			Щ		
62-03-39	2/4/22 (345	(345		2	A AQ	0							1					
be-103-033	2/4/21	1050		2	A	AQ				Н			1	1				
											0 19							
					-					+					+	4		ı
					-										+	1		
Special Instructions/Comments:	Bot	thes	Bottes do not have	7.7	122	1.0227" at				-	Name:		Josh 0	Bule	U			
-	and -	pice	please add to	0	,		7.2	S DOCUM	SEND DOCUMENTATION AND RESULTS TO:		Company: Address:	¥ 16	3	1	A			
						91		g, =			City:				11	State: Fax:	Zip:	
											Email:	1						
Container Types: A = 1 Liter Amber, G = Glass Jar P = PUF, T = MM5, O = Other:	per, G = Glass	Jar	Bottle Preservation Type: TZ = Trizma. O = Other:	tion Type	TZ=1:	ſnizma,		Matrib SL = S	Matrix Types: AQ = Aqueous, DW = Drinking Water, EF = Effluent, PP = SL = Sludge, SO = Soil, WW = Wastewater, B = Blood/Serum, O = Other.	Soil, W	ous, DW W = Was	= Drinki tewater,	ng Water, B = Blood	EF = Ef	fluent, P	P = Pult	Matrix Types: AQ = Aqueous, DW = Drinking Water, EF = Effluent, PP = Pulp/Paper, SD = Sediment, SL = Sludge, SO = Soil, WW = Wastewater, B = Blood/Serum, O = Other.	ediment,
									ı								Page: 1 of 1	1 of 1



Sample Log-In Checklist

Delivered By:		at	V. 10	Ks			Rack:	WR		
	FedEx	UPS	On Trac	1 7	DHL	-0	Hand elivere	- 1	Oth	ner
Preservation:	₫Će	0	Blu	ie Ice	Techr Ice	ni	Dry Io	ce	No	ne
Temp °C: 9-1 Temp °C: 3-9	(uncorre	P	robe use	ed: Y (N)	Т	herm	omete	er ID:	IR	- 4
Chinning Contains	-(a) Intact			速度流	A.es.T.	1	5.2	YES	NO	NA
Shipping Containe Shipping Custody								1		
Airbill 1 = f 7								1		
Shipping Documer			2895	1633 13	704			1		
Shipping Containe			Vista	Client	Reta	ain)	Reti	urn	Dis	oose
Chain of Custody /	/ Sample E	ocumer)	ntation Pre	esent?					3	
Chain of Custody /	/ Sample D	ocumer)	ntation Co	mplete?			_j			1
Holding Time Acce	eptable?									1

Comments: A) Coc present in cools to

ID.: LR - SLC

Rev No.: 6

Rev Date: 07/16/2020

Page: 1 of 1



Sample Log-In Checklist

Samples Arrival:	Date/Tim	e 08/02	17:07	Initials:		10		: <i>UR</i> -		
Delivered By:	FedEx	UPS	On Tra	11.000	DH	1L		ind vered	Oth	er
Preservation:	(lc	e)	ВІ	ue Ice		echni Ice	Di	ry Ice	No	ne
Temp °C: 3.0			Probe us	ed: Y / ((i	The	rmon	neter ID:	IR-	4
0.1		,								_
						D.E.V.		YES	NO	NA
Shipping Contai		28.45						YES	NO	NA
Shipping Contain	ner(s) Intac	t?				2.6.0		YES /	NO	NA
Shipping Contai	ner(s) Intac	t?	15 663	12 1713				YES /	NO	NA
Shipping Contain	ner(s) Intac ly Seals Inta Trk	t? act?	15 663	17 1713				YES /	NO	NA
Shipping Contains	ner(s) Intac ly Seals Inta Trk	t? act? # 28 9	Vista	73 /7/3 Clien		etain		YES /		NA
Shipping Contains Shipping Custon Airbill 2 2 7 7 Shipping Docum	ner(s) Intac ly Seals Inta Trk nentation Pr	t? act? # 38 9	Vista	Clien		Retain		1		
Shipping Contain Shipping Custon Airbill 2 2 f 7 Shipping Docum Shipping Contain	ner(s) Intac ly Seals Inta Trk nentation Pr ner y / Sample	t? act? # 389 esent? Docume	Vista entation Pr	Clien		Petain		Return		
Shipping Contain Shipping Custoo Airbill Shipping Documer Shipping Contain Chain of Custod	ner(s) Intac ly Seals Inta Trk nentation Pr ner y / Sample y / Sample	t? act? # 389 esent? Docume	Vista entation Pr	Clien		Retain		I J J Return		NA

Comments:

ID.: LR - SLC

Rev No.: 6

Rev Date: 07/16/2020

Page: 1 of 1



Sample Log-In Checklist

Samples Arrival:	Date/Tim	e 1/2 1:		Initials:			:		
Delivered By:	FedEx	UPS	On Trac	GLS	DHL		and vered	Oth	er
Preservation:	(Ic	e)	Blu	e Ice	Techni	D	ry Ice	No	ne
Temp °C: 2.5			Probe use	d: Y / 🕦	Th	nermon	neter ID:	+R	NA NA
Shipping Contain							/		
Airbill 30f 3	Trk	# 2895	6637	1726			/		_
Shipping Docum			Vista	Client	Reta	n)	Return	Disp	ose
Shipping Contain								0	
Shipping Contain Chain of Custod		Documer	ntation Pre	esent?				2	
oth arrows	y / Sample	77 77 7	A COLUMN	Time It is				B.	-

Comments: A) Coc prout in Gola #2

ID.: LR – SLC Rev No.: 6 Rev Date: 07/16/2020 Page: 1 of 1

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CoC/Label Reconciliation Report WO# 2202107

LabNumber CoC Sample ID		SampleAlias	Sample Date/Time	Container	BaseMatrix	Sample Comments
2202107-01 A SW07 0222	® □		02-Feb-22 11:00	Amber Glass NM Bottle, IL	Aqueous	
2202107-01 B SW07_0222			02-Feb-22 11:00 [2]	Amber Glass NM Boule, IL	Aqueous	
2202107-02 A SW08_0222			02-Feb-22 12:10 🔽	Amber Glass NM Boutle, IL	Aqueous	THE REAL PROPERTY.
2202107-02 B SW08_0222			02-Feb-22 12:10 🖂	Amber Glass NM Bottle, 1L	Aqueous	
2202107-03 A SW09 0222	0		02-Feb-22 13:25 🔟	Amber Glass NM Bottle, IL	Aqueous	The second
2202107-03 B SW09 0222			02-Feb-22 13:25 🗹	Amber Glass NM Bottle, IL	Aqueous	
2202107-04 A SW10 0222			02-Feb-22 14:22 🖂	Amber Glass NM Bottle, IL	Aqueous	
2202107-04 B SW10_0222	0		02-Feb-22 14:22	Amber Glass NM Bottle, 1L	Aqueous	
2202107-05 A SW11_0222		THE RESERVE	02-Feb-22 15:15 🔽	Amber Glass NM Bottle, IL	Aqueous	
2202107-05 B SW11_0222	0		02-Feb-22 15:15	Amber Glass NM Bottle, IL	Aqueous	
2202107-06 A SW12_0222			02-Feb-22 16:00	Amber Glass NM Bortle, IL	Aqueous	
2202107-06 B SW12_0222	0		02-Feb-22 16:00 🗹	Amber Glass NM Bottle, IL	Aqueous	
2202107-07 A SW13_0222		日本の (02-Feb-22 17.25 🗖	Amber Glass NM Bottle, 1L	Aqueous	
2202107-07 B SW13_0222	0		02-Feb-22 17:25	Amber Glass NM Bottle, 1L	Aqueous	
2202107-08 A SW109_0222	0		02-Feb-22 13:30 🔲	Amber Glass NM Bottle, IL	Aqueous	
2202107-08 B SW109 0222	0		02-Feb-22 13:30 💌	Amber Glass NM Bottle, 1L	Aqueous	
2202107-09 A SW14 0222			04-Feb-22 14:55 🔟	Amber Glass NM Bottle, 1L	Aqueous	THE PARTY AND
2202107-09 B SW14_0222	0		04-Feb-22 14:55 🔟	Amber Glass NM Bottle, IL	Aqueous	
2202107-10 A PZ-01_0222			04-Feb-22 12:35 🔟	Amber Glass NM Bottle, 1L	Aqueous	THE RESERVE
2202107-10 B PZ-01_0222			04-Feb-22 12:35 🔟	Amber Glass NM Bottle, IL	Aqueous	
2202107-11 A PZ-02_0222			04-Feb-22 10:40	Amber Glass NM Bottle, IL	Aqueous	1153000
2202107-11 B PZ-02_0222	0		04-Feb-22 10:40 🔟	Amber Glass NM Bottle, 1L	Aqueous	
2202107-12 A PZ-03_0222			03-Feb-22 15:15 🔟	Amber Glass NM Bottle, 1L	Ydneons	THE PERSON NAMED IN
2202107-12 B PZ-03_0222			03-Feb-22 15:15	Amber Glass NM Bottle, 1L	Aqueous	
2202107-13 A PZ-04_0222			03-Feb-22 12:05	Amber Glass NM Bottle, IL	Aqueous	TANKS OF SUR
2202107-13 B PZ-04_0222			03-Feb-22 12:05	Amber Glass NM Bottle, 1L	Aqueous	
2202107-14 A PZ-05_0222			04-Feb-22 13:45 🏹	Amber Glass NM Bottle, IL	Aqueous	
2202107-14 B PZ-05_0222	>		04-Feb-22 13:45	Amber Glass NM Bottle, IL	Aqueous	

Page 1 of 2 Page 49 of 51 2202107 Printed: 2/11/2022 8:40:41AM Work Order 2202107

20	
40	_
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	-
	N
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	.02

Checkmarks indicate that information on the COC reconciled with the sample label. Any discrepancies are noted in the following columns. Preservation Documented: Na2S2O3 Trizma Container Type Appropriate for Analysis(es) Verifed by/Date 1 111112 Sample Custody Seals Intact? Adequate Sample Volume? Sample Container Intact? 2202107-15 B PZ-102 0222

Amber Glass NM Bottle, 1L A: Collection date on label: "02/04/22" 04-Feb-22 10:50 NA No

Aqueous Aqueous

Amber Glass NM Bottle, 1L

04-Fcb-22 10:50

2202107-15 A PZ-102 0222

Other NH4CH3CO2

None

B: Underlined Segment is not present on Sample Tabel C.1: Cooler 10#3 Cz: Cooler 20#3 Cz: cooler 3 of 3

Printed: 2/11/2022 8:40:41AM

Rev. Date: 09/14/2021 Rev. No: 1

ANOMALY FORM ID: SR-AF



ANOMALY FORM

nitial/Date	The fe	ollowing checked issues were noted during sample receipt and login:
		1. The samples were received out of temperature at (WI-PHT): Was Ice present: Yes No Melted Blue Ice
		2. The Chain-of-Custody (CoC) was not relinquished properly.
		3. The CoC did not include collection time(s). 00:00 will be used unless notified otherwise.
		4. The sample(s) did not include a sample collection time. All or Sample Name:
312/11/22	Ø	 A sample ID discrepancy was found. See the Reconciliation report. The CoC Sample ID will be used unless notified otherwise.
poslular	X	 A sample date and/or time discrepancy was found. See the Reconciliation report. The CoC Sample date/time will be used unless notified otherwise.
		7. The CoC did not include a sample matrix. The following sample matrix will be used:
		8. Insufficent volume received for analysis. All or Sample Name:
		9. The backup bottle was received broken. Sample Name:
		10. CoC not received, illegible or destroyed.
		11. The sample(s) were received out of holding time. All or Sample Name:
		12. The CoC did not include an analysis. All or Sample Name:
		13. Sample(s) received without collection date. All or Sample Name:
		14. Sample(s) not received. All or Sample Name:
		15. Sample(s) received broken. All or Sample Name:
		16. An incorrect container-type was used. All or Sample Name:
		17. The Field Reagent Blank (FRB) preservative was from a different lot than the field samples. Will proceed with analysis and narrate unless notified otherwise.
		18. Other:
Bolded items r	equire s	ign-off
Client Contact	ed:	
Date of Contac	ct: _	
Vista Client Ma	anager:	
Resolution:		

ID: SR - AF Rev.: 0 Rev. Date: 11/08/2019 Page: 1 of 1

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323 ORELAP ID: OR100062

Friday, April 14, 2023
Josh Bale
GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

RE: A1K0754 - Weyerhaeuser-Eatonville - 0171.067

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A1K0754, which was received by the laboratory on 11/12/2021 at 1:40:00PM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: pnerenberg@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample receipt, unless prior arrangements have been made.

Cooler Receipt Information

(See Cooler Receipt Form for details)

Cooler #1

5.6 degC

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.

All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.





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Philip Nerenberg, Lab Director

Philip Nevenberg

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions Project: Weyerhaeuser-Eatonville

 55 SW Yamhill St, Ste 300
 Project Number: 0171.067
 Report ID:

 Portland, OR 97209
 Project Manager: Josh Bale
 A1K0754 - 04 14 23 1557

ANALYTICAL REPORT FOR SAMPLES

	SAMPLE INFO	RMATION		
Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Drum_IDW_1121	A1K0754-01	Soil	11/09/21 15:30	11/12/21 13:40

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions Project: Weyerhaeuser-Eatonville

 55 SW Yamhill St, Ste 300
 Project Number: 0171.067
 Report ID:

 Portland, OR 97209
 Project Manager: Josh Bale
 A1K0754 - 04 14 23 1557

ANALYTICAL SAMPLE RESULTS

		Total Meta	ls by EPA 60	20B (ICPMS)				
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
Drum_IDW_1121 (A1K0754-01)				Matrix: Soi	I			
Batch: 21K1121								
Arsenic	3.00	0.616	1.23	mg/kg dry	10	11/30/21 02:43	EPA 6020B	
Barium	55.6	0.616	1.23	mg/kg dry	10	11/30/21 02:43	EPA 6020B	
Cadmium	ND	0.123	0.246	mg/kg dry	10	11/30/21 02:43	EPA 6020B	
Chromium	21.0	0.616	1.23	mg/kg dry	10	11/30/21 02:43	EPA 6020B	
Lead	3.34	0.123	0.246	mg/kg dry	10	11/30/21 02:43	EPA 6020B	
Mercury	ND	0.0493	0.0985	mg/kg dry	10	11/30/21 02:43	EPA 6020B	
Selenium	ND	0.616	1.23	mg/kg dry	10	11/30/21 02:43	EPA 6020B	
Silver	ND	0.123	0.246	mg/kg dry	10	11/30/21 02:43	EPA 6020B	

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions Project: Weyerhaeuser-Eatonville

 55 SW Yamhill St, Ste 300
 Project Number: 0171.067
 Report ID:

 Portland, OR 97209
 Project Manager: Josh Bale
 A1K0754 - 04 14 23 1557

ANALYTICAL SAMPLE RESULTS

		Pe	ercent Dry W	eight				
	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
Drum_IDW_1121 (A1K0754-01)				Matrix: So	oil	Batch:	21K0664	
% Solids	85.3	1.00	1.00	%	1	11/17/21 09:48	EPA 8000D	

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Apex Laboratories, LLC

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ORELAP ID: OR100062

GSI Water Solutions Project: Weyerhaeuser-Eatonville

 55 SW Yamhill St, Ste 300
 Project Number: 0171.067
 Report ID:

 Portland, OR 97209
 Project Manager: Josh Bale
 A1K0754 - 04 14 23 1557

QUALITY CONTROL (QC) SAMPLE RESULTS

			Total M	letals by	EPA 6020	B (ICPMS	S)					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 21K1121 - EPA 3051A							Soi	I				
Blank (21K1121-BLK1)			Prepared	: 11/29/21 1	1:09 Anal	yzed: 11/30	/21 02:26					
EPA 6020B												
Arsenic	ND	0.481	0.962	mg/kg we	et 10							
Barium	ND	0.481	0.962	mg/kg we	et 10							
Cadmium	ND	0.0962	0.192	mg/kg we	et 10							
Chromium	ND	0.481	0.962	mg/kg we	et 10							
Lead	ND	0.0962	0.192	mg/kg we	et 10							
Mercury	ND	0.0385	0.0769	mg/kg we								
Selenium	ND	0.481	0.962	mg/kg we								
Silver	ND	0.0962	0.192	mg/kg we	et 10							
LCS (21K1121-BS1)			Prepared	: 11/29/21 1	1:09 Anal	yzed: 11/30	/21 02:32					
EPA 6020B												
Arsenic	54.5	0.500	1.00	mg/kg we	et 10	50.0		109	80-120%			
Barium	51.6	0.500	1.00	mg/kg we	et 10	50.0		103	80-120%			
Cadmium	48.8	0.100	0.200	mg/kg we	et 10	50.0		98	80-120%			
Chromium	51.4	0.500	1.00	mg/kg we	et 10	50.0		103	80-120%			
Lead	48.6	0.100	0.200	mg/kg we	et 10	50.0		97	80-120%			
Mercury	0.897	0.0400	0.0800	mg/kg we	et 10	1.00		90	80-120%			
Selenium	25.2	0.500	1.00	mg/kg we	et 10	25.0		101	80-120%			
Silver	24.1	0.100	0.200	mg/kg we	et 10	25.0		96	80-120%			
Duplicate (21K1121-DUP1)			Prepared	: 11/29/21 1	1:09 Anal	yzed: 11/30	/21 02:59					
QC Source Sample: Non-SDG (A1	IK1008-01)											
Arsenic	5.19	0.625	1.25	mg/kg dr	y 10		5.08			2	20%	
Barium	137	0.625	1.25	mg/kg dr	y 10		157			13	20%	
Cadmium	0.219	0.125	0.250	mg/kg dr	y 10		0.265			19	20%	
Chromium	25.5	0.625	1.25	mg/kg dr	y 10		22.2			14	20%	
Lead	38.1	0.125	0.250	mg/kg dr	y 10		38.1			0.1	20%	
Mercury	0.0587	0.0500	0.100	mg/kg dr	y 10		0.0563			4	20%	
Selenium	ND	0.625	1.25	mg/kg dr	y 10		ND				20%	
Silver	0.129	0.125	0.250	mg/kg dr	y 10		ND				20%	
Matrix Spike (21K1121-MS1)			Prepared	: 11/29/21 1	1:09 Anal	yzed: 11/30	/21 03:05					

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ORELAP ID: OR100062

GSI Water Solutions Project: Weyerhaeuser-Eatonville

 55 SW Yamhill St, Ste 300
 Project Number: 0171.067
 Report ID:

 Portland, OR 97209
 Project Manager: Josh Bale
 A1K0754 - 04 14 23 1557

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS) Detection Reporting Spike % REC **RPD** Source Dilution Analyte Result Limit Units Result % REC Limits RPD Limit Amount Limit Notes Batch 21K1121 - EPA 3051A Soil Matrix Spike (21K1121-MS1) Prepared: 11/29/21 11:09 Analyzed: 11/30/21 03:05 QC Source Sample: Non-SDG (A1K1008-01) EPA 6020B 0.679 1.36 77.8 mg/kg dry 10 67.9 5.08 107 75-125% Arsenic Barium 229 0.679 1.36 mg/kg dry 10 67.9 157 106 75-125% Cadmium 65.8 0.136 0.271 75-125% mg/kg dry 10 67.9 0.26597 Chromium 93.2 0.679 1.36 mg/kg dry 10 67.9 22.2 105 75-125% Lead 129 0.136 0.271 67.9 75-125% Q-04 mg/kg dry 10 38.1 134 1.28 0.0543 0.109 mg/kg dry 10 1.36 0.0563 90 75-125% Mercury 33.9 Selenium 0.679 1.36 10 33.9 ND 100 75-125% mg/kg dry ---Silver 33.3 0.1360.271 mg/kg dry 10 33.9 ND 98 75-125%

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Philip Nerenberg, Lab Director

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Weyerhaeuser-Eatonville

Project Number: **0171.067**Project Manager: **Josh Bale**

Report ID: A1K0754 - 04 14 23 1557

QUALITY CONTROL (QC) SAMPLE RESULTS

				Percen	t Dry Wei	ght						
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 21K0664 - Total Solids (D	ry Weigl	ht)					Soil					
Duplicate (21K0664-DUP1)			Prepared	: 11/16/21	08:57 Anal	yzed: 11/17	/21 09:48					PRO
QC Source Sample: Non-SDG (A1K	0344-10)											
% Solids	95.8	1.00	1.00	%	1		95.5			0.3	10%	
Duplicate (21K0664-DUP2)			Prepared	: 11/16/21	08:57 Anal	lyzed: 11/17	/21 09:48					
QC Source Sample: Non-SDG (A1K	<u>0644-02)</u>											
% Solids	56.9	1.00	1.00	%	1		57.5			1	10%	
Duplicate (21K0664-DUP3)			Prepared	: 11/16/21	08:57 Anal	lyzed: 11/17	/21 09:48					
QC Source Sample: Non-SDG (A1K	0750-02)											
% Solids	90.6	1.00	1.00	%	1		89.7			1	10%	
Duplicate (21K0664-DUP4)			Prepared	: 11/16/21	19:49 Anal	yzed: 11/17/	/21 09:48					
QC Source Sample: Non-SDG (A1K	0805-01)											
% Solids	90.3	1.00	1.00	%	1		81.9			10	10%	
Duplicate (21K0664-DUP5)			Prepared	: 11/16/21	19:49 Anal	yzed: 11/17	/21 09:48					
QC Source Sample: Non-SDG (A1K	0803-01)											
% Solids	51.7	1.00	1.00	%	1		53.7			4	10%	
Duplicate (21K0664-DUP6)			Prepared	: 11/16/21	19:49 Anal	yzed: 11/17	/21 09:48					
QC Source Sample: Non-SDG (A1K	0809-01)											
% Solids	99.0	1.00	1.00	%	1		98.9			0.02	10%	
Duplicate (21K0664-DUP7)			Prepared	: 11/16/21	19:49 Anal	yzed: 11/17	/21 09:48					
QC Source Sample: Non-SDG (A1K												
% Solids	76.9	1.00	1.00	%	1		76.8			0.1	10%	

No Client related Batch QC samples analyzed for this batch. See notes page for more information.

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Philip Nerenberg, Lab Director

Philip Nevenberg

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions Project: Weyerhaeuser-Eatonville

 55 SW Yamhill St, Ste 300
 Project Number: 0171.067
 Report ID:

 Portland, OR 97209
 Project Manager: Josh Bale
 A1K0754 - 04 14 23 1557

SAMPLE PREPARATION INFORMATION

		Tota	al Metals by EPA 602	0B (ICPMS)			
Prep: EPA 3051A					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
Batch: 21K1121							
A1K0754-01	Soil	EPA 6020B	11/09/21 15:30	11/29/21 11:09	0.476g/50mL	0.5g/50mL	1.05
			Percent Dry We	ight			
Prep: Total Solids (Dry Weight)				Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
Batch: 21K0664							
A1K0754-01	Soil	EPA 8000D	11/09/21 15:30	11/16/21 19:49			NA

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions Project: Weyerhaeuser-Eatonville

 55 SW Yamhill St, Ste 300
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 Report ID:

 Portland, OR 97209
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 A1K0754 - 04 14 23 1557

QUALIFIER DEFINITIONS

Client Sample and Quality Control (QC) Sample Qualifier Definitions:

Apex Laboratories

J Estimated Result. Result detected below the lowest point of the calibration curve, but above the specified MDL.

PRO Sample has undergone sample processing prior to extraction and analysis.

Q-04 Spike recovery and/or RPD is outside control limits due to a non-homogeneous sample matrix.

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 A1K0754 - 04 14 23 1557

REPORTING NOTES AND CONVENTIONS:

Abbreviations:

DET Analyte DETECTED at or above the detection or reporting limit.

ND Analyte NOT DETECTED at or above the detection or reporting limit.

NR Result Not Reported

RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

Detection Limits: Limit of Detection (LOD)

Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).

If no value is listed ('----'), then the data has not been evaluated below the Reporting Limit.

Reporting Limits: Limit of Quantitation (LOQ)

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

Reporting Conventions:

Basis: Results for soil samples are generally reported on a 100% dry weight basis.

The Result Basis is listed following the units as "dry", "wet", or " " (blank) designation.

"dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")

See Percent Solids section for details of dry weight analysis.

"wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.

"___" Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

QC Source:

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.

Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) may not be included in this report. Please request a Full QC report if this data is required.

Miscellaneous Notes:

"---" QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

"***" Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to ½ the Reporting Limit (RL).

- -For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.
- -For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.

For further details, please request a copy of this document.

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

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 55 SW Yamhill St, Ste 300
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 Project Manager: Josh Bale
 A1K0754 - 04 14 23 1557

REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks (Cont.):

Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.

'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level.

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

Sampling and Preservation Notes:

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

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Philip Nerenberg, Lab Director

Philip Nevenberg



Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions Project: Weyerhaeuser-Eatonville

 55 SW Yamhill St, Ste 300
 Project Number: 0171.067
 Report ID:

 Portland, OR 97209
 Project Manager: Josh Bale
 A1K0754 - 04 14 23 1557

LABORATORY ACCREDITATION INFORMATION

ORELAP Certification ID: OR100062 (Primary Accreditation) -EPA ID: OR01039

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the <u>exception</u> of any analyte(s) listed below:

Apex Laboratories

Matrix Analysis TNI_ID Analyte TNI_ID Accreditation

All reported analytes are included in Apex Laboratories' current ORELAP scope.

Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation.

Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

Field Testing Parameters

Results for Field Tested data are provded by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

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Philip Nerenberg, Lab Director

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Weyerhaeuser-Eatonville

Project Number: **0171.067**Project Manager: **Josh Bale**

Report ID: A1K0754 - 04 14 23 1557

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Philip Nerenberg, Lab Director

Philip Merenberg

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6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Weyerhaeuser-Eatonville

Project Number: **0171.067**Project Manager: **Josh Bale**

Report ID: A1K0754 - 04 14 23 1557

APEX LABS COOLER RECEIPT FORM Element WO#: A1 W754 Project/Project #: Weyerhacuser /0171.067 **Delivery Info:** Date/time received: 11-12-21@ 13:37 By: Mk Delivered by: Apex VClient ESS FedEx UPS Swift Senvoy SDS Other Date/time inspected: 11-12 - 21 @ 17:30 By: AJM Cooler Inspection Chain of Custody included? Yes X No Custody seals? Yes No X Signed/dated by client? Yes _____ No ____ Signed/dated by Apex? Yes X No Cooler #1 Cooler #2 Cooler #3 Cooler #4 Cooler #5 Cooler #6 Cooler #7 Temperature (°C) Received on ice? (Y/N) Temp. blanks? (Y/N) 1 CE/Real Ice type: (Gel/Real/Other) Condition: GOOD Cooler out of temp? (YN) Possible reason why:

Green dots applied to out of temperature samples? Yes No Out of temperature samples form initiated? Yes No Sample Inspection: Date/time inspected: 1116/14 @ 9900 All samples intact? Yes \(\section \) No \(\section \) Comments: Bottle labels/COCs agree? Yes No ___ Comments: ___ COC/container discrepancies form initiated? Yes No Containers/volumes received appropriate for analysis? Yes ____ No ___ Comments: ___ Do VOA vials have visible headspace? Yes ___ No NA X Comments NA pH appropriate? Yes No NA Water samples: pH checked: Yes No Comments: __ Additional information: Labeled by: Witness: Cooler Inspected by:

Apex Laboratories

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323 ORELAP ID: OR100062

Friday, April 14, 2023
Josh Bale
GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

RE: A2H0521 - Weyerhaeuser-Eatonville - [none]

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A2H0521, which was received by the laboratory on 8/11/2022 at 6:48:00PM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: pnerenberg@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample receipt, unless prior arrangements have been made.

Cooler Receipt Information

(See Cooler Receipt Form for details)

Cooler #1 0.0 degC Cooler #3 4.2 degC Cooler #2

5.3 degC

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.

All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.





Apex Laboratories

Philip Nevenberg

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Philip Nerenberg, Lab Director

Page 1 of 37



Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions Project: Weyerhaeuser-Eatonville

 55 SW Yamhill St, Ste 300
 Project Number: [none]
 Report ID:

 Portland, OR 97209
 Project Manager: Josh Bale
 A2H0521 - 04 14 23 1521

ANALYTICAL REPORT FOR SAMPLES

	SAMPLE INFO	ORMATION		
Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
HA-04G-0.0-0.5	A2H0521-01	Soil	08/09/22 09:05	08/11/22 18:48
HA-03G-0.0-0.5	A2H0521-02	Soil	08/09/22 09:25	08/11/22 18:48
HA-01F-0.0-0.5	A2H0521-03	Soil	08/09/22 10:15	08/11/22 18:48
HA-02F-0.0-0.5	A2H0521-04	Soil	08/09/22 10:35	08/11/22 18:48
HA-102F-0.0-0.5	A2H0521-05	Soil	08/09/22 10:45	08/11/22 18:48
HA-02G-0.0-0.5	A2H0521-06	Soil	08/09/22 11:25	08/11/22 18:48
HA-03F-0.0-0.5	A2H0521-07	Soil	08/09/22 11:50	08/11/22 18:48
HA-04F-0.0-0.5	A2H0521-08	Soil	08/09/22 12:45	08/11/22 18:48
HA-05G-0.0-0.5	A2H0521-09	Soil	08/09/22 13:05	08/11/22 18:48
HA-05F-0.0-0.5	A2H0521-10	Soil	08/09/22 13:30	08/11/22 18:48
HA-04Ab-0.0-0.5	A2H0521-11	Soil	08/10/22 10:25	08/11/22 18:48
HA-05Ab-0.0-0.5	A2H0521-12	Soil	08/10/22 11:00	08/11/22 18:48
HA-105Ab-0.0-0.5	A2H0521-13	Soil	08/10/22 11:10	08/11/22 18:48
HA-06A-0.0-0.5	A2H0521-14	Soil	08/10/22 11:25	08/11/22 18:48
HA-06B-0.0-0.5	A2H0521-15	Soil	08/10/22 11:40	08/11/22 18:48
HA-07A-0.0-0.5	A2H0521-16	Soil	08/10/22 12:05	08/11/22 18:48
HA-07B-0.0-0.5	A2H0521-17	Soil	08/10/22 12:20	08/11/22 18:48
HA-07C-0.0-0.5	A2H0521-18	Soil	08/10/22 12:35	08/11/22 18:48
HA-06C-0.0-0.5	A2H0521-19	Soil	08/10/22 13:00	08/11/22 18:48
HA-06D-0.0-0.5	A2H0521-20	Soil	08/10/22 15:15	08/11/22 18:48
HA-06I-0.0-0.5	A2H0521-21	Soil	08/09/22 14:45	08/11/22 18:48
HA-07I-0.0-0.5	А2Н0521-22	Soil	08/09/22 15:05	08/11/22 18:48
HA-07H-0.0-0.5	A2H0521-23	Soil	08/09/22 15:35	08/11/22 18:48
НА-06Н-0.0-0.5	A2H0521-24	Soil	08/09/22 15:50	08/11/22 18:48
HA-02Ab-0.0-0.5	A2H0521-25	Soil	08/09/22 17:25	08/11/22 18:48
HA-02Aa-0.0-0.5	A2H0521-26	Soil	08/09/22 17:45	08/11/22 18:48
HA-03Aa-0.0-0.5	A2H0521-27	Soil	08/09/22 18:00	08/11/22 18:48
HA-03Ab-0.0-0.5	A2H0521-28	Soil	08/10/22 09:00	08/11/22 18:48
HA-04Aa-0.0-0.5	A2H0521-29	Soil	08/10/22 09:40	08/11/22 18:48
HA-05Aa-0.0-0.5	A2H0521-30	Soil	08/10/22 09:55	08/11/22 18:48
HA-07D-0.0-0.5	А2Н0521-31	Soil	08/10/22 15:35	08/11/22 18:48
HA-06E-0.0-0.5	А2Н0521-32	Soil	08/10/22 15:50	08/11/22 18:48
HA-07E-0.0-0.5	А2Н0521-33	Soil	08/10/22 16:05	08/11/22 18:48

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions Project: Weyerhaeuser-Eatonville

55 SW Yamhill St, Ste 300Project Number: [none]Report ID:Portland, OR 97209Project Manager: Josh BaleA2H0521 - 04 14 23 1521

ANALYTICAL REPORT FOR SAMPLES

	SAMPLE INF	ORMATION		
Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
HA-06F-0.0-0.5	A2H0521-34	Soil	08/10/22 16:20	08/11/22 18:48
HA-07F-0.0-0.5	А2Н0521-35	Soil	08/10/22 16:35	08/11/22 18:48
HA-06G-0.0-0.5	А2Н0521-36	Soil	08/10/22 16:50	08/11/22 18:48
HA-07G-0.0-0.5	А2Н0521-37	Soil	08/10/22 17:05	08/11/22 18:48
HA-X-0.0-0.5	А2Н0521-38	Soil	08/11/22 13:35	08/11/22 18:48
HA-01Aa-0.0-0.5	А2Н0521-39	Soil	08/11/22 13:45	08/11/22 18:48
HA-01Ab-0.0-0.5	A2H0521-40	Soil	08/11/22 13:55	08/11/22 18:48
HA-04G-0.5-1.0	А2Н0521-41	Soil	08/09/22 09:10	08/11/22 18:48
HA-03G-0.5-1.0	A2H0521-42	Soil	08/09/22 09:30	08/11/22 18:48
HA-01F-0.5-1.0	А2Н0521-43	Soil	08/09/22 10:20	08/11/22 18:48
HA-02F-0.5-1.0	A2H0521-44	Soil	08/09/22 10:40	08/11/22 18:48
HA-102F-0.5-1.0	А2Н0521-45	Soil	08/09/22 10:50	08/11/22 18:48
HA-02G-0.5-1.0	A2H0521-46	Soil	08/09/22 11:30	08/11/22 18:48
HA-03F-0.5-1.0	A2H0521-47	Soil	08/09/22 11:55	08/11/22 18:48
HA-04F-0.5-1.0	A2H0521-48	Soil	08/09/22 12:50	08/11/22 18:48
HA-05G-0.5-1.0	A2H0521-49	Soil	08/09/22 13:10	08/11/22 18:48
HA-05F-0.5-1.0	A2H0521-50	Soil	08/09/22 13:35	08/11/22 18:48
HA-06I-0.5-1.0	A2H0521-51	Soil	08/09/22 14:50	08/11/22 18:48
HA-07I-0.5-1.0	A2H0521-52	Soil	08/09/22 15:10	08/11/22 18:48
HA-07H-0.5-1.0	A2H0521-53	Soil	08/09/22 15:40	08/11/22 18:48
НА-06Н-0.5-1.0	A2H0521-54	Soil	08/09/22 15:55	08/11/22 18:48
HA-02Ab-0.5-1.0	А2Н0521-55	Soil	08/09/22 17:30	08/11/22 18:48
HA-02Aa-0.5-1.0	A2H0521-56	Soil	08/09/22 17:50	08/11/22 18:48
HA-03Aa-0.5-1.0	А2Н0521-57	Soil	08/09/22 18:05	08/11/22 18:48
HA-03Ab-0.5-1.0	A2H0521-58	Soil	08/10/22 09:05	08/11/22 18:48
HA-04Aa-0.5-1.0	А2Н0521-59	Soil	08/10/22 09:45	08/11/22 18:48
HA-05Aa-0.5-1.0	A2H0521-60	Soil	08/10/22 10:00	08/11/22 18:48
HA-04Ab-0.5-1.0	A2H0521-61	Soil	08/10/22 10:25	08/11/22 18:48
HA-05Ab-0.5-1.0	A2H0521-62	Soil	08/10/22 11:05	08/11/22 18:48
HA-105Ab-0.5-1.0	А2Н0521-63	Soil	08/10/22 11:15	08/11/22 18:48
HA-06A-0.5-1.0	А2Н0521-64	Soil	08/10/22 11:30	08/11/22 18:48
HA-06B-0.5-1.0	А2Н0521-65	Soil	08/10/22 11:45	08/11/22 18:48
HA-07A-0.5-1.0	A2H0521-66	Soil	08/10/22 12:10	08/11/22 18:48

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Philip Nerenberg, Lab Director

Page 3 of 37



Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions Project: Weyerhaeuser-Eatonville

55 SW Yamhill St, Ste 300Project Number: [none]Report ID:Portland, OR 97209Project Manager: Josh BaleA2H0521 - 04 14 23 1521

ANALYTICAL REPORT FOR SAMPLES

	SAMPLE INFORMATION											
Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received								
HA-07B-0.5-1.0	A2H0521-67	Soil	08/10/22 12:25	08/11/22 18:48								
HA-07C-0.5-1.0	A2H0521-68	Soil	08/10/22 12:40	08/11/22 18:48								
HA-06C-0.5-1.0	А2Н0521-69	Soil	08/10/22 13:05	08/11/22 18:48								
HA-06D-0.5-1.0	A2H0521-70	Soil	08/10/22 15:20	08/11/22 18:48								
HA-07D-0.5-1.0	А2Н0521-71	Soil	08/10/22 15:40	08/11/22 18:48								
HA-06E-0.5-1.0	А2Н0521-72	Soil	08/10/22 15:55	08/11/22 18:48								
HA-07E-0.5-1.0	А2Н0521-73	Soil	08/10/22 16:10	08/11/22 18:48								
HA-06F-0.5-1.0	А2Н0521-74	Soil	08/10/22 16:25	08/11/22 18:48								
HA-07F-0.5-1.0	А2Н0521-75	Soil	08/10/22 16:40	08/11/22 18:48								
HA-06G-0.5-1.0	А2Н0521-76	Soil	08/10/22 16:55	08/11/22 18:48								
HA-07G-0.5-1.0	А2Н0521-77	Soil	08/10/22 17:10	08/11/22 18:48								
HA-X-0.5-1.0	А2Н0521-78	Soil	08/11/22 13:40	08/11/22 18:48								
HA-01Aa-0.5-1.0	А2Н0521-79	Soil	08/11/22 13:50	08/11/22 18:48								
HA-01Ab-0.5-1.0	A2H0521-80	Soil	08/11/22 14:00	08/11/22 18:48								
EB-01_0822	А2Н0521-81	Water	08/11/22 18:30	08/11/22 18:48								

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Philip Nerenberg, Lab Director

Page 4 of 37



GSI Water Solutions

Portland, OR 97209

55 SW Yamhill St, Ste 300

ANALYTICAL REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

Report ID:

A2H0521 - 04 14 23 1521

Project: Weyerhaeuser-Eatonville

Project Number: [none]
Project Manager: Josh Bale

ANALYTICAL SAMPLE RESULTS

		Total Meta	als by EPA 60	20B (ICPMS))			
A 1.	Sample	Detection	Reporting	TT :	D'L (Date	M 4 1D 6	NT :
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
HA-04G-0.0-0.5 (A2H0521-01)				Matrix: Soi	il			
Batch: 22H0772								
Lead	10.3	0.123	0.246	mg/kg dry	10	08/23/22 19:33	EPA 6020B	B-02
Zinc	24.7	2.46	4.91	mg/kg dry	10	08/23/22 19:33	EPA 6020B	
HA-03G-0.0-0.5 (A2H0521-02)				Matrix: Soi	il			
Batch: 22H0772								
Lead	12.0	0.123	0.246	mg/kg dry	10	08/23/22 19:49	EPA 6020B	B-02
Zinc	31.6	2.46	4.93	mg/kg dry	10	08/23/22 19:49	EPA 6020B	
HA-01F-0.0-0.5 (A2H0521-03)				Matrix: Soi	il			
Batch: 22H0772								
Lead	27.4	0.244	0.487	mg/kg dry	10	08/23/22 19:55	EPA 6020B	B-02
Zinc	35.3	4.87	9.75	mg/kg dry	10	08/23/22 19:55	EPA 6020B	
HA-02F-0.0-0.5 (A2H0521-04)				Matrix: Soi	il			
Batch: 22H0772								
Lead	25.7	0.173	0.345	mg/kg dry	10	08/23/22 20:00	EPA 6020B	B-02
Zinc	39.9	3.45	6.91	mg/kg dry	10	08/23/22 20:00	EPA 6020B	
HA-102F-0.0-0.5 (A2H0521-05)				Matrix: Soi	il			
Batch: 22H0772								
Lead	27.8	0.205	0.411	mg/kg dry	10	08/23/22 20:05	EPA 6020B	B-02
Zinc	41.2	4.11	8.21	mg/kg dry	10	08/23/22 20:05	EPA 6020B	
HA-02G-0.0-0.5 (A2H0521-06)				Matrix: Soi	il			
Batch: 22H0772								
Lead	7.65	0.118	0.236	mg/kg dry	10	08/23/22 20:10	EPA 6020B	B-02
Zinc	33.8	2.36	4.72	mg/kg dry	10	08/23/22 20:10	EPA 6020B	
HA-03F-0.0-0.5 (A2H0521-07)				Matrix: Soi	il			
Batch: 22H0846								
Lead	55.5	0.196	0.392	mg/kg dry	10	08/24/22 19:38	EPA 6020B	
Zinc	40.3	3.92	7.84	mg/kg dry	10	08/24/22 19:38	EPA 6020B	
HA-04F-0.0-0.5 (A2H0521-08)				Matrix: Soi	il			
B . I . 001100.40								

Batch: 22H0846

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Philip Nerenberg, Lab Director

Philip Monterg



Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions Project: Weyerhaeuser-Eatonville

 55 SW Yamhill St, Ste 300
 Project Number: [none]
 Report ID:

 Portland, OR 97209
 Project Manager: Josh Bale
 A2H0521 - 04 14 23 1521

ANALYTICAL SAMPLE RESULTS

		Total Meta	ls by EPA 60	20B (ICPMS)				
	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
HA-04F-0.0-0.5 (A2H0521-08)				Matrix: Soi	I			
Lead	10.2	0.178	0.355	mg/kg dry	10	08/24/22 19:53	EPA 6020B	
Zinc	18.9	3.55	7.10	mg/kg dry	10	08/24/22 19:53	EPA 6020B	
HA-05G-0.0-0.5 (A2H0521-09)				Matrix: Soi	I			
Batch: 22H0846								
Lead	15.8	0.702	1.40	mg/kg dry	10	08/24/22 19:58	EPA 6020B	
Zinc	65.8	14.0	28.1	mg/kg dry	10	08/24/22 19:58	EPA 6020B	
HA-05F-0.0-0.5 (A2H0521-10)				Matrix: Soi	I			
Batch: 22H0846								
Lead	31.7	0.644	1.29	mg/kg dry	10	08/24/22 20:04	EPA 6020B	
Zinc	733	12.9	25.7	mg/kg dry	10	08/24/22 20:04	EPA 6020B	
HA-04Ab-0.0-0.5 (A2H0521-11)				Matrix: Soi	I			
Batch: 22H0846								
Lead	31.0	0.542	1.08	mg/kg dry	10	08/24/22 20:09	EPA 6020B	
Zinc	30.0	10.8	21.7	mg/kg dry	10	08/24/22 20:09	EPA 6020B	
HA-05Ab-0.0-0.5 (A2H0521-12)				Matrix: Soi	I			
Batch: 22H0846								
Lead	102	0.139	0.279	mg/kg dry	10	08/24/22 21:05	EPA 6020B	
Zinc	16.2	2.79	5.57	mg/kg dry	10	08/24/22 21:05	EPA 6020B	
HA-105Ab-0.0-0.5 (A2H0521-13)				Matrix: Soi	I			
Batch: 22H0846								
Lead	137	0.168	0.336	mg/kg dry	10	08/24/22 21:10	EPA 6020B	
Zinc	19.6	3.36	6.72	mg/kg dry	10	08/24/22 21:10	EPA 6020B	
HA-06A-0.0-0.5 (A2H0521-14)				Matrix: Soi	I			
Batch: 22H0846								
Lead	176	0.213	0.425	mg/kg dry	10	08/24/22 21:15	EPA 6020B	
Zinc	36.2	4.25	8.51	mg/kg dry	10	08/24/22 21:15	EPA 6020B	
HA-06B-0.0-0.5 (A2H0521-15)				Matrix: Soi	I			
Batch: 22H0846								
Lead	194	0.319	0.639	mg/kg dry	10	08/24/22 21:20	EPA 6020B	

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Philip Nevenberg



Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions Project: Weyerhaeuser-Eatonville

 55 SW Yamhill St, Ste 300
 Project Number: [none]
 Report ID:

 Portland, OR 97209
 Project Manager: Josh Bale
 A2H0521 - 04 14 23 1521

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)										
	Sample	Detection	Reporting			Date				
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes		
HA-06B-0.0-0.5 (A2H0521-15)				Matrix: Soi	l					
Zinc	19.8	6.39	12.8	mg/kg dry	10	08/24/22 21:20	EPA 6020B			
HA-07A-0.0-0.5 (A2H0521-16)				Matrix: Soi	I					
Batch: 22H0846										
Lead	66.5	0.233	0.465	mg/kg dry	10	08/24/22 21:26	EPA 6020B			
Zinc	38.9	4.65	9.31	mg/kg dry	10	08/24/22 21:26	EPA 6020B			
HA-07B-0.0-0.5 (A2H0521-17)				Matrix: Soi	I					
Batch: 22H0846										
Lead	143	0.432	0.864	mg/kg dry	10	08/24/22 21:31	EPA 6020B			
Zinc	45.5	8.64	17.3	mg/kg dry	10	08/24/22 21:31	EPA 6020B			
HA-07C-0.0-0.5 (A2H0521-18)				Matrix: Soi	I					
Batch: 22H0846										
Lead	112	0.368	0.736	mg/kg dry	10	08/24/22 21:36	EPA 6020B			
Zinc	32.5	7.36	14.7	mg/kg dry	10	08/24/22 21:36	EPA 6020B			
HA-06C-0.0-0.5 (A2H0521-19)				Matrix: Soi	I					
Batch: 22H0846										
Lead	214	0.607	1.21	mg/kg dry	10	08/24/22 21:41	EPA 6020B			
Zinc	60.8	12.1	24.3	mg/kg dry	10	08/24/22 21:41	EPA 6020B			
HA-06D-0.0-0.5 (A2H0521-20)				Matrix: Soi	I					
Batch: 22H0846										
Lead	501	0.393	0.786	mg/kg dry	10	08/24/22 21:46	EPA 6020B			
Zinc	410	7.86	15.7	mg/kg dry	10	08/24/22 21:46	EPA 6020B			
HA-06I-0.0-0.5 (A2H0521-21)				Matrix: Soi	I					
Batch: 22H0846										
Lead	47.6	0.806	1.61	mg/kg dry	10	08/24/22 21:52	EPA 6020B			
Zinc	1990	16.1	32.2	mg/kg dry	10	08/24/22 21:52	EPA 6020B			
HA-07I-0.0-0.5 (A2H0521-22)				Matrix: Soi	l					
Batch: 22H0846										
Lead	40.1	0.621	1.24	mg/kg dry	10	08/24/22 22:12	EPA 6020B			
Zinc	1910	12.4	24.8	mg/kg dry	10	08/24/22 22:12	EPA 6020B			

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions Project: Weyerhaeuser-Eatonville

 55 SW Yamhill St, Ste 300
 Project Number: [none]
 Report ID:

 Portland, OR 97209
 Project Manager: Josh Bale
 A2H0521 - 04 14 23 1521

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)										
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes		
HA-07H-0.0-0.5 (A2H0521-23)				Matrix: Soil	1					
Batch: 22H0846						<u></u>				
Lead	57.2	0.127	0.253	mg/kg dry	10	08/24/22 22:18	EPA 6020B			
Zinc	24.5	2.53	5.06	mg/kg dry	10	08/24/22 22:18	EPA 6020B			
HA-06H-0.0-0.5 (A2H0521-24)		Matrix: Soil								
Batch: 22H0846	_	_	_	_	_	_	_	_		
Lead	16.8	0.237	0.474	mg/kg dry	10	08/24/22 22:23	EPA 6020B			
Zinc	24.8	4.74	9.48	mg/kg dry	10	08/24/22 22:23	EPA 6020B			
HA-02Ab-0.0-0.5 (A2H0521-25)		Matrix: Soil								
Batch: 22H0846					_ 			_ 		
Lead	9.63	0.111	0.222	mg/kg dry	10	08/24/22 22:28	EPA 6020B			
Zinc	32.1	2.22	4.44	mg/kg dry	10	08/24/22 22:28	EPA 6020B			
HA-02Aa-0.0-0.5 (A2H0521-26)				Matrix: Soil	1					
Batch: 22H0846										
Lead	6.34	0.133	0.267	mg/kg dry	10	08/24/22 22:33	EPA 6020B			
Zinc	31.6	2.67	5.33	mg/kg dry	10	08/24/22 22:33	EPA 6020B			
HA-03Aa-0.0-0.5 (A2H0521-27)				Matrix: Soil	1					
Batch: 22H0854										
Lead	52.9	0.134	0.268	mg/kg dry	10	08/25/22 20:43	EPA 6020B			
Zinc	29.9	2.68	5.36	mg/kg dry	10	08/25/22 20:43	EPA 6020B			
HA-03Ab-0.0-0.5 (A2H0521-28)				Matrix: Soil	1					
Batch: 22H0854					_ 			_ 		
Lead	79.7	0.262	0.523	mg/kg dry	10	08/25/22 20:48	EPA 6020B			
Zinc	11.3	5.23	10.5	mg/kg dry	10	08/25/22 20:48	EPA 6020B			
HA-04Aa-0.0-0.5 (A2H0521-29)				Matrix: Soil	1					
Batch: 22H0854										
Lead	8.00	0.129	0.258	mg/kg dry	10	08/25/22 20:53	EPA 6020B			
Zinc	37.8	2.58	5.16	mg/kg dry	10	08/25/22 20:53	EPA 6020B			
HA-05Aa-0.0-0.5 (A2H0521-30)				Matrix: Soil	Į.					

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6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions Project: Weyerhaeuser-Eatonville

55 SW Yamhill St, Ste 300Project Number: [none]Report ID:Portland, OR 97209Project Manager: Josh BaleA2H0521 - 04 14 23 1521

ANALYTICAL SAMPLE RESULTS

		Total Meta	als by EPA 60	20B (ICPMS))			
	Sample	Detection	Reporting	** .		Date	V 4 47 3	
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
HA-05Aa-0.0-0.5 (A2H0521-30)				Matrix: Soi	il			
Batch: 22H0854								
Lead	163	0.137	0.275	mg/kg dry	10	08/25/22 20:58	EPA 6020B	
Zinc	26.4	2.75	5.50	mg/kg dry	10	08/25/22 20:58	EPA 6020B	
HA-07D-0.0-0.5 (A2H0521-31)				Matrix: Soi	il			
Batch: 22H0854								
Lead	223	0.537	1.07	mg/kg dry	10	08/25/22 21:04	EPA 6020B	
Zinc	192	10.7	21.5	mg/kg dry	10	08/25/22 21:04	EPA 6020B	
HA-06E-0.0-0.5 (A2H0521-32)				Matrix: Soi	il			
Batch: 22H0854								
Lead	38.5	0.702	1.40	mg/kg dry	10	08/25/22 21:09	EPA 6020B	
Zinc	291	14.0	28.1	mg/kg dry	10	08/25/22 21:09	EPA 6020B	
HA-07E-0.0-0.5 (A2H0521-33)				Matrix: Soi	il			
Batch: 22H0854								
Lead	197	0.557	1.11	mg/kg dry	10	08/25/22 21:14	EPA 6020B	
Zinc	548	11.1	22.3	mg/kg dry	10	08/25/22 21:14	EPA 6020B	
HA-06F-0.0-0.5 (A2H0521-34)				Matrix: Soi	il			
Batch: 22H0854								
Lead	32.6	0.131	0.262	mg/kg dry	10	08/25/22 21:19	EPA 6020B	
Zinc	20.1	2.62	5.24	mg/kg dry	10	08/25/22 21:19	EPA 6020B	
HA-07F-0.0-0.5 (A2H0521-35)				Matrix: Soi	il			
Batch: 22H0854								
Lead	48.0	0.122	0.244	mg/kg dry	10	08/25/22 21:35	EPA 6020B	
Zinc	16.8	2.44	4.88	mg/kg dry	10	08/25/22 21:35	EPA 6020B	
HA-06G-0.0-0.5 (A2H0521-36)				Matrix: Soi	il			
Batch: 22H0854								
Lead	49.5	0.142	0.284	mg/kg dry	10	08/25/22 21:40	EPA 6020B	
Zinc	19.0	2.84	5.68	mg/kg dry	10	08/25/22 21:40	EPA 6020B	
HA-07G-0.0-0.5 (A2H0521-37)				Matrix: Soi	il			
B. I. COLLOGE !								

Batch: 22H0854

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6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Weyerhaeuser-Eatonville

Project Number: [none]
Project Manager: Josh Bale

Report ID: A2H0521 - 04 14 23 1521

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)									
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes	
HA-07G-0.0-0.5 (A2H0521-37)				Matrix: Soil					
Lead	9.31	0.122	0.244	mg/kg dry	10	08/25/22 21:45	EPA 6020B		
Zinc	19.4	2.44	4.88	mg/kg dry	10	08/25/22 21:45	EPA 6020B		
HA-X-0.0-0.5 (A2H0521-38)				Matrix: Soil					
Batch: 22H0854									
Lead	679	0.179	0.358	mg/kg dry	10	08/25/22 21:50	EPA 6020B		
Zinc	104	3.58	7.16	mg/kg dry	10	08/25/22 21:50	EPA 6020B		
HA-01Aa-0.0-0.5 (A2H0521-39)				Matrix: Soil	l				
Batch: 22H0854									
Lead	12.6	0.117	0.233	mg/kg dry	10	08/25/22 21:55	EPA 6020B		
Zinc	32.7	2.33	4.67	mg/kg dry	10	08/25/22 21:55	EPA 6020B		
HA-01Ab-0.0-0.5 (A2H0521-40)				Matrix: Soil	1				
Batch: 22H0854									
Lead	20.9	0.114	0.229	mg/kg dry	10	08/25/22 22:01	EPA 6020B		
Zinc	37.7	2.29	4.58	mg/kg dry	10	08/25/22 22:01	EPA 6020B		
EB-01_0822 (A2H0521-81)				Matrix: Wat	er				
Batch: 22H0753			_						
Lead	0.819	0.110	0.200	ug/L	1	08/22/22 22:32	EPA 6020B		
Zinc	2.38	2.00	4.00	ug/L	1	08/22/22 22:32	EPA 6020B	J	

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ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: <u>Weyerhaeuser-Eatonville</u>

Project Number: [none]
Project Manager: Josh Bale

Report ID: A2H0521 - 04 14 23 1521

ANALYTICAL SAMPLE RESULTS

		Pe	ercent Dry W	eight				
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-04G-0.0-0.5 (A2H0521-01)				Matrix: Soi	I	Batch:	22H0673	
% Solids	84.8	1.00	1.00	%	1	08/19/22 07:03	EPA 8000D	
HA-03G-0.0-0.5 (A2H0521-02)				Matrix: Soil Batch: 22H0673				
% Solids	88.8	1.00	1.00	%	1	08/19/22 07:03	EPA 8000D	
HA-01F-0.0-0.5 (A2H0521-03)				Matrix: Soi	ix: Soil Batch: 22H0673			
% Solids	41.8	1.00	1.00	%	1	08/19/22 07:03	EPA 8000D	
HA-02F-0.0-0.5 (A2H0521-04)				Matrix: Soi	I	Batch:		
% Solids	55.8	1.00	1.00	%	1	08/19/22 07:03	EPA 8000D	
HA-102F-0.0-0.5 (A2H0521-05)				Matrix: Soi	I	Batch:	22H0673	
% Solids	51.4	1.00	1.00	%	1	08/19/22 07:03	EPA 8000D	
HA-02G-0.0-0.5 (A2H0521-06)				Matrix: Soi	l	Batch:		
% Solids	82.7	1.00	1.00	%	1	08/19/22 07:03	EPA 8000D	
HA-03F-0.0-0.5 (A2H0521-07)				Matrix: Soi	I	Batch:	22H0673	
% Solids	51.7	1.00	1.00	%	1	08/19/22 07:03	EPA 8000D	
HA-04F-0.0-0.5 (A2H0521-08)				Matrix: Soi	I	Batch:	22H0673	
% Solids	59.0	1.00	1.00	%	1	08/19/22 07:03	EPA 8000D	
HA-05G-0.0-0.5 (A2H0521-09)				Matrix: Soi	I	Batch:	22H0673	
% Solids	14.1	1.00	1.00	%	1	08/19/22 07:03	EPA 8000D	
HA-05F-0.0-0.5 (A2H0521-10)				Matrix: Soi	I	Batch:	22H0673	
% Solids	15.9	1.00	1.00	%	1	08/19/22 07:03	EPA 8000D	
HA-04Ab-0.0-0.5 (A2H0521-11)				Matrix: Soi	l	Batch:	22H0673	
% Solids	19.4	1.00	1.00	%	1	08/19/22 07:03	EPA 8000D	
HA-05Ab-0.0-0.5 (A2H0521-12)				Matrix: Soi	l	Batch:	22H0673	
% Solids	77.3	1.00	1.00	%	1	08/19/22 07:03	EPA 8000D	
HA-105Ab-0.0-0.5 (A2H0521-13)				Matrix: Soi	I	Batch:	22H0673	

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6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Weyerhaeuser-Eatonville

Project Number: [none]
Project Manager: Josh Bale

Report ID: A2H0521 - 04 14 23 1521

ANALYTICAL SAMPLE RESULTS

		Pe	ercent Dry We	eight				
Amelyte	Sample	Detection	Reporting	¥ T !	Dilection	Date	Motho 1 D -f	Not
Analyte	Result	Limit	Limit	Units Matrix: S	Dilution	Analyzed	Method Ref. 22H0673	Notes
HA-105Ab-0.0-0.5 (A2H0521-13)	F0.2	1.00	1.00			08/19/22 07:03	EPA 8000D	
% Solids	59.3	1.00	1.00	%	1			
HA-06A-0.0-0.5 (A2H0521-14)				Matrix: S			22H0673	
% Solids	47.4	1.00	1.00	%	1	08/19/22 07:03	EPA 8000D	
HA-06B-0.0-0.5 (A2H0521-15)				Matrix: S	Soil	Batch:	22H0673	
% Solids	32.1	1.00	1.00	%	1	08/19/22 07:03	EPA 8000D	
HA-07A-0.0-0.5 (A2H0521-16)				Matrix: S	Soil	Batch: 2	22H0673	
% Solids	46.1	1.00	1.00	%	1	08/19/22 07:03	EPA 8000D	
HA-07B-0.0-0.5 (A2H0521-17)				Matrix: S	Soil	Batch: 2	22H0673	
% Solids	23.9	1.00	1.00	%	1	08/19/22 07:03	EPA 8000D	
HA-07C-0.0-0.5 (A2H0521-18)				Matrix: S	Soil	Batch: 2	22H0673	
% Solids	27.4	1.00	1.00	%	1	08/19/22 07:03	EPA 8000D	
HA-06C-0.0-0.5 (A2H0521-19)				Matrix: S	Soil	Batch: 2	22H0673	
% Solids	17.5	1.00	1.00	%	1	08/19/22 07:03	EPA 8000D	
HA-06D-0.0-0.5 (A2H0521-20)				Matrix: S	Soil	Batch: 2	22H0673	
% Solids	26.2	1.00	1.00	%	1	08/19/22 07:03	EPA 8000D	
HA-06I-0.0-0.5 (A2H0521-21)				Matrix: S	Soil	Batch: 2	22H0673	
% Solids	12.5	1.00	1.00	%	1	08/19/22 07:03	EPA 8000D	
HA-07I-0.0-0.5 (A2H0521-22)				Matrix: S	Soil	Batch:	22H0673	
% Solids	15.8	1.00	1.00	%	1	08/19/22 07:03	EPA 8000D	
HA-07H-0.0-0.5 (A2H0521-23)				Matrix: S	Soil	Batch: 2	22H0673	
% Solids	83.0	1.00	1.00	%	1	08/19/22 07:03	EPA 8000D	
HA-06H-0.0-0.5 (A2H0521-24)				Matrix: S	Soil	Batch:	22H0673	
% Solids	43.7	1.00	1.00	%	1	08/19/22 07:03	EPA 8000D	
HA-02Ab-0.0-0.5 (A2H0521-25)				Matrix: S	Soil	Batch:	22H0673	

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6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Weyerhaeuser-Eatonville

Project Number: [none]
Project Manager: Josh Bale

Report ID: A2H0521 - 04 14 23 1521

ANALYTICAL SAMPLE RESULTS

		Pe	ercent Dry W	eight				
	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
HA-02Ab-0.0-0.5 (A2H0521-25)				Matrix: Soil			22H0673	
% Solids	89.5	1.00	1.00	%	1	08/19/22 07:03	EPA 8000D	
HA-02Aa-0.0-0.5 (A2H0521-26)				Matrix: Soil		Batch:	22H0673	
% Solids	78.5	1.00	1.00	%	1	08/19/22 07:03	EPA 8000D	
HA-03Aa-0.0-0.5 (A2H0521-27)				Matrix: Soil	l	Batch: 2	22H0673	
% Solids	81.9	1.00	1.00	%	1	08/19/22 07:03	EPA 8000D	
HA-03Ab-0.0-0.5 (A2H0521-28)				Matrix: Soil		Batch:	22H0673	
% Solids	39.3	1.00	1.00	%	1	08/19/22 07:03	EPA 8000D	
HA-04Aa-0.0-0.5 (A2H0521-29)				Matrix: Soil		Batch:	22H0673	
% Solids	83.7	1.00	1.00	%	1	08/19/22 07:03	EPA 8000D	
HA-05Aa-0.0-0.5 (A2H0521-30)				Matrix: Soil		Batch:	22H0673	
% Solids	77.7	1.00	1.00	%	1	08/19/22 07:03	EPA 8000D	
HA-07D-0.0-0.5 (A2H0521-31)				Matrix: Soil		Batch:	22H0673	
% Solids	19.3	1.00	1.00	%	1	08/19/22 07:03	EPA 8000D	
HA-06E-0.0-0.5 (A2H0521-32)				Matrix: Soil		Batch:	22H0673	
% Solids	15.2	1.00	1.00	%	1	08/19/22 07:03	EPA 8000D	
HA-07E-0.0-0.5 (A2H0521-33)				Matrix: Soil		Batch: 2	22H0673	
% Solids	17.5	1.00	1.00	%	1	08/19/22 07:03	EPA 8000D	
HA-06F-0.0-0.5 (A2H0521-34)				Matrix: Soil		Batch:	22H0673	
% Solids	80.6	1.00	1.00	%	1	08/19/22 07:03	EPA 8000D	
HA-07F-0.0-0.5 (A2H0521-35)				Matrix: Soil		Batch: 2	22H0673	
% Solids	80.8	1.00	1.00	%	1	08/19/22 07:03	EPA 8000D	
HA-06G-0.0-0.5 (A2H0521-36)				Matrix: Soil		Batch:	22H0673	
% Solids	73.6	1.00	1.00	%	1	08/19/22 07:03	EPA 8000D	
HA-07G-0.0-0.5 (A2H0521-37)				Matrix: Soil		Batch: 2	22H0673	

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6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Weyerhaeuser-Eatonville

Project Number: [none]
Project Manager: Josh Bale

Report ID: A2H0521 - 04 14 23 1521

ANALYTICAL SAMPLE RESULTS

		Pe	ercent Dry W	eight				
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-07G-0.0-0.5 (A2H0521-37)				Matrix: So	oil	Batch:	22H0673	
% Solids	84.2	1.00	1.00	%	1	08/19/22 07:03	EPA 8000D	
HA-X-0.0-0.5 (A2H0521-38)				Matrix: So	oil	Batch:	22H0673	
% Solids	57.2	1.00	1.00	%	1	08/19/22 07:03	EPA 8000D	
HA-01Aa-0.0-0.5 (A2H0521-39)				Matrix: So	oil	Batch:	22H0673	
% Solids	92.1	1.00	1.00	%	1	08/19/22 07:03	EPA 8000D	
HA-01Ab-0.0-0.5 (A2H0521-40)				Matrix: So	oil	Batch:	22H0673	
% Solids	92.4	1.00	1.00	%	1	08/19/22 07:03	EPA 8000D	

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6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions Project: Weyerhaeuser-Eatonville

 55 SW Yamhill St, Ste 300
 Project Number: [none]
 Report ID:

 Portland, OR 97209
 Project Manager: Josh Bale
 A2H0521 - 04 14 23 1521

QUALITY CONTROL (QC) SAMPLE RESULTS

			Total N	letals by l	EPA 6020	B (ICPMS	S)					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22H0753 - EPA 3015A							Wa	ter				
Blank (22H0753-BLK1)			Prepared	: 08/22/22 1	0:15 Anal	yzed: 08/22	/22 22:06					
EPA 6020B												
Lead	ND	0.110	0.200	ug/L	1							
Zinc	3.43	2.00	4.00	ug/L	1							B-02, .
LCS (22H0753-BS1)			Prepared	: 08/22/22 1	0:15 Anal	yzed: 08/22	/22 22:11					
EPA 6020B												
Lead	50.7	0.110	0.200	ug/L	1	55.6		91	80-120%			
Zinc	56.1	2.00	4.00	ug/L	1	55.6		101	80-120%			B-02
Duplicate (22H0753-DUP1)			Prepared	: 08/22/22 1	0:15 Anal	yzed: 08/22	/22 22:37					
OC Source Sample: EB-01_0822 (A	A2H0521-8	1)										
EPA 6020B												
Lead	0.829	0.110	0.200	ug/L	1		0.819			1	20%	
Zinc	ND	2.00	4.00	ug/L	1		2.38			***	20%	
Matrix Spike (22H0753-MS1)			Prepared	: 08/22/22 1	0:15 Anal	yzed: 08/22	/22 22:42					
QC Source Sample: EB-01 0822 (2	A2H0521-8	<u>1)</u>										
Lead	51.6	0.110	0.200	ug/L	1	55.6	0.819	91	75-125%			
Zinc	54.9	2.00	4.00	ug/L	1	55.6	2.38	95	75-125%			B-02
Batch 22H0772 - EPA 3051A							Soi	il				
Blank (22H0772-BLK1)			Prepared	: 08/22/22 1	5:02 Anal	yzed: 08/23	/22 17:48					
EPA 6020B			-			·						
Lead	0.117	0.0962	0.192	mg/kg we	et 10							J, B-02
Zinc	ND	1.92	3.85	mg/kg we	et 10							
LCS (22H0772-BS1)			Prepared	: 08/22/22 1	5:02 Anal	yzed: 08/23	/22 17:54					
EPA 6020B												
Lead	48.2	0.100	0.200	mg/kg we		50.0		96	80-120%			B-02
Zinc	48.0	2.00	4.00	mg/kg we	et 10	50.0		96	80-120%			

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions Project: Weyerhaeuser-Eatonville

 55 SW Yamhill St, Ste 300
 Project Number: [none]
 Report ID:

 Portland, OR 97209
 Project Manager: Josh Bale
 A2H0521 - 04 14 23 1521

QUALITY CONTROL (QC) SAMPLE RESULTS

			Total M	letals by	EPA 6020	B (ICPMS	S)					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22H0772 - EPA 3051A							Soi	il				
Duplicate (22H0772-DUP1)			Prepared	: 08/22/22 1	5:02 Ana	lyzed: 08/23	/22 18:04					
QC Source Sample: Non-SDG (A2)	H0448-03)											
Lead	3.79	0.108	0.216	mg/kg dr	y 10		3.95			4	20%	B-02
Zinc	24.9	2.16	4.32	mg/kg dr	y 10		35.5			35	20%	Q-04
Matrix Spike (22H0772-MS1)			Prepared	: 08/22/22 1	5:02 Ana	lyzed: 08/23	/22 18:09					
QC Source Sample: Non-SDG (A2)	H0448-03)											
EPA 6020B												
Lead	54.2	0.110	0.219	mg/kg dr	y 10	54.8	3.95	92	75-125%			B-02
Zinc	79.7	2.19	4.39	mg/kg dr	y 10	54.8	35.5	81	75-125%			

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Weyerhaeuser-Eatonville

Project Number: [none]
Project Manager: Josh Bale

Report ID: A2H0521 - 04 14 23 1521

QUALITY CONTROL (QC) SAMPLE RESULTS

			Total N	letals by	EPA 602	0B (ICPM	S)					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22H0846 - EPA 3051A							So	il				
Blank (22H0846-BLK1)			Prepared	: 08/24/22 0	9:33 Ana	lyzed: 08/24	1/22 14:01					
EPA 6020B												
Zinc	ND	1.92	3.85	mg/kg we	t 10							
Blank (22H0846-BLK2)			Prepared	: 08/24/22 0	9:33 Ana	lyzed: 08/24	1/22 19:27					
EPA 6020B												
Lead	ND	0.0962	0.192	mg/kg we	t 10							Q-16
LCS (22H0846-BS1)			Prepared	: 08/24/22 0	9:33 Ana	lyzed: 08/24	1/22 14:06					
EPA 6020B												
Zinc	46.7	2.00	4.00	mg/kg we	t 10	50.0		93	80-120%			
LCS (22H0846-BS2)			Prepared	: 08/24/22 0	9:33 Ana	lyzed: 08/24	1/22 19:32					
EPA 6020B												
Lead	42.5	0.100	0.200	mg/kg we	t 10	50.0		85	80-120%			Q-16
Duplicate (22H0846-DUP1)			Prepared	: 08/24/22 0	9:33 Ana	lyzed: 08/24	1/22 19:43					
OC Source Sample: HA-03F-0.0-0.	5 (A2H052	1-07)										
Lead	54.1	0.205	0.409	mg/kg dr	y 10		55.5			3	20%	
Zinc	39.6	4.09	8.19	mg/kg dr			40.3			2	20%	
Matrix Spike (22H0846-MS1)			Prepared	: 08/24/22 0	9:33 Ana	lyzed: 08/24	1/22 19:48					
QC Source Sample: HA-03F-0.0-0.	5 (A2H052	1-07)										
EPA 6020B												
Lead	150	0.209	0.417	mg/kg dr	y 10	104	55.5	90	75-125%			
Zinc	144	4.17	8.34	mg/kg dr	y 10	104	40.3	99	75-125%			

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6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions Project: Weyerhaeuser-Eatonville

 55 SW Yamhill St, Ste 300
 Project Number: [none]
 Report ID:

 Portland, OR 97209
 Project Manager: Josh Bale
 A2H0521 - 04 14 23 1521

QUALITY CONTROL (QC) SAMPLE RESULTS

			Total N	letals by l	EPA 602	B (ICPMS	S)					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22H0854 - EPA 3051A							Soi	I				
Blank (22H0854-BLK1)			Prepared	: 08/24/22 1	1:14 Ana	lyzed: 08/25	/22 16:26					
EPA 6020B												
Lead	ND	0.0962	0.192	mg/kg we	et 10							
Zinc	ND	1.92	3.85	mg/kg we	et 10							
LCS (22H0854-BS1)			Prepared	: 08/24/22 1	1:14 Ana	lyzed: 08/25	/22 16:37					
EPA 6020B												
Lead	46.9	0.100	0.200	mg/kg we	et 10	50.0		94	80-120%			
Zinc	48.8	2.00	4.00	mg/kg we	et 10	50.0		98	80-120%			
Duplicate (22H0854-DUP1)			Prepared	: 08/24/22 1	1:14 Ana	lyzed: 08/25	/22 17:03					
OC Source Sample: Non-SDG (A2)	H0433-02)											
Lead	89.6	0.101	0.202	mg/kg dr	y 10		86.5			3	20%	PRO
Zinc	106	2.02	4.05	mg/kg dr	y 10		106			0.4	20%	PRO
Matrix Spike (22H0854-MS1)			Prepared	: 08/24/22 1	1:14 Ana	lyzed: 08/25	/22 17:08					
QC Source Sample: Non-SDG (A2)	H0433-02)											
EPA 6020B												
Lead	133	0.0997	0.199	mg/kg dr	y 10	49.8	86.5	93	75-125%			PRO
Zinc	159	1.99	3.99	mg/kg dr	y 10	49.8	106	107	75-125%			PRO

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions Project: Weyerhaeuser-Eatonville

 55 SW Yamhill St, Ste 300
 Project Number: [none]
 Report ID:

 Portland, OR 97209
 Project Manager: Josh Bale
 A2H0521 - 04 14 23 1521

QUALITY CONTROL (QC) SAMPLE RESULTS

				Percen	t Dry Wei	ght						
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22H0673 - Total Solids (Dr	y Weigl	nt)					Soil					
Duplicate (22H0673-DUP1)			Prepared	: 08/18/22	13:59 Anal	yzed: 08/19/	/22 07:03					PRO
QC Source Sample: Non-SDG (A2H0	353-02)											
% Solids	97.9	1.00	1.00	%	1		97.9			0.05	10%	
Duplicate (22H0673-DUP2)			Prepared	: 08/18/22	13:59 Anal	yzed: 08/19/	/22 07:03					PRO
QC Source Sample: Non-SDG (A2H0	353-04)											
% Solids	97.6	1.00	1.00	%	1		97.7			0.1	10%	
Duplicate (22H0673-DUP3)			Prepared	: 08/18/22	13:59 Anal	yzed: 08/19/	/22 07:03					PRO
QC Source Sample: Non-SDG (A2H0	353-06)											
% Solids	97.8	1.00	1.00	%	1		97.8			0.0007	10%	
Duplicate (22H0673-DUP4)			Prepared	: 08/18/22	13:59 Anal	yzed: 08/19/	/22 07:03					
QC Source Sample: HA-04G-0.0-0.5	(A2H052	21-01)										
<u>EPA 8000D</u> % Solids	87.8	1.00	1.00	%	1		84.8			3	10%	
Duplicate (22H0673-DUP5)			Prepared	: 08/18/22	13:59 Anal	yzed: 08/19/	/22 07:03					
QC Source Sample: HA-03G-0.0-0.5	(A2H052	21-02)										
EPA 8000D												
% Solids	93.6	1.00	1.00	%	1		88.8			5	10%	
Duplicate (22H0673-DUP6)			Prepared	: 08/18/22	13:59 Anal	yzed: 08/19/	/22 07:03					
QC Source Sample: HA-01F-0.0-0.5	(A2H052	1-03)										
EPA 8000D										_		
% Solids	45.5	1.00	1.00	%	1		41.8			8	10%	
Duplicate (22H0673-DUP7)			Prepared	: 08/18/22	18:41 Anal	yzed: 08/19/	/22 07:03					
QC Source Sample: Non-SDG (A2H0	<u>617-01)</u>											
% Solids	73.1	1.00	1.00	%	1		73.4			0.4	10%	
Duplicate (22H0673-DUP8)			Prepared	: 08/18/22	18:41 Anal	vzed: 08/19/	/22 07:03					
			1			•						

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6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions Project: Weyerhaeuser-Eatonville

 55 SW Yamhill St, Ste 300
 Project Number: [none]
 Report ID:

 Portland, OR 97209
 Project Manager: Josh Bale
 A2H0521 - 04 14 23 1521

QUALITY CONTROL (QC) SAMPLE RESULTS

				Percen	t Dry Wei	ght						
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22H0673 - Total Solids (Dry Weig	ht)					Soi					
Duplicate (22H0673-DUP8)			Prepared	: 08/18/22	18:41 Ana	yzed: 08/19	/22 07:03					
QC Source Sample: Non-SDG (A2	H0617-02)											
% Solids	74.0	1.00	1.00	%	1		74.1			0.2	10%	
Duplicate (22H0673-DUP9)			Prepared	: 08/18/22	20:15 Ana	yzed: 08/19	/22 07:03					
QC Source Sample: Non-SDG (A2	H0629-01)											
% Solids	90.9	1.00	1.00	%	1		89.9			1	10%	
Duplicate (22H0673-DUPA)			Prepared	: 08/18/22	20:15 Anal	yzed: 08/19	/22 07:03					
QC Source Sample: Non-SDG (A2	H0629-02)											
% Solids	88.8	1.00	1.00	%	1		87.7			1	10%	

No Client related Batch QC samples analyzed for this batch. See notes page for more information.

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6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions Project: Weyerhaeuser-Eatonville

 55 SW Yamhill St, Ste 300
 Project Number: [none]
 Report ID:

 Portland, OR 97209
 Project Manager: Josh Bale
 A2H0521 - 04 14 23 1521

SAMPLE PREPARATION INFORMATION

		Tota	al Metals by EPA 602	0B (ICPMS)			
Prep: EPA 3015A					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
Batch: 22H0753			•	*			
A2H0521-81	Water	EPA 6020B	08/11/22 18:30	08/22/22 10:15	45mL/50mL	45mL/50mL	1.00
Prep: EPA 3051A					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
Batch: 22H0772			•				
A2H0521-01	Soil	EPA 6020B	08/09/22 09:05	08/22/22 15:02	0.48g/50mL	0.5g/50mL	1.04
A2H0521-02	Soil	EPA 6020B	08/09/22 09:25	08/22/22 15:02	0.457g/50mL	0.5g/50mL	1.09
A2H0521-03	Soil	EPA 6020B	08/09/22 10:15	08/22/22 15:02	0.491g/50mL	0.5g/50mL	1.02
A2H0521-04	Soil	EPA 6020B	08/09/22 10:35	08/22/22 15:02	0.519g/50mL	0.5g/50mL	0.96
A2H0521-05	Soil	EPA 6020B	08/09/22 10:45	08/22/22 15:02	0.474g/50mL	0.5g/50mL	1.05
A2H0521-06	Soil	EPA 6020B	08/09/22 11:25	08/22/22 15:02	0.512g/50mL	0.5g/50mL	0.98
Batch: 22H0846							
A2H0521-07	Soil	EPA 6020B	08/09/22 11:50	08/24/22 09:33	0.494g/50mL	0.5g/50mL	1.01
A2H0521-08	Soil	EPA 6020B	08/09/22 12:45	08/24/22 09:33	0.477g/50mL	0.5g/50mL	1.05
A2H0521-09	Soil	EPA 6020B	08/09/22 13:05	08/24/22 09:33	0.505g/50mL	0.5g/50mL	0.99
A2H0521-10	Soil	EPA 6020B	08/09/22 13:30	08/24/22 09:33	0.488g/50mL	0.5g/50mL	1.02
A2H0521-11	Soil	EPA 6020B	08/10/22 10:25	08/24/22 09:33	0.476g/50mL	0.5g/50mL	1.05
A2H0521-12	Soil	EPA 6020B	08/10/22 11:00	08/24/22 09:33	0.464g/50mL	0.5g/50mL	1.08
A2H0521-13	Soil	EPA 6020B	08/10/22 11:10	08/24/22 09:33	0.502g/50mL	0.5g/50mL	1.00
A2H0521-14	Soil	EPA 6020B	08/10/22 11:25	08/24/22 09:33	0.496g/50mL	0.5g/50mL	1.01
A2H0521-15	Soil	EPA 6020B	08/10/22 11:40	08/24/22 09:33	0.487g/50mL	0.5g/50mL	1.03
A2H0521-16	Soil	EPA 6020B	08/10/22 12:05	08/24/22 09:33	0.466g/50mL	0.5g/50mL	1.07
A2H0521-17	Soil	EPA 6020B	08/10/22 12:20	08/24/22 09:33	0.485g/50mL	0.5g/50mL	1.03
A2H0521-18	Soil	EPA 6020B	08/10/22 12:35	08/24/22 09:33	0.495g/50mL	0.5g/50mL	1.01
A2H0521-19	Soil	EPA 6020B	08/10/22 13:00	08/24/22 09:33	0.472g/50mL	0.5g/50mL	1.06
A2H0521-20	Soil	EPA 6020B	08/10/22 15:15	08/24/22 09:33	0.486g/50mL	0.5g/50mL	1.03
A2H0521-21	Soil	EPA 6020B	08/09/22 14:45	08/24/22 09:33	0.498g/50mL	0.5g/50mL	1.00
A2H0521-22	Soil	EPA 6020B	08/09/22 15:05	08/24/22 09:33	0.509g/50mL	0.5g/50mL	0.98
A2H0521-23	Soil	EPA 6020B	08/09/22 15:35	08/24/22 09:33	0.476g/50mL	0.5g/50mL	1.05
A2H0521-24	Soil	EPA 6020B	08/09/22 15:50	08/24/22 09:33	0.483g/50mL	0.5g/50mL	1.04
A2H0521-25	Soil	EPA 6020B	08/09/22 17:25	08/24/22 09:33	0.503g/50mL	0.5g/50mL	0.99
A2H0521-26	Soil	EPA 6020B	08/09/22 17:45	08/24/22 09:33	0.478 g/50 mL	0.5g/50mL	1.05
Batch: 22H0854							
A2H0521-27	Soil	EPA 6020B	08/09/22 18:00	08/24/22 11:14	0.456g/50mL	0.5g/50mL	1.10
A2H0521-28	Soil	EPA 6020B	08/10/22 09:00	08/24/22 11:14	0.486g/50mL	0.5g/50mL	1.03

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions Project: Weyerhaeuser-Eatonville

 55 SW Yamhill St, Ste 300
 Project Number: [none]
 Report ID:

 Portland, OR 97209
 Project Manager: Josh Bale
 A2H0521 - 04 14 23 1521

SAMPLE PREPARATION INFORMATION

		Tota	al Metals by EPA 602	OB (ICPMS)			
Prep: EPA 3051A					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
A2H0521-29	Soil	EPA 6020B	08/10/22 09:40	08/24/22 11:14	0.463g/50mL	0.5g/50mL	1.08
A2H0521-30	Soil	EPA 6020B	08/10/22 09:55	08/24/22 11:14	0.468g/50mL	0.5g/50mL	1.07
A2H0521-31	Soil	EPA 6020B	08/10/22 15:35	08/24/22 11:14	0.482g/50mL	0.5g/50mL	1.04
A2H0521-32	Soil	EPA 6020B	08/10/22 15:50	08/24/22 11:14	0.469g/50mL	0.5g/50mL	1.07
A2H0521-33	Soil	EPA 6020B	08/10/22 16:05	08/24/22 11:14	0.513g/50mL	0.5g/50mL	0.98
A2H0521-34	Soil	EPA 6020B	08/10/22 16:20	08/24/22 11:14	0.473g/50mL	0.5g/50mL	1.06
A2H0521-35	Soil	EPA 6020B	08/10/22 16:35	08/24/22 11:14	0.507g/50mL	0.5g/50mL	0.99
A2H0521-36	Soil	EPA 6020B	08/10/22 16:50	08/24/22 11:14	0.479g/50mL	0.5g/50mL	1.04
A2H0521-37	Soil	EPA 6020B	08/10/22 17:05	08/24/22 11:14	0.487g/50mL	0.5g/50mL	1.03
A2H0521-38	Soil	EPA 6020B	08/11/22 13:35	08/24/22 11:14	0.488g/50mL	0.5g/50mL	1.02
A2H0521-39	Soil	EPA 6020B	08/11/22 13:45	08/24/22 11:14	0.465g/50mL	0.5g/50mL	1.08
A2H0521-40	Soil	EPA 6020B	08/11/22 13:55	08/24/22 11:14	0.473g/50mL	0.5g/50mL	1.06

			Percent Dry We	ight			
Prep: Total Solids (D	ry Weight)				Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
Batch: 22H0673							
A2H0521-01	Soil	EPA 8000D	08/09/22 09:05	08/18/22 13:59			NA
A2H0521-02	Soil	EPA 8000D	08/09/22 09:25	08/18/22 13:59			NA
A2H0521-03	Soil	EPA 8000D	08/09/22 10:15	08/18/22 13:59			NA
A2H0521-04	Soil	EPA 8000D	08/09/22 10:35	08/18/22 13:59			NA
A2H0521-05	Soil	EPA 8000D	08/09/22 10:45	08/18/22 13:59			NA
A2H0521-06	Soil	EPA 8000D	08/09/22 11:25	08/18/22 13:59			NA
A2H0521-07	Soil	EPA 8000D	08/09/22 11:50	08/18/22 13:59			NA
A2H0521-08	Soil	EPA 8000D	08/09/22 12:45	08/18/22 13:59			NA
A2H0521-09	Soil	EPA 8000D	08/09/22 13:05	08/18/22 13:59			NA
A2H0521-10	Soil	EPA 8000D	08/09/22 13:30	08/18/22 13:59			NA
A2H0521-11	Soil	EPA 8000D	08/10/22 10:25	08/18/22 13:59			NA
A2H0521-12	Soil	EPA 8000D	08/10/22 11:00	08/18/22 13:59			NA
A2H0521-13	Soil	EPA 8000D	08/10/22 11:10	08/18/22 13:59			NA
A2H0521-14	Soil	EPA 8000D	08/10/22 11:25	08/18/22 13:59			NA
A2H0521-15	Soil	EPA 8000D	08/10/22 11:40	08/18/22 13:59			NA
A2H0521-16	Soil	EPA 8000D	08/10/22 12:05	08/18/22 13:59			NA
A2H0521-17	Soil	EPA 8000D	08/10/22 12:20	08/18/22 13:59			NA
A2H0521-18	Soil	EPA 8000D	08/10/22 12:35	08/18/22 13:59			NA
A2H0521-19	Soil	EPA 8000D	08/10/22 13:00	08/18/22 13:59			NA

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions Project: Weyerhaeuser-Eatonville

 55 SW Yamhill St, Ste 300
 Project Number: [none]
 Report ID:

 Portland, OR 97209
 Project Manager: Josh Bale
 A2H0521 - 04 14 23 1521

SAMPLE PREPARATION INFORMATION

			Percent Dry We	ight			
Prep: Total Solids (Dry Weight)				Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
A2H0521-20	Soil	EPA 8000D	08/10/22 15:15	08/18/22 13:59			NA
A2H0521-21	Soil	EPA 8000D	08/09/22 14:45	08/18/22 13:59			NA
A2H0521-22	Soil	EPA 8000D	08/09/22 15:05	08/18/22 13:59			NA
A2H0521-23	Soil	EPA 8000D	08/09/22 15:35	08/18/22 13:59			NA
A2H0521-24	Soil	EPA 8000D	08/09/22 15:50	08/18/22 13:59			NA
A2H0521-25	Soil	EPA 8000D	08/09/22 17:25	08/18/22 13:59			NA
A2H0521-26	Soil	EPA 8000D	08/09/22 17:45	08/18/22 13:59			NA
A2H0521-27	Soil	EPA 8000D	08/09/22 18:00	08/18/22 13:59			NA
A2H0521-28	Soil	EPA 8000D	08/10/22 09:00	08/18/22 13:59			NA
A2H0521-29	Soil	EPA 8000D	08/10/22 09:40	08/18/22 13:59			NA
A2H0521-30	Soil	EPA 8000D	08/10/22 09:55	08/18/22 13:59			NA
A2H0521-31	Soil	EPA 8000D	08/10/22 15:35	08/18/22 13:59			NA
A2H0521-32	Soil	EPA 8000D	08/10/22 15:50	08/18/22 13:59			NA
A2H0521-33	Soil	EPA 8000D	08/10/22 16:05	08/18/22 13:59			NA
A2H0521-34	Soil	EPA 8000D	08/10/22 16:20	08/18/22 13:59			NA
A2H0521-35	Soil	EPA 8000D	08/10/22 16:35	08/18/22 13:59			NA
A2H0521-36	Soil	EPA 8000D	08/10/22 16:50	08/18/22 13:59			NA
A2H0521-37	Soil	EPA 8000D	08/10/22 17:05	08/18/22 13:59			NA
A2H0521-38	Soil	EPA 8000D	08/11/22 13:35	08/18/22 13:59			NA
A2H0521-39	Soil	EPA 8000D	08/11/22 13:45	08/18/22 13:59			NA
A2H0521-40	Soil	EPA 8000D	08/11/22 13:55	08/18/22 13:59			NA

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions Project: Weyerhaeuser-Eatonville

55 SW Yamhill St, Ste 300 Project Number: [none] Report ID:
Portland, OR 97209 Project Manager: Josh Bale A2H0521 - 04 14 23 1521

QUALIFIER DEFINITIONS

Client Sample and Quality Control (QC) Sample Qualifier Definitions:

Apex Laboratories

B-02 Analyte detected in an associated blank at a level between one-half the MRL and the MRL. (See Notes and Conventions below.)

J Estimated Result. Result detected below the lowest point of the calibration curve, but above the specified MDL.

PRO Sample has undergone sample processing prior to extraction and analysis.

Q-04 Spike recovery and/or RPD is outside control limits due to a non-homogeneous sample matrix.

Q-16 Reanalysis of an original Batch QC sample.

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GSI Water Solutions Project: Weyerhaeuser-Eatonville

55 SW Yamhill St, Ste 300 Project Number: [none] Report ID:

Portland, OR 97209 Project Manager: Josh Bale A2H0521 - 04 14 23 1521

REPORTING NOTES AND CONVENTIONS:

Abbreviations:

DET Analyte DETECTED at or above the detection or reporting limit.

ND Analyte NOT DETECTED at or above the detection or reporting limit.

NR Result Not Reported

RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

<u>Detection Limits:</u> Limit of Detection (LOD)

Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).

If no value is listed ('----'), then the data has not been evaluated below the Reporting Limit.

Reporting Limits: Limit of Quantitation (LOQ)

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

Reporting Conventions:

Basis: Results for soil samples are generally reported on a 100% dry weight basis.

The Result Basis is listed following the units as "dry", "wet", or " " (blank) designation.

"dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")

See Percent Solids section for details of dry weight analysis.

"wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.

"___" Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

QC Source:

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.

Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) may not be included in this report. Please request a Full QC report if this data is required.

Miscellaneous Notes:

"---" QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

" *** " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to ½ the Reporting Limit (RL).

- -For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.
- -For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.

For further details, please request a copy of this document.

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Philip Nerenberg, Lab Director

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions Project: Weyerhaeuser-Eatonville

55 SW Yamhill St, Ste 300Project Number: [none]Report ID:Portland, OR 97209Project Manager: Josh BaleA2H0521 - 04 14 23 1521

REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks (Cont.):

Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.

'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level.

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

Sampling and Preservation Notes:

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

Apex Laboratories

Philip Nevenberg

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions Project: Weyerhaeuser-Eatonville

55 SW Yamhill St, Ste 300Project Number: [none]Report ID:Portland, OR 97209Project Manager: Josh BaleA2H0521 - 04 14 23 1521

LABORATORY ACCREDITATION INFORMATION

ORELAP Certification ID: OR100062 (Primary Accreditation) -EPA ID: OR01039

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the <u>exception</u> of any analyte(s) listed below:

Apex Laboratories

Matrix Analysis TNI_ID Analyte TNI_ID Accreditation

All reported analytes are included in Apex Laboratories' current ORELAP scope.

Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation.

Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

Field Testing Parameters

Results for Field Tested data are provded by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

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Philip Nevenberg

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Philip Nerenberg, Lab Director

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Weyerhaeuser-Eatonville

Project Number: [none]
Project Manager: Josh Bale

Report ID: A2H0521 - 04 14 23 1521

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Company: GSI Water Solutions	_s	Project Mgr.		Josn Bale	- =		1	7	roje	Project Name:	ان		weyer	nacusci	- Eato	weyernaeuser - Eatonville Landfill	т	Project #	ii.		
Address: 55 SW Yamhill St #200, Portland OR 97204	rtland (OR 97204			_	Phone:	530	530-276-4188	88	E	Email:	jbale(agsiws	.com,	gschutz	jbale@gsiws.com, gschutzius@gsiws.com	.com	PO#	171.067		
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HA-040-0.0-0.3	-	7707/6/9	506	2 8	7 (+	+		+	+			T	+	-	-	1	+	< :		7 10 1
HA-03G-0.0-0.5	+	7707/6/8	676	2	4	+	+	1	\dagger	+	1		\dagger	+	+	-	†		×		1017
HA-01F-0.0-0.5		8/9/2022	1015	SO	7				1	-	_		1						×		1 of 2
HA-02F-0.0-0.5	-	8/9/2022	1035	SO	2														×		1 of 2
HA-102F-0.0-0.5		8/9/2022	1045	SO	7														×		1 of 2
HA-02G-0.0-0.5		8/9/2022	1125	so	2														×		1 of 2
HA-03F-0.0-0.5		8/9/2022	1150	SO	2	-	_												×		1 of 2
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HA-05G-0.0-0.5		8/9/2022	1305	SO	2														×		1 of 2
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Philip Nerenberg, Lab Director

Philip Merenberg

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions Project: Weyerhaeuser-Eatonville

 55 SW Yamhill St, Ste 300
 Project Number: [none]
 Report ID:

 Portland, OR 97209
 Project Manager: Josh Bale
 A2H0521 - 04 14 23 1521

APEX LABS 6700 SW Sandburg St., Tigard, OR 97223 Ph.: 503-718-2323	23 Ph: 5	03-718-2.	323	==	H.	AIL	0	CHAIN OF CUSTODY	US)	ē	X				Lab#	3	\$	77	8	Lab # #2#0521 coc 2.06A	e
Company: GSI Water Solutions	Project Mgr	t Mgr:	Josh Bale	3alc				Projec	Project Name:		3	eyerhae	euser -	Eatonvi	Weyerhaeuser - Eatonville Landfill		Project #:				
55 SW	OR 9720				Phone:	530	530-276-4188	88	Email:		ibale@	zsiws.co	om, gsc	hutzius	jbale@gsiws.com, gschutzius@gsiws.com	om PO#	at.	171,067	57		
Sampled by: GSI				egyster TBCBAG								AN.	ALVS	ANALYSIS REQUEST	TEST						
Site Location:											tsi.J				Ca, 5, Mg Na,	ď					
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Philip Nerenberg, Lab Director

Philip Nevenberg

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions Project: Weyerhaeuser-Eatonville

 55 SW Yamhill St, Ste 300
 Project Number: [none]
 Report ID:

 Portland, OR 97209
 Project Manager: Josh Bale
 A2H0521 - 04 14 23 1521

0700 SW Santaburg St., 11gara, OK 97223 FM: 503-716-2523	677/	rn. 303-/1	6767-0						ŀ														
Company: GSI Water Solutions	\neg	Project Mgr.	2.0	Josh Bale	Sale				-	Project Name:	Name			Weyer	haeuse	r - Eat	Weyerhaeuser - Eatonville Landfill	andfill	Project #.	t#:			
Address: 55 SW Yamhill St #200, Portland OR 97204	and O	R 97204				Phone:		530-276-4188	6-4188	~	Email:	Ħ	jbale	ggsiws	com,	gschut	tzius@gs	jbale@gsiws.com, gschutzius@gsiws.com PO#	# O4	171.067	19		
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HA-07I-0.0-0.5		8/9/2022	1505	SO	2															×			1 of 2
HA-07H-0.0-0.5		8/9/2022	1535	S	2															×			1 of 2
HA-06H-0.0-0.5		8/9/2022	1550	SO	2									*************						X			1 of 2
HA-02Ab-0.0-0.5		8/9/2022	1725	SO	2															×		***************************************	1 of 2
HA-02Aa-0.0-0.5		8/9/2022	1745	S	2		\dagger	+	+	+	\perp	\perp		†	-	+				×			1 of 2
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Philip Merenberg

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ORELAP ID: OR100062

GSI Water Solutions Project: Weyerhaeuser-Eatonville

 55 SW Yamhill St, Ste 300
 Project Number: [none]
 Report ID:

 Portland, OR 97209
 Project Manager: Josh Bale
 A2H0521 - 04 14 23 1521

Company: GSI Water Solutions		Project Mgr	Į,	Josh Bale	3ale				Pro	Project Name.	me:		Wey	erhaeu	ser - Ea	litonviil	Weyerhaeuser - Eatonville Landfill Project #	roject	#:		
Address. 55 SW Yamhill St #200, Portland OR 97204	tland (OR 97204				Рһопе		530-276-4188	4188		Email:	jbal	e@gsi	WS.COIT	1, gschi	atzius(jbale@gsiws.com, gschutzius@gsiws.comPO#	#0	171.067		
Sampled by: GSI														NA.	ANALYSIS REQUEST	REQU	TS31				
Site Location:	<u> </u>					2,700		_	_			1si,			-		.gM , .ev				
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SAMPLE ID	LABI	DATE	TIME	HIVM	# OE C	LMN		_		0978				1808			Cr, Co, Mn, Mo Tl, V, Z TOTAL		da ,nS		Archiv
HA-07D-0.0-0.5		8/10/2022	1535	80	2							-							×		1 of 2
HA-06E-0.0-0.5		8/10/2022	1550	80	7						\dashv								×		1 of 2
HA-07E-0.0-0.5		8/10/2022	1605	80	2														×		1 of 2
HA-06F-0.0-0.5		8/10/2022	1620	80	7														×		1 of 2
HA-07F-0.0-0.5		8/10/2022	1635	80	7						-	-				\neg		\dashv	×		1 of 2
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HA-07G-0.0-0.5		8/10/2022	1705	80	2		\dashv	-				-				\exists		\dashv	×		1 of 2
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HA-01Aa-0.0-0.5	_	8/11/2022	1345	S	2	7	-+	\dashv			\dashv	-			+			+	×		1 of 2
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Apex Laboratories

Philip Nevenberg

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

Project:

Weyerhaeuser-Eatonville

55 SW Yamhill St, Ste 300 Portland, OR 97209 Project Number: [none]
Project Manager: Josh Bale

Report ID: A2H0521 - 04 14 23 1521

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Lab# P	Weyerhaeuser - Eatonville Landfill	jbale@gsiws.com, gschutzius@gsiws.com	NEST	Ag, Va, b, Hg, Mg, Ag, Va,	AL Sb, As, Ba, Ba Cr, Co, Cu, Fe, P Mn, Mo, Ni, K, Se, Mn, Mo, Ni, K, Se, Mn, Mo, Ni, K, Se, Mn, Mo, Mn,														Date:	Time	
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APEX LABS 6700 SW Sandburg St., Tigard, OR 97223 Ph: 503-718-2323	Project Mgr.	204			DATE	8/9/2022	8/9/2022	8/9/2022	8/9/2022	8/9/2022	8/9/2022	8/9/2022	8/9/2022	8/9/2022	Normal Turn Around Time (TAT) = 10 Business Days			SAMPLES ARE HELD FOR 30 DAYS	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	R.	
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- ig		SSV	Sampled by: GSI	Site Location:	AK ID	4	IA-6	4A-(4A-C	[A-1	A-0	4A-(14-(A-0	1A-(1	Rec		Signature Signature	202	£ 25

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Philip Nevenberg

Page 32 of 37



Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Weyerhaeuser-Eatonville

Project Number: [none]
Project Manager: Josh Bale

Report ID: A2H0521 - 04 14 23 1521

6700 SW Sandburg St., Tigard, OR 97223 Ph; 503-718-2323	7223 Ph: 50.	3-718-23.	23)	Ж	Ž	CHAIN OF CUSTODY	Sno	T0	λQ			Lab#	2	321	ა	Lab # MAMOSU coc Oof
Company: GSI Water Solutions	Project Mgr.	fgr.	Josh Bale	ale			Proj	Project Name	.i.	×	cyerhaeu.	ser - Eat	Weyerhaeuser - Eatonville Landfill	Project #.	1#1		
Address: 55 SW Yamhill St #200, Portland OR 97204	nd OR 97204			E.	Phone:	530-276-4188	.4188	EII	Email:	jbale@g	SIWS.COII	n, gschut	jbale@gsiws.com, gschutzius@gsiws.com	m PO#	171	171.067	
Sampled by: GSI											ANA	LYSIS	ANALYSIS REQUEST				
Site Location:										1si.			Ca, , Mg, Va,	d	*******		
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HA-071-0.5-1.0	8/9/2022	2 1510	os o														
HA-07H-0.5-1.0	8/9/2022	2 1540	0 80	-													
HA-06H-0.5-1.0	8/9/2022	2 1555	s so														
HA-02Ab-0.5-1.0	8/9/2022	2 1730	0 80														
HA-02Aa-0.5-1.0	8/9/2022	2 1750	08	-													
HA-03Aa-0.5-1.0	8/9/2022	2 1805	S S0	-						\dashv		+					
HA-03Ab-0.5-1.0	8/10/2022	22 905	S	-					\Box	-		-					
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Philip Nerenberg, Lab Director

Philip Nevenberg

Page 33 of 37



Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300

Portland, OR 97209

Project:

Weyerhaeuser-Eatonville

Project Number: [none]

Project Manager: Josh Bale

Report ID:

A2H0521 - 04 14 23 1521

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SW Sandburg St., Tigard, OR ss. 55 SW Yamhil St Floor, Port ss. 55 SW Yamhil St Floor, Port et by, GSI Location: OR (WA) CA AK 1D HA-GIA-0-5-1.0 HA-GI

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Philip Nevenberg

Page 34 of 37



Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

Project:

Weyerhaeuser-Eatonville

55 SW Yamhill St, Ste 300 Portland, OR 97209 Project Number: [none]
Project Manager: Josh Bale

Report ID: A2H0521 - 04 14 23 1521

140 # A240571 000 S of J	anville Landfill Project #:	zius@gsiws.com PO# 171.067	RQUEST		a, Be, C e, Pb, 1 gA, 5e, Ag S. TC	Archive Archive Archive Archive Archive Archive Archive	×	×	X	×	×	×	×	×	×	×				perception by.	Date. Signature. Date.	Time: Printed Name: Time:	Соправу
CHAIN OF CUSTODY	Project Name: Weyerhaeuser - Eatonville Landfill	530-276-4188 Email: jbale@gsiws.com, gschutzius@gsiws.com	ANALYSIS REQUEST	tsi] List	uje (8) Voles Full Auto Aut	BCBV Wet 8081 best 8083 bCBs 8750 Scmir-J 8750 Slmir-J 8750 H810 A 8750 H810 A											SPECIAL INSTRUCTIONS:	Archive all		Va Gaustion 17d	122 Signature	Printed Name	Соправу:
	Project Mgr: Josh Bale	Phone:			ara	MALBH-DS MALBH-DS MALBH-HG WALBIX MALBIX LIME DVLE TVB ID #	8/10/2022 1540 SO 1	8/10/2022 1555 SO 1	8/10/2022 1610 SO 1	8/10/2022 1625 SO 1	8/10/2022 1640 SO 1	8/10/2022 1655 SO 1	8/10/2022 1710 SO 1	8/11/2022 1340 SO 1	8/11/2022 1350 SO 1	8/11/2022 1400 SO 1	Normal Turn Around Time (PAT) = 10 Business Days	1 Day 2 Day 3 Day	AAY 5 DAY Other; standard	SAMPLES ARE HELD FOR 30 DAYS	SIXIZZ Suprame M 8/1/22	<u>a</u>	1 1
APEX LABS 6700 SW Sandburg St., Tigard, OR 97223 Ph: 503-718-2323	Company GSI Water Solutions	Address: 55 SW Yamhill St #200, Portland OR 97204	Sampled by: GSI	Site Location:	OR (WA)CA	AN ID #	HA-07D-0.5-1.0	HA-06E-0.5-1.0	HA-07E-0.5-1.0	HA-06F-0.5-1.0	HA-07F-0.5-1.0	HA-06G-0.5-1.0	HA-07G-0.5-1.0	HA-X-0.5-1.0	HA-01Aa-0.5-1.0	HA-01Ab-0.5-1.0	Normal Turn An	TAT Democrated (citedia)	i A i Requesteu (erete) 4 DAY	SAMPLES	D	Princettane U Time 1845	mpany (SJ

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Philip Nevenberg

Page 35 of 37



Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions Project: Weyerhaeuser-Eatonville

 55 SW Yamhill St, Ste 300
 Project Number: [none]
 Report ID:

 Portland, OR 97209
 Project Manager: Josh Bale
 A2H0521 - 04 14 23 1521

Company: GSI Water Solutions		Project Mgr.	Jos	Josh Bale					Projec	Project Name:	. <u>.</u>		Weye	rhaens	er - Ea	tonville	Weyerhaeuser - Eatonville Landfill Project #:	Proje	ct #:				
Address: 55 SW Yamhill St #200, Portland OR 97204	land OR 97.	204			Ph	Phone:	530-	530-276-4188		-5	Email:	jbale	(agsiv	vs.com	, gschı	ntzius@	jbale@gsiws.com, gschutzius@gsiws.comPO#	PO #	-	171.067			
Sampled by: GSI														ANAL	YSIS	ANALYSIS REQUEST	ST						
Site Location: OR (WA) CA				SanNi					***************************************	<u> </u>							Pb, Hg, Mg, Se, Ag, Na, TCLP						
AK ID SAMPLE ID	FVB ID #	DATE	TIME	MATRIX # OF CONTA	# OF CONTA	xd-HqTWN	xO-H4TWN	8260 BTEX	8260 RBDM	8760 VOCs F	8270 SIM PA	V-im9S 0728	8082 PCBs	1894 1808	RCRA Metal	Priority Mets Al, Sb, As, B8,	AI, Sb, As, Ba, Cr, Co, Cu, Fe, Ma, Mo, Ni, K, Tr, V, Za TOTAL DISS,	TCLP Metals	dq ,nX				Archive
EB-01_0822	1/8	8/11/2022	1830 S	SW 1						\vdash	Ш								×				×
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Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Philip Merenberg

Page 36 of 37



Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Weyerhaeuser-Eatonville

Project Number: [none]
Project Manager: Josh Bale

Report ID: A2H0521 - 04 14 23 1521

APEX LABS COOLER RECEIPT FORM _ Element WO#: A2 H0521 Client: 1-51 Water Solutions Project/Project #: Weyer hoeuser- Eatonville Carolill Date/time received: 8/11/2 z @ 18:48 By: SAM Delivered by: Apex___Client <u>SSS___FedEx__UPS___Swift__Senvoy__SDS__Other_____</u> Date/time inspected: 8/11/27 @ 18:48 By: 22m **Cooler Inspection** Yes Yes No Custody seals? Yes No X Chain of Custody included? Yes X No ____ Signed/dated by client? Signed/dated by Apex? Yes _____ No ___ Cooler #1 Cooler #2 Cooler #3 Cooler #4 Cooler #5 Cooler #6 Cooler #7 0.0 Temperature (°C) Received on ice? (Y/N) N Temp. blanks? (Y/N) Ice type: (Gel/Real/Other) Reul Real Condition: 6000 6000 Gend Cooler out of temp? (YAN) Possible reason why:_ Green dots applied to out of temperature samples? Yes/No Out of temperature samples form initiated? Yes/No)
Sample Inspection: Date/time inspected: 91770 By: AKK All samples intact? Yes \times No ___ Comments:_ Bottle labels/COCs agree? Yes No X Comments: HA-X-0.0-0.5+ HA-01Aa-0.0-0.5 + HA-01Ab-0.0-0.5 + HA - X-0.5-1.0 + HA-01Ag-0.5-1.0 + HA-01Ab-0.5-1.0 COC/container discrepancies form initiated? Yes ___ No __ Containers/volumes received appropriate for analysis? Yes Y No ___ Comments: ___ Do VOA vials have visible headspace? Yes No NA Water samples: pH checked: Yes No NA * pH appropriate? Yes No NA * axx 91.772 Additional information: + EB-01_0822 date reads 8112122. HA-04Ab-0.5-1.0 time reads 1000. Cooler Inspected by: Labeled by: Witness: 000 AW for KRS

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Philip Marenberg



Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323 ORELAP ID: OR100062

Friday, April 14, 2023
Josh Bale
GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

RE: A2I0312 - Weyerhaeuser-Eatonville - Landfill

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A2I0312, which was received by the laboratory on 9/9/2022 at 2:35:00PM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: pnerenberg@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample receipt, unless prior arrangements have been made.

Cooler Receipt Information

(See Cooler Receipt Form for details)

Cooler #1

2.6 degC

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.

All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.





Apex Laboratories

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Philip Nerenberg, Lab Director

Philip Nevenberg

Page 1 of 20



Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions Project: Weyerhaeuser-Eatonville

55 SW Yamhill St, Ste 300Project Number: LandfillReport ID:Portland, OR 97209Project Manager: Josh BaleA210312 - 04 14 23 1513

ANALYTICAL REPORT FOR SAMPLES

	SAMPLE INFO	RMATION		
Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
IDW-20220907	A2I0312-01	Sediment	09/07/22 10:30	09/09/22 14:35
HA-04A-0.5-1.0	A2I0312-02	Sediment	09/07/22 13:45	09/09/22 14:35
HA-04A-1.0-2.0	A2I0312-03	Sediment	09/07/22 14:00	09/09/22 14:35
HA-05A-0.5-1.0	A2I0312-04	Sediment	09/07/22 15:10	09/09/22 14:35
HA-05A-1.0-2.0	A2I0312-05	Sediment	09/07/22 15:20	09/09/22 14:35
HA-06D-0.5-1.0	A2I0312-06	Sediment	09/07/22 16:00	09/09/22 14:35
HA-06D-1.0-2.0	A2I0312-07	Sediment	09/07/22 16:05	09/09/22 14:35
HA-07C-0.5-1.0	A2I0312-08	Sediment	09/08/22 08:45	09/09/22 14:35
HA-07C-1.0-2.0	A2I0312-09	Sediment	09/08/22 08:50	09/09/22 14:35
HA-02D-1.0-2.0	A2I0312-10	Sediment	09/08/22 10:10	09/09/22 14:35
HA-02E-1.0-2.0	A2I0312-11	Sediment	09/08/22 10:45	09/09/22 14:35
HA-03E-1.0-2.0	A2I0312-12	Sediment	09/08/22 11:50	09/09/22 14:35
HA-04D-0.5-1.0	A2I0312-13	Sediment	09/08/22 13:10	09/09/22 14:35
HA-04D-1.0-2.0	A2I0312-14	Sediment	09/08/22 13:15	09/09/22 14:35
HA-05E-0.5-1.0	A2I0312-15	Sediment	09/08/22 13:45	09/09/22 14:35
HA-05E-1.0-2.0	A2I0312-16	Sediment	09/08/22 13:50	09/09/22 14:35
HA-03F-0.5-1.0	A2I0312-17	Sediment	09/08/22 14:40	09/09/22 14:35
HA-03F-1.0-2.0	A2I0312-18	Sediment	09/08/22 14:45	09/09/22 14:35

Apex Laboratories

Philip Nevenberg

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions Project: Weyerhaeuser-Eatonville

55 SW Yamhill St, Ste 300Project Number: LandfillReport ID:Portland, OR 97209Project Manager: Josh BaleA210312 - 04 14 23 1513

ANALYTICAL SAMPLE RESULTS

		Total Meta	lls by EPA 60	20B (ICPMS)				
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
IDW-20220907 (A2I0312-01)				Matrix: Sec	diment			
Batch: 22I0453								
Antimony	ND	0.308	0.616	mg/kg dry	5	09/16/22 00:17	EPA 6020B	
Arsenic	3.50	0.308	0.616	mg/kg dry	5	09/16/22 00:17	EPA 6020B	
Barium	91.5	0.308	0.616	mg/kg dry	5	09/16/22 00:17	EPA 6020B	Q-42
Beryllium	0.329	0.0616	0.123	mg/kg dry	5	09/16/22 00:17	EPA 6020B	
Cadmium	0.120	0.0616	0.123	mg/kg dry	5	09/16/22 00:17	EPA 6020B	J
Chromium	47.3	0.308	0.616	mg/kg dry	5	09/16/22 00:17	EPA 6020B	Q-42
Cobalt	9.39	0.308	0.616	mg/kg dry	5	09/16/22 00:17	EPA 6020B	
Copper	22.5	0.616	1.23	mg/kg dry	5	09/16/22 00:17	EPA 6020B	
Lead	4.58	0.0616	0.123	mg/kg dry	5	09/16/22 00:17	EPA 6020B	
Mercury	0.0393	0.0246	0.0493	mg/kg dry	5	09/16/22 00:17	EPA 6020B	J
Nickel	39.3	0.616	1.23	mg/kg dry	5	09/16/22 00:17	EPA 6020B	
Selenium	ND	0.308	0.616	mg/kg dry	5	09/16/22 00:17	EPA 6020B	
Silver	ND	0.0616	0.123	mg/kg dry	5	09/16/22 00:17	EPA 6020B	
Thallium	ND	0.308	0.616	mg/kg dry	5	09/16/22 00:17	EPA 6020B	
Vanadium	59.0	0.616	1.23	mg/kg dry	5	09/16/22 00:17	EPA 6020B	Q-42
Zinc	70.2	1.23	2.46	mg/kg dry	5	09/16/22 00:17	EPA 6020B	Q-39, Q-42

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6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions Project: Weyerhaeuser-Eatonville

55 SW Yamhill St, Ste 300Project Number: LandfillReport ID:Portland, OR 97209Project Manager: Josh BaleA210312 - 04 14 23 1513

ANALYTICAL SAMPLE RESULTS

		TCLP Meta	als by EPA 602	20B (ICPMS	3)	,		
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
IDW-20220907 (A2I0312-01)				Matrix: Se	diment			
Batch: 22I0882								
Arsenic	ND	0.0500	0.100	mg/L	10	09/28/22 12:29	1311/6020B	
Barium	ND	2.50	5.00	mg/L	10	09/28/22 12:29	1311/6020B	
Beryllium	ND	0.0500	0.100	mg/L	10	09/28/22 12:29	1311/6020B	
Chromium	ND	0.0500	0.100	mg/L	10	09/28/22 12:29	1311/6020B	
Cobalt	ND	0.0500	0.100	mg/L	10	09/28/22 12:29	1311/6020B	
Copper	ND	0.100	0.200	mg/L	10	09/28/22 12:29	1311/6020B	
Lead	ND	0.0250	0.0500	mg/L	10	09/28/22 12:29	1311/6020B	
Nickel	ND	0.100	0.200	mg/L	10	09/28/22 12:29	1311/6020B	
Vanadium	ND	0.100	0.200	mg/L	10	09/28/22 12:29	1311/6020B	
Zinc	0.437	0.250	0.500	mg/L	10	09/28/22 12:29	1311/6020B	J

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions Project: Weyerhaeuser-Eatonville

55 SW Yamhill St, Ste 300Project Number: LandfillReport ID:Portland, OR 97209Project Manager: Josh BaleA210312 - 04 14 23 1513

ANALYTICAL SAMPLE RESULTS

		Pe	ercent Dry W	eight				
	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
IDW-20220907 (A2I0312-01)				Matrix: Se	ediment	Batch:	2210344	
% Solids	84.7	1.00	1.00	%	1	09/14/22 05:20	EPA 8000D	

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6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300

Portland, OR 97209

Project: Weyerhaeuser-Eatonville

Project Number: Landfill
Project Manager: Josh Bale

Report ID: A2I0312 - 04 14 23 1513

ANALYTICAL SAMPLE RESULTS

		TCLP E	xtraction by	EPA 1311				
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
IDW-20220907 (A2I0312-01)				Matrix: Se	ediment	Batch:	2210824	
TCLP Extraction	PREP			N/A	1	09/26/22 17:33	EPA 1311	

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ORELAP ID: OR100062

GSI Water Solutions Project: Weyerhaeuser-Eatonville

55 SW Yamhill St, Ste 300Project Number: LandfillReport ID:Portland, OR 97209Project Manager: Josh BaleA210312 - 04 14 23 1513

QUALITY CONTROL (QC) SAMPLE RESULTS

			Total M	letals by l	EPA 6020	B (ICPMS	5)					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22I0453 - EPA 3051A							Sec	diment				
Blank (22I0453-BLK1)			Prepared	: 09/15/22 1	2:53 Anal	lyzed: 09/16/	/22 00:08					
EPA 6020B												
Antimony	ND	0.250	0.500	mg/kg we	et 5							
Arsenic	ND	0.250	0.500	mg/kg we	et 5							
Barium	ND	0.250	0.500	mg/kg we	et 5							
Beryllium	ND	0.0500	0.100	mg/kg we	et 5							
Cadmium	ND	0.0500	0.100	mg/kg we	et 5							
Chromium	ND	0.250	0.500	mg/kg we	et 5							
Cobalt	ND	0.250	0.500	mg/kg we	et 5							
Copper	ND	0.500	1.00	mg/kg we	et 5							
Lead	ND	0.0500	0.100	mg/kg we	et 5							
Mercury	ND	0.0200	0.0400	mg/kg we	et 5							
Nickel	ND	0.500	1.00	mg/kg we	et 5							
Selenium	ND	0.250	0.500	mg/kg we	et 5							
Silver	ND	0.0500	0.100	mg/kg we	et 5							
Γhallium	ND	0.250	0.500	mg/kg we	et 5							
Vanadium	ND	0.500	1.00	mg/kg we	et 5							
Zinc	ND	1.00	2.00	mg/kg we	et 5							
LCS (22I0453-BS1)			Prepared	: 09/15/22 1	2:53 Anal	lyzed: 09/16/	/22 00:13					
EPA 6020B						<u>-</u>						
Antimony	14.0	0.250	0.500	mg/kg we	et 5	12.5		112	80-120%			
Arsenic	25.4	0.250	0.500	mg/kg we		25.0		101	80-120%			
Barium	25.7	0.250	0.500	mg/kg we	et 5	25.0		103	80-120%			
Beryllium	13.3	0.0500	0.100	mg/kg we		12.5		106	80-120%			
Cadmium	25.0	0.0500	0.100	mg/kg we		25.0		100	80-120%			
Chromium	24.4	0.250	0.500	mg/kg we		25.0		97	80-120%			
Cobalt	24.7	0.250	0.500	mg/kg we		25.0		99	80-120%			
Copper	25.4	0.500	1.00	mg/kg we		25.0		102	80-120%			
Lead	25.6	0.0500	0.100	mg/kg we		25.0		103	80-120%			
Mercury	0.499	0.0200	0.0400	mg/kg we		0.500		100	80-120%			
Nickel	24.8	0.500	1.00	mg/kg we		25.0		99	80-120%			
Selenium	12.3	0.250	0.500	mg/kg we		12.5		98	80-120%			
Silver	13.8	0.0500	0.100	mg/kg we		12.5		110	80-120%			
				0 0	-			-				

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6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions Project: Weyerhaeuser-Eatonville

55 SW Yamhill St, Ste 300Project Number: LandfillReport ID:Portland, OR 97209Project Manager: Josh BaleA210312 - 04 14 23 1513

QUALITY CONTROL (QC) SAMPLE RESULTS

			Total M	letals by l	EPA 6020	B (ICPMS	3)					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22I0453 - EPA 3051A							Sec	diment				
LCS (22I0453-BS1)			Prepared	: 09/15/22 1	2:53 Ana	lyzed: 09/16	/22 00:13					
Vanadium	25.0	0.500	1.00	mg/kg we	et 5	25.0		100	80-120%			
Zinc	25.0	1.00	2.00	mg/kg we	et 5	25.0		100	80-120%			
Duplicate (22I0453-DUP1)			Prepared	: 09/15/22 1	2:53 Ana	lyzed: 09/16	/22 00:22					
QC Source Sample: IDW-2022090	7 (A2I0312-	-01)										
EPA 6020B												
Antimony	ND	0.302	0.605	mg/kg dr	y 5		ND				20%	
Arsenic	3.63	0.302	0.605	mg/kg dr	y 5		3.50			4	20%	
Barium	82.3	0.302	0.605	mg/kg dr	y 5		91.5			11	20%	
Beryllium	0.279	0.0605	0.121	mg/kg dr	y 5		0.329			16	20%	
Cadmium	0.133	0.0605	0.121	mg/kg dr	y 5		0.120			10	20%	
Chromium	36.1	0.302	0.605	mg/kg dr	y 5		47.3			27	20%	Q-0
Cobalt	8.42	0.302	0.605	mg/kg dr	y 5		9.39			11	20%	
Copper	21.3	0.605	1.21	mg/kg dr	y 5		22.5			6	20%	
Lead	5.08	0.0605	0.121	mg/kg dr	y 5		4.58			10	20%	
Mercury	0.0351	0.0242	0.0484	mg/kg dr	y 5		0.0393			11	20%	
Nickel	36.5	0.605	1.21	mg/kg dr	y 5		39.3			7	20%	
Selenium	ND	0.302	0.605	mg/kg dr	y 5		ND				20%	
Silver	ND	0.0605	0.121	mg/kg dr	y 5		ND				20%	
Thallium	ND	0.302	0.605	mg/kg dr	y 5		ND				20%	
Vanadium	54.0	0.605	1.21	mg/kg dr	y 5		59.0			9	20%	
Zinc	91.5	1.21	2.42	mg/kg dr	y 5		70.2			26	20%	Q-0
Matrix Spike (22I0453-MS1)			Prepared	: 09/15/22 1	2:53 Ana	lyzed: 09/16	/22 00:27					
OC Source Sample: IDW-2022090	7 (A2I0312-	-01)										
EPA 6020B												
Antimony	16.0	0.307	0.614	mg/kg dr	y 5	15.3	ND	104	75-125%			
Arsenic	34.3	0.307	0.614	mg/kg dr	y 5	30.7	3.50	100	75-125%			
Barium	113	0.307	0.614	mg/kg dr	y 5	30.7	91.5	71	75-125%			Q-0
Beryllium	16.4	0.0614	0.123	mg/kg dr	y 5	15.3	0.329	105	75-125%			
Cadmium	30.8	0.0614	0.123	mg/kg dr	y 5	30.7	0.120	100	75-125%			
Chromium	67.7	0.307	0.614	mg/kg dr	y 5	30.7	47.3	67	75-125%			Q-0
Cobalt	38.3	0.307	0.614	mg/kg dr	y 5	30.7	9.39	94	75-125%			
Copper	48.6	0.614	1.23	mg/kg dr	y 5	30.7	22.5	85	75-125%			

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions Project: Weyerhaeuser-Eatonville

55 SW Yamhill St, Ste 300Project Number: LandfillReport ID:Portland, OR 97209Project Manager: Josh BaleA210312 - 04 14 23 1513

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS) Detection Reporting Spike % REC **RPD** Source Dilution Analyte Result Limit Units Result % REC Limits RPD Limit Amount Limit Notes Batch 22I0453 - EPA 3051A Sediment Prepared: 09/15/22 12:53 Analyzed: 09/16/22 00:27 Matrix Spike (22I0453-MS1) **QC Source Sample: IDW-20220907 (A2I0312-01)** 30.7 95 Lead 33.8 0.0614 0.123 mg/kg dry 5 4.58 75-125% 0.625 0.02450.0491 5 0.614 95 Mercury mg/kg dry 0.0393 75-125% Nickel 74.3 0.614 30.7 75-125% 1.23 mg/kg dry 5 39.3 114 Selenium 15.3 0.307 0.614 mg/kg dry 5 15.3 ND 100 75-125% Silver 16.4 0.0614 0.123 mg/kg dry 5 15.3 ND 107 75-125% Thallium 14.8 0.3070.614 5 15.3 75-125% mg/kg dry ND 96 Vanadium 81.8 0.614 1.23 5 30.7 75-125% Q-04 mg/kg dry 59.0 74 30.7 Q-04 Zinc 114 1.23 2.45 mg/kg dry 5 70.2 75-125% 144 ---

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6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions Project: Weyerhaeuser-Eatonville

55 SW Yamhill St, Ste 300Project Number: LandfillReport ID:Portland, OR 97209Project Manager: Josh BaleA210312 - 04 14 23 1513

QUALITY CONTROL (QC) SAMPLE RESULTS

			TCLP N	letals by	EPA 602	OB (ICPMS	S)					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22I0882 - EPA 1311/301	5A						So	il				
Blank (22I0882-BLK1)			Prepared	: 09/27/22	14:19 Ana	lyzed: 09/28	/22 12:19					
1311/6020B												
Arsenic	ND	0.0500	0.100	mg/L	10							TCL
Barium	ND	2.50	5.00	mg/L	10							TCL
Beryllium	ND	0.0500	0.100	mg/L	10							TCL
Chromium	ND	0.0500	0.100	mg/L	10							TCL
Cobalt	ND	0.0500	0.100	mg/L	10							TCL
Copper	ND	0.100	0.200	mg/L	10							TCL
Lead	ND	0.0250	0.0500	mg/L	10							TCL
Nickel	ND	0.100	0.200	mg/L	10							TCL
Vanadium	ND	0.100	0.200	mg/L	10							TCL
Zinc	ND	0.250	0.500	mg/L	10							TCL
LCS (22I0882-BS1)			Prepared	: 09/27/22	14:19 Ana	lyzed: 09/28	/22 12:24					
1311/6020B												
Arsenic	5.03	0.0500	0.100	mg/L	10	5.00		101	80-120%			TCL
Barium	9.99	2.50	5.00	mg/L	10	10.0		100	80-120%			TCL
Beryllium	0.998	0.0500	0.100	mg/L	10	1.00		100	80-120%			TCL
Chromium	4.84	0.0500	0.100	mg/L	10	5.00		97	80-120%			TCL
Cobalt	2.46	0.0500	0.100	mg/L	10	2.50		98	80-120%			TCL
Copper	2.59	0.100	0.200	mg/L	10	2.50		104	80-120%			TCL
Lead	4.98	0.0250	0.0500	mg/L	10	5.00		100	80-120%			TCL
Nickel	2.48	0.100	0.200	mg/L	10	2.50		99	80-120%			TCL
Vanadium	2.36	0.100	0.200	mg/L	10	2.50		94	80-120%			TCL
Zinc	5.11	0.250	0.500	mg/L	10	5.00		102	80-120%			TCL
Matrix Spike (22I0882-MS1)			Prepared	: 09/27/22	14:19 Ana	lyzed: 09/28	/22 12:34					
QC Source Sample: IDW-2022090	07 (A2I0312-	<u>-01)</u>										
1311/6020B												
Arsenic	4.99	0.0500	0.100	mg/L	10	5.00	ND	100	50-150%			
Barium	10.3	2.50	5.00	mg/L	10	10.0	ND	103	50-150%			
Beryllium	0.981	0.0500	0.100	mg/L	10	1.00	ND	98	50-150%			
Chromium	4.78	0.0500	0.100	mg/L	10	5.00	ND	96	50-150%			
Cobalt	2.47	0.0500	0.100	mg/L	10	2.50	ND	99	50-150%			
Copper	2.63	0.100	0.200	mg/L	10	2.50	ND	105	50-150%			

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6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions Project: Weyerhaeuser-Eatonville

55 SW Yamhill St, Ste 300Project Number: LandfillReport ID:Portland, OR 97209Project Manager: Josh BaleA210312 - 04 14 23 1513

QUALITY CONTROL (QC) SAMPLE RESULTS

			TCLP N	letals by	EPA 602	OB (ICPM	S)					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22l0882 - EPA 1311/3015	iΑ						So	il				
Matrix Spike (22I0882-MS1)			Prepared	: 09/27/22	14:19 Anal	yzed: 09/28	/22 12:34					
QC Source Sample: IDW-2022090	7 (A2I0312	<u>-01)</u>										
Lead	4.93	0.0250	0.0500	mg/L	10	5.00	ND	99	50-150%			
Nickel	2.52	0.100	0.200	mg/L	10	2.50	ND	101	50-150%			
Vanadium	2.34	0.100	0.200	mg/L	10	2.50	ND	94	50-150%			
Zinc	5.48	0.250	0.500	mg/L	10	5.00	0.437	101	50-150%			
Matrix Spike (22I0882-MS2)			Prepared	: 09/27/22	14:19 Anal	yzed: 09/28	/22 12:45					
QC Source Sample: Non-SDG (A2	<u>10747-01)</u>											
1311/6020B												
Arsenic	5.03	0.0500	0.100	mg/L	10	5.00	ND	101	50-150%			
Barium	10.4	2.50	5.00	mg/L	10	10.0	ND	104	50-150%			
Beryllium	0.994	0.0500	0.100	mg/L	10	1.00	ND	99	50-150%			
Chromium	4.85	0.0500	0.100	mg/L	10	5.00	ND	97	50-150%			
Cobalt	2.47	0.0500	0.100	mg/L	10	2.50	ND	99	50-150%			
Copper	2.62	0.100	0.200	mg/L	10	2.50	ND	105	50-150%			
Lead	7.09	0.0250	0.0500	mg/L	10	5.00	2.04	101	50-150%			
Nickel	2.48	0.100	0.200	mg/L	10	2.50	ND	99	50-150%			
Vanadium	2.36	0.100	0.200	mg/L	10	2.50	ND	94	50-150%			
Zinc	5.96	0.250	0.500	mg/L	10	5.00	0.893	101	50-150%			

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions Project: Weyerhaeuser-Eatonville

55 SW Yamhill St, Ste 300Project Number: LandfillReport ID:Portland, OR 97209Project Manager: Josh BaleA2I0312 - 04 14 23 1513

QUALITY CONTROL (QC) SAMPLE RESULTS

				Percen	t Dry Wei	ght						
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22l0344 - Total Solids (I	Dry Weigh	t)					Soil					
Duplicate (22I0344-DUP1)			Prepared	: 09/13/22	13:07 Ana	lyzed: 09/14/	/22 05:20					
QC Source Sample: Non-SDG (A2	<u>210310-01)</u>											
% Solids	91.7	1.00	1.00	%	1		90.1			2	10%	
Duplicate (22I0344-DUP2)			Prepared	: 09/13/22	13:07 Ana	lyzed: 09/14/	/22 05:20					
QC Source Sample: Non-SDG (AZ	210310-02)											
% Solids	90.1	1.00	1.00	%	1		87.2			3	10%	
Duplicate (22I0344-DUP3)			Prepared	: 09/13/22	13:07 Ana	lyzed: 09/14/	/22 05:20					
QC Source Sample: Non-SDG (AZ	210310-03)											
% Solids	90.6	1.00	1.00	%	1		91.5			1	10%	
Duplicate (22I0344-DUP4)			Prepared	: 09/13/22	15:21 Ana	lyzed: 09/14/	/22 05:20					
QC Source Sample: Non-SDG (AZ	<u>210353-01)</u>											
% Solids	89.3	1.00	1.00	%	1		88.5			0.9	10%	
Duplicate (22I0344-DUP5)			Prepared	: 09/13/22	15:21 Ana	lyzed: 09/14/	/22 05:20					
QC Source Sample: Non-SDG (AZ	210353-02)											
% Solids	92.8	1.00	1.00	%	1		91.9			1	10%	
Duplicate (22I0344-DUP6)			Prepared	: 09/13/22	19:39 Ana	lyzed: 09/14/	/22 05:20					
QC Source Sample: Non-SDG (AZ												
% Solids	79.3	1.00	1.00	%	1		76.5			4	10%	

No Client related Batch QC samples analyzed for this batch. See notes page for more information.

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Philip Nerenberg, Lab Director

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions Project: Weyerhaeuser-Eatonville

55 SW Yamhill St, Ste 300Project Number: LandfillReport ID:Portland, OR 97209Project Manager: Josh BaleA210312 - 04 14 23 1513

SAMPLE PREPARATION INFORMATION

		Tota	l Metals by EPA 6020	OB (ICPMS)			
Prep: EPA 3051A Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 22I0453 A2I0312-01	Sediment	EPA 6020B	09/07/22 10:30	09/15/22 12:53	0.479g/50mL	0.5g/50mL	1.04
		TCL	P Metals by EPA 602	0B (ICPMS)			
Prep: EPA 1311/3015 Lab Number	<u>5A</u> Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
<u>Batch: 2210882</u> A2I0312-01	Sediment	1311/6020B	09/07/22 10:30	09/27/22 14:19	10mL/50mL	10mL/50mL	1.00
			Percent Dry Wei	ght			
Prep: Total Solids (D Lab Number	ry Weight) Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 22I0344 A2I0312-01	Sediment	EPA 8000D	09/07/22 10:30	09/13/22 13:07			NA
		7	ΓCLP Extraction by E	PA 1311			
Prep: EPA 1311 (TCL Lab Number	<u>P)</u> Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 2210824 A2I0312-01	Sediment	EPA 1311	09/07/22 10:30	09/26/22 17:33	100g/2000g	100g/2000g	NA

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6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions Project: Weyerhaeuser-Eatonville

55 SW Yamhill St, Ste 300 Project Number: Landfill Report ID:

Portland, OR 97209 Project Manager: Josh Bale A210312 - 04 14 23 1513

QUALIFIER DEFINITIONS

Client Sample and Quality Control (QC) Sample Qualifier Definitions:

Apex Laboratories

- J Estimated Result. Result detected below the lowest point of the calibration curve, but above the specified MDL.
- Q-04 Spike recovery and/or RPD is outside control limits due to a non-homogeneous sample matrix.
- Q-39 Results for sample duplicate are significantly higher than the sample results. See duplicate results in QC section of the report.
- Q-42 Matrix Spike and/or Duplicate analysis was performed on this sample. % Recovery or RPD for this analyte is outside laboratory control limits. (Refer to the QC Section of Analytical Report.)
- TCLP This batch QC sample was prepared with TCLP or SPLP fluid from preparation batch 22i0824.

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6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

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GSI Water Solutions Project: Weyerhaeuser-Eatonville

55 SW Yamhill St, Ste 300 Project Number: Landfill Report ID:

Portland, OR 97209 Project Manager: Josh Bale A210312 - 04 14 23 1513

REPORTING NOTES AND CONVENTIONS:

Abbreviations:

DET Analyte DETECTED at or above the detection or reporting limit.

ND Analyte NOT DETECTED at or above the detection or reporting limit.

NR Result Not Reported

RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

Detection Limits: Limit of Detection (LOD)

Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).

If no value is listed ('----'), then the data has not been evaluated below the Reporting Limit.

Reporting Limits: Limit of Quantitation (LOQ)

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

Reporting Conventions:

Basis: Results for soil samples are generally reported on a 100% dry weight basis.

The Result Basis is listed following the units as "dry", "wet", or " " (blank) designation.

"dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")

See Percent Solids section for details of dry weight analysis.

"wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.

"___" Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

QC Source:

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.

Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) may not be included in this report. Please request a Full QC report if this data is required.

Miscellaneous Notes:

"---" QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to ½ the Reporting Limit (RL).

- -For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.
- -For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.

For further details, please request a copy of this document.

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Philip Nerenberg, Lab Director

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions Project: Weyerhaeuser-Eatonville

55 SW Yamhill St, Ste 300Project Number: LandfillReport ID:Portland, OR 97209Project Manager: Josh BaleA210312 - 04 14 23 1513

REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks (Cont.):

Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.

'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level.

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

Sampling and Preservation Notes:

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

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Philip Nerenberg, Lab Director

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions Project: Weyerhaeuser-Eatonville

55 SW Yamhill St, Ste 300Project Number:LandfillReport ID:Portland, OR 97209Project Manager:Josh BaleA210312 - 04 14 23 1513

LABORATORY ACCREDITATION INFORMATION

ORELAP Certification ID: OR100062 (Primary Accreditation) -EPA ID: OR01039

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the <u>exception</u> of any analyte(s) listed below:

Apex Laboratories

Matrix Analysis TNI_ID Analyte TNI_ID Accreditation

All reported analytes are included in Apex Laboratories' current ORELAP scope.

Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation.

Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

Field Testing Parameters

Results for Field Tested data are provded by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

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Philip Nerenberg, Lab Director

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions Project: Weyerhaeuser-Eatonville

55 SW Yamhill St, Ste 300Project Number: LandfillReport ID:Portland, OR 97209Project Manager: Josh BaleA210312 - 04 14 23 1513

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2 azar 1434		
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Philip Nevenberg

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6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions Project: Weyerhaeuser-Eatonville

55 SW Yamhill St, Ste 300Project Number: LandfillReport ID:Portland, OR 97209Project Manager: Josh BaleA210312 - 04 14 23 1513

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SF-05-10 91SIF 1940 SE	
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Apex Laboratories

Philip Merenberg

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Weyerhaeuser-Eatonville

Project Number: Landfill
Project Manager: Josh Bale

Report ID: A2I0312 - 04 14 23 1513

	APEX LABS COOLER RECEIPT FORM	
Client: GSI Wa	er Solutions Element WO#: A2 IOO/2	
Project/Project #:	eyerhaeuser - Eatonville Land Fill	
Delivery Info:		
Date/time received: 9-9-	22 @ 1435 By: 555	
	lient > ESS FedEx UPS Swift Senvoy SDS Other	er
	e/time inspected: 4-9-22 @ 1438 By: \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	
Chain of Custody included		
Signed/dated by client?	Yes No	
Signed/dated by Apex?		
	Cooler #1 Cooler #2 Cooler #3 Cooler #4 Cooler #5 Cooler #6	Cooler#7
Temperature (°C)	2.6	
Received on ice? (Y/N)		
Temp. blanks? (Y/N)	<u>N</u>	
Ice type: (Gel/Real/Other)	Acal	
Condition:	(noo)	
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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323 ORELAP ID: OR100062

Friday, April 14, 2023
Josh Bale
GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

RE: A2B0895 - Eatonville - 00171.067.004

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A2B0895, which was received by the laboratory on 2/23/2022 at 3:30:00PM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: pnerenberg@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample receipt, unless prior arrangements have been made.

Cooler Receipt Information

(See Cooler Receipt Form for details)

Cooler #1 2.4 degC Cooler #2

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.

All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.





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3.6 degC

Philip Nerenberg, Lab Director

Philip Nevenberg

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 00171.067.004
Project Manager: Josh Bale

Report ID: A2B0895 - 04 14 23 1532

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION											
Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received							
HA-01A-0.5-1.0_0222	A2B0895-01	Soil	02/03/22 16:30	02/23/22 15:30							
HA-01B-0.5-1.0_0222	A2B0895-02	Soil	02/03/22 16:50	02/23/22 15:30							
HA-01C-0.5-1.0_0222	A2B0895-03	Soil	02/04/22 15:05	02/23/22 15:30							
HA-01D-0.5-1.0_0222	A2B0895-04	Soil	02/04/22 15:20	02/23/22 15:30							
HA-01E-0.5-1.0_0222	A2B0895-05	Soil	02/04/22 15:40	02/23/22 15:30							
HA-01A-1.0-2.0_0222	A2B0895-06	Soil	02/03/22 16:35	02/23/22 15:30							
HA-01B-1.0-2.0_0222	A2B0895-07	Soil	02/03/22 16:55	02/23/22 15:30							
HA-01C-1.0-2.0_0222	A2B0895-08	Soil	02/04/22 15:10	02/23/22 15:30							
HA-01D-1.0-2.0_0222	A2B0895-09	Soil	02/04/22 15:25	02/23/22 15:30							
HA-01E-1.0-2.0_0222	A2B0895-10	Soil	02/04/22 15:45	02/23/22 15:30							
HA-02A-0.5-1.0_0222	A2B0895-11	Soil	02/03/22 16:05	02/23/22 15:30							
HA-02B-0.5-1.0_0222	A2B0895-12	Soil	02/03/22 15:50	02/23/22 15:30							
HA-02C-0.5-1.0_0222	A2B0895-13	Soil	02/03/22 15:15	02/23/22 15:30							
HA-02D-0.5-1.0_0222	A2B0895-14	Soil	02/03/22 14:45	02/23/22 15:30							
HA-02E-0.5-1.0_0222	A2B0895-15	Soil	02/03/22 14:05	02/23/22 15:30							
HA-02A-1.0-2.0_0222	A2B0895-16	Soil	02/03/22 16:07	02/23/22 15:30							
HA-02B-1.0-2.0_0222	A2B0895-17	Soil	02/03/22 15:52	02/23/22 15:30							
HA-02C-1.0-2.0_0222	A2B0895-18	Soil	02/03/22 15:25	02/23/22 15:30							
HA-02D-1.0-2.0_0222	A2B0895-19	Soil	02/03/22 14:55	02/23/22 15:30							
HA-02E-1.0-2.0_0222	A2B0895-20	Soil	02/03/22 14:15	02/23/22 15:30							
HA-03A-0.5-1.0_0222	A2B0895-21	Soil	02/03/22 13:15	02/23/22 15:30							
HA-03B-0.5-1.0_0222	A2B0895-22	Soil	02/03/22 12:20	02/23/22 15:30							
HA-03C-0.5-1.0_0222	A2B0895-23	Soil	02/01/22 17:05	02/23/22 15:30							
HA-03D-0.5-1.0_0222	A2B0895-24	Soil	02/03/22 10:20	02/23/22 15:30							
HA-03E-0.5-1.0_0222	A2B0895-25	Soil	02/03/22 09:30	02/23/22 15:30							
HA-03A-1.0-2.0_0222	A2B0895-26	Soil	02/03/22 13:30	02/23/22 15:30							
HA-03B-1.0-2.0_0222	A2B0895-27	Soil	02/03/22 12:30	02/23/22 15:30							
HA-03C-1.0-2.0_0222	A2B0895-28	Soil	02/01/22 17:10	02/23/22 15:30							
HA-03D-1.0-2.0_0222	A2B0895-29	Soil	02/03/22 10:30	02/23/22 15:30							
HA-03E-1.0-2.0_0222	A2B0895-30	Soil	02/03/22 09:45	02/23/22 15:30							
HA-04A-0.0-0.5_0222	A2B0895-31	Soil	02/01/22 13:00	02/23/22 15:30							
HA-04B-0.0-0.5_0222	A2B0895-32	Soil	02/01/22 14:40	02/23/22 15:30							
HA-04C-0.0-0.5_0222	A2B0895-33	Soil	02/01/22 15:10	02/23/22 15:30							

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6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 00171.067.004
Project Manager: Josh Bale

Report ID: A2B0895 - 04 14 23 1532

ANALYTICAL REPORT FOR SAMPLES

	SAMPLE INFO	ORMATION		
Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
HA-04D-0.0-0.5_0222	A2B0895-34	Soil	02/01/22 16:00	02/23/22 15:30
HA-04E-0.0-0.5_0222	A2B0895-35	Soil	02/01/22 16:25	02/23/22 15:30
HA-05A-0.0-0.5_0222	A2B0895-36	Soil	02/01/22 12:25	02/23/22 15:30
HA-05B-0.0-0.5_0222	A2B0895-37	Soil	02/01/22 11:30	02/23/22 15:30
HA-05C-0.0-0.5_0222	A2B0895-38	Soil	02/01/22 11:00	02/23/22 15:30
HA-05D-0.0-0.5_0222	A2B0895-39	Soil	02/01/22 10:00	02/23/22 15:30
HA-05E-0.0-0.5_0222	A2B0895-40	Soil	02/01/22 09:00	02/23/22 15:30
HA-01D-0.0-0.5_0222	A2B0895-41	Soil	02/04/22 15:15	02/23/22 15:30
HA-03C-0.0-0.5_0222	A2B0895-42	Soil	02/01/22 17:00	02/23/22 15:30
HA-02E-0.0-0.5_0222	A2B0895-43	Soil	02/03/22 14:00	02/23/22 15:30

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GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project Number: Eatonville
Project Number: 00171.067.004
Project Manager: Josh Bale

Report ID: A2B0895 - 04 14 23 1532

ANALYTICAL SAMPLE RESULTS

		Total Meta	als by EPA 60	20B (ICPMS)				
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-01A-0.5-1.0 0222 (A2B0895-01)	1135411	Ziiiii	2	Matrix: Soi			memou ner.	110003
Batch: 22C0247				IVIALITA. 301				
Lead	338	0.232	0.464	mg/kg dry	10	03/07/22 18:14	EPA 6020B	Q-42
Zinc	663	4.64	9.28	mg/kg dry	10	03/07/22 18:14	EPA 6020B	Q-42
HA-01B-0.5-1.0 0222 (A2B0895-02)			,,20	Matrix: Soi				
Batch: 22C0247				matrix. Cor	-			
Lead	155	0.465	0.930	mg/kg dry	10	03/07/22 18:30	EPA 6020B	
Zinc	2670	9.30	18.6	mg/kg dry	10	03/07/22 18:30	EPA 6020B	
HA-01C-0.5-1.0_0222 (A2B0895-03)				Matrix: Soi	l			
Batch: 22C0247								
Lead	111	0.320	0.639	mg/kg dry	10	03/07/22 18:35	EPA 6020B	
Zinc	3930	6.39	12.8	mg/kg dry	10	03/07/22 18:35	EPA 6020B	
HA-01D-0.5-1.0_0222 (A2B0895-04)				Matrix: Soi				
Batch: 22C0247								
Lead	11.8	0.212	0.423	mg/kg dry	10	03/07/22 18:40	EPA 6020B	
Zinc	912	4.23	8.47	mg/kg dry	10	03/07/22 18:40	EPA 6020B	
HA-01E-0.5-1.0_0222 (A2B0895-05)				Matrix: Soi				
Batch: 22C0247								
Lead	20.7	0.131	0.262	mg/kg dry	10	03/07/22 18:45	EPA 6020B	
Zinc	95.3	2.62	5.24	mg/kg dry	10	03/07/22 18:45	EPA 6020B	
HA-01A-1.0-2.0_0222 (A2B0895-06)				Matrix: Soi	l			
Batch: 22C0247								
Zinc	268	3.98	7.95	mg/kg dry	10	03/07/22 18:50	EPA 6020B	
HA-01B-1.0-2.0_0222 (A2B0895-07)				Matrix: Soi	1			
Batch: 22C0247								
Zinc	528	5.51	11.0	mg/kg dry	10	03/07/22 18:55	EPA 6020B	
HA-01C-1.0-2.0_0222 (A2B0895-08)				Matrix: Soi				
Batch: 22C0247								
Zinc	681	3.74	7.48	mg/kg dry	10	03/07/22 19:11	EPA 6020B	

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ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project Number: Eatonville
Project Number: 00171.067.004
Project Manager: Josh Bale

Report ID: A2B0895 - 04 14 23 1532

ANALYTICAL SAMPLE RESULTS

		Total Meta	ils by EPA 60	20B (ICPMS)				
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-01D-1.0-2.0_0222 (A2B0895-09)				Matrix: Soil	l			
Batch: 22C0247								
Zinc	467	3.10	6.21	mg/kg dry	10	03/07/22 19:16	EPA 6020B	
HA-01E-1.0-2.0_0222 (A2B0895-10)				Matrix: Soil	l			
Batch: 22C0247								
Zinc	73.3	2.72	5.43	mg/kg dry	10	03/07/22 19:21	EPA 6020B	
HA-02A-0.5-1.0_0222 (A2B0895-11)				Matrix: Soil	l			
Batch: 22C0247								
Lead	57.5	0.384	0.767	mg/kg dry	10	03/07/22 19:26	EPA 6020B	
Zinc	90.1	7.67	15.3	mg/kg dry	10	03/07/22 19:26	EPA 6020B	
HA-02B-0.5-1.0_0222 (A2B0895-12)				Matrix: Soil	l			
Batch: 22C0247								
Lead	48.6	0.425	0.851	mg/kg dry	10	03/07/22 19:31	EPA 6020B	
Zinc	537	8.51	17.0	mg/kg dry	10	03/07/22 19:31	EPA 6020B	
HA-02C-0.5-1.0_0222 (A2B0895-13)				Matrix: Soil	ı			
Batch: 22C0247								
Lead	158	0.572	1.14	mg/kg dry	10	03/07/22 19:37	EPA 6020B	
Zinc	2520	11.4	22.9	mg/kg dry	10	03/07/22 19:37	EPA 6020B	
HA-02D-0.5-1.0_0222 (A2B0895-14)				Matrix: Soil	l			
Batch: 22C0247								
Lead	60.1	0.868	1.74	mg/kg dry	10	03/07/22 19:42	EPA 6020B	
Zinc	5420	17.4	34.7	mg/kg dry	10	03/07/22 19:42	EPA 6020B	
HA-02E-0.5-1.0_0222 (A2B0895-15)				Matrix: Soil	l			
Batch: 22C0247								
Lead	15.2	0.466	0.931	mg/kg dry	10	03/07/22 19:47	EPA 6020B	
Zinc	4290	9.31	18.6	mg/kg dry	10	03/07/22 19:47	EPA 6020B	
HA-02A-1.0-2.0_0222 (A2B0895-16)				Matrix: Soil	l			
Batch: 22C0247								
Zinc	47.6	6.10	12.2	mg/kg dry	10	03/07/22 19:52	EPA 6020B	

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ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project Number: Eatonville
Project Number: 00171.067.004
Project Manager: Josh Bale

Report ID: A2B0895 - 04 14 23 1532

ANALYTICAL SAMPLE RESULTS

		Total Meta	als by EPA 60	20B (ICPMS)				
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-02B-1.0-2.0_0222 (A2B0895-17)				Matrix: Soil				
Batch: 22C0247								
Zinc	286	4.68	9.36	mg/kg dry	10	03/07/22 19:57	EPA 6020B	
HA-02C-1.0-2.0_0222 (A2B0895-18)				Matrix: Soil				
Batch: 22C0247								
Zinc	142	2.86	5.73	mg/kg dry	10	03/07/22 20:13	EPA 6020B	
HA-02D-1.0-2.0_0222 (A2B0895-19)				Matrix: Soil				
Batch: 22C0247								
Zinc	613	8.61	17.2	mg/kg dry	10	03/07/22 20:18	EPA 6020B	
HA-02E-1.0-2.0_0222 (A2B0895-20)				Matrix: Soil				
Batch: 22C0247								
Zinc	418	5.94	11.9	mg/kg dry	10	03/07/22 20:23	EPA 6020B	
HA-03A-0.5-1.0_0222 (A2B0895-21)				Matrix: Soil	l			
Batch: 22C0260								
Lead	273	0.212	0.424	mg/kg dry	10	03/07/22 20:43	EPA 6020B	Q-42
Zinc	325	4.24	8.49	mg/kg dry	10	03/07/22 20:43	EPA 6020B	
HA-03B-0.5-1.0_0222 (A2B0895-22)				Matrix: Soil				
Batch: 22C0260								
Lead	35.2	0.248	0.497	mg/kg dry	10	03/07/22 20:59	EPA 6020B	
Zinc	76.8	4.97	9.93	mg/kg dry	10	03/07/22 20:59	EPA 6020B	
HA-03C-0.5-1.0_0222 (A2B0895-23)				Matrix: Soil				
Batch: 22C0260								
Lead	5.20	0.256	0.513	mg/kg dry	10	03/07/22 21:14	EPA 6020B	
Zinc	36.9	5.13	10.3	mg/kg dry	10	03/07/22 21:14	EPA 6020B	
HA-03D-0.5-1.0_0222 (A2B0895-24)				Matrix: Soil				
Batch: 22C0260								
Lead	40.4	0.683	1.37	mg/kg dry	10	03/07/22 21:19	EPA 6020B	
Zinc	3070	13.7	27.3	mg/kg dry	10	03/07/22 21:19	EPA 6020B	
HA-03E-0.5-1.0_0222 (A2B0895-25)		<u> </u>		Matrix: Soil				

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ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project Number: Eatonville
Project Number: 00171.067.004
Project Manager: Josh Bale

Report ID: A2B0895 - 04 14 23 1532

ANALYTICAL SAMPLE RESULTS

		Total Meta	als by EPA 60	20B (ICPMS)				
A 1.	Sample	Detection	Reporting	**	D11 - 1	Date	M d 15 0	37.
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
HA-03E-0.5-1.0_0222 (A2B0895-25)				Matrix: Soil	<u> </u>			
Batch: 22C0260								
Lead	16.7	0.678	1.36	mg/kg dry	10	03/07/22 21:25	EPA 6020B	
Zinc	1560	13.6	27.1	mg/kg dry	10	03/07/22 21:25	EPA 6020B	
HA-03A-1.0-2.0_0222 (A2B0895-26)				Matrix: Soil	<u> </u>			
Batch: 22C0260								
Zine	58.0	3.48	6.95	mg/kg dry	10	03/07/22 21:30	EPA 6020B	
HA-03B-1.0-2.0_0222 (A2B0895-27)				Matrix: Soil				
Batch: 22C0260								
Zinc	20.3	2.87	5.74	mg/kg dry	10	03/07/22 21:35	EPA 6020B	
HA-03C-1.0-2.0_0222 (A2B0895-28)				Matrix: Soil				
Batch: 22C0295								
Zinc	21.3	3.15	6.31	mg/kg dry	10	03/09/22 22:59	EPA 6020B	
HA-03D-1.0-2.0_0222 (A2B0895-29)				Matrix: Soil				
Batch: 22C0260	· · · · · · · · · · · · · · · · · · ·		· · · · · · ·					
Zinc	593	6.66	13.3	mg/kg dry	10	03/07/22 21:40	EPA 6020B	
HA-03E-1.0-2.0_0222 (A2B0895-30)				Matrix: Soil				
Batch: 22C0260							<u> </u>	
Zinc	1190	11.6	23.2	mg/kg dry	10	03/07/22 21:45	EPA 6020B	
HA-04A-0.0-0.5_0222 (A2B0895-31)				Matrix: Soil				
Batch: 22C0260							<u> </u>	
Lead	94.0	0.597	1.19	mg/kg dry	10	03/07/22 21:50	EPA 6020B	
Zine	200	11.9	23.9	mg/kg dry	10	03/07/22 21:50	EPA 6020B	
HA-04B-0.0-0.5_0222 (A2B0895-32)				Matrix: Soil				
Batch: 22C0260								
Lead	199	0.381	0.763	mg/kg dry	10	03/07/22 21:55	EPA 6020B	
Zinc	26.4	7.63	15.3	mg/kg dry	10	03/07/22 21:55	EPA 6020B	
HA-04C-0.0-0.5_0222 (A2B0895-33)				Matrix: Soil	 			_

Batch: 22C0260

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ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project Number: **Eatonville**Project Number: **00171.067.004**Project Manager: **Josh Bale**

Report ID: A2B0895 - 04 14 23 1532

ANALYTICAL SAMPLE RESULTS

		Total Meta	als by EPA 60	20B (ICPMS)				
	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
HA-04C-0.0-0.5_0222 (A2B0895-33)				Matrix: Soi				
Lead	169	0.553	1.11	mg/kg dry	10	03/07/22 22:00	EPA 6020B	
Zinc	204	11.1	22.1	mg/kg dry	10	03/07/22 22:00	EPA 6020B	
HA-04D-0.0-0.5_0222 (A2B0895-34)				Matrix: Soi	l			
Batch: 22C0260								
Lead	109	0.745	1.49	mg/kg dry	10	03/07/22 22:16	EPA 6020B	
Zinc	185	14.9	29.8	mg/kg dry	10	03/07/22 22:16	EPA 6020B	
HA-04E-0.0-0.5_0222 (A2B0895-35)				Matrix: Soi	l			
Batch: 22C0260								
Lead	52.2	0.734	1.47	mg/kg dry	10	03/07/22 22:21	EPA 6020B	
Zinc	1400	14.7	29.4	mg/kg dry	10	03/07/22 22:21	EPA 6020B	
HA-05A-0.0-0.5_0222 (A2B0895-36)				Matrix: Soi				
Batch: 22C0260								
Lead	373	0.611	1.22	mg/kg dry	10	03/07/22 22:26	EPA 6020B	
Zinc	59.4	12.2	24.4	mg/kg dry	10	03/07/22 22:26	EPA 6020B	
HA-05B-0.0-0.5_0222 (A2B0895-37)				Matrix: Soi	I			
Batch: 22C0260								
Lead	120	0.343	0.685	mg/kg dry	10	03/07/22 22:31	EPA 6020B	
Zinc	43.9	6.85	13.7	mg/kg dry	10	03/07/22 22:31	EPA 6020B	
HA-05C-0.0-0.5_0222 (A2B0895-38)				Matrix: Soi	l			
Batch: 22C0260								
Lead	179	0.688	1.38	mg/kg dry	10	03/07/22 22:37	EPA 6020B	
Zinc	78.7	13.8	27.5	mg/kg dry	10	03/07/22 22:37	EPA 6020B	
HA-05D-0.0-0.5_0222 (A2B0895-39)				Matrix: Soi	l			
Batch: 22C0260								
Lead	55.2	0.630	1.26	mg/kg dry	10	03/07/22 22:42	EPA 6020B	
Zinc	723	12.6	25.2	mg/kg dry	10	03/07/22 22:42	EPA 6020B	
HA-05E-0.0-0.5_0222 (A2B0895-40)				Matrix: Soi	l			
Batch: 22C0260								
Lead	87.7	0.191	0.382	mg/kg dry	10	03/07/22 22:47	EPA 6020B	

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ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 00171.067.004
Project Manager: Josh Bale

Report ID: A2B0895 - 04 14 23 1532

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)										
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes		
HA-05E-0.0-0.5_0222 (A2B0895-40)				Matrix: Soi	I					
Zinc	10.1	3.82	7.64	mg/kg dry	10	03/07/22 22:47	EPA 6020B			
HA-01D-0.0-0.5_0222 (A2B0895-41)				Matrix: Soi	l					
Batch: 22C0295										
Lead	325	0.367	0.735	mg/kg dry	10	03/09/22 23:04	EPA 6020B			
HA-01D-0.0-0.5_0222 (A2B0895-41RE1)				Matrix: Soi	I					
Batch: 22C0295										
Zinc	11800	73.5	147	mg/kg dry	100	03/10/22 16:56	EPA 6020B			
HA-03C-0.0-0.5_0222 (A2B0895-42)				Matrix: Soi	I					
Batch: 22C0295										
Lead	236	0.645	1.29	mg/kg dry	10	03/09/22 23:09	EPA 6020B			
HA-02E-0.0-0.5_0222 (A2B0895-43)				Matrix: Soi	ı					
Batch: 22C0295	•									
Zinc	4170	8.49	17.0	mg/kg dry	10	03/09/22 23:14	EPA 6020B			

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ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project Number: Eatonville
Project Number: 00171.067.004
Project Manager: Josh Bale

Report ID: A2B0895 - 04 14 23 1532

ANALYTICAL SAMPLE RESULTS

TCLP Metals by EPA 6020B (ICPMS)									
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes	
HA-01D-0.0-0.5_0222 (A2B0895-41)	Matrix: Soil								
Batch: 22C0556	·								
Lead	0.0333	0.0250	0.0500	mg/L	10	03/14/22 18:20	1311/6020B	J	
Zinc	27.8	0.250	0.500	mg/L	10	03/14/22 18:20	1311/6020B		
HA-03C-0.0-0.5_0222 (A2B0895-42)				Matrix: So	oil				
Batch: 22C0556									
Lead	ND	0.0250	0.0500	mg/L	10	03/14/22 18:30	1311/6020B		
HA-02E-0.0-0.5_0222 (A2B0895-43)				Matrix: So	oil				
Batch: 22C0556									
Zinc	6.99	0.250	0.500	mg/L	10	03/14/22 18:34	1311/6020B		

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GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project Number: Eatonville
Project Number: 00171.067.004
Project Manager: Josh Bale

Report ID: A2B0895 - 04 14 23 1532

ANALYTICAL SAMPLE RESULTS

		Pe	ercent Dry W	eight				
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-01A-0.5-1.0_0222 (A2B0895-01)				Matrix: So	il	Batch:	22C0027	H-01
% Solids	43.7	1.00	1.00	%	1	03/02/22 10:44	EPA 8000D	
HA-01B-0.5-1.0_0222 (A2B0895-02)				Matrix: So	il	Batch:	22C0027	H-01
% Solids	23.2	1.00	1.00	%	1	03/02/22 10:44	EPA 8000D	
HA-01C-0.5-1.0_0222 (A2B0895-03)				Matrix: So	il	Batch:	22C0027	H-01
% Solids	30.1	1.00	1.00	%	1	03/02/22 10:44	EPA 8000D	
HA-01D-0.5-1.0_0222 (A2B0895-04)				Matrix: So	il	Batch:	22C0027	H-01
% Solids	46.7	1.00	1.00	%	1	03/02/22 10:44	EPA 8000D	
HA-01E-0.5-1.0_0222 (A2B0895-05)				Matrix: So	il	Batch: 22C0027		H-01
% Solids	77.1	1.00	1.00	%	1	03/02/22 10:44	EPA 8000D	
HA-01A-1.0-2.0_0222 (A2B0895-06)				Matrix: So	il	Batch: 22C0027		H-01
% Solids	55.9	1.00	1.00	%	1	03/02/22 10:44	EPA 8000D	
HA-01B-1.0-2.0_0222 (A2B0895-07)				Matrix: So	il	Batch:	22C0027	H-01
% Solids	37.3	1.00	1.00	%	1	03/02/22 10:44	EPA 8000D	
HA-01C-1.0-2.0_0222 (A2B0895-08)				Matrix: So	il	Batch:	22C0027	H-01
% Solids	53.5	1.00	1.00	%	1	03/02/22 10:44	EPA 8000D	
HA-01D-1.0-2.0_0222 (A2B0895-09)				Matrix: So	il	Batch:	22C0027	H-01
% Solids	64.8	1.00	1.00	%	1	03/02/22 10:44	EPA 8000D	
HA-01E-1.0-2.0_0222 (A2B0895-10)				Matrix: So	il	Batch:	22C0027	H-01
% Solids	79.0	1.00	1.00	%	1	03/02/22 10:44	EPA 8000D	
HA-02A-0.5-1.0_0222 (A2B0895-11)				Matrix: So	il	Batch:	22C0027	H-01
% Solids	26.7	1.00	1.00	%	1	03/02/22 10:44	EPA 8000D	
HA-02B-0.5-1.0_0222 (A2B0895-12)				Matrix: So	il	Batch:	22C0027	H-01
% Solids	25.7	1.00	1.00	%	1	03/02/22 10:44	EPA 8000D	
HA-02C-0.5-1.0_0222 (A2B0895-13)	·		· · · · · · · · · · · · · · · · · · ·	Matrix: So	il	Batch:	22C0027	H-01

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6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project Number: Eatonville
Project Number: 00171.067.004
Project Manager: Josh Bale

Report ID: A2B0895 - 04 14 23 1532

ANALYTICAL SAMPLE RESULTS

		Pe	ercent Dry W	eight				
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-02C-0.5-1.0_0222 (A2B0895-13)				Matrix: Soil		Batch: 22C0027		H-01
% Solids	17.7	1.00	1.00	% 1		03/02/22 10:44	EPA 8000D	
HA-02D-0.5-1.0_0222 (A2B0895-14)				Matrix: Soil		Batch:	H-01	
% Solids	12.3	1.00	1.00	%	1	03/02/22 10:44	EPA 8000D	
HA-02E-0.5-1.0_0222 (A2B0895-15)				Matrix: So	il	Batch: 22C0027		H-01
% Solids	22.2	1.00	1.00	%	1	03/02/22 10:44	EPA 8000D	
HA-02A-1.0-2.0_0222 (A2B0895-16)				Matrix: So	il	Batch:	22B0997	H-01
% Solids	32.7	1.00	1.00	%	1	03/01/22 10:40	EPA 8000D	
HA-02B-1.0-2.0_0222 (A2B0895-17)				Matrix: So	il	Batch:	22B0997	H-01
% Solids	43.3	1.00	1.00	%	1	03/01/22 10:40	EPA 8000D	
HA-02C-1.0-2.0_0222 (A2B0895-18)				Matrix: Soil		Batch: 22B0997		H-01
% Solids	72.8	1.00	1.00	%	1	03/01/22 10:40	EPA 8000D	
HA-02D-1.0-2.0_0222 (A2B0895-19)				Matrix: So	il	Batch:	22B0997	H-01
% Solids	24.5	1.00	1.00	%	1	03/01/22 10:40	EPA 8000D	
HA-02E-1.0-2.0_0222 (A2B0895-20)				Matrix: So	il	Batch: 22B0997		H-01
% Solids	33.3	1.00	1.00	%	1	03/01/22 10:40	EPA 8000D	
HA-03A-0.5-1.0_0222 (A2B0895-21)				Matrix: So	il	Batch: 22B0997		H-01
% Solids	49.1	1.00	1.00	%	1	03/01/22 10:40	EPA 8000D	
HA-03B-0.5-1.0_0222 (A2B0895-22)				Matrix: So	il	Batch:	22B0997	H-01
% Solids	41.2	1.00	1.00	%	1	03/01/22 10:40	EPA 8000D	
HA-03C-0.5-1.0_0222 (A2B0895-23)				Matrix: So	il	Batch:	22B0997	H-01
% Solids	39.9	1.00	1.00	%	1	03/01/22 10:40	EPA 8000D	
HA-03D-0.5-1.0_0222 (A2B0895-24)				Matrix: Soil		Batch: 22B0997		H-01
% Solids	14.9	1.00	1.00	%	1	03/01/22 10:40	EPA 8000D	
HA-03E-0.5-1.0_0222 (A2B0895-25)				Matrix: So	il	Batch:	22B0997	H-01

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ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project Number: Eatonville
Project Number: 00171.067.004
Project Manager: Josh Bale

Report ID: A2B0895 - 04 14 23 1532

ANALYTICAL SAMPLE RESULTS

Percent Dry Weight											
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes			
HA-03E-0.5-1.0_0222 (A2B0895-25)				Matrix: Soil		Batch: 22B0997		H-01			
% Solids	15.1	1.00	1.00	% 1		03/01/22 10:40 EPA 8000D					
HA-03A-1.0-2.0_0222 (A2B0895-26)				Matrix: Soil		Batch: 22B0997		H-01			
% Solids	58.5	1.00	1.00	%	1	03/01/22 10:40	EPA 8000D				
HA-03B-1.0-2.0_0222 (A2B0895-27)				Matrix: Soil		Batch: 22B0997		H-01			
% Solids	68.1	1.00	1.00	%	1	03/01/22 10:40	EPA 8000D				
HA-03C-1.0-2.0_0222 (A2B0895-28)				Matrix: Soi	I	Batch:	22B0997	H-01			
% Solids	62.8	1.00	1.00	%	1	03/01/22 10:40	EPA 8000D				
HA-03D-1.0-2.0_0222 (A2B0895-29)				Matrix: Soi	l	Batch:	22B0997	H-01			
% Solids	30.3	1.00	1.00	%	1	03/01/22 10:40	EPA 8000D				
HA-03E-1.0-2.0_0222 (A2B0895-30)				Matrix: Soil		Batch: 22B0997		H-01			
% Solids	18.0	1.00	1.00	%	1	03/01/22 10:40	EPA 8000D				
HA-04A-0.0-0.5_0222 (A2B0895-31)				Matrix: Soi	I	Batch:	22B0997	H-01			
% Solids	18.0	1.00	1.00	%	1	03/01/22 10:40	EPA 8000D				
HA-04B-0.0-0.5_0222 (A2B0895-32)				Matrix: Soi	I	Batch: 22B0997		H-01			
% Solids	26.4	1.00	1.00	%	1	03/01/22 10:40	EPA 8000D				
HA-04C-0.0-0.5_0222 (A2B0895-33)				Matrix: Soi	l	Batch: 22B0997		H-01			
% Solids	19.7	1.00	1.00	%	1	03/01/22 10:40	EPA 8000D				
HA-04D-0.0-0.5_0222 (A2B0895-34)				Matrix: Soi	l	Batch:	22B0997	H-01			
% Solids	13.8	1.00	1.00	%	1	03/01/22 10:40	EPA 8000D				
HA-04E-0.0-0.5_0222 (A2B0895-35)				Matrix: Soi	l	Batch:	22B0997	H-01			
% Solids	13.2	1.00	1.00	%	1	03/01/22 10:40	EPA 8000D				
HA-05A-0.0-0.5_0222 (A2B0895-36)				Matrix: Soil		Batch: 22B0997		H-01			
% Solids	17.9	1.00	1.00	%	1	03/01/22 10:40	EPA 8000D				
HA-05B-0.0-0.5_0222 (A2B0895-37)				Matrix: Soi	ı	Batch:	22B0997	H-01			

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6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323 ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project Number: Eatonville
Project Number: 00171.067.004
Project Manager: Josh Bale

Report ID: A2B0895 - 04 14 23 1532

ANALYTICAL SAMPLE RESULTS

		Pe	ercent Dry W	eight				
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-05B-0.0-0.5_0222 (A2B0895-37)				Matrix: So	il	Batch:	H-01	
% Solids	31.9	1.00	1.00	%	1	03/01/22 10:40	EPA 8000D	
HA-05C-0.0-0.5_0222 (A2B0895-38)				Matrix: So	il	Batch:	H-01	
% Solids	15.8	1.00	1.00	%	1	03/01/22 10:40	EPA 8000D	
HA-05D-0.0-0.5_0222 (A2B0895-39)				Matrix: Soil Batch: 22B0997				H-01
% Solids	15.9	1.00	1.00	%	1	03/01/22 10:40	EPA 8000D	
HA-05E-0.0-0.5_0222 (A2B0895-40)				Matrix: So	il	Batch:	H-01	
% Solids	51.6	1.00	1.00	%	1	03/01/22 10:40	EPA 8000D	
HA-01D-0.0-0.5_0222 (A2B0895-41)				Matrix: So	il	Batch:	H-01	
% Solids	28.3	1.00	1.00	%	1	03/01/22 10:40	EPA 8000D	
HA-03C-0.0-0.5_0222 (A2B0895-42)				Matrix: Soil Batch: 22B0997				H-01
% Solids	16.1	1.00	1.00	%	1	03/01/22 10:40	EPA 8000D	
HA-02E-0.0-0.5_0222 (A2B0895-43)				Matrix: So	il	Batch:	H-01	
% Solids	25.8	1.00	1.00	%	1	03/01/22 10:40	EPA 8000D	

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6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 00171.067.004
Project Manager: Josh Bale

Report ID: A2B0895 - 04 14 23 1532

ANALYTICAL SAMPLE RESULTS

TCLP Extraction by EPA 1311											
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes			
HA-01D-0.0-0.5_0222 (A2B0895-41)				Matrix: Soil Batch: 22C0423							
TCLP Extraction	PREP			N/A	1	03/10/22 15:40	EPA 1311	A-01, H-10			
HA-03C-0.0-0.5_0222 (A2B0895-42)				Matrix: Soil Batch: 22C0423							
TCLP Extraction	PREP			N/A	1	03/10/22 15:40	EPA 1311	A-01, H-10			
HA-02E-0.0-0.5_0222 (A2B0895-43)				Matrix: Soil Batch: 22C0423							
TCLP Extraction	PREP			N/A	1	03/10/22 15:40	EPA 1311	A-01, H-10			

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6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project Number: Eatonville
Project Number: 00171.067.004
Project Manager: Josh Bale

Report ID: A2B0895 - 04 14 23 1532

QUALITY CONTROL (QC) SAMPLE RESULTS

	Total Metals by EPA 6020B (ICPMS)											
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22C0247 - EPA 3051A							So	il				
Blank (22C0247-BLK1)			Prepared	: 03/07/22 0	9:42 Anal	yzed: 03/07	/22 17:54					
EPA 6020B												
Lead	ND	0.0962	0.192	mg/kg we	t 10							
Zinc	ND	1.92	3.85	mg/kg we	t 10							
LCS (22C0247-BS1)			Prepared	: 03/07/22 0	9:42 Anal	yzed: 03/07	/22 18:09					
EPA 6020B												
Lead	49.5	0.100	0.200	mg/kg we	t 10	50.0		99	80-120%			
Zinc	51.6	2.00	4.00	mg/kg we	t 10	50.0		103	80-120%			
Duplicate (22C0247-DUP1)			Prepared	: 03/07/22 0	9:42 Anal	lyzed: 03/07	/22 18:20					
OC Source Sample: HA-01A-0.5-1	.0_0222 (A	2B0895-01)										
EPA 6020B												
Lead	314	0.240	0.479	mg/kg dry	7 10		338			7	20%	
Zinc	497	4.79	9.59	mg/kg dry	10		663			29	20%	Q-0
Matrix Spike (22C0247-MS1)			Prepared	: 03/07/22 0	9:42 Anal	yzed: 03/07	/22 18:25					
QC Source Sample: HA-01A-0.5-1	.0 0222 (A	2B0895-01)										
EPA 6020B												
Lead	405	0.243	0.486	mg/kg dry	7 10	122	338	55	75-125%			Q-0
Zinc	575	4.86	9.73	mg/kg dry	/ 10	122	663	-73	75-125%			Q-0
Batch 22C0260 - EPA 3051A							So	il				
Blank (22C0260-BLK1)			Prepared	: 03/07/22 1	1:48 Anal	yzed: 03/07	/22 20:33					
EPA 6020B												
Lead	ND	0.0962	0.192	mg/kg we	t 10							
Zinc	ND	1.92	3.85	mg/kg we	t 10							
LCS (22C0260-BS1)			Prepared	: 03/07/22 1	1:48 Anal	yzed: 03/07	/22 20:38					
EPA 6020B												
Lead	45.2	0.100	0.200	mg/kg we	t 10	50.0		90	80-120%			
Zinc	46.3	2.00	4.00	mg/kg we	t 10	50.0		93	80-120%			

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6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 00171.067.004
Project Manager: Josh Bale

Report ID: A2B0895 - 04 14 23 1532

QUALITY CONTROL (QC) SAMPLE RESULTS

			Total N	letals by	EPA 602	OB (ICPMS	S)					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22C0260 - EPA 3051A							So	il				
Duplicate (22C0260-DUP1)			Prepared	: 03/07/22 1	1:48 Ana	lyzed: 03/07	/22 20:49					
QC Source Sample: HA-03A-0.5-1. EPA 6020B	.0 0222 (A	2B0895-21)										
Lead	215	0.210	0.420	mg/kg dr	y 10		273			24	20%	Q-04
Zinc	286	4.20	8.40	mg/kg dr	y 10		325			13	20%	
Matrix Spike (22C0260-MS1)			Prepared	: 03/07/22 1	1:48 Ana	lyzed: 03/07	/22 20:54					
QC Source Sample: HA-03A-0.5-1	.0 0222 (A	2B0895-21)										
EPA 6020B												
Lead	333	0.219	0.437	mg/kg dr	y 10	109	273	55	75-125%			Q-04
Zinc	416	4.37	8.74	mg/kg dr	y 10	109	325	83	75-125%			

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6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project Number: Eatonville
Project Number: 00171.067.004
Project Manager: Josh Bale

Report ID: A2B0895 - 04 14 23 1532

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)												
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22C0295 - EPA 3051A							Soi	I				
Blank (22C0295-BLK1)			Prepared	: 03/08/22 0	9:35 Ana	yzed: 03/09	/22 21:57					
EPA 6020B												
Lead	ND	0.0962	0.192	mg/kg we	t 10							
Zinc	ND	1.92	3.85	mg/kg we	et 10							
LCS (22C0295-BS1)			Prepared	: 03/08/22 0	9:35 Anal	yzed: 03/09	/22 22:01					
EPA 6020B												
Lead	46.8	0.100	0.200	mg/kg we	t 10	50.0		94	80-120%			
Zinc	48.1	2.00	4.00	mg/kg we	et 10	50.0		96	80-120%			
Duplicate (22C0295-DUP1)			Prepared	: 03/08/22 0	9:35 Ana	yzed: 03/09	/22 22:11					
OC Source Sample: Non-SDG (A2)	B0815-01)											
Lead	1.72	0.107	0.215	mg/kg dr	y 10		1.59			8	20%	
Zinc	20.0	2.15	4.30	mg/kg dr	y 10		18.3			9	20%	
Matrix Spike (22C0295-MS1)			Prepared	: 03/08/22 0	9:35 Anal	yzed: 03/09	/22 22:16					
QC Source Sample: Non-SDG (A2)	B0815-01)											
EPA 6020B												
Lead	54.4	0.112	0.224	mg/kg dr	y 10	56.1	1.59	94	75-125%			
Zinc	72.0	2.24	4.49	mg/kg dr	y 10	56.1	18.3	96	75-125%			

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55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 00171.067.004
Project Manager: Josh Bale

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QUALITY CONTROL (QC) SAMPLE RESULTS

			TCLP N	letals by	EPA 602	OB (ICPM	S)					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22C0556 - EPA 1311/3015	5A						Soi	I				
Blank (22C0556-BLK1)			Prepared	: 03/14/22	14:28 Ana	lyzed: 03/14	/22 18:01					
<u>1311/6020B</u>												
Lead	ND	0.0250	0.0500	mg/L	10							TCLP
Zinc	ND	0.250	0.500	mg/L	10							TCLP
LCS (22C0556-BS1)			Prepared	: 03/14/22	14:28 Ana	lyzed: 03/14	1/22 18:06					
<u>1311/6020B</u>												
Lead	4.69	0.0250	0.0500	mg/L	10	5.00		94	80-120%			TCLP
Zinc	4.63	0.250	0.500	mg/L	10	5.00		93	80-120%			TCLP
Matrix Spike (22C0556-MS1)			Prepared	: 03/14/22	14:28 Ana	lyzed: 03/14	1/22 18:25					
OC Source Sample: HA-01D-0.0-0.	5_0222 (A	2B0895-41)										
<u>1311/6020B</u>												
Lead	4.97	0.0250	0.0500	mg/L	10	5.00	0.0333	99	50-150%			
Zinc	32.1	0.250	0.500	mg/L	10	5.00	27.8	86	50-150%			

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ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project Number: Eatonville
Project Number: 00171.067.004
Project Manager: Josh Bale

Report ID: A2B0895 - 04 14 23 1532

QUALITY CONTROL (QC) SAMPLE RESULTS

				Percen	t Dry Wei	ght						
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22B0997 - Total Solids (Dr	y Weigl	ht)					Soi					
Duplicate (22B0997-DUP1)			Prepared	: 02/28/22	13:22 Anal	yzed: 03/01/	22 10:40					H-01
QC Source Sample: Non-SDG (A2B0	731-01)											
% Solids	79.3	1.00	1.00	%	1		79.3			0.08	10%	
Duplicate (22B0997-DUP2)			Prepared	: 02/28/22	13:22 Anal	yzed: 03/01/	/22 10:40					H-01
QC Source Sample: Non-SDG (A2B0)	731-02)											
% Solids	79.1	1.00	1.00	%	1		79.8			0.9	10%	
Duplicate (22B0997-DUP3)			Prepared	: 02/28/22	13:22 Anal	yzed: 03/01/	22 10:40					
QC Source Sample: Non-SDG (A2B0)	776-03)											
% Solids	94.4	1.00	1.00	%	1		94.1			0.4	10%	
Duplicate (22B0997-DUP4)			Prepared	: 02/28/22	13:22 Anal	yzed: 03/01/	/22 10:40					
QC Source Sample: Non-SDG (A2B08	<u>816-01)</u>											
% Solids	78.0	1.00	1.00	%	1		77.5			0.6	10%	
Duplicate (22B0997-DUP5)			Prepared	: 02/28/22	13:22 Anal	yzed: 03/01/	22 10:40					
QC Source Sample: Non-SDG (A2B08	816-02)											
% Solids	78.7	1.00	1.00	%	1		78.5			0.2	10%	
Duplicate (22B0997-DUP6)			Prepared	: 02/28/22	13:22 Anal	yzed: 03/01/	22 10:40					
QC Source Sample: Non-SDG (A2B08	<u>816-03)</u>											
% Solids	78.5	1.00	1.00	%	1		76.8			2	10%	
Duplicate (22B0997-DUP7)			Prepared	: 02/28/22	13:22 Anal	yzed: 03/01/	22 10:40					
QC Source Sample: Non-SDG (A2B08	<u>819-01)</u>											
% Solids	79.5	1.00	1.00	%	1		79.9			0.5	10%	
Duplicate (22B0997-DUP8)			Prepared	: 02/28/22	19:38 Anal	yzed: 03/01/	22 10:40					
QC Source Sample: Non-SDG (A2B09	956-01)											
% Solids	78.9	1.00	1.00	%	1		79.3			0.5	10%	

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Philip Marenberg



Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions Project: 55 SW Yamhill St, Ste 300 Project Number: 00171.067.004 Portland, OR 97209 Project Manager: Josh Bale

Report ID: A2B0895 - 04 14 23 1532

QUALITY CONTROL (QC) SAMPLE RESULTS

Eatonville

Percent Dry Weight												
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22B0997 - Total Solids	(Dry Weigl	nt)					Soil					
Duplicate (22B0997-DUP9)			Prepared	: 02/28/22	19:38 Anal	lyzed: 03/01/	/22 10:40					
QC Source Sample: Non-SDG (A2	2B0968-02)											
% Solids	91.5	1.00	1.00	%	1		91.2			0.4	10%	

No Client related Batch QC samples analyzed for this batch. See notes page for more information.

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Philip Nerenberg, Lab Director

Philip Nevenberg



Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project Number: Eatonville
Project Number: 00171.067.004
Project Manager: Josh Bale

Report ID: A2B0895 - 04 14 23 1532

QUALITY CONTROL (QC) SAMPLE RESULTS

				Percen	t Dry Wei	ght						
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22C0027 - Total Solids (Dr	y Weigl	nt)					Soil					
Duplicate (22C0027-DUP1)			Prepared	: 03/01/22	11:32 Anal	yzed: 03/02/	/22 10:44					
QC Source Sample: Non-SDG (A2B0)	<u>784-01)</u>											
% Solids	26.6	1.00	1.00	%	1		26.4			0.6	10%	
Duplicate (22C0027-DUP2)			Prepared	: 03/01/22	11:32 Anal	yzed: 03/02/	/22 10:44					
QC Source Sample: Non-SDG (A2B08	864-01)											
% Solids	89.1	1.00	1.00	%	1		87.9			1	10%	
Duplicate (22C0027-DUP3)			Prepared	: 03/01/22	11:32 Anal	yzed: 03/02/	/22 10:44					
QC Source Sample: Non-SDG (A2B08	864-02)											
% Solids	83.3	1.00	1.00	%	1		83.1			0.2	10%	
Duplicate (22C0027-DUP4)			Prepared	: 03/01/22	11:32 Anal	yzed: 03/02/	/22 10:44					
QC Source Sample: Non-SDG (A2B08	864-03)											
% Solids	76.4	1.00	1.00	%	1		75.3			1	10%	
Duplicate (22C0027-DUP5)			Prepared	: 03/01/22	11:32 Anal	yzed: 03/02/	/22 10:44					
QC Source Sample: Non-SDG (A2B08	864-05)											
% Solids	67.5	1.00	1.00	%	1		71.9			6	10%	
Duplicate (22C0027-DUP6)			Prepared	: 03/01/22	19:45 Anal	yzed: 03/02/	/22 10:44					
QC Source Sample: Non-SDG (A2C0)	<u>080-01)</u>											
% Solids	88.6	1.00	1.00	%	1		88.5			0.08	10%	
Duplicate (22C0027-DUP7)			Prepared	: 03/01/22	19:45 Anal	yzed: 03/02/	/22 10:44					
QC Source Sample: Non-SDG (A2C0)	094-01)											
% Solids	73.7	1.00	1.00	%	1		73.7			0.007	10%	
Duplicate (22C0027-DUP8)			Prepared	: 03/01/22	19:45 Anal	yzed: 03/02/	/22 10:44					
QC Source Sample: Non-SDG (A2C0)	098-04)											
% Solids	74.2	1.00	1.00	%	1		73.8			0.6	10%	

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Philip Neimberg



Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water SolutionsProject:Eatonville55 SW Yamhill St, Ste 300Project Number:00171.067.004Portland, OR 97209Project Manager:Josh Bale

Report ID: A2B0895 - 04 14 23 1532

QUALITY CONTROL (QC) SAMPLE RESULTS

Percent Dry Weight

Detection Reporting Spike Source % REC **RPD** % REC Analyte Result Ĺimit Units Dilution Amount Result Limits RPD Limit Notes Limit

No Client related Batch QC samples analyzed for this batch. See notes page for more information.

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Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water SolutionsProject:Eatonville55 SW Yamhill St, Ste 300Project Number:00171.067.004Portland, OR 97209Project Manager:Josh Bale

Report ID: A2B0895 - 04 14 23 1532

SAMPLE PREPARATION INFORMATION

		Tota	al Metals by EPA 602	0B (ICPMS)			
Prep: EPA 3051A					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
Batch: 22C0247			•	*			
A2B0895-01	Soil	EPA 6020B	02/03/22 16:30	03/07/22 09:42	0.493g/50mL	0.5g/50mL	1.01
A2B0895-02	Soil	EPA 6020B	02/03/22 16:50	03/07/22 09:42	0.464g/50mL	0.5g/50mL	1.08
A2B0895-03	Soil	EPA 6020B	02/04/22 15:05	03/07/22 09:42	0.52g/50mL	0.5g/50mL	0.96
A2B0895-04	Soil	EPA 6020B	02/04/22 15:20	03/07/22 09:42	0.506g/50mL	0.5g/50mL	0.99
A2B0895-05	Soil	EPA 6020B	02/04/22 15:40	03/07/22 09:42	0.495g/50mL	0.5g/50mL	1.01
A2B0895-06	Soil	EPA 6020B	02/03/22 16:35	03/07/22 09:42	0.45g/50mL	0.5g/50mL	1.11
A2B0895-07	Soil	EPA 6020B	02/03/22 16:55	03/07/22 09:42	0.487g/50mL	0.5g/50mL	1.03
A2B0895-08	Soil	EPA 6020B	02/04/22 15:10	03/07/22 09:42	0.5g/50mL	0.5g/50mL	1.00
A2B0895-09	Soil	EPA 6020B	02/04/22 15:25	03/07/22 09:42	0.497g/50mL	0.5g/50mL	1.01
A2B0895-10	Soil	EPA 6020B	02/04/22 15:45	03/07/22 09:42	0.466g/50mL	0.5g/50mL	1.07
A2B0895-11	Soil	EPA 6020B	02/03/22 16:05	03/07/22 09:42	0.488g/50mL	0.5g/50mL	1.02
A2B0895-12	Soil	EPA 6020B	02/03/22 15:50	03/07/22 09:42	0.458g/50mL	0.5g/50mL	1.09
A2B0895-13	Soil	EPA 6020B	02/03/22 15:15	03/07/22 09:42	0.495g/50mL	0.5g/50mL	1.01
A2B0895-14	Soil	EPA 6020B	02/03/22 14:45	03/07/22 09:42	0.468g/50mL	0.5g/50mL	1.07
A2B0895-15	Soil	EPA 6020B	02/03/22 14:05	03/07/22 09:42	0.483g/50mL	0.5g/50mL	1.04
A2B0895-16	Soil	EPA 6020B	02/03/22 16:07	03/07/22 09:42	0.501g/50mL	0.5g/50mL	1.00
A2B0895-17	Soil	EPA 6020B	02/03/22 15:52	03/07/22 09:42	0.494g/50mL	0.5g/50mL	1.01
A2B0895-18	Soil	EPA 6020B	02/03/22 15:25	03/07/22 09:42	0.48g/50mL	0.5g/50mL	1.04
A2B0895-19	Soil	EPA 6020B	02/03/22 14:55	03/07/22 09:42	0.474g/50mL	0.5g/50mL	1.05
A2B0895-20	Soil	EPA 6020B	02/03/22 14:15	03/07/22 09:42	0.505g/50mL	0.5g/50mL	0.99
Batch: 22C0260							
A2B0895-21	Soil	EPA 6020B	02/03/22 13:15	03/07/22 11:48	0.48g/50mL	0.5g/50mL	1.04
A2B0895-22	Soil	EPA 6020B	02/03/22 12:20	03/07/22 11:48	0.489g/50mL	0.5g/50mL	1.02
A2B0895-23	Soil	EPA 6020B	02/01/22 17:05	03/07/22 11:48	0.489g/50mL	0.5g/50mL	1.02
A2B0895-24	Soil	EPA 6020B	02/03/22 10:20	03/07/22 11:48	0.49g/50mL	0.5g/50mL	1.02
A2B0895-25	Soil	EPA 6020B	02/03/22 09:30	03/07/22 11:48	0.489g/50mL	0.5g/50mL	1.02
A2B0895-26	Soil	EPA 6020B	02/03/22 13:30	03/07/22 11:48	0.492g/50mL	0.5g/50mL	1.02
A2B0895-27	Soil	EPA 6020B	02/03/22 12:30	03/07/22 11:48	0.511g/50mL	0.5g/50mL	0.98
A2B0895-29	Soil	EPA 6020B	02/03/22 10:30	03/07/22 11:48	0.496g/50mL	0.5g/50mL	1.01
A2B0895-30	Soil	EPA 6020B	02/03/22 09:45	03/07/22 11:48	0.48g/50mL	0.5g/50mL	1.04
A2B0895-31	Soil	EPA 6020B	02/01/22 13:00	03/07/22 11:48	0.464g/50mL	0.5g/50mL	1.08
A2B0895-32	Soil	EPA 6020B	02/01/22 14:40	03/07/22 11:48	0.496g/50mL	0.5g/50mL	1.01
A2B0895-33	Soil	EPA 6020B	02/01/22 15:10	03/07/22 11:48	0.459g/50mL	0.5g/50mL	1.09
A2B0895-34	Soil	EPA 6020B	02/01/22 16:00	03/07/22 11:48	0.486g/50mL	0.5g/50mL	1.03
A2B0895-35	Soil	EPA 6020B	02/01/22 16:25	03/07/22 11:48	0.517g/50mL	0.5g/50mL	0.97
A2B0895-36	Soil	EPA 6020B	02/01/22 12:25	03/07/22 11:48	0.457g/50mL	0.5g/50mL	1.09

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project Number: Eatonville
Project Number: 00171.067.004
Project Manager: Josh Bale

Report ID: A2B0895 - 04 14 23 1532

SAMPLE PREPARATION INFORMATION

Total Metals by EPA 6020B (ICPMS)											
Prep: EPA 3051A					Sample	Default	RL Prep				
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor				
A2B0895-37	Soil	EPA 6020B	02/01/22 11:30	03/07/22 11:48	0.457g/50mL	0.5g/50mL	1.09				
A2B0895-38	Soil	EPA 6020B	02/01/22 11:00	03/07/22 11:48	0.46g/50mL	0.5g/50mL	1.09				
A2B0895-39	Soil	EPA 6020B	02/01/22 10:00	03/07/22 11:48	0.5g/50mL	0.5g/50mL	1.00				
A2B0895-40	Soil	EPA 6020B	02/01/22 09:00	03/07/22 11:48	0.507 g/50 mL	0.5g/50mL	0.99				
Batch: 22C0295											
A2B0895-28	Soil	EPA 6020B	02/01/22 17:10	03/08/22 09:35	0.505g/50mL	0.5g/50mL	0.99				
A2B0895-41	Soil	EPA 6020B	02/04/22 15:15	03/08/22 09:35	0.481g/50mL	0.5g/50mL	1.04				
A2B0895-41RE1	Soil	EPA 6020B	02/04/22 15:15	03/08/22 09:35	0.481g/50mL	0.5g/50mL	1.04				
A2B0895-42	Soil	EPA 6020B	02/01/22 17:00	03/08/22 09:35	0.481g/50mL	0.5g/50mL	1.04				
A2B0895-43	Soil	EPA 6020B	02/03/22 14:00	03/08/22 09:35	0.456g/50mL	0.5g/50mL	1.10				

	TCLP Metals by EPA 6020B (ICPMS)											
Prep: EPA 1311/301	5 <u>A</u>				Sample	Default	RL Prep					
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor					
Batch: 22C0556												
A2B0895-41	Soil	1311/6020B	02/04/22 15:15	03/14/22 14:28	10mL/50mL	10mL/50mL	1.00					
A2B0895-42	Soil	1311/6020B	02/01/22 17:00	03/14/22 14:28	10mL/50mL	10mL/50mL	1.00					
A2B0895-43	Soil	1311/6020B	02/03/22 14:00	03/14/22 14:28	10mL/50mL	10mL/50mL	1.00					

Percent Dry Weight											
Prep: Total Solids (I	Dry Weight)				Sample	Default	RL Prep				
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor				
Batch: 22B0997											
A2B0895-16	Soil	EPA 8000D	02/03/22 16:07	02/28/22 13:22			NA				
A2B0895-17	Soil	EPA 8000D	02/03/22 15:52	02/28/22 13:22			NA				
A2B0895-18	Soil	EPA 8000D	02/03/22 15:25	02/28/22 13:22			NA				
A2B0895-19	Soil	EPA 8000D	02/03/22 14:55	02/28/22 13:22			NA				
A2B0895-20	Soil	EPA 8000D	02/03/22 14:15	02/28/22 13:22			NA				
A2B0895-21	Soil	EPA 8000D	02/03/22 13:15	02/28/22 13:22			NA				
A2B0895-22	Soil	EPA 8000D	02/03/22 12:20	02/28/22 13:22			NA				
A2B0895-23	Soil	EPA 8000D	02/01/22 17:05	02/28/22 13:22			NA				
A2B0895-24	Soil	EPA 8000D	02/03/22 10:20	02/28/22 13:22			NA				
A2B0895-25	Soil	EPA 8000D	02/03/22 09:30	02/28/22 13:22			NA				
A2B0895-26	Soil	EPA 8000D	02/03/22 13:30	02/28/22 13:22			NA				
A2B0895-27	Soil	EPA 8000D	02/03/22 12:30	02/28/22 13:22			NA				

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Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water SolutionsProject:Eatonville55 SW Yamhill St, Ste 300Project Number:00171.067.004Portland, OR 97209Project Manager:Josh Bale

Report ID: A2B0895 - 04 14 23 1532

SAMPLE PREPARATION INFORMATION

			Percent Dry Wei	ight			
Prep: Total Solids (Ory Weight)				Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
A2B0895-28	Soil	EPA 8000D	02/01/22 17:10	02/28/22 13:22			NA
A2B0895-29	Soil	EPA 8000D	02/03/22 10:30	02/28/22 13:22			NA
A2B0895-30	Soil	EPA 8000D	02/03/22 09:45	02/28/22 13:22			NA
A2B0895-31	Soil	EPA 8000D	02/01/22 13:00	02/28/22 13:22			NA
A2B0895-32	Soil	EPA 8000D	02/01/22 14:40	02/28/22 13:22			NA
A2B0895-33	Soil	EPA 8000D	02/01/22 15:10	02/28/22 13:22			NA
A2B0895-34	Soil	EPA 8000D	02/01/22 16:00	02/28/22 13:22			NA
A2B0895-35	Soil	EPA 8000D	02/01/22 16:25	02/28/22 13:22			NA
A2B0895-36	Soil	EPA 8000D	02/01/22 12:25	02/28/22 13:22			NA
A2B0895-37	Soil	EPA 8000D	02/01/22 11:30	02/28/22 13:22			NA
A2B0895-38	Soil	EPA 8000D	02/01/22 11:00	02/28/22 13:22			NA
A2B0895-39	Soil	EPA 8000D	02/01/22 10:00	02/28/22 13:22			NA
A2B0895-40	Soil	EPA 8000D	02/01/22 09:00	02/28/22 13:22			NA
A2B0895-41	Soil	EPA 8000D	02/04/22 15:15	02/28/22 13:22			NA
A2B0895-42	Soil	EPA 8000D	02/01/22 17:00	02/28/22 13:22			NA
A2B0895-43	Soil	EPA 8000D	02/03/22 14:00	02/28/22 13:22			NA
Batch: 22C0027							
A2B0895-01	Soil	EPA 8000D	02/03/22 16:30	03/01/22 11:32			NA
A2B0895-02	Soil	EPA 8000D	02/03/22 16:50	03/01/22 11:32			NA
A2B0895-03	Soil	EPA 8000D	02/04/22 15:05	03/01/22 11:32			NA
A2B0895-04	Soil	EPA 8000D	02/04/22 15:20	03/01/22 11:32			NA
A2B0895-05	Soil	EPA 8000D	02/04/22 15:40	03/01/22 11:32			NA
A2B0895-06	Soil	EPA 8000D	02/03/22 16:35	03/01/22 11:32			NA
A2B0895-07	Soil	EPA 8000D	02/03/22 16:55	03/01/22 11:32			NA
A2B0895-08	Soil	EPA 8000D	02/04/22 15:10	03/01/22 11:32			NA
A2B0895-09	Soil	EPA 8000D	02/04/22 15:25	03/01/22 11:32			NA
A2B0895-10	Soil	EPA 8000D	02/04/22 15:45	03/01/22 11:32			NA
A2B0895-11	Soil	EPA 8000D	02/03/22 16:05	03/01/22 11:32			NA
A2B0895-12	Soil	EPA 8000D	02/03/22 15:50	03/01/22 11:32			NA
A2B0895-13	Soil	EPA 8000D	02/03/22 15:15	03/01/22 11:32			NA
A2B0895-14	Soil	EPA 8000D	02/03/22 14:45	03/01/22 11:32			NA
A2B0895-15	Soil	EPA 8000D	02/03/22 14:05	03/01/22 11:32			NA

		Т	CLP Extraction by E	PA 1311			
Prep: EPA 1311 (TCLF	<u>P)</u>				Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor

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6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project Number: Eatonville
Project Number: 00171.067.004
Project Manager: Josh Bale

Report ID: A2B0895 - 04 14 23 1532

SAMPLE PREPARATION INFORMATION

			TCLP Extraction by E	PA 1311			
Prep: EPA 1311 (TC	CLP)				Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
Batch: 22C0423							
A2B0895-41	Soil	EPA 1311	02/04/22 15:15	03/10/22 15:40	99.9g/1990g	100g/2000g	NA
A2B0895-42	Soil	EPA 1311	02/01/22 17:00	03/10/22 15:40	100.1g/1994g	100g/2000g	NA
A2B0895-43	Soil	EPA 1311	02/03/22 14:00	03/10/22 15:40	100.1g/1993g	100g/2000g	NA

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions Project: Eatonville

55 SW Yamhill St, Ste 300 Project Number: 00171.067.004

Portland, OR 97209 Project Manager: Josh Bale

Report ID: A2B0895 - 04 14 23 1532

QUALIFIER DEFINITIONS

Client Sample and Quality Control (QC) Sample Qualifier Definitions:

Apex Laboratories

A-01 H-10 qualifier applies to Hg only.

H-01 Analyzed outside the recommended holding time.

H-10 This sample was TCLP extracted (leached) outside of the recommended holding time.

J Estimated Result. Result detected below the lowest point of the calibration curve, but above the specified MDL.

Q-04 Spike recovery and/or RPD is outside control limits due to a non-homogeneous sample matrix.

Q-42 Matrix Spike and/or Duplicate analysis was performed on this sample. % Recovery or RPD for this analyte is outside laboratory control limits. (Refer to the QC Section of Analytical Report.)

TCLP This batch QC sample was prepared with TCLP or SPLP fluid from preparation batch 22C0423.

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Philip Nevenberg

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Philip Nerenberg, Lab Director

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

 GSI Water Solutions
 Project:
 Eatonville

 55 SW Yamhill St, Ste 300
 Project Number:
 00171.067.004
 Report ID:

 Portland, OR 97209
 Project Manager:
 Josh Bale
 A2B0895 - 04 14 23 1532

REPORTING NOTES AND CONVENTIONS:

Abbreviations:

DET Analyte DETECTED at or above the detection or reporting limit.

ND Analyte NOT DETECTED at or above the detection or reporting limit.

NR Result Not Reported

RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

Detection Limits: Limit of Detection (LOD)

Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).

If no value is listed ('----'), then the data has not been evaluated below the Reporting Limit.

Reporting Limits: Limit of Quantitation (LOQ)

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

Reporting Conventions:

Basis: Results for soil samples are generally reported on a 100% dry weight basis.

The Result Basis is listed following the units as "dry", "wet", or " " (blank) designation.

"dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")

See Percent Solids section for details of dry weight analysis.

"wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.

"___" Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

QC Source:

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.

Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) may not be included in this report. Please request a Full QC report if this data is required.

Miscellaneous Notes:

"---" QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

"***" Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to ½ the Reporting Limit (RL).

- -For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.
- -For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.

For further details, please request a copy of this document.

Apex Laboratories

Philip Manhera

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Philip Nerenberg, Lab Director

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
Project: Eatonville

55 SW Yamhill St, Ste 300
Project Number: 00171.067.004

Portland, OR 97209
Project Manager: Josh Bale

Report ID: A2B0895 - 04 14 23 1532

REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks (Cont.):

Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.

'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level.

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

Sampling and Preservation Notes:

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

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Philip Nerenberg, Lab Director

Philip Nevenberg

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions Project: Eatonville

55 SW Yamhill St, Ste 300 Project Number: 00171.067.004

Portland, OR 97209 Project Manager: Josh Bale

Report ID: A2B0895 - 04 14 23 1532

LABORATORY ACCREDITATION INFORMATION

ORELAP Certification ID: OR100062 (Primary Accreditation) -EPA ID: OR01039

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the <u>exception</u> of any analyte(s) listed below:

Apex Laboratories

Matrix Analysis TNI_ID Analyte TNI_ID Accreditation

All reported analytes are included in Apex Laboratories' current ORELAP scope.

Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation.

Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

Field Testing Parameters

Results for Field Tested data are provded by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

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Philip Nevenberg

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: <u>Eatonville</u>
Project Number: **00171.067.004**

Project Manager: Josh Bale

Report ID: A2B0895 - 04 14 23 1532

APEX LABS						H		CHAIN OF CUSTODY	E C	S	10 10	DY					-	4	200	1	გ	COC _1_of_3_	of 3
12232 S.W. Garden Place, Tigard, OR 97223 Ph. 503-718-2323 Fax: 503-718-0333	OR 972	23 Ph:	503-718	8-2323 F	ax: 50.	3-718-	0333									3	T'40 #	2	3	7.7			
Company: GSI Water Solutions, Inc			Project	Project Mgr. Josh Bale	Bale	Ö				Pro	ject Na	me: Fo	rmer I	atony	Project Name: Former Eatonville Landfill			Proje	Project # 00171.067.004	171.06	57.004		
Address: 55 SW Yamhill St, Suite 300, Portland, OR 97204	Portland	OR 972(¥					Phone:		971.200.8502	1502	124	Fax:			Email:	iä	121	ibale@gsiws.com	ws.com			
Sampled by: Braedon Warner													•	NAL	ANAL YSIS REQUEST	UEST							
Site Location: OR WA Other:	FAB ID#	D V 1E	TIME	XIATAM	# OF CONTAINERS	NMLbH-HCID	NWTPH-Gx	BLEX	8760 Halo VOCs 8260 RBDM VOCs	8200 AOC®	8HV4 MIS 0718	8082 PCBs	8081 Chlor. Pest RCRA Metals (8)	Priority Metals (13)	Al, Sb, As, Ba, Be, Cd Ca, Cr, Co, Cu, Fe, Pb Ag, Mg, Mu, Mo, Ni, K ie, Ag, Na, Tl, V, Zn	ic, Ag, Na, Tl, V, Zn TCLP Metals (8)	1500- COF2	Z-0071	otal Lead	otal Zinc	CLP Lead	CLP Zinc	
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Philip Nerenberg, Lab Director

Philip Maenberg

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project Number: Eatonville
Project Number: 00171.067.004
Project Manager: Josh Bale

Report ID: A2B0895 - 04 14 23 1532

APEX LABS						CHAIN OF CUSTODY	Z	OF	C	SI		>			,	Ţ	7	700	ğ	M 2 noll COC _2_of_3_
12232 S.W. Garden Place, Tigard, OR 97223 Ph. 503-718-2323 Fax: 503-718-0333	OR 97.	23 Ph:	503-718	1-2323 F	ax: 50:	3-718-(1333								La	#	2	7.07	2	
Company: GSI Water Solutions, Inc			Project	Project Mgr. Josh Bale	ı Bale					Project	Name:	Former	Eaton	Project Name: Former Eatonville Landfill			Projec	t# 0017	Project # 00171.067.004	
Address: 55 SW Yamhill St, Suite 300, Portland, OR 97204	Portland	, OR 972	4					Phone:	971.2	971,200,8502		Fax			Email:	ij	픠	ba'e@gsiws.	WO3	
Sampled by: Braedon Warner													ANA	ANALYSIS REQUEST	UEST					
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Apex Laboratories

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Philip Nerenberg, Lab Director

Philip Nevenberg

Page 33 of 36



Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project Number: Eatonville
Project Number: 00171.067.004
Project Manager: Josh Bale

Report ID: A2B0895 - 04 14 23 1532

APEX LABS						_	E	A	Z). F	_こ	CHAIN OF CUSTODY	5	X				7	3	A	à	134 KIBIRAGE 500 3 OF 3	20C 3	of 3
12232 S.W. Garden Place, Tigard, OR 97223 Ph. 503-718-2323 Fax: 503-718-0333	ard, OR 9	97223	. Ph. 5.	03-718	-2323	Fax: 5(3-71	8-033	3									Ž.	1	7				
Company: GSI Water Solutions, Inc	2			Project Mgr. Josh Bale	Mgr: Jos	h Bale			ŀ			Proje	ct Nan	ле: Рог	mer E	atonvi	Project Name: Former Eatonville Landfill			Proj) #)ct	Project # 00171.067.004	4	
Address: 55 SW Yamhill St, Suite 300, Portland, OR 97204	300, Portla	and, O	R 97204	_					P.	Phone:	971.2	971.200.8502	02	Œ	Fax:			Bm	Email		bale@gsiws.com	WS.com		
Sampled by: Braedon Warner		8														NAL	ANALYSIS REQUEST	EST						
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Apex Laboratories

Philip Nevenberg

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project Number: Eatonville
Project Number: 00171.067.004
Project Manager: Josh Bale

Report ID: A2B0895 - 04 14 23 1532

	WO# AZB0895
COC/Contain er	Discrepancies
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2. HA-02A-1.0-2.0	
2. HA-07A-1.0-2.0 3. HA-082B-1.0-20 4. HA-02L-1.0-2.0	
5. It A- 1120 -1.0-2.0	
10-1+A-07E-1.0-2.0 7.1+A-03A-05-1.0	
9 HA - 1313 - D.5-1.0	
9. HA-03D-0.5-1.0 10. HA-03B-1.02.0	
2108 TV. HA- U3/AC-1.02.0	
12. 11.4-13D-1.0-20	
13. HA-03E-1.0.2.0 14. HA-04A-0.00.5	
15. HA-046-0.0-0.5 16. HA-05A-0.0-0.5 17. HA-05B-0.0-0.5	
17. 17A - 05A - 0 0-0.5	
18. HA - 05C - 0.0-0.5 19. HA - DGD - 0.0-0.5	
19. HA- USD -0.0-0.5	

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The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nevenberg



Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 00171.067.004
Project Manager: Josh Bale

Report ID: A2B0895 - 04 14 23 1532

	APEX LABS COOLER	RECEIPT FORM
Client: ASI Water So	lutions	Element WO#: A2
J	r Eatonville Pandfill /	
Delivery Info: Date/time received: 1/13	72 @ (52 <u>7</u>) By:	8
		PS Swift Senvoy SDS Other 0 1530 By: 30
Chain of Custody included		Custody seals? Yes No_K
Signed/dated by client?	Yes _ X _ No	765 176 <u>/</u>
Signed/dated by Apex?	Yes X No	
Condition: Cooler out of temp? (YN) Green dots applied to out o Out of temperature samples Sample Inspection: All samples intact? Yes Bottle labels/COCs agree?	2.4 3.6 Y Wal Nal Possible reason why: f temperature samples? Yes/No s form initiated? Yes/No white inspected: 118/12 @ No Comments: SEC	O) E 10:00 By: MS E FORM All Sumples unssing our
COC/container discrepanci	es form initiated? Yes No	<u>X</u>
Containers/volumes receive	ed appropriate for analysis? Yes	No Comments:
Comments Water samples: pH checked	headspace? Yes No d: YesNoNA \pH appr	ropriate? YesNoNA
Additional information:		
Labeled by:	Witness:	Cooler Inspected by:

Apex Laboratories

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Philip Nerenberg, Lab Director

Philip Maenberg

Page 36 of 36



Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323 ORELAP ID: OR100062

AMENDED REPORT

Wednesday, April 19, 2023 Genevieve Schutzius GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209

RE: A1A0458 - Eatonville - Landfill WA State

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A1A0458, which was received by the laboratory on 1/13/2021 at 9:17:00AM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: pnerenberg@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample receipt, unless prior arrangements have been made.

Cooler Receipt Information

(See Cooler Receipt Form for details)

 Cooler #1
 0.7 degC
 Cooler #2
 5.6 degC

 Cooler #3
 0.8 degC
 Cooler #4
 0.2 degC

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.

All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.





Apex Laboratories

Philip Nevenberg



AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions Project: Eatonville

55 SW Yamhill St, Ste 300Project Number: Landfill WA StateReport ID:Portland, OR 97209Project Manager: Genevieve SchutziusA1A0458 - 04 19 23 1558

ANALYTICAL REPORT FOR SAMPLES

	SAMPLE INFO	ORMATION		
Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SE01-0121	A1A0458-01	Water	01/11/21 13:30	01/13/21 09:17
SE101-0121	A1A0458-02	Water	01/11/21 13:40	01/13/21 09:17
SE02-0121	A1A0458-03	Water	01/11/21 14:15	01/13/21 09:17
GW01-0121	A1A0458-04	Water	01/12/21 10:00	01/13/21 09:17
SW01-0121	A1A0458-05	Water	01/12/21 11:45	01/13/21 09:17
SW02-0121	A1A0458-06	Water	01/12/21 12:25	01/13/21 09:17
SW03-0121	A1A0458-07	Water	01/12/21 13:15	01/13/21 09:17
Trip Blank	A1A0458-08	Water	01/11/21 00:00	01/13/21 09:17

Apex Laboratories

Philip Nevenberg



AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: Landfill WA State
Project Manager: Genevieve Schutzius

Report ID: A1A0458 - 04 19 23 1558

ANALYTICAL CASE NARRATIVE

A1A0458 Apex Laboratories

Amended Report Revision 1:

Reporting to the Method Detection Limits (MDLs)-

This report supersedes all previous reports.

The final report has been amended to report the PBDE results to the MDL.

Lisa Domenighini Client Services Manager

Apex Laboratories

Philip Merenberg



AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project Number: **Eatonville**Project Number: **Landfill WA State**Project Manager: **Genevieve Schutzius**

Report ID: A1A0458 - 04 19 23 1558

ANALYTICAL SAMPLE RESULTS

	V	olatile Organ	ic Compound	ds by EPA 8	260D			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SE01-0121 (A1A0458-01)			<u> </u>	Matrix: Wa	ater	Batch:	1012821	
Acetone	ND	10.0	20.0	ug/L	1	01/13/21 15:18	EPA 8260D	
Acrylonitrile	ND	1.00	2.00	ug/L	1	01/13/21 15:18	EPA 8260D	
Benzene	ND	0.100	0.200	ug/L	1	01/13/21 15:18	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	01/13/21 15:18	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	01/13/21 15:18	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	01/13/21 15:18	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	01/13/21 15:18	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	01/13/21 15:18	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	01/13/21 15:18	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	01/13/21 15:18	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	01/13/21 15:18	EPA 8260D	
ert-Butylbenzene	ND	0.500	1.00	ug/L	1	01/13/21 15:18	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	01/13/21 15:18	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	01/13/21 15:18	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	01/13/21 15:18	EPA 8260D	
Chloroethane	ND	5.00	5.00	ug/L	1	01/13/21 15:18	EPA 8260D	
Chloroform	ND	0.500	1.00	ug/L	1	01/13/21 15:18	EPA 8260D	
Chloromethane	ND	5.00	5.00	ug/L	1	01/13/21 15:18	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	01/13/21 15:18	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	01/13/21 15:18	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	01/13/21 15:18	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	01/13/21 15:18	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	01/13/21 15:18	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	01/13/21 15:18	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	01/13/21 15:18	EPA 8260D	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	01/13/21 15:18	EPA 8260D	
,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	01/13/21 15:18	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	01/13/21 15:18	EPA 8260D	
,1-Dichloroethane	ND	0.200	0.400	ug/L	1	01/13/21 15:18	EPA 8260D	
,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	01/13/21 15:18	EPA 8260D	
,1-Dichloroethene	ND	0.200	0.400	ug/L	1	01/13/21 15:18	EPA 8260D	
eis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	01/13/21 15:18	EPA 8260D	
rans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	01/13/21 15:18	EPA 8260D	

Apex Laboratories



AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: Landfill WA State
Project Manager: Genevieve Schutzius

Report ID: A1A0458 - 04 19 23 1558

ANALYTICAL SAMPLE RESULTS

	V	olatile Organ	ic Compound	is by EPA 8	260D			
	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
SE01-0121 (A1A0458-01)				Matrix: Wa	ater	Batch:	1012821	
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	01/13/21 15:18	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	01/13/21 15:18	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	01/13/21 15:18	EPA 8260D	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	01/13/21 15:18	EPA 8260D	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	01/13/21 15:18	EPA 8260D	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	01/13/21 15:18	EPA 8260D	
Ethylbenzene	ND	0.250	0.500	ug/L	1	01/13/21 15:18	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	01/13/21 15:18	EPA 8260D	
2-Hexanone	ND	5.00	10.0	ug/L	1	01/13/21 15:18	EPA 8260D	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	01/13/21 15:18	EPA 8260D	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	01/13/21 15:18	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	01/13/21 15:18	EPA 8260D	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	01/13/21 15:18	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	01/13/21 15:18	EPA 8260D	
Naphthalene	ND	1.00	2.00	ug/L	1	01/13/21 15:18	EPA 8260D	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	01/13/21 15:18	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	01/13/21 15:18	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	01/13/21 15:18	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	01/13/21 15:18	EPA 8260D	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	01/13/21 15:18	EPA 8260D	
Toluene	ND	0.500	1.00	ug/L	1	01/13/21 15:18	EPA 8260D	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	01/13/21 15:18	EPA 8260D	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	01/13/21 15:18	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	01/13/21 15:18	EPA 8260D	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	01/13/21 15:18	EPA 8260D	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	01/13/21 15:18	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	01/13/21 15:18	EPA 8260D	
,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	01/13/21 15:18	EPA 8260D	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	01/13/21 15:18	EPA 8260D	
,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	01/13/21 15:18	EPA 8260D	
Vinyl chloride	ND	0.200	0.400	ug/L	1	01/13/21 15:18	EPA 8260D	
n,p-Xylene	ND	0.500	1.00	ug/L	1	01/13/21 15:18	EPA 8260D	
-Xylene	ND	0.250	0.500	ug/L	1	01/13/21 15:18	EPA 8260D	

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Philip Neighberg

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: Landfill WA State
Project Manager: Genevieve Schutzius

Report ID: A1A0458 - 04 19 23 1558

ANALYTICAL SAMPLE RESULTS

	V	olatile Organic	Compou	nds by EPA 826	0D			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SE01-0121 (A1A0458-01)				Matrix: Wate	r	Batch:	1012821	
Vinyl acetate	ND	5.00	10.0	ug/L	1	01/13/21 15:18	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery	: 102 %	Limits: 80-120 %	I	01/13/21 15:18	EPA 8260D	
Toluene-d8 (Surr)			100 %	80-120 %	1	01/13/21 15:18	EPA 8260D	
4-Bromofluorobenzene (Surr)			104 %	80-120 %	1	01/13/21 15:18	EPA 8260D	
SE101-0121 (A1A0458-02)				Matrix: Wate	r	Batch:	1012821	
Acetone	ND	10.0	20.0	ug/L	1	01/13/21 15:48	EPA 8260D	
Acrylonitrile	ND	1.00	2.00	ug/L	1	01/13/21 15:48	EPA 8260D	
Benzene	ND	0.100	0.200	ug/L	1	01/13/21 15:48	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	01/13/21 15:48	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	01/13/21 15:48	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	01/13/21 15:48	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	01/13/21 15:48	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	01/13/21 15:48	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	01/13/21 15:48	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	01/13/21 15:48	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	01/13/21 15:48	EPA 8260D	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	01/13/21 15:48	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	01/13/21 15:48	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	01/13/21 15:48	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	01/13/21 15:48	EPA 8260D	
Chloroethane	ND	5.00	5.00	ug/L	1	01/13/21 15:48	EPA 8260D	
Chloroform	ND	0.500	1.00	ug/L	1	01/13/21 15:48	EPA 8260D	
Chloromethane	ND	5.00	5.00	ug/L	1	01/13/21 15:48	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	01/13/21 15:48	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	01/13/21 15:48	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	01/13/21 15:48	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	01/13/21 15:48	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	01/13/21 15:48	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	01/13/21 15:48	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	01/13/21 15:48	EPA 8260D	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	01/13/21 15:48	EPA 8260D	
,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	01/13/21 15:48	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	01/13/21 15:48	EPA 8260D	

Apex Laboratories

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Philip Nevenberg



AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: Landfill WA State
Project Manager: Genevieve Schutzius

Report ID: A1A0458 - 04 19 23 1558

ANALYTICAL SAMPLE RESULTS

	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Note
SE101-0121 (A1A0458-02)				Matrix: Wa	ater	Batch:	1012821	
,1-Dichloroethane	ND	0.200	0.400	ug/L	1	01/13/21 15:48	EPA 8260D	
,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	01/13/21 15:48	EPA 8260D	
,1-Dichloroethene	ND	0.200	0.400	ug/L	1	01/13/21 15:48	EPA 8260D	
ris-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	01/13/21 15:48	EPA 8260D	
rans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	01/13/21 15:48	EPA 8260D	
,2-Dichloropropane	ND	0.250	0.500	ug/L	1	01/13/21 15:48	EPA 8260D	
,3-Dichloropropane	ND	0.500	1.00	ug/L	1	01/13/21 15:48	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	01/13/21 15:48	EPA 8260D	
,1-Dichloropropene	ND	0.500	1.00	ug/L	1	01/13/21 15:48	EPA 8260D	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	01/13/21 15:48	EPA 8260D	
rans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	01/13/21 15:48	EPA 8260D	
Ethylbenzene	ND	0.250	0.500	ug/L	1	01/13/21 15:48	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	01/13/21 15:48	EPA 8260D	
2-Hexanone	ND	5.00	10.0	ug/L	1	01/13/21 15:48	EPA 8260D	
sopropylbenzene	ND	0.500	1.00	ug/L	1	01/13/21 15:48	EPA 8260D	
l-Isopropyltoluene	ND	0.500	1.00	ug/L	1	01/13/21 15:48	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	01/13/21 15:48	EPA 8260D	
I-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	01/13/21 15:48	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	01/13/21 15:48	EPA 8260D	
Naphthalene	ND	1.00	2.00	ug/L	1	01/13/21 15:48	EPA 8260D	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	01/13/21 15:48	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	01/13/21 15:48	EPA 8260D	
,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	01/13/21 15:48	EPA 8260D	
,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	01/13/21 15:48	EPA 8260D	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	01/13/21 15:48	EPA 8260D	
Toluene	ND	0.500	1.00	ug/L	1	01/13/21 15:48	EPA 8260D	
,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	01/13/21 15:48	EPA 8260D	
,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	01/13/21 15:48	EPA 8260D	
,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	01/13/21 15:48	EPA 8260D	
,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	01/13/21 15:48	EPA 8260D	
richloroethene (TCE)	ND	0.200	0.400	ug/L	1	01/13/21 15:48	EPA 8260D	
richlorofluoromethane	ND	1.00	2.00	ug/L	1	01/13/21 15:48	EPA 8260D	
,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	01/13/21 15:48	EPA 8260D	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Neimberg



AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project Number: **Eatonville**Project Manager: **Cenevieve Schutzius**

Report ID: A1A0458 - 04 19 23 1558

ANALYTICAL SAMPLE RESULTS

	V	olatile Organ	ic Compou	nds by EPA 826	0D			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SE101-0121 (A1A0458-02)				Matrix: Wate	r	Batch:	1012821	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	01/13/21 15:48	EPA 8260D	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	01/13/21 15:48	EPA 8260D	
Vinyl chloride	ND	0.200	0.400	ug/L	1	01/13/21 15:48	EPA 8260D	
m,p-Xylene	ND	0.500	1.00	ug/L	1	01/13/21 15:48	EPA 8260D	
o-Xylene	ND	0.250	0.500	ug/L	1	01/13/21 15:48	EPA 8260D	
Vinyl acetate	ND	5.00	10.0	ug/L	1	01/13/21 15:48	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recove	ery: 101 %	Limits: 80-120 %	I	01/13/21 15:48	EPA 8260D	
Toluene-d8 (Surr)			100 %	80-120 %	1	01/13/21 15:48	EPA 8260D	
4-Bromofluorobenzene (Surr)			105 %	80-120 %	1	01/13/21 15:48	EPA 8260D	
SE02-0121 (A1A0458-03)				Matrix: Wate	r	Batch:	1012821	
Acetone	ND	10.0	20.0	ug/L	1	01/13/21 16:16	EPA 8260D	
Acrylonitrile	ND	1.00	2.00	ug/L	1	01/13/21 16:16	EPA 8260D	
Benzene	ND	0.100	0.200	ug/L	1	01/13/21 16:16	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	01/13/21 16:16	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	01/13/21 16:16	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	01/13/21 16:16	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	01/13/21 16:16	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	01/13/21 16:16	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	01/13/21 16:16	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	01/13/21 16:16	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	01/13/21 16:16	EPA 8260D	
ert-Butylbenzene	ND	0.500	1.00	ug/L	1	01/13/21 16:16	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	01/13/21 16:16	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	01/13/21 16:16	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	01/13/21 16:16	EPA 8260D	
Chloroethane	ND	5.00	5.00	ug/L	1	01/13/21 16:16	EPA 8260D	
Chloroform	ND	0.500	1.00	ug/L	1	01/13/21 16:16	EPA 8260D	
Chloromethane	ND	5.00	5.00	ug/L	1	01/13/21 16:16	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	01/13/21 16:16	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	01/13/21 16:16	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	01/13/21 16:16	EPA 8260D	
,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	01/13/21 16:16	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	01/13/21 16:16	EPA 8260D	

Apex Laboratories

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Philip Meinherg



AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: Landfill WA State
Project Manager: Genevieve Schutzius

Report ID: A1A0458 - 04 19 23 1558

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D											
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes			
SE02-0121 (A1A0458-03)				Matrix: Wa			1012821				
		0.500	1.00								
Dibromomethane	ND	0.500	1.00	ug/L	1	01/13/21 16:16	EPA 8260D				
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	01/13/21 16:16	EPA 8260D				
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	01/13/21 16:16	EPA 8260D				
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	01/13/21 16:16	EPA 8260D				
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	01/13/21 16:16	EPA 8260D				
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	01/13/21 16:16	EPA 8260D				
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	01/13/21 16:16	EPA 8260D				
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	01/13/21 16:16	EPA 8260D				
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	01/13/21 16:16	EPA 8260D				
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	01/13/21 16:16	EPA 8260D				
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	01/13/21 16:16	EPA 8260D				
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	01/13/21 16:16	EPA 8260D				
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	01/13/21 16:16	EPA 8260D				
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	01/13/21 16:16	EPA 8260D				
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	01/13/21 16:16	EPA 8260D				
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	01/13/21 16:16	EPA 8260D				
Ethylbenzene	ND	0.250	0.500	ug/L	1	01/13/21 16:16	EPA 8260D				
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	01/13/21 16:16	EPA 8260D				
2-Hexanone	ND	5.00	10.0	ug/L	1	01/13/21 16:16	EPA 8260D				
Isopropylbenzene	ND	0.500	1.00	ug/L	1	01/13/21 16:16	EPA 8260D				
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	01/13/21 16:16	EPA 8260D				
Methylene chloride	ND	5.00	10.0	ug/L	1	01/13/21 16:16	EPA 8260D				
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	01/13/21 16:16	EPA 8260D				
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	01/13/21 16:16	EPA 8260D				
Naphthalene	ND	1.00	2.00	ug/L	1	01/13/21 16:16	EPA 8260D				
-Propylbenzene	ND	0.250	0.500	ug/L	1	01/13/21 16:16	EPA 8260D				
Styrene	ND	0.500	1.00	ug/L	1	01/13/21 16:16	EPA 8260D				
,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	01/13/21 16:16	EPA 8260D				
,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	01/13/21 16:16	EPA 8260D				
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	01/13/21 16:16	EPA 8260D				
Coluene	ND	0.500	1.00	ug/L	1	01/13/21 16:16	EPA 8260D				
,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L ug/L	1	01/13/21 16:16	EPA 8260D				
,2,4-Trichlorobenzene	ND ND	1.00	2.00	ug/L ug/L	1	01/13/21 16:16	EPA 8260D				

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Philip Nevenberg



AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project Number: **Eatonville**Project Number: **Landfill WA State**Project Manager: **Genevieve Schutzius**

Report ID: A1A0458 - 04 19 23 1558

ANALYTICAL SAMPLE RESULTS

	Volatile Organic Compounds by EPA 8260D											
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes				
SE02-0121 (A1A0458-03)				Matrix: Wate	er	Batch:	1012821					
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	01/13/21 16:16	EPA 8260D					
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	01/13/21 16:16	EPA 8260D					
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	01/13/21 16:16	EPA 8260D					
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	01/13/21 16:16	EPA 8260D					
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	01/13/21 16:16	EPA 8260D					
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	01/13/21 16:16	EPA 8260D					
,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	01/13/21 16:16	EPA 8260D					
Vinyl chloride	ND	0.200	0.400	ug/L	1	01/13/21 16:16	EPA 8260D					
n,p-Xylene	ND	0.500	1.00	ug/L	1	01/13/21 16:16	EPA 8260D					
o-Xylene	ND	0.250	0.500	ug/L	1	01/13/21 16:16	EPA 8260D					
Vinyl acetate	ND	5.00	10.0	ug/L	1	01/13/21 16:16	EPA 8260D					
Surrogate: 1,4-Difluorobenzene (Surr)		Recove	ery: 102 %	Limits: 80-120 %	1	01/13/21 16:16	EPA 8260D					
Toluene-d8 (Surr)			100 %	80-120 %	1	01/13/21 16:16	EPA 8260D					
4-Bromofluorobenzene (Surr)			103 %	80-120 %	1	01/13/21 16:16	EPA 8260D					
GW01-0121 (A1A0458-04)				Matrix: Wate	er	Batch:	1012821					
Acetone	ND	10.0	20.0	ug/L	1	01/13/21 16:44	EPA 8260D					
Acrylonitrile	ND	1.00	2.00	ug/L	1	01/13/21 16:44	EPA 8260D					
Benzene	ND	0.100	0.200	ug/L	1	01/13/21 16:44	EPA 8260D					
Bromobenzene	ND	0.250	0.500	ug/L	1	01/13/21 16:44	EPA 8260D					
Bromochloromethane	ND	0.500	1.00	ug/L	1	01/13/21 16:44	EPA 8260D					
Bromodichloromethane	ND	0.500	1.00	ug/L	1	01/13/21 16:44	EPA 8260D					
Bromoform	ND	0.500	1.00	ug/L	1	01/13/21 16:44	EPA 8260D					
Bromomethane	ND	5.00	5.00	ug/L	1	01/13/21 16:44	EPA 8260D					
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	01/13/21 16:44	EPA 8260D					
-Butylbenzene	ND	0.500	1.00	ug/L	1	01/13/21 16:44	EPA 8260D					
ec-Butylbenzene	ND	0.500	1.00	ug/L	1	01/13/21 16:44	EPA 8260D					
ert-Butylbenzene	ND	0.500	1.00	ug/L	1	01/13/21 16:44	EPA 8260D					
Carbon disulfide	ND	5.00	10.0	ug/L	1	01/13/21 16:44	EPA 8260D					
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	01/13/21 16:44	EPA 8260D					
Chlorobenzene	ND	0.250	0.500	ug/L	1	01/13/21 16:44	EPA 8260D					
Chloroethane	ND	5.00	5.00	ug/L	1	01/13/21 16:44	EPA 8260D					
Chloroform	ND	0.500	1.00	ug/L	1	01/13/21 16:44	EPA 8260D					
Chloromethane	ND	5.00	5.00	ug/L	1	01/13/21 16:44	EPA 8260D					

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Philip Meinberg



AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: Landfill WA State
Project Manager: Genevieve Schutzius

Report ID: A1A0458 - 04 19 23 1558

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D											
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes			
GW01-0121 (A1A0458-04)											
				Matrix: Wa			1012821				
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	01/13/21 16:44	EPA 8260D				
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	01/13/21 16:44	EPA 8260D				
Dibromochloromethane	ND	0.500	1.00	ug/L	1	01/13/21 16:44	EPA 8260D				
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	01/13/21 16:44	EPA 8260D				
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	01/13/21 16:44	EPA 8260D				
Dibromomethane	ND	0.500	1.00	ug/L	1	01/13/21 16:44	EPA 8260D				
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	01/13/21 16:44	EPA 8260D				
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	01/13/21 16:44	EPA 8260D				
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	01/13/21 16:44	EPA 8260D				
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	01/13/21 16:44	EPA 8260D				
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	01/13/21 16:44	EPA 8260D				
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	01/13/21 16:44	EPA 8260D				
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	01/13/21 16:44	EPA 8260D				
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	01/13/21 16:44	EPA 8260D				
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	01/13/21 16:44	EPA 8260D				
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	01/13/21 16:44	EPA 8260D				
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	01/13/21 16:44	EPA 8260D				
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	01/13/21 16:44	EPA 8260D				
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	01/13/21 16:44	EPA 8260D				
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	01/13/21 16:44	EPA 8260D				
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	01/13/21 16:44	EPA 8260D				
Ethylbenzene	ND	0.250	0.500	ug/L	1	01/13/21 16:44	EPA 8260D				
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	01/13/21 16:44	EPA 8260D				
2-Hexanone	ND	5.00	10.0	ug/L	1	01/13/21 16:44	EPA 8260D				
Sopropylbenzene	ND	0.500	1.00	ug/L	1	01/13/21 16:44	EPA 8260D				
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	01/13/21 16:44	EPA 8260D				
Methylene chloride	ND	5.00	10.0	ug/L	1	01/13/21 16:44	EPA 8260D				
l-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	01/13/21 16:44	EPA 8260D				
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	01/13/21 16:44	EPA 8260D				
Naphthalene	ND	1.00	2.00	ug/L	1	01/13/21 16:44	EPA 8260D				
n-Propylbenzene	ND	0.250	0.500	ug/L	1	01/13/21 16:44	EPA 8260D				
Styrene	ND	0.500	1.00	ug/L	1	01/13/21 16:44	EPA 8260D				
,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	01/13/21 16:44	EPA 8260D				

Apex Laboratories

Philip Marenberg



AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: Landfill WA State
Project Manager: Genevieve Schutzius

Report ID: A1A0458 - 04 19 23 1558

ANALYTICAL SAMPLE RESULTS

	V	olatile Organic	Compou	nds by EPA 826	0D			
	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
GW01-0121 (A1A0458-04)				Matrix: Wate	r	Batch: 1012821		
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	01/13/21 16:44	EPA 8260D	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	01/13/21 16:44	EPA 8260D	
Toluene	ND	0.500	1.00	ug/L	1	01/13/21 16:44	EPA 8260D	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	01/13/21 16:44	EPA 8260D	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	01/13/21 16:44	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	01/13/21 16:44	EPA 8260D	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	01/13/21 16:44	EPA 8260D	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	01/13/21 16:44	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	01/13/21 16:44	EPA 8260D	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	01/13/21 16:44	EPA 8260D	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	01/13/21 16:44	EPA 8260D	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	01/13/21 16:44	EPA 8260D	
Vinyl chloride	ND	0.200	0.400	ug/L	1	01/13/21 16:44	EPA 8260D	
m,p-Xylene	ND	0.500	1.00	ug/L	1	01/13/21 16:44	EPA 8260D	
o-Xylene	ND	0.250	0.500	ug/L	1	01/13/21 16:44	EPA 8260D	
Vinyl acetate	ND	5.00	10.0	ug/L	1	01/13/21 16:44	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery	v: 102 %	Limits: 80-120 %	1	01/13/21 16:44	EPA 8260D	
Toluene-d8 (Surr)			100 %	80-120 %		01/13/21 16:44	EPA 8260D	
4-Bromofluorobenzene (Surr)			104 %	80-120 %	1	01/13/21 16:44	EPA 8260D	
SW01-0121 (A1A0458-05)				Matrix: Wate	er	Batch:	1012821	
Acetone	ND	10.0	20.0	ug/L	1	01/13/21 17:13	EPA 8260D	
Acrylonitrile	ND	1.00	2.00	ug/L	1	01/13/21 17:13	EPA 8260D	
Benzene	ND	0.100	0.200	ug/L	1	01/13/21 17:13	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	01/13/21 17:13	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	01/13/21 17:13	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	01/13/21 17:13	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	01/13/21 17:13	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	01/13/21 17:13	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	01/13/21 17:13	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	01/13/21 17:13	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	01/13/21 17:13	EPA 8260D	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	01/13/21 17:13	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	01/13/21 17:13	EPA 8260D	

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project Number: **Eatonville**Project Number: **Landfill WA State**Project Manager: **Genevieve Schutzius**

Report ID: A1A0458 - 04 19 23 1558

ANALYTICAL SAMPLE RESULTS

	Sample Detection Reporting Date											
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes				
SW01-0121 (A1A0458-05)				Matrix: Wa	ater	Batch: 1012821						
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	01/13/21 17:13	EPA 8260D					
Chlorobenzene	ND	0.250	0.500	ug/L	1	01/13/21 17:13	EPA 8260D					
Chloroethane	ND	5.00	5.00	ug/L	1	01/13/21 17:13	EPA 8260D					
Chloroform	ND	0.500	1.00	ug/L	1	01/13/21 17:13	EPA 8260D					
Chloromethane	ND	5.00	5.00	ug/L	1	01/13/21 17:13	EPA 8260D					
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	01/13/21 17:13	EPA 8260D					
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	01/13/21 17:13	EPA 8260D					
Dibromochloromethane	ND	0.500	1.00	ug/L	1	01/13/21 17:13	EPA 8260D					
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	01/13/21 17:13	EPA 8260D					
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	01/13/21 17:13	EPA 8260D					
Dibromomethane	ND	0.500	1.00	ug/L	1	01/13/21 17:13	EPA 8260D					
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	01/13/21 17:13	EPA 8260D					
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	01/13/21 17:13	EPA 8260D					
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	01/13/21 17:13	EPA 8260D					
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	01/13/21 17:13	EPA 8260D					
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	01/13/21 17:13	EPA 8260D					
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	01/13/21 17:13	EPA 8260D					
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	01/13/21 17:13	EPA 8260D					
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	01/13/21 17:13	EPA 8260D					
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	01/13/21 17:13	EPA 8260D					
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	01/13/21 17:13	EPA 8260D					
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	01/13/21 17:13	EPA 8260D					
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	01/13/21 17:13	EPA 8260D					
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	01/13/21 17:13	EPA 8260D					
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	01/13/21 17:13	EPA 8260D					
rans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	01/13/21 17:13	EPA 8260D					
Ethylbenzene	ND	0.250	0.500	ug/L	1	01/13/21 17:13	EPA 8260D					
Iexachlorobutadiene	ND	2.50	5.00	ug/L	1	01/13/21 17:13	EPA 8260D					
-Hexanone	ND	5.00	10.0	ug/L	1	01/13/21 17:13	EPA 8260D					
sopropylbenzene	ND	0.500	1.00	ug/L	1	01/13/21 17:13	EPA 8260D					
-Isopropyltoluene	ND	0.500	1.00	ug/L	1	01/13/21 17:13	EPA 8260D					
Methylene chloride	ND	5.00	10.0	ug/L	1	01/13/21 17:13	EPA 8260D					
-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	01/13/21 17:13	EPA 8260D					

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project Number: **Eatonville**Project Number: **Landfill WA State**Project Manager: **Genevieve Schutzius**

Report ID: A1A0458 - 04 19 23 1558

ANALYTICAL SAMPLE RESULTS

	Volatile Organic Compounds by EPA 8260D											
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Note				
SW01-0121 (A1A0458-05)				Matrix: Wate	r	Batch:	Batch: 1012821					
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	01/13/21 17:13	EPA 8260D					
Naphthalene	ND	1.00	2.00	ug/L	1	01/13/21 17:13	EPA 8260D					
n-Propylbenzene	ND	0.250	0.500	ug/L	1	01/13/21 17:13	EPA 8260D					
Styrene	ND	0.500	1.00	ug/L	1	01/13/21 17:13	EPA 8260D					
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	01/13/21 17:13	EPA 8260D					
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	01/13/21 17:13	EPA 8260D					
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	01/13/21 17:13	EPA 8260D					
Toluene	ND	0.500	1.00	ug/L	1	01/13/21 17:13	EPA 8260D					
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	01/13/21 17:13	EPA 8260D					
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	01/13/21 17:13	EPA 8260D					
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	01/13/21 17:13	EPA 8260D					
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	01/13/21 17:13	EPA 8260D					
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	01/13/21 17:13	EPA 8260D					
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	01/13/21 17:13	EPA 8260D					
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	01/13/21 17:13	EPA 8260D					
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	01/13/21 17:13	EPA 8260D					
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	01/13/21 17:13	EPA 8260D					
Vinyl chloride	ND	0.200	0.400	ug/L	1	01/13/21 17:13	EPA 8260D					
m,p-Xylene	ND	0.500	1.00	ug/L	1	01/13/21 17:13	EPA 8260D					
o-Xylene	ND	0.250	0.500	ug/L	1	01/13/21 17:13	EPA 8260D					
Vinyl acetate	ND	5.00	10.0	ug/L	1	01/13/21 17:13	EPA 8260D					
Surrogate: 1,4-Difluorobenzene (Surr)		Recove	ery: 102 %	Limits: 80-120 %	I	01/13/21 17:13	EPA 8260D					
Toluene-d8 (Surr)			99 %	80-120 %	1	01/13/21 17:13	EPA 8260D					
4-Bromofluorobenzene (Surr)			103 %	80-120 %	1	01/13/21 17:13	EPA 8260D					
SW02-0121 (A1A0458-06)				Matrix: Wate	Matrix: Water		Batch: 1012821					
Acetone	ND	10.0	20.0	ug/L	1	01/13/21 18:09	EPA 8260D					
Acrylonitrile	ND	1.00	2.00	ug/L	1	01/13/21 18:09	EPA 8260D					
Benzene	ND	0.100	0.200	ug/L	1	01/13/21 18:09	EPA 8260D					
Bromobenzene	ND	0.250	0.500	ug/L	1	01/13/21 18:09	EPA 8260D					
Bromochloromethane	ND	0.500	1.00	ug/L	1	01/13/21 18:09	EPA 8260D					
Bromodichloromethane	ND	0.500	1.00	ug/L	1	01/13/21 18:09	EPA 8260D					
Bromoform	ND	0.500	1.00	ug/L	1	01/13/21 18:09	EPA 8260D					
Bromomethane	ND	5.00	5.00	ug/L	1	01/13/21 18:09	EPA 8260D					

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The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: Landfill WA State
Project Manager: Genevieve Schutzius

Report ID: A1A0458 - 04 19 23 1558

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D											
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes			
	Result										
SW02-0121 (A1A0458-06)				Matrix: Wa	ater	Batch:	1012821				
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	01/13/21 18:09	EPA 8260D				
n-Butylbenzene	ND	0.500	1.00	ug/L	1	01/13/21 18:09	EPA 8260D				
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	01/13/21 18:09	EPA 8260D				
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	01/13/21 18:09	EPA 8260D				
Carbon disulfide	ND	5.00	10.0	ug/L	1	01/13/21 18:09	EPA 8260D				
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	01/13/21 18:09	EPA 8260D				
Chlorobenzene	ND	0.250	0.500	ug/L	1	01/13/21 18:09	EPA 8260D				
Chloroethane	ND	5.00	5.00	ug/L	1	01/13/21 18:09	EPA 8260D				
Chloroform	ND	0.500	1.00	ug/L	1	01/13/21 18:09	EPA 8260D				
Chloromethane	ND	5.00	5.00	ug/L	1	01/13/21 18:09	EPA 8260D				
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	01/13/21 18:09	EPA 8260D				
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	01/13/21 18:09	EPA 8260D				
Dibromochloromethane	ND	0.500	1.00	ug/L	1	01/13/21 18:09	EPA 8260D				
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	01/13/21 18:09	EPA 8260D				
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	01/13/21 18:09	EPA 8260D				
Dibromomethane	ND	0.500	1.00	ug/L	1	01/13/21 18:09	EPA 8260D				
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	01/13/21 18:09	EPA 8260D				
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	01/13/21 18:09	EPA 8260D				
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	01/13/21 18:09	EPA 8260D				
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	01/13/21 18:09	EPA 8260D				
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	01/13/21 18:09	EPA 8260D				
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	01/13/21 18:09	EPA 8260D				
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	01/13/21 18:09	EPA 8260D				
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	01/13/21 18:09	EPA 8260D				
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	01/13/21 18:09	EPA 8260D				
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	01/13/21 18:09	EPA 8260D				
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	01/13/21 18:09	EPA 8260D				
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	01/13/21 18:09	EPA 8260D				
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	01/13/21 18:09	EPA 8260D				
eis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	01/13/21 18:09	EPA 8260D				
rans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	01/13/21 18:09	EPA 8260D				
Ethylbenzene	ND	0.250	0.500	ug/L	1	01/13/21 18:09	EPA 8260D				
Iexachlorobutadiene	ND	2.50	5.00	ug/L	1	01/13/21 18:09	EPA 8260D				

Apex Laboratories



AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions Project: **Eatonville**

55 SW Yamhill St, Ste 300 Project Number: Landfill WA State
Portland, OR 97209 Project Manager: Genevieve Schutzius

Report ID: A1A0458 - 04 19 23 1558

ANALYTICAL SAMPLE RESULTS

	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Note
SW02-0121 (A1A0458-06)				Matrix: Wate	r	Batch:	1012821	
2-Hexanone	ND	5.00	10.0	ug/L	1	01/13/21 18:09	EPA 8260D	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	01/13/21 18:09	EPA 8260D	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	01/13/21 18:09	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	01/13/21 18:09	EPA 8260D	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	01/13/21 18:09	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	01/13/21 18:09	EPA 8260D	
Naphthalene	ND	1.00	2.00	ug/L	1	01/13/21 18:09	EPA 8260D	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	01/13/21 18:09	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	01/13/21 18:09	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	01/13/21 18:09	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	01/13/21 18:09	EPA 8260D	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	01/13/21 18:09	EPA 8260D	
Toluene	ND	0.500	1.00	ug/L	1	01/13/21 18:09	EPA 8260D	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	01/13/21 18:09	EPA 8260D	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	01/13/21 18:09	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	01/13/21 18:09	EPA 8260D	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	01/13/21 18:09	EPA 8260D	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	01/13/21 18:09	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	01/13/21 18:09	EPA 8260D	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	01/13/21 18:09	EPA 8260D	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	01/13/21 18:09	EPA 8260D	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	01/13/21 18:09	EPA 8260D	
Vinyl chloride	ND	0.200	0.400	ug/L	1	01/13/21 18:09	EPA 8260D	
m,p-Xylene	ND	0.500	1.00	ug/L	1	01/13/21 18:09	EPA 8260D	
o-Xylene	ND	0.250	0.500	ug/L	1	01/13/21 18:09	EPA 8260D	
Vinyl acetate	ND	5.00	10.0	ug/L	1	01/13/21 18:09	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recove	ery: 102 %	Limits: 80-120 %	1	01/13/21 18:09	EPA 8260D	
Toluene-d8 (Surr)			100 %	80-120 %		01/13/21 18:09	EPA 8260D	
4-Bromofluorobenzene (Surr)			104 %	80-120 %	1	01/13/21 18:09	EPA 8260D	
SW03-0121 (A1A0458-07)				Matrix: Wate	r	Batch:	1012821	
Acetone	ND	10.0	20.0	ug/L	1	01/13/21 17:41	EPA 8260D	
Acrylonitrile	ND	1.00	2.00	ug/L	1	01/13/21 17:41	EPA 8260D	
Benzene	ND	0.100	0.200	ug/L	1	01/13/21 17:41	EPA 8260D	

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Philip Nevenberg



AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: Landfill WA State
Project Manager: Genevieve Schutzius

Report ID: A1A0458 - 04 19 23 1558

ANALYTICAL SAMPLE RESULTS

			ic Compound	,,				
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW03-0121 (A1A0458-07)				Matrix: Wa	ater	Batch:	Batch: 1012821	
Bromobenzene	ND	0.250	0.500	ug/L	1	01/13/21 17:41	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	01/13/21 17:41	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	01/13/21 17:41	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	01/13/21 17:41	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	01/13/21 17:41	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	01/13/21 17:41	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	01/13/21 17:41	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	01/13/21 17:41	EPA 8260D	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	01/13/21 17:41	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	01/13/21 17:41	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	01/13/21 17:41	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	01/13/21 17:41	EPA 8260D	
Chloroethane	ND	5.00	5.00	ug/L	1	01/13/21 17:41	EPA 8260D	
Chloroform	ND	0.500	1.00	ug/L	1	01/13/21 17:41	EPA 8260D	
Chloromethane	ND	5.00	5.00	ug/L	1	01/13/21 17:41	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	01/13/21 17:41	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	01/13/21 17:41	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	01/13/21 17:41	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	01/13/21 17:41	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	01/13/21 17:41	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	01/13/21 17:41	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	01/13/21 17:41	EPA 8260D	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	01/13/21 17:41	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	01/13/21 17:41	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	01/13/21 17:41	EPA 8260D	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	01/13/21 17:41	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	01/13/21 17:41	EPA 8260D	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	01/13/21 17:41	EPA 8260D	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	01/13/21 17:41	EPA 8260D	
rans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	01/13/21 17:41	EPA 8260D	
,2-Dichloropropane	ND	0.250	0.500	ug/L	1	01/13/21 17:41	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	01/13/21 17:41	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	01/13/21 17:41	EPA 8260D	

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: Landfill WA State
Project Manager: Genevieve Schutzius

Report ID: A1A0458 - 04 19 23 1558

ANALYTICAL SAMPLE RESULTS

			•	ids by EPA 826				
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW03-0121 (A1A0458-07)				Matrix: Wate	er	Batch:	1012821	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	01/13/21 17:41	EPA 8260D	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	01/13/21 17:41	EPA 8260D	
rans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	01/13/21 17:41	EPA 8260D	
Ethylbenzene	ND	0.250	0.500	ug/L	1	01/13/21 17:41	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	01/13/21 17:41	EPA 8260D	
2-Hexanone	ND	5.00	10.0	ug/L	1	01/13/21 17:41	EPA 8260D	
sopropylbenzene	ND	0.500	1.00	ug/L	1	01/13/21 17:41	EPA 8260D	
1-Isopropyltoluene	ND	0.500	1.00	ug/L	1	01/13/21 17:41	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	01/13/21 17:41	EPA 8260D	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	01/13/21 17:41	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	01/13/21 17:41	EPA 8260D	
Naphthalene	ND	1.00	2.00	ug/L	1	01/13/21 17:41	EPA 8260D	
-Propylbenzene	ND	0.250	0.500	ug/L	1	01/13/21 17:41	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	01/13/21 17:41	EPA 8260D	
,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	01/13/21 17:41	EPA 8260D	
,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	01/13/21 17:41	EPA 8260D	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	01/13/21 17:41	EPA 8260D	
Toluene	ND	0.500	1.00	ug/L	1	01/13/21 17:41	EPA 8260D	
,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	01/13/21 17:41	EPA 8260D	
,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	01/13/21 17:41	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	01/13/21 17:41	EPA 8260D	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	01/13/21 17:41	EPA 8260D	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	01/13/21 17:41	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	01/13/21 17:41	EPA 8260D	
,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	01/13/21 17:41	EPA 8260D	
,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	01/13/21 17:41	EPA 8260D	
,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	01/13/21 17:41	EPA 8260D	
'inyl chloride	ND	0.200	0.400	ug/L	1	01/13/21 17:41	EPA 8260D	
n,p-Xylene	ND	0.500	1.00	ug/L	1	01/13/21 17:41	EPA 8260D	
-Xylene	ND	0.250	0.500	ug/L	1	01/13/21 17:41	EPA 8260D	
Vinyl acetate	ND	5.00	10.0	ug/L	1	01/13/21 17:41	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recove	ery: 104 %	Limits: 80-120 %	1	01/13/21 17:41	EPA 8260D	
Toluene-d8 (Surr)			99 %	80-120 %	1	01/13/21 17:41	EPA 8260D	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Merenberg



AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: Landfill WA State
Project Manager: Genevieve Schutzius

Report ID: A1A0458 - 04 19 23 1558

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D									
	Sample	Detection	Reporting			Date			
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes	
SW03-0121 (A1A0458-07)				Matrix: Wa	ater	Batch:	1012821		
Surrogate: 4-Bromofluorobenzene (Surr)		Recove	ery: 104 %	Limits: 80-120	% 1	01/13/21 17:41	EPA 8260D		

Apex Laboratories

Philip Marenberg



AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project Number: **Eatonville**Project Number: **Landfill WA State**Project Manager: **Genevieve Schutzius**

Report ID: A1A0458 - 04 19 23 1558

ANALYTICAL SAMPLE RESULTS

			anic Compou	as by LP)	. 021 02			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
	Result							
SE01-0121 (A1A0458-01)				Matrix: Wa	ater	Batch:	1012876	
Acenaphthene	ND	0.00971	0.0194	ug/L	1	01/15/21 18:23	EPA 8270E	
Acenaphthylene	ND	0.00971	0.0194	ug/L	1	01/15/21 18:23	EPA 8270E	
Anthracene	ND	0.00971	0.0194	ug/L	1	01/15/21 18:23	EPA 8270E	
Benz(a)anthracene	ND	0.00971	0.0194	ug/L	1	01/15/21 18:23	EPA 8270E	
Benzo(a)pyrene	ND	0.0146	0.0291	ug/L	1	01/15/21 18:23	EPA 8270E	
Benzo(b)fluoranthene	ND	0.0146	0.0291	ug/L	1	01/15/21 18:23	EPA 8270E	
Benzo(k)fluoranthene	ND	0.0146	0.0291	ug/L	1	01/15/21 18:23	EPA 8270E	
Benzo(g,h,i)perylene	ND	0.00971	0.0194	ug/L	1	01/15/21 18:23	EPA 8270E	
Chrysene	ND	0.00971	0.0194	ug/L	1	01/15/21 18:23	EPA 8270E	
Dibenz(a,h)anthracene	ND	0.00971	0.0194	ug/L	1	01/15/21 18:23	EPA 8270E	
Fluoranthene	ND	0.00971	0.0194	ug/L	1	01/15/21 18:23	EPA 8270E	
Fluorene	ND	0.00971	0.0194	ug/L	1	01/15/21 18:23	EPA 8270E	
Indeno(1,2,3-cd)pyrene	ND	0.00971	0.0194	ug/L	1	01/15/21 18:23	EPA 8270E	
l-Methylnaphthalene	ND	0.0194	0.0388	ug/L	1	01/15/21 18:23	EPA 8270E	
2-Methylnaphthalene	ND	0.0194	0.0388	ug/L	1	01/15/21 18:23	EPA 8270E	
Naphthalene	ND	0.0194	0.0388	ug/L	1	01/15/21 18:23	EPA 8270E	
Phenanthrene	ND	0.00971	0.0194	ug/L	1	01/15/21 18:23	EPA 8270E	
Pyrene	ND	0.00971	0.0194	ug/L	1	01/15/21 18:23	EPA 8270E	
Carbazole	ND	0.0146	0.0291	ug/L	1	01/15/21 18:23	EPA 8270E	
Dibenzofuran	ND	0.00971	0.0194	ug/L	1	01/15/21 18:23	EPA 8270E	
2-Chlorophenol	ND	0.0485	0.0971	ug/L	1	01/15/21 18:23	EPA 8270E	
4-Chloro-3-methylphenol	ND	0.0971	0.194	ug/L	1	01/15/21 18:23	EPA 8270E	
2,4-Dichlorophenol	ND	0.0485	0.0971	ug/L	1	01/15/21 18:23	EPA 8270E	
2,4-Dimethylphenol	ND	0.0485	0.0971	ug/L	1	01/15/21 18:23	EPA 8270E	
2,4-Dinitrophenol	ND	0.243	0.485	ug/L	1	01/15/21 18:23	EPA 8270E	
1,6-Dinitro-2-methylphenol	ND	0.243	0.485	ug/L	1	01/15/21 18:23	EPA 8270E	
-Methylphenol	ND	0.0243	0.0485	ug/L	1	01/15/21 18:23	EPA 8270E	
+4-Methylphenol(s)	ND	0.0243	0.0485	ug/L	1	01/15/21 18:23	EPA 8270E	
-Nitrophenol	ND	0.0971	0.194	ug/L	1	01/15/21 18:23	EPA 8270E	
l-Nitrophenol	ND	0.0971	0.194	ug/L	1	01/15/21 18:23	EPA 8270E	
Pentachlorophenol (PCP)	ND	0.0971	0.194	ug/L	1	01/15/21 18:23	EPA 8270E	
Phenol	ND	0.194	0.388	ug/L	1	01/15/21 18:23	EPA 8270E	
,3,4,6-Tetrachlorophenol	ND	0.0485	0.0971	ug/L ug/L	1	01/15/21 18:23	EPA 8270E	

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: Landfill WA State
Project Manager: Genevieve Schutzius

Report ID: A1A0458 - 04 19 23 1558

ANALYTICAL SAMPLE RESULTS

	Sem	ivolatile Org	anic Compou	inas by EPA	4 82/UE			
	Sample	Detection	Reporting	** .	P.11	Date	V 4 45 5	
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
SE01-0121 (A1A0458-01)				Matrix: Wa	ater	Batch:	1012876	
2,3,5,6-Tetrachlorophenol	ND	0.0485	0.0971	ug/L	1	01/15/21 18:23	EPA 8270E	
2,4,5-Trichlorophenol	ND	0.0485	0.0971	ug/L	1	01/15/21 18:23	EPA 8270E	
2,4,6-Trichlorophenol	ND	0.0485	0.0971	ug/L	1	01/15/21 18:23	EPA 8270E	
Bis(2-ethylhexyl)phthalate	ND	0.194	0.388	ug/L	1	01/15/21 18:23	EPA 8270E	
Butyl benzyl phthalate	ND	0.194	0.388	ug/L	1	01/15/21 18:23	EPA 8270E	
Diethylphthalate	ND	0.194	0.388	ug/L	1	01/15/21 18:23	EPA 8270E	
Dimethylphthalate	ND	0.194	0.388	ug/L	1	01/15/21 18:23	EPA 8270E	
Di-n-butylphthalate	ND	0.194	0.388	ug/L	1	01/15/21 18:23	EPA 8270E	
Di-n-octyl phthalate	ND	0.194	0.388	ug/L	1	01/15/21 18:23	EPA 8270E	
N-Nitrosodimethylamine	ND	0.0243	0.0485	ug/L	1	01/15/21 18:23	EPA 8270E	
N-Nitroso-di-n-propylamine	ND	0.0243	0.0485	ug/L	1	01/15/21 18:23	EPA 8270E	
N-Nitrosodiphenylamine	ND	0.0243	0.0485	ug/L	1	01/15/21 18:23	EPA 8270E	
Bis(2-Chloroethoxy) methane	ND	0.0243	0.0485	ug/L	1	01/15/21 18:23	EPA 8270E	
Bis(2-Chloroethyl) ether	ND	0.0243	0.0485	ug/L	1	01/15/21 18:23	EPA 8270E	
2,2'-Oxybis(1-Chloropropane)	ND	0.0243	0.0485	ug/L	1	01/15/21 18:23	EPA 8270E	
Hexachlorobenzene	ND	0.00971	0.0194	ug/L	1	01/15/21 18:23	EPA 8270E	
Hexachlorobutadiene	ND	0.0243	0.0485	ug/L	1	01/15/21 18:23	EPA 8270E	
Hexachlorocyclopentadiene	ND	0.0485	0.0971	ug/L	1	01/15/21 18:23	EPA 8270E	
Hexachloroethane	ND	0.0243	0.0485	ug/L	1	01/15/21 18:23	EPA 8270E	
2-Chloronaphthalene	ND	0.00971	0.0194	ug/L	1	01/15/21 18:23	EPA 8270E	
1,2,4-Trichlorobenzene	ND	0.0243	0.0485	ug/L	1	01/15/21 18:23	EPA 8270E	
4-Bromophenyl phenyl ether	ND	0.0243	0.0485	ug/L	1	01/15/21 18:23	EPA 8270E	
l-Chlorophenyl phenyl ether	ND	0.0243	0.0485	ug/L	1	01/15/21 18:23	EPA 8270E	
Aniline	ND	0.0485	0.0971	ug/L	1	01/15/21 18:23	EPA 8270E	
1-Chloroaniline	ND	0.0243	0.0485	ug/L	1	01/15/21 18:23	EPA 8270E	
2-Nitroaniline	ND	0.194	0.388	ug/L	1	01/15/21 18:23	EPA 8270E	
-Nitroaniline	ND	0.194	0.388	ug/L	1	01/15/21 18:23	EPA 8270E	
-Nitroaniline	ND	0.194	0.388	ug/L	1	01/15/21 18:23	EPA 8270E	
Vitrobenzene	ND	0.0971	0.194	ug/L	1	01/15/21 18:23	EPA 8270E	
,4-Dinitrotoluene	ND	0.0971	0.194	ug/L	1	01/15/21 18:23	EPA 8270E	
.,6-Dinitrotoluene	ND	0.0971	0.194	ug/L	1	01/15/21 18:23	EPA 8270E	
Benzoic acid	ND	1.21	2.43	ug/L	1	01/15/21 18:23	EPA 8270E	
Benzyl alcohol	0.106	0.0971	0.194	ug/L ug/L	1	01/15/21 18:23	EPA 8270E	Ja

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Page 21 of 104



AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project Number: **Eatonville**Project Number: **Landfill WA State**Project Manager: **Genevieve Schutzius**

Report ID: A1A0458 - 04 19 23 1558

ANALYTICAL SAMPLE RESULTS

	Sen	nivolatile Org	anic Compo	ounds by EPA 8	3270E			
	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
SE01-0121 (A1A0458-01)				Matrix: Wate	r	Batch:	1012876	
Isophorone	ND	0.0243	0.0485	ug/L	1	01/15/21 18:23	EPA 8270E	
Azobenzene (1,2-DPH)	ND	0.0243	0.0485	ug/L	1	01/15/21 18:23	EPA 8270E	
Bis(2-Ethylhexyl) adipate	ND	0.243	0.485	ug/L	1	01/15/21 18:23	EPA 8270E	
3,3'-Dichlorobenzidine	ND	0.485	0.971	ug/L	1	01/15/21 18:23	EPA 8270E	Q-52
1,2-Dinitrobenzene	ND	0.243	0.485	ug/L	1	01/15/21 18:23	EPA 8270E	
1,3-Dinitrobenzene	ND	0.243	0.485	ug/L	1	01/15/21 18:23	EPA 8270E	
1,4-Dinitrobenzene	ND	0.243	0.485	ug/L	1	01/15/21 18:23	EPA 8270E	
Pyridine	ND	0.0971	0.194	ug/L	1	01/15/21 18:23	EPA 8270E	
1,2-Dichlorobenzene	ND	0.0243	0.0485	ug/L	1	01/15/21 18:23	EPA 8270E	
1,3-Dichlorobenzene	ND	0.0243	0.0485	ug/L	1	01/15/21 18:23	EPA 8270E	
1,4-Dichlorobenzene	ND	0.0243	0.0485	ug/L	1	01/15/21 18:23	EPA 8270E	
Surrogate: Nitrobenzene-d5 (Surr)		Reco	very: 73 %	Limits: 44-120 %	1	01/15/21 18:23	EPA 8270E	
2-Fluorobiphenyl (Surr)			64 %	44-120 %	1	01/15/21 18:23	EPA 8270E	
Phenol-d6 (Surr)			24 %	10-133 %	1	01/15/21 18:23	EPA 8270E	
p-Terphenyl-d14 (Surr)			85 %	50-134 %	1	01/15/21 18:23	EPA 8270E	
2-Fluorophenol (Surr)			34 %	19-120 %	1	01/15/21 18:23	EPA 8270E	
2,4,6-Tribromophenol (Surr)			85 %	43-140 %	1	01/15/21 18:23	EPA 8270E	
SE101-0121 (A1A0458-02)				Matrix: Wate	r	Batch:	1012876	
Acenaphthene	ND	0.00990	0.0198	ug/L	1	01/15/21 18:58	EPA 8270E	
Acenaphthylene	ND	0.00990	0.0198	ug/L	1	01/15/21 18:58	EPA 8270E	
Anthracene	ND	0.00990	0.0198	ug/L	1	01/15/21 18:58	EPA 8270E	
Benz(a)anthracene	ND	0.00990	0.0198	ug/L	1	01/15/21 18:58	EPA 8270E	
Benzo(a)pyrene	ND	0.0149	0.0297	ug/L	1	01/15/21 18:58	EPA 8270E	
Benzo(b)fluoranthene	ND	0.0149	0.0297	ug/L	1	01/15/21 18:58	EPA 8270E	
Benzo(k)fluoranthene	ND	0.0149	0.0297	ug/L	1	01/15/21 18:58	EPA 8270E	
Benzo(g,h,i)perylene	ND	0.00990	0.0198	ug/L	1	01/15/21 18:58	EPA 8270E	
Chrysene	ND	0.00990	0.0198	ug/L	1	01/15/21 18:58	EPA 8270E	
Dibenz(a,h)anthracene	ND	0.00990	0.0198	ug/L	1	01/15/21 18:58	EPA 8270E	
Fluoranthene	ND	0.00990	0.0198	ug/L	1	01/15/21 18:58	EPA 8270E	
Fluorene	ND	0.00990	0.0198	ug/L	1	01/15/21 18:58	EPA 8270E	
Indeno(1,2,3-cd)pyrene	ND	0.00990	0.0198	ug/L	1	01/15/21 18:58	EPA 8270E	
1-Methylnaphthalene	ND	0.00550	0.0396	ug/L ug/L	1	01/15/21 18:58	EPA 8270E	
• •	ND	0.0198	0.0396	•	1	01/15/21 18:58	EPA 8270E	
2-Methylnaphthalene	ND	0.0198	0.0390	ug/L	1	01/13/21 10.30	LIN 02/0E	

Apex Laboratories



AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project Number: **Eatonville**Project Number: **Landfill WA State**Project Manager: **Genevieve Schutzius**

Report ID: A1A0458 - 04 19 23 1558

ANALYTICAL SAMPLE RESULTS

		ivolatile Org		~ y = 1 /	v=			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SE101-0121 (A1A0458-02)				Matrix: Wa	ater	Batch:	1012876	
Naphthalene	ND	0.0198	0.0396	ug/L	1	01/15/21 18:58	EPA 8270E	
Phenanthrene	ND	0.00990	0.0198	ug/L	1	01/15/21 18:58	EPA 8270E	
Pyrene	ND	0.00990	0.0198	ug/L	1	01/15/21 18:58	EPA 8270E	
Carbazole	ND	0.0149	0.0297	ug/L	1	01/15/21 18:58	EPA 8270E	
Dibenzofuran	ND	0.00990	0.0198	ug/L	1	01/15/21 18:58	EPA 8270E	
2-Chlorophenol	ND	0.0495	0.0990	ug/L	1	01/15/21 18:58	EPA 8270E	
I-Chloro-3-methylphenol	ND	0.0990	0.198	ug/L	1	01/15/21 18:58	EPA 8270E	
2,4-Dichlorophenol	ND	0.0495	0.0990	ug/L	1	01/15/21 18:58	EPA 8270E	
2,4-Dimethylphenol	ND	0.0495	0.0990	ug/L	1	01/15/21 18:58	EPA 8270E	
2,4-Dinitrophenol	ND	0.248	0.495	ug/L	1	01/15/21 18:58	EPA 8270E	
4,6-Dinitro-2-methylphenol	ND	0.248	0.495	ug/L	1	01/15/21 18:58	EPA 8270E	
2-Methylphenol	ND	0.0248	0.0495	ug/L	1	01/15/21 18:58	EPA 8270E	
3+4-Methylphenol(s)	ND	0.0248	0.0495	ug/L	1	01/15/21 18:58	EPA 8270E	
2-Nitrophenol	ND	0.0990	0.198	ug/L	1	01/15/21 18:58	EPA 8270E	
1-Nitrophenol	ND	0.0990	0.198	ug/L	1	01/15/21 18:58	EPA 8270E	
Pentachlorophenol (PCP)	ND	0.0990	0.198	ug/L	1	01/15/21 18:58	EPA 8270E	
Phenol	ND	0.198	0.396	ug/L	1	01/15/21 18:58	EPA 8270E	
2,3,4,6-Tetrachlorophenol	ND	0.0495	0.0990	ug/L	1	01/15/21 18:58	EPA 8270E	
2,3,5,6-Tetrachlorophenol	ND	0.0495	0.0990	ug/L	1	01/15/21 18:58	EPA 8270E	
2,4,5-Trichlorophenol	ND	0.0495	0.0990	ug/L	1	01/15/21 18:58	EPA 8270E	
2,4,6-Trichlorophenol	ND	0.0495	0.0990	ug/L	1	01/15/21 18:58	EPA 8270E	
Bis(2-ethylhexyl)phthalate	ND	0.198	0.396	ug/L	1	01/15/21 18:58	EPA 8270E	
Butyl benzyl phthalate	ND	0.198	0.396	ug/L	1	01/15/21 18:58	EPA 8270E	
Diethylphthalate	ND	0.198	0.396	ug/L	1	01/15/21 18:58	EPA 8270E	
Dimethylphthalate	ND	0.198	0.396	ug/L	1	01/15/21 18:58	EPA 8270E	
Di-n-butylphthalate	ND	0.198	0.396	ug/L	1	01/15/21 18:58	EPA 8270E	
Di-n-octyl phthalate	ND	0.198	0.396	ug/L	1	01/15/21 18:58	EPA 8270E	
N-Nitrosodimethylamine	ND	0.0248	0.0495	ug/L	1	01/15/21 18:58	EPA 8270E	
N-Nitroso-di-n-propylamine	ND	0.0248	0.0495	ug/L	1	01/15/21 18:58	EPA 8270E	
N-Nitrosodiphenylamine	ND	0.0248	0.0495	ug/L	1	01/15/21 18:58	EPA 8270E	
Bis(2-Chloroethoxy) methane	ND	0.0248	0.0495	ug/L	1	01/15/21 18:58	EPA 8270E	
Bis(2-Chloroethyl) ether	ND	0.0248	0.0495	ug/L	1	01/15/21 18:58	EPA 8270E	
,2'-Oxybis(1-Chloropropane)	ND	0.0248	0.0495	ug/L	1	01/15/21 18:58	EPA 8270E	

Apex Laboratories

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Philip Neimberg



AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project Number: **Eatonville**Project Number: **Landfill WA State**Project Manager: **Genevieve Schutzius**

Report ID: A1A0458 - 04 19 23 1558

ANALYTICAL SAMPLE RESULTS

	<u> </u>	ivolatile Orgar		ulius by LFA	021 UL			
Analyta	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Mathed Daf	Nata-
Analyte	Kesuit	Liiiit	LIIIII			•	Method Ref.	Notes
SE101-0121 (A1A0458-02)				Matrix: Wate	er	Batch:	1012876	
Hexachlorobenzene	ND	0.00990	0.0198	ug/L	1	01/15/21 18:58	EPA 8270E	
Hexachlorobutadiene	ND	0.0248	0.0495	ug/L	1	01/15/21 18:58	EPA 8270E	
Hexachlorocyclopentadiene	ND	0.0495	0.0990	ug/L	1	01/15/21 18:58	EPA 8270E	
Hexachloroethane	ND	0.0248	0.0495	ug/L	1	01/15/21 18:58	EPA 8270E	
2-Chloronaphthalene	ND	0.00990	0.0198	ug/L	1	01/15/21 18:58	EPA 8270E	
1,2,4-Trichlorobenzene	ND	0.0248	0.0495	ug/L	1	01/15/21 18:58	EPA 8270E	
4-Bromophenyl phenyl ether	ND	0.0248	0.0495	ug/L	1	01/15/21 18:58	EPA 8270E	
4-Chlorophenyl phenyl ether	ND	0.0248	0.0495	ug/L	1	01/15/21 18:58	EPA 8270E	
Aniline	ND	0.0495	0.0990	ug/L	1	01/15/21 18:58	EPA 8270E	
4-Chloroaniline	ND	0.0248	0.0495	ug/L	1	01/15/21 18:58	EPA 8270E	
2-Nitroaniline	ND	0.198	0.396	ug/L	1	01/15/21 18:58	EPA 8270E	
3-Nitroaniline	ND	0.198	0.396	ug/L	1	01/15/21 18:58	EPA 8270E	
4-Nitroaniline	ND	0.198	0.396	ug/L	1	01/15/21 18:58	EPA 8270E	
Nitrobenzene	ND	0.0990	0.198	ug/L	1	01/15/21 18:58	EPA 8270E	
2,4-Dinitrotoluene	ND	0.0990	0.198	ug/L	1	01/15/21 18:58	EPA 8270E	
2,6-Dinitrotoluene	ND	0.0990	0.198	ug/L	1	01/15/21 18:58	EPA 8270E	
Benzoic acid	ND	1.24	2.48	ug/L	1	01/15/21 18:58	EPA 8270E	
Benzyl alcohol	ND	0.0990	0.198	ug/L	1	01/15/21 18:58	EPA 8270E	
Isophorone	ND	0.0248	0.0495	ug/L	1	01/15/21 18:58	EPA 8270E	
Azobenzene (1,2-DPH)	ND	0.0248	0.0495	ug/L	1	01/15/21 18:58	EPA 8270E	
Bis(2-Ethylhexyl) adipate	ND	0.248	0.495	ug/L	1	01/15/21 18:58	EPA 8270E	
3,3'-Dichlorobenzidine	ND	0.495	0.990	ug/L	1	01/15/21 18:58	EPA 8270E	Q-52
1,2-Dinitrobenzene	ND	0.248	0.495	ug/L	1	01/15/21 18:58	EPA 8270E	
1,3-Dinitrobenzene	ND	0.248	0.495	ug/L	1	01/15/21 18:58	EPA 8270E	
1,4-Dinitrobenzene	ND	0.248	0.495	ug/L	1	01/15/21 18:58	EPA 8270E	
Pyridine	ND	0.0990	0.198	ug/L	1	01/15/21 18:58	EPA 8270E	
1,2-Dichlorobenzene	ND	0.0248	0.0495	ug/L	1	01/15/21 18:58	EPA 8270E	
1,3-Dichlorobenzene	ND	0.0248	0.0495	ug/L	1	01/15/21 18:58	EPA 8270E	
1,4-Dichlorobenzene	ND	0.0248	0.0495	ug/L	1	01/15/21 18:58	EPA 8270E	
Surrogate: Nitrobenzene-d5 (Surr)		Recover	v: 68 %	Limits: 44-120 %	6 1	01/15/21 18:58	EPA 8270E	
2-Fluorobiphenyl (Surr)			68 %	44-120 %		01/15/21 18:58	EPA 8270E	
Phenol-d6 (Surr)			22 %	10-133 %		01/15/21 18:58	EPA 8270E	
p-Terphenyl-d14 (Surr)			89 %	50-134 %	6 1	01/15/21 18:58	EPA 8270E	
2-Fluorophenol (Surr)			35 %	19-120 %	6 1	01/15/21 18:58	EPA 8270E	

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: Landfill WA State
Project Manager: Genevieve Schutzius

Report ID: A1A0458 - 04 19 23 1558

ANALYTICAL SAMPLE RESULTS

				ounds by EPA 8				
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SE101-0121 (A1A0458-02)				Matrix: Wate	r	Batch:	1012876	
Surrogate: 2,4,6-Tribromophenol (Surr)		Recovery	y: 84 %	Limits: 43-140 %	I	01/15/21 18:58	EPA 8270E	
SE02-0121 (A1A0458-03)				Matrix: Wate	r	Batch:	1012876	
Acenaphthene	ND	0.00962	0.0192	ug/L	1	01/15/21 19:34	EPA 8270E	
Acenaphthylene	ND	0.00962	0.0192	ug/L	1	01/15/21 19:34	EPA 8270E	
Anthracene	ND	0.00962	0.0192	ug/L	1	01/15/21 19:34	EPA 8270E	
Benz(a)anthracene	ND	0.00962	0.0192	ug/L	1	01/15/21 19:34	EPA 8270E	
Benzo(a)pyrene	ND	0.0144	0.0288	ug/L	1	01/15/21 19:34	EPA 8270E	
Benzo(b)fluoranthene	ND	0.0144	0.0288	ug/L	1	01/15/21 19:34	EPA 8270E	
Benzo(k)fluoranthene	ND	0.0144	0.0288	ug/L	1	01/15/21 19:34	EPA 8270E	
Benzo(g,h,i)perylene	ND	0.00962	0.0192	ug/L	1	01/15/21 19:34	EPA 8270E	
Chrysene	ND	0.00962	0.0192	ug/L	1	01/15/21 19:34	EPA 8270E	
Dibenz(a,h)anthracene	ND	0.00962	0.0192	ug/L	1	01/15/21 19:34	EPA 8270E	
Fluoranthene	ND	0.00962	0.0192	ug/L	1	01/15/21 19:34	EPA 8270E	
Fluorene	ND	0.00962	0.0192	ug/L	1	01/15/21 19:34	EPA 8270E	
ndeno(1,2,3-cd)pyrene	ND	0.00962	0.0192	ug/L	1	01/15/21 19:34	EPA 8270E	
l-Methylnaphthalene	ND	0.0192	0.0385	ug/L	1	01/15/21 19:34	EPA 8270E	
2-Methylnaphthalene	ND	0.0192	0.0385	ug/L	1	01/15/21 19:34	EPA 8270E	
Naphthalene	ND	0.0192	0.0385	ug/L	1	01/15/21 19:34	EPA 8270E	
Phenanthrene	ND	0.00962	0.0192	ug/L	1	01/15/21 19:34	EPA 8270E	
Pyrene	ND	0.00962	0.0192	ug/L	1	01/15/21 19:34	EPA 8270E	
Carbazole	ND	0.0144	0.0288	ug/L	1	01/15/21 19:34	EPA 8270E	
Dibenzofuran	ND	0.00962	0.0192	ug/L	1	01/15/21 19:34	EPA 8270E	
2-Chlorophenol	ND	0.0481	0.0962	ug/L	1	01/15/21 19:34	EPA 8270E	
4-Chloro-3-methylphenol	ND	0.0962	0.192	ug/L	1	01/15/21 19:34	EPA 8270E	
2,4-Dichlorophenol	ND	0.0481	0.0962	ug/L	1	01/15/21 19:34	EPA 8270E	
2,4-Dimethylphenol	ND	0.0481	0.0962	ug/L	1	01/15/21 19:34	EPA 8270E	
2,4-Dinitrophenol	ND	0.240	0.481	ug/L	1	01/15/21 19:34	EPA 8270E	
,6-Dinitro-2-methylphenol	ND	0.240	0.481	ug/L	1	01/15/21 19:34	EPA 8270E	
-Methylphenol	ND	0.0240	0.0481	ug/L	1	01/15/21 19:34	EPA 8270E	
+4-Methylphenol(s)	ND	0.0240	0.0481	ug/L	1	01/15/21 19:34	EPA 8270E	
-Nitrophenol	ND	0.0962	0.192	ug/L	1	01/15/21 19:34	EPA 8270E	
-Nitrophenol	ND	0.0962	0.192	ug/L	1	01/15/21 19:34	EPA 8270E	
entachlorophenol (PCP)	ND	0.0962	0.192	ug/L	1	01/15/21 19:34	EPA 8270E	
enmemorophenor (1 e1)	1112	0.0702	0.172	ug/L		31.10.21 17.51	21.1.02.70E	

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: Landfill WA State
Project Manager: Genevieve Schutzius

Report ID: A1A0458 - 04 19 23 1558

ANALYTICAL SAMPLE RESULTS

	Sem	ivolatile Org	anic Compo	unds by EPA	A 8270E			
	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
SE02-0121 (A1A0458-03)				Matrix: W	ater	Batch:	1012876	
Phenol	ND	0.192	0.385	ug/L	1	01/15/21 19:34	EPA 8270E	
2,3,4,6-Tetrachlorophenol	ND	0.0481	0.0962	ug/L	1	01/15/21 19:34	EPA 8270E	
2,3,5,6-Tetrachlorophenol	ND	0.0481	0.0962	ug/L	1	01/15/21 19:34	EPA 8270E	
2,4,5-Trichlorophenol	ND	0.0481	0.0962	ug/L	1	01/15/21 19:34	EPA 8270E	
2,4,6-Trichlorophenol	ND	0.0481	0.0962	ug/L	1	01/15/21 19:34	EPA 8270E	
Bis(2-ethylhexyl)phthalate	ND	0.192	0.385	ug/L	1	01/15/21 19:34	EPA 8270E	
Butyl benzyl phthalate	ND	0.192	0.385	ug/L	1	01/15/21 19:34	EPA 8270E	
Diethylphthalate	ND	0.192	0.385	ug/L	1	01/15/21 19:34	EPA 8270E	
Dimethylphthalate	ND	0.192	0.385	ug/L	1	01/15/21 19:34	EPA 8270E	
Di-n-butylphthalate	ND	0.192	0.385	ug/L	1	01/15/21 19:34	EPA 8270E	
Di-n-octyl phthalate	ND	0.192	0.385	ug/L	1	01/15/21 19:34	EPA 8270E	
N-Nitrosodimethylamine	ND	0.0240	0.0481	ug/L	1	01/15/21 19:34	EPA 8270E	
N-Nitroso-di-n-propylamine	ND	0.0240	0.0481	ug/L	1	01/15/21 19:34	EPA 8270E	
N-Nitrosodiphenylamine	ND	0.0240	0.0481	ug/L	1	01/15/21 19:34	EPA 8270E	
Bis(2-Chloroethoxy) methane	ND	0.0240	0.0481	ug/L	1	01/15/21 19:34	EPA 8270E	
Bis(2-Chloroethyl) ether	ND	0.0240	0.0481	ug/L	1	01/15/21 19:34	EPA 8270E	
2,2'-Oxybis(1-Chloropropane)	ND	0.0240	0.0481	ug/L	1	01/15/21 19:34	EPA 8270E	
Hexachlorobenzene	ND	0.00962	0.0192	ug/L	1	01/15/21 19:34	EPA 8270E	
Hexachlorobutadiene	ND	0.0240	0.0481	ug/L	1	01/15/21 19:34	EPA 8270E	
Hexachlorocyclopentadiene	ND	0.0481	0.0962	ug/L	1	01/15/21 19:34	EPA 8270E	
Hexachloroethane	ND	0.0240	0.0481	ug/L	1	01/15/21 19:34	EPA 8270E	
2-Chloronaphthalene	ND	0.00962	0.0192	ug/L	1	01/15/21 19:34	EPA 8270E	
1,2,4-Trichlorobenzene	ND	0.0240	0.0481	ug/L	1	01/15/21 19:34	EPA 8270E	
4-Bromophenyl phenyl ether	ND	0.0240	0.0481	ug/L	1	01/15/21 19:34	EPA 8270E	
4-Chlorophenyl phenyl ether	ND	0.0240	0.0481	ug/L	1	01/15/21 19:34	EPA 8270E	
Aniline	ND	0.0481	0.0962	ug/L	1	01/15/21 19:34	EPA 8270E	
4-Chloroaniline	ND	0.0240	0.0481	ug/L	1	01/15/21 19:34	EPA 8270E	
2-Nitroaniline	ND	0.192	0.385	ug/L	1	01/15/21 19:34	EPA 8270E	
3-Nitroaniline	ND	0.192	0.385	ug/L	1	01/15/21 19:34	EPA 8270E	
4-Nitroaniline	ND	0.192	0.385	ug/L	1	01/15/21 19:34	EPA 8270E	
Nitrobenzene	ND	0.0962	0.192	ug/L	1	01/15/21 19:34	EPA 8270E	
2,4-Dinitrotoluene	ND	0.0962	0.192	ug/L	1	01/15/21 19:34	EPA 8270E	
2,6-Dinitrotoluene	ND	0.0962	0.192	ug/L	1	01/15/21 19:34	EPA 8270E	

Apex Laboratories

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: Landfill WA State
Project Manager: Genevieve Schutzius

Report ID: A1A0458 - 04 19 23 1558

ANALYTICAL SAMPLE RESULTS

	Sen	nivolatile Org	anic Compo	ounds by EPA 8	270E			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SE02-0121 (A1A0458-03)				Matrix: Wate	er	Batch:	1012876	
Benzoic acid	ND	1.20	2.40	ug/L	1	01/15/21 19:34	EPA 8270E	
Benzyl alcohol	ND	0.0962	0.192	ug/L	1	01/15/21 19:34	EPA 8270E	
Isophorone	ND	0.0240	0.0481	ug/L	1	01/15/21 19:34	EPA 8270E	
Azobenzene (1,2-DPH)	ND	0.0240	0.0481	ug/L	1	01/15/21 19:34	EPA 8270E	
Bis(2-Ethylhexyl) adipate	ND	0.240	0.481	ug/L	1	01/15/21 19:34	EPA 8270E	
3,3'-Dichlorobenzidine	ND	0.481	0.962	ug/L	1	01/15/21 19:34	EPA 8270E	Q-52
1,2-Dinitrobenzene	ND	0.240	0.481	ug/L	1	01/15/21 19:34	EPA 8270E	
1,3-Dinitrobenzene	ND	0.240	0.481	ug/L	1	01/15/21 19:34	EPA 8270E	
1,4-Dinitrobenzene	ND	0.240	0.481	ug/L	1	01/15/21 19:34	EPA 8270E	
Pyridine	ND	0.0962	0.192	ug/L	1	01/15/21 19:34	EPA 8270E	
1,2-Dichlorobenzene	ND	0.0240	0.0481	ug/L	1	01/15/21 19:34	EPA 8270E	
1,3-Dichlorobenzene	ND	0.0240	0.0481	ug/L	1	01/15/21 19:34	EPA 8270E	
1,4-Dichlorobenzene	ND	0.0240	0.0481	ug/L	1	01/15/21 19:34	EPA 8270E	
Surrogate: Nitrobenzene-d5 (Surr)		Reco	very: 59 %	Limits: 44-120 %	1	01/15/21 19:34	EPA 8270E	
2-Fluorobiphenyl (Surr)			62 %	44-120 %	1	01/15/21 19:34	EPA 8270E	
Phenol-d6 (Surr)			19 %	10-133 %	1	01/15/21 19:34	EPA 8270E	
p-Terphenyl-d14 (Surr)			76 %	50-134 %		01/15/21 19:34	EPA 8270E	
2-Fluorophenol (Surr)			30 %	19-120 %		01/15/21 19:34	EPA 8270E	
2,4,6-Tribromophenol (Surr)			83 %	43-140 %	I	01/15/21 19:34	EPA 8270E	
GW01-0121 (A1A0458-04)				Matrix: Wate	er	Batch:	1012876	
Acenaphthene	ND	0.00971	0.0194	ug/L	1	01/15/21 20:09	EPA 8270E	
Acenaphthylene	ND	0.00971	0.0194	ug/L	1	01/15/21 20:09	EPA 8270E	
Anthracene	ND	0.00971	0.0194	ug/L	1	01/15/21 20:09	EPA 8270E	
Benz(a)anthracene	ND	0.00971	0.0194	ug/L	1	01/15/21 20:09	EPA 8270E	
Benzo(a)pyrene	ND	0.0146	0.0291	ug/L	1	01/15/21 20:09	EPA 8270E	
Benzo(b)fluoranthene	ND	0.0146	0.0291	ug/L	1	01/15/21 20:09	EPA 8270E	
Benzo(k)fluoranthene	ND	0.0146	0.0291	ug/L	1	01/15/21 20:09	EPA 8270E	
Benzo(g,h,i)perylene	ND	0.00971	0.0194	ug/L	1	01/15/21 20:09	EPA 8270E	
Chrysene	ND	0.00971	0.0194	ug/L	1	01/15/21 20:09	EPA 8270E	
Dibenz(a,h)anthracene	ND	0.00971	0.0194	ug/L	1	01/15/21 20:09	EPA 8270E	
Fluoranthene	ND	0.00971	0.0194	ug/L	1	01/15/21 20:09	EPA 8270E	
Fluorene	ND	0.00971	0.0194	ug/L	1	01/15/21 20:09	EPA 8270E	
	ND	0.00971		8-	-			

Apex Laboratories

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Philip Memberg



AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions Project: Eatonville

55 SW Yamhill St, Ste 300 Project Number: Landfill WA State
Portland, OR 97209 Project Manager: Genevieve Schutzius

Report ID: A1A0458 - 04 19 23 1558

ANALYTICAL SAMPLE RESULTS

	Sen	iivoiaule Org	anic Compou	inus by EPA	102/UE			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
	Kesuit	Lillit						notes
GW01-0121 (A1A0458-04)				Matrix: Wa	ater	Batch:	1012876	
1-Methylnaphthalene	ND	0.0194	0.0388	ug/L	1	01/15/21 20:09	EPA 8270E	
2-Methylnaphthalene	ND	0.0194	0.0388	ug/L	1	01/15/21 20:09	EPA 8270E	
Naphthalene	ND	0.0194	0.0388	ug/L	1	01/15/21 20:09	EPA 8270E	
Phenanthrene	ND	0.00971	0.0194	ug/L	1	01/15/21 20:09	EPA 8270E	
Pyrene	ND	0.00971	0.0194	ug/L	1	01/15/21 20:09	EPA 8270E	
Carbazole	ND	0.0146	0.0291	ug/L	1	01/15/21 20:09	EPA 8270E	
Dibenzofuran	ND	0.00971	0.0194	ug/L	1	01/15/21 20:09	EPA 8270E	
2-Chlorophenol	ND	0.0485	0.0971	ug/L	1	01/15/21 20:09	EPA 8270E	
4-Chloro-3-methylphenol	ND	0.0971	0.194	ug/L	1	01/15/21 20:09	EPA 8270E	
2,4-Dichlorophenol	ND	0.0485	0.0971	ug/L	1	01/15/21 20:09	EPA 8270E	
2,4-Dimethylphenol	ND	0.0485	0.0971	ug/L	1	01/15/21 20:09	EPA 8270E	
2,4-Dinitrophenol	ND	0.243	0.485	ug/L	1	01/15/21 20:09	EPA 8270E	
4,6-Dinitro-2-methylphenol	ND	0.243	0.485	ug/L	1	01/15/21 20:09	EPA 8270E	
2-Methylphenol	ND	0.0243	0.0485	ug/L	1	01/15/21 20:09	EPA 8270E	
3+4-Methylphenol(s)	ND	0.0243	0.0485	ug/L	1	01/15/21 20:09	EPA 8270E	
2-Nitrophenol	ND	0.0971	0.194	ug/L	1	01/15/21 20:09	EPA 8270E	
4-Nitrophenol	ND	0.194	0.194	ug/L	1	01/15/21 20:09	EPA 8270E	
Pentachlorophenol (PCP)	ND	0.0971	0.194	ug/L	1	01/15/21 20:09	EPA 8270E	
Phenol	ND	0.194	0.388	ug/L	1	01/15/21 20:09	EPA 8270E	
2,3,4,6-Tetrachlorophenol	ND	0.0485	0.0971	ug/L	1	01/15/21 20:09	EPA 8270E	
2,3,5,6-Tetrachlorophenol	ND	0.0485	0.0971	ug/L	1	01/15/21 20:09	EPA 8270E	
2,4,5-Trichlorophenol	ND	0.0485	0.0971	ug/L	1	01/15/21 20:09	EPA 8270E	
2,4,6-Trichlorophenol	ND	0.0485	0.0971	ug/L	1	01/15/21 20:09	EPA 8270E	
Bis(2-ethylhexyl)phthalate	ND	0.194	0.388	ug/L	1	01/15/21 20:09	EPA 8270E	
Butyl benzyl phthalate	ND	0.194	0.388	ug/L	1	01/15/21 20:09	EPA 8270E	
Diethylphthalate	ND	0.194	0.388	ug/L	1	01/15/21 20:09	EPA 8270E	
Dimethylphthalate	ND	0.194	0.388	ug/L	1	01/15/21 20:09	EPA 8270E	
Di-n-butylphthalate	ND	0.194	0.388	ug/L	1	01/15/21 20:09	EPA 8270E	
Di-n-octyl phthalate	ND	0.194	0.388	ug/L	1	01/15/21 20:09	EPA 8270E	
N-Nitrosodimethylamine	ND	0.0243	0.0485	ug/L	1	01/15/21 20:09	EPA 8270E	
N-Nitroso-di-n-propylamine	ND	0.0243	0.0485	ug/L	1	01/15/21 20:09	EPA 8270E	
N-Nitrosodiphenylamine	ND	0.0243	0.0485	ug/L	1	01/15/21 20:09	EPA 8270E	
Bis(2-Chloroethoxy) methane	ND	0.0243	0.0485	ug/L	1	01/15/21 20:09	EPA 8270E	

Apex Laboratories

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Philip Nerenberg For Lisa Domenighini, Client Services Manager



AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project Number: **Eatonville**Project Number: **Landfill WA State**Project Manager: **Genevieve Schutzius**

Report ID: A1A0458 - 04 19 23 1558

ANALYTICAL SAMPLE RESULTS

Analyta	Sample Result	Detection Limit	Reporting Limit	I Inita	Dibutian	Date Analyzed	Mathad Def	NI-4
Analyte	Kesuit	Limit	LIMIT	Units	Dilution	•	Method Ref.	Note
GW01-0121 (A1A0458-04)				Matrix: Wate	<u>r</u>	Batch: 1012876		
Bis(2-Chloroethyl) ether	ND	0.0243	0.0485	ug/L	1	01/15/21 20:09	EPA 8270E	
2,2'-Oxybis(1-Chloropropane)	ND	0.0243	0.0485	ug/L	1	01/15/21 20:09	EPA 8270E	
Hexachlorobenzene	ND	0.00971	0.0194	ug/L	1	01/15/21 20:09	EPA 8270E	
Hexachlorobutadiene	ND	0.0243	0.0485	ug/L	1	01/15/21 20:09	EPA 8270E	
Hexachlorocyclopentadiene	ND	0.0485	0.0971	ug/L	1	01/15/21 20:09	EPA 8270E	
Hexachloroethane	ND	0.0243	0.0485	ug/L	1	01/15/21 20:09	EPA 8270E	
2-Chloronaphthalene	ND	0.00971	0.0194	ug/L	1	01/15/21 20:09	EPA 8270E	
1,2,4-Trichlorobenzene	ND	0.0243	0.0485	ug/L	1	01/15/21 20:09	EPA 8270E	
4-Bromophenyl phenyl ether	ND	0.0243	0.0485	ug/L	1	01/15/21 20:09	EPA 8270E	
4-Chlorophenyl phenyl ether	ND	0.0243	0.0485	ug/L	1	01/15/21 20:09	EPA 8270E	
Aniline	ND	0.0485	0.0971	ug/L	1	01/15/21 20:09	EPA 8270E	
4-Chloroaniline	ND	0.0243	0.0485	ug/L	1	01/15/21 20:09	EPA 8270E	
2-Nitroaniline	ND	0.194	0.388	ug/L	1	01/15/21 20:09	EPA 8270E	
3-Nitroaniline	ND	0.194	0.388	ug/L	1	01/15/21 20:09	EPA 8270E	
4-Nitroaniline	ND	0.194	0.388	ug/L	1	01/15/21 20:09	EPA 8270E	
Nitrobenzene	ND	0.0971	0.194	ug/L	1	01/15/21 20:09	EPA 8270E	
2,4-Dinitrotoluene	ND	0.0971	0.194	ug/L	1	01/15/21 20:09	EPA 8270E	
2,6-Dinitrotoluene	ND	0.0971	0.194	ug/L	1	01/15/21 20:09	EPA 8270E	
Benzoic acid	ND	1.21	2.43	ug/L	1	01/15/21 20:09	EPA 8270E	
Benzyl alcohol	ND	0.0971	0.194	ug/L	1	01/15/21 20:09	EPA 8270E	
Isophorone	ND	0.0243	0.0485	ug/L	1	01/15/21 20:09	EPA 8270E	
Azobenzene (1,2-DPH)	ND	0.0243	0.0485	ug/L	1	01/15/21 20:09	EPA 8270E	
Bis(2-Ethylhexyl) adipate	ND	0.243	0.485	ug/L	1	01/15/21 20:09	EPA 8270E	
3,3'-Dichlorobenzidine	ND	0.485	0.971	ug/L	1	01/15/21 20:09	EPA 8270E	Q-52
,2-Dinitrobenzene	ND	0.243	0.485	ug/L	1	01/15/21 20:09	EPA 8270E	
,3-Dinitrobenzene	ND	0.243	0.485	ug/L	1	01/15/21 20:09	EPA 8270E	
,4-Dinitrobenzene	ND	0.243	0.485	ug/L	1	01/15/21 20:09	EPA 8270E	
Pyridine	ND	0.0971	0.194	ug/L	1	01/15/21 20:09	EPA 8270E	
,2-Dichlorobenzene	ND	0.0243	0.0485	ug/L	1	01/15/21 20:09	EPA 8270E	
,3-Dichlorobenzene	ND	0.0243	0.0485	ug/L	1	01/15/21 20:09	EPA 8270E	
,4-Dichlorobenzene	ND	0.0243	0.0485	ug/L	1	01/15/21 20:09	EPA 8270E	
Surrogate: Nitrobenzene-d5 (Surr)			very: 42 %	Limits: 44-120 %		01/15/21 20:09	EPA 8270E	S-03
2-Fluorobiphenyl (Surr)		needi	38 %	44-120 %		01/15/21 20:09	EPA 8270E	S-03

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Philip Merenberg



AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: Landfill WA State
Project Manager: Genevieve Schutzius

Report ID: A1A0458 - 04 19 23 1558

ANALYTICAL SAMPLE RESULTS

	Sem	nivolatile Org	anic Comp	ounds by EPA 8	3270E			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GW01-0121 (A1A0458-04)				Matrix: Wate	er	Batch:	1012876	
Surrogate: Phenol-d6 (Surr)		Reco	very: 15 %	Limits: 10-133 %	1	01/15/21 20:09	EPA 8270E	
p-Terphenyl-d14 (Surr)			62 %	50-134 %	1	01/15/21 20:09	EPA 8270E	
2-Fluorophenol (Surr)			21 %	19-120 %		01/15/21 20:09	EPA 8270E	
2,4,6-Tribromophenol (Surr)			69 %	43-140 %	1	01/15/21 20:09	EPA 8270E	
SW01-0121 (A1A0458-05RE1)				Matrix: Wate	r	Batch:	1012876	
Acenaphthene	ND	0.0104	0.0208	ug/L	1	01/15/21 20:44	EPA 8270E	
Acenaphthylene	ND	0.0104	0.0208	ug/L	1	01/15/21 20:44	EPA 8270E	
Anthracene	ND	0.0104	0.0208	ug/L	1	01/15/21 20:44	EPA 8270E	
Benz(a)anthracene	ND	0.0104	0.0208	ug/L	1	01/15/21 20:44	EPA 8270E	
Benzo(a)pyrene	ND	0.0156	0.0312	ug/L	1	01/15/21 20:44	EPA 8270E	
Benzo(b)fluoranthene	ND	0.0156	0.0312	ug/L	1	01/15/21 20:44	EPA 8270E	
Benzo(k)fluoranthene	ND	0.0156	0.0312	ug/L	1	01/15/21 20:44	EPA 8270E	
Benzo(g,h,i)perylene	ND	0.0104	0.0208	ug/L	1	01/15/21 20:44	EPA 8270E	
Chrysene	ND	0.0104	0.0208	ug/L	1	01/15/21 20:44	EPA 8270E	
Dibenz(a,h)anthracene	ND	0.0104	0.0208	ug/L	1	01/15/21 20:44	EPA 8270E	
Fluoranthene	ND	0.0104	0.0208	ug/L	1	01/15/21 20:44	EPA 8270E	
Fluorene	ND	0.0104	0.0208	ug/L	1	01/15/21 20:44	EPA 8270E	
Indeno(1,2,3-cd)pyrene	ND	0.0104	0.0208	ug/L	1	01/15/21 20:44	EPA 8270E	
1-Methylnaphthalene	ND	0.0208	0.0417	ug/L	1	01/15/21 20:44	EPA 8270E	
2-Methylnaphthalene	ND	0.0208	0.0417	ug/L	1	01/15/21 20:44	EPA 8270E	
Naphthalene	ND	0.0208	0.0417	ug/L	1	01/15/21 20:44	EPA 8270E	
Phenanthrene	ND	0.0104	0.0208	ug/L	1	01/15/21 20:44	EPA 8270E	
Pyrene	ND	0.0104	0.0208	ug/L	1	01/15/21 20:44	EPA 8270E	
Carbazole	ND	0.0156	0.0312	ug/L	1	01/15/21 20:44	EPA 8270E	
Dibenzofuran	ND	0.0104	0.0208	ug/L	1	01/15/21 20:44	EPA 8270E	
2-Chlorophenol	ND	0.0521	0.104	ug/L	1	01/15/21 20:44	EPA 8270E	
1-Chloro-3-methylphenol	ND	0.104	0.208	ug/L	1	01/15/21 20:44	EPA 8270E	
2,4-Dichlorophenol	ND	0.0521	0.104	ug/L	1	01/15/21 20:44	EPA 8270E	
2,4-Dimethylphenol	ND	0.0521	0.104	ug/L	1	01/15/21 20:44	EPA 8270E	
2,4-Dinitrophenol	ND	0.260	0.521	ug/L	1	01/15/21 20:44	EPA 8270E	
4,6-Dinitro-2-methylphenol	ND	0.260	0.521	ug/L	1	01/15/21 20:44	EPA 8270E	
2-Methylphenol	ND	0.0260	0.0521	ug/L	1	01/15/21 20:44	EPA 8270E	
3+4-Methylphenol(s)	ND	0.0260	0.0521	ug/L	1	01/15/21 20:44	EPA 8270E	

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project Number: Eatonville
Project Number: Landfill WA State
Project Manager: Genevieve Schutzius

Report ID: A1A0458 - 04 19 23 1558

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E											
	Sample	Detection	Reporting			Date					
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes			
SW01-0121 (A1A0458-05RE1)				Matrix: Wa	ater	Batch:	1012876				
2-Nitrophenol	ND	0.104	0.208	ug/L	1	01/15/21 20:44	EPA 8270E				
4-Nitrophenol	ND	0.104	0.208	ug/L	1	01/15/21 20:44	EPA 8270E				
Pentachlorophenol (PCP)	ND	0.104	0.208	ug/L	1	01/15/21 20:44	EPA 8270E				
Phenol	ND	0.208	0.417	ug/L	1	01/15/21 20:44	EPA 8270E				
2,3,4,6-Tetrachlorophenol	ND	0.0521	0.104	ug/L	1	01/15/21 20:44	EPA 8270E				
2,3,5,6-Tetrachlorophenol	ND	0.0521	0.104	ug/L	1	01/15/21 20:44	EPA 8270E				
2,4,5-Trichlorophenol	ND	0.0521	0.104	ug/L	1	01/15/21 20:44	EPA 8270E				
2,4,6-Trichlorophenol	ND	0.0521	0.104	ug/L	1	01/15/21 20:44	EPA 8270E				
Bis(2-ethylhexyl)phthalate	ND	0.208	0.417	ug/L	1	01/15/21 20:44	EPA 8270E				
Butyl benzyl phthalate	ND	0.208	0.417	ug/L	1	01/15/21 20:44	EPA 8270E				
Diethylphthalate	ND	0.208	0.417	ug/L	1	01/15/21 20:44	EPA 8270E				
Dimethylphthalate	ND	0.208	0.417	ug/L	1	01/15/21 20:44	EPA 8270E				
Di-n-butylphthalate	ND	0.208	0.417	ug/L	1	01/15/21 20:44	EPA 8270E				
Di-n-octyl phthalate	ND	0.208	0.417	ug/L	1	01/15/21 20:44	EPA 8270E				
N-Nitrosodimethylamine	ND	0.0260	0.0521	ug/L	1	01/15/21 20:44	EPA 8270E				
N-Nitroso-di-n-propylamine	ND	0.0260	0.0521	ug/L	1	01/15/21 20:44	EPA 8270E				
N-Nitrosodiphenylamine	ND	0.0260	0.0521	ug/L	1	01/15/21 20:44	EPA 8270E				
Bis(2-Chloroethoxy) methane	ND	0.0260	0.0521	ug/L	1	01/15/21 20:44	EPA 8270E				
Bis(2-Chloroethyl) ether	ND	0.0260	0.0521	ug/L	1	01/15/21 20:44	EPA 8270E				
2,2'-Oxybis(1-Chloropropane)	ND	0.0260	0.0521	ug/L	1	01/15/21 20:44	EPA 8270E				
Hexachlorobenzene	ND	0.0104	0.0208	ug/L	1	01/15/21 20:44	EPA 8270E				
Hexachlorobutadiene	ND	0.0260	0.0521	ug/L	1	01/15/21 20:44	EPA 8270E				
Hexachlorocyclopentadiene	ND	0.0521	0.104	ug/L	1	01/15/21 20:44	EPA 8270E				
Hexachloroethane	ND	0.0260	0.0521	ug/L	1	01/15/21 20:44	EPA 8270E				
2-Chloronaphthalene	ND	0.0104	0.0208	ug/L	1	01/15/21 20:44	EPA 8270E				
1,2,4-Trichlorobenzene	ND	0.0260	0.0521	ug/L	1	01/15/21 20:44	EPA 8270E				
4-Bromophenyl phenyl ether	ND	0.0260	0.0521	ug/L	1	01/15/21 20:44	EPA 8270E				
4-Chlorophenyl phenyl ether	ND	0.0260	0.0521	ug/L	1	01/15/21 20:44	EPA 8270E				
Aniline	ND	0.0521	0.104	ug/L	1	01/15/21 20:44	EPA 8270E				
4-Chloroaniline	ND	0.0260	0.0521	ug/L	1	01/15/21 20:44	EPA 8270E				
2-Nitroaniline	ND	0.208	0.417	ug/L	1	01/15/21 20:44	EPA 8270E				
3-Nitroaniline	ND	0.208	0.417	ug/L	1	01/15/21 20:44	EPA 8270E				
4-Nitroaniline	ND	0.208	0.417	ug/L ug/L	1	01/15/21 20:44	EPA 8270E				

Apex Laboratories

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Philip Memberg



AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: Landfill WA State
Project Manager: Genevieve Schutzius

Report ID: A1A0458 - 04 19 23 1558

ANALYTICAL SAMPLE RESULTS

	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
SW01-0121 (A1A0458-05RE1)				Matrix: Wate	er	Batch:	1012876	
Nitrobenzene	ND	0.104	0.208	ug/L	1	01/15/21 20:44	EPA 8270E	
2,4-Dinitrotoluene	ND	0.104	0.208	ug/L	1	01/15/21 20:44	EPA 8270E	
2,6-Dinitrotoluene	ND	0.104	0.208	ug/L	1	01/15/21 20:44	EPA 8270E	
Benzoic acid	ND	1.30	2.60	ug/L	1	01/15/21 20:44	EPA 8270E	
Benzyl alcohol	ND	0.104	0.208	ug/L	1	01/15/21 20:44	EPA 8270E	
Isophorone	ND	0.0260	0.0521	ug/L	1	01/15/21 20:44	EPA 8270E	
Azobenzene (1,2-DPH)	ND	0.0260	0.0521	ug/L	1	01/15/21 20:44	EPA 8270E	
Bis(2-Ethylhexyl) adipate	ND	0.260	0.521	ug/L	1	01/15/21 20:44	EPA 8270E	
3,3'-Dichlorobenzidine	ND	0.521	1.04	ug/L	1	01/15/21 20:44	EPA 8270E	Q-52
1,2-Dinitrobenzene	ND	0.260	0.521	ug/L	1	01/15/21 20:44	EPA 8270E	
1,3-Dinitrobenzene	ND	0.260	0.521	ug/L	1	01/15/21 20:44	EPA 8270E	
1,4-Dinitrobenzene	ND	0.260	0.521	ug/L	1	01/15/21 20:44	EPA 8270E	
Pyridine	ND	0.104	0.208	ug/L	1	01/15/21 20:44	EPA 8270E	
1,2-Dichlorobenzene	ND	0.0260	0.0521	ug/L	1	01/15/21 20:44	EPA 8270E	
1,3-Dichlorobenzene	ND	0.0260	0.0521	ug/L	1	01/15/21 20:44	EPA 8270E	
1,4-Dichlorobenzene	ND	0.0260	0.0521	ug/L	1	01/15/21 20:44	EPA 8270E	
Surrogate: Nitrobenzene-d5 (Surr)		Recove	ery: 69 %	Limits: 44-120 %	1	01/15/21 20:44	EPA 8270E	
2-Fluorobiphenyl (Surr)			60 %	44-120 %	1	01/15/21 20:44	EPA 8270E	
Phenol-d6 (Surr)			25 %	10-133 %		01/15/21 20:44	EPA 8270E	
p-Terphenyl-d14 (Surr)			80 %	50-134 %		01/15/21 20:44	EPA 8270E	
2-Fluorophenol (Surr)			36 % 83 %	19-120 % 43-140 %		01/15/21 20:44 01/15/21 20:44	EPA 8270E EPA 8270E	
2,4,6-Tribromophenol (Surr)			03 70	43-140 %	1	01/13/21 20:44	EFA 62/UE	
SW02-0121 (A1A0458-06RE1)				Matrix: Wate	er	Batch:	1012876	
Acenaphthene	ND	0.0100	0.0200	ug/L	1	01/15/21 21:18	EPA 8270E	
Acenaphthylene	ND	0.0100	0.0200	ug/L	1	01/15/21 21:18	EPA 8270E	
Anthracene	ND	0.0100	0.0200	ug/L	1	01/15/21 21:18	EPA 8270E	
Benz(a)anthracene	ND	0.0100	0.0200	ug/L	1	01/15/21 21:18	EPA 8270E	
Benzo(a)pyrene	ND	0.0150	0.0300	ug/L	1	01/15/21 21:18	EPA 8270E	
Benzo(b)fluoranthene	ND	0.0150	0.0300	ug/L	1	01/15/21 21:18	EPA 8270E	
Benzo(k)fluoranthene	ND	0.0150	0.0300	ug/L	1	01/15/21 21:18	EPA 8270E	
Benzo(g,h,i)perylene	ND	0.0100	0.0200	ug/L	1	01/15/21 21:18	EPA 8270E	
Chrysene	ND	0.0100	0.0200	ug/L	1	01/15/21 21:18	EPA 8270E	
Dibenz(a,h)anthracene	ND	0.0100	0.0200	ug/L	1	01/15/21 21:18	EPA 8270E	

Apex Laboratories

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Philip Nevenberg

Page 32 of 104



AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: Landfill WA State
Project Manager: Genevieve Schutzius

Report ID: A1A0458 - 04 19 23 1558

ANALYTICAL SAMPLE RESULTS

			anic Compou	unus by EP/	- 02/0E			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
•	- Acount		- Dillit					
SW02-0121 (A1A0458-06RE1)				Matrix: Wa	ater	Batch:	1012876	
Fluoranthene	ND	0.0100	0.0200	ug/L	1	01/15/21 21:18	EPA 8270E	
Fluorene	ND	0.0100	0.0200	ug/L	1	01/15/21 21:18	EPA 8270E	
Indeno(1,2,3-cd)pyrene	ND	0.0100	0.0200	ug/L	1	01/15/21 21:18	EPA 8270E	
1-Methylnaphthalene	ND	0.0200	0.0400	ug/L	1	01/15/21 21:18	EPA 8270E	
2-Methylnaphthalene	ND	0.0200	0.0400	ug/L	1	01/15/21 21:18	EPA 8270E	
Naphthalene	ND	0.0200	0.0400	ug/L	1	01/15/21 21:18	EPA 8270E	
Phenanthrene	ND	0.0100	0.0200	ug/L	1	01/15/21 21:18	EPA 8270E	
Pyrene	ND	0.0100	0.0200	ug/L	1	01/15/21 21:18	EPA 8270E	
Carbazole	ND	0.0150	0.0300	ug/L	1	01/15/21 21:18	EPA 8270E	
Dibenzofuran	ND	0.0100	0.0200	ug/L	1	01/15/21 21:18	EPA 8270E	
2-Chlorophenol	ND	0.0500	0.100	ug/L	1	01/15/21 21:18	EPA 8270E	
4-Chloro-3-methylphenol	ND	0.100	0.200	ug/L	1	01/15/21 21:18	EPA 8270E	
2,4-Dichlorophenol	ND	0.0500	0.100	ug/L	1	01/15/21 21:18	EPA 8270E	
2,4-Dimethylphenol	ND	0.0500	0.100	ug/L	1	01/15/21 21:18	EPA 8270E	
2,4-Dinitrophenol	ND	0.250	0.500	ug/L	1	01/15/21 21:18	EPA 8270E	
4,6-Dinitro-2-methylphenol	ND	0.250	0.500	ug/L	1	01/15/21 21:18	EPA 8270E	
2-Methylphenol	ND	0.0250	0.0500	ug/L	1	01/15/21 21:18	EPA 8270E	
3+4-Methylphenol(s)	ND	0.0250	0.0500	ug/L	1	01/15/21 21:18	EPA 8270E	
2-Nitrophenol	ND	0.100	0.200	ug/L	1	01/15/21 21:18	EPA 8270E	
4-Nitrophenol	ND	0.100	0.200	ug/L	1	01/15/21 21:18	EPA 8270E	
Pentachlorophenol (PCP)	ND	0.100	0.200	ug/L	1	01/15/21 21:18	EPA 8270E	
Phenol	ND	0.200	0.400	ug/L	1	01/15/21 21:18	EPA 8270E	
2,3,4,6-Tetrachlorophenol	ND	0.0500	0.100	ug/L	1	01/15/21 21:18	EPA 8270E	
2,3,5,6-Tetrachlorophenol	ND	0.0500	0.100	ug/L	1	01/15/21 21:18	EPA 8270E	
2,4,5-Trichlorophenol	ND	0.0500	0.100	ug/L	1	01/15/21 21:18	EPA 8270E	
2,4,6-Trichlorophenol	ND	0.0500	0.100	ug/L	1	01/15/21 21:18	EPA 8270E	
Bis(2-ethylhexyl)phthalate	ND	0.200	0.400	ug/L	1	01/15/21 21:18	EPA 8270E	
Butyl benzyl phthalate	ND	0.200	0.400	ug/L	1	01/15/21 21:18	EPA 8270E	
Diethylphthalate	ND	0.200	0.400	ug/L	1	01/15/21 21:18	EPA 8270E	
Dimethylphthalate	ND	0.200	0.400	ug/L	1	01/15/21 21:18	EPA 8270E	
Di-n-butylphthalate	ND	0.200	0.400	ug/L	1	01/15/21 21:18	EPA 8270E	
Di-n-octyl phthalate	ND	0.200	0.400	ug/L	1	01/15/21 21:18	EPA 8270E	
N-Nitrosodimethylamine	ND	0.0250	0.0500	ug/L	1	01/15/21 21:18	EPA 8270E	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project Number: **Eatonville**Project Number: **Landfill WA State**Project Manager: **Genevieve Schutzius**

Report ID: A1A0458 - 04 19 23 1558

ANALYTICAL SAMPLE RESULTS

	Sen	iivoiatile Org	anic Compou	anus by EP/	- 02/UE			
Analyta	Sample Result	Detection Limit	Reporting Limit	T Tan 14-	D:1	Date Analyzed	Matha 1 D. C	X 1 - 4
Analyte	Result	Lillit		Units	Dilution		Method Ref.	Notes
SW02-0121 (A1A0458-06RE1)				Matrix: Wa	ater Batch		1012876	
N-Nitroso-di-n-propylamine	ND	0.0250	0.0500	ug/L	1	01/15/21 21:18	EPA 8270E	
N-Nitrosodiphenylamine	ND	0.0250	0.0500	ug/L	1	01/15/21 21:18	EPA 8270E	
Bis(2-Chloroethoxy) methane	ND	0.0250	0.0500	ug/L	1	01/15/21 21:18	EPA 8270E	
Bis(2-Chloroethyl) ether	ND	0.0250	0.0500	ug/L	1	01/15/21 21:18	EPA 8270E	
2,2'-Oxybis(1-Chloropropane)	ND	0.0250	0.0500	ug/L	1	01/15/21 21:18	EPA 8270E	
Hexachlorobenzene	ND	0.0100	0.0200	ug/L	1	01/15/21 21:18	EPA 8270E	
Hexachlorobutadiene	ND	0.0250	0.0500	ug/L	1	01/15/21 21:18	EPA 8270E	
Hexachlorocyclopentadiene	ND	0.0500	0.100	ug/L	1	01/15/21 21:18	EPA 8270E	
Hexachloroethane	ND	0.0250	0.0500	ug/L	1	01/15/21 21:18	EPA 8270E	
2-Chloronaphthalene	ND	0.0100	0.0200	ug/L	1	01/15/21 21:18	EPA 8270E	
1,2,4-Trichlorobenzene	ND	0.0250	0.0500	ug/L	1	01/15/21 21:18	EPA 8270E	
4-Bromophenyl phenyl ether	ND	0.0250	0.0500	ug/L	1	01/15/21 21:18	EPA 8270E	
4-Chlorophenyl phenyl ether	ND	0.0250	0.0500	ug/L	1	01/15/21 21:18	EPA 8270E	
Aniline	ND	0.0500	0.100	ug/L	1	01/15/21 21:18	EPA 8270E	
4-Chloroaniline	ND	0.0250	0.0500	ug/L	1	01/15/21 21:18	EPA 8270E	
2-Nitroaniline	ND	0.200	0.400	ug/L	1	01/15/21 21:18	EPA 8270E	
3-Nitroaniline	ND	0.200	0.400	ug/L	1	01/15/21 21:18	EPA 8270E	
4-Nitroaniline	ND	0.200	0.400	ug/L	1	01/15/21 21:18	EPA 8270E	
Nitrobenzene	ND	0.100	0.200	ug/L	1	01/15/21 21:18	EPA 8270E	
2,4-Dinitrotoluene	ND	0.100	0.200	ug/L	1	01/15/21 21:18	EPA 8270E	
2,6-Dinitrotoluene	ND	0.100	0.200	ug/L	1	01/15/21 21:18	EPA 8270E	
Benzoic acid	ND	1.25	2.50	ug/L	1	01/15/21 21:18	EPA 8270E	
Benzyl alcohol	ND	0.100	0.200	ug/L	1	01/15/21 21:18	EPA 8270E	
Isophorone	ND	0.0250	0.0500	ug/L	1	01/15/21 21:18	EPA 8270E	
Azobenzene (1,2-DPH)	ND	0.0250	0.0500	ug/L	1	01/15/21 21:18	EPA 8270E	
Bis(2-Ethylhexyl) adipate	ND	0.250	0.500	ug/L	1	01/15/21 21:18	EPA 8270E	
3,3'-Dichlorobenzidine	ND	0.500	1.00	ug/L	1	01/15/21 21:18	EPA 8270E	Q-52
,2-Dinitrobenzene	ND	0.250	0.500	ug/L	1	01/15/21 21:18	EPA 8270E	
,3-Dinitrobenzene	ND	0.250	0.500	ug/L	1	01/15/21 21:18	EPA 8270E	
,4-Dinitrobenzene	ND	0.250	0.500	ug/L	1	01/15/21 21:18	EPA 8270E	
Pyridine	ND	0.100	0.200	ug/L	1	01/15/21 21:18	EPA 8270E	
,2-Dichlorobenzene	ND	0.0250	0.0500	ug/L	1	01/15/21 21:18	EPA 8270E	
,3-Dichlorobenzene	ND	0.0250	0.0500	ug/L	1	01/15/21 21:18	EPA 8270E	

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: Landfill WA State
Project Manager: Genevieve Schutzius

Report ID: A1A0458 - 04 19 23 1558

ANALYTICAL SAMPLE RESULTS

	Sen	nivolatile Organ	nic Comp	ounds by EPA 8	3270E			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW02-0121 (A1A0458-06RE1)	1000010			Matrix: Wate		<u> </u>	1012876	110105
1,4-Dichlorobenzene	ND	0.0250	0.0500		1	01/15/21 21:18	EPA 8270E	
	ND			ug/L				
Surrogate: Nitrobenzene-d5 (Surr)		Recover	y: 78 %	Limits: 44-120 %		01/15/21 21:18	EPA 8270E	
2-Fluorobiphenyl (Surr) Phenol-d6 (Surr)			67 % 27 %	44-120 % 10-133 %		01/15/21 21:18 01/15/21 21:18	EPA 8270E EPA 8270E	
p-Terphenyl-d14 (Surr)			82 %	50-134 %		01/15/21 21:18	EPA 8270E EPA 8270E	
2-Fluorophenol (Surr)			38 %	19-120 %		01/15/21 21:18	EPA 8270E	
2,4,6-Tribromophenol (Surr)			84 %	43-140 %	1	01/15/21 21:18	EPA 8270E	
SW03-0121 (A1A0458-07RE1)				Matrix: Wate	er	Batch:	1013031	
Acenaphthene	ND	0.00962	0.0192	ug/L	1	01/20/21 20:25	EPA 8270E	
Acenaphthylene	ND	0.00962	0.0192	ug/L	1	01/20/21 20:25	EPA 8270E	
Anthracene	ND	0.00962	0.0192	ug/L	1	01/20/21 20:25	EPA 8270E	
Benz(a)anthracene	ND	0.00962	0.0192	ug/L	1	01/20/21 20:25	EPA 8270E	
Benzo(a)pyrene	ND	0.0144	0.0288	ug/L	1	01/20/21 20:25	EPA 8270E	
Benzo(b)fluoranthene	ND	0.0144	0.0288	ug/L	1	01/20/21 20:25	EPA 8270E	
Benzo(k)fluoranthene	ND	0.0144	0.0288	ug/L	1	01/20/21 20:25	EPA 8270E	
Benzo(g,h,i)perylene	ND	0.00962	0.0192	ug/L	1	01/20/21 20:25	EPA 8270E	
Chrysene	ND	0.00962	0.0192	ug/L	1	01/20/21 20:25	EPA 8270E	
Dibenz(a,h)anthracene	ND	0.00962	0.0192	ug/L	1	01/20/21 20:25	EPA 8270E	
Fluoranthene	ND	0.00962	0.0192	ug/L	1	01/20/21 20:25	EPA 8270E	
Fluorene	ND	0.00962	0.0192	ug/L	1	01/20/21 20:25	EPA 8270E	
Indeno(1,2,3-cd)pyrene	ND	0.00962	0.0192	ug/L	1	01/20/21 20:25	EPA 8270E	
1-Methylnaphthalene	ND	0.0192	0.0385	ug/L	1	01/20/21 20:25	EPA 8270E	
2-Methylnaphthalene	ND	0.0192	0.0385	ug/L	1	01/20/21 20:25	EPA 8270E	
Naphthalene	ND	0.0192	0.0385	ug/L	1	01/20/21 20:25	EPA 8270E	
Phenanthrene	ND	0.00962	0.0192	ug/L	1	01/20/21 20:25	EPA 8270E	
Pyrene	ND	0.00962	0.0192	ug/L	1	01/20/21 20:25	EPA 8270E	
Carbazole	ND	0.0144	0.0288	ug/L	1	01/20/21 20:25	EPA 8270E	
Dibenzofuran	ND	0.00962	0.0192	ug/L	1	01/20/21 20:25	EPA 8270E	
2-Chlorophenol	ND	0.0481	0.0962	ug/L	1	01/20/21 20:25	EPA 8270E	
4-Chloro-3-methylphenol	ND	0.0962	0.192	ug/L	1	01/20/21 20:25	EPA 8270E	
2,4-Dichlorophenol	ND	0.0481	0.0962	ug/L	1	01/20/21 20:25	EPA 8270E	
2,4-Dimethylphenol	ND	0.0481	0.0962	ug/L	1	01/20/21 20:25	EPA 8270E	
2,4-Dinitrophenol	ND	0.240	0.481	ug/L	1	01/20/21 20:25	EPA 8270E	
2, 1- Dilluopiiciioi	ND	0.240	0.401	ug/L	1	J1/20/21 20.23	L111 02/0L	

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Philip Meinberg



AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions Project:

55 SW Yamhill St, Ste 300 Project Number: Landfill WA State
Portland, OR 97209 Project Manager: Genevieve Schutzius

Report ID: A1A0458 - 04 19 23 1558

ANALYTICAL SAMPLE RESULTS

Eatonville

	Sem	nvolatile Org	anic Compoi	inds by EPA	4 8270E			
	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
SW03-0121 (A1A0458-07RE1)				Matrix: W	ater	Batch:	1013031	
4,6-Dinitro-2-methylphenol	ND	0.240	0.481	ug/L	1	01/20/21 20:25	EPA 8270E	
2-Methylphenol	ND	0.0240	0.0481	ug/L	1	01/20/21 20:25	EPA 8270E	
3+4-Methylphenol(s)	ND	0.0240	0.0481	ug/L	1	01/20/21 20:25	EPA 8270E	
2-Nitrophenol	ND	0.0962	0.192	ug/L	1	01/20/21 20:25	EPA 8270E	
4-Nitrophenol	ND	0.0962	0.192	ug/L	1	01/20/21 20:25	EPA 8270E	
Pentachlorophenol (PCP)	ND	0.0962	0.192	ug/L	1	01/20/21 20:25	EPA 8270E	
Phenol	ND	0.192	0.385	ug/L	1	01/20/21 20:25	EPA 8270E	
2,3,4,6-Tetrachlorophenol	ND	0.0481	0.0962	ug/L	1	01/20/21 20:25	EPA 8270E	
2,3,5,6-Tetrachlorophenol	ND	0.0481	0.0962	ug/L	1	01/20/21 20:25	EPA 8270E	
2,4,5-Trichlorophenol	ND	0.0481	0.0962	ug/L	1	01/20/21 20:25	EPA 8270E	
2,4,6-Trichlorophenol	ND	0.0481	0.0962	ug/L	1	01/20/21 20:25	EPA 8270E	
Bis(2-ethylhexyl)phthalate	ND	0.192	0.385	ug/L	1	01/20/21 20:25	EPA 8270E	
Butyl benzyl phthalate	ND	0.192	0.385	ug/L	1	01/20/21 20:25	EPA 8270E	
Diethylphthalate	ND	0.192	0.385	ug/L	1	01/20/21 20:25	EPA 8270E	
Dimethylphthalate	ND	0.192	0.385	ug/L	1	01/20/21 20:25	EPA 8270E	
Di-n-butylphthalate	ND	0.192	0.385	ug/L	1	01/20/21 20:25	EPA 8270E	
Di-n-octyl phthalate	ND	0.192	0.385	ug/L	1	01/20/21 20:25	EPA 8270E	
N-Nitrosodimethylamine	ND	0.0240	0.0481	ug/L	1	01/20/21 20:25	EPA 8270E	
N-Nitroso-di-n-propylamine	ND	0.0240	0.0481	ug/L	1	01/20/21 20:25	EPA 8270E	
N-Nitrosodiphenylamine	ND	0.0240	0.0481	ug/L	1	01/20/21 20:25	EPA 8270E	
Bis(2-Chloroethoxy) methane	ND	0.0240	0.0481	ug/L	1	01/20/21 20:25	EPA 8270E	
Bis(2-Chloroethyl) ether	ND	0.0240	0.0481	ug/L	1	01/20/21 20:25	EPA 8270E	
2,2'-Oxybis(1-Chloropropane)	ND	0.0240	0.0481	ug/L	1	01/20/21 20:25	EPA 8270E	
Hexachlorobenzene	ND	0.00962	0.0192	ug/L	1	01/20/21 20:25	EPA 8270E	
Hexachlorobutadiene	ND	0.0240	0.0481	ug/L	1	01/20/21 20:25	EPA 8270E	
Hexachlorocyclopentadiene	ND	0.0481	0.0962	ug/L	1	01/20/21 20:25	EPA 8270E	
Hexachloroethane	ND	0.0240	0.0481	ug/L	1	01/20/21 20:25	EPA 8270E	
2-Chloronaphthalene	ND	0.00962	0.0192	ug/L	1	01/20/21 20:25	EPA 8270E	
1,2,4-Trichlorobenzene	ND	0.0240	0.0481	ug/L	1	01/20/21 20:25	EPA 8270E	
4-Bromophenyl phenyl ether	ND	0.0240	0.0481	ug/L	1	01/20/21 20:25	EPA 8270E	
4-Chlorophenyl phenyl ether	ND	0.0240	0.0481	ug/L	1	01/20/21 20:25	EPA 8270E	
Aniline	ND	0.0481	0.0962	ug/L	1	01/20/21 20:25	EPA 8270E	
4-Chloroaniline	ND	0.0240	0.0481	ug/L	1	01/20/21 20:25	EPA 8270E	

Apex Laboratories



AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project Number: **Eatonville**Project Number: **Landfill WA State**Project Manager: **Genevieve Schutzius**

Report ID: A1A0458 - 04 19 23 1558

ANALYTICAL SAMPLE RESULTS

	Sen	nivolatile Organ	ic Compo	ounds by EPA 8	3270E			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW03-0121 (A1A0458-07RE1)			Matrix: Water Batch: 101303					
2-Nitroaniline	ND	0.192	0.385	ug/L	1	01/20/21 20:25	EPA 8270E	
3-Nitroaniline	ND	0.192	0.385	ug/L	1	01/20/21 20:25	EPA 8270E	
4-Nitroaniline	ND	0.192	0.385	ug/L	1	01/20/21 20:25	EPA 8270E	
Nitrobenzene	ND	0.0962	0.192	ug/L	1	01/20/21 20:25	EPA 8270E	
2,4-Dinitrotoluene	ND	0.0962	0.192	ug/L	1	01/20/21 20:25	EPA 8270E	
2,6-Dinitrotoluene	ND	0.0962	0.192	ug/L	1	01/20/21 20:25	EPA 8270E	
Benzoic acid	ND	1.20	2.40	ug/L	1	01/20/21 20:25	EPA 8270E	
Benzyl alcohol	ND	0.0962	0.192	ug/L	1	01/20/21 20:25	EPA 8270E	
Isophorone	ND	0.0240	0.0481	ug/L	1	01/20/21 20:25	EPA 8270E	
Azobenzene (1,2-DPH)	ND	0.0240	0.0481	ug/L	1	01/20/21 20:25	EPA 8270E	
Bis(2-Ethylhexyl) adipate	ND	0.240	0.481	ug/L	1	01/20/21 20:25	EPA 8270E	
3,3'-Dichlorobenzidine	ND	0.481	0.962	ug/L	1	01/20/21 20:25	EPA 8270E	Q-52
1,2-Dinitrobenzene	ND	0.240	0.481	ug/L	1	01/20/21 20:25	EPA 8270E	
1,3-Dinitrobenzene	ND	0.240	0.481	ug/L	1	01/20/21 20:25	EPA 8270E	
1,4-Dinitrobenzene	ND	0.240	0.481	ug/L	1	01/20/21 20:25	EPA 8270E	
Pyridine	ND	0.0962	0.192	ug/L	1	01/20/21 20:25	EPA 8270E	
1,2-Dichlorobenzene	ND	0.0240	0.0481	ug/L	1	01/20/21 20:25	EPA 8270E	
1,3-Dichlorobenzene	ND	0.0240	0.0481	ug/L	1	01/20/21 20:25	EPA 8270E	
1,4-Dichlorobenzene	ND	0.0240	0.0481	ug/L	1	01/20/21 20:25	EPA 8270E	
Surrogate: Nitrobenzene-d5 (Surr)		Recovery	v: 73 %	Limits: 44-120 %	6 <i>1</i>	01/20/21 20:25	EPA 8270E	
2-Fluorobiphenyl (Surr)			73 %	44-120 %	6 I	01/20/21 20:25	EPA 8270E	
Phenol-d6 (Surr)			24 %	10-133 %	6 I	01/20/21 20:25	EPA 8270E	
p-Terphenyl-d14 (Surr)			88 %	50-134 %	6 1	01/20/21 20:25	EPA 8270E	
2-Fluorophenol (Surr)			40 %	19-120 %	6 I	01/20/21 20:25	EPA 8270E	
2,4,6-Tribromophenol (Surr)			87 %	43-140 %	<i>i</i> 1	01/20/21 20:25	EPA 8270E	

Apex Laboratories

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Philip Merenberg



AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: Landfill WA State
Project Manager: Genevieve Schutzius

Report ID: A1A0458 - 04 19 23 1558

ANALYTICAL SAMPLE RESULTS

		Total Meta	als by EPA 60	20B (ICPMS	S)			
	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
SE01-0121 (A1A0458-01)				Matrix: W	ater			
Batch: 1013175								
Antimony	ND	0.500	1.00	ug/L	1	01/22/21 18:29	EPA 6020B	
Arsenic	ND	0.500	1.00	ug/L	1	01/22/21 18:29	EPA 6020B	
Barium	6.61	0.500	1.00	ug/L	1	01/22/21 18:29	EPA 6020B	
Beryllium	ND	0.100	0.200	ug/L	1	01/22/21 18:29	EPA 6020B	
Cadmium	0.128	0.100	0.200	ug/L	1	01/22/21 18:29	EPA 6020B	Ja
Calcium	11900	300	600	ug/L	1	01/22/21 18:29	EPA 6020B	
Chromium	ND	0.500	1.00	ug/L	1	01/22/21 18:29	EPA 6020B	
Cobalt	ND	0.500	1.00	ug/L	1	01/22/21 18:29	EPA 6020B	
Copper	3.79	1.00	2.00	ug/L	1	01/22/21 18:29	EPA 6020B	
Lead	1.55	0.100	0.200	ug/L	1	01/22/21 18:29	EPA 6020B	
Magnesium	3010	50.0	100	ug/L	1	01/22/21 18:29	EPA 6020B	
Nickel	ND	1.00	2.00	ug/L	1	01/22/21 18:29	EPA 6020B	
Selenium	ND	0.500	1.00	ug/L	1	01/22/21 18:29	EPA 6020B	
Silver	ND	0.100	0.200	ug/L	1	01/22/21 18:29	EPA 6020B	
Thallium	ND	0.100	0.200	ug/L	1	01/22/21 18:29	EPA 6020B	
Vanadium	ND	1.00	2.00	ug/L	1	01/22/21 18:29	EPA 6020B	
Zinc	50.4	2.00	4.00	ug/L	1	01/22/21 18:29	EPA 6020B	
SE101-0121 (A1A0458-02)				Matrix: W	ater			
Batch: 1013175								
Antimony	ND	0.500	1.00	ug/L	1	01/22/21 18:34	EPA 6020B	
Arsenic	ND	0.500	1.00	ug/L	1	01/22/21 18:34	EPA 6020B	
Barium	6.77	0.500	1.00	ug/L	1	01/22/21 18:34	EPA 6020B	
Beryllium	ND	0.100	0.200	ug/L	1	01/22/21 18:34	EPA 6020B	
Cadmium	0.128	0.100	0.200	ug/L	1	01/22/21 18:34	EPA 6020B	Ja
Calcium	11600	300	600	ug/L	1	01/22/21 18:34	EPA 6020B	
Chromium	ND	0.500	1.00	ug/L	1	01/22/21 18:34	EPA 6020B	
Cobalt	ND	0.500	1.00	ug/L	1	01/22/21 18:34	EPA 6020B	
Copper	5.24	1.00	2.00	ug/L	1	01/22/21 18:34	EPA 6020B	
Lead	3.27	0.100	0.200	ug/L	1	01/22/21 18:34	EPA 6020B	
Magnesium	2900	50.0	100	ug/L	1	01/22/21 18:34	EPA 6020B	
Nickel	ND	1.00	2.00	ug/L	1	01/22/21 18:34	EPA 6020B	
Selenium	ND	0.500	1.00	ug/L	1	01/22/21 18:34	EPA 6020B	

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: Landfill WA State
Project Manager: Genevieve Schutzius

Report ID: A1A0458 - 04 19 23 1558

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)										
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes		
SE101-0121 (A1A0458-02)				Matrix: W	ater					
Silver	ND	0.100	0.200	ug/L	1	01/22/21 18:34	EPA 6020B			
Thallium	ND	0.100	0.200	ug/L	1	01/22/21 18:34	EPA 6020B			
Vanadium	ND	1.00	2.00	ug/L	1	01/22/21 18:34	EPA 6020B			
Zinc	59.6	2.00	4.00	ug/L	1	01/22/21 18:34	EPA 6020B			
SE02-0121 (A1A0458-03)				Matrix: W	ater					
Batch: 1013175										
Antimony	0.575	0.500	1.00	ug/L	1	01/22/21 18:39	EPA 6020B	Ja		
Arsenic	1.66	0.500	1.00	ug/L	1	01/22/21 18:39	EPA 6020B			
Barium	382	0.500	1.00	ug/L	1	01/22/21 18:39	EPA 6020B			
Beryllium	ND	0.100	0.200	ug/L	1	01/22/21 18:39	EPA 6020B			
Cadmium	0.159	0.100	0.200	ug/L	1	01/22/21 18:39	EPA 6020B	Ja		
Chromium	ND	0.500	1.00	ug/L	1	01/22/21 18:39	EPA 6020B			
Cobalt	0.624	0.500	1.00	ug/L	1	01/22/21 18:39	EPA 6020B	Ja		
Copper	10.5	1.00	2.00	ug/L	1	01/22/21 18:39	EPA 6020B			
Lead	7.32	0.100	0.200	ug/L	1	01/22/21 18:39	EPA 6020B			
Magnesium	24500	50.0	100	ug/L	1	01/22/21 18:39	EPA 6020B			
Nickel	1.61	1.00	2.00	ug/L	1	01/22/21 18:39	EPA 6020B	Ja		
Selenium	ND	0.500	1.00	ug/L	1	01/22/21 18:39	EPA 6020B			
Silver	ND	0.100	0.200	ug/L	1	01/22/21 18:39	EPA 6020B			
Thallium	ND	0.100	0.200	ug/L	1	01/22/21 18:39	EPA 6020B			
Vanadium	5.95	1.00	2.00	ug/L	1	01/22/21 18:39	EPA 6020B			
Zinc	205	2.00	4.00	ug/L	1	01/22/21 18:39	EPA 6020B			
SE02-0121 (A1A0458-03RE1)				Matrix: W	ater					
Batch: 1013175										
Calcium	112000	3000	6000	ug/L	10	02/03/21 16:15	EPA 6020B			
GW01-0121 (A1A0458-04)				Matrix: W	ater					
Batch: 1013175										
Antimony	1.49	0.500	1.00	ug/L	1	01/22/21 18:45	EPA 6020B			
Arsenic	ND	0.500	1.00	ug/L	1	01/22/21 18:45	EPA 6020B			
Barium	55.1	0.500	1.00	ug/L	1	01/22/21 18:45	EPA 6020B			
Beryllium	ND	0.100	0.200	ug/L	1	01/22/21 18:45	EPA 6020B			

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: Landfill WA State
Project Manager: Genevieve Schutzius

Report ID: A1A0458 - 04 19 23 1558

ANALYTICAL SAMPLE RESULTS

		Total Meta	ls by EPA 60	20B (ICPMS	5)			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Note
GW01-0121 (A1A0458-04)				Matrix: W	ater			
Cadmium	0.285	0.100	0.200	ug/L	1	01/22/21 18:45	EPA 6020B	
Chromium	ND	0.500	1.00	ug/L	1	01/22/21 18:45	EPA 6020B	
Cobalt	ND	0.500	1.00	ug/L	1	01/22/21 18:45	EPA 6020B	
Copper	2.07	1.00	2.00	ug/L	1	01/22/21 18:45	EPA 6020B	
Lead	0.564	0.100	0.200	ug/L	1	01/22/21 18:45	EPA 6020B	
Magnesium	21000	50.0	100	ug/L	1	01/22/21 18:45	EPA 6020B	
Nickel	2.39	1.00	2.00	ug/L	1	01/22/21 18:45	EPA 6020B	
Selenium	ND	0.500	1.00	ug/L	1	01/22/21 18:45	EPA 6020B	
Silver	ND	0.100	0.200	ug/L	1	01/22/21 18:45	EPA 6020B	
Thallium	ND	0.100	0.200	ug/L	1	01/22/21 18:45	EPA 6020B	
Vanadium	2.35	1.00	2.00	ug/L	1	01/22/21 18:45	EPA 6020B	
Zinc	580	2.00	4.00	ug/L	1	01/22/21 18:45	EPA 6020B	
GW01-0121 (A1A0458-04RE2)				Matrix: W	ater			
Batch: 1013175								
Calcium	148000	3000	6000	ug/L	10	02/03/21 16:20	EPA 6020B	Q-42
SW01-0121 (A1A0458-05)				Matrix: W	ater			
Batch: 1013175								
Antimony	ND	0.500	1.00	ug/L	1	01/22/21 19:00	EPA 6020B	
Arsenic	ND	0.500	1.00	ug/L	1	01/22/21 19:00	EPA 6020B	
Barium	7.32	0.500	1.00	ug/L	1	01/22/21 19:00	EPA 6020B	
Beryllium	ND	0.100	0.200	ug/L	1	01/22/21 19:00	EPA 6020B	
Cadmium	ND	0.100	0.200	ug/L	1	01/22/21 19:00	EPA 6020B	
Calcium	9490	300	600	ug/L	1	01/22/21 19:00	EPA 6020B	
Chromium	ND	0.500	1.00	ug/L	1	01/22/21 19:00	EPA 6020B	
Cobalt	ND	0.500	1.00	ug/L	1	01/22/21 19:00	EPA 6020B	
Copper	2.19	1.00	2.00	ug/L	1	01/22/21 19:00	EPA 6020B	
Lead	1.08	0.100	0.200	ug/L	1	01/22/21 19:00	EPA 6020B	
Magnesium	2850	50.0	100	ug/L	1	01/22/21 19:00	EPA 6020B	
Nickel	ND	1.00	2.00	ug/L	1	01/22/21 19:00	EPA 6020B	
Selenium	ND	0.500	1.00	ug/L	1	01/22/21 19:00	EPA 6020B	
Silver	ND	0.100	0.200	ug/L	1	01/22/21 19:00	EPA 6020B	
Thallium	ND	0.100	0.200	ug/L	1	01/22/21 19:00	EPA 6020B	

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project Number: **Eatonville**Project Number: **Landfill WA State**Project Manager: **Genevieve Schutzius**

Report ID: A1A0458 - 04 19 23 1558

ANALYTICAL SAMPLE RESULTS

		Total Meta	ls by EPA 602	20B (ICPMS	5)			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Note
SW01-0121 (A1A0458-05)				Matrix: W	ater			
Vanadium	2.21	1.00	2.00	ug/L	1	01/22/21 19:00	EPA 6020B	
Zinc	42.0	2.00	4.00	ug/L	1	01/22/21 19:00	EPA 6020B	
SW02-0121 (A1A0458-06)				Matrix: W	ater			
Batch: 1013175								
Antimony	ND	0.500	1.00	ug/L	1	01/22/21 19:06	EPA 6020B	
Arsenic	ND	0.500	1.00	ug/L	1	01/22/21 19:06	EPA 6020B	
Barium	5.22	0.500	1.00	ug/L	1	01/22/21 19:06	EPA 6020B	
Beryllium	ND	0.100	0.200	ug/L	1	01/22/21 19:06	EPA 6020B	
Cadmium	ND	0.100	0.200	ug/L	1	01/22/21 19:06	EPA 6020B	
Calcium	8750	300	600	ug/L	1	01/22/21 19:06	EPA 6020B	
Chromium	ND	0.500	1.00	ug/L	1	01/22/21 19:06	EPA 6020B	
Cobalt	ND	0.500	1.00	ug/L	1	01/22/21 19:06	EPA 6020B	
Copper	2.90	1.00	2.00	ug/L	1	01/22/21 19:06	EPA 6020B	
ead	2.59	0.100	0.200	ug/L	1	01/22/21 19:06	EPA 6020B	
Magnesium	2640	50.0	100	ug/L	1	01/22/21 19:06	EPA 6020B	
Vickel	ND	1.00	2.00	ug/L	1	01/22/21 19:06	EPA 6020B	
Selenium	ND	0.500	1.00	ug/L	1	01/22/21 19:06	EPA 6020B	
Silver	ND	0.100	0.200	ug/L	1	01/22/21 19:06	EPA 6020B	
Гhallium	ND	0.100	0.200	ug/L	1	01/22/21 19:06	EPA 6020B	
Vanadium	1.03	1.00	2.00	ug/L	1	01/22/21 19:06	EPA 6020B	Ja
Zinc	62.4	2.00	4.00	ug/L	1	01/22/21 19:06	EPA 6020B	
SW03-0121 (A1A0458-07)				Matrix: W	ater			
Batch: 1013175								
Antimony	ND	0.500	1.00	ug/L	1	01/22/21 19:21	EPA 6020B	
Arsenic	ND	0.500	1.00	ug/L	1	01/22/21 19:21	EPA 6020B	
Barium	2.18	0.500	1.00	ug/L	1	01/22/21 19:21	EPA 6020B	
Beryllium	ND	0.100	0.200	ug/L	1	01/22/21 19:21	EPA 6020B	
Cadmium	ND	0.100	0.200	ug/L	1	01/22/21 19:21	EPA 6020B	
Calcium	8330	300	600	ug/L	1	01/22/21 19:21	EPA 6020B	
Chromium	ND	0.500	1.00	ug/L	1	01/22/21 19:21	EPA 6020B	
Cobalt	ND	0.500	1.00	ug/L	1	01/22/21 19:21	EPA 6020B	
Copper	ND	1.00	2.00	ug/L	1	01/22/21 19:21	EPA 6020B	

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

AMENDED REPORT

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project Number: Eatonville
Project Manager: Genevieve Schutzius

Report ID: A1A0458 - 04 19 23 1558

ANALYTICAL SAMPLE RESULTS

		Total Meta	ls by EPA 602	20B (ICPMS)			
	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
SW03-0121 (A1A0458-07)				Matrix: Wa	ater			
Lead	ND	0.100	0.200	ug/L	1	01/22/21 19:21	EPA 6020B	
Magnesium	2510	50.0	100	ug/L	1	01/22/21 19:21	EPA 6020B	
Nickel	ND	1.00	2.00	ug/L	1	01/22/21 19:21	EPA 6020B	
Selenium	ND	0.500	1.00	ug/L	1	01/22/21 19:21	EPA 6020B	
Silver	ND	0.100	0.200	ug/L	1	01/22/21 19:21	EPA 6020B	
Thallium	ND	0.100	0.200	ug/L	1	01/22/21 19:21	EPA 6020B	
Vanadium	1.02	1.00	2.00	ug/L	1	01/22/21 19:21	EPA 6020B	Ja
Zinc	4.00	2.00	4.00	ug/L	1	01/22/21 19:21	EPA 6020B	

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project Number: **Eatonville**Project Number: **Landfill WA State**Project Manager: **Genevieve Schutzius**

Report ID: A1A0458 - 04 19 23 1558

ANALYTICAL SAMPLE RESULTS

		Dissolved M	etals by EPA	6020B (ICP	MS)			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SE01-0121 (A1A0458-01)				Matrix: W	ater			
Batch: 1013184								
Antimony	ND	0.500	1.00	ug/L	1	01/22/21 17:10	EPA 6020B (Diss)	FILT1
Arsenic	ND	0.500	1.00	ug/L	1	01/22/21 17:10	EPA 6020B (Diss)	FILT1
Barium	5.73	0.500	1.00	ug/L	1	01/22/21 17:10	EPA 6020B (Diss)	FILT1
Beryllium	ND	0.100	0.200	ug/L	1	01/22/21 17:10	EPA 6020B (Diss)	FILT1
Cadmium	ND	0.100	0.200	ug/L	1	01/22/21 17:10	EPA 6020B (Diss)	FILT1
Chromium	ND	0.500	1.00	ug/L	1	01/22/21 17:10	EPA 6020B (Diss)	FILT1
Cobalt	ND	0.500	1.00	ug/L	1	01/22/21 17:10	EPA 6020B (Diss)	FILT1
Copper	1.65	1.00	2.00	ug/L	1	01/22/21 17:10	EPA 6020B (Diss)	FILT1, Ja
Lead	ND	0.100	0.200	ug/L	1	01/22/21 17:10	EPA 6020B (Diss)	FILT1
Nickel	ND	1.00	2.00	ug/L	1	01/22/21 17:10	EPA 6020B (Diss)	FILT1
Selenium	ND	0.500	1.00	ug/L	1	01/22/21 17:10	EPA 6020B (Diss)	FILT1
Silver	ND	0.100	0.200	ug/L	1	01/22/21 17:10	EPA 6020B (Diss)	FILT1
Thallium	ND	0.100	0.200	ug/L	1	01/22/21 17:10	EPA 6020B (Diss)	FILT1
Vanadium	ND	1.00	2.00	ug/L	1	01/22/21 17:10	EPA 6020B (Diss)	FILT1
Zinc	41.1	2.00	4.00	ug/L	1	01/22/21 17:10	EPA 6020B (Diss)	FILT1
SE101-0121 (A1A0458-02)				Matrix: W	ater			
Batch: 1013184								
Antimony	ND	0.500	1.00	ug/L	1	01/22/21 17:15	EPA 6020B (Diss)	FILT1
Arsenic	ND	0.500	1.00	ug/L	1	01/22/21 17:15	EPA 6020B (Diss)	FILT1
Barium	5.64	0.500	1.00	ug/L	1	01/22/21 17:15	EPA 6020B (Diss)	FILT1
Beryllium	ND	0.100	0.200	ug/L	1	01/22/21 17:15	EPA 6020B (Diss)	FILT1
Cadmium	ND	0.100	0.200	ug/L	1	01/22/21 17:15	EPA 6020B (Diss)	FILT1
Chromium	ND	0.500	1.00	ug/L	1	01/22/21 17:15	EPA 6020B (Diss)	FILT1
Cobalt	ND	0.500	1.00	ug/L	1	01/22/21 17:15	EPA 6020B (Diss)	FILT1
Copper	1.66	1.00	2.00	ug/L	1	01/22/21 17:15	EPA 6020B (Diss)	FILT1, Ja
Lead	ND	0.100	0.200	ug/L	1	01/22/21 17:15	EPA 6020B (Diss)	FILT1
Nickel	ND	1.00	2.00	ug/L	1	01/22/21 17:15	EPA 6020B (Diss)	FILT1
Selenium	ND	0.500	1.00	ug/L	1	01/22/21 17:15	EPA 6020B (Diss)	FILT1
Silver	ND	0.100	0.200	ug/L	1	01/22/21 17:15	EPA 6020B (Diss)	FILT1
Thallium	ND	0.100	0.200	ug/L	1	01/22/21 17:15	EPA 6020B (Diss)	FILT1
Vanadium	ND	1.00	2.00	ug/L	1	01/22/21 17:15	EPA 6020B (Diss)	FILT1
Zinc	43.8	2.00	4.00	ug/L	1	01/22/21 17:15	EPA 6020B (Diss)	FILT1

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project Number: **Eatonville**Project Number: **Landfill WA State**Project Manager: **Genevieve Schutzius**

Report ID: A1A0458 - 04 19 23 1558

ANALYTICAL SAMPLE RESULTS

		Dissolved M	etals by EPA	6020B (ICPI	MS)			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SE02-0121 (A1A0458-03)				Matrix: Wa	ater			
Batch: 1013184								
Antimony	ND	0.500	1.00	ug/L	1	01/22/21 17:21	EPA 6020B (Diss)	FILT1
Arsenic	1.01	0.500	1.00	ug/L	1	01/22/21 17:21	EPA 6020B (Diss)	FILT1
Barium	36.6	0.500	1.00	ug/L	1	01/22/21 17:21	EPA 6020B (Diss)	FILT1
Beryllium	ND	0.100	0.200	ug/L	1	01/22/21 17:21	EPA 6020B (Diss)	FILT1
Cadmium	0.103	0.100	0.200	ug/L	1	01/22/21 17:21	EPA 6020B (Diss)	FILT1, Ja
Chromium	ND	0.500	1.00	ug/L	1	01/22/21 17:21	EPA 6020B (Diss)	FILT1
Cobalt	ND	0.500	1.00	ug/L	1	01/22/21 17:21	EPA 6020B (Diss)	FILT1
Copper	1.94	1.00	2.00	ug/L	1	01/22/21 17:21	EPA 6020B (Diss)	FILT1, Ja
Lead	0.182	0.100	0.200	ug/L	1	01/22/21 17:21	EPA 6020B (Diss)	FILT1, Ja
Nickel	ND	1.00	2.00	ug/L	1	01/22/21 17:21	EPA 6020B (Diss)	FILT1
Selenium	ND	0.500	1.00	ug/L	1	01/22/21 17:21	EPA 6020B (Diss)	FILT1
Silver	ND	0.100	0.200	ug/L	1	01/22/21 17:21	EPA 6020B (Diss)	FILT1
Thallium	ND	0.100	0.200	ug/L	1	01/22/21 17:21	EPA 6020B (Diss)	FILT1
Vanadium	2.46	1.00	2.00	ug/L	1	01/22/21 17:21	EPA 6020B (Diss)	FILT1
Zinc	134	2.00	4.00	ug/L	1	01/22/21 17:21	EPA 6020B (Diss)	FILT1
GW01-0121 (A1A0458-04)				Matrix: Wa	ater			
Batch: 1013184								
Antimony	1.47	0.500	1.00	ug/L	1	01/22/21 17:26	EPA 6020B (Diss)	FILT1
Arsenic	ND	0.500	1.00	ug/L	1	01/22/21 17:26	EPA 6020B (Diss)	FILT1
Barium	51.7	0.500	1.00	ug/L	1	01/22/21 17:26	EPA 6020B (Diss)	FILT1
Beryllium	ND	0.100	0.200	ug/L	1	01/22/21 17:26	EPA 6020B (Diss)	FILT1
Cadmium	0.283	0.100	0.200	ug/L	1	01/22/21 17:26	EPA 6020B (Diss)	FILT1
Chromium	ND	0.500	1.00	ug/L	1	01/22/21 17:26	EPA 6020B (Diss)	FILT1
Cobalt	ND	0.500	1.00	ug/L	1	01/22/21 17:26	EPA 6020B (Diss)	FILT1
Copper	1.58	1.00	2.00	ug/L	1	01/22/21 17:26	EPA 6020B (Diss)	FILT1, Ja
Lead	ND	0.100	0.200	ug/L	1	01/22/21 17:26	EPA 6020B (Diss)	FILT1
Nickel	1.81	1.00	2.00	ug/L	1	01/22/21 17:26	EPA 6020B (Diss)	FILT1, Ja
Selenium	ND	0.500	1.00	ug/L	1	01/22/21 17:26	EPA 6020B (Diss)	FILT1
Silver	ND	0.100	0.200	ug/L	1	01/22/21 17:26	EPA 6020B (Diss)	FILT1
Thallium	ND	0.100	0.200	ug/L	1	01/22/21 17:26	EPA 6020B (Diss)	FILT1
Vanadium	1.51	1.00	2.00	ug/L	1	01/22/21 17:26	EPA 6020B (Diss)	FILT1, Ja

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The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project Number: Eatonville
Project Number: Landfill WA State
Project Manager: Genevieve Schutzius

Report ID: A1A0458 - 04 19 23 1558

ANALYTICAL SAMPLE RESULTS

		Dissolved M	etals by EPA	6020B (ICP	MS)			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GW01-0121 (A1A0458-04)				Matrix: W	ater			
Zinc	547	2.00	4.00	ug/L	1	01/22/21 17:26	EPA 6020B (Diss)	FILT1
SW01-0121 (A1A0458-05)				Matrix: W	ater			
Batch: 1013184								
Antimony	ND	0.500	1.00	ug/L	1	01/22/21 17:42	EPA 6020B (Diss)	FILT1
Arsenic	ND	0.500	1.00	ug/L	1	01/22/21 17:42	EPA 6020B (Diss)	FILT1
Barium	6.33	0.500	1.00	ug/L	1	01/22/21 17:42	EPA 6020B (Diss)	FILT1
Beryllium	ND	0.100	0.200	ug/L	1	01/22/21 17:42	EPA 6020B (Diss)	FILT1
Cadmium	ND	0.100	0.200	ug/L	1	01/22/21 17:42	EPA 6020B (Diss)	FILT1
Chromium	ND	0.500	1.00	ug/L	1	01/22/21 17:42	EPA 6020B (Diss)	FILT1
Cobalt	ND	0.500	1.00	ug/L	1	01/22/21 17:42	EPA 6020B (Diss)	FILT1
Copper	1.70	1.00	2.00	ug/L	1	01/22/21 17:42	EPA 6020B (Diss)	FILT1, Ja
Lead	0.493	0.100	0.200	ug/L	1	01/22/21 17:42	EPA 6020B (Diss)	FILT1
Nickel	ND	1.00	2.00	ug/L	1	01/22/21 17:42	EPA 6020B (Diss)	FILT1
Selenium	ND	0.500	1.00	ug/L	1	01/22/21 17:42	EPA 6020B (Diss)	FILT1
Silver	ND	0.100	0.200	ug/L	1	01/22/21 17:42	EPA 6020B (Diss)	FILT1
Thallium	ND	0.100	0.200	ug/L	1	01/22/21 17:42	EPA 6020B (Diss)	FILT1
Vanadium	1.91	1.00	2.00	ug/L	1	01/22/21 17:42	EPA 6020B (Diss)	FILT1, Ja
Zinc	35.2	2.00	4.00	ug/L	1	01/22/21 17:42	EPA 6020B (Diss)	FILT1
SW02-0121 (A1A0458-06)				Matrix: W	ater			
Batch: 1013184								
Antimony	ND	0.500	1.00	ug/L	1	01/22/21 17:47	EPA 6020B (Diss)	FILT1
Arsenic	ND	0.500	1.00	ug/L	1	01/22/21 17:47	EPA 6020B (Diss)	FILT1
Barium	3.78	0.500	1.00	ug/L	1	01/22/21 17:47	EPA 6020B (Diss)	FILT1
Beryllium	ND	0.100	0.200	ug/L	1	01/22/21 17:47	EPA 6020B (Diss)	FILT1
Cadmium	ND	0.100	0.200	ug/L	1	01/22/21 17:47	EPA 6020B (Diss)	FILT1
Chromium	ND	0.500	1.00	ug/L	1	01/22/21 17:47	EPA 6020B (Diss)	FILT1
Cobalt	ND	0.500	1.00	ug/L	1	01/22/21 17:47	EPA 6020B (Diss)	FILT1
Copper	ND	1.00	2.00	ug/L	1	01/22/21 17:47	EPA 6020B (Diss)	FILT1
Lead	0.103	0.100	0.200	ug/L	1	01/22/21 17:47	EPA 6020B (Diss)	FILT1, Ja
Nickel	ND	1.00	2.00	ug/L	1	01/22/21 17:47	EPA 6020B (Diss)	FILT1
Selenium	ND	0.500	1.00	ug/L	1	01/22/21 17:47	EPA 6020B (Diss)	FILT1
Silver	ND	0.100	0.200	ug/L	1	01/22/21 17:47	EPA 6020B (Diss)	FILT1

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project Number: Eatonville
Project Number: Landfill WA State
Project Manager: Genevieve Schutzius

Report ID: A1A0458 - 04 19 23 1558

ANALYTICAL SAMPLE RESULTS

		Dissolved M	etals by EPA	6020B (ICPI	MS)			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW02-0121 (A1A0458-06)				Matrix: Wa	ater			
Thallium	ND	0.100	0.200	ug/L	1	01/22/21 17:47	EPA 6020B (Diss)	FILT1
Vanadium	ND	1.00	2.00	ug/L	1	01/22/21 17:47	EPA 6020B (Diss)	FILT1
Zinc	36.8	2.00	4.00	ug/L	1	01/22/21 17:47	EPA 6020B (Diss)	FILT1
SW03-0121 (A1A0458-07)				Matrix: Wa	ater			_
Batch: 1013184								
Antimony	ND	0.500	1.00	ug/L	1	01/22/21 17:52	EPA 6020B (Diss)	FILT1
Arsenic	ND	0.500	1.00	ug/L	1	01/22/21 17:52	EPA 6020B (Diss)	FILT1
Barium	1.83	0.500	1.00	ug/L	1	01/22/21 17:52	EPA 6020B (Diss)	FILT1
Beryllium	ND	0.100	0.200	ug/L	1	01/22/21 17:52	EPA 6020B (Diss)	FILT1
Cadmium	ND	0.100	0.200	ug/L	1	01/22/21 17:52	EPA 6020B (Diss)	FILT1
Chromium	ND	0.500	1.00	ug/L	1	01/22/21 17:52	EPA 6020B (Diss)	FILT1
Cobalt	ND	0.500	1.00	ug/L	1	01/22/21 17:52	EPA 6020B (Diss)	FILT1
Copper	ND	1.00	2.00	ug/L	1	01/22/21 17:52	EPA 6020B (Diss)	FILT1
Lead	ND	0.100	0.200	ug/L	1	01/22/21 17:52	EPA 6020B (Diss)	FILT1
Nickel	ND	1.00	2.00	ug/L	1	01/22/21 17:52	EPA 6020B (Diss)	FILT1
Selenium	ND	0.500	1.00	ug/L	1	01/22/21 17:52	EPA 6020B (Diss)	FILT1
Silver	ND	0.100	0.200	ug/L	1	01/22/21 17:52	EPA 6020B (Diss)	FILT1
Thallium	ND	0.100	0.200	ug/L	1	01/22/21 17:52	EPA 6020B (Diss)	FILT1
Vanadium	1.14	1.00	2.00	ug/L	1	01/22/21 17:52	EPA 6020B (Diss)	FILT1, Ja
Zinc	ND	2.00	4.00	ug/L	1	01/22/21 17:52	EPA 6020B (Diss)	FILT1

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project Number: **Eatonville**Project Number: **Landfill WA State**Project Manager: **Genevieve Schutzius**

Report ID: A1A0458 - 04 19 23 1558

ANALYTICAL SAMPLE RESULTS

	Tota	l Hardness (Calculated) b	y SM 2340B (6020B)			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SE01-0121 (A1A0458-01)				Matrix: Wat	er			
(Calculated)								
Hardness	42.0		1.91	mg CaCO3/L	1	01/22/21 18:29	SM 2340B	
SE101-0121 (A1A0458-02)				Matrix: Wat	er			
(Calculated)								
Hardness	41.0		1.91	mg CaCO3/L	1	01/22/21 18:34	SM 2340B	
SE02-0121 (A1A0458-03)				Matrix: Wat	er			
(Calculated)								
Hardness	380		15.4	mg CaCO3/L	10	02/03/21 16:15	SM 2340B	
GW01-0121 (A1A0458-04)				Matrix: Wat	er			
(Calculated)								
Hardness	456		15.4	mg CaCO3/L	10	02/03/21 16:20	SM 2340B	
SW01-0121 (A1A0458-05)				Matrix: Wat	er			
(Calculated)								
Hardness	35.4		1.91	mg CaCO3/L	1	01/22/21 19:00	SM 2340B	
SW02-0121 (A1A0458-06)				Matrix: Wat	er			
(Calculated)								
Hardness	32.7		1.91	mg CaCO3/L	1	01/22/21 19:06	SM 2340B	
SW03-0121 (A1A0458-07)				Matrix: Wat	er			
(Calculated)								
Hardness	31.1		1.91	mg CaCO3/L	1	01/22/21 19:21	SM 2340B	

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project Number: **Eatonville**Project Number: **Landfill WA State**Project Manager: **Genevieve Schutzius**

Report ID: A1A0458 - 04 19 23 1558

ANALYTICAL SAMPLE RESULTS

		Nitrate	+ Nitrite by E	EPA 353.2				
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Note
SE01-0121 (A1A0458-01)				Matrix: Wa	ater	Batch:	1012984	
Nitrate+Nitrite Nitrogen	0.459	0.0100	0.0200	mg/L	1	01/18/21 15:10	EPA 353.2	
SE101-0121 (A1A0458-02)				Matrix: Wa	ater	Batch:	1012984	
Nitrate+Nitrite Nitrogen	0.454	0.0100	0.0200	mg/L	1	01/18/21 15:14	EPA 353.2	
SE02-0121 (A1A0458-03)				Matrix: Water Batch: 1012984			1012984	
Nitrate+Nitrite Nitrogen	3.76	0.0500	0.100	mg/L	5	01/18/21 15:15	EPA 353.2	
GW01-0121 (A1A0458-04)				Matrix: Water		Batch:	1012984	
Nitrate+Nitrite Nitrogen	5.99	0.0500	0.100	mg/L	5	01/18/21 15:21	EPA 353.2	
SW01-0121 (A1A0458-05)				Matrix: Wa	ater	Batch:	1012984	
Nitrate+Nitrite Nitrogen	0.812	0.0200	0.0400	mg/L	2	01/18/21 15:22	EPA 353.2	
SW02-0121 (A1A0458-06)				Matrix: Water Batch: 1012984		1012984		
Nitrate+Nitrite Nitrogen	0.303	0.0100	0.0200	mg/L	1	01/18/21 15:24	EPA 353.2	
SW03-0121 (A1A0458-07)				Matrix: Water Batch: 1012984			1012984	
Nitrate+Nitrite Nitrogen	0.346	0.0100	0.0200	mg/L	1	01/18/21 15:25	EPA 353.2	

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Eatonville

AMENDED REPORT

Project:

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions

55 SW Yamhill St, Ste 300 Project Number: Landfill WA State
Portland, OR 97209 Project Manager: Genevieve Schutzius

Report ID: A1A0458 - 04 19 23 1558

Weck Laboratories, Inc.

ANALYTICAL SAMPLE RESULTS (Subcontracted)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SE01-0121 (A1A0458-01)	Result	Emit	Lillit	Matrix: Wate			V1A1118	INOICS
·				Wati ix. Wate		Daten. V	VIAIIIO	
Batch: W1A1118 PBDE-17	ND	1.7	10	/1	1	01/27/21 16:12	GC/MS SIM	M-02
PBDE-17	ND ND	1.7 2.0	10 10	ng/l	1	01/27/21 16:12	GC/MS SIM	M-02
				ng/l	_	01/27/21 16:12	GC/MS SIM	M-02
PBDE-49	ND	1.5	10	ng/l	1	01/27/21 16:12	GC/MS SIM	M-02
PBDE-47	ND	2.8	10	ng/l	1			
PBDE-99	ND	3.2	10	ng/l	1	01/27/21 16:12	GC/MS SIM	M-02
PBDE-100	ND	4.0	10	ng/l	1	01/27/21 16:12	GC/MS SIM	M-02
PBDE-85	ND	5.9	10	ng/l	1	01/27/21 16:12	GC/MS SIM	M-02
PBDE-138	ND	3.1	10	ng/l	1	01/27/21 16:12	GC/MS SIM	M-02
PBDE-153	ND	7.9	10	ng/l	1	01/27/21 16:12	GC/MS SIM	M-02
PBDE-154	ND	7.9	10	ng/l	1	01/27/21 16:12	GC/MS SIM	M-02
Batch: W1A1118								
Surrogate: Perylene-d12		Recove	ery: 106 %	Limits: 50-150 %	1	01/27/21 16:12	GC/MS SIM	
Triphenyl phosphate			141 %	50-150 %	1	01/27/21 16:12	GC/MS SIM	
SE101-0121 (A1A0458-02)				Matrix: Wate	r	Batch: V	V1A1118	
Batch: W1A1118								
PBDE-17	ND	1.7	10	ng/l	1	01/27/21 16:30	GC/MS SIM	M-02
PBDE-28	ND	2.0	10	ng/l	1	01/27/21 16:30	GC/MS SIM	M-02
PBDE-49	ND	1.5	10	ng/l	1	01/27/21 16:30	GC/MS SIM	M-02
PBDE-47	ND	2.8	10	ng/l	1	01/27/21 16:30	GC/MS SIM	M-02
PBDE-99	ND	3.2	10	ng/l	1	01/27/21 16:30	GC/MS SIM	M-02
PBDE-100	ND	4.0	10	ng/l	1	01/27/21 16:30	GC/MS SIM	M-02
PBDE-85	ND	5.9	10	ng/l	1	01/27/21 16:30	GC/MS SIM	M-02
PBDE-138	ND	3.1	10	ng/l	1	01/27/21 16:30	GC/MS SIM	M-02
PBDE-153	ND	7.9	10	ng/l	1	01/27/21 16:30	GC/MS SIM	M-02
PBDE-154	ND	7.9	10	ng/l	1	01/27/21 16:30	GC/MS SIM	M-02
Batch: W1A1118		,			-			
Surrogate: Perylene-d12		Reco	very: 99 %	Limits: 50-150 %	1	01/27/21 16:30	GC/MS SIM	
Triphenyl phosphate			136 %	50-150 %	1	01/27/21 16:30	GC/MS SIM	

Batch: W1A1118

Apex Laboratories

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project Number: **Eatonville**Project Number: **Landfill WA State**Project Manager: **Genevieve Schutzius**

Report ID: A1A0458 - 04 19 23 1558

Weck Laboratories, Inc.

ANALYTICAL SAMPLE RESULTS (Subcontracted)

			•	nyl Ethers by G				
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SE02-0121 (A1A0458-03)				Matrix: Wate			V1A1118	
,	\.\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	4.0	2.5					M 02
PBDE-17	ND	4.3	25	ng/l	1	01/27/21 16:47	GC/MS SIM	M-02
PBDE-28	ND	5.1	25	ng/l	1	01/27/21 16:47	GC/MS SIM	M-02
PBDE-49	ND	3.8	25	ng/l	1	01/27/21 16:47	GC/MS SIM	M-02
PBDE-47	ND	7.0	25	ng/l	1	01/27/21 16:47	GC/MS SIM	M-02
PBDE-99	ND	8.0	25	ng/l	1	01/27/21 16:47	GC/MS SIM	M-02
PBDE-100	ND	10	25	ng/l	1	01/27/21 16:47	GC/MS SIM	M-02
PBDE-85	ND	15	25	ng/l	1	01/27/21 16:47	GC/MS SIM	M-02
PBDE-138	ND	7.8	25	ng/l	1	01/27/21 16:47	GC/MS SIM	M-02
PBDE-153	ND	20	25	ng/l	1	01/27/21 16:47	GC/MS SIM	M-02
PBDE-154	ND	20	25	ng/l	1	01/27/21 16:47	GC/MS SIM	M-02
Batch: W1A1118								
Surrogate: Perylene-d12		Recov	ery: 117%	Limits: 50-150 %	1	01/27/21 16:47	GC/MS SIM	
Triphenyl phosphate			162 %	50-150 %	1	01/27/21 16:47	GC/MS SIM	S-GC
GW01-0121 (A1A0458-04)				Matrix: Wate	r	Batch: \	V1A1118	
Batch: W1A1118								
PBDE-17	2.2	1.7	10	ng/l	1	01/27/21 18:30	GC/MS SIM	M-02, J
PBDE-28	ND	2.0	10	ng/l	1	01/27/21 18:30	GC/MS SIM	M-02
PBDE-49	ND	1.5	10	ng/l	1	01/27/21 18:30	GC/MS SIM	M-02
PBDE-47	ND	2.8	10	ng/l	1	01/27/21 18:30	GC/MS SIM	M-02
PBDE-99	ND	3.2	10	ng/l	1	01/27/21 18:30	GC/MS SIM	M-02
PBDE-100	ND	4.0	10	ng/l	1	01/27/21 18:30	GC/MS SIM	M-02
PBDE-85	ND	5.9	10	ng/l	1	01/27/21 18:30	GC/MS SIM	M-02
PBDE-138	ND	3.1	10	ng/l	1	01/27/21 18:30	GC/MS SIM	M-02
PBDE-153	ND	7.9	10	ng/l	1	01/27/21 18:30	GC/MS SIM	M-02
PBDE-154	ND	7.9	10	ng/l	1	01/27/21 18:30	GC/MS SIM	M-02
Batch: W1A1118	112	,.,	10	**g/ *			-	-
Surrogate: Perylene-d12		Reco	very: 93 %	Limits: 50-150 %	1	01/27/21 18:30	GC/MS SIM	
Triphenyl phosphate			168 %	50-150 %	1	01/27/21 18:30	GC/MS SIM	S-GC

SW01-0121 (A1A0458-05) Matrix: Water Batch: W1A1118

Batch: W1A1118

Apex Laboratories

Philip Nevenberg



AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: Landfill WA State
Project Manager: Genevieve Schutzius

Report ID: A1A0458 - 04 19 23 1558

Weck Laboratories, Inc.

ANALYTICAL SAMPLE RESULTS (Subcontracted)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes		
SW01-0121 (A1A0458-05)				Matrix: Wate	r		W1A1118			
PBDE-17	4.7	1.7	10	ng/l	1	01/27/21 18:47	GC/MS SIM	M-02,		
PBDE-28	3.9	2.0	10	ng/l	1	01/27/21 18:47	GC/MS SIM	M-02,		
PBDE-49	5.1	1.5	10	ng/l	1	01/27/21 18:47	GC/MS SIM	M-02,		
PBDE-47	3.9	2.8	10	ng/l	1	01/27/21 18:47	GC/MS SIM	M-02,		
PBDE-99	3.4	3.2	10	ng/l	1	01/27/21 18:47	GC/MS SIM	M-02,		
PBDE-100	4.1	4.0	10	ng/l	1	01/27/21 18:47	GC/MS SIM	M-02,		
PBDE-85	ND	5.9	10	ng/l	1	01/27/21 18:47	GC/MS SIM	M-02		
PBDE-138	ND	3.1	10	ng/l	1	01/27/21 18:47	GC/MS SIM	M-02		
PBDE-153	ND	7.9	10	ng/l	1	01/27/21 18:47	GC/MS SIM	M-02		
PBDE-154 Batch: W1A1118	ND	7.9	10	ng/l	1	01/27/21 18:47	GC/MS SIM	M-02		
Surrogate: Perylene-d12		Reco	very: 90 %	Limits: 50-150 %	1	01/27/21 18:47	GC/MS SIM			
Triphenyl phosphate			174 %	50-150 %	1	01/27/21 18:47	GC/MS SIM	S-GC		
SW02-0121 (A1A0458-06)				Matrix: Wate	r	Batch: V	W1A1118	S-GC		
Batch: W1A1118										
PBDE-17	ND	4.3	25	ng/l	1	01/27/21 17:39	GC/MS SIM	M-02		
PBDE-28	ND	5.1	25	ng/l	1	01/27/21 17:39	GC/MS SIM	M-02		
PBDE-49	ND	3.8	25	ng/l	1	01/27/21 17:39	GC/MS SIM	M-02		
PBDE-47	ND	7.0	25	ng/l	1	01/27/21 17:39	GC/MS SIM	M-02		
PBDE-99	ND	8.0	25	ng/l	1	01/27/21 17:39	GC/MS SIM	M-02		
PBDE-100	ND	10	25	ng/l	1	01/27/21 17:39	GC/MS SIM	M-02		
PBDE-85	ND	15	25	ng/l	1	01/27/21 17:39	GC/MS SIM	M-02		
PBDE-138	ND	7.8	25	ng/l	1	01/27/21 17:39	GC/MS SIM	M-02		
PBDE-153	ND	20	25	ng/l	1	01/27/21 17:39	GC/MS SIM	M-02		
PBDE-154 Batch: W1A1118	ND	20	25	ng/l	1	01/27/21 17:39	GC/MS SIM	M-02		
Surrogate: Perylene-d12		Recove	ery: 107 %	Limits: 50-150 %	1	01/27/21 17:39	GC/MS SIM			
Triphenyl phosphate			164 %	50-150 %	1	01/27/21 17:39	GC/MS SIM	S-GC		

SW03-0121 (A1A0458-07)

Apex Laboratories

Batch: W1A1118

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Batch: W1A1118

Matrix: Water



AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: Landfill WA State
Project Manager: Genevieve Schutzius

Report ID: A1A0458 - 04 19 23 1558

Weck Laboratories, Inc.

ANALYTICAL SAMPLE RESULTS (Subcontracted)

	PPCPs -	Polybromin	ated Dipher	nyl Ethers by G	C/MS SIN	Л		
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW03-0121 (A1A0458-07)				ater Batch: W1A1118				
PBDE-17	ND	0.86	5.0	ng/l	1	01/27/21 17:56	GC/MS SIM	
PBDE-28	ND	1.0	5.0	ng/l	1	01/27/21 17:56	GC/MS SIM	
PBDE-49	ND	0.76	5.0	ng/l	1	01/27/21 17:56	GC/MS SIM	
PBDE-47	ND	1.4	5.0	ng/l	1	01/27/21 17:56	GC/MS SIM	
PBDE-99	ND	1.6	5.0	ng/l	1	01/27/21 17:56	GC/MS SIM	
PBDE-100	ND	2.0	5.0	ng/l	1	01/27/21 17:56	GC/MS SIM	
PBDE-85	ND	2.9	5.0	ng/l	1	01/27/21 17:56	GC/MS SIM	
PBDE-138	ND	1.6	5.0	ng/l	1	01/27/21 17:56	GC/MS SIM	
PBDE-153	ND	3.9	5.0	ng/l	1	01/27/21 17:56	GC/MS SIM	
PBDE-154	ND	3.9	5.0	ng/l	1	01/27/21 17:56	GC/MS SIM	
Batch: W1A1118								
Surrogate: Perylene-d12		Recov	ery: 116 %	Limits: 50-150 %	1	01/27/21 17:56	GC/MS SIM	
Triphenyl phosphate			165 %	50-150 %	1	01/27/21 17:56	GC/MS SIM	S-GC

Apex Laboratories

Philip Marenberg



AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: <u>Eatonville</u>

Project Number: Landfill WA State
Project Manager: Genevieve Schutzius

Report ID: A1A0458 - 04 19 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D Detection % REC RPD Reporting Spike Source Analyte Result Limit Units Dilution % REC RPD Limit Amount Result Limits Limit Notes Batch 1012821 - EPA 5030C Water Blank (1012821-BLK1) Prepared: 01/13/21 08:00 Analyzed: 01/13/21 10:45 EPA 8260D ND 10.0 20.0 Acetone ug/L ND 2.00 Acrylonitrile 1.00 ug/L 1 Benzene ND 0.100 0.200 ug/L 1 Bromobenzene ND 0.250 0.500 ug/L 1 Bromochloromethane ND 0.500 1.00 ug/L 1 ND Bromodichloromethane 0.500 1.00 ug/L 1 Bromoform ND 0.500 1.00 ug/L 1 5.00 Bromomethane ND 5.00 ug/L 1 2-Butanone (MEK) ND 5.00 10.0 ug/L 1 n-Butylbenzene ND 0.500 1.00 1 ug/L sec-Butylbenzene ND 0.500 1.00 ug/L 1 ND 0.500 tert-Butylbenzene 1.00 1 ug/L ---Carbon disulfide ND 5.00 10.0 ug/L 1 Carbon tetrachloride ND 0.500 ug/L 1.00 1 Chlorobenzene ND 0.250 0.500 ug/L 1 Chloroethane ND 5.00 5.00 ug/L 1 ---Chloroform ND 0.500 1.00 ug/L 1 ND 5.00 5.00 Chloromethane 1 ug/L 2-Chlorotoluene ND 0.500 1.00 ug/L 1 4-Chlorotoluene ND 0.500 1.00 ug/L 1 Dibromochloromethane ND 0.500 1.00 ug/L 1 1,2-Dibromo-3-chloropropane ND 2.50 5.00 ug/L 1 1,2-Dibromoethane (EDB) ND 0.250 0.500 ug/L 1 ug/L Dibromomethane ND 0.500 1.00 1 0.250 1,2-Dichlorobenzene ND 0.500 ug/L 1 ug/L 1,3-Dichlorobenzene ND 0.250 0.500 1 1,4-Dichlorobenzene ND 0.250 0.500 ug/L 1 Dichlorodifluoromethane ND 0.500 1.00 ug/L 1 ---ND 0.200 1,1-Dichloroethane 0.400ug/L 1 1,2-Dichloroethane (EDC) ND 0.200 0.400ug/L 1 1,1-Dichloroethene ND 0.200 0.400 ug/L 1 cis-1,2-Dichloroethene ND 0.200 0.400 ug/L 1

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trans-1,2-Dichloroethene

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

ND

0.200

0.400

ug/L

1



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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: Landfill WA State
Project Manager: Genevieve Schutzius

Report ID: A1A0458 - 04 19 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS Volatile Organic Compounds by EPA 8260D

Detection Reporting Spike Source % REC **RPD** % REC Analyte Result Ĺimit Units Dilution Amount Result Limits RPD Limit Notes Limit

Batch 1012821 - EPA 5030C							Wa	ater		
Blank (1012821-BLK1)			Prepared:	01/13/21 08	:00 Anal	yzed: 01/13	/21 10:45			
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1				 	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1				 	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1				 	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1				 	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1				 	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1				 	
Ethylbenzene	ND	0.250	0.500	ug/L	1				 	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1				 	
2-Hexanone	ND	5.00	10.0	ug/L	1				 	
Isopropylbenzene	ND	0.500	1.00	ug/L	1				 	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1				 	
Methylene chloride	ND	5.00	10.0	ug/L	1				 	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1				 	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1				 	
Naphthalene	ND	1.00	2.00	ug/L	1				 	
n-Propylbenzene	ND	0.250	0.500	ug/L	1				 	
Styrene	ND	0.500	1.00	ug/L	1				 	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1				 	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1				 	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1				 	
Toluene	ND	0.500	1.00	ug/L	1				 	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1				 	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1				 	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1				 	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1				 	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1				 	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1				 	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1				 	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1				 	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1				 	
Vinyl chloride	ND	0.200	0.400	ug/L	1				 	
m,p-Xylene	ND	0.500	1.00	ug/L	1				 	
o-Xylene	ND	0.250	0.500	ug/L	1				 	

Surr: 1,4-Difluorobenzene (Surr) Recovery: 102 % Limits: 80-120 % Dilution: 1x

Apex Laboratories

Philip Noonberg



GSI Water Solutions

ANALYTICAL REPORT

Apex Laboratories, LLC 6700 S.W. Sandburg Street

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

Project:

AMENDED REPORT

55 SW Yamhill St, Ste 300 Project Number: Landfill WA State
Portland, OR 97209 Project Manager: Genevieve Schutzius

Report ID: A1A0458 - 04 19 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

Eatonville

			Volatile Or	ganic Co	mpounds	by EPA 8	3260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1012821 - EPA 5030C							Wa	ter				
Blank (1012821-BLK1)			Prepared	: 01/13/21	08:00 Ana	lyzed: 01/13	/21 10:45					
Surr: Toluene-d8 (Surr)		Rece	overy: 99 %	Limits: 80	0-120 %	Dili	ution: 1x					
4-Bromofluorobenzene (Surr)			106 %	80	0-120 %		"					
LCS (1012821-BS1)			Prepared	: 01/13/21	08:00 Ana	lyzed: 01/13	/21 09:42					
EPA 8260D												
Acetone	37.2	10.0	20.0	ug/L	1	40.0		93	80-120%			
Acrylonitrile	20.4	1.00	2.00	ug/L	1	20.0		102	80-120%			
Benzene	21.0	0.100	0.200	ug/L	1	20.0		105	80-120%			
Bromobenzene	17.8	0.250	0.500	ug/L	1	20.0		89	80-120%			
Bromochloromethane	17.2	0.500	1.00	ug/L	1	20.0		86	80-120%			
Bromodichloromethane	19.4	0.500	1.00	ug/L	1	20.0		97	80-120%			
Bromoform	19.9	0.500	1.00	ug/L	1	20.0		99	80-120%			
Bromomethane	29.0	5.00	5.00	ug/L	1	20.0		145	80-120%			Q-5
2-Butanone (MEK)	38.3	5.00	10.0	ug/L	1	40.0		96	80-120%			
n-Butylbenzene	22.1	0.500	1.00	ug/L	1	20.0		111	80-120%			
sec-Butylbenzene	20.7	0.500	1.00	ug/L	1	20.0		104	80-120%			
tert-Butylbenzene	19.8	0.500	1.00	ug/L	1	20.0		99	80-120%			
Carbon disulfide	19.4	5.00	10.0	ug/L	1	20.0		97	80-120%			
Carbon tetrachloride	21.1	0.500	1.00	ug/L	1	20.0		105	80-120%			
Chlorobenzene	21.0	0.250	0.500	ug/L	1	20.0		105	80-120%			
Chloroethane	16.8	5.00	5.00	ug/L	1	20.0		84	80-120%			
Chloroform	17.6	0.500	1.00	ug/L	1	20.0		88	80-120%			
Chloromethane	15.4	5.00	5.00	ug/L	1	20.0		77	80-120%			Q-5
2-Chlorotoluene	19.1	0.500	1.00	ug/L	1	20.0		96	80-120%			
4-Chlorotoluene	19.2	0.500	1.00	ug/L	1	20.0		96	80-120%			
Dibromochloromethane	23.9	0.500	1.00	ug/L	1	20.0		120	80-120%			
1,2-Dibromo-3-chloropropane	19.6	2.50	5.00	ug/L	1	20.0		98	80-120%			
1,2-Dibromoethane (EDB)	22.5	0.250	0.500	ug/L	1	20.0		113	80-120%			
Dibromomethane	20.2	0.500	1.00	ug/L	1	20.0		101	80-120%			
1,2-Dichlorobenzene	18.3	0.250	0.500	ug/L	1	20.0		92	80-120%			
1,3-Dichlorobenzene	18.8	0.250	0.500	ug/L	1	20.0		94	80-120%			
1,4-Dichlorobenzene	20.8	0.250	0.500	ug/L	1	20.0		104	80-120%			
Dichlorodifluoromethane	16.2	0.500	1.00	ug/L	1	20.0		81	80-120%			
1,1-Dichloroethane	17.2	0.200	0.400	ug/L	1	20.0		86	80-120%			

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: Landfill WA State
Project Manager: Genevieve Schutzius

Report ID: A1A0458 - 04 19 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS Volatile Organic Compounds by EPA 8260D

Detection Reporting Spike Source % REC **RPD** % REC Analyte Result Ĺimit Units Dilution Amount Result Limits RPD Limit Notes Limit Batch 1012821 - EPA 5030C Water

Batch 1012821 - EPA 5030C							VV	ater			
LCS (1012821-BS1)			Prepared:	01/13/21 08	:00 Ana	lyzed: 01/13/	21 09:42				
1,2-Dichloroethane (EDC)	16.1	0.200	0.400	ug/L	1	20.0		80	80-120%	 	
1,1-Dichloroethene	17.7	0.200	0.400	ug/L	1	20.0		88	80-120%	 	
cis-1,2-Dichloroethene	18.6	0.200	0.400	ug/L	1	20.0		93	80-120%	 	
trans-1,2-Dichloroethene	19.0	0.200	0.400	ug/L	1	20.0		95	80-120%	 	
1,2-Dichloropropane	17.5	0.250	0.500	ug/L	1	20.0		87	80-120%	 	
1,3-Dichloropropane	18.8	0.500	1.00	ug/L	1	20.0		94	80-120%	 	
2,2-Dichloropropane	23.1	0.500	1.00	ug/L	1	20.0		116	80-120%	 	
1,1-Dichloropropene	20.2	0.500	1.00	ug/L	1	20.0		101	80-120%	 	
cis-1,3-Dichloropropene	23.1	0.500	1.00	ug/L	1	20.0		116	80-120%	 	
trans-1,3-Dichloropropene	21.6	0.500	1.00	ug/L	1	20.0		108	80-120%	 	
Ethylbenzene	20.9	0.250	0.500	ug/L	1	20.0		104	80-120%	 	
Hexachlorobutadiene	22.9	2.50	5.00	ug/L	1	20.0		114	80-120%	 	
2-Hexanone	42.8	5.00	10.0	ug/L	1	40.0		107	80-120%	 	
Isopropylbenzene	21.5	0.500	1.00	ug/L	1	20.0		107	80-120%	 	
4-Isopropyltoluene	22.4	0.500	1.00	ug/L	1	20.0		112	80-120%	 	
Methylene chloride	17.7	5.00	10.0	ug/L	1	20.0		89	80-120%	 	
4-Methyl-2-pentanone (MiBK)	39.5	5.00	10.0	ug/L	1	40.0		99	80-120%	 	
Methyl tert-butyl ether (MTBE)	20.0	0.500	1.00	ug/L	1	20.0		100	80-120%	 	
Naphthalene	20.4	1.00	2.00	ug/L	1	20.0		102	80-120%	 	
n-Propylbenzene	17.2	0.250	0.500	ug/L	1	20.0		86	80-120%	 	
Styrene	23.2	0.500	1.00	ug/L	1	20.0		116	80-120%	 	
1,1,1,2-Tetrachloroethane	22.2	0.200	0.400	ug/L	1	20.0		111	80-120%	 	
1,1,2,2-Tetrachloroethane	20.2	0.250	0.500	ug/L	1	20.0		101	80-120%	 	
Tetrachloroethene (PCE)	20.0	0.200	0.400	ug/L	1	20.0		100	80-120%	 	
Toluene	21.0	0.500	1.00	ug/L	1	20.0		105	80-120%	 	
1,2,3-Trichlorobenzene	24.3	1.00	2.00	ug/L	1	20.0		122	80-120%	 	Q-50
1,2,4-Trichlorobenzene	23.6	1.00	2.00	ug/L	1	20.0		118	80-120%	 	
1,1,1-Trichloroethane	19.0	0.200	0.400	ug/L	1	20.0		95	80-120%	 	
1,1,2-Trichloroethane	19.0	0.250	0.500	ug/L	1	20.0		95	80-120%	 	
Trichloroethene (TCE)	18.4	0.200	0.400	ug/L	1	20.0		92	80-120%	 	
Trichlorofluoromethane	17.7	1.00	2.00	ug/L	1	20.0		89	80-120%	 	
1,2,3-Trichloropropane	19.1	0.500	1.00	ug/L	1	20.0		96	80-120%	 	
1,2,4-Trimethylbenzene	21.2	0.500	1.00	ug/L	1	20.0		106	80-120%	 	
1,3,5-Trimethylbenzene	20.2	0.500	1.00	ug/L	1	20.0		101	80-120%	 	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Neienberg



AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: Landfill WA State
Project Manager: Genevieve Schutzius

Report ID: A1A0458 - 04 19 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

		,	Volatile Org	ganic Co	mpounds	by EPA 8	260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1012821 - EPA 5030C							Wa	ter				
LCS (1012821-BS1)			Prepared	: 01/13/21	08:00 Ana	yzed: 01/13/	/21 09:42					
Vinyl chloride	19.6	0.200	0.400	ug/L	1	20.0		98	80-120%			
n,p-Xylene	38.7	0.500	1.00	ug/L	1	40.0		97	80-120%			
o-Xylene	20.6	0.250	0.500	ug/L	1	20.0		103	80-120%			
Surr: 1,4-Difluorobenzene (Surr)		Reco	overy: 99 %	Limits: 80	0-120 %	Dilı	ıtion: 1x					
Toluene-d8 (Surr)			99 %	80	0-120 %		"					
4-Bromofluorobenzene (Surr)			100 %	80	0-120 %		"					
Duplicate (1012821-DUP1)			Prepared	: 01/13/21	10:03 Anal	lyzed: 01/13/	/21 12:30					
OC Source Sample: Non-SDG (A1	A0410-01)											
Acetone	ND	10.0	20.0	ug/L	1		ND				30%	
crylonitrile	ND	1.00	2.00	ug/L	1		ND				30%	
enzene	ND	0.100	0.200	ug/L	1		ND				30%	
romobenzene	ND	0.250	0.500	ug/L	1		ND				30%	
Bromochloromethane	ND	0.500	1.00	ug/L	1		ND				30%	
romodichloromethane	ND	0.500	1.00	ug/L	1		ND				30%	
Bromoform	ND	0.500	1.00	ug/L	1		ND				30%	
Bromomethane	ND	5.00	5.00	ug/L	1		ND				30%	
-Butanone (MEK)	ND	5.00	10.0	ug/L	1		ND				30%	
-Butylbenzene	ND	0.500	1.00	ug/L	1		ND				30%	
ec-Butylbenzene	ND	0.500	1.00	ug/L	1		ND				30%	
ert-Butylbenzene	ND	0.500	1.00	ug/L	1		ND				30%	
Carbon disulfide	ND	5.00	10.0	ug/L	1		ND				30%	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1		ND				30%	
Chlorobenzene	ND	0.250	0.500	ug/L	1		ND				30%	
Chloroethane	ND	5.00	5.00	ug/L	1		ND				30%	
Chloroform	ND	0.500	1.00	ug/L	1		ND				30%	
Chloromethane	ND	5.00	5.00	ug/L	1		ND				30%	
-Chlorotoluene	ND	0.500	1.00	ug/L	1		ND				30%	
-Chlorotoluene	ND	0.500	1.00	ug/L	1		ND				30%	
Dibromochloromethane	ND	0.500	1.00	ug/L	1		ND				30%	
,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1		ND				30%	
,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1		ND				30%	
Dibromomethane	ND	0.500	1.00	ug/L	1		ND				30%	
,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1		ND				30%	

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions Project: Eatonville

55 SW Yamhill St, Ste 300 Project Number: Landfill WA State
Portland, OR 97209 Project Manager: Genevieve Schutzius

Report ID: A1A0458 - 04 19 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D % REC RPD Detection Reporting Spike Source % REC Analyte Result Units Dilution RPD Limit Limit Amount Result Limits Limit Notes Batch 1012821 - EPA 5030C Water **Duplicate (1012821-DUP1)** Prepared: 01/13/21 10:03 Analyzed: 01/13/21 12:30 QC Source Sample: Non-SDG (A1A0410-01) 1,3-Dichlorobenzene ND 0.250 0.500 ug/L 1 ND 30% ND 0.250 0.500 1,4-Dichlorobenzene ug/L 1 ND 30% ug/L Dichlorodifluoromethane ND 0.500 1.00 1 ND 30% 1,1-Dichloroethane ND 0.200 0.400ug/L 1 ND 30% 1,2-Dichloroethane (EDC) ND 0.200 0.400 1 ND 30% ug/L ------ND 0.200 1,1-Dichloroethene 0.400 ug/L 1 ND 30% ug/L cis-1,2-Dichloroethene ND 0.200 0.4001 ND 30% trans-1,2-Dichloroethene ND 30% 0.200 0.400 ug/L 1 ND 1,2-Dichloropropane ND 0.250 0.500 ug/L 1 ND 30% 1,3-Dichloropropane ND 0.500 1.00 ug/L 1 ND 30% 2,2-Dichloropropane ND 0.500 1.00 ug/L 1 ND 30% ND 0.500 1.00 30% 1,1-Dichloropropene ug/L 1 ND cis-1,3-Dichloropropene ND 0.500 1.00 ug/L 1 ND 30% ND 0.500 1.00 30% trans-1,3-Dichloropropene ug/L 1 ND ug/L Ethylbenzene ND 0.250 0.500 1 ND 30% Hexachlorobutadiene ND 2.50 5.00 ug/L 1 ND ___ 30% 2-Hexanone ND 5.00 10.0 ug/L 1 ND 30% ND 30% Isopropylbenzene 0.500 1.00 1 ND ug/L ND 4-Isopropyltoluene ND 0.500 1.00 ug/L 1 30% ND 10.0 Methylene chloride 5.00 ND 30% ug/L 1 4-Methyl-2-pentanone (MiBK) ND 5.00 10.0 ug/L 1 ND 30% 30% Q-05 Methyl tert-butyl ether (MTBE) ND 0.500 1.00 ug/L 1 0.550 Naphthalene ND 1.00 2.00 ug/L 1 ND 30% ND 30% n-Propylbenzene 0.250 0.500 1 ND ug/L ND 0.500 1.00 30% Styrene ug/L 1 ND ND 0.200 0.400 ND 30% 1.1.1.2-Tetrachloroethane ug/L 1 1,1,2,2-Tetrachloroethane ND 0.250 0.500 ND 30% ug/L 1 ND Tetrachloroethene (PCE) 0.200 0.400 ug/L 1 ND 30% ND 0.500 1.00 ug/L 1 ND 30% ND 1.00 2.00 30% 1,2,3-Trichlorobenzene ug/L 1 ND ---1,2,4-Trichlorobenzene ND 1.00 2.00 1 ND 30% ug/L 0.200 0.400 1,1,1-Trichloroethane ND 1 ND 30% ug/L 1,1,2-Trichloroethane ND 0.250 0.500 ug/L 1 ND 30%

Apex Laboratories



AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: Landfill WA State
Project Manager: Genevieve Schutzius

Report ID: A1A0458 - 04 19 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

		•	Volatile Or	ganic Co	mpounds	by EPA 8	3260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1012821 - EPA 5030C							Wa	ter				
Duplicate (1012821-DUP1)			Prepared	1: 01/13/21	10:03 Ana	yzed: 01/13	/21 12:30					
QC Source Sample: Non-SDG (A1	A0410-01)											
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1		ND				30%	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1		ND				30%	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1		ND				30%	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1		ND				30%	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1		ND				30%	
Vinyl chloride	ND	0.200	0.400	ug/L	1		ND				30%	
m,p-Xylene	ND	0.500	1.00	ug/L	1		ND				30%	
o-Xylene	ND	0.250	0.500	ug/L	1		ND				30%	
Surr: 1,4-Difluorobenzene (Surr)		Recov	ery: 102 %	Limits: 80	0-120 %	Dilı	ution: 1x					
Toluene-d8 (Surr)			99 %	80	0-120 %		"					
4-Bromofluorobenzene (Surr)			105 %	80	0-120 %		"					
QC Source Sample: Non-SDG (A1	A0410-02)											
EPA 8260D												
Acetone	57.5	10.0	20.0	ug/L	1	40.0	ND	144	39-160%			
Acrylonitrile	21.0	1.00	2.00	ug/L	1	20.0	ND	105	63-135%			
Benzene	21.7	0.100	0.200	ug/L	1	20.0	ND	108	79-120%			
Bromobenzene	17.7	0.250	0.500	ug/L	1	20.0	ND	89	80-120%			
Bromochloromethane	18.4	0.500	1.00	ug/L	1	20.0	ND	92	78-123%			
Bromodichloromethane	19.8	0.500	1.00	ug/L	1	20.0	ND	99	79-125%			
Bromoform	18.9	0.500	1.00	ug/L	1	20.0	ND	95	66-130%			0.54
Bromomethane	30.1	5.00	5.00	ug/L	1	20.0	ND	151	53-141%			Q-54a
2-Butanone (MEK)	44.8	5.00	10.0	ug/L	1	40.0	ND	112	56-143%			
n-Butylbenzene	21.8	0.500	1.00	ug/L	1	20.0	ND	109	75-128%			
sec-Butylbenzene	20.6	0.500	1.00	ug/L	1	20.0	ND	103	77-126%			
tert-Butylbenzene	20.2	0.500	1.00	ug/L	1	20.0	ND	101	78-124%			
Carbon disulfide	20.0	5.00	10.0	ug/L	1	20.0	ND	100	64-133%			
Carbon tetrachloride	21.6	0.500	1.00	ug/L	1	20.0	ND	108	72-136%			
Chlorobenzene	21.2	0.250	0.500	ug/L	1	20.0	ND	106	80-120%			
Chloroethane	18.4	5.00	5.00	ug/L	1	20.0	ND	92	60-138%			
Chloroform	18.3	0.500	1.00	ug/L	1	20.0	ND	92	79-124%			
Chloromethane	16.7	5.00	5.00	ug/L	1	20.0	ND	83	50-139%			Q-54l

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Philip Merenberg



AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: Landfill WA State
Project Manager: Genevieve Schutzius

Report ID: A1A0458 - 04 19 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

		,	Volatile Org	ganic Co	mpounds	by EPA 8	260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1012821 - EPA 5030C							Wa	ter				
Matrix Spike (1012821-MS1)			Prepared	: 01/13/21	10:03 Anal	yzed: 01/13/	/21 13:25					
QC Source Sample: Non-SDG (A1	A0410-02)											
2-Chlorotoluene	18.7	0.500	1.00	ug/L	1	20.0	ND	93	79-122%			
l-Chlorotoluene	19.7	0.500	1.00	ug/L	1	20.0	ND	99	78-122%			
Dibromochloromethane	23.3	0.500	1.00	ug/L	1	20.0	ND	117	74-126%			
,2-Dibromo-3-chloropropane	19.4	2.50	5.00	ug/L	1	20.0	ND	97	62-128%			
,2-Dibromoethane (EDB)	22.8	0.250	0.500	ug/L	1	20.0	ND	114	77-121%			
Dibromomethane	20.7	0.500	1.00	ug/L	1	20.0	ND	103	79-123%			
,2-Dichlorobenzene	18.0	0.250	0.500	ug/L	1	20.0	ND	90	80-120%			
,3-Dichlorobenzene	18.5	0.250	0.500	ug/L	1	20.0	ND	93	80-120%			
,4-Dichlorobenzene	20.3	0.250	0.500	ug/L	1	20.0	ND	102	79-120%			
Dichlorodifluoromethane	17.4	0.500	1.00	ug/L	1	20.0	ND	87	32-152%			
,1-Dichloroethane	18.1	0.200	0.400	ug/L	1	20.0	ND	90	77-125%			
,2-Dichloroethane (EDC)	16.8	0.200	0.400	ug/L	1	20.0	ND	84	73-128%			
,1-Dichloroethene	18.7	0.200	0.400	ug/L	1	20.0	ND	93	71-131%			
is-1,2-Dichloroethene	19.9	0.200	0.400	ug/L	1	20.0	ND	100	78-123%			
ans-1,2-Dichloroethene	20.0	0.200	0.400	ug/L	1	20.0	ND	100	75-124%			
,2-Dichloropropane	18.2	0.250	0.500	ug/L	1	20.0	ND	91	78-122%			
,3-Dichloropropane	19.4	0.500	1.00	ug/L	1	20.0	ND	97	80-120%			
,2-Dichloropropane	22.3	0.500	1.00	ug/L	1	20.0	ND	112	60-139%			
,1-Dichloropropene	21.5	0.500	1.00	ug/L	1	20.0	ND	107	79-125%			
is-1,3-Dichloropropene	21.7	0.500	1.00	ug/L	1	20.0	ND	108	75-124%			
rans-1,3-Dichloropropene	21.6	0.500	1.00	ug/L	1	20.0	ND	108	73-127%			
thylbenzene	21.3	0.250	0.500	ug/L	1	20.0	ND	107	79-121%			
lexachlorobutadiene	18.8	2.50	5.00	ug/L	1	20.0	ND	94	66-134%			
-Hexanone	46.9	5.00	10.0	ug/L	1	40.0	ND	117	57-139%			
sopropylbenzene	21.4	0.500	1.00	ug/L	1	20.0	ND	107	72-131%			
-Isopropyltoluene	22.0	0.500	1.00	ug/L	1	20.0	ND	110	77-127%			
lethylene chloride	18.5	5.00	10.0	ug/L	1	20.0	ND	93	74-124%			
-Methyl-2-pentanone (MiBK)	43.9	5.00	10.0	ug/L	1	40.0	ND	110	67-130%			
lethyl tert-butyl ether (MTBE)	20.4	0.500	1.00	ug/L	1	20.0	ND	102	71-124%			
aphthalene	20.0	1.00	2.00	ug/L	1	20.0	ND	100	61-128%			
-Propylbenzene	17.5	0.250	0.500	ug/L	1	20.0	ND	88	76-126%			
tyrene	22.3	0.500	1.00	ug/L	1	20.0	ND	112	78-123%			
,1,1,2-Tetrachloroethane	21.8	0.200	0.400	ug/L	1	20.0	ND	109	78-124%			

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Philip Meinberg



Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

AMENDED REPORT

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project Number: Landfill WA State
Project Manager: Genevieve Schutzius

Report ID: A1A0458 - 04 19 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D Detection % REC RPD Reporting Spike Source Analyte Result Limit Units Dilution % REC RPD Limit Amount Result Limits Limit Notes Batch 1012821 - EPA 5030C Water Matrix Spike (1012821-MS1) Prepared: 01/13/21 10:03 Analyzed: 01/13/21 13:25 QC Source Sample: Non-SDG (A1A0410-02) 1,1,2,2-Tetrachloroethane 21.1 0.250 0.500 ug/L 1 20.0 ND 105 71-121% 0.40020.0 Tetrachloroethene (PCE) 19.5 0.200 ug/L 1 ND 97 74-129% Toluene 21.5 0.500 1.00 ug/L 1 20.0 ND 107 80-121% 1,2,3-Trichlorobenzene 23.1 1.00 2.00 ug/L 1 20.0 ND 116 69-129% O-54 1,2,4-Trichlorobenzene 22.2 1.00 2.00 ug/L 1 20.0 ND 111 69-130% 1,1,1-Trichloroethane 19.3 0.200 20.0 97 0.400ug/L 1 ND 74-131% 1,1,2-Trichloroethane 19.3 0.250 0.500 ug/L 1 20.0 ND 97 80-120% Trichloroethene (TCE) 18.2 0.40020.0 91 79-123% 0.200 ug/L 1 ND 20.0 93 Trichlorofluoromethane 18.6 1.00 2.00 ug/L 1 ND 65-141% 1,2,3-Trichloropropane 19.5 0.500 1.00 ug/L 1 20.0 ND 97 73-122% 1,2,4-Trimethylbenzene 20.9 0.500 1.00 ug/L 1 20.0 ND 104 76-124% 1,3,5-Trimethylbenzene 20.1 0.500 1.00 20.0 ND 75-124% ug/L 1 101 0.200 20.0 Vinyl chloride 21.2 0.400 ug/L 1 ND 106 58-137% 40.0 m,p-Xylene 39.1 0.500 1.00 ND 98 ug/L 1 80-121% 0.250 0.500 o-Xylene 21.0 ug/L ND 105 78-122% Surr: 1,4-Difluorobenzene (Surr) 97% Limits: 80-120 % Dilution: 1x Recovery: Toluene-d8 (Surr) 99 % 80-120 % 4-Bromofluorobenzene (Surr) 96 % 80-120 %

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Philip Marenberg



AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: Landfill WA State
Project Manager: Genevieve Schutzius

Report ID: A1A0458 - 04 19 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E Detection % REC RPD Reporting Spike Source Dilution Analyte Result Limit Units Result % REC RPD Limit Amount Limits Limit Notes Batch 1012876 - EPA 3510C (Acid/Base Neutral) Water Blank (1012876-BLK1) Prepared: 01/14/21 10:43 Analyzed: 01/14/21 19:44 EPA 8270E Acenaphthene ND 0.00909 0.0182 ug/L ND 0.00909 0.0182 ug/L 1 Acenaphthylene Anthracene ND 0.00909 0.0182 ug/L 1 ND 0.00909 0.01821 Benz(a)anthracene ug/L ND 0.0136 0.0273 ug/L Benzo(a)pyrene 1 0.0136 ND Benzo(b)fluoranthene 0.0273 ug/L 1 ------Benzo(k)fluoranthene ND 0.0136 0.0273 ug/L 1 0.00909 0.0182 ND Benzo(g,h,i)perylene ug/L 1 Chrysene ND 0.00909 0.0182 ug/L 1 Dibenz(a,h)anthracene ND 0.00909 0.0182 ug/L 1 Fluoranthene ND 0.00909 0.0182 ug/L 1 ND 0.00909 0.0182 Fluorene 1 ug/L ---Indeno(1,2,3-cd)pyrene ND 0.00909 0.0182 ug/L 1 ND 0.0182 0.0364 1-Methylnaphthalene ug/L 1 2-Methylnaphthalene ND 0.01820.0364 ug/L 1 Naphthalene ND 0.0182 0.0364 ug/L 1 ------Phenanthrene ND 0.00909 0.0182 ug/L 1 0.00909 0.0182 ug/L Pyrene ND 1 ------Carbazole ND 0.0136 0.0273 ug/L 1 Dibenzofuran ND 0.00909 0.0182 ug/L 1 2-Chlorophenol ND 0.04550.0909 ug/L 1 4-Chloro-3-methylphenol ND 0.0909 0.182 ug/L 1 0.0455 0.0909 2,4-Dichlorophenol ND ug/L 1 2,4-Dimethylphenol ND 0.0455 0.0909 ug/L 1 0.227 0.455 2,4-Dinitrophenol ND ug/L 1 4,6-Dinitro-2-methylphenol ND 0.227 0.455 ug/L 1 2-Methylphenol ND 0.0227 0.0455 ug/L 1 3+4-Methylphenol(s) ND 0.0227 0.0455 ug/L 1 ------2-Nitrophenol ND 0.0909 0.182ug/L 1 0.0909 4-Nitrophenol ND 0.182 ug/L 1 Pentachlorophenol (PCP) ND 0.0909 0.182 ug/L 1 Phenol ND 0.182 0.364 ug/L 1 ND 0.0455 0.0909 2,3,4,6-Tetrachlorophenol ug/L 1

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville

Project Number: Landfill WA State

Project Manager: Genevieve Schutzius

Report ID: A1A0458 - 04 19 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E Detection % REC RPD Reporting Spike Source Analyte Result Units Dilution % REC RPD Limit Limit Amount Result Limits Limit Notes Batch 1012876 - EPA 3510C (Acid/Base Neutral) Water Blank (1012876-BLK1) Prepared: 01/14/21 10:43 Analyzed: 01/14/21 19:44 2,3,5,6-Tetrachlorophenol ND 0.0455 0.0909 ug/L 0.0455 ug/L 2,4,5-Trichlorophenol ND 0.0909 1 ------2,4,6-Trichlorophenol ND 0.04550.0909 ug/L 1 Bis(2-ethylhexyl)phthalate ND 0.182 0.364 ug/L 1 Butyl benzyl phthalate ND 0.1820.364 ug/L 1 Diethylphthalate ND 0.182 0.364 ug/L 1 Dimethylphthalate ND 0.1820.364 ug/L 1 0.182 Di-n-butylphthalate ND 0.364 ug/L 1 0.182 0.364 Di-n-octyl phthalate ND ug/L 1 N-Nitrosodimethylamine ND 0.0227 0.0455 ug/L 1 N-Nitroso-di-n-propylamine ND 0.0227 0.0455 ug/L 1 0.0227 0.0455 N-Nitrosodiphenylamine ND ug/L 1 ND 0.0227 0.0455 Bis(2-Chloroethoxy) methane ug/L 1 ---0.0227 Bis(2-Chloroethyl) ether ND 0.0455 ug/L 1 2,2'-Oxybis(1-Chloropropane) ND 0.0227 0.0455 ug/L 1 Hexachlorobenzene ND 0.00909 0.0182 ug/L 1 ND 0.0227 0.0455 Hexachlorobutadiene 1 ug/L Hexachlorocyclopentadiene ND 0.0455 0.0909 ug/L 1 0.0227 ND 0.0455 Hexachloroethane ug/L 1 ---------2-Chloronaphthalene ND 0.00909 0.0182 ug/L 1 1,2,4-Trichlorobenzene ND 0.0227 0.0455 ug/L 1 ---4-Bromophenyl phenyl ether ND 0.0227 0.0455 ug/L 1 4-Chlorophenyl phenyl ether ND 0.0227 0.0455 ug/L 1 Aniline ND 0.0455 0.0909 ug/L 1 ND 0.0227 4-Chloroaniline 0.0455 ug/L 1 ---------2-Nitroaniline ND 0.182 0.364 ug/L 1 3-Nitroaniline ND 0.182 0.364 ug/L 1 ---4-Nitroaniline ND 0.182 0.364 ug/L 1 Nitrobenzene ND 0.0909 0.182 ug/L 1 ---2,4-Dinitrotoluene ND 0.0909 0.182 ug/L 1 2,6-Dinitrotoluene ND 0.0909 0.182 ug/L 1 Benzoic acid ND 1.14 2.27 ug/L 1

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Benzyl alcohol

Isophorone

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Philip Menenberg

ND

ND

0.0909

0.0227

0.182

0.0455

ug/L

ug/L

1

1



AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: Landfill WA State
Project Manager: Genevieve Schutzius

Report ID: A1A0458 - 04 19 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

		Sei	mivolatile	Organic	Compour	ds by EP	A 8270E					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1012876 - EPA 3510C (A	cid/Base	Neutral)					Wa	ter				
Blank (1012876-BLK1)			Prepared	: 01/14/21	10:43 Ana	yzed: 01/14/	/21 19:44					
Azobenzene (1,2-DPH)	ND	0.0227	0.0455	ug/L	1							
Bis(2-Ethylhexyl) adipate	ND	0.227	0.455	ug/L	1							
3,3'-Dichlorobenzidine	ND	0.455	0.909	ug/L	1							Q-
1,2-Dinitrobenzene	ND	0.227	0.455	ug/L	1							
1,3-Dinitrobenzene	ND	0.227	0.455	ug/L	1							
1,4-Dinitrobenzene	ND	0.227	0.455	ug/L	1							
Pyridine	ND	0.0909	0.182	ug/L	1							
1,2-Dichlorobenzene	ND	0.0227	0.0455	ug/L	1							
1,3-Dichlorobenzene	ND	0.0227	0.0455	ug/L	1							
1,4-Dichlorobenzene	ND	0.0227	0.0455	ug/L	1							
Surr: Nitrobenzene-d5 (Surr)		Reco	very: 77 %	Limits: 44	4-120 %	Dilı	ıtion: 1x					
2-Fluorobiphenyl (Surr)			60 %	44	1-120 %		"					
Phenol-d6 (Surr)			29 %	10	0-133 %		"					
p-Terphenyl-d14 (Surr)			91%	50	0-134 %		"					
2-Fluorophenol (Surr)			41 %	19	0-120 %		"					
2,4,6-Tribromophenol (Surr)			85 %	43	3-140 %		"					
LCS (1012876-BS1)			Prepared	: 01/14/21	10:43 Ana	lyzed: 01/14/	/21 20:21					
EPA 8270E												
Acenaphthene	2.57	0.0200	0.0400	ug/L	2	4.00		64	47-122%			
Acenaphthylene	2.86	0.0200	0.0400	ug/L	2	4.00		72	41-130%			
Anthracene	3.18	0.0200	0.0400	ug/L	2	4.00		80	57-123%			
Benz(a)anthracene	3.36	0.0200	0.0400	ug/L	2	4.00		84	58-125%			
Benzo(a)pyrene	3.31	0.0300	0.0600	ug/L	2	4.00		83	54-128%			
Benzo(b)fluoranthene	3.44	0.0300	0.0600	ug/L	2	4.00		86	53-131%			
Benzo(k)fluoranthene	3.23	0.0300	0.0600	ug/L	2	4.00		81	57-129%			
Benzo(g,h,i)perylene	2.78	0.0200	0.0400	ug/L	2	4.00		69	50-134%			
Chrysene	3.29	0.0200	0.0400	ug/L	2	4.00		82	59-123%			
Dibenz(a,h)anthracene	3.17	0.0200	0.0400	ug/L	2	4.00		79	51-134%			
Fluoranthene	3.39	0.0200	0.0400	ug/L	2	4.00		85	57-128%			
Fluorene	2.90	0.0200	0.0400	ug/L	2	4.00		72	52-124%			
Indeno(1,2,3-cd)pyrene	2.94	0.0200	0.0400	ug/L	2	4.00		74	52-134%			
1-Methylnaphthalene	2.02	0.0400	0.0800	ug/L	2	4.00		51	41-120%			
2-Methylnaphthalene	1.99	0.0400	0.0800	ug/L	2	4.00		50	40-121%			

Apex Laboratories



AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209

Eatonville Project: Project Number: Landfill WA State Project Manager: Genevieve Schutzius

Report ID: A1A0458 - 04 19 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Detection Reporting Spike Source % REC **RPD** % REC Analyte Result Ĺimit Units Dilution Amount Result Limits RPD Limit Notes Limit

Batch 1012876 - EPA 3510C (A	cid/Base No	eutral)					W	ater			
LCS (1012876-BS1)			Prepared: (01/14/21 10	:43 Ana	lyzed: 01/14/	21 20:21				
Naphthalene	1.90	0.0400	0.0800	ug/L	2	4.00		47	40-121%	 	
Phenanthrene	3.01	0.0200	0.0400	ug/L	2	4.00		75	59-120%	 	
Pyrene	3.28	0.0200	0.0400	ug/L	2	4.00		82	57-126%	 	
Carbazole	3.51	0.0300	0.0600	ug/L	2	4.00		88	60-122%	 	
Dibenzofuran	2.67	0.0200	0.0400	ug/L	2	4.00		67	53-120%	 	
2-Chlorophenol	2.86	0.100	0.200	ug/L	2	4.00		72	38-120%	 	
4-Chloro-3-methylphenol	3.12	0.200	0.400	ug/L	2	4.00		78	52-120%	 	
2,4-Dichlorophenol	3.24	0.100	0.200	ug/L	2	4.00		81	47-121%	 	
2,4-Dimethylphenol	2.85	0.100	0.200	ug/L	2	4.00		71	31-124%	 	
2,4-Dinitrophenol	2.80	0.500	1.00	ug/L	2	4.00		70	23-143%	 	Q-31
4,6-Dinitro-2-methylphenol	2.66	0.500	1.00	ug/L	2	4.00		67	44-137%	 	
2-Methylphenol	2.68	0.0500	0.100	ug/L	2	4.00		67	30-120%	 	
3+4-Methylphenol(s)	2.49	0.0500	0.100	ug/L	2	4.00		62	29-120%	 	
2-Nitrophenol	3.06	0.200	0.400	ug/L	2	4.00		76	47-123%	 	
4-Nitrophenol	1.41	0.200	0.400	ug/L	2	4.00		35	10-120%	 	
Pentachlorophenol (PCP)	3.68	0.200	0.400	ug/L	2	4.00		92	35-138%	 	
Phenol	1.22	0.400	0.800	ug/L	2	4.00		31	10-120%	 	
2,3,4,6-Tetrachlorophenol	3.30	0.100	0.200	ug/L	2	4.00		83	50-128%	 	
2,3,5,6-Tetrachlorophenol	3.66	0.100	0.200	ug/L	2	4.00		91	50-121%	 	
2,4,5-Trichlorophenol	3.37	0.100	0.200	ug/L	2	4.00		84	53-123%	 	
2,4,6-Trichlorophenol	3.49	0.100	0.200	ug/L	2	4.00		87	50-125%	 	
Bis(2-ethylhexyl)phthalate	3.54	0.400	0.800	ug/L	2	4.00		88	55-135%	 	
Butyl benzyl phthalate	3.87	0.400	0.800	ug/L	2	4.00		97	53-134%	 	
Diethylphthalate	3.31	0.400	0.800	ug/L	2	4.00		83	56-125%	 	
Dimethylphthalate	3.38	0.400	0.800	ug/L	2	4.00		84	45-127%	 	
Di-n-butylphthalate	3.61	0.400	0.800	ug/L	2	4.00		90	59-127%	 	
Di-n-octyl phthalate	4.06	0.400	0.800	ug/L	2	4.00		101	51-140%	 	
N-Nitrosodimethylamine	1.65	0.0500	0.100	ug/L	2	4.00		41	10-120%	 	
N-Nitroso-di-n-propylamine	3.42	0.0500	0.100	ug/L	2	4.00		85	49-120%	 	
N-Nitrosodiphenylamine	3.26	0.0500	0.100	ug/L	2	4.00		82	51-123%	 	
Bis(2-Chloroethoxy) methane	3.01	0.0500	0.100	ug/L	2	4.00		75	48-120%	 	
Bis(2-Chloroethyl) ether	2.94	0.0500	0.100	ug/L	2	4.00		73	43-120%	 	
2,2'-Oxybis(1-Chloropropane)	2.73	0.0500	0.100	ug/L	2	4.00		68	37-130%	 	
Hexachlorobenzene	2.99	0.0200	0.0400	ug/L	2	4.00		75	53-125%	 	

Apex Laboratories

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Philip Nevemberg

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: Landfill WA State
Project Manager: Genevieve Schutzius

Report ID: A1A0458 - 04 19 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

			mivolatile	<u> </u>	1	,						
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1012876 - EPA 3510C (A	Acid/Base	Neutral)					Wa	ter				
LCS (1012876-BS1)			Prepared	: 01/14/21	10:43 Anal	yzed: 01/14	/21 20:21					
Hexachlorobutadiene	1.03	0.0500	0.100	ug/L	2	4.00		26	22-124%			
Hexachlorocyclopentadiene	0.561	0.100	0.200	ug/L	2	4.00		14	10-127%			
Hexachloroethane	1.03	0.0500	0.100	ug/L	2	4.00		26	21-120%			
2-Chloronaphthalene	2.09	0.0200	0.0400	ug/L	2	4.00		52	40-120%			
1,2,4-Trichlorobenzene	1.38	0.0500	0.100	ug/L	2	4.00		35	29-120%			
4-Bromophenyl phenyl ether	3.03	0.0500	0.100	ug/L	2	4.00		76	55-124%			
4-Chlorophenyl phenyl ether	2.76	0.0500	0.100	ug/L	2	4.00		69	53-121%			
Aniline	2.18	0.100	0.200	ug/L	2	4.00		54	10-120%			
4-Chloroaniline	2.63	0.0500	0.100	ug/L	2	4.00		66	33-120%			
2-Nitroaniline	3.39	0.400	0.800	ug/L	2	4.00		85	55-127%			
3-Nitroaniline	3.06	0.400	0.800	ug/L	2	4.00		77	41-128%			
4-Nitroaniline	2.54	0.400	0.800	ug/L	2	4.00		63	54-128%			
Nitrobenzene	3.02	0.200	0.400	ug/L	2	4.00		75	45-121%			
2,4-Dinitrotoluene	3.21	0.200	0.400	ug/L	2	4.00		80	57-128%			
2,6-Dinitrotoluene	3.04	0.200	0.400	ug/L	2	4.00		76	57-124%			
Benzoic acid	3.93	2.50	2.50	ug/L	2	8.00		49	10-120%			Q-
Benzyl alcohol	3.03	0.200	0.400	ug/L	2	4.00		76	31-120%			
Isophorone	3.40	0.0500	0.100	ug/L	2	4.00		85	42-124%			
Azobenzene (1,2-DPH)	3.04	0.0500	0.100	ug/L	2	4.00		76	61-120%			
Bis(2-Ethylhexyl) adipate	3.66	0.500	1.00	ug/L	2	4.00		92	57-136%			
3,3'-Dichlorobenzidine	8.83	1.00	2.00	ug/L	2	8.00		110	27-129%			
1,2-Dinitrobenzene	3.12	0.500	1.00	ug/L	2	4.00		78	59-120%			
1,3-Dinitrobenzene	3.16	0.500	1.00	ug/L	2	4.00		79	49-128%			
1,4-Dinitrobenzene	3.05	0.500	1.00	ug/L	2	4.00		76	72-130%			
Pyridine	1.26	0.200	0.400	ug/L	2	4.00		31	10-120%			
1,2-Dichlorobenzene	1.34	0.0500	0.100	ug/L	2	4.00		34	32-120%			
1,3-Dichlorobenzene	1.20	0.0500	0.100	ug/L	2	4.00		30	28-120%			
1,4-Dichlorobenzene	1.26	0.0500	0.100	ug/L	2	4.00		31	29-120%			
Surr: Nitrobenzene-d5 (Surr)		Reco	very: 81 %	Limits: 44	4-120 %	Dilı	ution: 2x					
2-Fluorobiphenyl (Surr)			68 %	44	4-120 %		"					
Phenol-d6 (Surr)			28 %	10	0-133 %		"					
p-Terphenyl-d14 (Surr)			90 %	50	0-134 %		"					
2-Fluorophenol (Surr)			40 %	19	0-120 %		"					
2,4,6-Tribromophenol (Surr)			92 %	43	3-140 %		"					

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Page 66 of 104



AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: Landfill WA State
Project Manager: Genevieve Schutzius

Report ID: A1A0458 - 04 19 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

		Sei	mivolatile (Organic	Compour	ds by EP	A 8270E					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1012876 - EPA 3510C ((Acid/Base	Neutral)					Wa	ter				
LCS Dup (1012876-BSD1)			Prepared	01/14/21	10:43 Anal	lyzed: 01/14/	/21 20:57					Q-19
<u>EPA 8270E</u>												
Acenaphthene	2.95	0.0200	0.0400	ug/L	2	4.00		74	47-122%	14	30%	
Acenaphthylene	3.22	0.0200	0.0400	ug/L	2	4.00		80	41-130%	12	30%	
Anthracene	3.25	0.0200	0.0400	ug/L	2	4.00		81	57-123%	2	30%	
Benz(a)anthracene	3.36	0.0200	0.0400	ug/L	2	4.00		84	58-125%	0.02	30%	
Benzo(a)pyrene	3.40	0.0300	0.0600	ug/L	2	4.00		85	54-128%	3	30%	
Benzo(b)fluoranthene	3.52	0.0300	0.0600	ug/L	2	4.00		88	53-131%	2	30%	
Benzo(k)fluoranthene	3.24	0.0300	0.0600	ug/L	2	4.00		81	57-129%	0.2	30%	
Benzo(g,h,i)perylene	2.81	0.0200	0.0400	ug/L	2	4.00		70	50-134%	1	30%	
Chrysene	3.22	0.0200	0.0400	ug/L	2	4.00		80	59-123%	2	30%	
Dibenz(a,h)anthracene	3.23	0.0200	0.0400	ug/L	2	4.00		81	51-134%	2	30%	
luoranthene	3.40	0.0200	0.0400	ug/L	2	4.00		85	57-128%	0.2	30%	
Fluorene	3.14	0.0200	0.0400	ug/L	2	4.00		79	52-124%	8	30%	
Indeno(1,2,3-cd)pyrene	2.98	0.0200	0.0400	ug/L	2	4.00		75	52-134%	1	30%	
l-Methylnaphthalene	2.69	0.0400	0.0800	ug/L	2	4.00		67	41-120%	28	30%	
2-Methylnaphthalene	2.71	0.0400	0.0800	ug/L	2	4.00		68	40-121%	31	30%	Q-2
Naphthalene	2.51	0.0400	0.0800	ug/L	2	4.00		63	40-121%	28	30%	
Phenanthrene	3.05	0.0200	0.0400	ug/L	2	4.00		76	59-120%	1	30%	
Pyrene	3.34	0.0200	0.0400	ug/L	2	4.00		83	57-126%	2	30%	
Carbazole	3.53	0.0300	0.0600	ug/L	2	4.00		88	60-122%	0.7	30%	
Dibenzofuran	2.98	0.0200	0.0400	ug/L	2	4.00		74	53-120%	11	30%	
2-Chlorophenol	2.85	0.100	0.200	ug/L	2	4.00		71	38-120%		30%	
4-Chloro-3-methylphenol	3.13	0.200	0.400	ug/L	2	4.00		78	52-120%	0.3	30%	
2,4-Dichlorophenol	3.26	0.100	0.200	ug/L	2	4.00		82	47-121%	0.8	30%	
2,4-Dimethylphenol	3.05	0.100	0.200	ug/L	2	4.00		76	31-124%	7	30%	
2,4-Dinitrophenol	2.77	0.500	1.00	ug/L	2	4.00		69	23-143%	1	30%	Q-3
4,6-Dinitro-2-methylphenol	2.72	0.500	1.00	ug/L	2	4.00		68	44-137%		30%	
2-Methylphenol	2.68	0.0500	0.100	ug/L	2	4.00		67	30-120%		30%	
3+4-Methylphenol(s)	2.51	0.0500	0.100	ug/L	2	4.00		63	29-120%		30%	
2-Nitrophenol	3.15	0.200	0.400	ug/L	2	4.00		79	47-123%		30%	
4-Nitrophenol	1.44	0.200	0.400	ug/L	2	4.00		36	10-120%	2	30%	
Pentachlorophenol (PCP)	3.69	0.200	0.400	ug/L	2	4.00		92	35-138%		30%	
Phenol	1.27	0.400	0.800	ug/L	2	4.00		32	10-120%	3	30%	
2,3,4,6-Tetrachlorophenol	3.33	0.100	0.200	ug/L	2	4.00		83	50-128%		30%	

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The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: Landfill WA State
Project Manager: Genevieve Schutzius

Report ID: A1A0458 - 04 19 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS Semivolatile Organic Compounds by EPA 8270E

Detection Reporting Spike Source % REC RPD

Analyte	Result	Limit	Limit	Units	Dilution	Amount	Result	% REC	Limits	RPD	Limit	Notes
Batch 1012876 - EPA 3510C (Acid/Base I	Neutral)					Wa	ter				
LCS Dup (1012876-BSD1)			Prepared	: 01/14/21	10:43 Anal	lyzed: 01/14/	/21 20:57					Q-19
2,3,5,6-Tetrachlorophenol	3.72	0.100	0.200	ug/L	2	4.00		93	50-121%	2	30%	
2,4,5-Trichlorophenol	3.37	0.100	0.200	ug/L	2	4.00		84	53-123%	0.1	30%	
2,4,6-Trichlorophenol	3.51	0.100	0.200	ug/L	2	4.00		88	50-125%	0.8	30%	
Bis(2-ethylhexyl)phthalate	3.51	0.400	0.800	ug/L	2	4.00		88	55-135%	0.7	30%	
Butyl benzyl phthalate	3.80	0.400	0.800	ug/L	2	4.00		95	53-134%	2	30%	
Diethylphthalate	3.32	0.400	0.800	ug/L	2	4.00		83	56-125%	0.2	30%	
Dimethylphthalate	3.38	0.400	0.800	ug/L	2	4.00		84	45-127%	0.005	30%	
Di-n-butylphthalate	3.67	0.400	0.800	ug/L	2	4.00		92	59-127%	2	30%	
Di-n-octyl phthalate	4.17	0.400	0.800	ug/L	2	4.00		104	51-140%	3	30%	
N-Nitrosodimethylamine	1.71	0.0500	0.100	ug/L	2	4.00		43	10-120%	4	30%	
N-Nitroso-di-n-propylamine	3.42	0.0500	0.100	ug/L	2	4.00		85	49-120%	0.04	30%	
N-Nitrosodiphenylamine	3.31	0.0500	0.100	ug/L	2	4.00		83	51-123%	1	30%	
Bis(2-Chloroethoxy) methane	3.05	0.0500	0.100	ug/L	2	4.00		76	48-120%	2	30%	
Bis(2-Chloroethyl) ether	2.98	0.0500	0.100	ug/L	2	4.00		75	43-120%	2	30%	
2,2'-Oxybis(1-Chloropropane)	2.90	0.0500	0.100	ug/L	2	4.00		72	37-130%	6	30%	
Hexachlorobenzene	3.06	0.0200	0.0400	ug/L	2	4.00		76	53-125%	2	30%	
Hexachlorobutadiene	2.04	0.0500	0.100	ug/L	2	4.00		51	22-124%	66	30%	Q-2
Hexachlorocyclopentadiene	1.30	0.100	0.200	ug/L	2	4.00		32	10-127%	79	30%	Q-2
Hexachloroethane	1.97	0.0500	0.100	ug/L	2	4.00		49	21-120%	62	30%	Q-2
2-Chloronaphthalene	2.68	0.0200	0.0400	ug/L	2	4.00		67	40-120%	25	30%	
1,2,4-Trichlorobenzene	2.22	0.0500	0.100	ug/L	2	4.00		55	29-120%	46	30%	Q-2
4-Bromophenyl phenyl ether	3.22	0.0500	0.100	ug/L	2	4.00		81	55-124%	6	30%	
4-Chlorophenyl phenyl ether	3.06	0.0500	0.100	ug/L	2	4.00		76	53-121%	10	30%	
Aniline	2.48	0.100	0.200	ug/L	2	4.00		62	10-120%	13	30%	
4-Chloroaniline	2.80	0.0500	0.100	ug/L	2	4.00		70	33-120%	6	30%	
2-Nitroaniline	3.39	0.400	0.800	ug/L	2	4.00		85	55-127%	0.2	30%	
3-Nitroaniline	3.08	0.400	0.800	ug/L	2	4.00		77	41-128%	0.6	30%	
4-Nitroaniline	2.65	0.400	0.800	ug/L	2	4.00		66	54-128%	4	30%	
Nitrobenzene	3.13	0.200	0.400	ug/L	2	4.00		78	45-121%	4	30%	
2,4-Dinitrotoluene	3.22	0.200	0.400	ug/L	2	4.00		81	57-128%		30%	
2,6-Dinitrotoluene	3.10	0.200	0.400	ug/L	2	4.00		77	57-124%	2	30%	
Benzoic acid	3.51	2.50	2.50	ug/L	2	8.00		44	10-120%		30%	Q-3
Benzyl alcohol	3.09	0.200	0.400	ug/L	2	4.00		77	31-120%		30%	
Isophorone	3.46	0.0500	0.100	ug/L	2	4.00		86	42-124%		30%	

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Philip Nevenberg



Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

AMENDED REPORT

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project Number: **Eatonville**Project Manager: **Genevieve Schutzius**

Report ID: A1A0458 - 04 19 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1012876 - EPA 3510C (A	Acid/Base	Neutral)					Wa	ter				
LCS Dup (1012876-BSD1)			Prepared	1: 01/14/21	10:43 Anal	yzed: 01/14	/21 20:57					Q-19
Azobenzene (1,2-DPH)	3.10	0.0500	0.100	ug/L	2	4.00		78	61-120%	2	30%	
Bis(2-Ethylhexyl) adipate	3.71	0.500	1.00	ug/L	2	4.00		93	57-136%	1	30%	
3,3'-Dichlorobenzidine	9.27	1.00	2.00	ug/L	2	8.00		116	27-129%	5	30%	
1,2-Dinitrobenzene	3.14	0.500	1.00	ug/L	2	4.00		78	59-120%	0.4	30%	
1,3-Dinitrobenzene	3.19	0.500	1.00	ug/L	2	4.00		80	49-128%	1	30%	
1,4-Dinitrobenzene	3.11	0.500	1.00	ug/L	2	4.00		78	72-130%	2	30%	
Pyridine	1.20	0.200	0.400	ug/L	2	4.00		30	10-120%	5	30%	
1,2-Dichlorobenzene	2.14	0.0500	0.100	ug/L	2	4.00		54	32-120%	46	30%	Q-24
1,3-Dichlorobenzene	2.01	0.0500	0.100	ug/L	2	4.00		50	28-120%	50	30%	Q-24
1,4-Dichlorobenzene	2.04	0.0500	0.100	ug/L	2	4.00		51	29-120%	48	30%	Q-24
Surr: Nitrobenzene-d5 (Surr)		Reco	very: 82 %	Limits: 4	4-120 %	Dilı	ution: 2x					
2-Fluorobiphenyl (Surr)			72 %	44	4-120 %		"					
Phenol-d6 (Surr)			29 %	10	0-133 %		"					
p-Terphenyl-d14 (Surr)			89 %	50	0-134 %		"					
2-Fluorophenol (Surr)			41 %	19	0-120 %		"					
2,4,6-Tribromophenol (Surr)			93 %	43	3-140 %		"					

Apex Laboratories

Philip Marenberg



AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: Landfill WA State
Project Manager: Genevieve Schutzius

Report ID: A1A0458 - 04 19 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E Detection % REC RPD Reporting Spike Source Dilution Analyte Result Limit Units Result % REC RPD Limit Amount Limits Limit Notes Batch 1012988 - EPA 3510C (Acid/Base Neutral) Water Blank (1012988-BLK1) Prepared: 01/18/21 10:43 Analyzed: 01/18/21 15:50 EPA 8270E Acenaphthene ND 0.00909 0.0182 ug/L ND 0.00909 0.0182 ug/L 1 Acenaphthylene Anthracene ND 0.00909 0.0182 ug/L 1 ND 0.00909 0.01821 Benz(a)anthracene ug/L ND 0.0136 0.0273 ug/L Benzo(a)pyrene 1 0.0136 ND Benzo(b)fluoranthene 0.0273 ug/L 1 ------Benzo(k)fluoranthene ND 0.0136 0.0273 ug/L 1 0.00909 0.0182 ND Benzo(g,h,i)perylene ug/L 1 Chrysene ND 0.00909 0.0182 ug/L 1 Dibenz(a,h)anthracene ND 0.00909 0.0182 ug/L 1 Fluoranthene ND 0.00909 0.0182 ug/L 1 ND 0.00909 0.0182 Fluorene 1 ug/L ---Indeno(1,2,3-cd)pyrene ND 0.00909 0.0182 ug/L 1 ND 0.0182 0.0364 Q-30 1-Methylnaphthalene ug/L 1 Q-30 2-Methylnaphthalene ND 0.01820.0364 ug/L 1 Naphthalene ND 0.0182 0.0364 ug/L 1 Q-30 ------Phenanthrene ND 0.00909 0.0182 ug/L 1 0.00909 0.0182 ug/L Pyrene ND 1 ---Carbazole ND 0.0136 0.0273 ug/L 1 Dibenzofuran ND 0.00909 0.0182 ug/L 1 2-Chlorophenol ND 0.04550.0909 ug/L 1 4-Chloro-3-methylphenol ND 0.0909 0.182 ug/L 1 0.0455 0.0909 2,4-Dichlorophenol ND ug/L 1 2,4-Dimethylphenol ND 0.0455 0.0909 ug/L 1 0.227 0.455 2,4-Dinitrophenol ND ug/L 1 4,6-Dinitro-2-methylphenol ND 0.227 0.455 ug/L 1 2-Methylphenol ND 0.0227 0.0455 ug/L 1 3+4-Methylphenol(s) ND 0.0227 0.0455 ug/L 1 ------2-Nitrophenol ND 0.0909 0.182ug/L 1 0.0909 4-Nitrophenol ND 0.182 ug/L 1 Pentachlorophenol (PCP) ND 0.0909 0.182 ug/L 1 Phenol ND 0.182 0.364 ug/L 1 ND 0.0455 0.0909 2,3,4,6-Tetrachlorophenol ug/L 1

Apex Laboratories

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: Landfill WA State
Project Manager: Genevieve Schutzius

Report ID: A1A0458 - 04 19 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E Detection % REC RPD Reporting Spike Source Analyte Result Units Dilution % REC RPD Limit Limit Amount Result Limits Limit Notes Batch 1012988 - EPA 3510C (Acid/Base Neutral) Water Blank (1012988-BLK1) Prepared: 01/18/21 10:43 Analyzed: 01/18/21 15:50 2,3,5,6-Tetrachlorophenol ND 0.0455 0.0909 ug/L 0.0455 ug/L 2,4,5-Trichlorophenol ND 0.0909 1 ------2,4,6-Trichlorophenol ND 0.04550.0909 ug/L 1 Bis(2-ethylhexyl)phthalate ND 0.182 0.364 ug/L 1 Butyl benzyl phthalate ND 0.1820.364 ug/L 1 Diethylphthalate ND 0.182 0.364 ug/L 1 Dimethylphthalate ND 0.1820.364 ug/L 1 0.182 Di-n-butylphthalate ND 0.364 ug/L 1 0.182 0.364 Di-n-octyl phthalate ND ug/L 1 N-Nitrosodimethylamine ND 0.0227 0.0455 ug/L 1 N-Nitroso-di-n-propylamine ND 0.0227 0.0455 ug/L 1 0.0227 0.0455 N-Nitrosodiphenylamine ND ug/L 1 0.0455 ND 0.0227 Bis(2-Chloroethoxy) methane ug/L 1 ---0.0227 Bis(2-Chloroethyl) ether ND 0.0455 ug/L 1 2,2'-Oxybis(1-Chloropropane) ND 0.0227 0.0455 ug/L 1 Hexachlorobenzene ND 0.00909 0.0182 ug/L 1 ND 0.0227 0.0455 Q-30 Hexachlorobutadiene 1 ug/L Hexachlorocyclopentadiene ND 0.0455 0.0909 ug/L 1 0.0227 Q-30 ND 0.0455 Hexachloroethane ug/L 1 ---------2-Chloronaphthalene ND 0.00909 0.0182 ug/L 1 1,2,4-Trichlorobenzene ND 0.0227 0.0455 O - 30ug/L 1 ---4-Bromophenyl phenyl ether ND 0.0227 0.0455 ug/L 1 4-Chlorophenyl phenyl ether ND 0.0227 0.0455 ug/L 1 Aniline ND 0.0455 0.0909 ug/L 1 0.0455 ND 0.0227 4-Chloroaniline ug/L 1 ------2-Nitroaniline ND 0.182 0.364 ug/L 1 3-Nitroaniline ND 0.182 0.364 ug/L 1 ---4-Nitroaniline ND 0.182 0.364 ug/L 1 Nitrobenzene ND 0.0909 0.182 ug/L 1 ---2,4-Dinitrotoluene ND 0.0909 0.182 ug/L 1 2,6-Dinitrotoluene ND 0.0909 0.182 ug/L 1 Benzoic acid ND 1.14 2.27 ug/L 1 Benzyl alcohol ND 0.0909 0.182ug/L 1 Isophorone ND 0.0227 0.0455 ug/L 1

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Manherz



AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project Number: Landfill WA State
Project Manager: Genevieve Schutzius

Report ID: A1A0458 - 04 19 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

		Sei	mivolatile	Organic	Compour	ds by EP	A 8270E					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1012988 - EPA 3510C (A	Acid/Base	Neutral)					Wa	ter				
Blank (1012988-BLK1)			Prepared	1: 01/18/21	10:43 Ana	lyzed: 01/18	/21 15:50					
Azobenzene (1,2-DPH)	ND	0.0227	0.0455	ug/L	1							
Bis(2-Ethylhexyl) adipate	ND	0.227	0.455	ug/L	1							
3,3'-Dichlorobenzidine	ND	0.455	0.909	ug/L	1							Q-5
1,2-Dinitrobenzene	ND	0.227	0.455	ug/L	1							
1,3-Dinitrobenzene	ND	0.227	0.455	ug/L	1							
1,4-Dinitrobenzene	ND	0.227	0.455	ug/L	1							
Pyridine	ND	0.0909	0.182	ug/L	1							
1,2-Dichlorobenzene	ND	0.0227	0.0455	ug/L	1							Q-3
1,3-Dichlorobenzene	ND	0.0227	0.0455	ug/L	1							Q-3
1,4-Dichlorobenzene	ND	0.0227	0.0455	ug/L	1							Q-3
Surr: Nitrobenzene-d5 (Surr)		Reco	very: 74 %	Limits: 44	4-120 %	Dili	ution: 1x					
2-Fluorobiphenyl (Surr)			55 %	44	4-120 %		"					
Phenol-d6 (Surr)			28 %	10	0-133 %		"					
p-Terphenyl-d14 (Surr)			83 %	50	0-134 %		"					
2-Fluorophenol (Surr)			40 %	19	0-120 %		"					
2,4,6-Tribromophenol (Surr)			80 %	43	3-140 %		"					
LCS (1012988-BS1)			Prepared	1: 01/18/21	10:43 Ana	lyzed: 01/18	/21 16:26					
EPA 8270E												
Acenaphthene	2.10	0.0200	0.0400	ug/L	2	4.00		53	47-122%			
Acenaphthylene	2.45	0.0200	0.0400	ug/L	2	4.00		61	41-130%			
Anthracene	3.11	0.0200	0.0400	ug/L	2	4.00		78	57-123%			
Benz(a)anthracene	3.31	0.0200	0.0400	ug/L	2	4.00		83	58-125%			
Benzo(a)pyrene	3.31	0.0300	0.0600	ug/L	2	4.00		83	54-128%			
Benzo(b)fluoranthene	3.34	0.0300	0.0600	ug/L	2	4.00		83	53-131%			
Benzo(k)fluoranthene	3.16	0.0300	0.0600	ug/L	2	4.00		79	57-129%			
Benzo(g,h,i)perylene	3.57	0.0200	0.0400	ug/L	2	4.00		89	50-134%			
Chrysene	3.19	0.0200	0.0400	ug/L	2	4.00		80	59-123%			
Dibenz(a,h)anthracene	3.19	0.0200	0.0400	ug/L	2	4.00		80	51-134%			
Fluoranthene	3.37	0.0200	0.0400	ug/L	2	4.00		84	57-128%			
Fluorene	2.64	0.0200	0.0400	ug/L	2	4.00		66	52-124%			
Indeno(1,2,3-cd)pyrene	3.22	0.0200	0.0400	ug/L	2	4.00		80	52-134%			
1-Methylnaphthalene	1.55	0.0400	0.0800	ug/L	2	4.00		39	41-120%			Q-3
2-Methylnaphthalene	1.50	0.0400	0.0800	ug/L	2	4.00		38	40-121%			Q-3

Apex Laboratories

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Philip Memberg



AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: Landfill WA State
Project Manager: Genevieve Schutzius

Report ID: A1A0458 - 04 19 23 1558

RPD

% REC

QUALITY CONTROL (QC) SAMPLE RESULTS

Detection

Reporting

Semivolatile Organic Compounds by EPA 8270E

Spike

Source

Analyte	Result	Limit	Limit	Units	Dilution	Amount	Result	% REC	Limits	RPD	Limit	Notes
Batch 1012988 - EPA 3510C (Acid/Base I	Neutral)					Wa	ter				
LCS (1012988-BS1)			Prepared	: 01/18/21	10:43 Anal	yzed: 01/18/	/21 16:26					
Naphthalene	1.48	0.0400	0.0800	ug/L	2	4.00		37	40-121%			Q-30
Phenanthrene	2.93	0.0200	0.0400	ug/L	2	4.00		73	59-120%			
Pyrene	3.32	0.0200	0.0400	ug/L	2	4.00		83	57-126%			
Carbazole	3.44	0.0300	0.0600	ug/L	2	4.00		86	60-122%			
Dibenzofuran	2.37	0.0200	0.0400	ug/L	2	4.00		59	53-120%			
2-Chlorophenol	2.67	0.100	0.200	ug/L	2	4.00		67	38-120%			
4-Chloro-3-methylphenol	3.06	0.200	0.400	ug/L	2	4.00		77	52-120%			
2,4-Dichlorophenol	3.13	0.100	0.200	ug/L	2	4.00		78	47-121%			
2,4-Dimethylphenol	3.22	0.100	0.200	ug/L	2	4.00		81	31-124%			
2,4-Dinitrophenol	2.85	0.500	1.00	ug/L	2	4.00		71	23-143%			
4,6-Dinitro-2-methylphenol	2.85	0.500	1.00	ug/L	2	4.00		71	44-137%			
2-Methylphenol	2.63	0.0500	0.100	ug/L	2	4.00		66	30-120%			
3+4-Methylphenol(s)	2.48	0.0500	0.100	ug/L	2	4.00		62	29-120%			
2-Nitrophenol	2.92	0.200	0.400	ug/L	2	4.00		73	47-123%			
4-Nitrophenol	1.42	0.200	0.400	ug/L	2	4.00		35	10-120%			
Pentachlorophenol (PCP)	3.46	0.200	0.400	ug/L	2	4.00		87	35-138%			
Phenol	1.23	0.400	0.800	ug/L	2	4.00		31	10-120%			
2,3,4,6-Tetrachlorophenol	3.25	0.100	0.200	ug/L	2	4.00		81	50-128%			
2,3,5,6-Tetrachlorophenol	3.59	0.100	0.200	ug/L	2	4.00		90	50-121%			
2,4,5-Trichlorophenol	3.33	0.100	0.200	ug/L	2	4.00		83	53-123%			
2,4,6-Trichlorophenol	3.38	0.100	0.200	ug/L	2	4.00		84	50-125%			
Bis(2-ethylhexyl)phthalate	3.35	0.400	0.800	ug/L	2	4.00		84	55-135%			
Butyl benzyl phthalate	3.71	0.400	0.800	ug/L	2	4.00		93	53-134%			
Diethylphthalate	3.25	0.400	0.800	ug/L	2	4.00		81	56-125%			
Dimethylphthalate	3.26	0.400	0.800	ug/L	2	4.00		81	45-127%			
Di-n-butylphthalate	3.53	0.400	0.800	ug/L	2	4.00		88	59-127%			
Di-n-octyl phthalate	3.72	0.400	0.800	ug/L	2	4.00		93	51-140%			
N-Nitrosodimethylamine	1.71	0.0500	0.100	ug/L	2	4.00		43	10-120%			
N-Nitroso-di-n-propylamine	3.20	0.0500	0.100	ug/L	2	4.00		80	49-120%			
N-Nitrosodiphenylamine	3.18	0.0500	0.100	ug/L	2	4.00		79	51-123%			
Bis(2-Chloroethoxy) methane	2.89	0.0500	0.100	ug/L	2	4.00		72	48-120%			
Bis(2-Chloroethyl) ether	2.85	0.0500	0.100	ug/L	2	4.00		71	43-120%			
2,2'-Oxybis(1-Chloropropane)	2.36	0.0500	0.100	ug/L	2	4.00		59	37-130%			
Hexachlorobenzene	2.89	0.0200	0.0400	ug/L	2	4.00		72	53-125%			

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Philip Nevenberg



AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project Number: Eatonville
Project Number: Landfill WA State
Project Manager: Genevieve Schutzius

Report ID: A1A0458 - 04 19 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

		Sei	mivolatile (Organic (Compour	ds by EP	A 8270E					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1012988 - EPA 3510C (A	Acid/Base	Neutral)					Wa	ter				
LCS (1012988-BS1)			Prepared	: 01/18/21	10:43 Anal	yzed: 01/18/	/21 16:26					
Hexachlorobutadiene	0.690	0.0500	0.100	ug/L	2	4.00		17	22-124%			Q-3
Hexachlorocyclopentadiene	0.674	0.100	0.200	ug/L	2	4.00		17	10-127%			
Hexachloroethane	0.727	0.0500	0.100	ug/L	2	4.00		18	21-120%			Q-3
2-Chloronaphthalene	1.60	0.0200	0.0400	ug/L	2	4.00		40	40-120%			
1,2,4-Trichlorobenzene	1.00	0.0500	0.100	ug/L	2	4.00		25	29-120%			Q-3
4-Bromophenyl phenyl ether	2.78	0.0500	0.100	ug/L	2	4.00		70	55-124%			
4-Chlorophenyl phenyl ether	2.35	0.0500	0.100	ug/L	2	4.00		59	53-121%			
Aniline	2.23	0.100	0.200	ug/L	2	4.00		56	10-120%			
4-Chloroaniline	2.55	0.0500	0.100	ug/L	2	4.00		64	33-120%			
2-Nitroaniline	3.23	0.400	0.800	ug/L	2	4.00		81	55-127%			
3-Nitroaniline	2.89	0.400	0.800	ug/L	2	4.00		72	41-128%			
4-Nitroaniline	2.32	0.400	0.800	ug/L	2	4.00		58	54-128%			
Nitrobenzene	2.76	0.200	0.400	ug/L	2	4.00		69	45-121%			
2,4-Dinitrotoluene	3.18	0.200	0.400	ug/L	2	4.00		79	57-128%			
2,6-Dinitrotoluene	2.98	0.200	0.400	ug/L	2	4.00		74	57-124%			
Benzoic acid	3.74	2.50	2.50	ug/L	2	8.00		47	10-120%			
Benzyl alcohol	3.05	0.200	0.400	ug/L	2	4.00		76	31-120%			
Isophorone	3.27	0.0500	0.100	ug/L	2	4.00		82	42-124%			
Azobenzene (1,2-DPH)	2.80	0.0500	0.100	ug/L	2	4.00		70	61-120%			
Bis(2-Ethylhexyl) adipate	3.47	0.500	1.00	ug/L	2	4.00		87	57-136%			
3,3'-Dichlorobenzidine	7.01	1.00	2.00	ug/L	2	8.00		88	27-129%			
1,2-Dinitrobenzene	3.04	0.500	1.00	ug/L	2	4.00		76	59-120%			
1,3-Dinitrobenzene	3.08	0.500	1.00	ug/L	2	4.00		77	49-128%			
1,4-Dinitrobenzene	3.03	0.500	1.00	ug/L	2	4.00		76	72-130%			
Pyridine	1.32	0.200	0.400	ug/L	2	4.00		33	10-120%			
1,2-Dichlorobenzene	0.973	0.0500	0.100	ug/L	2	4.00		24	32-120%			Q-3
1.3-Dichlorobenzene	0.858	0.0500	0.100	ug/L	2	4.00		21	28-120%			Q-3
1,4-Dichlorobenzene	0.904	0.0500	0.100	ug/L	2	4.00		23	29-120%			0-3
Surr: Nitrobenzene-d5 (Surr)			very: 73 %	Limits: 44			ution: 2x					
2-Fluorobiphenyl (Surr)		neco	59 %		-120 % -120 %	Diii	uton. 2x					
Phenol-d6 (Surr)			28 %)-133 %		"					
p-Terphenyl-d14 (Surr)			83 %)-134 %		"					
2-Fluorophenol (Surr)			39 %		0-134 % 0-120 %		,,					
2-r tuoropnenot (Surr) 2,4,6-Tribromophenol (Surr)			39 % 87 %		7-120 % B-140 %		_					

Apex Laboratories

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Philip Memberg



AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: Landfill WA State
Project Manager: Genevieve Schutzius

Report ID: A1A0458 - 04 19 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

		Se	mivolatile (Organic	Compoun	ds by EP/	A 8270E					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1012988 - EPA 3510C (Acid/Base	Neutral)					Wa	ter				
LCS Dup (1012988-BSD1)			Prepared	: 01/18/21	10:43 Ana	yzed: 01/18/	/21 17:01					Q-1
EPA 8270E												
Acenaphthene	2.46	0.0200	0.0400	ug/L	2	4.00		61	47-122%	16	30%	
Acenaphthylene	2.77	0.0200	0.0400	ug/L	2	4.00		69	41-130%	12	30%	
Anthracene	3.07	0.0200	0.0400	ug/L	2	4.00		77	57-123%	1	30%	
Benz(a)anthracene	3.22	0.0200	0.0400	ug/L	2	4.00		81	58-125%	2	30%	
Benzo(a)pyrene	3.30	0.0300	0.0600	ug/L	2	4.00		83	54-128%	0.07	30%	
Benzo(b)fluoranthene	3.29	0.0300	0.0600	ug/L	2	4.00		82	53-131%	1	30%	
Benzo(k)fluoranthene	3.20	0.0300	0.0600	ug/L	2	4.00		80	57-129%	1	30%	
Benzo(g,h,i)perylene	3.46	0.0200	0.0400	ug/L	2	4.00		87	50-134%	3	30%	
Chrysene	3.10	0.0200	0.0400	ug/L	2	4.00		77	59-123%	3	30%	
Dibenz(a,h)anthracene	3.16	0.0200	0.0400	ug/L	2	4.00		79	51-134%	1	30%	
Fluoranthene	3.26	0.0200	0.0400	ug/L	2	4.00		82	57-128%	3	30%	
Fluorene	2.84	0.0200	0.0400	ug/L	2	4.00		71	52-124%	8	30%	
ndeno(1,2,3-cd)pyrene	3.16	0.0200	0.0400	ug/L	2	4.00		79	52-134%	2	30%	
l-Methylnaphthalene	2.04	0.0400	0.0800	ug/L	2	4.00		51	41-120%	27	30%	
2-Methylnaphthalene	2.02	0.0400	0.0800	ug/L	2	4.00		50	40-121%	29	30%	
Naphthalene	1.92	0.0400	0.0800	ug/L	2	4.00		48	40-121%	26	30%	
Phenanthrene	2.87	0.0200	0.0400	ug/L	2	4.00		72	59-120%	2	30%	
Pyrene	3.20	0.0200	0.0400	ug/L	2	4.00		80	57-126%	4	30%	
Carbazole	3.35	0.0300	0.0600	ug/L	2	4.00		84	60-122%	3	30%	
Dibenzofuran	2.66	0.0200	0.0400	ug/L	2	4.00		66	53-120%	11	30%	
2-Chlorophenol	2.67	0.100	0.200	ug/L	2	4.00		67	38-120%		30%	
4-Chloro-3-methylphenol	3.07	0.200	0.400	ug/L	2	4.00		77	52-120%		30%	
2,4-Dichlorophenol	3.11	0.100	0.200	ug/L	2	4.00		78	47-121%		30%	
2,4-Dimethylphenol	2.97	0.100	0.200	ug/L	2	4.00		74	31-124%		30%	
2,4-Dinitrophenol	2.74	0.500	1.00	ug/L	2	4.00		68	23-143%		30%	
4,6-Dinitro-2-methylphenol	2.76	0.500	1.00	ug/L	2	4.00		69	44-137%		30%	
2-Methylphenol	2.58	0.0500	0.100	ug/L	2	4.00		64	30-120%		30%	
3+4-Methylphenol(s)	2.41	0.0500	0.100	ug/L	2	4.00		60	29-120%		30%	
2-Nitrophenol	2.93	0.200	0.400	ug/L	2	4.00		73	47-123%		30%	
4-Nitrophenol	1.42	0.200	0.400	ug/L	2	4.00		35	10-120%		30%	
Pentachlorophenol (PCP)	3.29	0.200	0.400	ug/L	2	4.00		82	35-138%		30%	
Phenol	1.21	0.400	0.800	ug/L	2	4.00		30	10-120%		30%	
2,3,4,6-Tetrachlorophenol	3.23	0.100	0.200	ug/L ug/L	2	4.00		81	50-128%		30%	

Apex Laboratories

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Philip Merenberg



AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water SolutionsProject:Eatonville55 SW Yamhill St, Ste 300Project Number:Landfill W

55 SW Yamhill St, Ste 300Project Number:Landfill WA StateReport ID:Portland, OR 97209Project Manager:Genevieve SchutziusA1A0458 - 04 19 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1012988 - EPA 3510C (Acid/Base	Neutral)					Wa	ter				
LCS Dup (1012988-BSD1)			Prepared	: 01/18/21	10:43 Anal	yzed: 01/18/	/21 17:01					Q-19
2,3,5,6-Tetrachlorophenol	3.50	0.100	0.200	ug/L	2	4.00		88	50-121%	2	30%	
2,4,5-Trichlorophenol	3.23	0.100	0.200	ug/L	2	4.00		81	53-123%	3	30%	
2,4,6-Trichlorophenol	3.31	0.100	0.200	ug/L	2	4.00		83	50-125%	2	30%	
Bis(2-ethylhexyl)phthalate	3.31	0.400	0.800	ug/L	2	4.00		83	55-135%	1	30%	
Butyl benzyl phthalate	3.64	0.400	0.800	ug/L	2	4.00		91	53-134%	2	30%	
Diethylphthalate	3.26	0.400	0.800	ug/L	2	4.00		81	56-125%	0.3	30%	
Dimethylphthalate	3.27	0.400	0.800	ug/L	2	4.00		82	45-127%	0.4	30%	
Di-n-butylphthalate	3.48	0.400	0.800	ug/L	2	4.00		87	59-127%	1	30%	
Di-n-octyl phthalate	3.72	0.400	0.800	ug/L	2	4.00		93	51-140%	0.03	30%	
N-Nitrosodimethylamine	1.66	0.0500	0.100	ug/L	2	4.00		41	10-120%	3	30%	
N-Nitroso-di-n-propylamine	3.19	0.0500	0.100	ug/L	2	4.00		80	49-120%	0.4	30%	
N-Nitrosodiphenylamine	3.11	0.0500	0.100	ug/L	2	4.00		78	51-123%	2	30%	
Bis(2-Chloroethoxy) methane	2.88	0.0500	0.100	ug/L	2	4.00		72	48-120%	0.08	30%	
Bis(2-Chloroethyl) ether	2.81	0.0500	0.100	ug/L	2	4.00		70	43-120%	1	30%	
2,2'-Oxybis(1-Chloropropane)	2.51	0.0500	0.100	ug/L	2	4.00		63	37-130%	6	30%	
Hexachlorobenzene	2.82	0.0200	0.0400	ug/L	2	4.00		70	53-125%	3	30%	
Hexachlorobutadiene	1.17	0.0500	0.100	ug/L	2	4.00		29	22-124%	51	30%	Q-01
Hexachlorocyclopentadiene	1.20	0.100	0.200	ug/L	2	4.00		30	10-127%	56	30%	Q-01
Hexachloroethane	1.17	0.0500	0.100	ug/L	2	4.00		29	21-120%	47	30%	Q-01
2-Chloronaphthalene	2.07	0.0200	0.0400	ug/L	2	4.00		52	40-120%	26	30%	
1,2,4-Trichlorobenzene	1.49	0.0500	0.100	ug/L	2	4.00		37	29-120%	39	30%	Q-01
4-Bromophenyl phenyl ether	2.93	0.0500	0.100	ug/L	2	4.00		73	55-124%	5	30%	
4-Chlorophenyl phenyl ether	2.73	0.0500	0.100	ug/L	2	4.00		68	53-121%	15	30%	
Aniline	2.19	0.100	0.200	ug/L	2	4.00		55	10-120%	2	30%	
4-Chloroaniline	2.54	0.0500	0.100	ug/L	2	4.00		64	33-120%	0.4	30%	
2-Nitroaniline	3.22	0.400	0.800	ug/L	2	4.00		81	55-127%	0.1	30%	
3-Nitroaniline	2.91	0.400	0.800	ug/L	2	4.00		73	41-128%	0.5	30%	
4-Nitroaniline	2.27	0.400	0.800	ug/L	2	4.00		57	54-128%	2	30%	
Nitrobenzene	2.77	0.200	0.400	ug/L	2	4.00		69	45-121%	0.4	30%	
2,4-Dinitrotoluene	3.17	0.200	0.400	ug/L	2	4.00		79	57-128%	0.2	30%	
2,6-Dinitrotoluene	2.95	0.200	0.400	ug/L	2	4.00		74	57-124%		30%	
Benzoic acid	3.71	2.50	2.50	ug/L	2	8.00		46	10-120%	1	30%	
Benzyl alcohol	3.03	0.200	0.400	ug/L	2	4.00		76	31-120%	0.7	30%	
Isophorone	3.26	0.0500	0.100	ug/L	2	4.00		81	42-124%	0.5	30%	

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Philip Memberg



Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

AMENDED REPORT

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project Number: **Eatonville**Project Manager: **Genevieve Schutzius**

Report ID: A1A0458 - 04 19 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1012988 - EPA 3510C (A	Acid/Base	Neutral)					Wa	ter				
LCS Dup (1012988-BSD1)			Prepared	1: 01/18/21	10:43 Ana	lyzed: 01/18/	/21 17:01					Q-19
Azobenzene (1,2-DPH)	2.84	0.0500	0.100	ug/L	2	4.00		71	61-120%	2	30%	
Bis(2-Ethylhexyl) adipate	3.37	0.500	1.00	ug/L	2	4.00		84	57-136%	3	30%	
3,3'-Dichlorobenzidine	6.80	1.00	2.00	ug/L	2	8.00		85	27-129%	3	30%	
1,2-Dinitrobenzene	3.05	0.500	1.00	ug/L	2	4.00		76	59-120%	0.2	30%	
1,3-Dinitrobenzene	3.09	0.500	1.00	ug/L	2	4.00		77	49-128%	0.2	30%	
1,4-Dinitrobenzene	3.01	0.500	1.00	ug/L	2	4.00		75	72-130%	0.7	30%	
Pyridine	1.25	0.200	0.400	ug/L	2	4.00		31	10-120%	6	30%	
1,2-Dichlorobenzene	1.40	0.0500	0.100	ug/L	2	4.00		35	32-120%	36	30%	Q-01
1,3-Dichlorobenzene	1.26	0.0500	0.100	ug/L	2	4.00		31	28-120%	38	30%	Q-01
1,4-Dichlorobenzene	1.32	0.0500	0.100	ug/L	2	4.00		33	29-120%	37	30%	Q-01
Surr: Nitrobenzene-d5 (Surr)		Reco	very: 74 %	Limits: 44	1-120 %	Dilı	tion: 2x					
2-Fluorobiphenyl (Surr)			62 %	44	-120 %		"					
Phenol-d6 (Surr)			27 %	10	-133 %		"					
p-Terphenyl-d14 (Surr)			82 %	50	-134 %		"					
2-Fluorophenol (Surr)			38 %	19	-120 %		"					
2,4,6-Tribromophenol (Surr)			85 %	43	-140 %		"					

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: <u>Eatonville</u>
Project Number: Landfill WA State
Project Manager: Genevieve Schutzius

Report ID: A1A0458 - 04 19 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E Detection % REC RPD Reporting Spike Source Analyte Result Limit Units Dilution Result % REC RPD Limit Amount Limits Limit Notes Batch 1013031 - EPA 3510C (Acid/Base Neutral) Water Blank (1013031-BLK1) Prepared: 01/19/21 11:11 Analyzed: 01/19/21 20:53 EPA 8270E Acenaphthene ND 0.00909 0.0182 ug/L ND 0.00909 0.0182 ug/L 1 Acenaphthylene Anthracene ND 0.00909 0.0182 ug/L 1 ND 0.00909 0.01821 Benz(a)anthracene ug/L ND 0.0136 0.0273 ug/L Benzo(a)pyrene 1 0.0136 ND 0.0273 Benzo(b)fluoranthene ug/L 1 ------Benzo(k)fluoranthene ND 0.0136 0.0273 1 ug/L 0.00909 0.0182 ND Benzo(g,h,i)perylene ug/L 1 Chrysene ND 0.00909 0.0182 ug/L 1 Dibenz(a,h)anthracene ND 0.00909 0.0182 ug/L 1 Fluoranthene ND 0.00909 0.0182 ug/L 1 ND 0.00909 0.0182 Fluorene 1 ug/L ---Indeno(1,2,3-cd)pyrene ND 0.00909 0.0182 ug/L 1 ND 0.0182 0.0364 1-Methylnaphthalene ug/L 1 2-Methylnaphthalene ND 0.01820.0364 ug/L 1 Naphthalene ND 0.0182 0.0364 ug/L 1 ------Phenanthrene ND 0.00909 0.0182 ug/L 1 0.00909 0.0182 Pyrene ND ug/L 1 ------Carbazole ND 0.0136 0.0273 ug/L 1 Dibenzofuran ND 0.00909 0.0182 ug/L 1 2-Chlorophenol ND 0.04550.0909 ug/L 1 4-Chloro-3-methylphenol ND 0.0909 0.182 ug/L 1 0.0455 0.0909 2,4-Dichlorophenol ND ug/L 1 2,4-Dimethylphenol ND 0.0455 0.0909 ug/L 1 0.227 0.455 2,4-Dinitrophenol ND ug/L 1 4,6-Dinitro-2-methylphenol ND 0.227 0.455 ug/L 1 2-Methylphenol ND 0.0227 0.0455 ug/L 1 3+4-Methylphenol(s) ND 0.0227 0.0455 ug/L 1 ------2-Nitrophenol ND 0.0909 0.182ug/L 1 0.0909 4-Nitrophenol ND 0.182 ug/L 1 Pentachlorophenol (PCP) ND 0.0909 0.182 ug/L 1 Phenol ND 0.182 0.364 ug/L 1 ND 0.0455 0.0909 2,3,4,6-Tetrachlorophenol ug/L 1

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Page 78 of 104



AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: Landfill WA State
Project Manager: Genevieve Schutzius

Report ID: A1A0458 - 04 19 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E Detection % REC RPD Reporting Spike Source % REC Analyte Result Limit Units Dilution RPD Limit Amount Result Limits Limit Notes Batch 1013031 - EPA 3510C (Acid/Base Neutral) Water Blank (1013031-BLK1) Prepared: 01/19/21 11:11 Analyzed: 01/19/21 20:53 2,3,5,6-Tetrachlorophenol ND 0.0455 0.0909 ug/L 0.0455 0.0909 2,4,5-Trichlorophenol ND ug/L 1 ------2,4,6-Trichlorophenol ND 0.04550.0909 ug/L 1 Bis(2-ethylhexyl)phthalate ND 0.182 0.364 ug/L 1 Butyl benzyl phthalate ND 0.1820.364 ug/L 1 Diethylphthalate ND 0.182 0.364 ug/L 1 0.182 Dimethylphthalate ND 0.364 ug/L 1 0.182 Di-n-butylphthalate ND 0.364 ug/L 1 0.182 0.364 Di-n-octyl phthalate ND ug/L 1 N-Nitrosodimethylamine ND 0.0227 0.0455 ug/L 1 N-Nitroso-di-n-propylamine ND 0.0227 0.0455 ug/L 1 0.0227 0.0455 N-Nitrosodiphenylamine ND ug/L 1 ND 0.0227 0.0455 Bis(2-Chloroethoxy) methane ug/L 1 ---0.0227 Bis(2-Chloroethyl) ether ND 0.0455 ug/L 1 2,2'-Oxybis(1-Chloropropane) ND 0.0227 0.0455 ug/L 1 Hexachlorobenzene ND 0.00909 0.0182 ug/L 1 ND 0.0227 0.0455 Hexachlorobutadiene 1 ug/L Hexachlorocyclopentadiene ND 0.0455 0.0909 ug/L 1 0.0227 ND 0.0455 Hexachloroethane ug/L 1 ---------2-Chloronaphthalene ND 0.00909 0.0182 ug/L 1 1,2,4-Trichlorobenzene ND 0.0227 0.0455 ug/L 1 ---4-Bromophenyl phenyl ether ND 0.0227 0.0455 ug/L 1 4-Chlorophenyl phenyl ether ND 0.0227 0.0455 ug/L 1 Aniline ND 0.0455 0.0909 ug/L 1 0.0455 ND 0.0227 4-Chloroaniline ug/L 1 ---------2-Nitroaniline ND 0.182 0.364 ug/L 1 3-Nitroaniline ND 0.182 0.364 ug/L 1 ---4-Nitroaniline ND 0.182 0.364 ug/L 1 Nitrobenzene ND 0.0909 0.182 ug/L 1 ---2,4-Dinitrotoluene ND 0.0909 0.182 ug/L 1 2,6-Dinitrotoluene ND 0.0909 0.182 ug/L 1

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Benzoic acid

Isophorone

Benzyl alcohol

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Merenberg

ND

ND

ND

1.14

0.0909

0.0227

2.27

0.182

0.0455

ug/L

ug/L

ug/L

1

1

1



AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: Landfill WA State
Project Manager: Genevieve Schutzius

Report ID: A1A0458 - 04 19 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

		Sei	mivolatile (Organic (Compour	ds by EP	4 8270E					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1013031 - EPA 3510C (Acid/Base	Neutral)					Wa	ter				
Blank (1013031-BLK1)			Prepared	: 01/19/21	11:11 Anal	yzed: 01/19/	21 20:53					
Azobenzene (1,2-DPH)	ND	0.0227	0.0455	ug/L	1							
Bis(2-Ethylhexyl) adipate	ND	0.227	0.455	ug/L	1							
3,3'-Dichlorobenzidine	ND	0.455	0.909	ug/L	1							
1,2-Dinitrobenzene	ND	0.227	0.455	ug/L	1							
,3-Dinitrobenzene	ND	0.227	0.455	ug/L	1							
1,4-Dinitrobenzene	ND	0.227	0.455	ug/L	1							
Pyridine	ND	0.0909	0.182	ug/L	1							
1,2-Dichlorobenzene	ND	0.0227	0.0455	ug/L	1							
1,3-Dichlorobenzene	ND	0.0227	0.0455	ug/L	1							
,4-Dichlorobenzene	ND	0.0227	0.0455	ug/L	1							
Surr: Nitrobenzene-d5 (Surr)		Reco	very: 77 %	Limits: 44	1-120 %	Dilu	tion: 1x					
2-Fluorobiphenyl (Surr)			63 %	44	-120 %		"					
Phenol-d6 (Surr)			25 %	10	-133 %		"					
p-Terphenyl-d14 (Surr)			84 %	50	-134 %		"					
2-Fluorophenol (Surr)			39 %	19	-120 %		"					
2,4,6-Tribromophenol (Surr)			83 %	43	-140 %		"					
LCS (1013031-BS1)			Prepared	: 01/19/21	11:11 Anal	yzed: 01/19/	21 21:27					
EPA 8270E												
Acenaphthene	2.66	0.0200	0.0400	ug/L	2	4.00		66	47-122%			
Acenaphthylene	2.97	0.0200	0.0400	ug/L	2	4.00		74	41-130%			
Anthracene	3.30	0.0200	0.0400	ug/L	2	4.00		82	57-123%			
Benz(a)anthracene	3.42	0.0200	0.0400	ug/L	2	4.00		85	58-125%			
Benzo(a)pyrene	3.45	0.0300	0.0600	ug/L	2	4.00		86	54-128%			
Benzo(b)fluoranthene	3.51	0.0300	0.0600	ug/L	2	4.00		88	53-131%			
Benzo(k)fluoranthene	3.30	0.0300	0.0600	ug/L	2	4.00		83	57-129%			
Benzo(g,h,i)perylene	3.61	0.0200	0.0400	ug/L	2	4.00		90	50-134%			
Chrysene	3.37	0.0200	0.0400	ug/L	2	4.00		84	59-123%			
Dibenz(a,h)anthracene	3.35	0.0200	0.0400	ug/L	2	4.00		84	51-134%			
luoranthene	3.55	0.0200	0.0400	ug/L	2	4.00		89	57-128%			
Fluorene	3.01	0.0200	0.0400	ug/L	2	4.00		75	52-124%			
ndeno(1,2,3-cd)pyrene	3.37	0.0200	0.0400	ug/L	2	4.00		84	52-134%			
-Methylnaphthalene	2.16	0.0400	0.0800	ug/L	2	4.00		54	41-120%			
2-Methylnaphthalene	2.12	0.0400	0.0800	ug/L	2	4.00		53	40-121%			

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: Landfill WA State
Project Manager: Genevieve Schutzius

Report ID: A1A0458 - 04 19 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E Detection % REC RPD Reporting Spike Source Analyte Result Limit Units Dilution % REC RPD Limit Amount Result Limits Limit Notes Batch 1013031 - EPA 3510C (Acid/Base Neutral) Water LCS (1013031-BS1) Prepared: 01/19/21 11:11 Analyzed: 01/19/21 21:27 2.01 0.0400 0.0800 2 4.00 50 40-121% Naphthalene ug/L 0.0200 Phenanthrene 3.14 0.0400 ug/L 2 4.00 78 59-120% ---------2 Pyrene 3.43 0.02000.0400 ug/L 4.00 86 57-126% Carbazole 3.61 0.03000.0600ug/L 2 4.00 90 60-122% 2 70 Dibenzofuran 2.80 0.02000.04004.00 53-120% ug/L 2 73 2-Chlorophenol 2.91 0.100 0.200 ug/L 4.00 38-120% 4-Chloro-3-methylphenol 3.21 0.200 0.400 ug/L 2 4.00 80 52-120% 2 4.00 82 2,4-Dichlorophenol 3.29 0.100 0.200 ug/L 47-121% 0.100 0.200 2 2,4-Dimethylphenol 3.40 ug/L 4.00 85 31-124% 2,4-Dinitrophenol 3.29 0.500 1.00 ug/L 2 4.00 82 23-143% Q-31 2 78 4,6-Dinitro-2-methylphenol 0.500 1.00 4.00 44-137% 3.11 ug/L 0.0500 2 2-Methylphenol 2.76 0.100 ug/L 4.00 69 30-120% 0.100 0.0500 2 4.00 3+4-Methylphenol(s) 2.56 ug/L ---64 29-120% ---2-Nitrophenol 3.10 0.200 0.400 ug/L 2 4.00 78 47-123% 2 4-Nitrophenol 1.42 0.200 0.400 4.00 36 10-120% ug/L Pentachlorophenol (PCP) 3.54 0.200 0.400 ug/L 2 4.00 88 35-138% 1.27 0.400 0.800 2 4.00 Phenol 32 10-120% ug/L 2,3,4,6-Tetrachlorophenol 3.39 0.100 2 4.00 85 50-128% 0.200 ug/L 92 2,3,5,6-Tetrachlorophenol 0.100 0.200 2 4.00 50-121% 3.67 ug/L ------2,4,5-Trichlorophenol 3.46 0.100 0.200 ug/L 2 4.00 86 53-123% 2,4,6-Trichlorophenol 3.52 0.100 0.200 2 4.00 88 50-125% ug/L Bis(2-ethylhexyl)phthalate 3.57 0.400 0.800 ug/L 2 4.00 89 55-135% Butyl benzyl phthalate 3.85 0.400 0.800 ug/L 2 4.00 96 53-134% Diethylphthalate 3.38 0.4000.800 ug/L 2 4.00 84 56-125% 3.44 0.400 2 4.00 Dimethylphthalate 0.800 86 45-127% ug/L ------Di-n-butylphthalate 3.77 0.400 0.800 ug/L 2 4.00 94 59-127% Di-n-octyl phthalate 3.97 0.400 0.800 2 4 00 99 51-140% ug/L ---N-Nitrosodimethylamine 1.79 0.0500 0.100 ug/L 2 4.00 45 10-120% N-Nitroso-di-n-propylamine 3.33 0.0500 0.100 2 4.00 83 49-120% ug/L 2 N-Nitrosodiphenylamine 3.34 0.05000.100ug/L 4.00 84 51-123% 3.00 0.0500 0.100 2 4.00 75 48-120% Bis(2-Chloroethoxy) methane ug/L Bis(2-Chloroethyl) ether 2.93 0.0500 0.100 ug/L 2 4.00 73 43-120% 2,2'-Oxybis(1-Chloropropane) 2.71 0.0500 0.100 ug/L 2 4.00 68 37-130%

Apex Laboratories

Hexachlorobenzene

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79

53-125%

Philip Merenberg

3.15

0.0200

0.0400

ug/L

2

4.00



AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: Landfill WA State
Project Manager: Genevieve Schutzius

Report ID: A1A0458 - 04 19 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

		Ser	nivolatile (Organic	Compour	ds by EP	A 8270E					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1013031 - EPA 3510C (A	Acid/Base I	Neutral)					Wa	ter				
LCS (1013031-BS1)			Prepared	: 01/19/21	11:11 Anal	yzed: 01/19/	/21 21:27					
Hexachlorobutadiene	1.23	0.0500	0.100	ug/L	2	4.00		31	22-124%			
Hexachlorocyclopentadiene	0.978	0.100	0.200	ug/L	2	4.00		24	10-127%			
Hexachloroethane	1.20	0.0500	0.100	ug/L	2	4.00		30	21-120%			
2-Chloronaphthalene	2.23	0.0200	0.0400	ug/L	2	4.00		56	40-120%			
1,2,4-Trichlorobenzene	1.54	0.0500	0.100	ug/L	2	4.00		39	29-120%			
4-Bromophenyl phenyl ether	3.21	0.0500	0.100	ug/L	2	4.00		80	55-124%			
4-Chlorophenyl phenyl ether	2.88	0.0500	0.100	ug/L	2	4.00		72	53-121%			
Aniline	2.25	0.100	0.200	ug/L	2	4.00		56	10-120%			
4-Chloroaniline	2.66	0.0500	0.100	ug/L	2	4.00		66	33-120%			
2-Nitroaniline	3.43	0.400	0.800	ug/L	2	4.00		86	55-127%			
3-Nitroaniline	2.96	0.400	0.800	ug/L	2	4.00		74	41-128%			
4-Nitroaniline	2.26	0.400	0.800	ug/L	2	4.00		57	54-128%			
Nitrobenzene	3.02	0.200	0.400	ug/L	2	4.00		75	45-121%			
2,4-Dinitrotoluene	3.25	0.200	0.400	ug/L	2	4.00		81	57-128%			
2,6-Dinitrotoluene	3.14	0.200	0.400	ug/L	2	4.00		78	57-124%			
Benzoic acid	3.90	2.50	2.50	ug/L	2	8.00		49	10-120%			Q
Benzyl alcohol	3.10	0.200	0.400	ug/L	2	4.00		78	31-120%			
Isophorone	3.41	0.0500	0.100	ug/L	2	4.00		85	42-124%			
Azobenzene (1,2-DPH)	3.08	0.0500	0.100	ug/L	2	4.00		77	61-120%			
Bis(2-Ethylhexyl) adipate	3.70	0.500	1.00	ug/L	2	4.00		93	57-136%			
3,3'-Dichlorobenzidine	7.05	1.00	2.00	ug/L	2	8.00		88	27-129%			
1,2-Dinitrobenzene	3.13	0.500	1.00	ug/L	2	4.00		78	59-120%			
1,3-Dinitrobenzene	3.24	0.500	1.00	ug/L	2	4.00		81	49-128%			
1,4-Dinitrobenzene	3.15	0.500	1.00	ug/L	2	4.00		79	72-130%			
Pyridine	1.27	0.200	0.400	ug/L	2	4.00		32	10-120%			
1,2-Dichlorobenzene	1.49	0.0500	0.100	ug/L	2	4.00		37	32-120%			
1,3-Dichlorobenzene	1.34	0.0500	0.100	ug/L	2	4.00		34	28-120%			
1,4-Dichlorobenzene	1.40	0.0500	0.100	ug/L	2	4.00		35	29-120%			
Surr: Nitrobenzene-d5 (Surr)		Reco		Limits: 4			ıtion: 2x					
2-Fluorobiphenyl (Surr)		Reco	70 %		4-120 % 4-120 %	Ditt	1110n. 2x					
Phenol-d6 (Surr)			31%		9-133 %		"					
p-Terphenyl-d14 (Surr)			89 %)-133 %)-134 %		"					
2-Fluorophenol (Surr)			45 %		9-134 % 9-120 %		,,					
2-Fiuoropnenoi (Surr) 2,4,6-Tribromophenol (Surr)			43 % 98 %		3-140 %		,,					

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Philip Nevenberg



AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: Landfill WA State
Project Manager: Genevieve Schutzius

Report ID: A1A0458 - 04 19 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

		Sei	mivolatile (Organic	Compoun	ds by EP	A 8270E					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1013031 - EPA 3510C ((Acid/Base	Neutral)					Wa	ter				
LCS Dup (1013031-BSD1)			Prepared	: 01/19/21	11:11 Anal	yzed: 01/19/	/21 22:02					Q-19
EPA 8270E												
Acenaphthene	2.99	0.0200	0.0400	ug/L	2	4.00		75	47-122%	12	30%	
Acenaphthylene	3.25	0.0200	0.0400	ug/L	2	4.00		81	41-130%	9	30%	
Anthracene	3.33	0.0200	0.0400	ug/L	2	4.00		83	57-123%	0.9	30%	
Benz(a)anthracene	3.37	0.0200	0.0400	ug/L	2	4.00		84	58-125%	1	30%	
Benzo(a)pyrene	3.52	0.0300	0.0600	ug/L	2	4.00		88	54-128%	2	30%	
Benzo(b)fluoranthene	3.48	0.0300	0.0600	ug/L	2	4.00		87	53-131%	0.9	30%	
Benzo(k)fluoranthene	3.29	0.0300	0.0600	ug/L	2	4.00		82	57-129%	0.4	30%	
Benzo(g,h,i)perylene	3.54	0.0200	0.0400	ug/L	2	4.00		88	50-134%	2	30%	
Chrysene	3.36	0.0200	0.0400	ug/L	2	4.00		84	59-123%	0.3	30%	
Dibenz(a,h)anthracene	3.33	0.0200	0.0400	ug/L	2	4.00		83	51-134%	0.4	30%	
Fluoranthene	3.55	0.0200	0.0400	ug/L	2	4.00		89	57-128%	0.1	30%	
Fluorene	3.22	0.0200	0.0400	ug/L	2	4.00		80	52-124%	7	30%	
Indeno(1,2,3-cd)pyrene	3.29	0.0200	0.0400	ug/L	2	4.00		82	52-134%	2	30%	
1-Methylnaphthalene	2.71	0.0400	0.0800	ug/L	2	4.00		68	41-120%	23	30%	
2-Methylnaphthalene	2.76	0.0400	0.0800	ug/L	2	4.00		69	40-121%	26	30%	
Naphthalene	2.52	0.0400	0.0800	ug/L	2	4.00		63	40-121%	23	30%	
Phenanthrene	3.19	0.0200	0.0400	ug/L	2	4.00		80	59-120%	2	30%	
Pyrene	3.44	0.0200	0.0400	ug/L	2	4.00		86	57-126%	0.4	30%	
Carbazole	3.66	0.0300	0.0600	ug/L	2	4.00		92	60-122%	2	30%	
Dibenzofuran	3.04	0.0200	0.0400	ug/L	2	4.00		76	53-120%	8	30%	
2-Chlorophenol	2.82	0.100	0.200	ug/L	2	4.00		71	38-120%	3	30%	
4-Chloro-3-methylphenol	3.20	0.200	0.400	ug/L	2	4.00		80	52-120%	0.4	30%	
2,4-Dichlorophenol	3.27	0.100	0.200	ug/L	2	4.00		82	47-121%	0.8	30%	
2,4-Dimethylphenol	3.28	0.100	0.200	ug/L	2	4.00		82	31-124%	4	30%	
2,4-Dinitrophenol	3.35	0.500	1.00	ug/L	2	4.00		84	23-143%	2	30%	Q-3
4,6-Dinitro-2-methylphenol	3.11	0.500	1.00	ug/L	2	4.00		78	44-137%	0.1	30%	
2-Methylphenol	2.64	0.0500	0.100	ug/L	2	4.00		66	30-120%	4	30%	
3+4-Methylphenol(s)	2.40	0.0500	0.100	ug/L	2	4.00		60	29-120%	6	30%	
2-Nitrophenol	3.17	0.200	0.400	ug/L	2	4.00		79	47-123%	2	30%	
4-Nitrophenol	1.38	0.200	0.400	ug/L	2	4.00		35	10-120%	3	30%	
Pentachlorophenol (PCP)	3.59	0.200	0.400	ug/L	2	4.00		90	35-138%	2	30%	
Phenol	1.17	0.400	0.800	ug/L	2	4.00		29	10-120%	8	30%	
2,3,4,6-Tetrachlorophenol	3.39	0.100	0.200	ug/L	2	4.00		85	50-128%	0.07	30%	

Apex Laboratories



AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: Landfill WA State
Project Manager: Genevieve Schutzius

Report ID: A1A0458 - 04 19 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1013031 - EPA 3510C (A	Acid/Base	Neutral)					Wa	ter				
LCS Dup (1013031-BSD1)			Prepared	: 01/19/21	11:11 Anal	yzed: 01/19/	/21 22:02					Q-19
2,3,5,6-Tetrachlorophenol	3.68	0.100	0.200	ug/L	2	4.00		92	50-121%	0.3	30%	
2,4,5-Trichlorophenol	3.42	0.100	0.200	ug/L	2	4.00		85	53-123%	1	30%	
2,4,6-Trichlorophenol	3.53	0.100	0.200	ug/L	2	4.00		88	50-125%	0.2	30%	
Bis(2-ethylhexyl)phthalate	3.50	0.400	0.800	ug/L	2	4.00		87	55-135%	2	30%	
Butyl benzyl phthalate	3.89	0.400	0.800	ug/L	2	4.00		97	53-134%	1	30%	
Diethylphthalate	3.42	0.400	0.800	ug/L	2	4.00		85	56-125%	1	30%	
Dimethylphthalate	3.44	0.400	0.800	ug/L	2	4.00		86	45-127%	0.1	30%	
Di-n-butylphthalate	3.80	0.400	0.800	ug/L	2	4.00		95	59-127%	0.7	30%	
Di-n-octyl phthalate	3.90	0.400	0.800	ug/L	2	4.00		98	51-140%	2	30%	
N-Nitrosodimethylamine	1.68	0.0500	0.100	ug/L	2	4.00		42	10-120%	7	30%	
N-Nitroso-di-n-propylamine	3.29	0.0500	0.100	ug/L	2	4.00		82	49-120%	1	30%	
N-Nitrosodiphenylamine	3.43	0.0500	0.100	ug/L	2	4.00		86	51-123%	3	30%	
Bis(2-Chloroethoxy) methane	3.00	0.0500	0.100	ug/L	2	4.00		75	48-120%	0.02	30%	
Bis(2-Chloroethyl) ether	2.87	0.0500	0.100	ug/L	2	4.00		72	43-120%	2	30%	
2,2'-Oxybis(1-Chloropropane)	2.81	0.0500	0.100	ug/L	2	4.00		70	37-130%	4	30%	
Hexachlorobenzene	3.24	0.0200	0.0400	ug/L	2	4.00		81	53-125%	3	30%	
Hexachlorobutadiene	2.16	0.0500	0.100	ug/L	2	4.00		54	22-124%	55	30%	Q-24
Hexachlorocyclopentadiene	1.90	0.100	0.200	ug/L	2	4.00		47	10-127%	64	30%	Q-24
Hexachloroethane	2.07	0.0500	0.100	ug/L	2	4.00		52	21-120%	54	30%	Q-24
2-Chloronaphthalene	2.74	0.0200	0.0400	ug/L	2	4.00		69	40-120%	21	30%	
1,2,4-Trichlorobenzene	2.31	0.0500	0.100	ug/L	2	4.00		58	29-120%	40	30%	Q-24
4-Bromophenyl phenyl ether	3.35	0.0500	0.100	ug/L	2	4.00		84	55-124%	4	30%	
4-Chlorophenyl phenyl ether	3.10	0.0500	0.100	ug/L	2	4.00		77	53-121%	7	30%	
Aniline	1.91	0.100	0.200	ug/L	2	4.00		48	10-120%	17	30%	
4-Chloroaniline	2.78	0.0500	0.100	ug/L	2	4.00		69	33-120%	4	30%	
2-Nitroaniline	3.40	0.400	0.800	ug/L	2	4.00		85	55-127%	0.8	30%	
3-Nitroaniline	3.01	0.400	0.800	ug/L	2	4.00		75	41-128%	2	30%	
4-Nitroaniline	2.42	0.400	0.800	ug/L	2	4.00		60	54-128%	7	30%	
Nitrobenzene	3.04	0.200	0.400	ug/L	2	4.00		76	45-121%	0.8	30%	
2,4-Dinitrotoluene	3.31	0.200	0.400	ug/L	2	4.00		83	57-128%		30%	
2,6-Dinitrotoluene	3.17	0.200	0.400	ug/L	2	4.00		79	57-124%		30%	
Benzoic acid	3.80	2.50	2.50	ug/L	2	8.00		48	10-120%		30%	Q-31
Benzyl alcohol	3.00	0.200	0.400	ug/L	2	4.00		75	31-120%		30%	*
Isophorone	3.39	0.0500	0.100	ug/L	2	4.00		85	42-124%		30%	

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

AMENDED REPORT

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project Number: Landfill WA State
Project Manager: Genevieve Schutzius

Report ID: A1A0458 - 04 19 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS Semivolatile Organic Compounds by EPA 8270E

Detection Reporting Spike Source % REC RPD Limit Limit Units Dilution Amount Result % REC Limits RPD Limit No

Analyte	Result	Limit	Limit	Units	Dilution	Amount	Result	% REC	Limits	RPD	Limit	Notes
Batch 1013031 - EPA 3510C (A	Acid/Base N	leutral)					Wa	ter				
LCS Dup (1013031-BSD1)			Prepared	d: 01/19/21	11:11 Ana	lyzed: 01/19/	/21 22:02					Q-19
Azobenzene (1,2-DPH)	3.17	0.0500	0.100	ug/L	2	4.00		79	61-120%	3	30%	
Bis(2-Ethylhexyl) adipate	3.59	0.500	1.00	ug/L	2	4.00		90	57-136%	3	30%	
3,3'-Dichlorobenzidine	6.78	1.00	2.00	ug/L	2	8.00		85	27-129%	4	30%	
1,2-Dinitrobenzene	3.23	0.500	1.00	ug/L	2	4.00		81	59-120%	3	30%	
1,3-Dinitrobenzene	3.26	0.500	1.00	ug/L	2	4.00		81	49-128%	0.7	30%	
1,4-Dinitrobenzene	3.24	0.500	1.00	ug/L	2	4.00		81	72-130%	3	30%	
Pyridine	1.09	0.200	0.400	ug/L	2	4.00		27	10-120%	15	30%	
1,2-Dichlorobenzene	2.18	0.0500	0.100	ug/L	2	4.00		55	32-120%	38	30%	Q-24
1,3-Dichlorobenzene	2.08	0.0500	0.100	ug/L	2	4.00		52	28-120%	43	30%	Q-24
1,4-Dichlorobenzene	2.12	0.0500	0.100	ug/L	2	4.00		53	29-120%	41	30%	Q-24
Surr: Nitrobenzene-d5 (Surr)		Recov	ery: 80 %	Limits: 44	4-120 %	Dilı	ution: 2x					
2-Fluorobiphenyl (Surr)			71 %	44	1-120 %		"					
Phenol-d6 (Surr)			27 %	10	0-133 %		"					
p-Terphenyl-d14 (Surr)			83 %	50	0-134 %		"					
2-Fluorophenol (Surr)			41 %	19	0-120 %		"					
2,4,6-Tribromophenol (Surr)			92 %	43	8-140 %		"					

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: Landfill WA State
Project Manager: Genevieve Schutzius

Report ID: A1A0458 - 04 19 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

			Total M	etals by	EPA 6020	B (ICPMS	5)					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1013175 - EPA 3015A							Wa	ter				
Blank (1013175-BLK1)			Prepared	: 01/22/21	08:55 Anal	yzed: 01/22	/21 18:18					
EPA 6020B												
Antimony	ND	0.500	1.00	ug/L	1							
Arsenic	ND	0.500	1.00	ug/L	1							
Barium	ND	0.500	1.00	ug/L	1							
Beryllium	ND	0.100	0.200	ug/L	1							
Cadmium	ND	0.100	0.200	ug/L	1							
Calcium	ND	300	600	ug/L	1							
Chromium	ND	0.500	1.00	ug/L	1							
Cobalt	ND	0.500	1.00	ug/L	1							
Copper	ND	1.00	2.00	ug/L	1							
Lead	ND	0.100	0.200	ug/L	1							
Magnesium	ND	50.0	100	ug/L	1							
Nickel	ND	1.00	2.00	ug/L	1							
Selenium	ND	0.500	1.00	ug/L	1							
Silver	ND	0.100	0.200	ug/L	1							
Гhallium	ND	0.100	0.200	ug/L	1							
Vanadium	ND	1.00	2.00	ug/L	1							
Zinc	ND	2.00	4.00	ug/L	1							
LCS (1013175-BS1)			Prepared	: 01/22/21	08:55 Anal	yzed: 01/22/	/21 18:24					
EPA 6020B												
Antimony	26.8	0.500	1.00	ug/L	1	27.8		97	80-120%			
Arsenic	58.9	0.500	1.00	ug/L	1	55.6		106	80-120%			
Barium	53.9	0.500	1.00	ug/L	1	55.6		97	80-120%			
Beryllium	26.4	0.100	0.200	ug/L	1	27.8		95	80-120%			
Cadmium	56.9	0.100	0.200	ug/L	1	55.6		102	80-120%			
Calcium	2820	300	600	ug/L	1	2780		102	80-120%			
Chromium	52.3	0.500	1.00	ug/L	1	55.6		94	80-120%			
Cobalt	57.5	0.500	1.00	ug/L	1	55.6		103	80-120%			
Copper	55.9	1.00	2.00	ug/L	1	55.6		101	80-120%			
Lead	59.7	0.100	0.200	ug/L	1	55.6		107	80-120%			
Magnesium	2540	50.0	100	ug/L	1	2780		91	80-120%			
Nickel	55.4	1.00	2.00	ug/L	1	55.6		100	80-120%			
Selenium	25.2	0.500	1.00	ug/L	1	27.8		91	80-120%			

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: Landfill WA State
Project Manager: Genevieve Schutzius

Report ID: A1A0458 - 04 19 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)												
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1013175 - EPA 3015A	Water											
LCS (1013175-BS1)			Prepared	: 01/22/21	08:55 Anal	lyzed: 01/22/	/21 18:24					
Silver	27.7	0.100	0.200	ug/L	1	27.8		100	80-120%			
Thallium	28.4	0.100	0.200	ug/L	1	27.8		102	80-120%			
Vanadium	56.7	1.00	2.00	ug/L	1	55.6		102	80-120%			
Zinc	55.0	2.00	4.00	ug/L	1	55.6		99	80-120%			
Duplicate (1013175-DUP1)			Prepared	: 01/22/21	08:55 Anal	yzed: 01/22/	/21 18:50					
OC Source Sample: GW01-0121	A1A0458-04	<u>1)</u>										
EPA 6020B												
Antimony	1.46	0.500	1.00	ug/L	1		1.49			1	20%	
Arsenic	ND	0.500	1.00	ug/L	1		ND				20%	
Barium	55.3	0.500	1.00	ug/L	1		55.1			0.4	20%	
Beryllium	ND	0.100	0.200	ug/L	1		ND				20%	
Cadmium	0.286	0.100	0.200	ug/L	1		0.285			0.4	20%	
Chromium	ND	0.500	1.00	ug/L	1		ND				20%	
Cobalt	ND	0.500	1.00	ug/L	1		ND				20%	
Copper	2.18	1.00	2.00	ug/L	1		2.07			5	20%	
Lead	0.595	0.100	0.200	ug/L	1		0.564			6	20%	
Magnesium	21100	50.0	100	ug/L	1		21000			0.5	20%	
Nickel	2.16	1.00	2.00	ug/L	1		2.39			10	20%	
Selenium	ND	0.500	1.00	ug/L	1		ND				20%	
Silver	ND	0.100	0.200	ug/L	1		ND				20%	
Thallium	ND	0.100	0.200	ug/L	1		ND				20%	
Vanadium	2.36	1.00	2.00	ug/L	1		2.35			0.3	20%	
Zinc	570	2.00	4.00	ug/L	1		580			2	20%	
Duplicate (1013175-DUP3)			Prepared	: 01/22/21	08:55 Anal	lyzed: 02/03/	/21 16:25					
QC Source Sample: GW01-0121 (A1A0458-04	4RE2)										
EPA 6020B												
Calcium	152000	3000	6000	ug/L	10		148000			3	20%	

QC Source Sample: GW01-0121 (A1A0458-04)

Philip Marenberg

EPA 6020B

Apex Laboratories



Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

AMENDED REPORT

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project Number: Landfill WA State
Project Manager: Genevieve Schutzius

Report ID: A1A0458 - 04 19 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)												
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1013175 - EPA 3015A	Water											
Matrix Spike (1013175-MS1)			Prepared	: 01/22/21	08:55 Anal	lyzed: 01/22	/21 18:55					
QC Source Sample: GW01-0121 (A	A1A0458-04	<u>1)</u>										
Antimony	28.8	0.500	1.00	ug/L	1	27.8	1.49	98	75-125%			
Arsenic	57.0	0.500	1.00	ug/L	1	55.6	ND	103	75-125%			
Barium	104	0.500	1.00	ug/L	1	55.6	55.1	88	75-125%			
Beryllium	26.2	0.100	0.200	ug/L	1	27.8	ND	94	75-125%			
Cadmium	55.2	0.100	0.200	ug/L	1	55.6	0.285	99	75-125%			
Chromium	51.2	0.500	1.00	ug/L	1	55.6	ND	92	75-125%			
Cobalt	54.8	0.500	1.00	ug/L	1	55.6	ND	99	75-125%			
Copper	54.7	1.00	2.00	ug/L	1	55.6	2.07	95	75-125%			
Lead	55.3	0.100	0.200	ug/L	1	55.6	0.564	99	75-125%			
Magnesium	23600	50.0	100	ug/L	1	2780	21000	92	75-125%			
Nickel	54.6	1.00	2.00	ug/L	1	55.6	2.39	94	75-125%			
Selenium	27.0	0.500	1.00	ug/L	1	27.8	ND	97	75-125%			
Silver	27.3	0.100	0.200	ug/L	1	27.8	ND	98	75-125%			
Thallium	28.3	0.100	0.200	ug/L	1	27.8	ND	102	75-125%			
Vanadium	58.3	1.00	2.00	ug/L	1	55.6	2.35	101	75-125%			
Zinc	625	2.00	4.00	ug/L	1	55.6	580	81	75-125%			
Matrix Spike (1013175-MS3)			Prepared	: 01/22/21	08:55 Anal	lyzed: 02/03	/21 16:30					
QC Source Sample: GW01-0121 (A	A1A0458-04	IRE2)										
Calcium	154000	3000	6000	ug/L	10	2780	148000	220	75-125%			
Cultiviii	13-1000	2000	0000	ug/L	10	2700	1-10000		13-143/0			

Apex Laboratories

Philip Nevenberg



AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: Landfill WA State
Project Manager: Genevieve Schutzius

Report ID: A1A0458 - 04 19 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

			Dissolved	Metals	by EPA 60	020B (ICP	MS)					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1013184 - Matrix Mat	ched Direct	Inject					Wa	ter				
Blank (1013184-BLK1)			Prepared	: 01/22/21	10:06 Anal	yzed: 01/22	/21 16:49					
EPA 6020B (Diss)												
Antimony	ND	0.500	1.00	ug/L	1							FIL
Arsenic	ND	0.500	1.00	ug/L	1							FIL
Barium	ND	0.500	1.00	ug/L	1							FIL
Beryllium	ND	0.100	0.200	ug/L	1							FIL
Cadmium	ND	0.100	0.200	ug/L	1							FIL
Chromium	ND	0.500	1.00	ug/L	1							FIL
Cobalt	ND	0.500	1.00	ug/L	1							FIL
Copper	ND	1.00	2.00	ug/L	1							FIL
Lead	ND	0.100	0.200	ug/L	1							FIL
Nickel	ND	1.00	2.00	ug/L	1							FIL
Selenium	ND	0.500	1.00	ug/L	1							FIL
Silver	ND	0.100	0.200	ug/L	1							FIL
Thallium	ND	0.100	0.200	ug/L	1							FIL
Vanadium	ND	1.00	2.00	ug/L	1							FIL
Zinc	ND	2.00	4.00	ug/L	1							FIL
LCS (1013184-BS1)			Prepared	: 01/22/21	10:06 Anal	yzed: 01/22	/21 16:54					
EPA 6020B (Diss)												
Antimony	26.2	0.500	1.00	ug/L	1	27.8		94	80-120%			
Arsenic	54.7	0.500	1.00	ug/L	1	55.6		98	80-120%			
Barium	51.3	0.500	1.00	ug/L	1	55.6		92	80-120%			
Beryllium	25.6	0.100	0.200	ug/L	1	27.8		92	80-120%			
Cadmium	55.4	0.100	0.200	ug/L	1	55.6		100	80-120%			
Chromium	49.9	0.500	1.00	ug/L	1	55.6		90	80-120%			
Cobalt	55.4	0.500	1.00	ug/L	1	55.6		100	80-120%			
Copper	53.9	1.00	2.00	ug/L	1	55.6		97	80-120%			
Lead	57.0	0.100	0.200	ug/L	1	55.6		103	80-120%			
Nickel	54.3	1.00	2.00	ug/L	1	55.6		98	80-120%			
Selenium	24.6	0.500	1.00	ug/L	1	27.8		88	80-120%			
Silver	26.9	0.100	0.200	ug/L	1	27.8		97	80-120%			
Thallium	27.5	0.100	0.200	ug/L	1	27.8		99	80-120%			
Vanadium	54.7	1.00	2.00	ug/L	1	55.6		99	80-120%			
Zinc	52.7	2.00	4.00	ug/L	1	55.6		95	80-120%			

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Philip Merenberg



Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

AMENDED REPORT

<u>GSI Water Solutions</u> 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project Number: **Eatonville**Project Number: **Landfill WA State**Project Manager: **Genevieve Schutzius**

Report ID: A1A0458 - 04 19 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

			Dissolved	d Metals	by EPA 6	020B (ICP	MS)					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1013184 - Matrix Match	ed Direct I	nject					Wa	ter				
Duplicate (1013184-DUP1)			Prepared	: 01/22/21	10:06 Ana	lyzed: 01/22	/21 17:31					
QC Source Sample: GW01-0121	(A1A0458-04	<u>1)</u>										
EPA 6020B (Diss)												
Antimony	1.53	0.500	1.00	ug/L	1		1.47			4	20%	
Arsenic	ND	0.500	1.00	ug/L	1		ND				20%	
Barium	54.6	0.500	1.00	ug/L	1		51.7			6	20%	
Beryllium	ND	0.100	0.200	ug/L	1		ND				20%	
Cadmium	0.302	0.100	0.200	ug/L	1		0.283			7	20%	
Chromium	ND	0.500	1.00	ug/L	1		ND				20%	
Cobalt	ND	0.500	1.00	ug/L	1		ND				20%	
Copper	1.83	1.00	2.00	ug/L	1		1.58			15	20%	
Lead	ND	0.100	0.200	ug/L	1		ND				20%	
Nickel	2.13	1.00	2.00	ug/L	1		1.81			16	20%	
Selenium	ND	0.500	1.00	ug/L	1		ND				20%	
Silver	ND	0.100	0.200	ug/L	1		ND				20%	
Γhallium	ND	0.100	0.200	ug/L	1		ND				20%	
Vanadium	1.62	1.00	2.00	ug/L	1		1.51			7	20%	
Zinc	575	2.00	4.00	ug/L	1		547			5	20%	
Matrix Spike (1013184-MS1)			Prepared	: 01/22/21	10:06 Ana	lyzed: 01/22	/21 17:36					
QC Source Sample: GW01-0121	(A1A0458-04	<u>1)</u>										
EPA 6020B (Diss)												
Antimony	28.0	0.500	1.00	ug/L	1	27.8	1.47	96	75-125%			
Arsenic	55.5	0.500	1.00	ug/L	1	55.6	ND	100	75-125%			
Barium	101	0.500	1.00	ug/L	1	55.6	51.7	89	75-125%			
Beryllium	25.6	0.100	0.200	ug/L	1	27.8	ND	92	75-125%			
Cadmium	55.5	0.100	0.200	ug/L	1	55.6	0.283	99	75-125%			
Chromium	49.8	0.500	1.00	ug/L	1	55.6	ND	90	75-125%			
Cobalt	53.2	0.500	1.00	ug/L	1	55.6	ND	96	75-125%			
Copper	52.0	1.00	2.00	ug/L	1	55.6	1.58	91	75-125%			
Lead	55.7	0.100	0.200	ug/L	1	55.6	ND	100	75-125%			
Nickel	52.8	1.00	2.00	ug/L	1	55.6	1.81	92	75-125%			
Selenium	25.6	0.500	1.00	ug/L	1	27.8	ND	92	75-125%			
Silver	27.3	0.100	0.200	ug/L	1	27.8	ND	98	75-125%			

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Philip Nevenberg



Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

AMENDED REPORT

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: Landfill WA State
Project Manager: Genevieve Schutzius

Report ID: A1A0458 - 04 19 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

			Dissolved	Metals	by EPA 6	020B (ICP	MS)					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 1013184 - Matrix Matche	ed Direct	Inject					Wa	ter				
Matrix Spike (1013184-MS1)			Prepared	: 01/22/21	10:06 Ana	lyzed: 01/22	/21 17:36					
QC Source Sample: GW01-0121 (A1A0458-0	<u>4)</u>										
Thallium	27.6	0.100	0.200	ug/L	1	27.8	ND	99	75-125%			
Vanadium	56.5	1.00	2.00	ug/L	1	55.6	1.51	99	75-125%			
Zinc	596	2.00	4.00	ug/L	1	55.6	547	88	75-125%			

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Philip Nevenberg



Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

AMENDED REPORT

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project Number: Eatonville
Project Manager: Genevieve Schutzius

Report ID: A1A0458 - 04 19 23 1558

QUALITY CONTROL (QC) SAMPLE RESULTS

		Nitr	ate + Nit	rite by EF	A 353.2						
Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
o: Aq						Wa	ter				
		Prepared	: 01/18/21	10:14 Ana	lyzed: 01/18	3/21 15:04					
ND	0.0100	0.0200	mg/L	1							
		Prepared	: 01/18/21	10:14 Ana	lyzed: 01/18	3/21 15:05					
0.370	0.0100	0.0200	mg/L	1	0.375		99	90-110%			DOG
		Prepared	: 01/18/21	10:14 Ana	lyzed: 01/18	3/21 15:06					
0.372	0.0100	0.0200	mg/L	1	0.375		99	90-110%			DO
		Prepared	: 01/18/21	10:14 Anal	lyzed: 01/18	3/21 15:07					
0.371	0.0100	0.0200	mg/L	1	0.375		99	90-110%			DO
		Prepared	: 01/18/21	10:14 Anal	lyzed: 01/18	3/21 15:09					
0.375	0.0100	0.0200	mg/L	1	0.375		100	90-110%			DO
		Prepared	: 01/18/21	10:14 Ana	lyzed: 01/18	3/21 15:11					
(A1A0458-01)											
0.456	0.0100	0.0200	mg/L	1		0.459			0.7	20%	
		Prepared	: 01/18/21	10:14 Ana	lyzed: 01/18	3/21 15:12					
(A1A0458-01)											
0.870	0.0104	0.0208	mg/L	1	0.390	0.459	105	90-110%			
	0.370 0.370 0.372 0.371 0.375 A1A0458-01)	Result Limit D: Aq ND 0.0100 0.370 0.0100 0.372 0.0100 0.371 0.0100 0.375 0.0100 A1A0458-01) 0.456 0.0100	Result Detection Limit Reporting Limit Detection Limit Reporting Limit Detection Limit Reporting Limit Detection Limit Reporting Limit Detection Limit Reporting Limit Prepared 0.0200 Prepared 0.0200 Prepared 0.0372 0.0100 0.0200 Prepared 0.375 0.0100 0.0200 Prepared A1A0458-01) 0.456 0.0100 0.0200 Prepared A1A0458-01)	Result Detection Limit Reporting Limit Units DETECTION LIMIT Prepared: 01/18/21 01/18/21 ND 0.0100 0.0200 mg/L Prepared: 01/18/21 Prepared: 01/18/21 0.370 0.0100 0.0200 mg/L Prepared: 01/18/21 0.371 0.0100 0.0200 mg/L Prepared: 01/18/21 0.375 0.0100 0.0200 mg/L Prepared: 01/18/21 A1A0458-01) Prepared: 01/18/21 A1A0458-01) Prepared: 01/18/21	Result Detection Limit Reporting Limit Units Dilution Detection Limit Prepared: 01/18/21 10:14 Analyse Analyse Alao458-01) Prepared: 01/18/21 10:14 Analyse Analyse Alao458-01) Prepared: 01/18/21 10:14 Analyse Analyse Alao458-01) Prepared: 01/18/21 10:14 Analyse Analyse Analyse Alao458-01) Prepared: 01/18/21 10:14 Analyse Analyse Analyse Alao458-01)	Prepared: 01/18/21 10:14 Analyzed: 01/18 ND 0.0100 0.0200 mg/L 1 Prepared: 01/18/21 10:14 Analyzed: 01/18 0.370 0.0100 0.0200 mg/L 1 0.375 Prepared: 01/18/21 10:14 Analyzed: 01/18 0.372 0.0100 0.0200 mg/L 1 0.375 Prepared: 01/18/21 10:14 Analyzed: 01/18 0.371 0.0100 0.0200 mg/L 1 0.375 Prepared: 01/18/21 10:14 Analyzed: 01/18 0.375 0.0100 0.0200 mg/L 1 0.375 Prepared: 01/18/21 10:14 Analyzed: 01/18 0.375 0.0100 0.0200 mg/L 1 0.375 Prepared: 01/18/21 10:14 Analyzed: 01/18 0.375 0.0100 0.0200 mg/L 1 0.375 Prepared: 01/18/21 10:14 Analyzed: 01/18 A1A0458-01) Prepared: 01/18/21 10:14 Analyzed: 01/18	Result Detection Limit Reporting Limit Units Dilution Spike Amount Source Result D: Aq Prepared: 01/18/21 10:14 Analyzed: 01/18/21 15:04 ND 0.0100 0.0200 mg/L 1 Prepared: 01/18/21 10:14 Analyzed: 01/18/21 15:05 0.370 0.0100 0.0200 mg/L 1 0.375 Prepared: 01/18/21 10:14 Analyzed: 01/18/21 15:06 0.372 0.0100 0.0200 mg/L 1 0.375 Prepared: 01/18/21 10:14 Analyzed: 01/18/21 15:07 0.371 0.0100 0.0200 mg/L 1 0.375 Prepared: 01/18/21 10:14 Analyzed: 01/18/21 15:09 0.375 0.0100 0.0200 mg/L 1 0.375 Prepared: 01/18/21 10:14 Analyzed: 01/18/21 15:11 Alao458-01) 0.456 0.0100 0.0200 mg/L 1 0.459 Prepared: 01/18/21 10:14 Analyzed: 01/18/21 15:12 Alao458-01)	ND	Detection Reporting Limit Units Dilution Spike Amount Result % REC KeC Limits	Result Detection Reporting Limit Units Dilution Spike Result % REC % REC Limits RPD	New Detection Reporting Units Dilution Spike Result

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: Landfill WA State
Project Manager: Genevieve Schutzius

Report ID: A1A0458 - 04 19 23 1558

Weck Laboratories, Inc.

QUALITY CONTROL (QC) SAMPLE RESULTS

		PPCPs	s - Polybror	minated I	Diphenyl	Ethers by	GC/MS	SIM				
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch W1A1118 - EPA 525.2/S	PE						Wa	ter				
Blank (W1A1118-BLK1)			Prepared	: 01/22/21	10:39 Anal	yzed: 01/27	/21 15:21					
GC/MS SIM												
PBDE-17	ND	0.86	5.0	ng/l	1							
PBDE-28	ND	1.0	5.0	ng/l	1							
PBDE-49	ND	0.76	5.0	ng/l	1							
PBDE-47	ND	1.4	5.0	ng/l	1							
PBDE-99	ND	1.6	5.0	ng/l	1							
PBDE-100	ND	2.0	5.0	ng/l	1							
PBDE-85	ND	2.9	5.0	ng/l	1							
PBDE-138	ND	1.6	5.0	ng/l	1							
PBDE-153	ND	3.9	5.0	ng/l	1							
PBDE-154	ND	3.9	5.0	ng/l	1							
Surr: Perylene-d12		Rece	overy: 70 %	Limits: 50	0-150 %	Dilı	ution: 1x					
Triphenyl phosphate			106 %	50	0-150 %		"					
LCS (W1A1118-BS1)			Prepared	: 01/22/21	10:39 Anal	yzed: 01/27/	/21 15:38					
GC/MS SIM												
PBDE-17	31.7	0.86	5.0	ng/l	1	50.0		63	50-150%			
PBDE-28	32.4	1.0	5.0	ng/l	1	50.0		65	50-150%			
PBDE-49	48.2	0.76	5.0	ng/l	1	50.0		96	50-150%			
PBDE-47	37.6	1.4	5.0	ng/l	1	50.0		75	50-150%			
PBDE-99	35.3	1.6	5.0	ng/l	1	50.0		71	50-150%			
PBDE-100	41.3	2.0	5.0	ng/l	1	50.0		83	50-150%			
PBDE-138	37.7	1.6	5.0	ng/l	1	50.0		75	50-150%			
PBDE-153	38.0	3.9	5.0	ng/l	1	50.0		76	50-150%			
PBDE-154	34.8	3.9	5.0	ng/l	1	50.0		70	50-150%			
Surr: Perylene-d12		Rece	overy: 89 %	Limits: 50	0-150 %	Dilı	tion: 1x					_
Triphenyl phosphate			123 %	50	0-150 %		"					
-												
LCS Dup (W1A1118-BSD1)			Prepared	: 01/22/21	10:39 Anal	yzed: 01/27/	/21 15:55					
GC/MS SIM												
PBDE-17	31.0	0.86	5.0	ng/l	1	50.0		62	50-150%	2	30%	
PBDE-28	30.0	1.0	5.0	ng/l	1	50.0		60	50-150%	7	30%	

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

AMENDED REPORT

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project Number: **Eatonville**Project Manager: **Genevieve Schutzius**

Report ID: A1A0458 - 04 19 23 1558

Weck Laboratories, Inc.

QUALITY CONTROL (QC) SAMPLE RESULTS

PPCPs - Polybrominated Diphenyl Ethers by GC/MS SIM

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch W1A1118 - EPA 525.2/SI	PΕ						Wa	ter				
LCS Dup (W1A1118-BSD1)			Prepared	: 01/22/21	10:39 Ana	lyzed: 01/27	/21 15:55					
PBDE-49	47.8	0.76	5.0	ng/l	1	50.0		96	50-150%	0.7	30%	
PBDE-47	38.0	1.4	5.0	ng/l	1	50.0		76	50-150%	1	30%	
PBDE-99	39.3	1.6	5.0	ng/l	1	50.0		79	50-150%	11	30%	
PBDE-100	45.1	2.0	5.0	ng/l	1	50.0		90	50-150%	9	30%	
PBDE-138	42.8	1.6	5.0	ng/l	1	50.0		86	50-150%	13	30%	
PBDE-153	42.1	3.9	5.0	ng/l	1	50.0		84	50-150%	10	30%	
PBDE-154	39.3	3.9	5.0	ng/l	1	50.0		79	50-150%	12	30%	
Surr: Perylene-d12		Reco	very: 103 %	Limits: 50	0-150 %	Dil	ution: 1x					
Triphenyl phosphate			132 %	50	0-150 %		"					

Apex Laboratories

Philip Nevenberg



AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: Landfill WA State
Project Manager: Genevieve Schutzius

Report ID: A1A0458 - 04 19 23 1558

SAMPLE PREPARATION INFORMATION

		Volatile	Organic Compounds	by EPA 8260D			
Prep: EPA 5030C					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
Batch: 1012821							
A1A0458-01	Water	EPA 8260D	01/11/21 13:30	01/13/21 10:03	5mL/5mL	5mL/5mL	1.00
A1A0458-02	Water	EPA 8260D	01/11/21 13:40	01/13/21 10:03	5mL/5mL	5mL/5mL	1.00
A1A0458-03	Water	EPA 8260D	01/11/21 14:15	01/13/21 10:03	5mL/5mL	5mL/5mL	1.00
A1A0458-04	Water	EPA 8260D	01/12/21 10:00	01/13/21 10:03	5mL/5mL	5mL/5mL	1.00
A1A0458-05	Water	EPA 8260D	01/12/21 11:45	01/13/21 10:03	5mL/5mL	5mL/5mL	1.00
A1A0458-06	Water	EPA 8260D	01/12/21 12:25	01/13/21 10:03	5mL/5mL	5mL/5mL	1.00
A1A0458-07	Water	EPA 8260D	01/12/21 13:15	01/13/21 10:03	5mL/5mL	5mL/5mL	1.00

Prep: EPA 3510C (Ad	cid/Base Neutral)				Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
Batch: 1012876							
A1A0458-01	Water	EPA 8270E	01/11/21 13:30	01/14/21 10:43	1030 mL/1 mL	1000 mL/1 mL	0.97
A1A0458-02	Water	EPA 8270E	01/11/21 13:40	01/14/21 10:43	1010 mL/1 mL	1000 mL/1 mL	0.99
A1A0458-03	Water	EPA 8270E	01/11/21 14:15	01/14/21 10:43	1040 mL/1 mL	1000 mL/1 mL	0.96
A1A0458-04	Water	EPA 8270E	01/12/21 10:00	01/14/21 10:43	1030 mL/1 mL	1000 mL/1 mL	0.97
A1A0458-05RE1	Water	EPA 8270E	01/12/21 11:45	01/14/21 10:43	960mL/1mL	1000 mL/1 mL	1.04
A1A0458-06RE1	Water	EPA 8270E	01/12/21 12:25	01/14/21 10:43	1000 mL/1 mL	1000 mL/1 mL	1.00
Batch: 1013031							
A1A0458-07RE1	Water	EPA 8270E	01/12/21 13:15	01/19/21 11:11	1040mL/1mL	1000mL/1mL	0.96

		Tota	al Metals by EPA 602	0B (ICPMS)			•
Prep: EPA 3015A					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
Batch: 1013175							
A1A0458-01	Water	EPA 6020B	01/11/21 13:30	01/22/21 08:55	45mL/50mL	45mL/50mL	1.00
A1A0458-02	Water	EPA 6020B	01/11/21 13:40	01/22/21 08:55	45mL/50mL	45mL/50mL	1.00
A1A0458-03	Water	EPA 6020B	01/11/21 14:15	01/22/21 08:55	45mL/50mL	45mL/50mL	1.00
A1A0458-03RE1	Water	EPA 6020B	01/11/21 14:15	01/22/21 08:55	45mL/50mL	45mL/50mL	1.00
A1A0458-04	Water	EPA 6020B	01/12/21 10:00	01/22/21 08:55	45mL/50mL	45mL/50mL	1.00
A1A0458-04RE2	Water	EPA 6020B	01/12/21 10:00	01/22/21 08:55	45mL/50mL	45mL/50mL	1.00
A1A0458-05	Water	EPA 6020B	01/12/21 11:45	01/22/21 08:55	45mL/50mL	45mL/50mL	1.00
A1A0458-06	Water	EPA 6020B	01/12/21 12:25	01/22/21 08:55	45mL/50mL	45mL/50mL	1.00
A1A0458-07	Water	EPA 6020B	01/12/21 13:15	01/22/21 08:55	45mL/50mL	45mL/50mL	1.00

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Merenberg



AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: Landfill WA State
Project Manager: Genevieve Schutzius

Report ID: A1A0458 - 04 19 23 1558

SAMPLE PREPARATION INFORMATION

Prep: EPA 3015A Sample Defau		
		Sample Default RL Prep
Lab Number Matrix Method Sampled Prepared Initial/Final Initial/F	Matrix Method Sampled Prep	Initial/Final Initial/Final Factor

		Dissolve	ed Metals by EPA 6	020B (ICPMS)			
Prep: Matrix Matched	d Direct Inject				Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
Batch: 1013184							
A1A0458-01	Water	EPA 6020B (Diss)	01/11/21 13:30	01/22/21 10:06	45 mL/50 mL	45 mL/50 mL	1.00
A1A0458-02	Water	EPA 6020B (Diss)	01/11/21 13:40	01/22/21 10:06	45mL/50mL	45mL/50mL	1.00
A1A0458-03	Water	EPA 6020B (Diss)	01/11/21 14:15	01/22/21 10:06	45mL/50mL	45mL/50mL	1.00
A1A0458-04	Water	EPA 6020B (Diss)	01/12/21 10:00	01/22/21 10:06	45 mL/50 mL	45 mL/50 mL	1.00
A1A0458-05	Water	EPA 6020B (Diss)	01/12/21 11:45	01/22/21 10:06	45mL/50mL	45mL/50mL	1.00
A1A0458-06	Water	EPA 6020B (Diss)	01/12/21 12:25	01/22/21 10:06	45 mL/50 mL	45mL/50mL	1.00
A1A0458-07	Water	EPA 6020B (Diss)	01/12/21 13:15	01/22/21 10:06	45mL/50mL	45mL/50mL	1.00

			Nitrate + Nitrite by EF	PA 353.2			
Prep: Method Prep:	Aq				Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
Batch: 1012984							
A1A0458-01	Water	EPA 353.2	01/11/21 13:30	01/18/21 10:14	4mL/4mL	4mL/4mL	1.00
A1A0458-02	Water	EPA 353.2	01/11/21 13:40	01/18/21 10:14	4mL/4mL	4mL/4mL	1.00
A1A0458-03	Water	EPA 353.2	01/11/21 14:15	01/18/21 10:14	4mL/4mL	4mL/4mL	1.00
A1A0458-04	Water	EPA 353.2	01/12/21 10:00	01/18/21 10:14	4mL/4mL	4mL/4mL	1.00
A1A0458-05	Water	EPA 353.2	01/12/21 11:45	01/18/21 10:14	4mL/4mL	4mL/4mL	1.00
A1A0458-06	Water	EPA 353.2	01/12/21 12:25	01/18/21 10:14	4mL/4mL	4mL/4mL	1.00
A1A0458-07	Water	EPA 353.2	01/12/21 13:15	01/18/21 10:14	4mL/4mL	4mL/4mL	1.00

Apex Laboratories

Philip Marenberg



AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: Landfill WA State
Project Manager: Genevieve Schutzius

Report ID: A1A0458 - 04 19 23 1558

Weck Laboratories, Inc.

SAMPLE PREPARATION INFORMATION

	PPCPs - Polybrominated Diphenyl Ethers by GC/MS SIM													
Prep: EPA 525.2/SF	<u> E</u>				Sample	Default	RL Prep							
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor							
Batch: W1A1118														
A1A0458-01	Water	GC/MS SIM	01/11/21 13:30	01/22/21 10:39	500ml/1ml	1000ml/1ml	2.00							
A1A0458-02	Water	GC/MS SIM	01/11/21 13:40	01/22/21 10:39	500ml/1ml	1000ml/1ml	2.00							
A1A0458-03	Water	GC/MS SIM	01/11/21 14:15	01/22/21 10:39	200ml/1ml	1000ml/1ml	5.00							
A1A0458-04	Water	GC/MS SIM	01/12/21 10:00	01/22/21 10:39	500ml/1ml	1000ml/1ml	2.00							
A1A0458-05	Water	GC/MS SIM	01/12/21 11:45	01/22/21 10:39	500ml/1ml	1000ml/1ml	2.00							
A1A0458-06	Water	GC/MS SIM	01/12/21 12:25	01/22/21 10:39	200ml/1ml	1000ml/1ml	5.00							
A1A0458-07	Water	GC/MS SIM	01/12/21 13:15	01/22/21 10:39	1000ml/1ml	1000ml/1ml	1.00							

Apex Laboratories

Philip Nevenberg



AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: Landfill WA State
Project Manager: Genevieve Schutzius

<u>Report ID:</u> A1A0458 - 04 19 23 1558

QUALIFIER DEFINITIONS

Client Sample and Quality Control (QC) Sample Qualifier Definitions:

Apex Laboratories

DOC	DOC Study
FILT1	Sample was lab filtered and acid preserved prior to analysis. See sample preparation section of report for date and time of filtration.
FILT3	This is a laboratory filtration blank, associated with filtration batch 1012849. See Prep page of report for associated samples.
Ja	Estimated Result. Result detected below the lowest point of the calibration curve, but above the specified MDL.
Q-01	Spike recovery and/or RPD is outside acceptance limits.
Q-03	Spike recovery and/or RPD is outside control limits due to the high concentration of analyte present in the sample.
Q-05	Analyses are not controlled on RPD values from sample and duplicate concentrations that are below 5 times the reporting level.
Q-19	Blank Spike Duplicate (BSD) sample analyzed in place of Matrix Spike/Duplicate samples due to limited sample amount available for analysis.
Q-24	The RPD for this spike and spike duplicate is above established control limits. Recoveries for both the spike and spike duplicate are within control limits.
Q-30	Recovery for Lab Control Spike (LCS) is below the lower control limit. Data may be biased low.
Q-31	Estimated Results. Recovery of Continuing Calibration Verification sample below lower control limit for this analyte. Results are likely biased low.
Q-42	Matrix Spike and/or Duplicate analysis was performed on this sample. % Recovery or RPD for this analyte is outside laboratory control limits. (Refer to the QC Section of Analytical Report.)
Q-52	Due to known erratic recoveries, the result and reporting levels for this analyte are reported as Estimated Values. This analyte may not have passed all QC requirements for this method.
Q-54	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +2%. The results are reported as Estimated Values.
Q-54a	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +25%. The results are reported as Estimated Values.
Q-54b	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by -3%. The results are reported as Estimated Values.
Q-55	Daily CCV/LCS recovery for this analyte was below the +/-20% criteria listed in EPA 8260, however there is adequate sensitivity to ensure detection at the reporting level.
Q-56	Daily CCV/LCS recovery for this analyte was above the +/-20% criteria listed in EPA 8260
S-03	Sample re-extract, or the analysis of an associated Batch QC sample, confirms surrogate failure due to sample matrix effect.

Weck Laboratories, Inc.

J Estimated conc. detected <MRL and >MDL.

Apex Laboratories

Philip Nevenberg



AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300 Proportland, OR 97209 Pro

Project Number: Landfill WA State
Project Manager: Genevieve Schutzius

Report ID: A1A0458 - 04 19 23 1558

M-02 Due to the nature of matrix interferences, sample was diluted prior to preparation. The MDL and MRL were raised due to the dilution.

S-GC Surrogate recovery outside of control limits due to a possible matrix effect. The data was accepted based on valid recovery of the remaining surrogate.

Apex Laboratories

Philip Nevemberg



AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project Number: Landfill WA State
Project Manager: Genevieve Schutzius

Report ID: A1A0458 - 04 19 23 1558

REPORTING NOTES AND CONVENTIONS:

Abbreviations:

DET Analyte DETECTED at or above the detection or reporting limit.

ND Analyte NOT DETECTED at or above the detection or reporting limit.

NR Result Not Reported

RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

Detection Limits: Limit of Detection (LOD)

Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).

If no value is listed ('----'), then the data has not been evaluated below the Reporting Limit.

Reporting Limits: Limit of Quantitation (LOQ)

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

Reporting Conventions:

Basis: Results for soil samples are generally reported on a 100% dry weight basis.

The Result Basis is listed following the units as "dry", "wet", or " " (blank) designation.

"dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")

See Percent Solids section for details of dry weight analysis.

"wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.

"___" Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

QC Source:

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.

Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) may not be included in this report. Please request a Full QC report if this data is required.

Miscellaneous Notes:

"---" QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to ½ the Reporting Limit (RL).

- -For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.
- -For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.

For further details, please request a copy of this document.

Apex Laboratories

Philip Namberg



Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

Report ID:

AMENDED REPORT

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project Number: Landfill WA State
Project Manager: Genevieve Schutzius

A1A0458 - 04 19 23 1558

REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks (Cont.):

Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.

'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level.

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

Sampling and Preservation Notes:

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

Apex Laboratories

Philip Merenberg



Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

AMENDED REPORT

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: Landfill WA State
Project Manager: Genevieve Schutzius

<u>Report ID:</u> A1A0458 - 04 19 23 1558

LABORATORY ACCREDITATION INFORMATION

ORELAP Certification ID: OR100062 (Primary Accreditation) -EPA ID: OR01039

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the <u>exception</u> of any analyte(s) listed below:

Apex Laboratories

Matrix Analysis TNI_ID Analyte TNI_ID Accreditation

All reported analytes are included in Apex Laboratories' current ORELAP scope.

Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation.

Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

Field Testing Parameters

Results for Field Tested data are provded by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

Apex Laboratories

Philip Marenberg



Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: <u>Eatonville</u>

AMENDED REPORT

Project Number: Landfill WA State
Project Manager: Genevieve Schutzius

Report ID: A1A0458 - 04 19 23 1558

Priority Metals (13) Priority Metals (13)	N O	, , , , ,	7)))))))	<i>y y y y y y</i>					RECEIVED BY: Date: Signature: Date:	Time: Printed Name: Time:	Company:
CALANA C									SPECIAL INSTRUCTIONS:			RELINQUISHED BY: Signature:	Tinde: Printed Name:	Company:
TIME ONTRINK	1/11/24 1330 SW	111/28 (340 SW !!	1/1/24 HIS SW !!	11 MS 2001 11711	1/12/20 1145 SW 11	11 WS SECT 45/4/11	1975 SW 11		Normal Turn Around Time (TAT) = 10 Business Days	ay 2 Day 3 Day	AY 5 DAY Other:	HELD FOR 30 DAYS RECEIVED BY: Signature: Discontinuous	CO King Name Tri	Company:
Company: GST Address: 55.5W Yambill St. Sampled by: GS, TS Site Location: AK ID AK ID AR I		SEYOL-O'ZI	SEDD- dia1	GWD - PIZI	SWP1- Mai	SWD2-MOI	SW43_ 4121	NAME OF THE PARTY	Normal Turn Ar	1 Day		SAMPLES ARE RELINQUISHED BY: Date:	Printed Name: Time: Genevicue Schutbus	Company:

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nevemberg



AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: Landfill WA State
Project Manager: Genevieve Schutzius

Report ID: A1A0458 - 04 19 23 1558

	*
Client: GS1	Element WO#: A1 A0458
Project/Project #: <u>Eato</u>	mville
Delivery Info :	
Date/time received: 113	3 21 @ 917 By:
Delivered by: Apex	Client X ESS FedEx UPS Swift Senvoy SDS Other
Cooler Inspection D	Date/time inspected: 1 13 2 @ 9 7 By: SC ed? Yes No Custody seals? Yes No No Yes No No Yes No Yes No Yes Yes No Yes
Chain of Custody include	ed? Yes Y No Custody seals? Yes No X
Signed/dated by client?	Yes _X No
Signed/dated by Apex?	Yes <u> </u>
	Cooler #1 Cooler #2 Cooler #3 Cooler #4 Cooler #5 Cooler #6 Cooler #7
Temperature (°C)	0.7 5.6 0.8 0.2
Received on ice? (Y/N)	<u> </u>
Temp. blanks? (Y/N)	<u>Y</u> <u>Y</u> <u>Y</u>
Ice type: (Gel/Real/Other	r) real real real
Condition:	good good good good
Out of temperature samp	Possible reason why: t of temperature samples? Yes/No bles form initiated? Yes/No stat/time invested 14/1/1/1/1/1/1/1/1/1/1/1/1/1/1/1/1/1/1/
Out of temperature samp. Sample Inspection: Da	t of temperature samples? Yes/No cles form initiated? Yes/No ate/time inspected: 1/13/21 @ 1050 By:
Out of temperature sample Sample Inspection: De All samples intact? Yes Bottle labels/COCs agree MART of 1200 SEC	ate/time inspected: 1/13 1/1 @ 1050 By: S
Out of temperature sample Sample Inspection: De All samples intact? Yes Bottle labels/COCs agree MAT of 1/00 SE COC/container discrepan Containers/volumes recei	oles form initiated? Yes/No" ate/time inspected: 1/13 1/1 @ 1050 By: S) X No Comments: E? Yes No X Comments: SEQI-QIVI all containers uxcept 11 ambers 07-0171 no DT on HN03 poly 4 TBs received but not histed on Co acies form initiated? Yes No X ived appropriate for analysis? Yes X No Comments:
Out of temperature sample Sample Inspection: De All samples intact? Yes Bottle labels/COCs agree MAT of 1/00 SE COC/container discrepan Containers/volumes recei	oles form initiated? Yes/No" ate/time inspected: 1/13/21 @ 1050 By: S) X No Comments: E? Yes No X Comments: SEQI-QIZI all containers except 11 ambers QZ-QIZI no DIT on HNO3 poly. 4 TBS received but not histed on Co acies form initiated? Yes No X
Out of temperature sample Sample Inspection: De All samples intact? Yes Bottle labels/COCs agree MART of 1400 SE COC/container discrepan Containers/volumes recei Do VOA vials have visib Comments	oles form initiated? Yes/No ate/time inspected: 1/13 1/1 @ 105D By: S No Comments: P? Yes No X Comments: SEQI-Q121 all containers except 11 ambers 02-0121 no DT on HN03 poly. 4 TBs received but not histed on Colorices form initiated? Yes No X ived appropriate for analysis? Yes X No Comments: ole headspace? Yes No X NA
Out of temperature sample Sample Inspection: De All samples intact? Yes Bottle labels/COCs agree MART of 1400 SE COC/container discrepan Containers/volumes recei Do VOA vials have visib Comments	oles form initiated? Yes/No" ate/time inspected: 1/13 1/1 @ 1050 By: S) X No Comments: E? Yes No X Comments: SEQI-QIVI all containers uxcept 11 ambers 07-0171 no DT on HN03 poly 4 TBs received but not histed on Co acies form initiated? Yes No X ived appropriate for analysis? Yes X No Comments:
Out of temperature sample Sample Inspection: De All samples intact? Yes Bottle labels/COCs agree Mad T of 1400 SE COC/container discrepan Containers/volumes recei Do VOA vials have visib Comments Water samples: pH check	oles form initiated? Yes/No ate/time inspected: 1/13 1/1 @ 105D By: S No Comments: P? Yes No X Comments: SEQI-Q121 all containers except 11 ambers 02-0121 no DT on HN03 poly. 4 TBs received but not histed on Colorices form initiated? Yes No X ived appropriate for analysis? Yes X No Comments: ole headspace? Yes No X NA
Out of temperature sample Sample Inspection: De All samples intact? Yes Bottle labels/COCs agree MART of 1400 SE COC/container discrepan Containers/volumes received Do VOA vials have visib Comments Water samples: pH check Comments:	oles form initiated? Yes/No ate/time inspected: 1/13 1/1 @ 105D By: S No Comments: P? Yes No X Comments: SEQI-Q121 all containers except 11 ambers 02-0121 no DT on HN03 poly. 4 TBs received but not histed on Colorices form initiated? Yes No X ived appropriate for analysis? Yes X No Comments: ole headspace? Yes No X NA
Out of temperature sample Sample Inspection: De All samples intact? Yes Bottle labels/COCs agree MART of 1400 SE COC/container discrepan Containers/volumes recei Do VOA vials have visib Comments Water samples: pH check Comments:	oles form initiated? Yes/No" ate/time inspected: 1/13 1/1 @ 105D By: S) X No Comments: E? Yes No X Comments: SEQI-QIZI all containers axcept 11 ambers 0.2-QIZI no DT on HNO3 poly . 4 TBs received but not histed on Co(ncies form initiated? Yes No X ived appropriate for analysis? Yes _X No Comments: ble headspace? Yes No _X NA ked: Yes X No NA pH appropriate? Yes X No NA
Out of temperature sample Sample Inspection: De All samples intact? Yes Bottle labels/COCs agree MART of 1400 SE COC/container discrepan Containers/volumes recei Do VOA vials have visib Comments Water samples: pH check Comments:	oles form initiated? Yes/No" ate/time inspected: 1/13 1/1 @ 105D By: S) X No Comments: E? Yes No X Comments: SEQI-QIZI all containers axcept 11 ambers 0.2-QIZI no DT on HNO3 poly . 4 TBs received but not histed on Co(ncies form initiated? Yes No X ived appropriate for analysis? Yes _X No Comments: ble headspace? Yes No _X NA ked: Yes X No NA pH appropriate? Yes X No NA

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Marenberg



Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323 ORELAP ID: OR100062

AMENDED REPORT

Tuesday, April 25, 2023
Josh Bale
GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

RE: A1K0892 - Eatonville - 0171.067

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A1K0892, which was received by the laboratory on 11/18/2021 at 10:46:00AM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: pnerenberg@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample receipt, unless prior arrangements have been made.

Cooler Receipt Information

(See Cooler Receipt Form for details)

 Cooler #1
 1.6 degC
 Cooler #2
 2.1 degC

 Cooler #3
 1.3 degC
 Cooler #4
 0.8 degC

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.

All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.





Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Philip Nevenberg



AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 0171.067
Project Manager: Josh Bale

Report ID: A1K0892 - 04 25 23 1054

ANALYTICAL REPORT FOR SAMPLES

	SAMPLE INF	ORMATION		
Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
GW-PZ-01-1121	A1K0892-01	Water	11/17/21 17:40	11/18/21 10:46
GW-PZ-02-1121	A1K0892-02	Water	11/17/21 15:35	11/18/21 10:46
GW-PZ-03-1121	A1K0892-03	Water	11/17/21 12:05	11/18/21 10:46
GW-PZ-04-1121	A1K0892-04	Water	11/17/21 10:32	11/18/21 10:46
GW-PZ-05-1121	A1K0892-05	Water	11/17/21 16:00	11/18/21 10:46
GW-Dup-1-1121	A1K0892-06	Water	11/17/21 15:40	11/18/21 10:46
GW-Equipment-Blank-1121	A1K0892-07	Water	11/17/21 18:10	11/18/21 10:46
GW-Trip-Blank-1121	A1K0892-08	Water	11/17/21 08:00	11/18/21 10:46

Apex Laboratories

Philip Marenberg

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 0171.067
Project Manager: Josh Bale

Report ID: A1K0892 - 04 25 23 1054

ANALYTICAL CASE NARRATIVE

A1K0892 Apex Laboratories

Amended Report Revision 1:

Reporting to the Method Reporting Limits (MRLs)-

This report supersedes all previous reports.

The final report has been amended to report all samples to the MRLs.

Philip Nerenberg Lab Director

Apex Laboratories

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Philip Nerenberg, Lab Director

Philip Manhera

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 0171.067
Project Manager: Josh Bale

Report ID: A1K0892 - 04 25 23 1054

ANALYTICAL SAMPLE RESULTS

	Selected Semivolatile Organic Compounds by EPA 8270E								
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes	
GW-PZ-01-1121 (A1K0892-01)				Matrix: Wate	er	Batch:	21K0974		
Acenaphthene	ND	0.0114	0.0227	ug/L	1	11/23/21 17:57	EPA 8270E		
Acenaphthylene	ND	0.0114	0.0227	ug/L	1	11/23/21 17:57	EPA 8270E		
Anthracene	ND	0.0114	0.0227	ug/L	1	11/23/21 17:57	EPA 8270E		
Benz(a)anthracene	ND	0.0114	0.0227	ug/L	1	11/23/21 17:57	EPA 8270E		
Benzo(a)pyrene	ND	0.0170	0.0341	ug/L	1	11/23/21 17:57	EPA 8270E		
Benzo(b)fluoranthene	ND	0.0170	0.0341	ug/L	1	11/23/21 17:57	EPA 8270E		
Benzo(k)fluoranthene	ND	0.0170	0.0341	ug/L	1	11/23/21 17:57	EPA 8270E		
Benzo(g,h,i)perylene	ND	0.0114	0.0227	ug/L	1	11/23/21 17:57	EPA 8270E		
Chrysene	ND	0.0114	0.0227	ug/L	1	11/23/21 17:57	EPA 8270E		
Dibenz(a,h)anthracene	ND	0.0114	0.0227	ug/L	1	11/23/21 17:57	EPA 8270E		
Fluoranthene	ND	0.0114	0.0227	ug/L	1	11/23/21 17:57	EPA 8270E		
Fluorene	ND	0.0114	0.0227	ug/L	1	11/23/21 17:57	EPA 8270E		
Indeno(1,2,3-cd)pyrene	ND	0.0114	0.0227	ug/L	1	11/23/21 17:57	EPA 8270E		
1-Methylnaphthalene	ND	0.0227	0.0455	ug/L	1	11/23/21 17:57	EPA 8270E		
2-Methylnaphthalene	ND	0.0227	0.0455	ug/L	1	11/23/21 17:57	EPA 8270E		
Naphthalene	ND	0.0227	0.0455	ug/L	1	11/23/21 17:57	EPA 8270E		
Phenanthrene	ND	0.0114	0.0227	ug/L	1	11/23/21 17:57	EPA 8270E		
Pyrene	ND	0.0114	0.0227	ug/L	1	11/23/21 17:57	EPA 8270E		
Dibenzofuran	ND	0.0114	0.0227	ug/L	1	11/23/21 17:57	EPA 8270E		
Surrogate: Nitrobenzene-d5 (Surr)		Recover	v: 60 %	Limits: 44-120 %	5 1	11/23/21 17:57	EPA 8270E		
2-Fluorobiphenyl (Surr)			67 %	44-120 %	<i>1</i>	11/23/21 17:57	EPA 8270E		
Phenol-d6 (Surr)			20 %	10-133 %	<i>I</i>	11/23/21 17:57	EPA 8270E		
p-Terphenyl-d14 (Surr)			67 %	50-134 %	5 I	11/23/21 17:57	EPA 8270E		
2-Fluorophenol (Surr)			31 %	19-120 %		11/23/21 17:57	EPA 8270E		
2,4,6-Tribromophenol (Surr)			99 %	43-140 %	<i>I</i>	11/23/21 17:57	EPA 8270E	Q-41	
GW-PZ-02-1121 (A1K0892-02)				Matrix: Wate	er	Batch:	21K0974		
Acenaphthene	ND	0.0112	0.0225	ug/L	1	11/23/21 18:32	EPA 8270E		
Acenaphthylene	ND	0.0112	0.0225	ug/L	1	11/23/21 18:32	EPA 8270E		
Anthracene	ND	0.0112	0.0225	ug/L	1	11/23/21 18:32	EPA 8270E		
Benz(a)anthracene	ND	0.0112	0.0225	ug/L	1	11/23/21 18:32	EPA 8270E		
Benzo(a)pyrene	ND	0.0169	0.0337	ug/L	1	11/23/21 18:32	EPA 8270E		
Benzo(b)fluoranthene	ND	0.0169	0.0337	ug/L	1	11/23/21 18:32	EPA 8270E		
Benzo(k)fluoranthene	ND	0.0169	0.0337	B'		11/23/21 18:32	EPA 8270E		

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Philip Nerenberg, Lab Director

Philip Marenberg

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 0171.067
Project Manager: Josh Bale

Report ID: A1K0892 - 04 25 23 1054

ANALYTICAL SAMPLE RESULTS

	Selected Semivolatile Organic Compounds by EPA 8270E								
	Sample	Detection	Reporting			Date			
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes	
GW-PZ-02-1121 (A1K0892-02)				Matrix: Wate	er	Batch: 2	21K0974		
Benzo(g,h,i)perylene	ND	0.0112	0.0225	ug/L	1	11/23/21 18:32	EPA 8270E		
Chrysene	ND	0.0112	0.0225	ug/L	1	11/23/21 18:32	EPA 8270E		
Dibenz(a,h)anthracene	ND	0.0112	0.0225	ug/L	1	11/23/21 18:32	EPA 8270E		
Fluoranthene	ND	0.0112	0.0225	ug/L	1	11/23/21 18:32	EPA 8270E		
Fluorene	ND	0.0112	0.0225	ug/L	1	11/23/21 18:32	EPA 8270E		
Indeno(1,2,3-cd)pyrene	ND	0.0112	0.0225	ug/L	1	11/23/21 18:32	EPA 8270E		
1-Methylnaphthalene	ND	0.0225	0.0449	ug/L	1	11/23/21 18:32	EPA 8270E		
2-Methylnaphthalene	ND	0.0225	0.0449	ug/L	1	11/23/21 18:32	EPA 8270E		
Naphthalene	ND	0.0225	0.0449	ug/L	1	11/23/21 18:32	EPA 8270E		
Phenanthrene	ND	0.0112	0.0225	ug/L	1	11/23/21 18:32	EPA 8270E		
Pyrene	ND	0.0112	0.0225	ug/L	1	11/23/21 18:32	EPA 8270E		
Dibenzofuran	ND	0.0112	0.0225	ug/L	1	11/23/21 18:32	EPA 8270E		
Surrogate: Nitrobenzene-d5 (Surr)		Recove	ry: 66 %	Limits: 44-120 %	I	11/23/21 18:32	EPA 8270E		
2-Fluorobiphenyl (Surr)			76 %	44-120 %	1	11/23/21 18:32	EPA 8270E		
Phenol-d6 (Surr)			23 %	10-133 %	1	11/23/21 18:32	EPA 8270E		
p-Terphenyl-d14 (Surr)			88 %	50-134 %	1	11/23/21 18:32	EPA 8270E		
2-Fluorophenol (Surr)			37 %	19-120 %		11/23/21 18:32	EPA 8270E		
2,4,6-Tribromophenol (Surr)			102 %	43-140 %	I	11/23/21 18:32	EPA 8270E	Q-41	
GW-PZ-03-1121 (A1K0892-03)				Matrix: Wate	er	Batch: 2	21K0974		
Acenaphthene	ND	0.0116	0.0233	ug/L	1	11/23/21 19:07	EPA 8270E		
Acenaphthylene	ND	0.0116	0.0233	ug/L	1	11/23/21 19:07	EPA 8270E		
Anthracene	ND	0.0116	0.0233	ug/L	1	11/23/21 19:07	EPA 8270E		
Benz(a)anthracene	ND	0.0116	0.0233	ug/L	1	11/23/21 19:07	EPA 8270E		
Benzo(a)pyrene	ND	0.0174	0.0349	ug/L	1	11/23/21 19:07	EPA 8270E		
Benzo(b)fluoranthene	ND	0.0174	0.0349	ug/L	1	11/23/21 19:07	EPA 8270E		
Benzo(k)fluoranthene	ND	0.0174	0.0349	ug/L	1	11/23/21 19:07	EPA 8270E		
Benzo(g,h,i)perylene	ND	0.0116	0.0233	ug/L	1	11/23/21 19:07	EPA 8270E		
Chrysene	ND	0.0116	0.0233	ug/L	1	11/23/21 19:07	EPA 8270E		
Dibenz(a,h)anthracene	ND	0.0116	0.0233	ug/L	1	11/23/21 19:07	EPA 8270E		
Fluoranthene	ND	0.0116	0.0233	ug/L	1	11/23/21 19:07	EPA 8270E		
	1111	0.0110	0.0233	∞ g/ L	1				
	ND	0.0116	0.0233	110/I	1	11/23/21 19:07	EPA 8270E		
Fluorene Indeno(1,2,3-cd)pyrene	ND ND	0.0116 0.0116	0.0233 0.0233	ug/L ug/L	1	11/23/21 19:07 11/23/21 19:07	EPA 8270E EPA 8270E		

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Philip Nerenberg, Lab Director

Philip Marenberg

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project Number: **Eatonville**Project Number: **0171.067**Project Manager: **Josh Bale**

Report ID: A1K0892 - 04 25 23 1054

ANALYTICAL SAMPLE RESULTS

			-	ompounds by E				
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GW-PZ-03-1121 (A1K0892-03)				Matrix: Wate	r	Batch: 2	21K0974	
2-Methylnaphthalene	ND	0.0233	0.0465	ug/L	1	11/23/21 19:07	EPA 8270E	
Naphthalene	ND	0.0233	0.0465	ug/L	1	11/23/21 19:07	EPA 8270E	
Phenanthrene	ND	0.0116	0.0233	ug/L	1	11/23/21 19:07	EPA 8270E	
Pyrene	ND	0.0116	0.0233	ug/L	1	11/23/21 19:07	EPA 8270E	
Dibenzofuran	ND	0.0116	0.0233	ug/L	1	11/23/21 19:07	EPA 8270E	
Surrogate: Nitrobenzene-d5 (Surr)		Recov	very: 58 %	Limits: 44-120 %	1	11/23/21 19:07	EPA 8270E	
2-Fluorobiphenyl (Surr)			65 %	44-120 %	1	11/23/21 19:07	EPA 8270E	
Phenol-d6 (Surr)			22 %	10-133 %		11/23/21 19:07	EPA 8270E	
p-Terphenyl-d14 (Surr)			91 %	50-134 %		11/23/21 19:07	EPA 8270E	
2-Fluorophenol (Surr)			34 %	19-120 %		11/23/21 19:07	EPA 8270E	-
2,4,6-Tribromophenol (Surr)			100 %	43-140 %	1	11/23/21 19:07	EPA 8270E	Q-41
GW-PZ-04-1121 (A1K0892-04)				Matrix: Wate	r	Batch: 2	21K0974	
Acenaphthene	ND	0.0114	0.0227	ug/L	1	11/23/21 19:42	EPA 8270E	
Acenaphthylene	ND	0.0114	0.0227	ug/L	1	11/23/21 19:42	EPA 8270E	
Anthracene	ND	0.0114	0.0227	ug/L	1	11/23/21 19:42	EPA 8270E	
Benz(a)anthracene	ND	0.0114	0.0227	ug/L	1	11/23/21 19:42	EPA 8270E	
Benzo(a)pyrene	ND	0.0170	0.0341	ug/L	1	11/23/21 19:42	EPA 8270E	
Benzo(b)fluoranthene	ND	0.0170	0.0341	ug/L	1	11/23/21 19:42	EPA 8270E	
Benzo(k)fluoranthene	ND	0.0170	0.0341	ug/L	1	11/23/21 19:42	EPA 8270E	
Benzo(g,h,i)perylene	ND	0.0114	0.0227	ug/L	1	11/23/21 19:42	EPA 8270E	
Chrysene	ND	0.0114	0.0227	ug/L	1	11/23/21 19:42	EPA 8270E	
Dibenz(a,h)anthracene	ND	0.0114	0.0227	ug/L	1	11/23/21 19:42	EPA 8270E	
Fluoranthene	ND	0.0114	0.0227	ug/L	1	11/23/21 19:42	EPA 8270E	
Fluorene	ND	0.0114	0.0227	ug/L	1	11/23/21 19:42	EPA 8270E	
Indeno(1,2,3-cd)pyrene	ND	0.0114	0.0227	ug/L	1	11/23/21 19:42	EPA 8270E	
l-Methylnaphthalene	ND	0.0227	0.0455	ug/L	1	11/23/21 19:42	EPA 8270E	
2-Methylnaphthalene	ND	0.0227	0.0455	ug/L	1	11/23/21 19:42	EPA 8270E	
Naphthalene	ND	0.0227	0.0455	ug/L	1	11/23/21 19:42	EPA 8270E	
Phenanthrene	ND	0.0114	0.0227	ug/L	1	11/23/21 19:42	EPA 8270E	
Pyrene	ND	0.0114	0.0227	ug/L	1	11/23/21 19:42	EPA 8270E	
Dibenzofuran	ND	0.0114	0.0227	ug/L	1	11/23/21 19:42	EPA 8270E	
Surrogate: Nitrobenzene-d5 (Surr)		Recov		Limits: 44-120 %		11/23/21 19:42	EPA 8270E	
Surrogate: Nitrobenzene-a5 (Surr) 2-Fluorobiphenyl (Surr)		Kecoi	very: 65 % 69 %	Limits: 44-120 % 44-120 %		11/23/21 19:42	EPA 8270E EPA 8270E	

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Philip Nerenberg, Lab Director

Philip Nevenberg

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 0171.067
Project Manager: Josh Bale

Report ID: A1K0892 - 04 25 23 1054

ANALYTICAL SAMPLE RESULTS

	Selected Semivolatile Organic Compounds by EPA 8270E							
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
	Result	Lillit	Limit			•		110168
GW-PZ-04-1121 (A1K0892-04)				Matrix: Wate			21K0974	
Surrogate: Phenol-d6 (Surr)		Recon	very: 19 %	Limits: 10-133 %		11/23/21 19:42	EPA 8270E	
p-Terphenyl-d14 (Surr)			83 %	50-134 %		11/23/21 19:42	EPA 8270E	
2-Fluorophenol (Surr) 2,4,6-Tribromophenol (Surr)			31 % 104 %	19-120 % 43-140 %		11/23/21 19:42 11/23/21 19:42	EPA 8270E EPA 8270E	Q-41
			104 70					Q-41
GW-Dup-1-1121 (A1K0892-06)				Matrix: Wate	r	Batch:	21K0974	
Acenaphthene	ND	0.0104	0.0208	ug/L	1	11/23/21 20:18	EPA 8270E	
Acenaphthylene	ND	0.0104	0.0208	ug/L	1	11/23/21 20:18	EPA 8270E	
Anthracene	ND	0.0104	0.0208	ug/L	1	11/23/21 20:18	EPA 8270E	
Benz(a)anthracene	ND	0.0104	0.0208	ug/L	1	11/23/21 20:18	EPA 8270E	
Benzo(a)pyrene	ND	0.0156	0.0312	ug/L	1	11/23/21 20:18	EPA 8270E	
Benzo(b)fluoranthene	ND	0.0156	0.0312	ug/L	1	11/23/21 20:18	EPA 8270E	
Benzo(k)fluoranthene	ND	0.0156	0.0312	ug/L	1	11/23/21 20:18	EPA 8270E	
Benzo(g,h,i)perylene	ND	0.0104	0.0208	ug/L	1	11/23/21 20:18	EPA 8270E	
Chrysene	ND	0.0104	0.0208	ug/L	1	11/23/21 20:18	EPA 8270E	
Dibenz(a,h)anthracene	ND	0.0104	0.0208	ug/L	1	11/23/21 20:18	EPA 8270E	
Fluoranthene	ND	0.0104	0.0208	ug/L	1	11/23/21 20:18	EPA 8270E	
Fluorene	ND	0.0104	0.0208	ug/L	1	11/23/21 20:18	EPA 8270E	
Indeno(1,2,3-cd)pyrene	ND	0.0104	0.0208	ug/L	1	11/23/21 20:18	EPA 8270E	
1-Methylnaphthalene	ND	0.0208	0.0417	ug/L	1	11/23/21 20:18	EPA 8270E	
2-Methylnaphthalene	ND	0.0208	0.0417	ug/L	1	11/23/21 20:18	EPA 8270E	
Naphthalene	ND	0.0208	0.0417	ug/L	1	11/23/21 20:18	EPA 8270E	
Phenanthrene	0.0228	0.0104	0.0208	ug/L	1	11/23/21 20:18	EPA 8270E	
Pyrene	ND	0.0104	0.0208	ug/L	1	11/23/21 20:18	EPA 8270E	
Dibenzofuran	ND	0.0104	0.0208	ug/L	1	11/23/21 20:18	EPA 8270E	
Surrogate: Nitrobenzene-d5 (Surr)		Recon	very: 60 %	Limits: 44-120 %	1	11/23/21 20:18	EPA 8270E	
2-Fluorobiphenyl (Surr)			68 %	44-120 %		11/23/21 20:18	EPA 8270E	
Phenol-d6 (Surr)			21 %	10-133 %	1	11/23/21 20:18	EPA 8270E	
p-Terphenyl-d14 (Surr)			85 %	50-134 %	1	11/23/21 20:18	EPA 8270E	
2-Fluorophenol (Surr)			34 %	19-120 %		11/23/21 20:18	EPA 8270E	
2,4,6-Tribromophenol (Surr)			95 %	43-140 %	1	11/23/21 20:18	EPA 8270E	Q-41
GW-Equipment-Blank-1121 (A1K0892-	07)			Matrix: Wate	<u>r </u>	Batch: 2	21K0974	
Acenaphthene	ND	0.00980	0.0196	ug/L	1	11/23/21 20:53	EPA 8270E	
Acenaphthylene	ND	0.00980	0.0196	ug/L	1	11/23/21 20:53	EPA 8270E	

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Philip Marenberg



AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 0171.067
Project Manager: Josh Bale

Report ID: A1K0892 - 04 25 23 1054

ANALYTICAL SAMPLE RESULTS

	Sample	Detection	Reporting		Date						
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes			
GW-Equipment-Blank-1121 (A1K0892-07)				Matrix: Wate	er	Batch:	21K0974				
Anthracene	ND	0.00980	0.0196	ug/L	1	11/23/21 20:53	EPA 8270E				
Benz(a)anthracene	ND	0.00980	0.0196	ug/L	1	11/23/21 20:53	EPA 8270E				
Benzo(a)pyrene	ND	0.0147	0.0294	ug/L	1	11/23/21 20:53	EPA 8270E				
Benzo(b)fluoranthene	ND	0.0147	0.0294	ug/L	1	11/23/21 20:53	EPA 8270E				
Benzo(k)fluoranthene	ND	0.0147	0.0294	ug/L	1	11/23/21 20:53	EPA 8270E				
Benzo(g,h,i)perylene	ND	0.00980	0.0196	ug/L	1	11/23/21 20:53	EPA 8270E				
Chrysene	ND	0.00980	0.0196	ug/L	1	11/23/21 20:53	EPA 8270E				
Dibenz(a,h)anthracene	ND	0.00980	0.0196	ug/L	1	11/23/21 20:53	EPA 8270E				
Fluoranthene	ND	0.00980	0.0196	ug/L	1	11/23/21 20:53	EPA 8270E				
Fluorene	ND	0.00980	0.0196	ug/L	1	11/23/21 20:53	EPA 8270E				
Indeno(1,2,3-cd)pyrene	ND	0.00980	0.0196	ug/L	1	11/23/21 20:53	EPA 8270E				
1-Methylnaphthalene	ND	0.0196	0.0392	ug/L	1	11/23/21 20:53	EPA 8270E				
2-Methylnaphthalene	ND	0.0196	0.0392	ug/L	1	11/23/21 20:53	EPA 8270E				
Naphthalene	ND	0.0196	0.0392	ug/L	1	11/23/21 20:53	EPA 8270E				
Phenanthrene	ND	0.00980	0.0196	ug/L	1	11/23/21 20:53	EPA 8270E				
Pyrene	ND	0.00980	0.0196	ug/L	1	11/23/21 20:53	EPA 8270E				
Dibenzofuran	ND	0.00980	0.0196	ug/L	1	11/23/21 20:53	EPA 8270E				
Surrogate: Nitrobenzene-d5 (Surr)		Recov	ery: 69 %	Limits: 44-120 %	6 I	11/23/21 20:53	EPA 8270E				
2-Fluorobiphenyl (Surr)			78 %	44-120 %	6 I	11/23/21 20:53	EPA 8270E				
Phenol-d6 (Surr)			23 %	10-133 %		11/23/21 20:53	EPA 8270E				
p-Terphenyl-d14 (Surr)			87 %	50-134 %		11/23/21 20:53	EPA 8270E				
2-Fluorophenol (Surr)			38 %	19-120 %		11/23/21 20:53	EPA 8270E				
2,4,6-Tribromophenol (Surr)			102 %	43-140 %	6 1	11/23/21 20:53	EPA 8270E	Q-41			

Apex Laboratories

Philip Nevenberg

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project Number: Eatonville
Project Number: 0171.067
Project Manager: Josh Bale

Report ID: A1K0892 - 04 25 23 1054

ANALYTICAL SAMPLE RESULTS

		Total Meta	ls by EPA 60	20B (ICPMS	5)			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GW-PZ-01-1121 (A1K0892-01)				Matrix: W	ater			
Batch: 21K0864								
Arsenic	1.98	0.500	1.00	ug/L	1	11/24/21 08:47	EPA 6020B	
Barium	41.8	1.00	2.00	ug/L	1	11/24/21 08:47	EPA 6020B	
Cadmium	ND	0.100	0.200	ug/L	1	11/24/21 08:47	EPA 6020B	
Chromium	7.09	1.00	2.00	ug/L	1	11/24/21 08:47	EPA 6020B	
Cobalt	3.42	0.500	1.00	ug/L	1	11/24/21 08:47	EPA 6020B	
Copper	15.4	1.00	2.00	ug/L	1	11/24/21 08:47	EPA 6020B	
Nickel	6.75	1.00	2.00	ug/L	1	11/24/21 08:47	EPA 6020B	
Selenium	1.27	0.500	1.00	ug/L	1	11/24/21 08:47	EPA 6020B	
Thallium	ND	0.100	0.200	ug/L	1	11/24/21 08:47	EPA 6020B	
Vanadium	10.1	1.00	2.00	ug/L	1	11/24/21 08:47	EPA 6020B	
Zinc	15.8	2.00	4.00	ug/L	1	11/24/21 08:47	EPA 6020B	
GW-PZ-01-1121 (A1K0892-01RE1)				Matrix: W	ater			
Batch: 21K0864	_	_						
Lead	2.58	0.110	0.200	ug/L	1	11/30/21 00:37	EPA 6020B	
GW-PZ-01-1121 (A1K0892-01RE2)	-		-	Matrix: W	ater	-		•
Batch: 21K0864								
Beryllium	0.327	0.100	0.200	ug/L	1	12/01/21 11:08	EPA 6020B	
GW-PZ-02-1121 (A1K0892-02)				Matrix: W	ater			
Batch: 21K0864								
Arsenic	2.53	0.500	1.00	ug/L	1	11/24/21 08:52	EPA 6020B	
Barium	49.3	1.00	2.00	ug/L	1	11/24/21 08:52	EPA 6020B	
Cadmium	ND	0.100	0.200	ug/L	1	11/24/21 08:52	EPA 6020B	
Chromium	4.67	1.00	2.00	ug/L	1	11/24/21 08:52	EPA 6020B	
Cobalt	1.37	0.500	1.00	ug/L	1	11/24/21 08:52	EPA 6020B	
Copper	8.48	1.00	2.00	ug/L	1	11/24/21 08:52	EPA 6020B	
Nickel	3.30	1.00	2.00	ug/L	1	11/24/21 08:52	EPA 6020B	
Selenium	ND	0.500	1.00	ug/L	1	11/24/21 08:52	EPA 6020B	
<u> Fhallium</u>	ND	0.100	0.200	ug/L	1	11/24/21 08:52	EPA 6020B	
Vanadium	5.32	1.00	2.00	ug/L	1	11/24/21 08:52	EPA 6020B	
Zinc	9.67	2.00	4.00	ug/L	1	11/24/21 08:52	EPA 6020B	

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Philip Nerenberg, Lab Director

Philip Nevenberg

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 0171.067
Project Manager: Josh Bale

Report ID: A1K0892 - 04 25 23 1054

ANALYTICAL SAMPLE RESULTS

		Total Meta	ils by EPA 60	20B (ICPMS	S)			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GW-PZ-02-1121 (A1K0892-02RE1)	resure		Limit	Matrix: W		7 mary 200	Wichiod Ref.	110103
				IVIALITY. VV	atei			
Batch: 21K0864	1.29	0.110	0.200	~/T	1	11/30/21 00:42	EPA 6020B	
Lead	1.29	0.110	0.200	ug/L	1	11/30/21 00.42	EFA 0020B	
GW-PZ-02-1121 (A1K0892-02RE2)				Matrix: W	ater			
Batch: 21K0864								
Beryllium	0.102	0.100	0.200	ug/L	1	12/01/21 11:13	EPA 6020B	Ja
GW-PZ-03-1121 (A1K0892-03)				Matrix: W	ater			
Batch: 21K1112								
Arsenic	0.602	0.500	1.00	ug/L	1	11/30/21 14:23	EPA 6020B	Ja
Barium	7.01	1.00	2.00	ug/L	1	11/30/21 14:23	EPA 6020B	
Cadmium	ND	0.100	0.200	ug/L	1	11/30/21 14:23	EPA 6020B	
Chromium	ND	1.00	2.00	ug/L	1	11/30/21 14:23	EPA 6020B	
Cobalt	0.541	0.500	1.00	ug/L	1	11/30/21 14:23	EPA 6020B	Ja
Copper	ND	1.00	2.00	ug/L	1	11/30/21 14:23	EPA 6020B	
Lead	0.596	0.110	0.200	ug/L	1	11/30/21 14:23	EPA 6020B	
Nickel	ND	1.00	2.00	ug/L	1	11/30/21 14:23	EPA 6020B	
Selenium	ND	0.500	1.00	ug/L	1	11/30/21 14:23	EPA 6020B	
Гhallium	ND	0.100	0.200	ug/L	1	11/30/21 14:23	EPA 6020B	
Vanadium	1.12	1.00	2.00	ug/L	1	11/30/21 14:23	EPA 6020B	Ja
Zinc	7.95	2.00	4.00	ug/L	1	11/30/21 14:23	EPA 6020B	
GW-PZ-03-1121 (A1K0892-03RE1)				Matrix: W	ater			
Batch: 21K1112								
Beryllium	ND	0.100	0.200	ug/L	1	12/01/21 11:28	EPA 6020B	Q-16
GW-PZ-04-1121 (A1K0892-04)				Matrix: W	ater			
Batch: 21K1112								
Arsenic	2.18	0.500	1.00	ug/L	1	11/30/21 14:39	EPA 6020B	
Barium	28.9	1.00	2.00	ug/L	1	11/30/21 14:39	EPA 6020B	
Cadmium	ND	0.100	0.200	ug/L	1	11/30/21 14:39	EPA 6020B	
Chromium	1.40	1.00	2.00	ug/L	1	11/30/21 14:39	EPA 6020B	Ja
Cobalt	1.01	0.500	1.00	ug/L	1	11/30/21 14:39	EPA 6020B	
Copper	2.59	1.00	2.00	ug/L	1	11/30/21 14:39	EPA 6020B	
Lead	0.703	0.110	0.200	ug/L	1	11/30/21 14:39	EPA 6020B	

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 0171.067
Project Manager: Josh Bale

Report ID: A1K0892 - 04 25 23 1054

ANALYTICAL SAMPLE RESULTS

		Total Meta	ils by EPA 60	20B (ICPMS	S)				
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes	
GW-PZ-04-1121 (A1K0892-04)				Matrix: W	ater				
Nickel	1.42	1.00	2.00	ug/L	1	11/30/21 14:39	EPA 6020B	Ja	
Selenium	ND	0.500	1.00	ug/L	1	11/30/21 14:39	EPA 6020B		
Thallium Thallium	ND	0.100	0.200	ug/L	1	11/30/21 14:39	EPA 6020B		
Vanadium	4.30	1.00	2.00	ug/L	1	11/30/21 14:39	EPA 6020B		
Line	16.4	2.00	4.00	ug/L	1	11/30/21 14:39	EPA 6020B		
GW-PZ-04-1121 (A1K0892-04RE1)				Matrix: W	ater				
Batch: 21K1112									
Beryllium	ND	0.100	0.200	ug/L	1	12/01/21 11:43	EPA 6020B		
GW-PZ-05-1121 (A1K0892-05)				Matrix: W	ater				
Batch: 21K1112									
Arsenic	0.609	0.500	1.00	ug/L	1	11/30/21 14:44	EPA 6020B	Ja	
Barium	33.9	1.00	2.00	ug/L	1	11/30/21 14:44	EPA 6020B		
Cadmium	ND	0.100	0.200	ug/L	1	11/30/21 14:44	EPA 6020B		
Chromium	1.07	1.00	2.00	ug/L	1	11/30/21 14:44	EPA 6020B	Ja	
Cobalt	1.19	0.500	1.00	ug/L	1	11/30/21 14:44	EPA 6020B		
Copper	3.15	1.00	2.00	ug/L	1	11/30/21 14:44	EPA 6020B		
Lead	0.460	0.110	0.200	ug/L	1	11/30/21 14:44	EPA 6020B		
Nickel	2.66	1.00	2.00	ug/L	1	11/30/21 14:44	EPA 6020B		
Selenium	ND	0.500	1.00	ug/L	1	11/30/21 14:44	EPA 6020B		
Thallium	ND	0.100	0.200	ug/L	1	11/30/21 14:44	EPA 6020B		
Vanadium	1.98	1.00	2.00	ug/L	1	11/30/21 14:44	EPA 6020B	Ja	
Line	25.9	2.00	4.00	ug/L	1	11/30/21 14:44	EPA 6020B		
GW-PZ-05-1121 (A1K0892-05RE1)	Matrix: Water								
Batch: 21K1112									
Beryllium	ND	0.100	0.200	ug/L	1	12/01/21 11:48	EPA 6020B		
GW-Dup-1-1121 (A1K0892-06)				Matrix: W	ater				
Batch: 21K1112									
Arsenic	2.50	0.500	1.00	ug/L	1	11/30/21 14:49	EPA 6020B		
3arium -	51.1	1.00	2.00	ug/L	1	11/30/21 14:49	EPA 6020B		
Cadmium	ND	0.100	0.200	ug/L	1	11/30/21 14:49	EPA 6020B		
Chromium	3.98	1.00	2.00	ug/L	1	11/30/21 14:49	EPA 6020B		

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project Number: Eatonville
Project Number: 171.067
Project Manager: Josh Bale

Report ID: A1K0892 - 04 25 23 1054

ANALYTICAL SAMPLE RESULTS

		Total Meta	als by EPA 60	20B (ICPMS	3)			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GW-Dup-1-1121 (A1K0892-06)				Matrix: W		, , , , , , , , , , , , , , , , , , ,		
Cobalt	1.31	0.500	1.00	ug/L	1	11/30/21 14:49	EPA 6020B	
Copper	8.26	1.00	2.00	ug/L ug/L	1	11/30/21 14:49	EPA 6020B	
Lead	1.10	0.110	0.200	ug/L ug/L	1	11/30/21 14:49	EPA 6020B	
Nickel	3.16	1.00	2.00	ug/L ug/L	1	11/30/21 14:49	EPA 6020B	
Selenium	ND	0.500	1.00	ug/L ug/L	1	11/30/21 14:49	EPA 6020B	
Thallium	ND	0.100	0.200	ug/L ug/L	1	11/30/21 14:49	EPA 6020B	
Vanadium	5.87	1.00	2.00	ug/L ug/L	1	11/30/21 14:49	EPA 6020B	
Zinc	8.02	2.00	4.00	ug/L ug/L	1	11/30/21 14:49	EPA 6020B	
GW-Dup-1-1121 (A1K0892-06RE1)				Matrix: W	ator			
Batch: 21K1112				Matrix. VV	atei			
Beryllium	ND	0.100	0.200	ug/L	1	12/01/21 12:03	EPA 6020B	
GW-Equipment-Blank-1121 (A1K0892-07	7)			Matrix: W	ater			
Batch: 21K1112	<u>, </u>							
Arsenic	ND	0.500	1.00	ug/L	1	11/30/21 15:04	EPA 6020B	
Barium	ND	1.00	2.00	ug/L	1	11/30/21 15:04	EPA 6020B	
Cadmium	ND	0.100	0.200	ug/L	1	11/30/21 15:04	EPA 6020B	
Chromium	ND	1.00	2.00	ug/L	1	11/30/21 15:04	EPA 6020B	
Cobalt	ND	0.500	1.00	ug/L	1	11/30/21 15:04	EPA 6020B	
Copper	ND	1.00	2.00	ug/L	1	11/30/21 15:04	EPA 6020B	
Lead	ND	0.110	0.200	ug/L	1	11/30/21 15:04	EPA 6020B	
Nickel	ND	1.00	2.00	ug/L	1	11/30/21 15:04	EPA 6020B	
Selenium	ND	0.500	1.00	ug/L	1	11/30/21 15:04	EPA 6020B	
Thallium	ND	0.100	0.200	ug/L	1	11/30/21 15:04	EPA 6020B	
Vanadium	ND	1.00	2.00	ug/L	1	11/30/21 15:04	EPA 6020B	
Zinc	ND	2.00	4.00	ug/L	1	11/30/21 15:04	EPA 6020B	
GW-Equipment-Blank-1121 (A1K0892-07	7RE1)			Matrix: W	ater			
Batch: 21K1112								
Beryllium	ND	0.100	0.200	ug/L	1	12/01/21 12:08	EPA 6020B	

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Philip Nevenberg

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project Number: Eatonville
Project Number: 0171.067
Project Manager: Josh Bale

Report ID: A1K0892 - 04 25 23 1054

ANALYTICAL SAMPLE RESULTS

		Dissolved M	etals by EPA	6020B (ICP	MS)			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
•	TCGuit	Ziiiii	Limit			. 11141 ; 204	Method Ref.	110108
GW-PZ-01-1121 (A1K0892-01)				Matrix: W	ater			
Batch: 21K0992	1.20	0.500	1.00	/1	1	11/20/21 17 20	EDA (030D (D.)	
Arsenic	1.39	0.500	1.00	ug/L	1	11/30/21 17:39	EPA 6020B (Diss)	
Barium	18.8	0.500	1.00	ug/L	1	11/30/21 17:39	EPA 6020B (Diss)	
Cadmium	ND	0.100	0.200	ug/L	1	11/30/21 17:39	EPA 6020B (Diss)	
Chromium	1.25	1.00	2.00	ug/L	1	11/30/21 17:39	EPA 6020B (Diss)	Ja
Cobalt	1.61	0.500	1.00	ug/L	1	11/30/21 17:39	EPA 6020B (Diss)	
Copper	4.20	1.00	2.00	ug/L	1	11/30/21 17:39	EPA 6020B (Diss)	
Lead	0.547	0.100	0.200	ug/L	1	11/30/21 17:39	EPA 6020B (Diss)	_
Nickel	1.90	1.00	2.00	ug/L	1	11/30/21 17:39	EPA 6020B (Diss)	Ja
Selenium	1.24	0.500	1.00	ug/L	1	11/30/21 17:39	EPA 6020B (Diss)	
Thallium	ND	0.100	0.200	ug/L	1	11/30/21 17:39	EPA 6020B (Diss)	
Vanadium	2.44	1.00	2.00	ug/L	1	11/30/21 17:39	EPA 6020B (Diss)	
Zinc	3.92	2.00	4.00	ug/L	1	11/30/21 17:39	EPA 6020B (Diss)	Ja
GW-PZ-01-1121 (A1K0892-01RE1)				Matrix: W	ater			
Batch: 21K0992		·						
Beryllium	0.113	0.100	0.200	ug/L	1	12/13/21 16:49	EPA 6020B (Diss)	Ja
GW-PZ-02-1121 (A1K0892-02)				Matrix: W	ater			
Batch: 21K0992								
Arsenic	2.11	0.500	1.00	ug/L	1	11/30/21 17:54	EPA 6020B (Diss)	
Barium	34.4	0.500	1.00	ug/L	1	11/30/21 17:54	EPA 6020B (Diss)	
Cadmium	ND	0.100	0.200	ug/L	1	11/30/21 17:54	EPA 6020B (Diss)	
Chromium	ND	1.00	2.00	ug/L	1	11/30/21 17:54	EPA 6020B (Diss)	
Cobalt	ND	0.500	1.00	ug/L	1	11/30/21 17:54	EPA 6020B (Diss)	
Copper	ND	1.00	2.00	ug/L	1	11/30/21 17:54	EPA 6020B (Diss)	
Lead	0.374	0.100	0.200	ug/L	1	11/30/21 17:54	EPA 6020B (Diss)	
Nickel	ND	1.00	2.00	ug/L	1	11/30/21 17:54	EPA 6020B (Diss)	
Selenium	ND	0.500	1.00	ug/L	1	11/30/21 17:54	EPA 6020B (Diss)	
Thallium	ND	0.100	0.200	ug/L	1	11/30/21 17:54	EPA 6020B (Diss)	
Vanadium	1.34	1.00	2.00	ug/L	1	11/30/21 17:54	EPA 6020B (Diss)	Ja
Zinc	ND	2.00	4.00	ug/L	1	11/30/21 17:54	EPA 6020B (Diss)	
GW-PZ-02-1121 (A1K0892-02RE1)				Matrix: W			<u> </u>	

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Philip Nerenberg, Lab Director

Philip Manherz

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 0171.067
Project Manager: Josh Bale

Report ID: A1K0892 - 04 25 23 1054

ANALYTICAL SAMPLE RESULTS

		Dissolved M	etals by EPA	6020B (ICP	MS)			
	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Note
GW-PZ-02-1121 (A1K0892-02RE1)				Matrix: W	ater			
Batch: 21K0992								
Beryllium	ND	0.100	0.200	ug/L	1	12/13/21 17:05	EPA 6020B (Diss)	
GW-PZ-03-1121 (A1K0892-03)				Matrix: W	ater			
Batch: 21K0992								
Arsenic	0.591	0.500	1.00	ug/L	1	11/30/21 18:09	EPA 6020B (Diss)	Ja
Barium	5.26	0.500	1.00	ug/L	1	11/30/21 18:09	EPA 6020B (Diss)	
Cadmium	ND	0.100	0.200	ug/L	1	11/30/21 18:09	EPA 6020B (Diss)	
Chromium	ND	1.00	2.00	ug/L	1	11/30/21 18:09	EPA 6020B (Diss)	
Cobalt	ND	0.500	1.00	ug/L	1	11/30/21 18:09	EPA 6020B (Diss)	
Copper	ND	1.00	2.00	ug/L	1	11/30/21 18:09	EPA 6020B (Diss)	
ead	0.166	0.100	0.200	ug/L	1	11/30/21 18:09	EPA 6020B (Diss)	Ja
Nickel	ND	1.00	2.00	ug/L	1	11/30/21 18:09	EPA 6020B (Diss)	
elenium	ND	0.500	1.00	ug/L	1	11/30/21 18:09	EPA 6020B (Diss)	
Thallium Thallium	ND	0.100	0.200	ug/L	1	11/30/21 18:09	EPA 6020B (Diss)	
Vanadium	1.18	1.00	2.00	ug/L	1	11/30/21 18:09	EPA 6020B (Diss)	Ja
Zinc	4.32	2.00	4.00	ug/L	1	11/30/21 18:09	EPA 6020B (Diss)	
GW-PZ-03-1121 (A1K0892-03RE1)				Matrix: W	ater			
Batch: 21K0992								
Beryllium	ND	0.100	0.200	ug/L	1	12/13/21 17:10	EPA 6020B (Diss)	
GW-PZ-04-1121 (A1K0892-04)				Matrix: W	ater			
Batch: 21K0992								
Arsenic	1.94	0.500	1.00	ug/L	1	11/30/21 18:14	EPA 6020B (Diss)	
Barium	23.6	0.500	1.00	ug/L	1	11/30/21 18:14	EPA 6020B (Diss)	
Cadmium	ND	0.100	0.200	ug/L	1	11/30/21 18:14	EPA 6020B (Diss)	
Chromium	ND	1.00	2.00	ug/L	1	11/30/21 18:14	EPA 6020B (Diss)	
Cobalt	0.810	0.500	1.00	ug/L	1	11/30/21 18:14	EPA 6020B (Diss)	Ja
Copper	ND	1.00	2.00	ug/L	1	11/30/21 18:14	EPA 6020B (Diss)	
æad	0.313	0.100	0.200	ug/L	1	11/30/21 18:14	EPA 6020B (Diss)	
Nickel	ND	1.00	2.00	ug/L	1	11/30/21 18:14	EPA 6020B (Diss)	
Selenium	ND	0.500	1.00	ug/L	1	11/30/21 18:14	EPA 6020B (Diss)	
Thallium	ND	0.100	0.200	ug/L	1	11/30/21 18:14	EPA 6020B (Diss)	

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Philip Nerenberg, Lab Director

Philip Marenberg

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 0171.067
Project Manager: Josh Bale

Report ID: A1K0892 - 04 25 23 1054

ANALYTICAL SAMPLE RESULTS

		Dissolved M	etals by EPA	6020B (ICP	MS)			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
GW-PZ-04-1121 (A1K0892-04)				Matrix: W	ater			
Vanadium	2.63	1.00	2.00	ug/L	1	11/30/21 18:14	EPA 6020B (Diss)	
Zinc	15.0	2.00	4.00	ug/L	1	11/30/21 18:14	EPA 6020B (Diss)	
GW-PZ-04-1121 (A1K0892-04RE1)				Matrix: W	ater			
Batch: 21K0992								
Beryllium	ND	0.100	0.200	ug/L	1	12/13/21 17:15	EPA 6020B (Diss)	
GW-PZ-05-1121 (A1K0892-05)				Matrix: W	ater			
Batch: 21K0992								
Arsenic	ND	0.500	1.00	ug/L	1	11/30/21 18:19	EPA 6020B (Diss)	
Barium	28.2	0.500	1.00	ug/L	1	11/30/21 18:19	EPA 6020B (Diss)	
Cadmium	ND	0.100	0.200	ug/L	1	11/30/21 18:19	EPA 6020B (Diss)	
Chromium	ND	1.00	2.00	ug/L	1	11/30/21 18:19	EPA 6020B (Diss)	
Cobalt	0.862	0.500	1.00	ug/L	1	11/30/21 18:19	EPA 6020B (Diss)	Ja
Copper	2.38	1.00	2.00	ug/L	1	11/30/21 18:19	EPA 6020B (Diss)	
Lead	ND	0.100	0.200	ug/L	1	11/30/21 18:19	EPA 6020B (Diss)	
Nickel	1.95	1.00	2.00	ug/L	1	11/30/21 18:19	EPA 6020B (Diss)	Ja
Selenium	ND	0.500	1.00	ug/L	1	11/30/21 18:19	EPA 6020B (Diss)	
Thallium	ND	0.100	0.200	ug/L	1	11/30/21 18:19	EPA 6020B (Diss)	
Vanadium	ND	1.00	2.00	ug/L	1	11/30/21 18:19	EPA 6020B (Diss)	
Zinc	20.2	2.00	4.00	ug/L	1	11/30/21 18:19	EPA 6020B (Diss)	
GW-PZ-05-1121 (A1K0892-05RE1)				Matrix: W	ater			
Batch: 21K0992								
Beryllium	ND	0.100	0.200	ug/L	1	12/13/21 17:20	EPA 6020B (Diss)	
GW-Dup-1-1121 (A1K0892-06)				Matrix: W	ater			
Batch: 21K0992								
Arsenic	2.04	0.500	1.00	ug/L	1	11/30/21 18:24	EPA 6020B (Diss)	
Barium	34.6	0.500	1.00	ug/L	1	11/30/21 18:24	EPA 6020B (Diss)	
Cadmium	ND	0.100	0.200	ug/L	1	11/30/21 18:24	EPA 6020B (Diss)	
Chromium	ND	1.00	2.00	ug/L	1	11/30/21 18:24	EPA 6020B (Diss)	
Cobalt	ND	0.500	1.00	ug/L	1	11/30/21 18:24	EPA 6020B (Diss)	
Copper	1.06	1.00	2.00	ug/L	1	11/30/21 18:24	EPA 6020B (Diss)	Ja
Lead	0.135	0.100	0.200	ug/L	1	11/30/21 18:24	EPA 6020B (Diss)	Ja

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project Number: Eatonville
Project Number: 0171.067
Project Manager: Josh Bale

Report ID: A1K0892 - 04 25 23 1054

ANALYTICAL SAMPLE RESULTS

	Dissolved Metals by EPA 6020B (ICPMS)													
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes						
GW-Dup-1-1121 (A1K0892-06)				Matrix: Wa	ater									
Nickel	ND	1.00	2.00	ug/L	1	11/30/21 18:24	EPA 6020B (Diss)							
Selenium	ND	0.500	1.00	ug/L	1	11/30/21 18:24	EPA 6020B (Diss)							
Thallium	ND	0.100	0.200	ug/L	1	11/30/21 18:24	EPA 6020B (Diss)							
Vanadium	1.42	1.00	2.00	ug/L	1	11/30/21 18:24	EPA 6020B (Diss)	Ja						
Zinc	ND	2.00	4.00	ug/L	1	11/30/21 18:24	EPA 6020B (Diss)							
GW-Dup-1-1121 (A1K0892-06RE1)				Matrix: Wa	ater									
Batch: 21K0992														
Beryllium	ND	0.100	0.200	ug/L	1	12/13/21 17:36	EPA 6020B (Diss)							
GW-Equipment-Blank-1121 (A1K0892-07)				Matrix: Wa										
Batch: 21K0992		_	_			_								
Arsenic	ND	0.500	1.00	ug/L	1	11/30/21 18:29	EPA 6020B (Diss)							
Barium	ND	0.500	1.00	ug/L	1	11/30/21 18:29	EPA 6020B (Diss)							
Cadmium	ND	0.100	0.200	ug/L	1	11/30/21 18:29	EPA 6020B (Diss)							
Chromium	ND	1.00	2.00	ug/L	1	11/30/21 18:29	EPA 6020B (Diss)							
Cobalt	ND	0.500	1.00	ug/L	1	11/30/21 18:29	EPA 6020B (Diss)							
Copper	ND	1.00	2.00	ug/L	1	11/30/21 18:29	EPA 6020B (Diss)							
Lead	ND	0.100	0.200	ug/L	1	11/30/21 18:29	EPA 6020B (Diss)							
Nickel	ND	1.00	2.00	ug/L	1	11/30/21 18:29	EPA 6020B (Diss)							
Selenium	ND	0.500	1.00	ug/L	1	11/30/21 18:29	EPA 6020B (Diss)							
Thallium	ND	0.100	0.200	ug/L	1	11/30/21 18:29	EPA 6020B (Diss)							
Vanadium	ND	1.00	2.00	ug/L	1	11/30/21 18:29	EPA 6020B (Diss)							
Zinc	ND	2.00	4.00	ug/L	1	11/30/21 18:29	EPA 6020B (Diss)							
GW-Equipment-Blank-1121 (A1K0892-07R	E1)			Matrix: Wa	ater									
Batch: 21K0992														
Beryllium	ND	0.100	0.200	ug/L	1	12/13/21 17:41	EPA 6020B (Diss)							

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 0171.067
Project Manager: Josh Bale

Report ID: A1K0892 - 04 25 23 1054

Weck Laboratories, Inc.

ANALYTICAL SAMPLE RESULTS (Subcontracted)

		Hexav	alent Chromi	ium by IC				
	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
GW-PZ-01-1121 (A1K0892-01)				Matrix: W	ater	Batch: W1L0025		
Batch: W1L0025								
Chromium 6+, Dissolved	ND	0.0079	0.020	ug/l	1	12/01/21 14:58	EPA 218.6	
Chromium 6+	0.012	0.0079	0.020	ug/l	1	12/01/21 14:46	EPA 218.6	J
GW-PZ-03-1121 (A1K0892-03)	PZ-03-1121 (A1K0892-03) Matrix: Water Batch: W1L00					W1L0025		
Batch: W1L0025								
Chromium 6+, Dissolved	ND	0.0079	0.020	ug/l	1	12/01/21 17:51	EPA 218.6	
Chromium 6+	0.035	0.0079	0.020	ug/l	1	12/01/21 17:39	EPA 218.6	
GW-PZ-04-1121 (A1K0892-04)				Matrix: Water Batch: W1L0025				
Batch: W1L0025								
Chromium 6+, Dissolved	ND	0.0079	0.020	ug/l	1	12/01/21 18:15	EPA 218.6	
Chromium 6+	ND	0.0079	0.020	ug/l	1	12/01/21 18:03	EPA 218.6	
GW-PZ-05-1121 (A1K0892-05)				Matrix: W	ater	Batch:	W1L0025	
Batch: W1L0025								
Chromium 6+, Dissolved	0.092	0.0079	0.020	ug/l	1	12/01/21 18:26	EPA 218.6	
GW-Dup-1-1121 (A1K0892-06)				Matrix: W	ater	Batch:	W1L0025	
Batch: W1L0025								
Chromium 6+, Dissolved	ND	0.0079	0.020	ug/l	1	12/01/21 18:50	EPA 218.6	
Chromium 6+	ND	0.0079	0.020	ug/l	1	12/01/21 18:38	EPA 218.6	
GW-Equipment-Blank-1121 (A1K0892-07)			Matrix: Water		Batch: W1L0025			
Batch: W1L0025								
Chromium 6+, Dissolved	0.033	0.0079	0.020	ug/l	1	12/01/21 19:14	EPA 218.6	
Chromium 6+	0.032	0.0079	0.020	ug/l	1	12/01/21 19:02	EPA 218.6	

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 0171.067
Project Manager: Josh Bale

Report ID: A1K0892 - 04 25 23 1054

QUALITY CONTROL (QC) SAMPLE RESULTS

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 21K0974 - EPA 3510C (Acid Extra	ction)					Wa	ter				
Blank (21K0974-BLK1)			Prepared	: 11/23/21	07:25 Anal	yzed: 11/23	/21 21:22					
EPA 8270E												
Acenaphthene	ND	0.00909	0.0182	ug/L	1							
Acenaphthylene	ND	0.00909	0.0182	ug/L	1							
Anthracene	ND	0.00909	0.0182	ug/L	1							
Benz(a)anthracene	ND	0.00909	0.0182	ug/L	1							
Benzo(a)pyrene	ND	0.0136	0.0273	ug/L	1							
Benzo(b)fluoranthene	ND	0.0136	0.0273	ug/L	1							
Benzo(k)fluoranthene	ND	0.0136	0.0273	ug/L	1							
Benzo(g,h,i)perylene	ND	0.00909	0.0182	ug/L	1							
Chrysene	ND	0.00909	0.0182	ug/L	1							
Dibenz(a,h)anthracene	ND	0.00909	0.0182	ug/L	1							
Fluoranthene	ND	0.00909	0.0182	ug/L	1							
Fluorene	ND	0.00909	0.0182	ug/L	1							
Indeno(1,2,3-cd)pyrene	ND	0.00909	0.0182	ug/L	1							
1-Methylnaphthalene	ND	0.0182	0.0364	ug/L	1							
2-Methylnaphthalene	ND	0.0182	0.0364	ug/L	1							
Naphthalene	ND	0.0182	0.0364	ug/L	1							
Phenanthrene	ND	0.00909	0.0182	ug/L	1							
Pyrene	ND	0.00909	0.0182	ug/L	1							
Carbazole	ND	0.0136	0.0273	ug/L	1							
Dibenzofuran	ND	0.00909	0.0182	ug/L	1							
Pentachlorophenol (PCP)	ND	0.0909	0.182	ug/L	1							
Bis(2-ethylhexyl)phthalate	ND	0.182	0.364	ug/L	1							
Surr: Nitrobenzene-d5 (Surr)		Reco	very: 77 %	Limits: 44	1-120 %	Dilı	ution: 1x					
2-Fluorobiphenyl (Surr)			74 %	44	1-120 %		"					
Phenol-d6 (Surr)			28 %	10	-133 %		"					
p-Terphenyl-d14 (Surr)			85 %	50	0-134 %		"					
2-Fluorophenol (Surr)			45 %	19	-120 %		"					
2,4,6-Tribromophenol (Surr)			90 %	43	3-140 %		"					Q-41
LCS (21K0974-BS1)			Prepared	: 11/23/21	07:25 Anal	yzed: 11/23	/21 21:57					
EPA 8270E						-						
Acenaphthene	3.02	0.0200	0.0400	ug/L	2	4.00		75	47-122%			
Acenaphthylene	3.30	0.0200	0.0400	ug/L	2	4.00		82	41-130%			

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 0171.067
Project Manager: Josh Bale

Report ID: A1K0892 - 04 25 23 1054

QUALITY CONTROL (QC) SAMPLE RESULTS

		_	_				_				-		
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	No.	lote
Batch 21K0974 - EPA 3510C (A	Acid Extra	ction)					Wa	ter					
LCS (21K0974-BS1)			Prepared	: 11/23/21 ()7:25 Anal	yzed: 11/23/	21 21:57				_		_
Anthracene	3.30	0.0200	0.0400	ug/L	2	4.00		83	57-123%				
Benz(a)anthracene	3.36	0.0200	0.0400	ug/L	2	4.00		84	58-125%				
Benzo(a)pyrene	3.54	0.0300	0.0600	ug/L	2	4.00		88	54-128%				
Benzo(b)fluoranthene	3.52	0.0300	0.0600	ug/L	2	4.00		88	53-131%				
Benzo(k)fluoranthene	3.43	0.0300	0.0600	ug/L	2	4.00		86	57-129%				
Benzo(g,h,i)perylene	3.48	0.0200	0.0400	ug/L	2	4.00		87	50-134%				
Chrysene	3.32	0.0200	0.0400	ug/L	2	4.00		83	59-123%				
Dibenz(a,h)anthracene	3.57	0.0200	0.0400	ug/L	2	4.00		89	51-134%				
Fluoranthene	3.47	0.0200	0.0400	ug/L	2	4.00		87	57-128%				
Fluorene	3.15	0.0200	0.0400	ug/L	2	4.00		79	52-124%				
Indeno(1,2,3-cd)pyrene	3.11	0.0200	0.0400	ug/L	2	4.00		78	52-134%				
l-Methylnaphthalene	2.93	0.0400	0.0800	ug/L	2	4.00		73	41-120%				
2-Methylnaphthalene	2.77	0.0400	0.0800	ug/L	2	4.00		69	40-121%				
Naphthalene	2.83	0.0400	0.0800	ug/L	2	4.00		71	40-121%				
Phenanthrene	3.17	0.0200	0.0400	ug/L	2	4.00		79	59-120%				
Pyrene	3.46	0.0200	0.0400	ug/L	2	4.00		87	57-126%				
Carbazole	3.82	0.0300	0.0600	ug/L	2	4.00		96	60-122%				
Dibenzofuran	3.01	0.0200	0.0400	ug/L	2	4.00		75	53-120%				
Pentachlorophenol (PCP)	3.50	0.200	0.400	ug/L	2	4.00		87	35-138%				
Bis(2-ethylhexyl)phthalate	3.29	0.400	0.800	ug/L	2	4.00		82	55-135%			_	
Surr: Nitrobenzene-d5 (Surr)		Reco	very: 88 %	Limits: 44	-120 %	Dilu	ution: 2x		_				
2-Fluorobiphenyl (Surr)			79 %	44	-120 %		"						
Phenol-d6 (Surr)			32 %	10-	-133 %		"						
p-Terphenyl-d14 (Surr)			88 %	50-	-134 %		"						
2-Fluorophenol (Surr)			51 %	19	-120 %		"						
2,4,6-Tribromophenol (Surr)			104 %	43	-140 %		"					Q-41	_
LCS Dup (21K0974-BSD1)			Prenared	: 11/23/21 ()7:25 Anal	lyzed: 11/23/	<u>'21 22:31</u>						(
EPA 8270E													_
Acenaphthene	2.73	0.0200	0.0400	ug/L	2	4.00		68	47-122%	10	30%		
Acenaphthylene	2.73	0.0200	0.0400	ug/L ug/L	2	4.00		73	41-130%		30%		
Acenaphinylene Anthracene	3.39	0.0200	0.0400	ug/L ug/L	2	4.00		85	57-123%		30%		
Senz(a)anthracene	3.59	0.0200	0.0400	ug/L ug/L	2	4.00		88	58-125%		30%		
Benz(a)anthracene Benzo(a)pyrene	3.52	0.0200	0.0400	ug/L ug/L	2	4.00		88 90	58-125% 54-128%		30%		

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 0171.067
Project Manager: Josh Bale

Report ID: A1K0892 - 04 25 23 1054

QUALITY CONTROL (QC) SAMPLE RESULTS Selected Semivolatile Organic Compounds by EPA 8270E

Detection Reporting Spike % REC RPD Source Dilution Analyte Result Limit Units Amount Result % REC Limits RPD Limit Limit Notes Batch 21K0974 - EPA 3510C (Acid Extraction) Water LCS Dup (21K0974-BSD1) Prepared: 11/23/21 07:25 Analyzed: 11/23/21 22:31 Q-19 Benzo(b)fluoranthene 3.60 0.0300 0.0600 ug/L 2 4.00 90 53-131% 2 30% 0.0300 0.0600 2 Benzo(k)fluoranthene 3.56 ug/L 4.00 89 57-129% 4 30% ---2 90 Benzo(g,h,i)perylene 3.59 0.02000.0400 ug/L 4.00 50-134% 3 30% Chrysene 3.46 0.0200 0.0400 ug/L 2 4.00 86 59-123% 4 30% 2 88 30% Dibenz(a,h)anthracene 3.53 0.02000.04004.00 51-134% 1 ug/L 2 89 57-128% Fluoranthene 3.57 0.0200 0.0400 ug/L 4.00 3 30% Fluorene 0.0200 0.0400 2.94 ug/L 2 4.00 73 52-124% 7 30% Indeno(1,2,3-cd)pyrene 0.0200 0.0400 2 4.00 81 52-134% 4 3.23 ug/L 30% 2 0.0400 0.0800 4.00 21 1-Methylnaphthalene 2.38 ug/L 60 41-120% 30% 2-Methylnaphthalene 2.26 0.0400 0.0800 ug/L 2 4.00 57 40-121% 20 30% Naphthalene 2 4.00 27 30% 2.16 0.04000.080054 40-121% ug/L Phenanthrene 0.0200 0.0400 2 4.00 81 59-120% 30% 3.26 ug/L 3 57-126% Pyrene 3.52 0.0200 0.0400 2 4.00 88 30% ug/L 2 Carbazole 3.92 0.03000.0600ug/L 2 4.00 98 60-122% 3 30% 0.0400 2 4.00 10 Dibenzofuran 2.73 0.0200 68 53-120% 30% ug/L Pentachlorophenol (PCP) 3.42 0.200 0.400 ug/L 2 4.00 86 35-138% 2 30% Bis(2-ethylhexyl)phthalate 3.41 0.400 0.800 2 4.00 85 55-135% 4 30% ug/L

Surr: Nitrobenzene-d5 (Surr)	Recovery: 64 %	Limits: 44-120 %	Dilution: 2x	
2-Fluorobiphenyl (Surr)	63 %	44-120 %	"	
Phenol-d6 (Surr)	22 %	10-133 %	"	
p-Terphenyl-d14 (Surr)	87 %	50-134 %	"	
2-Fluorophenol (Surr)	34 %	19-120 %	"	
2,4,6-Tribromophenol (Surr)	101 %	43-140 %	"	

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 0171.067
Project Manager: Josh Bale

Report ID: A1K0892 - 04 25 23 1054

QUALITY CONTROL (QC) SAMPLE RESULTS

			iotai N	ietais by	EPA 6020	B (ICPMS))					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 21K0864 - EPA 3015A							Wa	ter				
Blank (21K0864-BLK1)			Prepared	: 11/19/21	09:02 Ana	lyzed: 11/24	/21 06:13					
EPA 6020B												
Arsenic	ND	0.500	1.00	ug/L	1							
Barium	ND	1.00	2.00	ug/L	1							
Cadmium	ND	0.100	0.200	ug/L	1							
Chromium	ND	1.00	2.00	ug/L	1							
Cobalt	ND	0.500	1.00	ug/L	1							
Copper	ND	1.00	2.00	ug/L	1							
Lead	ND	0.110	0.200	ug/L	1							
Nickel	ND	1.00	2.00	ug/L	1							
Selenium	ND	0.500	1.00	ug/L	1							
Thallium	ND	0.100	0.200	ug/L	1							Q-4
Vanadium	ND	1.00	2.00	ug/L	1							
Zinc	ND	2.00	4.00	ug/L	1							
Blank (21K0864-BLK2)			Prepared	: 11/19/21	09:02 Ana	lyzed: 11/29	/21 14:14					
EPA 6020B												
Beryllium	ND	0.100	0.200	ug/L	1							Q-
LCS (21K0864-BS1)			Prepared	: 11/19/21	09:02 Anal	lyzed: 11/24	/21 06:33					
EPA 6020B												
Arsenic	56.7	0.500	1.00	ug/L	1	55.6		102	80-120%			
Barium	51.5	1.00	2.00	ug/L	1	55.6		93	80-120%			
Cadmium	54.7	0.100	0.200	ug/L	1	55.6		98	80-120%			
Chromium	52.4	1.00	2.00	ug/L	1	55.6		94	80-120%			
Cobalt	53.2	0.500	1.00	ug/L	1	55.6		96	80-120%			
Copper	55.2	1.00	2.00	ug/L	1	55.6		99	80-120%			
Lead	54.4	0.110	0.200	ug/L	1	55.6		98	80-120%			
Nickel	55.3	1.00	2.00	ug/L	1	55.6		99	80-120%			
Selenium	25.2	0.500	1.00	ug/L	1	27.8		91	80-120%			
Thallium	27.0	0.100	0.200	ug/L	1	27.8		97	80-120%			Q-4
Vanadium	52.2	1.00	2.00	ug/L	1	55.6		94	80-120%			
Zinc	54.4	2.00	4.00	ug/L	1	55.6		98	80-120%			
LCS (21K0864-BS2)			Prepared	: 11/19/21	09:02 Ana	lyzed: 11/29	/21 14:20					

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 0171.067
Project Manager: Josh Bale

Report ID: A1K0892 - 04 25 23 1054

QUALITY CONTROL (QC) SAMPLE RESULTS

			Total M	letals by	EPA 6020	B (ICPMS	5)					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 21K0864 - EPA 3015A							Wa	ter				
LCS (21K0864-BS2)			Prepared	: 11/19/21	09:02 Anal	yzed: 11/29	/21 14:20					
EPA 6020B												
Beryllium	31.1	0.100	0.200	ug/L	1	27.8		112	80-120%			Q-1
Duplicate (21K0864-DUP1)			Prepared	: 11/19/21	09:02 Anal	yzed: 11/24	/21 06:43					
QC Source Sample: Non-SDG (A1	K0439-01)											
Arsenic	1.81	0.500	1.00	ug/L	1		1.88			4	20%	
Barium	192	1.00	2.00	ug/L	1		196			2	20%	
Cadmium	0.529	0.100	0.200	ug/L	1		0.519			2	20%	
Chromium	1.13	1.00	2.00	ug/L	1		1.24			9	20%	J
Cobalt	13.3	0.500	1.00	ug/L	1		13.4			0.5	20%	
Copper	3.13	1.00	2.00	ug/L	1		3.24			4	20%	
Lead	1.09	0.110	0.200	ug/L	1		1.16			7	20%	
Nickel	9.36	1.00	2.00	ug/L	1		9.44			0.9	20%	
Selenium	ND	0.500	1.00	ug/L	1		ND				20%	
Thallium	ND	0.100	0.200	ug/L	1		ND				20%	Q-4
Vanadium	11.5	1.00	2.00	ug/L	1		11.8			2	20%	
Zinc	9.65	2.00	4.00	ug/L	1		10.3			6	20%	
Duplicate (21K0864-DUP2)			Prepared	: 11/19/21	09:02 Anal	yzed: 11/29	/21 14:29					
OC Source Sample: Non-SDG (A1	K0439-01R	<u>E1)</u>										
Beryllium	ND	0.100	0.200	ug/L	1		ND				20%	Q-1
Matrix Spike (21K0864-MS1)			Prepared	: 11/19/21	09:02 Anal	yzed: 11/24	/21 06:48					
QC Source Sample: Non-SDG (A1	K0439-01)											
EPA 6020B												
Arsenic	59.9	0.500	1.00	ug/L	1	55.6	1.88	104	75-125%			
Barium	244	1.00	2.00	ug/L	1	55.6	196	86	75-125%			
Cadmium	55.8	0.100	0.200	ug/L	1	55.6	0.519	100	75-125%			
Chromium	53.6	1.00	2.00	ug/L	1	55.6	1.24	94	75-125%			
Cobalt	64.8	0.500	1.00	ug/L	1	55.6	13.4	93	75-125%			
Copper	55.3	1.00	2.00	ug/L	1	55.6	3.24	94	75-125%			
Lead	54.0	0.110	0.200	ug/L	1	55.6	1.16	95	75-125%			
Nickel	61.6	1.00	2.00	ug/L	1	55.6	9.44	94	75-125%			

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Philip Nerenberg, Lab Director

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6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

Apex Laboratories, LLC

ORELAP ID: OR100062

AMENDED REPORT

<u>GSI Water Solutions</u> 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project Number: **Eatonville**Project Number: **0171.067**Project Manager: **Josh Bale**

Report ID: A1K0892 - 04 25 23 1054

QUALITY CONTROL (QC) SAMPLE RESULTS

			Total N	letals by	EPA 6020	B (ICPMS	S)					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 21K0864 - EPA 3015A							Wa	ter				
Matrix Spike (21K0864-MS1)			Prepared	: 11/19/21	09:02 Ana	lyzed: 11/24	/21 06:48					
QC Source Sample: Non-SDG (A1)	K0439-01)											
Selenium	27.4	0.500	1.00	ug/L	1	27.8	ND	99	75-125%			
Thallium	26.6	0.100	0.200	ug/L	1	27.8	ND	96	75-125%			Q-41
Vanadium	65.8	1.00	2.00	ug/L	1	55.6	11.8	97	75-125%			
Zinc	62.0	2.00	4.00	ug/L	1	55.6	10.3	93	75-125%			
Matrix Spike (21K0864-MS2)			Prepared	: 11/19/21	09:02 Ana	lyzed: 11/29	/21 14:34					
QC Source Sample: Non-SDG (A1)	K0439-01R	E1)										
EPA 6020B												
Beryllium	31.7	0.100	0.200	ug/L	1	27.8	ND	114	75-125%			Q-16

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 0171.067
Project Manager: Josh Bale

Report ID: A1K0892 - 04 25 23 1054

QUALITY CONTROL (QC) SAMPLE RESULTS

			Total N	letals by	EPA 6020	OB (ICPMS	S)					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 21K1112 - EPA 3015A							Wa	ter				
Blank (21K1112-BLK1)			Prepared	: 11/29/21	09:33 Ana	lyzed: 11/30/	/21 13:43					
EPA 6020B												
Arsenic	ND	0.500	1.00	ug/L	1							
Barium	ND	1.00	2.00	ug/L	1							
Cadmium	ND	0.100	0.200	ug/L	1							
Chromium	ND	1.00	2.00	ug/L	1							
Cobalt	ND	0.500	1.00	ug/L	1							
Copper	ND	1.00	2.00	ug/L	1							
Lead	ND	0.110	0.200	ug/L	1							
Nickel	ND	1.00	2.00	ug/L	1							
Selenium	ND	0.500	1.00	ug/L	1							
Thallium	ND	0.100	0.200	ug/L	1							
Vanadium	ND	1.00	2.00	ug/L	1							
Zinc	ND	2.00	4.00	ug/L	1							
Blank (21K1112-BLK2) EPA 6020B Beryllium	ND	0.100	Prepared 0.200	ug/L	09:33 Ana	lyzed: 12/01	/21 11:18					Q
Berymuni	TAD	0.100	0.200	ug/L	-							
LCS (21K1112-BS1)			Prepared	: 11/29/21	09:33 Ana	lyzed: 11/30/	/21 13:48					
EPA 6020B												
Arsenic	58.5	0.500	1.00	ug/L	1	55.6		105	80-120%			
Barium	56.7	1.00	2.00	ug/L	1	55.6		102	80-120%			
Cadmium	56.7	0.100	0.200	ug/L	1	55.6		102	80-120%			
Chromium	55.1	1.00	2.00	ug/L	1	55.6		99	80-120%			
Cobalt	56.0	0.500	1.00	ug/L	1	55.6		101	80-120%			
Copper	59.2	1.00	2.00	ug/L	1	55.6		107	80-120%			
Lead	55.8	0.110	0.200	ug/L	1	55.6		100	80-120%			
Nickel	58.4	1.00	2.00	ug/L	1	55.6		105	80-120%			
Selenium	26.9	0.500	1.00	ug/L	1	27.8		97	80-120%			
Thallium	27.8	0.100	0.200	ug/L	1	27.8		100	80-120%			
Vanadium	56.5	1.00	2.00	ug/L	1	55.6		102	80-120%			
Zinc	58.4	2.00	4.00	ug/L	1	55.6		105	80-120%			
LCS (21K1112-BS2)			Prepared	: 11/29/21	09:33 Ana	lyzed: 12/01	/21 11:23					

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

AMENDED REPORT

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project Number: **Eatonville**Project Number: **0171.067**Project Manager: **Josh Bale**

Report ID: A1K0892 - 04 25 23 1054

QUALITY CONTROL (QC) SAMPLE RESULTS

			Total N	letals by	EPA 6020	B (ICPMS	S)					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 21K1112 - EPA 3015A							Wa	ter				
LCS (21K1112-BS2)			Prepared	: 11/29/21	09:33 Anal	lyzed: 12/01	/21 11:23					
EPA 6020B												
Beryllium	26.3	0.100	0.200	ug/L	1	27.8		95	80-120%			Q-1
Duplicate (21K1112-DUP1)			Prepared	: 11/29/21	09:33 Anal	lyzed: 11/30	/21 14:28					
QC Source Sample: GW-PZ-03-11	21 (A1K089	92-03)										
EPA 6020B												
Arsenic	0.528	0.500	1.00	ug/L	1		0.602			13	20%	Į
Barium	6.91	1.00	2.00	ug/L	1		7.01			1	20%	
Cadmium	ND	0.100	0.200	ug/L	1		ND				20%	
Chromium	ND	1.00	2.00	ug/L	1		ND				20%	
Cobalt	0.525	0.500	1.00	ug/L	1		0.541			3	20%	Į
Copper	ND	1.00	2.00	ug/L	1		ND				20%	
Lead	0.569	0.110	0.200	ug/L	1		0.596			5	20%	
Nickel	ND	1.00	2.00	ug/L	1		ND				20%	
Selenium	ND	0.500	1.00	ug/L	1		ND				20%	
Thallium	ND	0.100	0.200	ug/L	1		ND				20%	
Vanadium	1.22	1.00	2.00	ug/L	1		1.12			8	20%	Į
Zinc	8.22	2.00	4.00	ug/L	1		7.95			3	20%	
Duplicate (21K1112-DUP2)			Prepared	: 11/29/21	09:33 Anal	yzed: 12/01	/21 11:33					
QC Source Sample: GW-PZ-03-11	21 (A1K08	92-03RE1)										
EPA 6020B												
Beryllium	ND	0.100	0.200	ug/L	1		ND				20%	Q-1
Matrix Spike (21K1112-MS1)			Prepared	: 11/29/21	09:33 Anal	yzed: 11/30	/21 14:34					
QC Source Sample: GW-PZ-03-11	21 (A1K08	92-03)										
EPA 6020B												
Arsenic	58.1	0.500	1.00	ug/L	1	55.6	0.602	103	75-125%			
Barium	62.1	1.00	2.00	ug/L	1	55.6	7.01	99	75-125%			
Cadmium	55.5	0.100	0.200	ug/L	1	55.6	ND	100	75-125%			
Chromium	53.7	1.00	2.00	ug/L	1	55.6	ND	97	75-125%			
Cobalt	55.2	0.500	1.00	ug/L	1	55.6	0.541	98	75-125%			
Copper	59.0	1.00	2.00	ug/L	1	55.6	ND	106	75-125%			

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

AMENDED REPORT

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project Number: Eatonville
Project Number: 171.067
Project Manager: Josh Bale

Report ID: A1K0892 - 04 25 23 1054

QUALITY CONTROL (QC) SAMPLE RESULTS

			Total M	letals by	EPA 6020	B (ICPMS	S)					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 21K1112 - EPA 3015A							Wa	ter				
Matrix Spike (21K1112-MS1)			Prepared	: 11/29/21	09:33 Ana	lyzed: 11/30/	/21 14:34					
QC Source Sample: GW-PZ-03-11	21 (A1K08	92-03)										
Lead	54.4	0.110	0.200	ug/L	1	55.6	0.596	97	75-125%			
Nickel	57.3	1.00	2.00	ug/L	1	55.6	ND	103	75-125%			
Selenium	26.2	0.500	1.00	ug/L	1	27.8	ND	94	75-125%			
Thallium	27.0	0.100	0.200	ug/L	1	27.8	ND	97	75-125%			
Vanadium	56.7	1.00	2.00	ug/L	1	55.6	1.12	100	75-125%			
Zinc	65.5	2.00	4.00	ug/L	1	55.6	7.95	104	75-125%			
Matrix Spike (21K1112-MS2)			Prepared	: 11/29/21	09:33 Ana	lyzed: 12/01	/21 11:38					
QC Source Sample: GW-PZ-03-11	21 (A1K08	92-03RE1)										
EPA 6020B												
Beryllium	27.1	0.100	0.200	ug/L	1	27.8	ND	98	75-125%			Q-

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 0171.067
Project Manager: Josh Bale

Report ID: A1K0892 - 04 25 23 1054

QUALITY CONTROL (QC) SAMPLE RESULTS

			Dissolved	Metals	by EPA 60	20B (ICP	MS)					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 21K0992 - Matrix Mat	ched Direct I	nject					Wa	ter				
Blank (21K0992-BLK1)			Prepared	: 11/23/21	09:47 Anal	yzed: 11/30/	/21 17:29					
EPA 6020B (Diss)												
Arsenic	ND	0.500	1.00	ug/L	1							
Barium	ND	0.500	1.00	ug/L	1							
Cadmium	ND	0.100	0.200	ug/L	1							
Calcium	ND	300	600	ug/L	1							
Chromium	ND	1.00	2.00	ug/L	1							
Cobalt	ND	0.500	1.00	ug/L	1							
Copper	ND	1.00	2.00	ug/L	1							
Lead	ND	0.100	0.200	ug/L	1							
Nickel	ND	1.00	2.00	ug/L	1							
Selenium	ND	0.500	1.00	ug/L	1							
Γhallium	ND	0.100	0.200	ug/L	1							
Vanadium	ND	1.00	2.00	ug/L	1							
Zinc	ND	2.00	4.00	ug/L	1							
Blank (21K0992-BLK2) EPA 6020B (Diss) Beryllium	ND	0.100	Prepared 0.200	ug/L	09:47 Anal	yzed: 12/13/	/21 16:38					Q
LCS (21K0992-BS1)			Prenared		09:47 Anal	vzed: 11/30/	/21 17:34					
EPA 6020B (Diss)			TTOPATOU	. 11/20/21	0,11, 111101	J2001 11/00/						
Arsenic	56.8	0.500	1.00	ug/L	1	55.6		102	80-120%			
Barium	55.7	0.500	1.00	ug/L	1	55.6		100	80-120%			
		0.100	0.200	ug/L	1	55.6		100	80-120%			
Cadmium	↑ ↑.⊀	U. LUU										
	55.3 2890			-								
Calcium	2890	300	600	ug/L	1	2780		104	80-120%			
Calcium Chromium	2890 53.8	300 1.00	600 2.00	ug/L ug/L	1 1	2780 55.6		104 97	80-120% 80-120%			
Calcium Chromium Cobalt	2890 53.8 55.7	300 1.00 0.500	600 2.00 1.00	ug/L ug/L ug/L	1 1 1	2780 55.6 55.6		104 97 100	80-120% 80-120% 80-120%			
Calcium Chromium Cobalt Copper	2890 53.8 55.7 60.2	300 1.00 0.500 1.00	600 2.00 1.00 2.00	ug/L ug/L ug/L ug/L	1 1 1 1	2780 55.6 55.6 55.6	 	104 97 100 108	80-120% 80-120% 80-120% 80-120%			
Calcium Chromium Cobalt Copper Lead	2890 53.8 55.7 60.2 55.7	300 1.00 0.500 1.00 0.100	600 2.00 1.00 2.00 0.200	ug/L ug/L ug/L ug/L ug/L	1 1 1 1	2780 55.6 55.6 55.6 55.6	 	104 97 100 108 100	80-120% 80-120% 80-120% 80-120% 80-120%	 	 	
Calcium Chromium Cobalt Copper Lead Nickel	2890 53.8 55.7 60.2 55.7 57.1	300 1.00 0.500 1.00 0.100 1.00	600 2.00 1.00 2.00 0.200 2.00	ug/L ug/L ug/L ug/L ug/L ug/L	1 1 1 1 1	2780 55.6 55.6 55.6 55.6 55.6	 	104 97 100 108 100 103	80-120% 80-120% 80-120% 80-120% 80-120% 80-120%	 	 	
Calcium Chromium Cobalt Copper Lead Nickel Selenium	2890 53.8 55.7 60.2 55.7 57.1 27.1	300 1.00 0.500 1.00 0.100 1.00 0.500	600 2.00 1.00 2.00 0.200 2.00 1.00	ug/L ug/L ug/L ug/L ug/L ug/L ug/L	1 1 1 1 1 1	2780 55.6 55.6 55.6 55.6 55.6 27.8		104 97 100 108 100 103 98	80-120% 80-120% 80-120% 80-120% 80-120% 80-120%	 	 	
Cadmium Calcium Chromium Cobalt Copper Lead Nickel Selenium Fhallium Vanadium	2890 53.8 55.7 60.2 55.7 57.1	300 1.00 0.500 1.00 0.100 1.00	600 2.00 1.00 2.00 0.200 2.00	ug/L ug/L ug/L ug/L ug/L ug/L	1 1 1 1 1	2780 55.6 55.6 55.6 55.6 55.6	 	104 97 100 108 100 103	80-120% 80-120% 80-120% 80-120% 80-120% 80-120%	 	 	

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

AMENDED REPORT

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project Number: **Eatonville**Project Number: **0171.067**Project Manager: **Josh Bale**

Report ID: A1K0892 - 04 25 23 1054

QUALITY CONTROL (QC) SAMPLE RESULTS

			Dissolved	Metals	by EPA 6)20B (ICP	MS)					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 21K0992 - Matrix Match	ed Direct	Inject					Wa	ter				
LCS (21K0992-BS2)			Prepared	: 11/23/21	09:47 Anal	yzed: 12/13	/21 16:44					
EPA 6020B (Diss)												
Beryllium	24.4	0.100	0.200	ug/L	1	27.8		88	80-120%			Q-1
Duplicate (21K0992-DUP1)			Prepared	: 11/23/21	09:47 Ana	yzed: 11/30	/21 17:44					
QC Source Sample: GW-PZ-01-1	121 (A1K08	<u>92-01)</u>										
EPA 6020B (Diss)												
Arsenic	1.29	0.500	1.00	ug/L	1		1.39			8	20%	
Barium	18.9	0.500	1.00	ug/L	1		18.8			0.8	20%	
Cadmium	ND	0.100	0.200	ug/L	1		ND				20%	
Calcium	17000	300	600	ug/L	1		16700			2	20%	
Chromium	1.12	1.00	2.00	ug/L	1		1.25			11	20%	j
Cobalt	1.60	0.500	1.00	ug/L	1		1.61			0.6	20%	
Copper	3.77	1.00	2.00	ug/L	1		4.20			11	20%	
Lead	0.544	0.100	0.200	ug/L	1		0.547			0.5	20%	
Nickel	1.91	1.00	2.00	ug/L	1		1.90			0.5	20%	j
Selenium	1.33	0.500	1.00	ug/L	1		1.24			7	20%	
Thallium	ND	0.100	0.200	ug/L	1		ND				20%	
Vanadium	2.41	1.00	2.00	ug/L	1		2.44			1	20%	
Zinc	3.99	2.00	4.00	ug/L	1		3.92			2	20%	J
Duplicate (21K0992-DUP2)			Prepared	: 11/23/21	09:47 Anal	yzed: 12/13	/21 16:54					
QC Source Sample: GW-PZ-01-1	121 (A1K08	92-01RE1)				-						
EPA 6020B (Diss)												
Beryllium	0.105	0.100	0.200	ug/L	1		0.113			7	20%	Ja, Q-1
Matrix Spike (21K0992-MS1)			Prepared	: 11/23/21	09:47 Ana	yzed: 11/30	/21 17:49					
OC Source Sample: GW-PZ-01-1	121 (A1K08	92-01)										
EPA 6020B (Diss)												
Arsenic	59.0	0.500	1.00	ug/L	1	55.6	1.39	104	75-125%			
Barium	74.0	0.500	1.00	ug/L	1	55.6	18.8	99	75-125%			
Cadmium	55.1	0.100	0.200	ug/L	1	55.6	ND	99	75-125%			
Calcium	18900	300	600	ug/L	1	2780	16700	81	75-125%			

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Philip Nerenberg, Lab Director

Philip Neimberg

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 0171.067
Project Manager: Josh Bale

Report ID: A1K0892 - 04 25 23 1054

QUALITY CONTROL (QC) SAMPLE RESULTS

			Dissolved	d Metals	by EPA 6	020B (ICP	MS)					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 21K0992 - Matrix Matche	ed Direct	Inject					Wa	ter				
Matrix Spike (21K0992-MS1)			Prepared	: 11/23/21	09:47 Ana	lyzed: 11/30/	/21 17:49					
QC Source Sample: GW-PZ-01-112	21 (A1K08	92-01)										
Chromium	54.0	1.00	2.00	ug/L	1	55.6	1.25	95	75-125%			
Cobalt	55.7	0.500	1.00	ug/L	1	55.6	1.61	97	75-125%			
Copper	60.9	1.00	2.00	ug/L	1	55.6	4.20	102	75-125%			
Lead	53.5	0.100	0.200	ug/L	1	55.6	0.547	95	75-125%			
Nickel	57.0	1.00	2.00	ug/L	1	55.6	1.90	99	75-125%			
Selenium	28.0	0.500	1.00	ug/L	1	27.8	1.24	96	75-125%			
Thallium	26.9	0.100	0.200	ug/L	1	27.8	ND	97	75-125%			
Vanadium	57.9	1.00	2.00	ug/L	1	55.6	2.44	100	75-125%			
Zinc	59.4	2.00	4.00	ug/L	1	55.6	3.92	100	75-125%			
Matrix Spike (21K0992-MS2)			Prepared	: 11/23/21	09:47 Anal	lyzed: 12/13/	/21 16:59					
QC Source Sample: GW-PZ-01-112	21 (A1K08	92-01RE1)										
EPA 6020B (Diss)												
Beryllium	26.3	0.100	0.200	ug/L	1	27.8	0.113	94	75-125%			Q-

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

AMENDED REPORT

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 0171.067
Project Manager: Josh Bale

Report ID: A1K0892 - 04 25 23 1054

Weck Laboratories, Inc.

QUALITY CONTROL (QC) SAMPLE RESULTS

			Hex	avalent	Chromiu	m by IC						
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch W1L0025NONE (LC)							Wa	ter				
Blank (W1L0025-BLK1)			Prepared	: 12/01/21	09:43 Anal	lyzed: 12/01	/21 12:08					
EPA 218.6												
Chromium 6+, Dissolved	ND	0.0079	0.020	ug/l	1							
Chromium 6+	ND	0.0079	0.020	ug/l	1							
LCS (W1L0025-BS1)			Prepared	: 12/01/21	09:43 Ana	lyzed: 12/01	/21 12:20					
EPA 218.6												
Chromium 6+, Dissolved	5.16	0.0079	0.020	ug/l	1	5.00		103	90-110%			
Chromium 6+	5.16	0.0079	0.020	ug/l	1	5.00		103	90-110%			
Matrix Spike (W1L0025-MS1)			Prepared	: 12/01/21	09:43 Anal	lyzed: 12/01	/21 12:37					
QC Source Sample: A1K0892-04 (A	A1K0892-0	<u>4)</u>										
EPA 218.6												
Chromium 6+, Dissolved	5.29	0.0079	0.020	ug/l	1	5.00	ND	106	88-112%			
Chromium 6+	5.29	0.0079	0.020	ug/l	1	5.00	ND	106	88-112%			
Matrix Spike (W1L0025-MS2)			Prepared	: 12/01/21	09:43 Anal	lyzed: 12/01	/21 13:00					
OC Source Sample: A1K0892-06 (A	A1K0892-0	<u>6)</u>										
EPA 218.6 Chromium 6+, Dissolved	5.26	0.0079	0.020	ug/l	1	5.00	ND	105	88-112%			
Chromium 6+, Dissolved Chromium 6+	5.26	0.0079	0.020	ug/l	1	5.00	ND	105	88-112%			
Matrix Spike Dup (W1L0025-M	(SD1)		Prepared	: 12/01/21	09:43 Anal	lyzed: 12/01	/21 12:48					
QC Source Sample: A1K0892-04 (A		4)	1									
EPA 218.6												
Chromium 6+, Dissolved	5.35	0.0079	0.020	ug/l	1	5.00	ND	107	88-112%	1	10%	
Chromium 6+	5.35	0.0079	0.020	ug/l	1	5.00	ND	107	88-112%	1	10%	
Matrix Spike Dup (W1L0025-M	(SD2)		Dranged	. 12/01/21	09:43 Anal	lyzed: 12/01	/21 12-12					
		6)	тератец	. 12/01/21	OJ.TJ Alla	1,220. 12/01	141 13.14					
QC Source Sample: A1K0892-06 (A	1K0892-0	<u>6)</u>										

ED4 210 (

Philip Nevenberg

EPA 218.6

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Philip Nerenberg, Lab Director

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

AMENDED REPORT

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 0171.067
Project Manager: Josh Bale

Report ID: A1K0892 - 04 25 23 1054

Weck Laboratories, Inc.

QUALITY CONTROL (QC) SAMPLE RESULTS

			Hex	avalent	Chromiur	n by IC						
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch W1L0025NONE (LC)							Wat	ter				
Matrix Spike Dup (W1L0025-M	(ISD2)		Prepared	: 12/01/21	09:43 Anal	lyzed: 12/01	/21 13:12					
QC Source Sample: A1K0892-06 (A1K0892-0	<u>6)</u>										
Chromium 6+, Dissolved	5.39	0.0079	0.020	ug/l	1	5.00	ND	108	88-112%	2	10%	
Chromium 6+	5.39	0.0079	0.020	ug/l	1	5.00	ND	108	88-112%	2	10%	

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 0171.067
Project Manager: Josh Bale

Report ID: A1K0892 - 04 25 23 1054

SAMPLE PREPARATION INFORMATION

		Selected Semi	volatile Organic Com	pounds by EPA 827	'0E		
Prep: EPA 3510C (Acid Extraction)				Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
Batch: 21K0974							
A1K0892-01	Water	EPA 8270E	11/17/21 17:40	11/23/21 07:25	880mL/1mL	1000 mL/1 mL	1.14
A1K0892-02	Water	EPA 8270E	11/17/21 15:35	11/23/21 07:25	890mL/1mL	1000mL/1mL	1.12
A1K0892-03	Water	EPA 8270E	11/17/21 12:05	11/23/21 07:25	860 mL/1 mL	1000mL/1mL	1.16
A1K0892-04	Water	EPA 8270E	11/17/21 10:32	11/23/21 07:25	880mL/1mL	1000mL/1mL	1.14
A1K0892-06	Water	EPA 8270E	11/17/21 15:40	11/23/21 07:25	960mL/1mL	1000mL/1mL	1.04
A1K0892-07	Water	EPA 8270E	11/17/21 18:10	11/23/21 07:25	1020 mL/1 mL	1000mL/1mL	0.98

		Tota	al Metals by EPA 6020	OB (ICPMS)			
Prep: EPA 3015A					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
Batch: 21K0864							
A1K0892-01	Water	EPA 6020B	11/17/21 17:40	11/19/21 09:04	45mL/50mL	45mL/50mL	1.00
A1K0892-01RE1	Water	EPA 6020B	11/17/21 17:40	11/19/21 09:04	45mL/50mL	45mL/50mL	1.00
A1K0892-01RE2	Water	EPA 6020B	11/17/21 17:40	11/19/21 09:04	45mL/50mL	45mL/50mL	1.00
A1K0892-02	Water	EPA 6020B	11/17/21 15:35	11/19/21 09:04	45mL/50mL	45mL/50mL	1.00
A1K0892-02RE1	Water	EPA 6020B	11/17/21 15:35	11/19/21 09:04	45mL/50mL	45mL/50mL	1.00
A1K0892-02RE2	Water	EPA 6020B	11/17/21 15:35	11/19/21 09:04	45mL/50mL	45mL/50mL	1.00
Batch: 21K1112							
A1K0892-03	Water	EPA 6020B	11/17/21 12:05	11/29/21 09:33	45mL/50mL	45mL/50mL	1.00
A1K0892-03RE1	Water	EPA 6020B	11/17/21 12:05	11/29/21 09:33	45mL/50mL	45mL/50mL	1.00
A1K0892-04	Water	EPA 6020B	11/17/21 10:32	11/29/21 09:33	45mL/50mL	45mL/50mL	1.00
A1K0892-04RE1	Water	EPA 6020B	11/17/21 10:32	11/29/21 09:33	45mL/50mL	45mL/50mL	1.00
A1K0892-05	Water	EPA 6020B	11/17/21 16:00	11/29/21 09:33	45mL/50mL	45mL/50mL	1.00
A1K0892-05RE1	Water	EPA 6020B	11/17/21 16:00	11/29/21 09:33	45mL/50mL	45mL/50mL	1.00
A1K0892-06	Water	EPA 6020B	11/17/21 15:40	11/29/21 09:33	45mL/50mL	45mL/50mL	1.00
A1K0892-06RE1	Water	EPA 6020B	11/17/21 15:40	11/29/21 09:33	45mL/50mL	45mL/50mL	1.00
A1K0892-07	Water	EPA 6020B	11/17/21 18:10	11/29/21 09:33	45mL/50mL	45mL/50mL	1.00
A1K0892-07RE1	Water	EPA 6020B	11/17/21 18:10	11/29/21 09:33	45mL/50mL	45mL/50mL	1.00

		Dissolve	ed Metals by EPA 6	020B (ICPMS)			
Prep: Matrix Matched	d Direct Inject				Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
Batch: 21K0992							
A1K0892-01	Water	EPA 6020B (Diss)	11/17/21 17:40	11/23/21 09:47	45mL/50mL	45mL/50mL	1.00

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project Number: Eatonville
Project Number: 0171.067
Project Manager: Josh Bale

Report ID: A1K0892 - 04 25 23 1054

SAMPLE PREPARATION INFORMATION

		Dissolve	ed Metals by EPA 6	020B (ICPMS)			
Prep: Matrix Matched	l Direct Inject				Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
A1K0892-01RE1	Water	EPA 6020B (Diss)	11/17/21 17:40	11/23/21 09:47	45mL/50mL	45mL/50mL	1.00
A1K0892-02	Water	EPA 6020B (Diss)	11/17/21 15:35	11/23/21 09:47	45mL/50mL	45mL/50mL	1.00
A1K0892-02RE1	Water	EPA 6020B (Diss)	11/17/21 15:35	11/23/21 09:47	45mL/50mL	45mL/50mL	1.00
A1K0892-03	Water	EPA 6020B (Diss)	11/17/21 12:05	11/23/21 09:47	45mL/50mL	45mL/50mL	1.00
A1K0892-03RE1	Water	EPA 6020B (Diss)	11/17/21 12:05	11/23/21 09:47	45mL/50mL	45mL/50mL	1.00
A1K0892-04	Water	EPA 6020B (Diss)	11/17/21 10:32	11/23/21 09:47	45mL/50mL	45mL/50mL	1.00
A1K0892-04RE1	Water	EPA 6020B (Diss)	11/17/21 10:32	11/23/21 09:47	45mL/50mL	45mL/50mL	1.00
A1K0892-05	Water	EPA 6020B (Diss)	11/17/21 16:00	11/23/21 09:47	45mL/50mL	45mL/50mL	1.00
A1K0892-05RE1	Water	EPA 6020B (Diss)	11/17/21 16:00	11/23/21 09:47	45mL/50mL	45mL/50mL	1.00
A1K0892-06	Water	EPA 6020B (Diss)	11/17/21 15:40	11/23/21 09:47	45mL/50mL	45mL/50mL	1.00
A1K0892-06RE1	Water	EPA 6020B (Diss)	11/17/21 15:40	11/23/21 09:47	45mL/50mL	45mL/50mL	1.00
A1K0892-07	Water	EPA 6020B (Diss)	11/17/21 18:10	11/23/21 09:47	45mL/50mL	45mL/50mL	1.00
A1K0892-07RE1	Water	EPA 6020B (Diss)	11/17/21 18:10	11/23/21 09:47	45mL/50mL	45mL/50mL	1.00

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 0171.067
Project Manager: Josh Bale

Report ID: A1K0892 - 04 25 23 1054

Weck Laboratories, Inc.

SAMPLE PREPARATION INFORMATION

			Hexavalent Chromiu	m by IC			
Prep: NONE (LC)					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
Batch: W1L0025							
A1K0892-01	Water	EPA 218.6	11/17/21 17:40	11/18/21 08:31	5ml/5ml	5ml/5ml	1.00
A1K0892-01	Water	EPA 218.6	11/17/21 17:40	12/01/21 09:43	5ml/5ml	5ml/5ml	1.00
A1K0892-03	Water	EPA 218.6	11/17/21 12:05	11/18/21 08:31	5ml/5ml	5ml/5ml	1.00
A1K0892-03	Water	EPA 218.6	11/17/21 12:05	12/01/21 09:43	5ml/5ml	5ml/5ml	1.00
A1K0892-04	Water	EPA 218.6	11/17/21 10:32	11/18/21 08:31	5ml/5ml	5ml/5ml	1.00
A1K0892-04	Water	EPA 218.6	11/17/21 10:32	12/01/21 09:43	5ml/5ml	5ml/5ml	1.00
A1K0892-05	Water	EPA 218.6	11/17/21 16:00	11/18/21 08:31	5ml/5ml	5ml/5ml	1.00
A1K0892-06	Water	EPA 218.6	11/17/21 15:40	11/18/21 08:31	5ml/5ml	5ml/5ml	1.00
A1K0892-06	Water	EPA 218.6	11/17/21 15:40	12/01/21 09:43	5ml/5ml	5ml/5ml	1.00
A1K0892-07	Water	EPA 218.6	11/17/21 18:10	11/18/21 08:31	5ml/5ml	5ml/5ml	1.00
A1K0892-07	Water	EPA 218.6	11/17/21 18:10	12/01/21 09:43	5ml/5ml	5ml/5ml	1.00

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water SolutionsProject:Eatonville55 SW Yamhill St, Ste 300Project Number:0171.067Portland, OR 97209Project Manager:Josh Bale

Report ID: A1K0892 - 04 25 23 1054

QUALIFIER DEFINITIONS

Client Sample and Quality Control (QC) Sample Qualifier Definitions:

Apex Laboratories

- Ja Estimated Result. Result detected below the lowest point of the calibration curve, but above the specified MDL.
- Q-16 Reanalysis of an original Batch QC sample.
- Q-19 Blank Spike Duplicate (BSD) sample analyzed in place of Matrix Spike/Duplicate samples due to limited sample amount available for analysis.
- Q-41 Estimated Results. Recovery of Continuing Calibration Verification sample above upper control limit for this analyte. Results are likely biased high.

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J Estimated conc. detected <MRL and >MDL.

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 0171.067
Project Manager: Josh Bale

Report ID: A1K0892 - 04 25 23 1054

REPORTING NOTES AND CONVENTIONS:

Abbreviations:

DET Analyte DETECTED at or above the detection or reporting limit.

ND Analyte NOT DETECTED at or above the detection or reporting limit.

NR Result Not Reported

RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

Detection Limits: Limit of Detection (LOD)

Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).

If no value is listed ('----'), then the data has not been evaluated below the Reporting Limit.

Reporting Limits: Limit of Quantitation (LOQ)

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

Reporting Conventions:

Basis: Results for soil samples are generally reported on a 100% dry weight basis.

The Result Basis is listed following the units as "dry", "wet", or " " (blank) designation.

"dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")

See Percent Solids section for details of dry weight analysis.

"wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.

"___" Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

QC Source:

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.

Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) may not be included in this report. Please request a Full QC report if this data is required.

Miscellaneous Notes:

"---" QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

"***" Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to ½ the Reporting Limit (RL).

- -For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.
- -For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.

For further details, please request a copy of this document.

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Philip Manhera

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Philip Nerenberg, Lab Director

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 0171.067
Project Manager: Josh Bale

Report ID: A1K0892 - 04 25 23 1054

REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks (Cont.):

Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.

'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level.

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

Sampling and Preservation Notes:

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

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Philip Nerenberg, Lab Director



Apex Laboratories, LLC 6700 S.W. Sandburg Street

Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

Report ID:

A1K0892 - 04 25 23 1054

AMENDED REPORT

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project Number: **Eatonville**Project Number: **0171.067**Project Manager: **Josh Bale**

LABORATORY ACCREDITATION INFORMATION

ORELAP Certification ID: OR100062 (Primary Accreditation) -EPA ID: OR01039

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the <u>exception</u> of any analyte(s) listed below:

Apex Laboratories

Matrix Analysis TNI_ID Analyte TNI_ID Accreditation

All reported analytes are included in Apex Laboratories' current ORELAP scope.

Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation.

Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

Field Testing Parameters

Results for Field Tested data are provded by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

Apex Laboratories

Philip Nevenberg

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Page 38 of 40



AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 0171.067
Project Manager: Josh Bale

Report ID: A1K0892 - 04 25 23 1054

Commons. GS! Water Solutions	Project Mor-		Tosh Bale		Project Name:	- 1	Eatonville Landfill			Project #: 0171.067	
impany. Osi water solutions	Daniel Con	3 07304	al Dale	Diame.	630 776 4198	Email	Email: ibolo@meine.com	uo.		# Od	
AURESS. 33 SW TAHIRII SHEET, Sake 500, FUII and UN 77 204	ow, rolland	N 31204			0011.00			and and an array			
Sampled by: J. Sherrod		-	-					ANALISISKEVUESI	_		
Site Location: OR WA DA				лекг			(III & IV),Co 'I, V, Zn Total	-10-2			
AK ID	CAB ID #	TIME	MATRIX	# OF CONTAIN		byHs pà	Ar, Ba, Be, Cd, Cr Cu, Pb, Ni, Se, T and Diss		SvidonA		
GW-PZ-01-1121	11/17/2021	21 17:40	Qγ	15		×	x v				
GW-PZ-02-1121	11/17/2021	-	QV QV	15		×	×				
GW-PZ-03-1121	11/17/2021	-	AO	15		×	x				
GW-PZ-04-1121	11/17/2021		Ş	15		×	x x				
GW-PZ-05-1121	11/17/2021	00:91	VQ.	6			×				
GW-Dup-1-1121	11/17/2021	-	ΑQ	15		×	×				
GW-Equipment-Blank-1121	11/17/2021	18:10	V	15		×	×				
GW-Trip-Blank-1121	11/17/2021	21 0.5556		-		×					
		_									
Normal Turn	Normal Turn Around Time (TAT) = 10 Business Days	(TAT) = 1) Business	Dave		SPECIAL	SPECIAL INSTRUCTIONS	IONS:	1		
TAT Demended (circle)	1 Day	2 Day	y 3	3 Day		I					
	4 DAY	5 DAY	>	Other:							
	SAMPLES ARE HELD FOR 30 DAYS	D FOR 30	DAYS							The Control of the	
Signature Day	Date. 1/18/21	E S		RECEIVED BY:	17-18-11 (Signature	RELINQUISHED BY: Signature		Date:	ALLEIVED BT: Date: Signature:	Date:
Cherry Cherry	(04s	-	MA A	N. W. M.	Time Time	Printed Name	ame.		Time	Printed Name:	Time
	3	Comp	No.		***	Company		1000		Company:	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



GSI Water Solutions

Portland, OR 97209

55 SW Yamhill St, Ste 300

ANALYTICAL REPORT

AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323 ORELAP ID: OR100062

 Project:
 Eatonville

 Project Number:
 0171.067
 Report ID:

 Project Manager:
 Josh Bale
 A1K0892 - 04 25 23 1054

Chent: BY Mator YA	lutime			Elom	ent WO#: A1 KC	892
J						27 E 10 10 10 10 10 10 10 10 10 10 10 10 10
Project/Project #: Eaton	ville Lan	gul 1	UMI DLET			
Delivery Info :				_		
Date/time received:	2 2 @	1046	By:	·)	***************************************	
Delivered by: ApexC						
					By:	
Chain of Custody included	? Yes	No	Cu	stody seals?	Yes N	lo_X
Signed/dated by client?		No				
Signed/dated by Apex?		No				
_					Cooler #5 Cool	er #6 Cooler #7
Temperature (°C)			1.3			
Received on ice? (Y/N)			<u> </u>			
Temp. blanks? (Y/N)			<u> </u>			
Ice type: (Gel/Real/Other)						
Condition: Cooler out of temp? (Y/N) Green dots applied to out of	8000g	SODO	Sood	_good_		
Out of temperature samples Sample Inspection: Date All samples intact? Yes 🙏	s form initiate e/time inspect No C	ed? Yes/Noted: 1118	9) 21_@_12			
		8011/18	u			
Pottle lebel-/COC 0	Yes X No	Comi	ments: TW	re on th	up blank wea	ds 0800,
Bottle labels/COCs agree?	μ_{α}	Justs 9	container	s yor GN	1-PZ-05-1171	, received 4
10 reads Trip-Blank	we , we					
) WadSTrp-Blank COC/container discrepancie	es form initia	ted? Yes_	No <u>X</u> _	9		
10 reads Trip-Blank	es form initia	ted? Yes_	No <u>X</u> _	9		
ID WAASTYP-Blank COC/container discrepancie Containers/volumes receive	es form initia d appropriate	ted? Yes_ for analysi	No X is? Yes X	No C		
Do VOA vials have visible 1	es form initia d appropriate	ted? Yes_ for analysi	No X is? Yes X	No C		
DO VOA vials have visible I	es form initia d appropriate headspace?	ted? Yes _ e for analysi Yes 1	No <u>X</u> is? Yes <u>X</u> No <u>X</u> NA	No C	comments:	
ID WARSTYP-Bland COC/container discrepancie Containers/volumes receive Do VOA vials have visible I Comments Water samples: pH checked	es form initia d appropriate headspace?	ted? Yes _ e for analysi Yes 1	No <u>X</u> is? Yes <u>X</u> No <u>X</u> NA	No C	comments:	
Do VOA vials have visible 1	es form initia d appropriate headspace?	ted? Yes _ e for analysi Yes 1	No <u>X</u> is? Yes <u>X</u> No <u>X</u> NA	No C	comments:	
Do VOA vials have visible land. Comments Water samples: pH checked.	es form initia d appropriate headspace? : Yes \(\sum_No_	ted? Yes _ e for analysi Yes 1	No <u>X</u> is? Yes <u>X</u> No <u>X</u> NA	No C	NoNA	
ID WARSTYP-Bland COC/container discrepancie Containers/volumes receive Do VOA vials have visible I Comments Water samples: pH checked	es form initia d appropriate headspace? : Yes \(\sum_No_	ted? Yes _ e for analysi Yes 1	No <u>X</u> is? Yes <u>X</u> No <u>X</u> NA	No C	omments: NoNA Subsampled	
ID Wads Typ-Bland COC/container discrepancie Containers/volumes receive Do VOA vials have visible I Comments Water samples: pH checked Comments: Additional information:	es form initia d appropriate headspace? : Yes \(\sum_No_	ted? Yes _ e for analysi Yes 1	No <u>X</u> is? Yes <u>X</u> No <u>X</u> NA	No C	NoNA	
Do VOA vials have visible land. Comments Water samples: pH checked. Comments:	es form initia d appropriate headspace? : Yes \(\) No_	ted? Yes _ e for analysi Yes 1	No <u>X</u> is? Yes <u>X</u> No <u>X</u> NA	No C	omments: NoNA Subsampled	

Apex Laboratories

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Philip Maenberg



Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323 ORELAP ID: OR100062

AMENDED REPORT

Tuesday, April 25, 2023
Josh Bale
GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

RE: A2B0202 - Eatonville - 00171.067

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A2B0202, which was received by the laboratory on 2/5/2022 at 11:15:00AM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: pnerenberg@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample receipt, unless prior arrangements have been made.

	Cooler Receip	t Information		
	(See Cooler Receip	ot Form for details)		
Cooler #1	0.8 degC	Cooler #2	2.9 degC	
Cooler #3	1.5 degC	Cooler #4	2.1 degC	
Cooler #5	0.6 degC	Cooler #6	0.4 degC	
Cooler #7	0.6 degC	Cooler #8	0.4 degC	
Cooler #9	0.8 degC			

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report.

All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.





Apex Laboratories

Philip Nevenberg

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL REPORT FOR SAMPLES

	SAMPLE INFOR	RMATION		
Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
HA-01-Comp-0.5-1.0_0222	A2B0202-01	Soil	02/04/22 17:00	02/05/22 11:15
HA-01-Comp-1.0-2.0_0222	A2B0202-02	Soil	02/04/22 17:05	02/05/22 11:15
HA-02-Comp-0.5-1.0_0222	A2B0202-03	Soil	02/03/22 16:06	02/05/22 11:15
HA-02-Comp-1.0-2.0_0222	A2B0202-04	Soil	02/03/22 16:04	02/05/22 11:15
HA-102-Comp-0.5-1.0_0222	A2B0202-05	Soil	02/03/22 16:10	02/05/22 11:15
HA-102-Comp-1.0-2.0_0222	A2B0202-06	Soil	02/03/22 16:11	02/05/22 11:15
HA-03-Comp-0.5-1.0_0222	A2B0202-07	Soil	02/03/22 13:16	02/05/22 11:15
HA-03-Comp-1.0-2.0_0222	A2B0202-08	Soil	02/03/22 13:33	02/05/22 11:15
HA-04-Comp-0.0-0.5_0222	A2B0202-09	Soil	02/01/22 16:30	02/05/22 11:15
HA-04-Comp-0.5-1.0_0222	A2B0202-10	Soil	02/01/22 16:40	02/05/22 11:15
HA-04-Comp-1.0-2.0_0222	A2B0202-11	Soil	02/01/22 16:50	02/05/22 11:15
HA-05-Comp-0.0-0.5_0222	A2B0202-12	Soil	02/01/22 12:20	02/05/22 11:15
HA-05-Comp-0.5-1.0_0222	A2B0202-13	Soil	02/01/22 12:35	02/05/22 11:15
HA-05-Comp-1.0-2.0_0222	A2B0202-14	Soil	02/01/22 12:45	02/05/22 11:15
HA-01A-0.0-0.5_0222	A2B0202-15	Soil	02/03/22 16:25	02/05/22 11:15
HA-01B-0.0-0.5_0222	A2B0202-16	Soil	02/03/22 16:45	02/05/22 11:15
HA-01C-0.0-0.5_0222	A2B0202-17	Soil	02/04/22 15:00	02/05/22 11:15
HA-01D-0.0-0.5_0222	A2B0202-18	Soil	02/04/22 15:15	02/05/22 11:15
HA-01E-0.0-0.5_0222	A2B0202-19	Soil	02/04/22 15:35	02/05/22 11:15
HA-02A-0.0-0.5_0222	A2B0202-20	Soil	02/03/22 16:00	02/05/22 11:15
HA-02B-0.0-0.5_0222	A2B0202-21	Soil	02/03/22 15:45	02/05/22 11:15
HA-02C-0.0-0.5_0222	A2B0202-22	Soil	02/03/22 15:10	02/05/22 11:15
HA-02D-0.0-0.5_0222	A2B0202-23	Soil	02/03/22 14:40	02/05/22 11:15
HA-02E-0.0-0.5_0222	A2B0202-24	Soil	02/03/22 14:00	02/05/22 11:15
HA-03A-0.0-0.5_0222	A2B0202-25	Soil	02/03/22 13:05	02/05/22 11:15
HA-03B-0.0-0.5_0222	A2B0202-26	Soil	02/03/22 12:15	02/05/22 11:15
HA-03C-0.0-0.5_0222	A2B0202-27	Soil	02/01/22 17:00	02/05/22 11:15
HA-03D-0.0-0.5_0222	A2B0202-28	Soil	02/03/22 10:00	02/05/22 11:15
HA-03E-0.0-0.5_0222	A2B0202-29	Soil	02/03/22 09:25	02/05/22 11:15
HA-01-Comp-0.0-0.5_0222	A2B0202-30	Soil	02/04/22 16:55	02/05/22 11:15
HA-02-Comp-0.0-0.5_0222	A2B0202-31	Soil	02/04/22 18:30	02/05/22 11:15
HA-03-Comp-0.0-0.5_0222	A2B0202-32	Soil	02/04/22 18:35	02/05/22 11:15
EB-01	A2B0202-33	Water	02/04/22 17:15	02/05/22 11:15

Apex Laboratories

Philip Nevenberg

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project Number: **Eatonville**Project Number: **00171.067**Project Manager: **Josh Bale**

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL REPORT FOR SAMPLES

	SAMPLE INFO	ORMATION		
Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
EB-02	A2B0202-34	Water	02/04/22 17:30	02/05/22 11:15
PZ-01_0222	A2B0202-35	Water	02/04/22 12:35	02/05/22 11:15
PZ-02_0222	A2B0202-36	Water	02/04/22 16:40	02/05/22 11:15
PZ-102_0222	A2B0202-37	Water	02/03/22 16:50	02/05/22 11:15
PZ-03_0222	A2B0202-38	Water	02/03/22 15:15	02/05/22 11:15
PZ-04_0222	A2B0202-39	Water	02/03/22 12:05	02/05/22 11:15
PZ-05_0222	A2B0202-40	Water	02/04/22 13:45	02/05/22 11:15
SW-09_0222	A2B0202-41	Water	02/02/22 13:25	02/05/22 11:15
SW-109_0222	A2B0202-42	Water	02/02/22 13:30	02/05/22 11:15
SW-07_0222	A2B0202-43	Water	02/02/22 11:00	02/05/22 11:15
SW-08_0222	A2B0202-44	Water	02/02/22 12:10	02/05/22 11:15
SW-10_0222	A2B0202-45	Water	02/02/22 14:22	02/05/22 11:15
SW-11_0222	A2B0202-46	Water	02/02/22 15:15	02/05/22 11:15
SW-12_0222	A2B0202-47	Water	02/02/22 16:00	02/05/22 11:15
SW-13_0222	A2B0202-48	Water	02/02/22 17:25	02/05/22 11:15
SW-14_0222	A2B0202-49	Water	02/04/22 14:55	02/05/22 11:15

Apex Laboratories

Philip Marenberg

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL CASE NARRATIVE

A2B0202 Apex Laboratories

Amended Report Revision 1:

Reporting to the Method Reporting Limits (MRLs)-

This report supersedes all previous reports.

The final report has been amended to report all samples to the MRLs.

Philip Nerenberg Lab Director

Apex Laboratories

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Philip Nerenberg, Lab Director

Philip Manhera

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

<u>GSI Water Solutions</u> 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project Number: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

	Die	esel and/or Oi	l Hydrocarl	bons by NWTP	H-Dx			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-01-Comp-0.5-1.0_0222 (A2B0202-01)				Matrix: Soil		Batch: 2	22B0380	
Diesel	ND	20.1	40.2	mg/kg dry	1	02/10/22 21:57	NWTPH-Dx	
Oil	269	40.2	80.5	mg/kg dry	1	02/10/22 21:57	NWTPH-Dx	F-03
Surrogate: o-Terphenyl (Surr)		Recov	ery: 88 %	Limits: 50-150 %	6 I	02/10/22 21:57	NWTPH-Dx	
HA-01-Comp-1.0-2.0_0222 (A2B0202-02)				Matrix: Soil		Batch: 2	22B0416	
Diesel	ND	17.8	35.6	mg/kg dry	1	02/10/22 21:34	NWTPH-Dx	
Oil	49.1	35.6	71.2	mg/kg dry	1	02/10/22 21:34	NWTPH-Dx	Ja
Surrogate: o-Terphenyl (Surr)		Recov	ery: 88 %	Limits: 50-150 %	6 I	02/10/22 21:34	NWTPH-Dx	
HA-02-Comp-0.5-1.0_0222 (A2B0202-03)				Matrix: Soil		Batch:	22B0416	
Diesel	46.8	45.5	90.9	mg/kg dry	1	02/10/22 22:17	NWTPH-Dx	Ja
Oil	92.4	90.9	182	mg/kg dry	1	02/10/22 22:17	NWTPH-Dx	Ja
Surrogate: o-Terphenyl (Surr)		Recov	ery: 70 %	Limits: 50-150 %	6 1	02/10/22 22:17	NWTPH-Dx	
HA-02-Comp-1.0-2.0_0222 (A2B0202-04)				Matrix: Soil		Batch: 2	22B0416	
Diesel	ND	30.6	61.2	mg/kg dry	1	02/10/22 22:38	NWTPH-Dx	
Oil	71.8	61.2	122	mg/kg dry	1	02/10/22 22:38	NWTPH-Dx	Ja
Surrogate: o-Terphenyl (Surr)		Recov	ery: 86 %	Limits: 50-150 %	6 I	02/10/22 22:38	NWTPH-Dx	
HA-102-Comp-0.5-1.0_0222 (A2B0202-05)				Matrix: Soil		Batch: 2	22B0416	
Diesel	ND	46.8	93.7	mg/kg dry	1	02/10/22 22:59	NWTPH-Dx	
Oil	113	93.7	187	mg/kg dry	1	02/10/22 22:59	NWTPH-Dx	Ja
Surrogate: o-Terphenyl (Surr)		Recov	ery: 75 %	Limits: 50-150 %	6 I	02/10/22 22:59	NWTPH-Dx	
HA-102-Comp-1.0-2.0_0222 (A2B0202-06)				Matrix: Soil		Batch:	22B0416	
Diesel	ND	31.3	62.5	mg/kg dry	1	02/10/22 23:21	NWTPH-Dx	
Oil	74.4	62.5	125	mg/kg dry	1	02/10/22 23:21	NWTPH-Dx	Ja
Surrogate: o-Terphenyl (Surr)		Recov	ery: 83 %	Limits: 50-150 %	6 1	02/10/22 23:21	NWTPH-Dx	
HA-03-Comp-0.5-1.0_0222 (A2B0202-07)				Matrix: Soil		Batch:	22B0416	
Diesel	ND	42.5	85.0	mg/kg dry	1	02/10/22 23:41	NWTPH-Dx	
Oil	324	85.0	170	mg/kg dry	1	02/10/22 23:41	NWTPH-Dx	F-03
Surrogate: o-Terphenyl (Surr)		Recov	ery: 81 %	Limits: 50-150 %	6 I	02/10/22 23:41	NWTPH-Dx	

Apex Laboratories

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Philip Nerenberg, Lab Director

Philip Manherz

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project Number: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

	Die	esel and/or Oil	Hydrocarl	bons by NWTP	H-Dx			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-03-Comp-1.0-2.0_0222 (A2B0202-08)				Matrix: Soil		Batch:	22B0416	
Diesel	ND	20.0	40.0	mg/kg dry	1	02/11/22 00:02	NWTPH-Dx	
Oil	62.6	40.0	80.0	mg/kg dry	1	02/11/22 00:02	NWTPH-Dx	Ja
Surrogate: o-Terphenyl (Surr)		Recove	ry: 74 %	Limits: 50-150 %	6 I	02/11/22 00:02	NWTPH-Dx	
HA-04-Comp-0.0-0.5_0222 (A2B0202-09)				Matrix: Soil		Batch:	22B0416	
Diesel	85.2	65.3	131	mg/kg dry	1	02/11/22 00:23	NWTPH-Dx	Ja
Oil	434	131	261	mg/kg dry	1	02/11/22 00:23	NWTPH-Dx	F-17
Surrogate: o-Terphenyl (Surr)		Recove	ry: 87%	Limits: 50-150 %	6 1	02/11/22 00:23	NWTPH-Dx	
HA-04-Comp-0.5-1.0_0222 (A2B0202-10)				Matrix: Soil		Batch:	22B0416	
Diesel	ND	29.0	58.0	mg/kg dry	1	02/11/22 00:45	NWTPH-Dx	
Oil	108	58.0	116	mg/kg dry	1	02/11/22 00:45	NWTPH-Dx	Ja
Surrogate: o-Terphenyl (Surr)		Recove	ry: 81 %	Limits: 50-150 %	6 1	02/11/22 00:45	NWTPH-Dx	
HA-04-Comp-1.0-2.0_0222 (A2B0202-11)				Matrix: Soil		Batch:	22B0416	
Diesel	ND	17.7	35.4	mg/kg dry	1	02/10/22 20:51	NWTPH-Dx	
Oil	ND	35.4	70.7	mg/kg dry	1	02/10/22 20:51	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		Recove	ry: 85 %	Limits: 50-150 %	6 I	02/10/22 20:51	NWTPH-Dx	
HA-05-Comp-0.0-0.5_0222 (A2B0202-12)				Matrix: Soil		Batch:	22B0416	
Diesel	ND	37.9	75.8	mg/kg dry	1	02/10/22 21:12	NWTPH-Dx	
Oil	ND	75.8	152	mg/kg dry	1	02/10/22 21:12	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		Recove	ry: 87%	Limits: 50-150 %	6 1	02/10/22 21:12	NWTPH-Dx	
HA-05-Comp-0.5-1.0_0222 (A2B0202-13)				Matrix: Soil		Batch:	22B0416	
Diesel	ND	30.3	60.6	mg/kg dry	1	02/10/22 21:34	NWTPH-Dx	
Oil	ND	60.6	121	mg/kg dry	1	02/10/22 21:34	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		Recove	ry: 81%	Limits: 50-150 %	6 1	02/10/22 21:34	NWTPH-Dx	
HA-05-Comp-1.0-2.0_0222 (A2B0202-14)				Matrix: Soil		Batch:	22B0416	
Diesel	ND	19.1	38.3	mg/kg dry	1	02/10/22 21:55	NWTPH-Dx	
Oil	59.9	38.3	76.5	mg/kg dry	1	02/10/22 21:55	NWTPH-Dx	Ja
Surrogate: o-Terphenyl (Surr)		Recove	ry: 84 %	Limits: 50-150 %	6 I	02/10/22 21:55	NWTPH-Dx	

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Philip Nerenberg, Lab Director



AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project Number: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

	Die	esel and/or Oil l	Hydrocarl	bons by NWTP	H-Dx			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-01-Comp-0.0-0.5_0222 (A2B0202-30)				Matrix: Soil		Batch:	22B0416	
Diesel	ND	24.5	49.1	mg/kg dry	1	02/10/22 22:17	NWTPH-Dx	
Oil	ND	49.1	98.2	mg/kg dry	1	02/10/22 22:17	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		Recovery	v: 94 %	Limits: 50-150 %	6 I	02/10/22 22:17	NWTPH-Dx	
HA-02-Comp-0.0-0.5_0222 (A2B0202-31)				Matrix: Soil		Batch: 2	22B0416	
Diesel	ND	40.3	80.6	mg/kg dry	1	02/10/22 22:38	NWTPH-Dx	
Oil	ND	80.6	161	mg/kg dry	1	02/10/22 22:38	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		Recovery	v: 83 %	Limits: 50-150 %	6 I	02/10/22 22:38	NWTPH-Dx	
HA-03-Comp-0.0-0.5_0222 (A2B0202-32)				Matrix: Soil		Batch:	22B0416	
Diesel	ND	52.3	105	mg/kg dry	1	02/10/22 22:59	NWTPH-Dx	
Oil	113	105	209	mg/kg dry	1	02/10/22 22:59	NWTPH-Dx	Ja
Surrogate: o-Terphenyl (Surr)		Recovery	v: 92 %	Limits: 50-150 %	6 1	02/10/22 22:59	NWTPH-Dx	
EB-01 (A2B0202-33)				Matrix: Wat	er	Batch: 2	22B0427	
Diesel	0.499	0.0971	0.194	mg/L	1	02/12/22 00:54	NWTPH-Dx	F-13
Oil	ND	0.194	0.388	mg/L	1	02/12/22 00:54	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		Recovery	v: 88 %	Limits: 50-150 %	6 1	02/12/22 00:54	NWTPH-Dx	
EB-02 (A2B0202-34)				Matrix: Wat	er	Batch: 2	22B0427	PRES
Diesel	ND	0.125	0.250	mg/L	1	02/12/22 01:14	NWTPH-Dx	
Oil	ND	0.250	0.500	mg/L	1	02/12/22 01:14	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		Recovery	v: 89 %	Limits: 50-150 %	6 I	02/12/22 01:14	NWTPH-Dx	
PZ-01_0222 (A2B0202-35)				Matrix: Wat	er	Batch: 2	22B0427	
Diesel	ND	0.0943	0.189	mg/L	1	02/12/22 01:34	NWTPH-Dx	
Oil	ND	0.189	0.377	mg/L	1	02/12/22 01:34	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		Recovery	v: 84 %	Limits: 50-150 %	6 I	02/12/22 01:34	NWTPH-Dx	
PZ-02_0222 (A2B0202-36)				Matrix: Wat	er	Batch:	22B0427	
Diesel	ND	0.0952	0.190	mg/L	1	02/12/22 01:55	NWTPH-Dx	
Oil	ND	0.190	0.381	mg/L	1	02/12/22 01:55	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		Recover	v: 89 %	Limits: 50-150 %	6 I	02/12/22 01:55	NWTPH-Dx	

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Philip Nerenberg, Lab Director

Philip Manherz

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project Number: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

	Die	esel and/or Oil	Hydrocarl	ons by NWTP	H-Dx			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PZ-102_0222 (A2B0202-37)				Matrix: Wat	er	Batch: 2	22B0427	
Diesel	ND	0.0971	0.194	mg/L	1	02/11/22 21:50	NWTPH-Dx	
Oil	ND	0.194	0.388	mg/L	1	02/11/22 21:50	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		Recove	ry: 92 %	Limits: 50-150 %	% I	02/11/22 21:50	NWTPH-Dx	
PZ-03_0222 (A2B0202-38)		Matrix: Water		Batch: 2	22B0427			
Diesel	ND	0.0962	0.192	mg/L	1	02/11/22 22:10	NWTPH-Dx	
Oil	ND	0.192	0.385	mg/L	1	02/11/22 22:10	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		Recove	ry: 89 %	Limits: 50-150 %	% I	02/11/22 22:10	NWTPH-Dx	
PZ-04_0222 (A2B0202-39)				Matrix: Wat	er	Batch:	22B0427	
Diesel	ND	0.0962	0.192	mg/L	1	02/11/22 22:30	NWTPH-Dx	
Oil	ND	0.192	0.385	mg/L	1	02/11/22 22:30	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		Recove	ry: 82 %	Limits: 50-150 %	% I	02/11/22 22:30	NWTPH-Dx	
PZ-05_0222 (A2B0202-40)		Matrix: Water		Batch: 2	22B0427			
Diesel	ND	0.0952	0.190	mg/L	1	02/11/22 22:51	NWTPH-Dx	
Oil	ND	0.190	0.381	mg/L	1	02/11/22 22:51	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		Recove	ry: 92 %	Limits: 50-150 9	% 1	02/11/22 22:51	NWTPH-Dx	
SW-09_0222 (A2B0202-41)				Matrix: Wat	er	Batch: 2	22B0427	
Diesel	ND	0.0962	0.192	mg/L	1	02/11/22 23:11	NWTPH-Dx	
Oil	ND	0.192	0.385	mg/L	1	02/11/22 23:11	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		Recove	ry: 91 %	Limits: 50-150 %	% I	02/11/22 23:11	NWTPH-Dx	
SW-109_0222 (A2B0202-42)				Matrix: Wat	er	Batch:	22B0427	
Diesel	ND	0.0952	0.190	mg/L	1	02/11/22 23:32	NWTPH-Dx	
Oil	ND	0.190	0.381	mg/L	1	02/11/22 23:32	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		Recove	ry: 87%	Limits: 50-150 %	% 1	02/11/22 23:32	NWTPH-Dx	
SW-07_0222 (A2B0202-43)		Matrix: W		Matrix: Wat	er	Batch: 22B0427		
Diesel	ND	0.0990	0.198	mg/L	1	02/11/22 23:52	NWTPH-Dx	
Oil	ND	0.198	0.396	mg/L	1	02/11/22 23:52	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		Recove	ry: 95 %	Limits: 50-150 9	% I	02/11/22 23:52	NWTPH-Dx	

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Philip Nerenberg, Lab Director

Philip Manherz



AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

<u>GSI Water Solutions</u> 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

	Die	sel and/or O	il Hydrocarl	ons by NWTP	H-Dx			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-08_0222 (A2B0202-44)				Matrix: Wate	er	Batch:	22B0427	
Diesel	ND	0.0980	0.196	mg/L	1	02/12/22 00:13	NWTPH-Dx	
Oil	ND	0.196	0.392	mg/L	1	02/12/22 00:13	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		Reco	very: 76%	Limits: 50-150 %	6 I	02/12/22 00:13	NWTPH-Dx	
SW-10_0222 (A2B0202-45)				Matrix: Wate	er	Batch:	22B0427	
Diesel	ND	0.0952	0.190	mg/L	1	02/12/22 00:33	NWTPH-Dx	
Oil	ND	0.190	0.381	mg/L	1	02/12/22 00:33	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		Reco	very: 87 %	Limits: 50-150 %	6 I	02/12/22 00:33	NWTPH-Dx	
SW-11_0222 (A2B0202-46)				Matrix: Water		Batch: 22B0427		
Diesel	ND	0.0962	0.192	mg/L	1	02/12/22 00:54	NWTPH-Dx	
Oil	ND	0.192	0.385	mg/L	1	02/12/22 00:54	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		Reco	very: 85 %	Limits: 50-150 %	6 I	02/12/22 00:54	NWTPH-Dx	
SW-12_0222 (A2B0202-47)				Matrix: Water		Batch: 22B0427		
Diesel	ND	0.0952	0.190	mg/L	1	02/12/22 01:14	NWTPH-Dx	
Oil	ND	0.190	0.381	mg/L	1	02/12/22 01:14	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		Reco	very: 87 %	Limits: 50-150 %	6 I	02/12/22 01:14	NWTPH-Dx	
SW-13_0222 (A2B0202-48)				Matrix: Wate	er	Batch:	22B0427	
Diesel	ND	0.0990	0.198	mg/L	1	02/12/22 01:34	NWTPH-Dx	
Oil	ND	0.198	0.396	mg/L	1	02/12/22 01:34	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		Reco	very: 89 %	Limits: 50-150 %	6 I	02/12/22 01:34	NWTPH-Dx	
SW-14_0222 (A2B0202-49)				Matrix: Water		Batch: 22B0427		
Diesel	ND	0.0971	0.194	mg/L	1	02/12/22 01:55	NWTPH-Dx	
Oil	ND	0.194	0.388	mg/L	1	02/12/22 01:55	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)		Reco	very: 86 %	Limits: 50-150 %	6 <i>1</i>	02/12/22 01:55	NWTPH-Dx	

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Philip Nerenberg, Lab Director

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

<u>GSI Water Solutions</u> 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project Number: **Eatonville**Project Number: **00171.067**Project Manager: **Josh Bale**

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
HA-01-Comp-0.5-1.0_0222 (A2B0202-01)				Matrix: Soil		Batch	22B0397	
Gasoline Range Organics	ND	8.49	17.0	mg/kg dry	50	02/10/22 14:42	NWTPH-Gx (MS))
Surrogate: 4-Bromofluorobenzene (Sur) 1,4-Difluorobenzene (Sur)		Recovery	124 %	Limits: 50-150 % 50-150 %		02/10/22 14:42 02/10/22 14:42	NWTPH-Gx (MS) NWTPH-Gx (MS)	
HA-01-Comp-1.0-2.0_0222 (A2B0202-02)				Matrix: Soil		Batch	22B0397	
Gasoline Range Organics	ND	6.20	12.4	mg/kg dry	50	02/10/22 15:36	NWTPH-Gx (MS))
Surrogate: 4-Bromofluorobenzene (Sur) 1,4-Difluorobenzene (Sur)		Recovery	: 120 % 107 %	Limits: 50-150 % 50-150 %		02/10/22 15:36 02/10/22 15:36	NWTPH-Gx (MS) NWTPH-Gx (MS)	
HA-02-Comp-0.5-1.0_0222 (A2B0202-03)				Matrix: Soil		Batch	22B0397	
Gasoline Range Organics	ND	30.6	61.3	mg/kg dry	50	02/10/22 16:30	NWTPH-Gx (MS))
Surrogate: 4-Bromofluorobenzene (Sur) 1,4-Difluorobenzene (Sur)		Recovery	121 %	Limits: 50-150 % 50-150 %		02/10/22 16:30 02/10/22 16:30	NWTPH-Gx (MS) NWTPH-Gx (MS)	
HA-02-Comp-1.0-2.0_0222 (A2B0202-04)				Matrix: Soil		Batch	22B0397	V-16, V-21
Gasoline Range Organics	ND	12.7	25.5	mg/kg dry	50	02/10/22 19:12	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur) 1,4-Difluorobenzene (Sur)		Recovery	: 128 % 106 %	Limits: 50-150 % 50-150 %		02/10/22 19:12 02/10/22 19:12	NWTPH-Gx (MS) NWTPH-Gx (MS)	
HA-102-Comp-0.5-1.0_0222 (A2B0202-05)				Matrix: Soil		Batch	22B0397	
Gasoline Range Organics	ND	25.0	50.0	mg/kg dry	50	02/10/22 16:57	NWTPH-Gx (MS))
Surrogate: 4-Bromofluorobenzene (Sur) 1,4-Difluorobenzene (Sur)		Recovery	124 %	Limits: 50-150 % 50-150 %		02/10/22 16:57 02/10/22 16:57	NWTPH-Gx (MS)	
HA-102-Comp-1.0-2.0_0222 (A2B0202-06)				Matrix: Soil		Batch	22B0397	V-16, V-21
Gasoline Range Organics	ND	12.7	25.3	mg/kg dry	50	02/10/22 19:39	NWTPH-Gx (MS))
Surrogate: 4-Bromofluorobenzene (Sur) 1,4-Difluorobenzene (Sur)		Recovery.	128 %	Limits: 50-150 % 50-150 %		02/10/22 19:39 02/10/22 19:39	NWTPH-Gx (MS)	
HA-03-Comp-0.5-1.0_0222 (A2B0202-07)				Matrix: Soil		Batch	22B0397	
Gasoline Range Organics	ND	21.8	43.5	mg/kg dry	50	02/10/22 17:24	NWTPH-Gx (MS))
Surrogate: 4-Bromofluorobenzene (Sur) 1,4-Difluorobenzene (Sur)		Recovery	123 %	Limits: 50-150 % 50-150 %		02/10/22 17:24 02/10/22 17:24	NWTPH-Gx (MS)	
HA-03-Comp-1.0-2.0 0222 (A2B0202-08)				Matrix: Soil		Ratch	22B0397	V-16, V-21

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Philip Merenberg



AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project Number: **Eatonville**Project Number: **00171.067**Project Manager: **Josh Bale**

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

	Sample	Detection	Reporting	TT :	D'1 4'	Date	M.I. ID.C	N T -
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
HA-03-Comp-1.0-2.0_0222 (A2B0202-08)				Matrix: Soil		Batch:	22B0397	V-16, V-21
Gasoline Range Organics	ND	8.00	16.0	mg/kg dry	50	02/10/22 20:06	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur) 1,4-Difluorobenzene (Sur)		Recovery	: 122 % 107 %	Limits: 50-150 % 50-150 %		02/10/22 20:06 02/10/22 20:06	NWTPH-Gx (MS) NWTPH-Gx (MS)	
HA-04-Comp-0.0-0.5 0222 (A2B0202-09)			107 70	Matrix: Soil) 1		22B0420	
Gasoline Range Organics	95.0	44.5	88.9	mg/kg dry	50	02/10/22 23:42	NWTPH-Gx (MS)	F-12
Surrogate: 4-Bromofluorobenzene (Sur) 1,4-Difluorobenzene (Sur)	76.0		: 122 % 108 %	Limits: 50-150 % 50-150 %	5 I	02/10/22 23:42 02/10/22 23:42	NWTPH-Gx (MS) NWTPH-Gx (MS)	
HA-04-Comp-0.5-1.0_0222 (A2B0202-10)				Matrix: Soil			22B0420	
Gasoline Range Organics	ND	21.5	43.1	mg/kg dry	50	02/11/22 00:35	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur) 1,4-Difluorobenzene (Sur)		Recovery	: 118 % 107 %	Limits: 50-150 % 50-150 %		02/11/22 00:35 02/11/22 00:35	NWTPH-Gx (MS) NWTPH-Gx (MS)	
HA-04-Comp-1.0-2.0_0222 (A2B0202-11)				Matrix: Soil		Batch:	22B0397	V-16, V-21
Gasoline Range Organics	ND	6.31	12.6	mg/kg dry	50	02/10/22 20:33	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur) 1,4-Difluorobenzene (Sur)		Recovery	123 % 108 %	Limits: 50-150 % 50-150 %		02/10/22 20:33 02/10/22 20:33	NWTPH-Gx (MS) NWTPH-Gx (MS)	
HA-05-Comp-0.0-0.5_0222 (A2B0202-12)				Matrix: Soil		Batch:	22B0420	
Gasoline Range Organics	ND	21.3	42.6	mg/kg dry	50	02/11/22 01:02	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur) 1,4-Difluorobenzene (Sur)		Recovery	123 % 108 %	Limits: 50-150 % 50-150 %		02/11/22 01:02 02/11/22 01:02	NWTPH-Gx (MS) NWTPH-Gx (MS)	
HA-05-Comp-0.5-1.0_0222 (A2B0202-13)				Matrix: Soil		Batch:	22B0420	
Gasoline Range Organics	ND	16.8	33.5	mg/kg dry	50	02/11/22 01:30	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur) 1,4-Difluorobenzene (Sur)		Recovery	2: 125 % 110 %	Limits: 50-150 % 50-150 %		02/11/22 01:30 02/11/22 01:30	NWTPH-Gx (MS) NWTPH-Gx (MS)	
HA-05-Comp-1.0-2.0_0222 (A2B0202-14)				Matrix: Soil		Batch:	22B0397	V-16, V-21
Gasoline Range Organics	ND	6.33	12.7	mg/kg dry	50	02/10/22 21:00	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur) 1,4-Difluorobenzene (Sur)		Recovery	2: 123 % 108 %	Limits: 50-150 % 50-150 %		02/10/22 21:00 02/10/22 21:00	NWTPH-Gx (MS) NWTPH-Gx (MS)	
HA-01-Comp-0.0-0.5 0222 (A2B0202-30)				Matrix: Soil		Batch:	22B0420	

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

<u>GSI Water Solutions</u> 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project Number: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
HA-01-Comp-0.0-0.5_0222 (A2B0202-30)				Matrix: Soil		Batch:	22B0420	
Gasoline Range Organics	ND	9.46	18.9	mg/kg dry	50	02/11/22 01:56	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur) 1,4-Difluorobenzene (Sur)		Recovery): 126 % 110 %	Limits: 50-150 % 50-150 %		02/11/22 01:56 02/11/22 01:56	NWTPH-Gx (MS) NWTPH-Gx (MS)	
HA-02-Comp-0.0-0.5 0222 (A2B0202-31)			110 /0	Matrix: Soil	, 1		22B0420	
Gasoline Range Organics	ND	20.8	41.6	mg/kg dry	50	02/11/22 02:23	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur) 1,4-Difluorobenzene (Sur)		Recovery	7: 126 % 110 %	Limits: 50-150 % 50-150 %		02/11/22 02:23 02/11/22 02:23	NWTPH-Gx (MS) NWTPH-Gx (MS)	
HA-03-Comp-0.0-0.5_0222 (A2B0202-32)				Matrix: Soil		Batch:	22B0420	
Gasoline Range Organics	ND	30.5	61.0	mg/kg dry	50	02/11/22 02:50	NWTPH-Gx (MS)	_
Surrogate: 4-Bromofluorobenzene (Sur) 1,4-Difluorobenzene (Sur)		Recovery): 129 % 111 %	Limits: 50-150 % 50-150 %		02/11/22 02:50 02/11/22 02:50	NWTPH-Gx (MS) NWTPH-Gx (MS)	
EB-02 (A2B0202-34)				Matrix: Wate	er	Batch: 22B0469		
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	02/12/22 11:28	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur) 1,4-Difluorobenzene (Sur)		Recover	ry: 97 % 100 %	Limits: 50-150 % 50-150 %		02/12/22 11:28 02/12/22 11:28	NWTPH-Gx (MS) NWTPH-Gx (MS)	
PZ-01_0222 (A2B0202-35)				Matrix: Water		Batch: 22B0469		
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	02/12/22 11:54	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur) 1,4-Difluorobenzene (Sur)		Recovery	7: 101 % 102 %	Limits: 50-150 % 50-150 %		02/12/22 11:54 02/12/22 11:54	NWTPH-Gx (MS) NWTPH-Gx (MS)	
PZ-02_0222 (A2B0202-36)				Matrix: Wate	er	Batch:	22B0469	
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	02/12/22 12:47	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur) 1,4-Difluorobenzene (Sur)		Recover	ry: 99 % 104 %	Limits: 50-150 % 50-150 %		02/12/22 12:47 02/12/22 12:47	NWTPH-Gx (MS) NWTPH-Gx (MS)	
PZ-102_0222 (A2B0202-37)				Matrix: Wate	er	Batch:	22B0469	
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	02/12/22 13:14	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur) 1,4-Difluorobenzene (Sur)		Recover	ry: 98 % 104 %	Limits: 50-150 % 50-150 %		02/12/22 13:14 02/12/22 13:14	NWTPH-Gx (MS) NWTPH-Gx (MS)	
PZ-03_0222 (A2B0202-38)				Matrix: Wate	er e	Batch:	22B0469	

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project Number: **Eatonville**Project Number: **00171.067**Project Manager: **Josh Bale**

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
PZ-03_0222 (A2B0202-38)				Matrix: Wate	er -	Batch:	: 22B0469	
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	02/12/22 13:40	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur) 1,4-Difluorobenzene (Sur)		Recov	very: 94 % 104 %	Limits: 50-150 % 50-150 %		02/12/22 13:40 02/12/22 13:40	NWTPH-Gx (MS) NWTPH-Gx (MS)	
PZ-04_0222 (A2B0202-39)				Matrix: Wate	er:	Batch:	: 22B0469	
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	02/12/22 14:07	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur) 1,4-Difluorobenzene (Sur)		Recove	ery: 100 % 106 %	Limits: 50-150 % 50-150 %		02/12/22 14:07 02/12/22 14:07	NWTPH-Gx (MS) NWTPH-Gx (MS)	
PZ-05_0222 (A2B0202-40)				Matrix: Wate	er	Batch:	: 22B0469	
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	02/12/22 14:33	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur) 1,4-Difluorobenzene (Sur)		Recov	very: 95 % 105 %	Limits: 50-150 % 50-150 %		02/12/22 14:33 02/12/22 14:33	NWTPH-Gx (MS) NWTPH-Gx (MS)	
SW-09_0222 (A2B0202-41)				Matrix: Wate	er	Batch:	: 22B0469	
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	02/12/22 15:00	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur) 1,4-Difluorobenzene (Sur)		Recove	ery: 100 % 106 %	Limits: 50-150 % 50-150 %		02/12/22 15:00 02/12/22 15:00	NWTPH-Gx (MS) NWTPH-Gx (MS)	
SW-109_0222 (A2B0202-42)				Matrix: Wate	er .	Batch:	: 22B0469	
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	02/12/22 15:26	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur) 1,4-Difluorobenzene (Sur)		Recov	very: 95 % 106 %	Limits: 50-150 % 50-150 %		02/12/22 15:26 02/12/22 15:26	NWTPH-Gx (MS) NWTPH-Gx (MS)	
SW-07_0222 (A2B0202-43)				Matrix: Wate	er:	Batch:	: 22B0469	
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	02/12/22 15:52	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur) 1,4-Difluorobenzene (Sur)		Recove	ery: 101 % 107 %	Limits: 50-150 % 50-150 %		02/12/22 15:52 02/12/22 15:52	NWTPH-Gx (MS) NWTPH-Gx (MS)	
SW-08_0222 (A2B0202-44)				Matrix: Wate	•r	Batch:	: 22B0469	
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	02/12/22 16:19	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur) 1,4-Difluorobenzene (Sur)		Recov	very: 98 % 107 %	Limits: 50-150 % 50-150 %		02/12/22 16:19 02/12/22 16:19	NWTPH-Gx (MS) NWTPH-Gx (MS)	
SW-10_0222 (A2B0202-45)				Matrix: Wate)r	Patah-	: 22B0469	

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project Number: **Eatonville**Project Number: **00171.067**Project Manager: **Josh Bale**

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

Gasoi	ille Kalige ny	drocarbons (B	enzene u	irougii Napiitiia	ilerie) by	NWIFH-GX		
	Sample		Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
SW-10_0222 (A2B0202-45)				Matrix: Wate	r	Batch:	22B0469	
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	02/12/22 16:45	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery:	103 %	Limits: 50-150 %	1	02/12/22 16:45	NWTPH-Gx (MS)	
1,4-Difluorobenzene (Sur)			108 %	50-150 %	1	02/12/22 16:45	NWTPH-Gx (MS)	
SW-11_0222 (A2B0202-46)				Matrix: Wate	er	Batch:	22B0469	
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	02/12/22 17:12	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery:	100 %	Limits: 50-150 %	1	02/12/22 17:12	NWTPH-Gx (MS)	
1,4-Difluorobenzene (Sur)			108 %	50-150 %	1	02/12/22 17:12	NWTPH-Gx (MS)	
SW-12_0222 (A2B0202-47)				Matrix: Water Batch: 22B0469		22B0469		
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	02/12/22 18:05	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery:	102 %	Limits: 50-150 %	1	02/12/22 18:05	NWTPH-Gx (MS)	
1,4-Difluorobenzene (Sur)			110 %	50-150 %	1	02/12/22 18:05	NWTPH-Gx (MS)	
SW-13_0222 (A2B0202-48)				Matrix: Wate	er	Batch:	22B0469	
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	02/12/22 18:31	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery:	105 %	Limits: 50-150 %	1	02/12/22 18:31	NWTPH-Gx (MS)	
1,4-Difluorobenzene (Sur)			110 %	50-150 %	1	02/12/22 18:31	NWTPH-Gx (MS)	
SW-14_0222 (A2B0202-49)				Matrix: Wate	er	Batch:	22B0469	
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	02/12/22 19:51	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)		Recovery:	101 %	Limits: 50-150 %	1	02/12/22 19:51	NWTPH-Gx (MS)	
1,4-Difluorobenzene (Sur)			111 %	50-150 %	1	02/12/22 19:51	NWTPH-Gx (MS)	

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Philip Nevenberg

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Philip Nerenberg, Lab Director

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

		olatile Organ		~ y = 1 A 0				
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PZ-01_0222 (A2B0202-35)				Matrix: Wa	ater	Batch:	22B0469	
Acetone	ND	20.0	20.0	ug/L	1	02/12/22 11:54	EPA 8260D	ICV-02
Acrylonitrile	ND	1.00	2.00	ug/L	1	02/12/22 11:54	EPA 8260D	
Benzene	ND	0.100	0.200	ug/L	1	02/12/22 11:54	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	02/12/22 11:54	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	02/12/22 11:54	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	02/12/22 11:54	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	02/12/22 11:54	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	02/12/22 11:54	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	02/12/22 11:54	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 11:54	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 11:54	EPA 8260D	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 11:54	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	02/12/22 11:54	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	02/12/22 11:54	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 11:54	EPA 8260D	
Chloroethane	ND	5.00	5.00	ug/L	1	02/12/22 11:54	EPA 8260D	
Chloroform	ND	0.500	1.00	ug/L	1	02/12/22 11:54	EPA 8260D	
Chloromethane	ND	2.50	5.00	ug/L	1	02/12/22 11:54	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	02/12/22 11:54	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	02/12/22 11:54	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	02/12/22 11:54	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	02/12/22 11:54	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	02/12/22 11:54	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	02/12/22 11:54	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 11:54	EPA 8260D	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 11:54	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 11:54	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	02/12/22 11:54	EPA 8260D	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	02/12/22 11:54	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	02/12/22 11:54	EPA 8260D	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	02/12/22 11:54	EPA 8260D	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	02/12/22 11:54	EPA 8260D	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L ug/L	1	02/12/22 11:54	EPA 8260D	

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Philip Marenberg

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Philip Nerenberg, Lab Director

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

	V	olatile Organ	ic Compoun	ds by EPA 8	260D			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PZ-01_0222 (A2B0202-35)				Matrix: Wa	ater	Batch:	22B0469	
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	02/12/22 11:54	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	02/12/22 11:54	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	02/12/22 11:54	EPA 8260D	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	02/12/22 11:54	EPA 8260D	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	02/12/22 11:54	EPA 8260D	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	02/12/22 11:54	EPA 8260D	
Ethylbenzene	ND	0.250	0.500	ug/L	1	02/12/22 11:54	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	02/12/22 11:54	EPA 8260D	
2-Hexanone	ND	5.00	10.0	ug/L	1	02/12/22 11:54	EPA 8260D	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 11:54	EPA 8260D	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	02/12/22 11:54	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	02/12/22 11:54	EPA 8260D	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	02/12/22 11:54	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	02/12/22 11:54	EPA 8260D	
Naphthalene	ND	1.00	2.00	ug/L	1	02/12/22 11:54	EPA 8260D	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	02/12/22 11:54	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	02/12/22 11:54	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	02/12/22 11:54	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	02/12/22 11:54	EPA 8260D	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	02/12/22 11:54	EPA 8260D	
Toluene	ND	0.500	1.00	ug/L	1	02/12/22 11:54	EPA 8260D	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	02/12/22 11:54	EPA 8260D	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	02/12/22 11:54	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	02/12/22 11:54	EPA 8260D	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	02/12/22 11:54	EPA 8260D	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	02/12/22 11:54	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	02/12/22 11:54	EPA 8260D	
,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	02/12/22 11:54	EPA 8260D	
,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 11:54	EPA 8260D	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 11:54	EPA 8260D	
Vinyl chloride	ND	0.200	0.400	ug/L	1	02/12/22 11:54	EPA 8260D	
n,p-Xylene	ND	0.500	1.00	ug/L	1	02/12/22 11:54	EPA 8260D	
p-Xylene	ND	0.250	0.500	ug/L	1	02/12/22 11:54	EPA 8260D	

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Philip Nevenberg

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Philip Nerenberg, Lab Director

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project Number: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
PZ-01_0222 (A2B0202-35)				Matrix: Wate	r	Batch: 2	22B0469	
Surrogate: 1,4-Difluorobenzene (Surr)		Recove	ery: 104 %	Limits: 80-120 %	1	02/12/22 11:54	EPA 8260D	
Toluene-d8 (Surr)			97 %	80-120 %	1	02/12/22 11:54	EPA 8260D	
4-Bromofluorobenzene (Surr)			104 %	80-120 %	1	02/12/22 11:54	EPA 8260D	
PZ-02_0222 (A2B0202-36)				Matrix: Wate	r	Batch: 2	22B0469	
Acetone	ND	20.0	20.0	ug/L	1	02/12/22 12:47	EPA 8260D	ICV-02
Acrylonitrile	ND	1.00	2.00	ug/L	1	02/12/22 12:47	EPA 8260D	
Benzene	ND	0.100	0.200	ug/L	1	02/12/22 12:47	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	02/12/22 12:47	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	02/12/22 12:47	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	02/12/22 12:47	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	02/12/22 12:47	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	02/12/22 12:47	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	02/12/22 12:47	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 12:47	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 12:47	EPA 8260D	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 12:47	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	02/12/22 12:47	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	02/12/22 12:47	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 12:47	EPA 8260D	
Chloroethane	ND	5.00	5.00	ug/L	1	02/12/22 12:47	EPA 8260D	
Chloroform	ND	0.500	1.00	ug/L	1	02/12/22 12:47	EPA 8260D	
Chloromethane	ND	2.50	5.00	ug/L	1	02/12/22 12:47	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	02/12/22 12:47	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	02/12/22 12:47	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	02/12/22 12:47	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	02/12/22 12:47	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	02/12/22 12:47	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	02/12/22 12:47	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 12:47	EPA 8260D	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 12:47	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 12:47	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	02/12/22 12:47	EPA 8260D	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	02/12/22 12:47	EPA 8260D	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Philip Neimberg

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project Number: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

		olatile Organ	· ·	us by EPA 0	-00D			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PZ-02_0222 (A2B0202-36)				Matrix: W	ater	Batch: 22B0469		
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	02/12/22 12:47	EPA 8260D	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	02/12/22 12:47	EPA 8260D	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	02/12/22 12:47	EPA 8260D	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	02/12/22 12:47	EPA 8260D	
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	02/12/22 12:47	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	02/12/22 12:47	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	02/12/22 12:47	EPA 8260D	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	02/12/22 12:47	EPA 8260D	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	02/12/22 12:47	EPA 8260D	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	02/12/22 12:47	EPA 8260D	
Ethylbenzene	ND	0.250	0.500	ug/L	1	02/12/22 12:47	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	02/12/22 12:47	EPA 8260D	
2-Hexanone	ND	5.00	10.0	ug/L	1	02/12/22 12:47	EPA 8260D	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 12:47	EPA 8260D	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	02/12/22 12:47	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	02/12/22 12:47	EPA 8260D	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	02/12/22 12:47	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	02/12/22 12:47	EPA 8260D	
Naphthalene	ND	1.00	2.00	ug/L	1	02/12/22 12:47	EPA 8260D	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	02/12/22 12:47	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	02/12/22 12:47	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	02/12/22 12:47	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	02/12/22 12:47	EPA 8260D	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	02/12/22 12:47	EPA 8260D	
Toluene	ND	0.500	1.00	ug/L	1	02/12/22 12:47	EPA 8260D	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	02/12/22 12:47	EPA 8260D	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	02/12/22 12:47	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	02/12/22 12:47	EPA 8260D	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	02/12/22 12:47	EPA 8260D	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	02/12/22 12:47	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	02/12/22 12:47	EPA 8260D	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	02/12/22 12:47	EPA 8260D	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 12:47	EPA 8260D	

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Philip Nevenberg

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Philip Nerenberg, Lab Director



AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

	V	oraciie Organic	compou	nds by EPA 826	טט			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PZ-02_0222 (A2B0202-36)	<u> </u>			Matrix: Wate	r	Batch:	22B0469	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 12:47	EPA 8260D	
Vinyl chloride	ND	0.200	0.400	ug/L	1	02/12/22 12:47	EPA 8260D	
m,p-Xylene	ND	0.500	1.00	ug/L	1	02/12/22 12:47	EPA 8260D	
o-Xylene	ND	0.250	0.500	ug/L	1	02/12/22 12:47	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recover	y: 105 %	Limits: 80-120 %	I	02/12/22 12:47	EPA 8260D	
Toluene-d8 (Surr)			99 %	80-120 %	1	02/12/22 12:47	EPA 8260D	
4-Bromofluorobenzene (Surr)			105 %	80-120 %	1	02/12/22 12:47	EPA 8260D	
PZ-102_0222 (A2B0202-37)		Matrix: Water Batch: 22B0469						
Acetone	ND	20.0	20.0	ug/L	1	02/12/22 13:14	EPA 8260D	ICV-02
Acrylonitrile	ND	1.00	2.00	ug/L	1	02/12/22 13:14	EPA 8260D	
Benzene	ND	0.100	0.200	ug/L	1	02/12/22 13:14	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	02/12/22 13:14	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	02/12/22 13:14	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	02/12/22 13:14	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	02/12/22 13:14	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	02/12/22 13:14	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	02/12/22 13:14	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 13:14	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 13:14	EPA 8260D	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 13:14	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	02/12/22 13:14	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	02/12/22 13:14	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 13:14	EPA 8260D	
Chloroethane	ND	5.00	5.00	ug/L	1	02/12/22 13:14	EPA 8260D	
Chloroform	ND	0.500	1.00	ug/L	1	02/12/22 13:14	EPA 8260D	
Chloromethane	ND	2.50	5.00	ug/L	1	02/12/22 13:14	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	02/12/22 13:14	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	02/12/22 13:14	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	02/12/22 13:14	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	02/12/22 13:14	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	02/12/22 13:14	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	02/12/22 13:14	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 13:14	EPA 8260D	

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Philip Nerenberg, Lab Director

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

	v	olatile Organ	ic Compound	ds by EPA 8	260D			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PZ-102_0222 (A2B0202-37)				Matrix: Wa	ater	Batch:	22B0469	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 13:14	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 13:14	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	02/12/22 13:14	EPA 8260D	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	02/12/22 13:14	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	02/12/22 13:14	EPA 8260D	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	02/12/22 13:14	EPA 8260D	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	02/12/22 13:14	EPA 8260D	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	02/12/22 13:14	EPA 8260D	
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	02/12/22 13:14	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	02/12/22 13:14	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	02/12/22 13:14	EPA 8260D	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	02/12/22 13:14	EPA 8260D	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	02/12/22 13:14	EPA 8260D	
rans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	02/12/22 13:14	EPA 8260D	
Ethylbenzene	ND	0.250	0.500	ug/L	1	02/12/22 13:14	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	02/12/22 13:14	EPA 8260D	
2-Hexanone	ND	5.00	10.0	ug/L	1	02/12/22 13:14	EPA 8260D	
sopropylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 13:14	EPA 8260D	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	02/12/22 13:14	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	02/12/22 13:14	EPA 8260D	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	02/12/22 13:14	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	02/12/22 13:14	EPA 8260D	
Naphthalene	ND	1.00	2.00	ug/L	1	02/12/22 13:14	EPA 8260D	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	02/12/22 13:14	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	02/12/22 13:14	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	02/12/22 13:14	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	02/12/22 13:14	EPA 8260D	
Cetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	02/12/22 13:14	EPA 8260D	
Coluene	ND	0.500	1.00	ug/L	1	02/12/22 13:14	EPA 8260D	
,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	02/12/22 13:14	EPA 8260D	
.2.4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	02/12/22 13:14	EPA 8260D	
.1.1-Trichloroethane	ND	0.200	0.400	ug/L ug/L	1	02/12/22 13:14	EPA 8260D	
,1,2-Trichloroethane	ND	0.250	0.500	ug/L ug/L	1	02/12/22 13:14	EPA 8260D	

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Philip Nerenberg, Lab Director

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

	v	olatile Organi	c Compou	nds by EPA 826	טט			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PZ-102_0222 (A2B0202-37)				Matrix: Wate	er	Batch:	Batch: 22B0469	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	02/12/22 13:14	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	02/12/22 13:14	EPA 8260D	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	02/12/22 13:14	EPA 8260D	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 13:14	EPA 8260D	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 13:14	EPA 8260D	
Vinyl chloride	ND	0.200	0.400	ug/L	1	02/12/22 13:14	EPA 8260D	
m,p-Xylene	ND	0.500	1.00	ug/L	1	02/12/22 13:14	EPA 8260D	
o-Xylene	ND	0.250	0.500	ug/L	1	02/12/22 13:14	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recover	y: 104 %	Limits: 80-120 %	1	02/12/22 13:14	EPA 8260D	
Toluene-d8 (Surr)			99 %	80-120 %	1	02/12/22 13:14	EPA 8260D	
4-Bromofluorobenzene (Surr)			104 %	80-120 %	1	02/12/22 13:14	EPA 8260D	
PZ-03_0222 (A2B0202-38)				Matrix: Water Batch: 22B0469		22B0469		
Acetone	ND	20.0	20.0	ug/L	1	02/12/22 13:40	EPA 8260D	ICV-0
Acrylonitrile	ND	1.00	2.00	ug/L	1	02/12/22 13:40	EPA 8260D	
Benzene	ND	0.100	0.200	ug/L	1	02/12/22 13:40	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	02/12/22 13:40	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	02/12/22 13:40	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	02/12/22 13:40	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	02/12/22 13:40	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	02/12/22 13:40	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	02/12/22 13:40	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 13:40	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 13:40	EPA 8260D	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 13:40	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	02/12/22 13:40	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	02/12/22 13:40	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 13:40	EPA 8260D	
Chloroethane	ND	5.00	5.00	ug/L	1	02/12/22 13:40	EPA 8260D	
Chloroform	ND	0.500	1.00	ug/L	1	02/12/22 13:40	EPA 8260D	
Chloromethane	ND	2.50	5.00	ug/L	1	02/12/22 13:40	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	02/12/22 13:40	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	02/12/22 13:40	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	02/12/22 13:40	EPA 8260D	

Apex Laboratories

Philip Nevenberg

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Philip Nerenberg, Lab Director

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

	V	olatile Organ	ic Compound	ds by EPA 8	260D			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PZ-03_0222 (A2B0202-38)				Matrix: Wa	ater	Batch: 22B0469		
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	02/12/22 13:40	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	02/12/22 13:40	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	02/12/22 13:40	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 13:40	EPA 8260D	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 13:40	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 13:40	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	02/12/22 13:40	EPA 8260D	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	02/12/22 13:40	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	02/12/22 13:40	EPA 8260D	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	02/12/22 13:40	EPA 8260D	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	02/12/22 13:40	EPA 8260D	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	02/12/22 13:40	EPA 8260D	
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	02/12/22 13:40	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	02/12/22 13:40	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	02/12/22 13:40	EPA 8260D	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	02/12/22 13:40	EPA 8260D	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	02/12/22 13:40	EPA 8260D	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	02/12/22 13:40	EPA 8260D	
Ethylbenzene	ND	0.250	0.500	ug/L	1	02/12/22 13:40	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	02/12/22 13:40	EPA 8260D	
2-Hexanone	ND	5.00	10.0	ug/L	1	02/12/22 13:40	EPA 8260D	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 13:40	EPA 8260D	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	02/12/22 13:40	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	02/12/22 13:40	EPA 8260D	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	02/12/22 13:40	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	02/12/22 13:40	EPA 8260D	
Naphthalene	ND	1.00	2.00	ug/L	1	02/12/22 13:40	EPA 8260D	
-Propylbenzene	ND	0.250	0.500	ug/L	1	02/12/22 13:40	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	02/12/22 13:40	EPA 8260D	
,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	02/12/22 13:40	EPA 8260D	
,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	02/12/22 13:40	EPA 8260D	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	02/12/22 13:40	EPA 8260D	
Coluene	0.640	0.500	1.00	ug/L	1	02/12/22 13:40	EPA 8260D	Ja

Apex Laboratories

Philip Marenberg

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director



AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

		olatile Organ	ic Compou	nds by EPA 826	טט			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PZ-03_0222 (A2B0202-38)				Matrix: Wate	r	Batch: 2	22B0469	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	02/12/22 13:40	EPA 8260D	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	02/12/22 13:40	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	02/12/22 13:40	EPA 8260D	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	02/12/22 13:40	EPA 8260D	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	02/12/22 13:40	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	02/12/22 13:40	EPA 8260D	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	02/12/22 13:40	EPA 8260D	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 13:40	EPA 8260D	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 13:40	EPA 8260D	
Vinyl chloride	ND	0.200	0.400	ug/L	1	02/12/22 13:40	EPA 8260D	
m,p-Xylene	ND	0.500	1.00	ug/L	1	02/12/22 13:40	EPA 8260D	
o-Xylene	ND	0.250	0.500	ug/L	1	02/12/22 13:40	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recove	ery: 103 %	Limits: 80-120 %	1	02/12/22 13:40	EPA 8260D	
Toluene-d8 (Surr)			101 %	80-120 %		02/12/22 13:40	EPA 8260D	
4-Bromofluorobenzene (Surr)			107 %	80-120 %	1	02/12/22 13:40	EPA 8260D	
PZ-04_0222 (A2B0202-39)				Matrix: Wate	r	Batch: 2	22B0469	
Acetone	ND	20.0	20.0	ug/L	1	02/12/22 14:07	EPA 8260D	ICV-02
Acrylonitrile	ND	1.00	2.00	ug/L	1	02/12/22 14:07	EPA 8260D	
Benzene	ND	0.100	0.200	ug/L	1	02/12/22 14:07	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	02/12/22 14:07	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	02/12/22 14:07	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	02/12/22 14:07	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	02/12/22 14:07	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	02/12/22 14:07	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	02/12/22 14:07	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 14:07	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 14:07	EPA 8260D	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 14:07	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	02/12/22 14:07	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	02/12/22 14:07	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 14:07	EPA 8260D	
Chloroethane	ND	5.00	5.00	ug/L	1	02/12/22 14:07	EPA 8260D	
Chloroform	ND	0.500	1.00	ug/L	1	02/12/22 14:07	EPA 8260D	

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Philip Nevenberg

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Philip Nerenberg, Lab Director

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

	V	olatile Organ	ic Compound	ds by EPA 8	260D			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PZ-04_0222 (A2B0202-39)			Matrix: Water Batch: 22B0469				22B0469	
Chloromethane	ND	2.50	5.00	ug/L	1	02/12/22 14:07	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	02/12/22 14:07	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	02/12/22 14:07	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	02/12/22 14:07	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	02/12/22 14:07	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	02/12/22 14:07	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	02/12/22 14:07	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 14:07	EPA 8260D	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 14:07	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 14:07	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	02/12/22 14:07	EPA 8260D	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	02/12/22 14:07	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	02/12/22 14:07	EPA 8260D	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	02/12/22 14:07	EPA 8260D	
eis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	02/12/22 14:07	EPA 8260D	
rans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	02/12/22 14:07	EPA 8260D	
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	02/12/22 14:07	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	02/12/22 14:07	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	02/12/22 14:07	EPA 8260D	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	02/12/22 14:07	EPA 8260D	
eis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	02/12/22 14:07	EPA 8260D	
rans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	02/12/22 14:07	EPA 8260D	
Ethylbenzene	ND	0.250	0.500	ug/L	1	02/12/22 14:07	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	02/12/22 14:07	EPA 8260D	
2-Hexanone	ND	5.00	10.0	ug/L	1	02/12/22 14:07	EPA 8260D	
sopropylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 14:07	EPA 8260D	
l-Isopropyltoluene	ND	0.500	1.00	ug/L	1	02/12/22 14:07	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	02/12/22 14:07	EPA 8260D	
-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	02/12/22 14:07	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	02/12/22 14:07	EPA 8260D	
Naphthalene	ND	1.00	2.00	ug/L	1	02/12/22 14:07	EPA 8260D	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	02/12/22 14:07	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	02/12/22 14:07	EPA 8260D	

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Philip Nerenberg, Lab Director

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

	V	olatile Organic	Compou	nds by EPA 826	0D			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PZ-04_0222 (A2B0202-39)				Matrix: Wate	er	Batch:	22B0469	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	02/12/22 14:07	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	02/12/22 14:07	EPA 8260D	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	02/12/22 14:07	EPA 8260D	
Toluene	ND	0.500	1.00	ug/L	1	02/12/22 14:07	EPA 8260D	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	02/12/22 14:07	EPA 8260D	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	02/12/22 14:07	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	02/12/22 14:07	EPA 8260D	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	02/12/22 14:07	EPA 8260D	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	02/12/22 14:07	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	02/12/22 14:07	EPA 8260D	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	02/12/22 14:07	EPA 8260D	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 14:07	EPA 8260D	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 14:07	EPA 8260D	
Vinyl chloride	ND	0.200	0.400	ug/L	1	02/12/22 14:07	EPA 8260D	
m,p-Xylene	ND	0.500	1.00	ug/L	1	02/12/22 14:07	EPA 8260D	
o-Xylene	ND	0.250	0.500	ug/L	1	02/12/22 14:07	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery.	: 104 %	Limits: 80-120 %	1	02/12/22 14:07	EPA 8260D	
Toluene-d8 (Surr)			100 %	80-120 %		02/12/22 14:07	EPA 8260D	
4-Bromofluorobenzene (Surr)			106 %	80-120 %	I	02/12/22 14:07	EPA 8260D	
PZ-05_0222 (A2B0202-40)				Matrix: Wate	er	Batch:	22B0469	
Acetone	ND	20.0	20.0	ug/L	1	02/12/22 14:33	EPA 8260D	ICV-02
Acrylonitrile	ND	1.00	2.00	ug/L	1	02/12/22 14:33	EPA 8260D	
Benzene	ND	0.100	0.200	ug/L	1	02/12/22 14:33	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	02/12/22 14:33	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	02/12/22 14:33	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	02/12/22 14:33	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	02/12/22 14:33	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	02/12/22 14:33	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	02/12/22 14:33	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 14:33	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 14:33	EPA 8260D	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 14:33	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	02/12/22 14:33	EPA 8260D	
				-				

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Philip Nerenberg, Lab Director

Philip Nevenberg

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

			ic Compound	,		D :		
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PZ-05_0222 (A2B0202-40)		<u> </u>	<u> </u>	Matrix: W	ater	Batch:	22B0469	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	02/12/22 14:33	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 14:33	EPA 8260D	
Chloroethane	ND	5.00	5.00	ug/L	1	02/12/22 14:33	EPA 8260D	
Chloroform	ND	0.500	1.00	ug/L	1	02/12/22 14:33	EPA 8260D	
Chloromethane	ND	2.50	5.00	ug/L	1	02/12/22 14:33	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	02/12/22 14:33	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	02/12/22 14:33	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	02/12/22 14:33	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	02/12/22 14:33	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	02/12/22 14:33	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	02/12/22 14:33	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 14:33	EPA 8260D	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 14:33	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 14:33	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	02/12/22 14:33	EPA 8260D	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	02/12/22 14:33	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	02/12/22 14:33	EPA 8260D	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	02/12/22 14:33	EPA 8260D	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	02/12/22 14:33	EPA 8260D	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	02/12/22 14:33	EPA 8260D	
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	02/12/22 14:33	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	02/12/22 14:33	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	02/12/22 14:33	EPA 8260D	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	02/12/22 14:33	EPA 8260D	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	02/12/22 14:33	EPA 8260D	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	02/12/22 14:33	EPA 8260D	
Ethylbenzene	ND	0.250	0.500	ug/L	1	02/12/22 14:33	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	02/12/22 14:33	EPA 8260D	
2-Hexanone	ND	5.00	10.0	ug/L	1	02/12/22 14:33	EPA 8260D	
sopropylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 14:33	EPA 8260D	
1-Isopropyltoluene	ND	0.500	1.00	ug/L	1	02/12/22 14:33	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	02/12/22 14:33	EPA 8260D	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	02/12/22 14:33	EPA 8260D	

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Philip Marenberg

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Philip Nerenberg, Lab Director

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

	V	olatile Organ	ic Compou	nds by EPA 826	0D			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PZ-05_0222 (A2B0202-40)				Matrix: Wate	r	Batch: 2	22B0469	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	02/12/22 14:33	EPA 8260D	
Naphthalene	ND	1.00	2.00	ug/L	1	02/12/22 14:33	EPA 8260D	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	02/12/22 14:33	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	02/12/22 14:33	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	02/12/22 14:33	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	02/12/22 14:33	EPA 8260D	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	02/12/22 14:33	EPA 8260D	
Toluene	ND	0.500	1.00	ug/L	1	02/12/22 14:33	EPA 8260D	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	02/12/22 14:33	EPA 8260D	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	02/12/22 14:33	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	02/12/22 14:33	EPA 8260D	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	02/12/22 14:33	EPA 8260D	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	02/12/22 14:33	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	02/12/22 14:33	EPA 8260D	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	02/12/22 14:33	EPA 8260D	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 14:33	EPA 8260D	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 14:33	EPA 8260D	
Vinyl chloride	ND	0.200	0.400	ug/L	1	02/12/22 14:33	EPA 8260D	
m,p-Xylene	ND	0.500	1.00	ug/L	1	02/12/22 14:33	EPA 8260D	
o-Xylene	ND	0.250	0.500	ug/L	1	02/12/22 14:33	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recov	ery: 103 %	Limits: 80-120 %	I	02/12/22 14:33	EPA 8260D	
Toluene-d8 (Surr)			102 %	80-120 %	1	02/12/22 14:33	EPA 8260D	
4-Bromofluorobenzene (Surr)			107 %	80-120 %	I	02/12/22 14:33	EPA 8260D	
SW-09_0222 (A2B0202-41)				Matrix: Wate	r	Batch: 2	22B0469	
Acetone	ND	20.0	20.0	ug/L	1	02/12/22 15:00	EPA 8260D	ICV-02
Acrylonitrile	ND	1.00	2.00	ug/L	1	02/12/22 15:00	EPA 8260D	
Benzene	ND	0.100	0.200	ug/L	1	02/12/22 15:00	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	02/12/22 15:00	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	02/12/22 15:00	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	02/12/22 15:00	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	02/12/22 15:00	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	02/12/22 15:00	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	02/12/22 15:00	EPA 8260D	

Apex Laboratories

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Philip Nerenberg, Lab Director

Philip Nevenberg

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

	Vi	olatile Organ	ic Compound	as by EPA 8.	2000			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
-	Result							
SW-09_0222 (A2B0202-41)				Matrix: Wa	ater	Batch:	22B0469	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 15:00	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 15:00	EPA 8260D	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 15:00	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	02/12/22 15:00	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	02/12/22 15:00	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 15:00	EPA 8260D	
Chloroethane	ND	5.00	5.00	ug/L	1	02/12/22 15:00	EPA 8260D	
Chloroform	ND	0.500	1.00	ug/L	1	02/12/22 15:00	EPA 8260D	
Chloromethane	ND	2.50	5.00	ug/L	1	02/12/22 15:00	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	02/12/22 15:00	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	02/12/22 15:00	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	02/12/22 15:00	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	02/12/22 15:00	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	02/12/22 15:00	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	02/12/22 15:00	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 15:00	EPA 8260D	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 15:00	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 15:00	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	02/12/22 15:00	EPA 8260D	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	02/12/22 15:00	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	02/12/22 15:00	EPA 8260D	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	02/12/22 15:00	EPA 8260D	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	02/12/22 15:00	EPA 8260D	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	02/12/22 15:00	EPA 8260D	
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	02/12/22 15:00	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	02/12/22 15:00	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	02/12/22 15:00	EPA 8260D	
,1-Dichloropropene	ND	0.500	1.00	ug/L	1	02/12/22 15:00	EPA 8260D	
sis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	02/12/22 15:00	EPA 8260D	
rans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	02/12/22 15:00	EPA 8260D	
Ethylbenzene	ND	0.250	0.500	ug/L	1	02/12/22 15:00	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	02/12/22 15:00	EPA 8260D	
-Hexanone	ND	5.00	10.0	ug/L	1	02/12/22 15:00	EPA 8260D	

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Philip Marenberg

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Philip Nerenberg, Lab Director

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

				nds by EPA 826		Data		
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-09_0222 (A2B0202-41)				Matrix: Wate	<u>r</u>	Batch:	22B0469	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 15:00	EPA 8260D	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	02/12/22 15:00	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	02/12/22 15:00	EPA 8260D	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	02/12/22 15:00	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	02/12/22 15:00	EPA 8260D	
Naphthalene	ND	1.00	2.00	ug/L	1	02/12/22 15:00	EPA 8260D	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	02/12/22 15:00	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	02/12/22 15:00	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	02/12/22 15:00	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	02/12/22 15:00	EPA 8260D	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	02/12/22 15:00	EPA 8260D	
Toluene	ND	0.500	1.00	ug/L	1	02/12/22 15:00	EPA 8260D	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	02/12/22 15:00	EPA 8260D	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	02/12/22 15:00	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	02/12/22 15:00	EPA 8260D	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	02/12/22 15:00	EPA 8260D	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	02/12/22 15:00	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	02/12/22 15:00	EPA 8260D	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	02/12/22 15:00	EPA 8260D	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 15:00	EPA 8260D	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 15:00	EPA 8260D	
Vinyl chloride	ND	0.200	0.400	ug/L	1	02/12/22 15:00	EPA 8260D	
m,p-Xylene	ND	0.500	1.00	ug/L	1	02/12/22 15:00	EPA 8260D	
o-Xylene	ND	0.250	0.500	ug/L	1	02/12/22 15:00	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery.	: 105 %	Limits: 80-120 %	I	02/12/22 15:00	EPA 8260D	
Toluene-d8 (Surr)			100 %	80-120 %		02/12/22 15:00	EPA 8260D	
4-Bromofluorobenzene (Surr)			104 %	80-120 %	1	02/12/22 15:00	EPA 8260D	
SW-109_0222 (A2B0202-42)				Matrix: Wate	rix: Water Batch: 22B0469			
Acetone	ND	20.0	20.0	ug/L	1	02/12/22 15:26	EPA 8260D	ICV-0
Acrylonitrile	ND	1.00	2.00	ug/L	1	02/12/22 15:26	EPA 8260D	
Benzene	ND	0.100	0.200	ug/L	1	02/12/22 15:26	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	02/12/22 15:26	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	02/12/22 15:26	EPA 8260D	

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Philip Nerenberg, Lab Director

Philip Marenberg

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

	V	olatile Organ	ic Compound	ds by EPA 8	260D			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-109_0222 (A2B0202-42)				Matrix: Wa	ater	Batch:	22B0469	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	02/12/22 15:26	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	02/12/22 15:26	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	02/12/22 15:26	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	02/12/22 15:26	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 15:26	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 15:26	EPA 8260D	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 15:26	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	02/12/22 15:26	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	02/12/22 15:26	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 15:26	EPA 8260D	
Chloroethane	ND	5.00	5.00	ug/L	1	02/12/22 15:26	EPA 8260D	
Chloroform	ND	0.500	1.00	ug/L	1	02/12/22 15:26	EPA 8260D	
Chloromethane	ND	2.50	5.00	ug/L	1	02/12/22 15:26	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	02/12/22 15:26	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	02/12/22 15:26	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	02/12/22 15:26	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	02/12/22 15:26	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	02/12/22 15:26	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	02/12/22 15:26	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 15:26	EPA 8260D	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 15:26	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 15:26	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	02/12/22 15:26	EPA 8260D	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	02/12/22 15:26	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	02/12/22 15:26	EPA 8260D	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	02/12/22 15:26	EPA 8260D	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	02/12/22 15:26	EPA 8260D	
rans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	02/12/22 15:26	EPA 8260D	
,2-Dichloropropane	ND	0.250	0.500	ug/L	1	02/12/22 15:26	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	02/12/22 15:26	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	02/12/22 15:26	EPA 8260D	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	02/12/22 15:26	EPA 8260D	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	02/12/22 15:26	EPA 8260D	

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Philip Nerenberg, Lab Director

Philip Marenberg

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project Number: **Eatonville**Project Number: **00171.067**Project Manager: **Josh Bale**

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

	v	Jiudie Organic	Joinpou	nds by EPA 826	7 D			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Note
SW-109_0222 (A2B0202-42)				Matrix: Wate	r	Batch:	22B0469	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	02/12/22 15:26	EPA 8260D	
Ethylbenzene	ND	0.250	0.500	ug/L	1	02/12/22 15:26	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	02/12/22 15:26	EPA 8260D	
2-Hexanone	ND	5.00	10.0	ug/L	1	02/12/22 15:26	EPA 8260D	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 15:26	EPA 8260D	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	02/12/22 15:26	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	02/12/22 15:26	EPA 8260D	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	02/12/22 15:26	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	02/12/22 15:26	EPA 8260D	
Naphthalene	ND	1.00	2.00	ug/L	1	02/12/22 15:26	EPA 8260D	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	02/12/22 15:26	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	02/12/22 15:26	EPA 8260D	
1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	02/12/22 15:26	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	02/12/22 15:26	EPA 8260D	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	02/12/22 15:26	EPA 8260D	
Toluene	ND	0.500	1.00	ug/L	1	02/12/22 15:26	EPA 8260D	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	02/12/22 15:26	EPA 8260D	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	02/12/22 15:26	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	02/12/22 15:26	EPA 8260D	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	02/12/22 15:26	EPA 8260D	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	02/12/22 15:26	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	02/12/22 15:26	EPA 8260D	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	02/12/22 15:26	EPA 8260D	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 15:26	EPA 8260D	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 15:26	EPA 8260D	
Vinyl chloride	ND	0.200	0.400	ug/L	1	02/12/22 15:26	EPA 8260D	
m,p-Xylene	ND	0.500	1.00	ug/L	1	02/12/22 15:26	EPA 8260D	
o-Xylene	ND	0.250	0.500	ug/L	1	02/12/22 15:26	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery	: 104 %	Limits: 80-120 %	1	02/12/22 15:26	EPA 8260D	
Toluene-d8 (Surr)			101 %	80-120 %	1	02/12/22 15:26	EPA 8260D	
4-Bromofluorobenzene (Surr)			106 %	80-120 %	1	02/12/22 15:26	EPA 8260D	
SW-07_0222 (A2B0202-43)				Matrix: Wate	er	Batch:	22B0469	
Acetone	ND	20.0	20.0	ug/L	1	02/12/22 15:52	EPA 8260D	ICV-
				0				

Apex Laboratories

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Philip Nerenberg, Lab Director

Philip Nevenberg

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

	V	olatile Organ	ic Compound	as by EPA 8	260D			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-07_0222 (A2B0202-43)				Matrix: Wa	ater	Batch: 22B0469		
Acrylonitrile	ND	1.00	2.00	ug/L	1	02/12/22 15:52	EPA 8260D	
Benzene	ND	0.100	0.200	ug/L	1	02/12/22 15:52	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	02/12/22 15:52	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	02/12/22 15:52	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	02/12/22 15:52	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	02/12/22 15:52	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	02/12/22 15:52	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	02/12/22 15:52	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 15:52	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 15:52	EPA 8260D	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 15:52	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	02/12/22 15:52	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	02/12/22 15:52	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 15:52	EPA 8260D	
Chloroethane	ND	5.00	5.00	ug/L	1	02/12/22 15:52	EPA 8260D	
Chloroform	ND	0.500	1.00	ug/L	1	02/12/22 15:52	EPA 8260D	
Chloromethane	ND	2.50	5.00	ug/L	1	02/12/22 15:52	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	02/12/22 15:52	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	02/12/22 15:52	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	02/12/22 15:52	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	02/12/22 15:52	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	02/12/22 15:52	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	02/12/22 15:52	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 15:52	EPA 8260D	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 15:52	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 15:52	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	02/12/22 15:52	EPA 8260D	
,1-Dichloroethane	ND	0.200	0.400	ug/L	1	02/12/22 15:52	EPA 8260D	
,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	02/12/22 15:52	EPA 8260D	
,1-Dichloroethene	ND	0.200	0.400	ug/L	1	02/12/22 15:52	EPA 8260D	
is-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	02/12/22 15:52	EPA 8260D	
rans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	02/12/22 15:52	EPA 8260D	
,2-Dichloropropane	ND	0.250	0.500	ug/L	1	02/12/22 15:52	EPA 8260D	

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The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project Number: **Eatonville**Project Number: **00171.067**Project Manager: **Josh Bale**

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
SW-07_0222 (A2B0202-43)				Matrix: Wate	er	Batch: 2	22B0469	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	02/12/22 15:52	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	02/12/22 15:52	EPA 8260D	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	02/12/22 15:52	EPA 8260D	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	02/12/22 15:52	EPA 8260D	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	02/12/22 15:52	EPA 8260D	
Ethylbenzene	ND	0.250	0.500	ug/L	1	02/12/22 15:52	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	02/12/22 15:52	EPA 8260D	
2-Hexanone	ND	5.00	10.0	ug/L	1	02/12/22 15:52	EPA 8260D	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 15:52	EPA 8260D	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	02/12/22 15:52	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	02/12/22 15:52	EPA 8260D	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	02/12/22 15:52	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	02/12/22 15:52	EPA 8260D	
Naphthalene	ND	1.00	2.00	ug/L	1	02/12/22 15:52	EPA 8260D	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	02/12/22 15:52	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	02/12/22 15:52	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	02/12/22 15:52	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	02/12/22 15:52	EPA 8260D	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	02/12/22 15:52	EPA 8260D	
Toluene	ND	0.500	1.00	ug/L	1	02/12/22 15:52	EPA 8260D	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	02/12/22 15:52	EPA 8260D	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	02/12/22 15:52	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	02/12/22 15:52	EPA 8260D	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	02/12/22 15:52	EPA 8260D	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	02/12/22 15:52	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	02/12/22 15:52	EPA 8260D	
,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	02/12/22 15:52	EPA 8260D	
,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 15:52	EPA 8260D	
,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 15:52	EPA 8260D	
/inyl chloride	ND	0.200	0.400	ug/L	1	02/12/22 15:52	EPA 8260D	
n,p-Xylene	ND	0.500	1.00	ug/L	1	02/12/22 15:52	EPA 8260D	
-Xylene	ND	0.250	0.500	ug/L	1	02/12/22 15:52	EPA 8260D	

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Philip Manherg

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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Philip Nerenberg, Lab Director



AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

			-	nds by EPA 826				
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-07_0222 (A2B0202-43)				Matrix: Water		Batch: 22B0469		
Surrogate: Toluene-d8 (Surr) 4-Bromofluorobenzene (Surr)		Reco	very: 99 % 104 %	Limits: 80-120 % 80-120 %	1 1	02/12/22 15:52 02/12/22 15:52	EPA 8260D EPA 8260D	
SW-08_0222 (A2B0202-44)			Matrix: Water		r	Batch: 2	22B0469	
Acetone	ND	20.0	20.0	ug/L	1	02/12/22 16:19	EPA 8260D	ICV-02
Acrylonitrile	ND	1.00	2.00	ug/L	1	02/12/22 16:19	EPA 8260D	
Benzene	ND	0.100	0.200	ug/L	1	02/12/22 16:19	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	02/12/22 16:19	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	02/12/22 16:19	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	02/12/22 16:19	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	02/12/22 16:19	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	02/12/22 16:19	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	02/12/22 16:19	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 16:19	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 16:19	EPA 8260D	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 16:19	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	02/12/22 16:19	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	02/12/22 16:19	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 16:19	EPA 8260D	
Chloroethane	ND	5.00	5.00	ug/L	1	02/12/22 16:19	EPA 8260D	
Chloroform	ND	0.500	1.00	ug/L	1	02/12/22 16:19	EPA 8260D	
Chloromethane	ND	2.50	5.00	ug/L	1	02/12/22 16:19	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	02/12/22 16:19	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	02/12/22 16:19	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	02/12/22 16:19	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	02/12/22 16:19	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	02/12/22 16:19	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	02/12/22 16:19	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 16:19	EPA 8260D	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 16:19	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 16:19	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	02/12/22 16:19	EPA 8260D	
1.1-Dichloroethane	ND	0.200	0.400	ug/L	1	02/12/22 16:19	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	02/12/22 16:19	EPA 8260D	

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Philip Nerenberg, Lab Director



AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

	V	olatile Organ	ic Compound	ds by EPA 8	260D			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-08_0222 (A2B0202-44)				Matrix: Wa	ater	Batch: 22B0469		
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	02/12/22 16:19	EPA 8260D	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	02/12/22 16:19	EPA 8260D	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	02/12/22 16:19	EPA 8260D	
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	02/12/22 16:19	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	02/12/22 16:19	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	02/12/22 16:19	EPA 8260D	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	02/12/22 16:19	EPA 8260D	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	02/12/22 16:19	EPA 8260D	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	02/12/22 16:19	EPA 8260D	
Ethylbenzene	ND	0.250	0.500	ug/L	1	02/12/22 16:19	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	02/12/22 16:19	EPA 8260D	
2-Hexanone	ND	5.00	10.0	ug/L	1	02/12/22 16:19	EPA 8260D	
sopropylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 16:19	EPA 8260D	
1-Isopropyltoluene	ND	0.500	1.00	ug/L	1	02/12/22 16:19	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	02/12/22 16:19	EPA 8260D	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	02/12/22 16:19	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	02/12/22 16:19	EPA 8260D	
Naphthalene	ND	1.00	2.00	ug/L	1	02/12/22 16:19	EPA 8260D	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	02/12/22 16:19	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	02/12/22 16:19	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	02/12/22 16:19	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	02/12/22 16:19	EPA 8260D	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	02/12/22 16:19	EPA 8260D	
Toluene	ND	0.500	1.00	ug/L	1	02/12/22 16:19	EPA 8260D	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	02/12/22 16:19	EPA 8260D	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	02/12/22 16:19	EPA 8260D	
,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	02/12/22 16:19	EPA 8260D	
,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	02/12/22 16:19	EPA 8260D	
richloroethene (TCE)	ND	0.200	0.400	ug/L	1	02/12/22 16:19	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	02/12/22 16:19	EPA 8260D	
,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	02/12/22 16:19	EPA 8260D	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 16:19	EPA 8260D	
,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 16:19	EPA 8260D	

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Philip Nerenberg, Lab Director

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

	v	olatile Organic	compou	nds by EPA 826	טט			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-08_0222 (A2B0202-44)				Matrix: Wate	r	Batch:	22B0469	
Vinyl chloride	ND	0.200	0.400	ug/L	1	02/12/22 16:19	EPA 8260D	
m,p-Xylene	ND	0.500	1.00	ug/L	1	02/12/22 16:19	EPA 8260D	
o-Xylene	ND	0.250	0.500	ug/L	1	02/12/22 16:19	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery	: 105 %	Limits: 80-120 %	1	02/12/22 16:19	EPA 8260D	
Toluene-d8 (Surr)			101 %	80-120 %	1	02/12/22 16:19	EPA 8260D	
4-Bromofluorobenzene (Surr)			107 %	80-120 %	1	02/12/22 16:19	EPA 8260D	
SW-10_0222 (A2B0202-45)				Matrix: Wate	r	Batch: 2	22B0469	
Acetone	ND	20.0	20.0	ug/L	1	02/12/22 16:45	EPA 8260D	ICV-02
Acrylonitrile	ND	1.00	2.00	ug/L	1	02/12/22 16:45	EPA 8260D	
Benzene	ND	0.100	0.200	ug/L	1	02/12/22 16:45	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	02/12/22 16:45	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	02/12/22 16:45	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	02/12/22 16:45	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	02/12/22 16:45	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	02/12/22 16:45	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	02/12/22 16:45	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 16:45	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 16:45	EPA 8260D	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 16:45	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	02/12/22 16:45	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	02/12/22 16:45	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 16:45	EPA 8260D	
Chloroethane	ND	5.00	5.00	ug/L	1	02/12/22 16:45	EPA 8260D	
Chloroform	ND	0.500	1.00	ug/L	1	02/12/22 16:45	EPA 8260D	
Chloromethane	ND	2.50	5.00	ug/L	1	02/12/22 16:45	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	02/12/22 16:45	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	02/12/22 16:45	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	02/12/22 16:45	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	02/12/22 16:45	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	02/12/22 16:45	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	02/12/22 16:45	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 16:45	EPA 8260D	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 16:45	EPA 8260D	

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Philip Nerenberg, Lab Director

Philip Monterg

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

	V	olatile Organ	ic Compound	ds by EPA 8	260D			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-10_0222 (A2B0202-45)				Matrix: Wa	ater	Batch:	22B0469	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 16:45	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	02/12/22 16:45	EPA 8260D	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	02/12/22 16:45	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	0.400	0.400	ug/L	1	02/12/22 16:45	EPA 8260D	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	02/12/22 16:45	EPA 8260D	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	02/12/22 16:45	EPA 8260D	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	02/12/22 16:45	EPA 8260D	
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	02/12/22 16:45	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	02/12/22 16:45	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	02/12/22 16:45	EPA 8260D	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	02/12/22 16:45	EPA 8260D	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	02/12/22 16:45	EPA 8260D	
rans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	02/12/22 16:45	EPA 8260D	
Ethylbenzene	ND	0.250	0.500	ug/L	1	02/12/22 16:45	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	02/12/22 16:45	EPA 8260D	
2-Hexanone	ND	5.00	10.0	ug/L	1	02/12/22 16:45	EPA 8260D	
sopropylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 16:45	EPA 8260D	
l-Isopropyltoluene	ND	0.500	1.00	ug/L	1	02/12/22 16:45	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	02/12/22 16:45	EPA 8260D	
1-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	02/12/22 16:45	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	02/12/22 16:45	EPA 8260D	
Naphthalene	ND	1.00	2.00	ug/L	1	02/12/22 16:45	EPA 8260D	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	02/12/22 16:45	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	02/12/22 16:45	EPA 8260D	
1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	02/12/22 16:45	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	02/12/22 16:45	EPA 8260D	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	02/12/22 16:45	EPA 8260D	
Coluene	ND	0.500	1.00	ug/L	1	02/12/22 16:45	EPA 8260D	
,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	02/12/22 16:45	EPA 8260D	
,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	02/12/22 16:45	EPA 8260D	
,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	02/12/22 16:45	EPA 8260D	
,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	02/12/22 16:45	EPA 8260D	
Crichloroethene (TCE)	ND	0.200	0.400	ug/L	1	02/12/22 16:45	EPA 8260D	

Apex Laboratories

Philip Marenberg

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

	V	olatile Organ	ic Compou	nds by EPA 826	טט			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-10_0222 (A2B0202-45)				Matrix: Wate	r	Batch:	22B0469	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	02/12/22 16:45	EPA 8260D	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	02/12/22 16:45	EPA 8260D	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 16:45	EPA 8260D	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 16:45	EPA 8260D	
Vinyl chloride	ND	0.200	0.400	ug/L	1	02/12/22 16:45	EPA 8260D	
m,p-Xylene	ND	0.500	1.00	ug/L	1	02/12/22 16:45	EPA 8260D	
o-Xylene	ND	0.250	0.500	ug/L	1	02/12/22 16:45	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recove	ery: 104 %	Limits: 80-120 %	1	02/12/22 16:45	EPA 8260D	
Toluene-d8 (Surr)			100 %	80-120 %	1	02/12/22 16:45	EPA 8260D	
4-Bromofluorobenzene (Surr)			103 %	80-120 %	1	02/12/22 16:45	EPA 8260D	
SW-11_0222 (A2B0202-46)	Matrix: Water Batch: 22B0469					22B0469		
Acetone	ND	20.0	20.0	ug/L	1	02/12/22 17:12	EPA 8260D	ICV-02
Acrylonitrile	ND	1.00	2.00	ug/L	1	02/12/22 17:12	EPA 8260D	
Benzene	ND	0.100	0.200	ug/L	1	02/12/22 17:12	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	02/12/22 17:12	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	02/12/22 17:12	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	02/12/22 17:12	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	02/12/22 17:12	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	02/12/22 17:12	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	02/12/22 17:12	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 17:12	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 17:12	EPA 8260D	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 17:12	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	02/12/22 17:12	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	02/12/22 17:12	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 17:12	EPA 8260D	
Chloroethane	ND	5.00	5.00	ug/L	1	02/12/22 17:12	EPA 8260D	
Chloroform	ND	0.500	1.00	ug/L	1	02/12/22 17:12	EPA 8260D	
Chloromethane	ND	2.50	5.00	ug/L	1	02/12/22 17:12	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	02/12/22 17:12	EPA 8260D	
1-Chlorotoluene	ND	0.500	1.00	ug/L	1	02/12/22 17:12	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	02/12/22 17:12	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	02/12/22 17:12	EPA 8260D	

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Philip Nerenberg, Lab Director

Philip Nevenberg

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project Number: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

		olatile Organ	•	Jy Li'A 0				
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Note
SW-11_0222 (A2B0202-46)				Matrix: W	ater	Batch: 22B0469		
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	02/12/22 17:12	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	02/12/22 17:12	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 17:12	EPA 8260D	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 17:12	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 17:12	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	02/12/22 17:12	EPA 8260D	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	02/12/22 17:12	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	02/12/22 17:12	EPA 8260D	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	02/12/22 17:12	EPA 8260D	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	02/12/22 17:12	EPA 8260D	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	02/12/22 17:12	EPA 8260D	
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	02/12/22 17:12	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	02/12/22 17:12	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	02/12/22 17:12	EPA 8260D	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	02/12/22 17:12	EPA 8260D	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	02/12/22 17:12	EPA 8260D	
rans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	02/12/22 17:12	EPA 8260D	
Ethylbenzene	ND	0.250	0.500	ug/L	1	02/12/22 17:12	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	02/12/22 17:12	EPA 8260D	
2-Hexanone	ND	5.00	10.0	ug/L	1	02/12/22 17:12	EPA 8260D	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 17:12	EPA 8260D	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	02/12/22 17:12	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	02/12/22 17:12	EPA 8260D	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	02/12/22 17:12	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	02/12/22 17:12	EPA 8260D	
Naphthalene	ND	1.00	2.00	ug/L	1	02/12/22 17:12	EPA 8260D	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	02/12/22 17:12	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	02/12/22 17:12	EPA 8260D	
,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	02/12/22 17:12	EPA 8260D	
,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	02/12/22 17:12	EPA 8260D	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	02/12/22 17:12	EPA 8260D	
Toluene	ND	0.500	1.00	ug/L	1	02/12/22 17:12	EPA 8260D	
,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	02/12/22 17:12	EPA 8260D	

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Philip Nevenberg

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Philip Nerenberg, Lab Director

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

	V	olatile Organic	compou	nds by EPA 826	טט			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-11_0222 (A2B0202-46)				Matrix: Wate	r	Batch:	22B0469	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	02/12/22 17:12	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	02/12/22 17:12	EPA 8260D	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	02/12/22 17:12	EPA 8260D	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	02/12/22 17:12	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	02/12/22 17:12	EPA 8260D	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	02/12/22 17:12	EPA 8260D	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 17:12	EPA 8260D	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 17:12	EPA 8260D	
Vinyl chloride	ND	0.200	0.400	ug/L	1	02/12/22 17:12	EPA 8260D	
m,p-Xylene	ND	0.500	1.00	ug/L	1	02/12/22 17:12	EPA 8260D	
o-Xylene	ND	0.250	0.500	ug/L	1	02/12/22 17:12	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery	: 105 %	Limits: 80-120 %	I	02/12/22 17:12	EPA 8260D	
Toluene-d8 (Surr)		•	102 %	80-120 %	1	02/12/22 17:12	EPA 8260D	
4-Bromofluorobenzene (Surr)			106 %	80-120 %	1	02/12/22 17:12	EPA 8260D	
SW-12_0222 (A2B0202-47)				Matrix: Wate	r	Batch: 2	22B0469	
Acetone	ND	20.0	20.0	ug/L	1	02/12/22 18:05	EPA 8260D	ICV-02
Acrylonitrile	ND	1.00	2.00	ug/L	1	02/12/22 18:05	EPA 8260D	
Benzene	ND	0.100	0.200	ug/L	1	02/12/22 18:05	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	02/12/22 18:05	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	02/12/22 18:05	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	02/12/22 18:05	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	02/12/22 18:05	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	02/12/22 18:05	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	02/12/22 18:05	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 18:05	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 18:05	EPA 8260D	
ert-Butylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 18:05	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	02/12/22 18:05	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	02/12/22 18:05	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 18:05	EPA 8260D	
Chloroethane	ND	5.00	5.00	ug/L	1	02/12/22 18:05	EPA 8260D	
Chloroform	ND	0.500	1.00	ug/L	1	02/12/22 18:05	EPA 8260D	
	ND	0.000	1.00	-6	•			

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Philip Nerenberg, Lab Director

Philip Nevenberg

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

		olatile Organ	ic Compound	Jo Dy EPA 8.	Z00D			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
•	Acsuit		- Limit					
SW-12_0222 (A2B0202-47)				Matrix: Wa	ater	Batch:	22B0469	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	02/12/22 18:05	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	02/12/22 18:05	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	02/12/22 18:05	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	02/12/22 18:05	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	02/12/22 18:05	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	02/12/22 18:05	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 18:05	EPA 8260D	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 18:05	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 18:05	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	02/12/22 18:05	EPA 8260D	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	02/12/22 18:05	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	02/12/22 18:05	EPA 8260D	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	02/12/22 18:05	EPA 8260D	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	02/12/22 18:05	EPA 8260D	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	02/12/22 18:05	EPA 8260D	
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	02/12/22 18:05	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	02/12/22 18:05	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	02/12/22 18:05	EPA 8260D	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	02/12/22 18:05	EPA 8260D	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	02/12/22 18:05	EPA 8260D	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	02/12/22 18:05	EPA 8260D	
Ethylbenzene	ND	0.250	0.500	ug/L	1	02/12/22 18:05	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	02/12/22 18:05	EPA 8260D	
2-Hexanone	ND	5.00	10.0	ug/L	1	02/12/22 18:05	EPA 8260D	
Sopropylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 18:05	EPA 8260D	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	02/12/22 18:05	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	02/12/22 18:05	EPA 8260D	
-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	02/12/22 18:05	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	02/12/22 18:05	EPA 8260D	
Naphthalene	ND	1.00	2.00	ug/L	1	02/12/22 18:05	EPA 8260D	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	02/12/22 18:05	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	02/12/22 18:05	EPA 8260D	
,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	02/12/22 18:05	EPA 8260D	

Apex Laboratories

Philip Marenberg

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Philip Nerenberg, Lab Director

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

	V	olatile Organ	ic Compou	nds by EPA 826	UD			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-12_0222 (A2B0202-47)				Matrix: Wate	er	Batch:	22B0469	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	02/12/22 18:05	EPA 8260D	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	02/12/22 18:05	EPA 8260D	
Toluene	ND	0.500	1.00	ug/L	1	02/12/22 18:05	EPA 8260D	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	02/12/22 18:05	EPA 8260D	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	02/12/22 18:05	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	02/12/22 18:05	EPA 8260D	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	02/12/22 18:05	EPA 8260D	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	02/12/22 18:05	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	02/12/22 18:05	EPA 8260D	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	02/12/22 18:05	EPA 8260D	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 18:05	EPA 8260D	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 18:05	EPA 8260D	
Vinyl chloride	ND	0.200	0.400	ug/L	1	02/12/22 18:05	EPA 8260D	
m,p-Xylene	ND	0.500	1.00	ug/L	1	02/12/22 18:05	EPA 8260D	
o-Xylene	ND	0.250	0.500	ug/L	1	02/12/22 18:05	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recov	ery: 106 %	Limits: 80-120 %	1	02/12/22 18:05	EPA 8260D	
Toluene-d8 (Surr)			101 %	80-120 %	1	02/12/22 18:05	EPA 8260D	
4-Bromofluorobenzene (Surr)			105 %	80-120 %	I	02/12/22 18:05	EPA 8260D	
SW-13_0222 (A2B0202-48)				Matrix: Wate	er	Batch:	22B0469	
Acetone	ND	20.0	20.0	ug/L	1	02/12/22 18:31	EPA 8260D	ICV-0
Acrylonitrile	ND	1.00	2.00	ug/L	1	02/12/22 18:31	EPA 8260D	
Benzene	ND	0.100	0.200	ug/L	1	02/12/22 18:31	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	02/12/22 18:31	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	02/12/22 18:31	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	02/12/22 18:31	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	02/12/22 18:31	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	02/12/22 18:31	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	02/12/22 18:31	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 18:31	EPA 8260D	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 18:31	EPA 8260D	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 18:31	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	02/12/22 18:31	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	02/12/22 18:31	EPA 8260D	
					-			

Apex Laboratories

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Philip Nerenberg, Lab Director

Philip Nevenberg

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project Number: **Eatonville**Project Number: **00171.067**Project Manager: **Josh Bale**

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
SW-13_0222 (A2B0202-48)				Matrix: W	ater	Batch: 22B0469		
Chlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 18:31	EPA 8260D	
Chloroethane	ND	5.00	5.00	ug/L	1	02/12/22 18:31	EPA 8260D	
Chloroform	ND	0.500	1.00	ug/L	1	02/12/22 18:31	EPA 8260D	
Chloromethane	ND	2.50	5.00	ug/L	1	02/12/22 18:31	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	02/12/22 18:31	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	02/12/22 18:31	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	02/12/22 18:31	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	02/12/22 18:31	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	02/12/22 18:31	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	02/12/22 18:31	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 18:31	EPA 8260D	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 18:31	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 18:31	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	02/12/22 18:31	EPA 8260D	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	02/12/22 18:31	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	02/12/22 18:31	EPA 8260D	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	02/12/22 18:31	EPA 8260D	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	02/12/22 18:31	EPA 8260D	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	02/12/22 18:31	EPA 8260D	
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	02/12/22 18:31	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	02/12/22 18:31	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	02/12/22 18:31	EPA 8260D	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	02/12/22 18:31	EPA 8260D	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	02/12/22 18:31	EPA 8260D	
trans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	02/12/22 18:31	EPA 8260D	
Ethylbenzene	ND	0.250	0.500	ug/L	1	02/12/22 18:31	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	02/12/22 18:31	EPA 8260D	
2-Hexanone	ND	5.00	10.0	ug/L	1	02/12/22 18:31	EPA 8260D	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 18:31	EPA 8260D	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	02/12/22 18:31	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	02/12/22 18:31	EPA 8260D	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	02/12/22 18:31	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	02/12/22 18:31	EPA 8260D	

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Philip Nerenberg, Lab Director

Philip Nevenberg

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project Number: **Eatonville**Project Number: **00171.067**Project Manager: **Josh Bale**

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

	V	olatile Organ	ic Compou	nds by EPA 826	0D			
	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
SW-13_0222 (A2B0202-48)				Matrix: Wate	r	Batch:	22B0469	
Naphthalene	ND	1.00	2.00	ug/L	1	02/12/22 18:31	EPA 8260D	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	02/12/22 18:31	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	02/12/22 18:31	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	02/12/22 18:31	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	02/12/22 18:31	EPA 8260D	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	02/12/22 18:31	EPA 8260D	
Toluene	ND	0.500	1.00	ug/L	1	02/12/22 18:31	EPA 8260D	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	02/12/22 18:31	EPA 8260D	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	02/12/22 18:31	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	02/12/22 18:31	EPA 8260D	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	02/12/22 18:31	EPA 8260D	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	02/12/22 18:31	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	02/12/22 18:31	EPA 8260D	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	02/12/22 18:31	EPA 8260D	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 18:31	EPA 8260D	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 18:31	EPA 8260D	
Vinyl chloride	ND	0.200	0.400	ug/L	1	02/12/22 18:31	EPA 8260D	
m,p-Xylene	ND	0.500	1.00	ug/L	1	02/12/22 18:31	EPA 8260D	
o-Xylene	ND	0.250	0.500	ug/L	1	02/12/22 18:31	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recove	ery: 106 %	Limits: 80-120 %	1	02/12/22 18:31	EPA 8260D	
Toluene-d8 (Surr)			100 %	80-120 %	1	02/12/22 18:31	EPA 8260D	
4-Bromofluorobenzene (Surr)			99 %	80-120 %	1	02/12/22 18:31	EPA 8260D	
SW-14_0222 (A2B0202-49)				Matrix: Wate	er	Batch:	22B0469	
Acetone	ND	20.0	20.0	ug/L	1	02/12/22 19:51	EPA 8260D	ICV-02
Acrylonitrile	ND	1.00	2.00	ug/L	1	02/12/22 19:51	EPA 8260D	
Benzene	ND	0.100	0.200	ug/L	1	02/12/22 19:51	EPA 8260D	
Bromobenzene	ND	0.250	0.500	ug/L	1	02/12/22 19:51	EPA 8260D	
Bromochloromethane	ND	0.500	1.00	ug/L	1	02/12/22 19:51	EPA 8260D	
Bromodichloromethane	ND	0.500	1.00	ug/L	1	02/12/22 19:51	EPA 8260D	
Bromoform	ND	0.500	1.00	ug/L	1	02/12/22 19:51	EPA 8260D	
Bromomethane	ND	5.00	5.00	ug/L	1	02/12/22 19:51	EPA 8260D	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1	02/12/22 19:51	EPA 8260D	
n-Butylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 19:51	EPA 8260D	

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Philip Nerenberg, Lab Director

Philip Nevenberg

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

	V	olatile Organ	ic Compound	ds by EPA 8	260D			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-14_0222 (A2B0202-49)				Matrix: Wa	ater	Batch:	22B0469	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 19:51	EPA 8260D	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 19:51	EPA 8260D	
Carbon disulfide	ND	5.00	10.0	ug/L	1	02/12/22 19:51	EPA 8260D	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1	02/12/22 19:51	EPA 8260D	
Chlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 19:51	EPA 8260D	
Chloroethane	ND	5.00	5.00	ug/L	1	02/12/22 19:51	EPA 8260D	
Chloroform	ND	0.500	1.00	ug/L	1	02/12/22 19:51	EPA 8260D	
Chloromethane	ND	2.50	5.00	ug/L	1	02/12/22 19:51	EPA 8260D	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1	02/12/22 19:51	EPA 8260D	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1	02/12/22 19:51	EPA 8260D	
Dibromochloromethane	ND	0.500	1.00	ug/L	1	02/12/22 19:51	EPA 8260D	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1	02/12/22 19:51	EPA 8260D	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1	02/12/22 19:51	EPA 8260D	
Dibromomethane	ND	0.500	1.00	ug/L	1	02/12/22 19:51	EPA 8260D	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 19:51	EPA 8260D	
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 19:51	EPA 8260D	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	02/12/22 19:51	EPA 8260D	
Dichlorodifluoromethane	ND	0.500	1.00	ug/L	1	02/12/22 19:51	EPA 8260D	
1,1-Dichloroethane	ND	0.200	0.400	ug/L	1	02/12/22 19:51	EPA 8260D	
1,2-Dichloroethane (EDC)	ND	0.200	0.400	ug/L	1	02/12/22 19:51	EPA 8260D	
1,1-Dichloroethene	ND	0.200	0.400	ug/L	1	02/12/22 19:51	EPA 8260D	
cis-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	02/12/22 19:51	EPA 8260D	
trans-1,2-Dichloroethene	ND	0.200	0.400	ug/L	1	02/12/22 19:51	EPA 8260D	
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1	02/12/22 19:51	EPA 8260D	
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	02/12/22 19:51	EPA 8260D	
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1	02/12/22 19:51	EPA 8260D	
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	02/12/22 19:51	EPA 8260D	
cis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	02/12/22 19:51	EPA 8260D	
rans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1	02/12/22 19:51	EPA 8260D	
Ethylbenzene	ND	0.250	0.500	ug/L	1	02/12/22 19:51	EPA 8260D	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1	02/12/22 19:51	EPA 8260D	
2-Hexanone	ND	5.00	10.0	ug/L	1	02/12/22 19:51	EPA 8260D	
Isopropylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 19:51	EPA 8260D	

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Philip Nerenberg, Lab Director

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

	Vo	olatile Organi	ic Compour	nds by EPA 826	30D			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-14_0222 (A2B0202-49)				Matrix: Wate	er	Batch: 2	22B0469	
4-Isopropyltoluene	ND	0.500	1.00	ug/L	1	02/12/22 19:51	EPA 8260D	
Methylene chloride	ND	5.00	10.0	ug/L	1	02/12/22 19:51	EPA 8260D	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1	02/12/22 19:51	EPA 8260D	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1	02/12/22 19:51	EPA 8260D	
Naphthalene	ND	1.00	2.00	ug/L	1	02/12/22 19:51	EPA 8260D	
n-Propylbenzene	ND	0.250	0.500	ug/L	1	02/12/22 19:51	EPA 8260D	
Styrene	ND	0.500	1.00	ug/L	1	02/12/22 19:51	EPA 8260D	
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1	02/12/22 19:51	EPA 8260D	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1	02/12/22 19:51	EPA 8260D	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1	02/12/22 19:51	EPA 8260D	
Toluene	ND	0.500	1.00	ug/L	1	02/12/22 19:51	EPA 8260D	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1	02/12/22 19:51	EPA 8260D	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1	02/12/22 19:51	EPA 8260D	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1	02/12/22 19:51	EPA 8260D	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1	02/12/22 19:51	EPA 8260D	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1	02/12/22 19:51	EPA 8260D	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1	02/12/22 19:51	EPA 8260D	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1	02/12/22 19:51	EPA 8260D	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 19:51	EPA 8260D	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	02/12/22 19:51	EPA 8260D	
Vinyl chloride	ND	0.200	0.400	ug/L	1	02/12/22 19:51	EPA 8260D	
m,p-Xylene	ND	0.500	1.00	ug/L	1	02/12/22 19:51	EPA 8260D	
o-Xylene	ND	0.250	0.500	ug/L	1	02/12/22 19:51	EPA 8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recove	ery: 106 %	Limits: 80-120 %	6 1	02/12/22 19:51	EPA 8260D	
Toluene-d8 (Surr)			101 %	80-120 %		02/12/22 19:51	EPA 8260D	
4-Bromofluorobenzene (Surr)			104 %	80-120 %	6 1	02/12/22 19:51	EPA 8260D	

Apex Laboratories

Philip Nevenberg

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Philip Nerenberg, Lab Director

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

	Sample	Detection	Reporting	** .	5	Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Note
PZ-01_0222 (A2B0202-35)				Matrix: Wate	er	Batch:	22B0338	
Acenaphthene	ND	0.0219	0.0439	ug/L	1	02/09/22 12:57	EPA 8270E LVI	
Acenaphthylene	ND	0.0219	0.0439	ug/L	1	02/09/22 12:57	EPA 8270E LVI	
Anthracene	ND	0.0219	0.0439	ug/L	1	02/09/22 12:57	EPA 8270E LVI	
Benz(a)anthracene	ND	0.0110	0.0219	ug/L	1	02/09/22 12:57	EPA 8270E LVI	
Benzo(a)pyrene	ND	0.0110	0.0219	ug/L	1	02/09/22 12:57	EPA 8270E LVI	
Benzo(b)fluoranthene	ND	0.0110	0.0219	ug/L	1	02/09/22 12:57	EPA 8270E LVI	
Benzo(k)fluoranthene	ND	0.0110	0.0219	ug/L	1	02/09/22 12:57	EPA 8270E LVI	
Benzo(g,h,i)perylene	ND	0.0219	0.0439	ug/L	1	02/09/22 12:57	EPA 8270E LVI	
Chrysene	ND	0.0110	0.0219	ug/L	1	02/09/22 12:57	EPA 8270E LVI	
Dibenz(a,h)anthracene	ND	0.0110	0.0219	ug/L	1	02/09/22 12:57	EPA 8270E LVI	
Fluoranthene	ND	0.0219	0.0439	ug/L	1	02/09/22 12:57	EPA 8270E LVI	
Fluorene	ND	0.0219	0.0439	ug/L	1	02/09/22 12:57	EPA 8270E LVI	
Indeno(1,2,3-cd)pyrene	ND	0.0110	0.0219	ug/L	1	02/09/22 12:57	EPA 8270E LVI	
l-Methylnaphthalene	ND	0.0439	0.0877	ug/L	1	02/09/22 12:57	EPA 8270E LVI	
2-Methylnaphthalene	ND	0.0439	0.0877	ug/L	1	02/09/22 12:57	EPA 8270E LVI	
Naphthalene	ND	0.0439	0.0877	ug/L	1	02/09/22 12:57	EPA 8270E LVI	
Phenanthrene	ND	0.0439	0.0877	ug/L	1	02/09/22 12:57	EPA 8270E LVI	
Pyrene	ND	0.0219	0.0439	ug/L	1	02/09/22 12:57	EPA 8270E LVI	
Carbazole	ND	0.0219	0.0439	ug/L	1	02/09/22 12:57	EPA 8270E LVI	
Dibenzofuran	ND	0.0219	0.0439	ug/L	1	02/09/22 12:57	EPA 8270E LVI	
Surrogate: Acenaphthylene-d8 (Surr)		Recove	ry: 94%	Limits: 78-134 %	1	02/09/22 12:57	EPA 8270E LVI	
Benzo(a)pyrene-d12 (Surr)			97 %	80-132 %	1	02/09/22 12:57	EPA 8270E LVI	
PZ-02_0222 (A2B0202-36)				Matrix: Wate	er	Batch:	22B0338	
Acenaphthene	ND	0.0190	0.0380	ug/L	1	02/09/22 13:30	EPA 8270E LVI	
Acenaphthylene	ND	0.0190	0.0380	ug/L	1	02/09/22 13:30	EPA 8270E LVI	
Anthracene	ND	0.0190	0.0380	ug/L	1	02/09/22 13:30	EPA 8270E LVI	
Benz(a)anthracene	ND	0.00950	0.0190	ug/L	1	02/09/22 13:30	EPA 8270E LVI	
Benzo(a)pyrene	ND	0.00950	0.0190	ug/L	1	02/09/22 13:30	EPA 8270E LVI	
Benzo(b)fluoranthene	ND	0.00950	0.0190	ug/L	1	02/09/22 13:30	EPA 8270E LVI	
Benzo(k)fluoranthene	ND	0.00950	0.0190	ug/L	1	02/09/22 13:30	EPA 8270E LVI	
Benzo(g,h,i)perylene	ND	0.0190	0.0380	ug/L	1	02/09/22 13:30	EPA 8270E LVI	
Chrysene	ND	0.00950	0.0190	ug/L	1	02/09/22 13:30	EPA 8270E LVI	

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Philip Nerenberg, Lab Director

Philip Nevenberg

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project Number: **Eatonville**Project Number: **00171.067**Project Manager: **Josh Bale**

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

	Sample		Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Note
PZ-02_0222 (A2B0202-36)				Matrix: Wate	er	Batch:	22B0338	
Dibenz(a,h)anthracene	ND	0.00950	0.0190	ug/L	1	02/09/22 13:30	EPA 8270E LVI	
Fluoranthene	ND	0.0190	0.0380	ug/L	1	02/09/22 13:30	EPA 8270E LVI	
Fluorene	ND	0.0190	0.0380	ug/L	1	02/09/22 13:30	EPA 8270E LVI	
Indeno(1,2,3-cd)pyrene	ND	0.00950	0.0190	ug/L	1	02/09/22 13:30	EPA 8270E LVI	
l-Methylnaphthalene	ND	0.0380	0.0760	ug/L	1	02/09/22 13:30	EPA 8270E LVI	
2-Methylnaphthalene	ND	0.0380	0.0760	ug/L	1	02/09/22 13:30	EPA 8270E LVI	
Naphthalene	ND	0.0380	0.0760	ug/L	1	02/09/22 13:30	EPA 8270E LVI	
Phenanthrene	ND	0.0380	0.0760	ug/L	1	02/09/22 13:30	EPA 8270E LVI	
Pyrene	ND	0.0190	0.0380	ug/L	1	02/09/22 13:30	EPA 8270E LVI	
Carbazole	ND	0.0190	0.0380	ug/L	1	02/09/22 13:30	EPA 8270E LVI	
Dibenzofuran	ND	0.0190	0.0380	ug/L	1	02/09/22 13:30	EPA 8270E LVI	
Surrogate: Acenaphthylene-d8 (Surr)		Recovery	y: 93 %	Limits: 78-134 %	1	02/09/22 13:30	EPA 8270E LVI	
Benzo(a)pyrene-d12 (Surr)			97 %	80-132 %	1	02/09/22 13:30	EPA 8270E LVI	
PZ-102_0222 (A2B0202-37)				Matrix: Wate	er	Batch:	22B0338	
Acenaphthene	ND	0.0187	0.0373	ug/L	1	02/09/22 14:02	EPA 8270E LVI	
Acenaphthylene	ND	0.0187	0.0373	ug/L	1	02/09/22 14:02	EPA 8270E LVI	
Anthracene	ND	0.0187	0.0373	ug/L	1	02/09/22 14:02	EPA 8270E LVI	
Benz(a)anthracene	ND	0.00933	0.0187	ug/L	1	02/09/22 14:02	EPA 8270E LVI	
Benzo(a)pyrene	ND	0.00933	0.0187	ug/L	1	02/09/22 14:02	EPA 8270E LVI	
Benzo(b)fluoranthene	ND	0.00933	0.0187	ug/L	1	02/09/22 14:02	EPA 8270E LVI	
Benzo(k)fluoranthene	ND	0.00933	0.0187	ug/L	1	02/09/22 14:02	EPA 8270E LVI	
Benzo(g,h,i)perylene	ND	0.0187	0.0373	ug/L	1	02/09/22 14:02	EPA 8270E LVI	
Chrysene	ND	0.00933	0.0187	ug/L	1	02/09/22 14:02	EPA 8270E LVI	
Dibenz(a,h)anthracene	ND	0.00933	0.0187	ug/L	1	02/09/22 14:02	EPA 8270E LVI	
Fluoranthene	ND	0.0187	0.0373	ug/L	1	02/09/22 14:02	EPA 8270E LVI	
Fluorene	ND	0.0187	0.0373	ug/L	1	02/09/22 14:02	EPA 8270E LVI	
ndeno(1,2,3-cd)pyrene	ND	0.00933	0.0187	ug/L	1	02/09/22 14:02	EPA 8270E LVI	
-Methylnaphthalene	ND	0.0373	0.0746	ug/L	1	02/09/22 14:02	EPA 8270E LVI	
-Methylnaphthalene	ND	0.0373	0.0746	ug/L	1	02/09/22 14:02	EPA 8270E LVI	
Naphthalene	ND	0.0373	0.0746	ug/L	1	02/09/22 14:02	EPA 8270E LVI	
Phenanthrene	ND	0.0373	0.0746	ug/L	1	02/09/22 14:02	EPA 8270E LVI	
Pyrene	ND	0.0187	0.0373	ug/L	1	02/09/22 14:02	EPA 8270E LVI	

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Philip Nerenberg, Lab Director

Philip Nevenberg

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project Number: **Eatonville**Project Number: **00171.067**Project Manager: **Josh Bale**

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

	G :	D. C.	р			D :		
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Note
PZ-102_0222 (A2B0202-37)				Matrix: Wate	r	Batch:	22B0338	
Carbazole	ND	0.0187	0.0373	ug/L	1	02/09/22 14:02	EPA 8270E LVI	
Dibenzofuran	ND	0.0187	0.0373	ug/L	1	02/09/22 14:02	EPA 8270E LVI	
Surrogate: Acenaphthylene-d8 (Surr)		Reco	very: 95 %	Limits: 78-134 %	1	02/09/22 14:02	EPA 8270E LVI	
Benzo(a)pyrene-d12 (Surr)			100 %	80-132 %	1	02/09/22 14:02	EPA 8270E LVI	
PZ-03_0222 (A2B0202-38)				Matrix: Wate	r	Batch:	22B0338	
Acenaphthene	ND	0.0176	0.0352	ug/L	1	02/09/22 14:35	EPA 8270E LVI	
Acenaphthylene	ND	0.0176	0.0352	ug/L	1	02/09/22 14:35	EPA 8270E LVI	
Anthracene	ND	0.0176	0.0352	ug/L	1	02/09/22 14:35	EPA 8270E LVI	
Benz(a)anthracene	ND	0.00880	0.0176	ug/L	1	02/09/22 14:35	EPA 8270E LVI	
Benzo(a)pyrene	ND	0.00880	0.0176	ug/L	1	02/09/22 14:35	EPA 8270E LVI	
Benzo(b)fluoranthene	ND	0.00880	0.0176	ug/L	1	02/09/22 14:35	EPA 8270E LVI	
Benzo(k)fluoranthene	ND	0.00880	0.0176	ug/L	1	02/09/22 14:35	EPA 8270E LVI	
Benzo(g,h,i)perylene	ND	0.0176	0.0352	ug/L	1	02/09/22 14:35	EPA 8270E LVI	
Chrysene	ND	0.00880	0.0176	ug/L	1	02/09/22 14:35	EPA 8270E LVI	
Dibenz(a,h)anthracene	ND	0.00880	0.0176	ug/L	1	02/09/22 14:35	EPA 8270E LVI	
Fluoranthene	ND	0.0176	0.0352	ug/L	1	02/09/22 14:35	EPA 8270E LVI	
Fluorene	ND	0.0176	0.0352	ug/L	1	02/09/22 14:35	EPA 8270E LVI	
Indeno(1,2,3-cd)pyrene	ND	0.00880	0.0176	ug/L	1	02/09/22 14:35	EPA 8270E LVI	
l-Methylnaphthalene	ND	0.0352	0.0704	ug/L	1	02/09/22 14:35	EPA 8270E LVI	
2-Methylnaphthalene	ND	0.0352	0.0704	ug/L	1	02/09/22 14:35	EPA 8270E LVI	
Naphthalene	ND	0.0352	0.0704	ug/L	1	02/09/22 14:35	EPA 8270E LVI	
Phenanthrene	ND	0.0352	0.0704	ug/L	1	02/09/22 14:35	EPA 8270E LVI	
Pyrene	ND	0.0176	0.0352	ug/L	1	02/09/22 14:35	EPA 8270E LVI	
Carbazole	ND	0.0176	0.0352	ug/L	1	02/09/22 14:35	EPA 8270E LVI	
Dibenzofuran	ND	0.0176	0.0352	ug/L	1	02/09/22 14:35	EPA 8270E LVI	
Surrogate: Acenaphthylene-d8 (Surr)		Reco	very: 94 %	Limits: 78-134 %	I	02/09/22 14:35	EPA 8270E LVI	
Benzo(a)pyrene-d12 (Surr)			101 %	80-132 %	1	02/09/22 14:35	EPA 8270E LVI	
PZ-04_0222 (A2B0202-39)				Matrix: Wate	r	Batch:	22B0338	
Acenaphthene	ND	0.0228	0.0457	ug/L	1	02/09/22 15:07	EPA 8270E LVI	_
Acenaphthylene	ND	0.0228	0.0457	ug/L	1	02/09/22 15:07	EPA 8270E LVI	
Anthracene	ND	0.0228	0.0457	ug/L	1	02/09/22 15:07	EPA 8270E LVI	
Benz(a)anthracene	ND	0.0114	0.0228	ug/L	1	02/09/22 15:07	EPA 8270E LVI	

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Philip Nerenberg, Lab Director

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

Analyta	Sample Result	Detection Limit	Reporting Limit	Units	Dibrian	Date Analyzed	Method Ref.	Note:
Analyte	Result	Limit	Limit		Dilution			Note
PZ-04_0222 (A2B0202-39)				Matrix: Wate	er	Batch:	22B0338	
Benzo(a)pyrene	ND	0.0114	0.0228	ug/L	1	02/09/22 15:07	EPA 8270E LVI	
Benzo(b)fluoranthene	ND	0.0114	0.0228	ug/L	1	02/09/22 15:07	EPA 8270E LVI	
Benzo(k)fluoranthene	ND	0.0114	0.0228	ug/L	1	02/09/22 15:07	EPA 8270E LVI	
Benzo(g,h,i)perylene	ND	0.0228	0.0457	ug/L	1	02/09/22 15:07	EPA 8270E LVI	
Chrysene	ND	0.0114	0.0228	ug/L	1	02/09/22 15:07	EPA 8270E LVI	
Dibenz(a,h)anthracene	ND	0.0114	0.0228	ug/L	1	02/09/22 15:07	EPA 8270E LVI	
Fluoranthene	ND	0.0228	0.0457	ug/L	1	02/09/22 15:07	EPA 8270E LVI	
Fluorene	ND	0.0228	0.0457	ug/L	1	02/09/22 15:07	EPA 8270E LVI	
Indeno(1,2,3-cd)pyrene	ND	0.0114	0.0228	ug/L	1	02/09/22 15:07	EPA 8270E LVI	
1-Methylnaphthalene	ND	0.0457	0.0914	ug/L	1	02/09/22 15:07	EPA 8270E LVI	
2-Methylnaphthalene	ND	0.0457	0.0914	ug/L	1	02/09/22 15:07	EPA 8270E LVI	
Naphthalene	ND	0.0457	0.0914	ug/L	1	02/09/22 15:07	EPA 8270E LVI	
Phenanthrene	ND	0.0457	0.0914	ug/L	1	02/09/22 15:07	EPA 8270E LVI	
Pyrene	ND	0.0228	0.0457	ug/L	1	02/09/22 15:07	EPA 8270E LVI	
Carbazole	ND	0.0228	0.0457	ug/L	1	02/09/22 15:07	EPA 8270E LVI	
Dibenzofuran	ND	0.0228	0.0457	ug/L	1	02/09/22 15:07	EPA 8270E LVI	
Surrogate: Acenaphthylene-d8 (Surr)		Reco	very: 91%	Limits: 78-134 %	6 I	02/09/22 15:07	EPA 8270E LVI	
Benzo(a)pyrene-d12 (Surr)			101 %	80-132 %	6 I	02/09/22 15:07	EPA 8270E LVI	
PZ-05_0222 (A2B0202-40)				Matrix: Wate	er	Batch:	Batch: 22B0338	
Acenaphthene	ND	0.0183	0.0366	ug/L	1	02/09/22 15:39	EPA 8270E LVI	
Acenaphthylene	ND	0.0183	0.0366	ug/L	1	02/09/22 15:39	EPA 8270E LVI	
Anthracene	ND	0.0183	0.0366	ug/L	1	02/09/22 15:39	EPA 8270E LVI	
Benz(a)anthracene	ND	0.00915	0.0183	ug/L	1	02/09/22 15:39	EPA 8270E LVI	
Benzo(a)pyrene	ND	0.00915	0.0183	ug/L	1	02/09/22 15:39	EPA 8270E LVI	
Benzo(b)fluoranthene	ND	0.00915	0.0183	ug/L	1	02/09/22 15:39	EPA 8270E LVI	
Benzo(k)fluoranthene	ND	0.00915	0.0183	ug/L	1	02/09/22 15:39	EPA 8270E LVI	
Benzo(g,h,i)perylene	ND	0.0183	0.0366	ug/L	1	02/09/22 15:39	EPA 8270E LVI	
Chrysene	ND	0.00915	0.0183	ug/L	1	02/09/22 15:39	EPA 8270E LVI	
Dibenz(a,h)anthracene	ND	0.00915	0.0183	ug/L	1	02/09/22 15:39	EPA 8270E LVI	
Fluoranthene	ND	0.0183	0.0366	ug/L	1	02/09/22 15:39	EPA 8270E LVI	
	0.0107	0.0183	0.0366	ug/L	1	02/09/22 15:39	EPA 8270E LVI	Ja
Fluorene	0.0187	0.0165	0.0300	ug/L				

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Philip Nerenberg, Lab Director

Philip Marenberg

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

	Polyaromatic Hyd	•						
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PZ-05_0222 (A2B0202-40)				Matrix: Wate	r	Batch:	22B0338	
1-Methylnaphthalene	ND	0.0366	0.0732	ug/L	1	02/09/22 15:39	EPA 8270E LVI	
2-Methylnaphthalene	ND	0.0366	0.0732	ug/L	1	02/09/22 15:39	EPA 8270E LVI	
Naphthalene	0.343	0.0366	0.0732	ug/L	1	02/09/22 15:39	EPA 8270E LVI	
Phenanthrene	ND	0.0366	0.0732	ug/L	1	02/09/22 15:39	EPA 8270E LVI	
Pyrene	ND	0.0183	0.0366	ug/L	1	02/09/22 15:39	EPA 8270E LVI	
Carbazole	ND	0.0183	0.0366	ug/L	1	02/09/22 15:39	EPA 8270E LVI	
Dibenzofuran	ND	0.0183	0.0366	ug/L	1	02/09/22 15:39	EPA 8270E LVI	
Surrogate: Acenaphthylene-d8 (Surr)		Recon	very: 92 %	Limits: 78-134 %	1	02/09/22 15:39	EPA 8270E LVI	
Benzo(a)pyrene-d12 (Surr)			105 %	80-132 %	1	02/09/22 15:39	EPA 8270E LVI	
SW-09_0222 (A2B0202-41)				Matrix: Wate	r	Batch:	22B0338	
Acenaphthene	ND	0.0217	0.0435	ug/L	1	02/09/22 16:12	EPA 8270E LVI	
Acenaphthylene	ND	0.0217	0.0435	ug/L	1	02/09/22 16:12	EPA 8270E LVI	
Anthracene	ND	0.0217	0.0435	ug/L	1	02/09/22 16:12	EPA 8270E LVI	
Benz(a)anthracene	ND	0.0109	0.0217	ug/L	1	02/09/22 16:12	EPA 8270E LVI	
Benzo(a)pyrene	ND	0.0109	0.0217	ug/L	1	02/09/22 16:12	EPA 8270E LVI	
Benzo(b)fluoranthene	ND	0.0109	0.0217	ug/L	1	02/09/22 16:12	EPA 8270E LVI	
Benzo(k)fluoranthene	ND	0.0109	0.0217	ug/L	1	02/09/22 16:12	EPA 8270E LVI	
Benzo(g,h,i)perylene	ND	0.0217	0.0435	ug/L	1	02/09/22 16:12	EPA 8270E LVI	
Chrysene	ND	0.0109	0.0217	ug/L	1	02/09/22 16:12	EPA 8270E LVI	
Dibenz(a,h)anthracene	ND	0.0109	0.0217	ug/L	1	02/09/22 16:12	EPA 8270E LVI	
Fluoranthene	ND	0.0217	0.0435	ug/L	1	02/09/22 16:12	EPA 8270E LVI	
Fluorene	ND	0.0217	0.0435	ug/L	1	02/09/22 16:12	EPA 8270E LVI	
Indeno(1,2,3-cd)pyrene	ND	0.0109	0.0217	ug/L	1	02/09/22 16:12	EPA 8270E LVI	
l-Methylnaphthalene	ND	0.0435	0.0870	ug/L	1	02/09/22 16:12	EPA 8270E LVI	
2-Methylnaphthalene	ND	0.0435	0.0870	ug/L	1	02/09/22 16:12	EPA 8270E LVI	
Naphthalene	ND	0.0435	0.0870	ug/L	1	02/09/22 16:12	EPA 8270E LVI	
Phenanthrene	ND	0.0435	0.0870	ug/L	1	02/09/22 16:12	EPA 8270E LVI	
Pyrene	ND	0.0217	0.0435	ug/L	1	02/09/22 16:12	EPA 8270E LVI	
Carbazole	ND	0.0217	0.0435	ug/L	1	02/09/22 16:12	EPA 8270E LVI	
Dibenzofuran	ND	0.0217	0.0435	ug/L	1	02/09/22 16:12	EPA 8270E LVI	
Surrogate: Acenaphthylene-d8 (Surr)		Reco	very: 91 %	Limits: 78-134 %	1	02/09/22 16:12	EPA 8270E LVI	
Benzo(a)pyrene-d12 (Surr)			99 %	80-132 %	1	02/09/22 16:12	EPA 8270E LVI	

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Philip Nevenberg

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Philip Nerenberg, Lab Director



AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

	G. 1	·	-	PA 8270E (Large				
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Note
SW-109_0222 (A2B0202-42)				Matrix: Wate	r	Batch:	22B0338	
Acenaphthene	ND	0.0203	0.0406	ug/L	1	02/09/22 16:44	EPA 8270E LVI	
Acenaphthylene	ND	0.0203	0.0406	ug/L	1	02/09/22 16:44	EPA 8270E LVI	
Anthracene	ND	0.0203	0.0406	ug/L	1	02/09/22 16:44	EPA 8270E LVI	
Benz(a)anthracene	ND	0.0102	0.0203	ug/L	1	02/09/22 16:44	EPA 8270E LVI	
Benzo(a)pyrene	ND	0.0102	0.0203	ug/L	1	02/09/22 16:44	EPA 8270E LVI	
Benzo(b)fluoranthene	ND	0.0102	0.0203	ug/L	1	02/09/22 16:44	EPA 8270E LVI	
Benzo(k)fluoranthene	ND	0.0102	0.0203	ug/L	1	02/09/22 16:44	EPA 8270E LVI	
Benzo(g,h,i)perylene	ND	0.0203	0.0406	ug/L	1	02/09/22 16:44	EPA 8270E LVI	
Chrysene	ND	0.0102	0.0203	ug/L	1	02/09/22 16:44	EPA 8270E LVI	
Dibenz(a,h)anthracene	ND	0.0102	0.0203	ug/L	1	02/09/22 16:44	EPA 8270E LVI	
Fluoranthene	ND	0.0203	0.0406	ug/L	1	02/09/22 16:44	EPA 8270E LVI	
Fluorene	ND	0.0203	0.0406	ug/L	1	02/09/22 16:44	EPA 8270E LVI	
Indeno(1,2,3-cd)pyrene	ND	0.0102	0.0203	ug/L	1	02/09/22 16:44	EPA 8270E LVI	
1-Methylnaphthalene	ND	0.0406	0.0812	ug/L	1	02/09/22 16:44	EPA 8270E LVI	
2-Methylnaphthalene	ND	0.0406	0.0812	ug/L	1	02/09/22 16:44	EPA 8270E LVI	
Naphthalene	ND	0.0406	0.0812	ug/L	1	02/09/22 16:44	EPA 8270E LVI	
Phenanthrene	ND	0.0406	0.0812	ug/L	1	02/09/22 16:44	EPA 8270E LVI	
Pyrene	ND	0.0203	0.0406	ug/L	1	02/09/22 16:44	EPA 8270E LVI	
Carbazole	ND	0.0203	0.0406	ug/L	1	02/09/22 16:44	EPA 8270E LVI	
Dibenzofuran	ND	0.0203	0.0406	ug/L	1	02/09/22 16:44	EPA 8270E LVI	
Surrogate: Acenaphthylene-d8 (Surr)		Reco	very: 90 %	Limits: 78-134 %	1	02/09/22 16:44	EPA 8270E LVI	
Benzo(a)pyrene-d12 (Surr)			100 %	80-132 %	1	02/09/22 16:44	EPA 8270E LVI	
SW-07_0222 (A2B0202-43)				Matrix: Wate	r	Batch:	22B0338	
Acenaphthene	ND	0.0176	0.0352	ug/L	1	02/09/22 17:16	EPA 8270E LVI	
Acenaphthylene	ND	0.0176	0.0352	ug/L	1	02/09/22 17:16	EPA 8270E LVI	
Anthracene	ND	0.0176	0.0352	ug/L	1	02/09/22 17:16	EPA 8270E LVI	
Benz(a)anthracene	ND	0.00879	0.0176	ug/L	1	02/09/22 17:16	EPA 8270E LVI	
Benzo(a)pyrene	ND	0.00879	0.0176	ug/L	1	02/09/22 17:16	EPA 8270E LVI	
Benzo(b)fluoranthene	ND	0.00879	0.0176	ug/L	1	02/09/22 17:16	EPA 8270E LVI	
Benzo(k)fluoranthene	ND	0.00879	0.0176	ug/L	1	02/09/22 17:16	EPA 8270E LVI	
Benzo(g,h,i)perylene	ND	0.0176	0.0352	ug/L	1	02/09/22 17:16	EPA 8270E LVI	
Chrysene	ND	0.00879	0.0176	ug/L	1	02/09/22 17:16	EPA 8270E LVI	

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Philip Nerenberg, Lab Director

Philip Marenberg

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

	yaioiiialic Hyt	i ocai bolis (I	AIIS) DY EI	PA 8270E (Large	e voluille	ingecuon)		
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-07_0222 (A2B0202-43)				Matrix: Wate	er	Batch:	22B0338	
Dibenz(a,h)anthracene	ND	0.00879	0.0176	ug/L	1	02/09/22 17:16	EPA 8270E LVI	
Fluoranthene	ND	0.0176	0.0352	ug/L	1	02/09/22 17:16	EPA 8270E LVI	
Fluorene	ND	0.0176	0.0352	ug/L	1	02/09/22 17:16	EPA 8270E LVI	
Indeno(1,2,3-cd)pyrene	ND	0.00879	0.0176	ug/L	1	02/09/22 17:16	EPA 8270E LVI	
1-Methylnaphthalene	ND	0.0352	0.0704	ug/L	1	02/09/22 17:16	EPA 8270E LVI	
2-Methylnaphthalene	ND	0.0352	0.0704	ug/L	1	02/09/22 17:16	EPA 8270E LVI	
Naphthalene	ND	0.0352	0.0704	ug/L	1	02/09/22 17:16	EPA 8270E LVI	
Phenanthrene	ND	0.0352	0.0704	ug/L	1	02/09/22 17:16	EPA 8270E LVI	
Pyrene	ND	0.0176	0.0352	ug/L	1	02/09/22 17:16	EPA 8270E LVI	
Carbazole	ND	0.0176	0.0352	ug/L	1	02/09/22 17:16	EPA 8270E LVI	
Dibenzofuran	ND	0.0176	0.0352	ug/L	1	02/09/22 17:16	EPA 8270E LVI	
Surrogate: Acenaphthylene-d8 (Surr)		Reco	very: 90 %	Limits: 78-134 %	5 1	02/09/22 17:16	EPA 8270E LVI	
Benzo(a)pyrene-d12 (Surr)			100 %	80-132 %	5 1	02/09/22 17:16	EPA 8270E LVI	
SW-08_0222 (A2B0202-44)				Matrix: Wate	er	Batch:	22B0338	
Acenaphthene	ND	0.0167	0.0333	ug/L	1	02/09/22 17:48	EPA 8270E LVI	
Acenaphthylene	ND	0.0167	0.0333	ug/L	1	02/09/22 17:48	EPA 8270E LVI	
Anthracene	ND	0.0167	0.0333	ug/L	1	02/09/22 17:48	EPA 8270E LVI	
Benz(a)anthracene	ND	0.00833	0.0167	ug/L	1	02/09/22 17:48	EPA 8270E LVI	
Benzo(a)pyrene	ND	0.00833	0.0167	ug/L	1	02/09/22 17:48	EPA 8270E LVI	
Benzo(b)fluoranthene	ND	0.00833	0.0167	ug/L	1	02/09/22 17:48	EPA 8270E LVI	
Benzo(k)fluoranthene	ND	0.00833	0.0167	ug/L	1	02/09/22 17:48	EPA 8270E LVI	
Benzo(g,h,i)perylene	ND	0.0167	0.0333	ug/L	1	02/09/22 17:48	EPA 8270E LVI	
Chrysene	ND	0.00833	0.0167	ug/L	1	02/09/22 17:48	EPA 8270E LVI	
Dibenz(a,h)anthracene	ND	0.00833	0.0167	ug/L	1	02/09/22 17:48	EPA 8270E LVI	
Fluoranthene	ND	0.0167	0.0333	ug/L	1	02/09/22 17:48	EPA 8270E LVI	
Fluorene	ND	0.0167	0.0333	ug/L	1	02/09/22 17:48	EPA 8270E LVI	
Indeno(1,2,3-cd)pyrene	ND	0.00833	0.0167	ug/L	1	02/09/22 17:48	EPA 8270E LVI	
1-Methylnaphthalene	ND	0.0333	0.0666	ug/L	1	02/09/22 17:48	EPA 8270E LVI	
2-Methylnaphthalene	ND	0.0333	0.0666	ug/L	1	02/09/22 17:48	EPA 8270E LVI	
Naphthalene	ND	0.0333	0.0666	ug/L	1	02/09/22 17:48	EPA 8270E LVI	
Phenanthrene	ND	0.0333	0.0666	ug/L	1	02/09/22 17:48	EPA 8270E LVI	
Pyrene	ND	0.0167	0.0333	ug/L	1	02/09/22 17:48	EPA 8270E LVI	

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Philip Nerenberg, Lab Director

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

	,	•	, ~ .	PA 8270E (Large		,,		
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Note
SW-08_0222 (A2B0202-44)				Matrix: Wate	r	Batch:	22B0338	
Carbazole	ND	0.0167	0.0333	ug/L	1	02/09/22 17:48	EPA 8270E LVI	
Dibenzofuran	ND	0.0167	0.0333	ug/L	1	02/09/22 17:48	EPA 8270E LVI	
Surrogate: Acenaphthylene-d8 (Surr)		Recover	y: 90 %	Limits: 78-134 %	I	02/09/22 17:48	EPA 8270E LVI	
Benzo(a)pyrene-d12 (Surr)			99 %	80-132 %	1	02/09/22 17:48	EPA 8270E LVI	
SW-10_0222 (A2B0202-45)				Matrix: Wate	r	Batch:	22B0338	
Acenaphthene	ND	0.0176	0.0352	ug/L	1	02/09/22 18:20	EPA 8270E LVI	
Acenaphthylene	ND	0.0176	0.0352	ug/L	1	02/09/22 18:20	EPA 8270E LVI	
Anthracene	ND	0.0176	0.0352	ug/L	1	02/09/22 18:20	EPA 8270E LVI	
Benz(a)anthracene	ND	0.00880	0.0176	ug/L	1	02/09/22 18:20	EPA 8270E LVI	
Benzo(a)pyrene	ND	0.00880	0.0176	ug/L	1	02/09/22 18:20	EPA 8270E LVI	
Benzo(b)fluoranthene	ND	0.00880	0.0176	ug/L	1	02/09/22 18:20	EPA 8270E LVI	
Benzo(k)fluoranthene	ND	0.00880	0.0176	ug/L	1	02/09/22 18:20	EPA 8270E LVI	
Benzo(g,h,i)perylene	ND	0.0176	0.0352	ug/L	1	02/09/22 18:20	EPA 8270E LVI	
Chrysene	ND	0.00880	0.0176	ug/L	1	02/09/22 18:20	EPA 8270E LVI	
Dibenz(a,h)anthracene	ND	0.00880	0.0176	ug/L	1	02/09/22 18:20	EPA 8270E LVI	
Fluoranthene	ND	0.0176	0.0352	ug/L	1	02/09/22 18:20	EPA 8270E LVI	
Fluorene	ND	0.0176	0.0352	ug/L	1	02/09/22 18:20	EPA 8270E LVI	
Indeno(1,2,3-cd)pyrene	ND	0.00880	0.0176	ug/L	1	02/09/22 18:20	EPA 8270E LVI	
1-Methylnaphthalene	ND	0.0352	0.0704	ug/L	1	02/09/22 18:20	EPA 8270E LVI	
2-Methylnaphthalene	ND	0.0352	0.0704	ug/L	1	02/09/22 18:20	EPA 8270E LVI	
Naphthalene	ND	0.0352	0.0704	ug/L	1	02/09/22 18:20	EPA 8270E LVI	
Phenanthrene	ND	0.0352	0.0704	ug/L	1	02/09/22 18:20	EPA 8270E LVI	
Pyrene	ND	0.0176	0.0352	ug/L	1	02/09/22 18:20	EPA 8270E LVI	
Carbazole	ND	0.0176	0.0352	ug/L	1	02/09/22 18:20	EPA 8270E LVI	
Dibenzofuran	ND	0.0176	0.0352	ug/L	1	02/09/22 18:20	EPA 8270E LVI	
Surrogate: Acenaphthylene-d8 (Surr)		Recover	y: 91 %	Limits: 78-134 %	I	02/09/22 18:20	EPA 8270E LVI	
Benzo(a)pyrene-d12 (Surr)		·	99 %	80-132 %	1	02/09/22 18:20	EPA 8270E LVI	
SW-11_0222 (A2B0202-46)		Matrix: Water Batch: 22B0338		22B0338				
Acenaphthene	ND	0.0166	0.0333	ug/L	1	02/09/22 18:53	EPA 8270E LVI	
Acenaphthylene	ND	0.0166	0.0333	ug/L	1	02/09/22 18:53	EPA 8270E LVI	
Anthracene	ND	0.0166	0.0333	ug/L	1	02/09/22 18:53	EPA 8270E LVI	
Benz(a)anthracene	ND	0.00832	0.0166	ug/L	1	02/09/22 18:53	EPA 8270E LVI	

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Philip Nerenberg, Lab Director

Philip Nevenberg

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

	Sample		Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Note
SW-11_0222 (A2B0202-46)				Matrix: Wate	er	Batch:	22B0338	
Benzo(a)pyrene	ND	0.00832	0.0166	ug/L	1	02/09/22 18:53	EPA 8270E LVI	
Benzo(b)fluoranthene	ND	0.00832	0.0166	ug/L	1	02/09/22 18:53	EPA 8270E LVI	
Benzo(k)fluoranthene	ND	0.00832	0.0166	ug/L	1	02/09/22 18:53	EPA 8270E LVI	
Benzo(g,h,i)perylene	ND	0.0166	0.0333	ug/L	1	02/09/22 18:53	EPA 8270E LVI	
Chrysene	ND	0.00832	0.0166	ug/L	1	02/09/22 18:53	EPA 8270E LVI	
Dibenz(a,h)anthracene	ND	0.00832	0.0166	ug/L	1	02/09/22 18:53	EPA 8270E LVI	
Fluoranthene	ND	0.0166	0.0333	ug/L	1	02/09/22 18:53	EPA 8270E LVI	
Fluorene	ND	0.0166	0.0333	ug/L	1	02/09/22 18:53	EPA 8270E LVI	
Indeno(1,2,3-cd)pyrene	ND	0.00832	0.0166	ug/L	1	02/09/22 18:53	EPA 8270E LVI	
1-Methylnaphthalene	ND	0.0333	0.0665	ug/L	1	02/09/22 18:53	EPA 8270E LVI	
2-Methylnaphthalene	ND	0.0333	0.0665	ug/L	1	02/09/22 18:53	EPA 8270E LVI	
Naphthalene	ND	0.0333	0.0665	ug/L	1	02/09/22 18:53	EPA 8270E LVI	
Phenanthrene	ND	0.0333	0.0665	ug/L	1	02/09/22 18:53	EPA 8270E LVI	
Pyrene	ND	0.0166	0.0333	ug/L	1	02/09/22 18:53	EPA 8270E LVI	
Carbazole	ND	0.0166	0.0333	ug/L	1	02/09/22 18:53	EPA 8270E LVI	
Dibenzofuran	ND	0.0166	0.0333	ug/L	1	02/09/22 18:53	EPA 8270E LVI	
Surrogate: Acenaphthylene-d8 (Surr)		Recovery	v: 91 %	Limits: 78-134 %	5 1	02/09/22 18:53	EPA 8270E LVI	
Benzo(a)pyrene-d12 (Surr)			99 %	80-132 %	1	02/09/22 18:53	EPA 8270E LVI	
SW-12_0222 (A2B0202-47)				Matrix: Wate	er	Batch:	22B0338	
Acenaphthene	ND	0.0168	0.0335	ug/L	1	02/09/22 19:25	EPA 8270E LVI	
Acenaphthylene	ND	0.0168	0.0335	ug/L	1	02/09/22 19:25	EPA 8270E LVI	
Anthracene	ND	0.0168	0.0335	ug/L	1	02/09/22 19:25	EPA 8270E LVI	
Benz(a)anthracene	ND	0.00838	0.0168	ug/L	1	02/09/22 19:25	EPA 8270E LVI	
Benzo(a)pyrene	ND	0.00838	0.0168	ug/L	1	02/09/22 19:25	EPA 8270E LVI	
Benzo(b)fluoranthene	ND	0.00838	0.0168	ug/L	1	02/09/22 19:25	EPA 8270E LVI	
Benzo(k)fluoranthene	ND	0.00838	0.0168	ug/L	1	02/09/22 19:25	EPA 8270E LVI	
Benzo(g,h,i)perylene	ND	0.0168	0.0335	ug/L	1	02/09/22 19:25	EPA 8270E LVI	
Chrysene	ND	0.00838	0.0168	ug/L	1	02/09/22 19:25	EPA 8270E LVI	
Dibenz(a,h)anthracene	ND	0.00838	0.0168	ug/L	1	02/09/22 19:25	EPA 8270E LVI	
Fluoranthene	ND	0.0168	0.0335	ug/L	1	02/09/22 19:25	EPA 8270E LVI	
Fluorene	ND	0.0168	0.0335	ug/L	1	02/09/22 19:25	EPA 8270E LVI	
					-			

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Philip Nerenberg, Lab Director

Philip Marenberg

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

	Sample	Detection	Reporting	** .	D.: :	Date		• •
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Note
SW-12_0222 (A2B0202-47)				Matrix: Wate	r	Batch:	22B0338	
1-Methylnaphthalene	ND	0.0335	0.0670	ug/L	1	02/09/22 19:25	EPA 8270E LVI	
2-Methylnaphthalene	ND	0.0335	0.0670	ug/L	1	02/09/22 19:25	EPA 8270E LVI	
Naphthalene	ND	0.0335	0.0670	ug/L	1	02/09/22 19:25	EPA 8270E LVI	
Phenanthrene	ND	0.0335	0.0670	ug/L	1	02/09/22 19:25	EPA 8270E LVI	
Pyrene	ND	0.0168	0.0335	ug/L	1	02/09/22 19:25	EPA 8270E LVI	
Carbazole	ND	0.0168	0.0335	ug/L	1	02/09/22 19:25	EPA 8270E LVI	
Dibenzofuran	ND	0.0168	0.0335	ug/L	1	02/09/22 19:25	EPA 8270E LVI	
Surrogate: Acenaphthylene-d8 (Surr)		Reco	very: 89 %	Limits: 78-134 %	1	02/09/22 19:25	EPA 8270E LVI	
Benzo(a)pyrene-d12 (Surr)			103 %	80-132 %	1	02/09/22 19:25	EPA 8270E LVI	
SW-13_0222 (A2B0202-48)		Matrix: Water		Batch:	22B0338			
Acenaphthene	ND	0.0169	0.0338	ug/L	1	02/09/22 19:58	EPA 8270E LVI	
Acenaphthylene	ND	0.0169	0.0338	ug/L	1	02/09/22 19:58	EPA 8270E LVI	
Anthracene	ND	0.0169	0.0338	ug/L	1	02/09/22 19:58	EPA 8270E LVI	
Benz(a)anthracene	ND	0.00846	0.0169	ug/L	1	02/09/22 19:58	EPA 8270E LVI	
Benzo(a)pyrene	ND	0.00846	0.0169	ug/L	1	02/09/22 19:58	EPA 8270E LVI	
Benzo(b)fluoranthene	ND	0.00846	0.0169	ug/L	1	02/09/22 19:58	EPA 8270E LVI	
Benzo(k)fluoranthene	ND	0.00846	0.0169	ug/L	1	02/09/22 19:58	EPA 8270E LVI	
Benzo(g,h,i)perylene	ND	0.0169	0.0338	ug/L	1	02/09/22 19:58	EPA 8270E LVI	
Chrysene	ND	0.00846	0.0169	ug/L	1	02/09/22 19:58	EPA 8270E LVI	
Dibenz(a,h)anthracene	ND	0.00846	0.0169	ug/L	1	02/09/22 19:58	EPA 8270E LVI	
Fluoranthene	ND	0.0169	0.0338	ug/L	1	02/09/22 19:58	EPA 8270E LVI	
Fluorene	ND	0.0169	0.0338	ug/L	1	02/09/22 19:58	EPA 8270E LVI	
Indeno(1,2,3-cd)pyrene	ND	0.00846	0.0169	ug/L	1	02/09/22 19:58	EPA 8270E LVI	
l-Methylnaphthalene	ND	0.0338	0.0676	ug/L	1	02/09/22 19:58	EPA 8270E LVI	
2-Methylnaphthalene	ND	0.0338	0.0676	ug/L	1	02/09/22 19:58	EPA 8270E LVI	
Naphthalene	ND	0.0338	0.0676	ug/L	1	02/09/22 19:58	EPA 8270E LVI	
Phenanthrene	ND	0.0338	0.0676	ug/L	1	02/09/22 19:58	EPA 8270E LVI	
Pyrene	ND	0.0169	0.0338	ug/L	1	02/09/22 19:58	EPA 8270E LVI	
Carbazole	ND	0.0169	0.0338	ug/L	1	02/09/22 19:58	EPA 8270E LVI	
Dibenzofuran	ND	0.0169	0.0338	ug/L	1	02/09/22 19:58	EPA 8270E LVI	
Surrogate: Acenaphthylene-d8 (Surr)		Reco	very: 91 %	Limits: 78-134 %	I	02/09/22 19:58	EPA 8270E LVI	
Benzo(a)pyrene-d12 (Surr)			100 %	80-132 %	1	02/09/22 19:58	EPA 8270E LVI	

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Philip Nerenberg, Lab Director

Philip Nevenberg



AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-14_0222 (A2B0202-49)				Matrix: Wate	er	Batch:	22B0338	
Acenaphthene	ND	0.0167	0.0333	ug/L	1	02/09/22 20:30	EPA 8270E LVI	
Acenaphthylene	ND	0.0167	0.0333	ug/L	1	02/09/22 20:30	EPA 8270E LVI	
Anthracene	ND	0.0167	0.0333	ug/L	1	02/09/22 20:30	EPA 8270E LVI	
Benz(a)anthracene	ND	0.00833	0.0167	ug/L	1	02/09/22 20:30	EPA 8270E LVI	
Benzo(a)pyrene	ND	0.00833	0.0167	ug/L	1	02/09/22 20:30	EPA 8270E LVI	
Benzo(b)fluoranthene	ND	0.00833	0.0167	ug/L	1	02/09/22 20:30	EPA 8270E LVI	
Benzo(k)fluoranthene	ND	0.00833	0.0167	ug/L	1	02/09/22 20:30	EPA 8270E LVI	
Benzo(g,h,i)perylene	ND	0.0167	0.0333	ug/L	1	02/09/22 20:30	EPA 8270E LVI	
Chrysene	ND	0.00833	0.0167	ug/L	1	02/09/22 20:30	EPA 8270E LVI	
Dibenz(a,h)anthracene	ND	0.00833	0.0167	ug/L	1	02/09/22 20:30	EPA 8270E LVI	
Fluoranthene	ND	0.0167	0.0333	ug/L	1	02/09/22 20:30	EPA 8270E LVI	
Fluorene	ND	0.0167	0.0333	ug/L	1	02/09/22 20:30	EPA 8270E LVI	
Indeno(1,2,3-cd)pyrene	ND	0.00833	0.0167	ug/L	1	02/09/22 20:30	EPA 8270E LVI	
l-Methylnaphthalene	ND	0.0333	0.0666	ug/L	1	02/09/22 20:30	EPA 8270E LVI	
2-Methylnaphthalene	ND	0.0333	0.0666	ug/L	1	02/09/22 20:30	EPA 8270E LVI	
Naphthalene	ND	0.0333	0.0666	ug/L	1	02/09/22 20:30	EPA 8270E LVI	
Phenanthrene	ND	0.0333	0.0666	ug/L	1	02/09/22 20:30	EPA 8270E LVI	
Pyrene	ND	0.0167	0.0333	ug/L	1	02/09/22 20:30	EPA 8270E LVI	
arbazole	ND	0.0167	0.0333	ug/L	1	02/09/22 20:30	EPA 8270E LVI	
Dibenzofuran	ND	0.0167	0.0333	ug/L	1	02/09/22 20:30	EPA 8270E LVI	
Surrogate: Acenaphthylene-d8 (Surr)		Recov	very: 92 %	Limits: 78-134 %	6 I	02/09/22 20:30	EPA 8270E LVI	
Benzo(a)pyrene-d12 (Surr)			100 %	80-132 %	6 I	02/09/22 20:30	EPA 8270E LVI	

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Philip Nevenberg

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Philip Nerenberg, Lab Director

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project Number: **Eatonville**Project Number: **00171.067**Project Manager: **Josh Bale**

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

		Pentachl	orophenol b	y EPA 8270E				
	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
PZ-01_0222 (A2B0202-35)				Matrix: Wa	ter	Batch:	22B0333	
Pentachlorophenol (PCP)	ND	0.105	0.211	ug/L	1	02/09/22 15:05	EPA 8270E	
Surrogate: 2,4,6-Tribromophenol (Surr)		Reco	very: 79 %	Limits: 43-140	% 1	02/09/22 15:05	EPA 8270E	
PZ-02_0222 (A2B0202-36)				Matrix: Wa	ter	Batch:	Batch: 22B0333	
Pentachlorophenol (PCP)	ND	0.0980	0.196	ug/L	1	02/09/22 15:40	EPA 8270E	
Surrogate: 2,4,6-Tribromophenol (Surr)		Reco	very: 82 %	Limits: 43-140	% I	02/09/22 15:40	EPA 8270E	
PZ-102_0222 (A2B0202-37)				Matrix: Wa	ter	Batch:	22B0333	
Pentachlorophenol (PCP)	ND	0.0952	0.190	ug/L	1	02/09/22 16:14	EPA 8270E	
Surrogate: 2,4,6-Tribromophenol (Surr)		Reco	very: 80 %	Limits: 43-140	% I	02/09/22 16:14	EPA 8270E	
PZ-03_0222 (A2B0202-38)				Matrix: Wa	ter	Batch:	22B0333	
Pentachlorophenol (PCP)	ND	0.0990	0.198	ug/L	1	02/09/22 16:49	EPA 8270E	
Surrogate: 2,4,6-Tribromophenol (Surr)		Reco	very: 68 %	Limits: 43-140	% 1	02/09/22 16:49	EPA 8270E	
PZ-04_0222 (A2B0202-39)				Matrix: Wa	ter	Batch:	22B0333	
Pentachlorophenol (PCP)	ND	0.0990	0.198	ug/L	1	02/09/22 17:24	EPA 8270E	
Surrogate: 2,4,6-Tribromophenol (Surr)		Reco	very: 73 %	Limits: 43-140	% I	02/09/22 17:24	EPA 8270E	
PZ-05_0222 (A2B0202-40)				Matrix: Wa	ter	Batch:	22B0333	
Pentachlorophenol (PCP)	ND	0.0962	0.192	ug/L	1	02/09/22 17:58	EPA 8270E	
Surrogate: 2,4,6-Tribromophenol (Surr)		Reco	very: 80 %	Limits: 43-140	% 1	02/09/22 17:58	EPA 8270E	
SW-09_0222 (A2B0202-41)				Matrix: Wa	ter	Batch:	22B0333	
Pentachlorophenol (PCP)	ND	0.0980	0.196	ug/L	1	02/09/22 18:33	EPA 8270E	
Surrogate: 2,4,6-Tribromophenol (Surr)		Reco	very: 68 %	Limits: 43-140	% I	02/09/22 18:33	EPA 8270E	
SW-109_0222 (A2B0202-42)				Matrix: Wa	ter	Batch:	22B0333	
Pentachlorophenol (PCP)	ND	0.0980	0.196	ug/L	1	02/09/22 19:08	EPA 8270E	
Surrogate: 2,4,6-Tribromophenol (Surr)		Reco	very: 81 %	Limits: 43-140	% I	02/09/22 19:08	EPA 8270E	
SW-07_0222 (A2B0202-43)				Matrix: Wa	ter	Batch:	22B0333	
Pentachlorophenol (PCP)	ND	0.104	0.208	ug/L	1	02/09/22 19:42	EPA 8270E	

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project Number: **Eatonville**Project Number: **00171.067**Project Manager: **Josh Bale**

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

		Pentachl	orophenol k	y EPA 8270E				
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-07_0222 (A2B0202-43)				Matrix: Wat	er	Batch:	22B0333	
Surrogate: 2,4,6-Tribromophenol (Surr)		Reco	very: 81 %	Limits: 43-140 %	6 I	02/09/22 19:42	EPA 8270E	
SW-08_0222 (A2B0202-44)				Matrix: Wate	er	Batch:	22B0333	
Pentachlorophenol (PCP)	ND	0.0962	0.192	ug/L	1	02/09/22 16:39	EPA 8270E	
Surrogate: 2,4,6-Tribromophenol (Surr)		Reco	very: 94 %	Limits: 43-140 %	6 I	02/09/22 16:39	EPA 8270E	
SW-10_0222 (A2B0202-45)				Matrix: Wate	er	Batch:	22B0333	
Pentachlorophenol (PCP)	ND	0.0971	0.194	ug/L	1	02/09/22 16:04	EPA 8270E	
Surrogate: 2,4,6-Tribromophenol (Surr)		Recov	ery: 116%	Limits: 43-140 %	6 I	02/09/22 16:04	EPA 8270E	
SW-11_0222 (A2B0202-46)				Matrix: Wate	er	Batch:	22B0333	
Pentachlorophenol (PCP)	ND	0.0990	0.198	ug/L	1	02/09/22 15:28	EPA 8270E	
Surrogate: 2,4,6-Tribromophenol (Surr)		Reco	very: 99 %	Limits: 43-140 %	б I	02/09/22 15:28	EPA 8270E	
SW-12_0222 (A2B0202-47)				Matrix: Wate	er	Batch:	22B0333	
Pentachlorophenol (PCP)	ND	0.0962	0.192	ug/L	1	02/09/22 14:53	EPA 8270E	
Surrogate: 2,4,6-Tribromophenol (Surr)		Reco	very: 90 %	Limits: 43-140 %	6 I	02/09/22 14:53	EPA 8270E	
SW-13_0222 (A2B0202-48)				Matrix: Wate	er	Batch:	22B0333	
Pentachlorophenol (PCP)	ND	0.0980	0.196	ug/L	1	02/09/22 14:18	EPA 8270E	
Surrogate: 2,4,6-Tribromophenol (Surr)		Recove	ery: 102 %	Limits: 43-140 %	6 I	02/09/22 14:18	EPA 8270E	
SW-14_0222 (A2B0202-49)				Matrix: Wate	er	Batch:	22B0333	
Pentachlorophenol (PCP)	ND	0.0952	0.190	ug/L	1	02/09/22 13:43	EPA 8270E	
Surrogate: 2,4,6-Tribromophenol (Surr)		Recove	ery: 101 %	Limits: 43-140 %	6 I	02/09/22 13:43	EPA 8270E	

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Philip Nevenberg

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Philip Nerenberg, Lab Director



AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

		Total Meta	als by EPA 60	20B (ICPMS)				
	Sample	Detection	Reporting		· · ·	Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
HA-01-Comp-0.5-1.0_0222 (A2B0202-01)				Matrix: Soi	I			
Batch: 22B0382								
Arsenic	3.44	1.05	2.11	mg/kg dry	10	02/10/22 18:34	EPA 6020B	
Barium	67.9	1.05	2.11	mg/kg dry	10	02/10/22 18:34	EPA 6020B	
Beryllium	0.216	0.211	0.422	mg/kg dry	10	02/10/22 18:34	EPA 6020B	Ja
Cadmium	1.20	0.211	0.422	mg/kg dry	10	02/10/22 18:34	EPA 6020B	
Chromium	12.7	1.05	2.11	mg/kg dry	10	02/10/22 18:34	EPA 6020B	
Cobalt	3.80	1.05	2.11	mg/kg dry	10	02/10/22 18:34	EPA 6020B	
Copper	48.2	2.11	4.22	mg/kg dry	10	02/10/22 18:34	EPA 6020B	
Lead	83.8	0.211	0.422	mg/kg dry	10	02/10/22 18:34	EPA 6020B	
Nickel	10.6	2.11	4.22	mg/kg dry	10	02/10/22 18:34	EPA 6020B	
Selenium	ND	1.05	2.11	mg/kg dry	10	02/10/22 18:34	EPA 6020B	
Thallium	ND	0.211	0.422	mg/kg dry	10	02/10/22 18:34	EPA 6020B	
Vanadium	21.7	2.11	4.22	mg/kg dry	10	02/10/22 18:34	EPA 6020B	
Zinc	1050	4.22	8.44	mg/kg dry	10	02/10/22 18:34	EPA 6020B	
HA-01-Comp-1.0-2.0_0222 (A2B0202-02)				Matrix: Soi	I			
Batch: 22B0382								
Arsenic	3.23	0.944	1.89	mg/kg dry	10	02/10/22 18:39	EPA 6020B	
Barium	55.4	0.944	1.89	mg/kg dry	10	02/10/22 18:39	EPA 6020B	
Beryllium	0.200	0.189	0.378	mg/kg dry	10	02/10/22 18:39	EPA 6020B	Ja
Cadmium	0.931	0.189	0.378	mg/kg dry	10	02/10/22 18:39	EPA 6020B	
Chromium	11.6	0.944	1.89	mg/kg dry	10	02/10/22 18:39	EPA 6020B	
Cobalt	4.45	0.944	1.89	mg/kg dry	10	02/10/22 18:39	EPA 6020B	
Copper	38.7	1.89	3.78	mg/kg dry	10	02/10/22 18:39	EPA 6020B	
Lead	50.1	0.189	0.378	mg/kg dry	10	02/10/22 18:39	EPA 6020B	
Nickel	11.1	1.89	3.78	mg/kg dry	10	02/10/22 18:39	EPA 6020B	
Selenium	ND	0.944	1.89	mg/kg dry	10	02/10/22 18:39	EPA 6020B	
Thallium	ND	0.189	0.378	mg/kg dry	10	02/10/22 18:39	EPA 6020B	
Vanadium	26.7	1.89	3.78	mg/kg dry	10	02/10/22 18:39	EPA 6020B	
Zinc	789	3.78	7.55	mg/kg dry	10	02/10/22 18:39	EPA 6020B	
HA-02-Comp-0.5-1.0_0222 (A2B0202-03)				Matrix: Soi	I			
Batch: 22B0382								
Arsenic	5.43	2.27	4.54	mg/kg dry	10	02/10/22 18:44	EPA 6020B	

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)											
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes			
HA-02-Comp-0.5-1.0_0222 (A2B0202-03)				Matrix: Soi	I						
Barium	101	2.27	4.54	mg/kg dry	10	02/10/22 18:44	EPA 6020B				
Beryllium	ND	0.454	0.907	mg/kg dry	10	02/10/22 18:44	EPA 6020B				
Cadmium	1.88	0.454	0.907	mg/kg dry	10	02/10/22 18:44	EPA 6020B				
Chromium	15.3	2.27	4.54	mg/kg dry	10	02/10/22 18:44	EPA 6020B				
Cobalt	6.42	2.27	4.54	mg/kg dry	10	02/10/22 18:44	EPA 6020B				
Copper	66.8	4.54	9.07	mg/kg dry	10	02/10/22 18:44	EPA 6020B				
Lead	86.0	0.454	0.907	mg/kg dry	10	02/10/22 18:44	EPA 6020B				
Nickel	20.2	4.54	9.07	mg/kg dry	10	02/10/22 18:44	EPA 6020B				
Selenium	ND	2.27	4.54	mg/kg dry	10	02/10/22 18:44	EPA 6020B				
Thallium	ND	0.454	0.907	mg/kg dry	10	02/10/22 18:44	EPA 6020B				
Vanadium	45.5	4.54	9.07	mg/kg dry	10	02/10/22 18:44	EPA 6020B				
Zinc	3620	9.07	18.1	mg/kg dry	10	02/10/22 18:44	EPA 6020B				
HA-02-Comp-1.0-2.0_0222 (A2B0202-04)				Matrix: Soi	I						
Batch: 22B0382											
Arsenic	4.65	1.54	3.08	mg/kg dry	10	02/10/22 18:49	EPA 6020B				
Barium	82.3	1.54	3.08	mg/kg dry	10	02/10/22 18:49	EPA 6020B				
Beryllium	0.443	0.308	0.615	mg/kg dry	10	02/10/22 18:49	EPA 6020B	Ja			
Cadmium	0.387	0.308	0.615	mg/kg dry	10	02/10/22 18:49	EPA 6020B	Ja			
Chromium	13.4	1.54	3.08	mg/kg dry	10	02/10/22 18:49	EPA 6020B				
Cobalt	4.84	1.54	3.08	mg/kg dry	10	02/10/22 18:49	EPA 6020B				
Copper	42.0	3.08	6.15	mg/kg dry	10	02/10/22 18:49	EPA 6020B				
Lead	14.8	0.308	0.615	mg/kg dry	10	02/10/22 18:49	EPA 6020B				
Nickel	12.1	3.08	6.15	mg/kg dry	10	02/10/22 18:49	EPA 6020B				
Selenium	ND	1.54	3.08	mg/kg dry	10	02/10/22 18:49	EPA 6020B				
Thallium	ND	0.308	0.615	mg/kg dry	10	02/10/22 18:49	EPA 6020B				
Vanadium	49.3	3.08	6.15	mg/kg dry	10	02/10/22 18:49	EPA 6020B				
Zinc	405	6.15	12.3	mg/kg dry	10	02/10/22 18:49	EPA 6020B				
HA-102-Comp-0.5-1.0_0222 (A2B0202-05)				Matrix: Soi	I						
Batch: 22B0382											
Arsenic	5.25	2.60	5.19	mg/kg dry	10	02/10/22 18:53	EPA 6020B				
Barium	98.4	2.60	5.19	mg/kg dry	10	02/10/22 18:53	EPA 6020B				
Beryllium	ND	0.519	1.04	mg/kg dry	10	02/10/22 18:53	EPA 6020B				

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Philip Nerenberg, Lab Director

Philip Nevenberg

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

		Total Meta	ils by EPA 60	20B (ICPMS)				
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-102-Comp-0.5-1.0_0222 (A2B0202-05))			Matrix: Soi	I			
Chromium	16.4	2.60	5.19	mg/kg dry	10	02/10/22 18:53	EPA 6020B	
Cobalt	7.16	2.60	5.19	mg/kg dry	10	02/10/22 18:53	EPA 6020B	
Copper	67.4	5.19	10.4	mg/kg dry	10	02/10/22 18:53	EPA 6020B	
Lead	86.2	0.519	1.04	mg/kg dry	10	02/10/22 18:53	EPA 6020B	
Nickel	20.8	5.19	10.4	mg/kg dry	10	02/10/22 18:53	EPA 6020B	
Selenium	ND	2.60	5.19	mg/kg dry	10	02/10/22 18:53	EPA 6020B	
Thallium	ND	0.519	1.04	mg/kg dry	10	02/10/22 18:53	EPA 6020B	
Vanadium	50.4	5.19	10.4	mg/kg dry	10	02/10/22 18:53	EPA 6020B	
Zinc	3640	10.4	20.8	mg/kg dry	10	02/10/22 18:53	EPA 6020B	
HA-102-Comp-0.5-1.0_0222 (A2B0202-05	RE2)			Matrix: Soi	I			
Batch: 22B0382								
Cadmium	0.946	0.519	1.04	mg/kg dry	10	02/16/22 15:35	EPA 6020B	Ja
HA-102-Comp-1.0-2.0_0222 (A2B0202-06))			Matrix: Soi	I			
Batch: 22B0382								
Arsenic	6.30	1.63	3.27	mg/kg dry	10	02/10/22 18:58	EPA 6020B	
Barium	104	1.63	3.27	mg/kg dry	10	02/10/22 18:58	EPA 6020B	
Beryllium	0.570	0.327	0.653	mg/kg dry	10	02/10/22 18:58	EPA 6020B	Ja
Cadmium	0.651	0.327	0.653	mg/kg dry	10	02/10/22 18:58	EPA 6020B	Ja
Chromium	18.2	1.63	3.27	mg/kg dry	10	02/10/22 18:58	EPA 6020B	
Cobalt	5.18	1.63	3.27	mg/kg dry	10	02/10/22 18:58	EPA 6020B	
Copper	53.7	3.27	6.53	mg/kg dry	10	02/10/22 18:58	EPA 6020B	
Lead	24.6	0.327	0.653	mg/kg dry	10	02/10/22 18:58	EPA 6020B	
Nickel	15.6	3.27	6.53	mg/kg dry	10	02/10/22 18:58	EPA 6020B	
Selenium	ND	1.63	3.27	mg/kg dry	10	02/10/22 18:58	EPA 6020B	
Thallium	ND	0.327	0.653	mg/kg dry	10	02/10/22 18:58	EPA 6020B	
Vanadium	55.3	3.27	6.53	mg/kg dry	10	02/10/22 18:58	EPA 6020B	
Zinc	384	6.53	13.1	mg/kg dry	10	02/10/22 18:58	EPA 6020B	
HA-03-Comp-0.5-1.0_0222 (A2B0202-07)				Matrix: Soi	l			
Batch: 22B0382								
Arsenic	3.97	2.28	4.55	mg/kg dry	10	02/10/22 19:03	EPA 6020B	Ja
Barium	97.5	2.28	4.55	mg/kg dry	10	02/10/22 19:03	EPA 6020B	

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Philip Nerenberg, Lab Director

Philip Nevenberg

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

		Total Meta	ls by EPA 60	20B (ICPMS)				
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-03-Comp-0.5-1.0_0222 (A2B0202-07)				Matrix: Soi	I			
Beryllium	ND	0.455	0.910	mg/kg dry	10	02/10/22 19:03	EPA 6020B	
Cadmium	0.795	0.455	0.910	mg/kg dry	10	02/10/22 19:03	EPA 6020B	Ja
Chromium	18.8	2.28	4.55	mg/kg dry	10	02/10/22 19:03	EPA 6020B	
Cobalt	5.54	2.28	4.55	mg/kg dry	10	02/10/22 19:03	EPA 6020B	
Copper	52.8	4.55	9.10	mg/kg dry	10	02/10/22 19:03	EPA 6020B	
Lead	121	0.455	0.910	mg/kg dry	10	02/10/22 19:03	EPA 6020B	
Nickel	18.5	4.55	9.10	mg/kg dry	10	02/10/22 19:03	EPA 6020B	
Selenium	ND	2.28	4.55	mg/kg dry	10	02/10/22 19:03	EPA 6020B	
Thallium	ND	0.455	0.910	mg/kg dry	10	02/10/22 19:03	EPA 6020B	
Vanadium	45.7	4.55	9.10	mg/kg dry	10	02/10/22 19:03	EPA 6020B	
Zinc	571	9.10	18.2	mg/kg dry	10	02/10/22 19:03	EPA 6020B	
HA-03-Comp-1.0-2.0_0222 (A2B0202-08)				Matrix: Soi	I			
Batch: 22B0382								
Arsenic	1.43	1.14	2.28	mg/kg dry	10	02/10/22 19:08	EPA 6020B	Ja
Barium	43.4	1.14	2.28	mg/kg dry	10	02/10/22 19:08	EPA 6020B	
Beryllium	ND	0.228	0.456	mg/kg dry	10	02/10/22 19:08	EPA 6020B	
Cadmium	ND	0.228	0.456	mg/kg dry	10	02/10/22 19:08	EPA 6020B	
Chromium	9.59	1.14	2.28	mg/kg dry	10	02/10/22 19:08	EPA 6020B	
Cobalt	1.82	1.14	2.28	mg/kg dry	10	02/10/22 19:08	EPA 6020B	Ja
Copper	13.4	2.28	4.56	mg/kg dry	10	02/10/22 19:08	EPA 6020B	
Lead	5.01	0.228	0.456	mg/kg dry	10	02/10/22 19:08	EPA 6020B	
Nickel	6.17	2.28	4.56	mg/kg dry	10	02/10/22 19:08	EPA 6020B	
Selenium	ND	1.14	2.28	mg/kg dry	10	02/10/22 19:08	EPA 6020B	
Thallium	ND	0.228	0.456	mg/kg dry	10	02/10/22 19:08	EPA 6020B	
Vanadium	27.4	2.28	4.56	mg/kg dry	10	02/10/22 19:08	EPA 6020B	
Zinc	93.5	4.56	9.13	mg/kg dry	10	02/10/22 19:08	EPA 6020B	
HA-04-Comp-0.0-0.5_0222 (A2B0202-09)				Matrix: Soi	1			
Batch: 22B0382								
Arsenic	4.40	3.63	7.27	mg/kg dry	10	02/10/22 19:12	EPA 6020B	Ja
Barium	59.6	3.63	7.27	mg/kg dry	10	02/10/22 19:12	EPA 6020B	
Beryllium	ND	0.727	1.45	mg/kg dry	10	02/10/22 19:12	EPA 6020B	
Cadmium	ND	0.727	1.45	mg/kg dry	10	02/10/22 19:12	EPA 6020B	

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Philip Merenberg

Philip Nerenberg, Lab Director

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project Number: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

		Total Meta	ls by EPA 60	20B (ICPMS)				
	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
HA-04-Comp-0.0-0.5_0222 (A2B0202-09)				Matrix: Soi				
Chromium	8.26	3.63	7.27	mg/kg dry	10	02/10/22 19:12	EPA 6020B	
Cobalt	ND	3.63	7.27	mg/kg dry	10	02/10/22 19:12	EPA 6020B	
Copper	24.1	7.27	14.5	mg/kg dry	10	02/10/22 19:12	EPA 6020B	
Lead	256	0.727	1.45	mg/kg dry	10	02/10/22 19:12	EPA 6020B	
Nickel	8.26	7.27	14.5	mg/kg dry	10	02/10/22 19:12	EPA 6020B	Ja
Selenium	ND	3.63	7.27	mg/kg dry	10	02/10/22 19:12	EPA 6020B	
Thallium	ND	0.727	1.45	mg/kg dry	10	02/10/22 19:12	EPA 6020B	
Vanadium	17.6	7.27	14.5	mg/kg dry	10	02/10/22 19:12	EPA 6020B	
Zinc	592	14.5	29.1	mg/kg dry	10	02/10/22 19:12	EPA 6020B	
HA-04-Comp-0.5-1.0_0222 (A2B0202-10)				Matrix: Soi	I			
Batch: 22B0382								
Arsenic	2.00	1.44	2.89	mg/kg dry	10	02/10/22 19:17	EPA 6020B	Ja
Barium	68.0	1.44	2.89	mg/kg dry	10	02/10/22 19:17	EPA 6020B	
Beryllium	ND	0.289	0.578	mg/kg dry	10	02/10/22 19:17	EPA 6020B	
Cadmium	ND	0.289	0.578	mg/kg dry	10	02/10/22 19:17	EPA 6020B	
Chromium	15.7	1.44	2.89	mg/kg dry	10	02/10/22 19:17	EPA 6020B	
Cobalt	2.24	1.44	2.89	mg/kg dry	10	02/10/22 19:17	EPA 6020B	Ja
Copper	17.8	2.89	5.78	mg/kg dry	10	02/10/22 19:17	EPA 6020B	
Lead	10.3	0.289	0.578	mg/kg dry	10	02/10/22 19:17	EPA 6020B	
Nickel	10.2	2.89	5.78	mg/kg dry	10	02/10/22 19:17	EPA 6020B	
Selenium	ND	1.44	2.89	mg/kg dry	10	02/10/22 19:17	EPA 6020B	
Thallium	ND	0.289	0.578	mg/kg dry	10	02/10/22 19:17	EPA 6020B	
Vanadium	29.7	2.89	5.78	mg/kg dry	10	02/10/22 19:17	EPA 6020B	
Zinc	86.6	5.78	11.6	mg/kg dry	10	02/10/22 19:17	EPA 6020B	
HA-04-Comp-1.0-2.0_0222 (A2B0202-11)				Matrix: Soi	I			
Batch: 22B0382								
Arsenic	1.19	0.941	1.88	mg/kg dry	10	02/10/22 19:32	EPA 6020B	Ja
Barium	40.0	0.941	1.88	mg/kg dry	10	02/10/22 19:32	EPA 6020B	
Beryllium	ND	0.188	0.376	mg/kg dry	10	02/10/22 19:32	EPA 6020B	
Cadmium	ND	0.188	0.376	mg/kg dry	10	02/10/22 19:32	EPA 6020B	
Chromium	9.23	0.941	1.88	mg/kg dry	10	02/10/22 19:32	EPA 6020B	
Cobalt	2.10	0.941	1.88	mg/kg dry	10	02/10/22 19:32	EPA 6020B	

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Philip Nerenberg, Lab Director

Philip Nevenberg

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

		Total Meta	ls by EPA 60	20B (ICPMS)				
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Note
HA-04-Comp-1.0-2.0_0222 (A2B0202-11)				Matrix: Soi	I			
Copper	10.6	1.88	3.76	mg/kg dry	10	02/10/22 19:32	EPA 6020B	
Lead	3.29	0.188	0.376	mg/kg dry	10	02/10/22 19:32	EPA 6020B	
Nickel	7.14	1.88	3.76	mg/kg dry	10	02/10/22 19:32	EPA 6020B	
Selenium	ND	0.941	1.88	mg/kg dry	10	02/10/22 19:32	EPA 6020B	
Thallium	ND	0.188	0.376	mg/kg dry	10	02/10/22 19:32	EPA 6020B	
Vanadium	19.3	1.88	3.76	mg/kg dry	10	02/10/22 19:32	EPA 6020B	
Zinc	52.6	3.76	7.53	mg/kg dry	10	02/10/22 19:32	EPA 6020B	
HA-05-Comp-0.0-0.5_0222 (A2B0202-12)				Matrix: Soi	l			
Batch: 22B0432								
Arsenic	2.82	1.88	3.76	mg/kg dry	10	02/14/22 14:38	EPA 6020B	Ja
Barium	46.9	1.88	3.76	mg/kg dry	10	02/14/22 14:38	EPA 6020B	
Chromium	11.6	1.88	3.76	mg/kg dry	10	02/14/22 14:38	EPA 6020B	
Cobalt	2.11	1.88	3.76	mg/kg dry	10	02/14/22 14:38	EPA 6020B	Ja
Copper	16.0	3.76	7.52	mg/kg dry	10	02/14/22 14:38	EPA 6020B	
Lead	118	0.376	0.752	mg/kg dry	10	02/14/22 14:38	EPA 6020B	
Nickel	7.38	3.76	7.52	mg/kg dry	10	02/14/22 14:38	EPA 6020B	Ja
Selenium	ND	1.88	3.76	mg/kg dry	10	02/14/22 14:38	EPA 6020B	
Thallium	ND	0.376	0.752	mg/kg dry	10	02/14/22 14:38	EPA 6020B	
Vanadium	25.4	3.76	7.52	mg/kg dry	10	02/14/22 14:38	EPA 6020B	
Zinc	88.7	7.52	15.0	mg/kg dry	10	02/14/22 14:38	EPA 6020B	
HA-05-Comp-0.0-0.5_0222 (A2B0202-12R	E1)			Matrix: Soi	l			
Batch: 22B0432								
Beryllium	ND	0.376	0.752	mg/kg dry	10	02/16/22 15:40	EPA 6020B	
Cadmium	0.393	0.376	0.752	mg/kg dry	10	02/16/22 15:40	EPA 6020B	Ja
HA-05-Comp-0.5-1.0_0222 (A2B0202-13)				Matrix: Soi	l			
Batch: 22B0432								
Arsenic	2.95	1.56	3.13	mg/kg dry	10	02/14/22 15:28	EPA 6020B	Ja
Barium	67.3	1.56	3.13	mg/kg dry	10	02/14/22 15:28	EPA 6020B	
Chromium	13.1	1.56	3.13	mg/kg dry	10	02/14/22 15:28	EPA 6020B	
Cobalt	2.92	1.56	3.13	mg/kg dry	10	02/14/22 15:28	EPA 6020B	Ja
Copper	17.4	3.13	6.25	mg/kg dry	10	02/14/22 15:28	EPA 6020B	

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Philip Merenberg

Philip Nerenberg, Lab Director



AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

		Total Meta	is by EPA 60	20B (ICPMS)		_	_	
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-05-Comp-0.5-1.0_0222 (A2B0202-13)				Matrix: Soi	I			
Lead	26.8	0.313	0.625	mg/kg dry	10	02/14/22 15:28	EPA 6020B	
Nickel	8.87	3.13	6.25	mg/kg dry	10	02/14/22 15:28	EPA 6020B	
Selenium	ND	1.56	3.13	mg/kg dry	10	02/14/22 15:28	EPA 6020B	
Thallium	ND	0.313	0.625	mg/kg dry	10	02/14/22 15:28	EPA 6020B	
Vanadium	32.3	3.13	6.25	mg/kg dry	10	02/14/22 15:28	EPA 6020B	
Zinc	51.2	6.25	12.5	mg/kg dry	10	02/14/22 15:28	EPA 6020B	
HA-05-Comp-0.5-1.0_0222 (A2B0202-13Ri	E1)			Matrix: Soi	I			
Batch: 22B0432								
Beryllium	ND	0.313	0.625	mg/kg dry	10	02/16/22 16:03	EPA 6020B	
Cadmium	ND	0.313	0.625	mg/kg dry	10	02/16/22 16:03	EPA 6020B	
HA-05-Comp-1.0-2.0_0222 (A2B0202-14)				Matrix: Soi	I			
Batch: 22B0432								
Arsenic	1.25	0.947	1.89	mg/kg dry	10	02/14/22 15:33	EPA 6020B	Ja
Barium	45.4	0.947	1.89	mg/kg dry	10	02/14/22 15:33	EPA 6020B	
Chromium	11.4	0.947	1.89	mg/kg dry	10	02/14/22 15:33	EPA 6020B	
Cobalt	2.23	0.947	1.89	mg/kg dry	10	02/14/22 15:33	EPA 6020B	
Copper	13.7	1.89	3.79	mg/kg dry	10	02/14/22 15:33	EPA 6020B	
Lead	7.51	0.189	0.379	mg/kg dry	10	02/14/22 15:33	EPA 6020B	
Nickel	6.12	1.89	3.79	mg/kg dry	10	02/14/22 15:33	EPA 6020B	
Selenium	ND	0.947	1.89	mg/kg dry	10	02/14/22 15:33	EPA 6020B	
Thallium	ND	0.189	0.379	mg/kg dry	10	02/14/22 15:33	EPA 6020B	
Vanadium	28.4	1.89	3.79	mg/kg dry	10	02/14/22 15:33	EPA 6020B	
Zinc	20.3	3.79	7.58	mg/kg dry	10	02/14/22 15:33	EPA 6020B	
HA-05-Comp-1.0-2.0_0222 (A2B0202-14R	E1)			Matrix: Soi	ı			
Batch: 22B0432								
Beryllium	0.262	0.189	0.379	mg/kg dry	10	02/16/22 16:37	EPA 6020B	Ja
Cadmium	ND	0.189	0.379	mg/kg dry	10	02/16/22 16:37	EPA 6020B	
HA-01A-0.0-0.5_0222 (A2B0202-15)	-			Matrix: Soi	I			
Batch: 22B0503								
Arsenic	3.15	0.808	1.62	mg/kg dry	10	02/16/22 13:14	EPA 6020B	
Barium	41.8	0.808	1.62	mg/kg dry	10	02/16/22 13:14	EPA 6020B	

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

		Total Meta	ls by EPA 60	20B (ICPMS)				
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-01A-0.0-0.5_0222 (A2B0202-15)				Matrix: Soi	l			
Beryllium	0.228	0.162	0.323	mg/kg dry	10	02/16/22 13:14	EPA 6020B	Ja
Cadmium	0.847	0.162	0.323	mg/kg dry	10	02/16/22 13:14	EPA 6020B	
Chromium	12.9	0.808	1.62	mg/kg dry	10	02/16/22 13:14	EPA 6020B	
Cobalt	6.34	0.808	1.62	mg/kg dry	10	02/16/22 13:14	EPA 6020B	
Copper	86.9	1.62	3.23	mg/kg dry	10	02/16/22 13:14	EPA 6020B	Q-42
Lead	149	0.162	0.323	mg/kg dry	10	02/16/22 13:14	EPA 6020B	
Selenium	ND	0.808	1.62	mg/kg dry	10	02/16/22 13:14	EPA 6020B	
Thallium	ND	0.162	0.323	mg/kg dry	10	02/16/22 13:14	EPA 6020B	
Vanadium	26.1	1.62	3.23	mg/kg dry	10	02/16/22 13:14	EPA 6020B	
Zinc	389	3.23	6.46	mg/kg dry	10	02/16/22 13:14	EPA 6020B	Q-42
HA-01A-0.0-0.5_0222 (A2B0202-15RE1)				Matrix: Soi	I			
Batch: 22B0503								
Nickel	16.2	1.62	3.23	mg/kg dry	10	02/17/22 22:30	EPA 6020B	
HA-01B-0.0-0.5_0222 (A2B0202-16)				Matrix: Soi	l			
Batch: 22B0503								
Arsenic	7.79	2.04	4.07	mg/kg dry	10	02/16/22 13:52	EPA 6020B	
Barium	100	2.04	4.07	mg/kg dry	10	02/16/22 13:52	EPA 6020B	
Beryllium	ND	0.407	0.815	mg/kg dry	10	02/16/22 13:52	EPA 6020B	
Cadmium	3.41	0.407	0.815	mg/kg dry	10	02/16/22 13:52	EPA 6020B	
Chromium	20.3	2.04	4.07	mg/kg dry	10	02/16/22 13:52	EPA 6020B	
Cobalt	8.70	2.04	4.07	mg/kg dry	10	02/16/22 13:52	EPA 6020B	
Copper	133	4.07	8.15	mg/kg dry	10	02/16/22 13:52	EPA 6020B	
Lead	168	0.407	0.815	mg/kg dry	10	02/16/22 13:52	EPA 6020B	
Selenium	ND	2.04	4.07	mg/kg dry	10	02/16/22 13:52	EPA 6020B	
Thallium	ND	0.407	0.815	mg/kg dry	10	02/16/22 13:52	EPA 6020B	
Vanadium	27.3	4.07	8.15	mg/kg dry	10	02/16/22 13:52	EPA 6020B	
Zinc	1790	8.15	16.3	mg/kg dry	10	02/16/22 13:52	EPA 6020B	
HA-01B-0.0-0.5_0222 (A2B0202-16RE1)				Matrix: Soi	I			
Batch: 22B0503					·			
Nickel	25.8	4.07	8.15	mg/kg dry	10	02/17/22 22:44	EPA 6020B	

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Philip Nerenberg, Lab Director

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

		Total Meta	Is by EPA 60	20B (ICPMS)				
	Sample	Detection	Reporting			Date	<u> </u>	
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Note
HA-01C-0.0-0.5_0222 (A2B0202-17)				Matrix: Soi	I			
Batch: 22B0503								
Arsenic	4.73	4.59	9.18	mg/kg dry	10	02/16/22 13:57	EPA 6020B	Ja
Barium	265	4.59	9.18	mg/kg dry	10	02/16/22 13:57	EPA 6020B	
Beryllium	ND	0.918	1.84	mg/kg dry	10	02/16/22 13:57	EPA 6020B	
Cadmium	10.9	0.918	1.84	mg/kg dry	10	02/16/22 13:57	EPA 6020B	
Chromium	17.6	4.59	9.18	mg/kg dry	10	02/16/22 13:57	EPA 6020B	
Cobalt	10.1	4.59	9.18	mg/kg dry	10	02/16/22 13:57	EPA 6020B	
Copper	166	9.18	18.4	mg/kg dry	10	02/16/22 13:57	EPA 6020B	
Lead	283	0.918	1.84	mg/kg dry	10	02/16/22 13:57	EPA 6020B	
Selenium	ND	4.59	9.18	mg/kg dry	10	02/16/22 13:57	EPA 6020B	
Thallium	ND	0.918	1.84	mg/kg dry	10	02/16/22 13:57	EPA 6020B	
Vanadium	26.8	9.18	18.4	mg/kg dry	10	02/16/22 13:57	EPA 6020B	
Zinc	5780	18.4	36.7	mg/kg dry	10	02/16/22 13:57	EPA 6020B	
HA-01C-0.0-0.5_0222 (A2B0202-17RE1)				Matrix: Soi	I			
Batch: 22B0503								
Nickel	61.2	9.18	18.4	mg/kg dry	10	02/17/22 22:49	EPA 6020B	
HA-01D-0.0-0.5_0222 (A2B0202-18)				Matrix: Soi	I			
Batch: 22B0503								
Arsenic	10.5	1.97	3.94	mg/kg dry	10	02/16/22 14:02	EPA 6020B	
Barium	169	1.97	3.94	mg/kg dry	10	02/16/22 14:02	EPA 6020B	
Beryllium	ND	0.394	0.788	mg/kg dry	10	02/16/22 14:02	EPA 6020B	
Cadmium	6.33	0.394	0.788	mg/kg dry	10	02/16/22 14:02	EPA 6020B	
Chromium	20.5	1.97	3.94	mg/kg dry	10	02/16/22 14:02	EPA 6020B	
Cobalt	17.8	1.97	3.94	mg/kg dry	10	02/16/22 14:02	EPA 6020B	
Copper	140	3.94	7.88	mg/kg dry	10	02/16/22 14:02	EPA 6020B	
Lead	325	0.394	0.788	mg/kg dry	10	02/16/22 14:02	EPA 6020B	
Selenium	ND	1.97	3.94	mg/kg dry	10	02/16/22 14:02	EPA 6020B	
Thallium	ND	0.394	0.788	mg/kg dry	10	02/16/22 14:02	EPA 6020B	
Vanadium	21.1	3.94	7.88	mg/kg dry	10	02/16/22 14:02	EPA 6020B	

Batch: 22B0503

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

		Total Meta	als by EPA 60	20B (ICPMS)				
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-01D-0.0-0.5_0222 (A2B0202-18RE1)				Matrix: Soi	l			
Zinc	14000	78.8	158	mg/kg dry	100	02/16/22 14:07	EPA 6020B	
HA-01D-0.0-0.5_0222 (A2B0202-18RE2)				Matrix: Soi	l			
Batch: 22B0503								
Nickel	37.7	3.94	7.88	mg/kg dry	10	02/17/22 22:54	EPA 6020B	
HA-01E-0.0-0.5_0222 (A2B0202-19)				Matrix: Soi	İ			
Batch: 22B0503								
Arsenic	1.70	0.674	1.35	mg/kg dry	10	02/16/22 14:11	EPA 6020B	
Barium	44.8	0.674	1.35	mg/kg dry	10	02/16/22 14:11	EPA 6020B	
Beryllium	0.174	0.135	0.270	mg/kg dry	10	02/16/22 14:11	EPA 6020B	Ja
Cadmium	0.167	0.135	0.270	mg/kg dry	10	02/16/22 14:11	EPA 6020B	Ja
Chromium	5.39	0.674	1.35	mg/kg dry	10	02/16/22 14:11	EPA 6020B	
Cobalt	3.55	0.674	1.35	mg/kg dry	10	02/16/22 14:11	EPA 6020B	
Copper	15.4	1.35	2.70	mg/kg dry	10	02/16/22 14:11	EPA 6020B	
Lead	17.2	0.135	0.270	mg/kg dry	10	02/16/22 14:11	EPA 6020B	
Nickel	2.50	1.35	2.70	mg/kg dry	10	02/16/22 14:11	EPA 6020B	Ja
Selenium	ND	0.674	1.35	mg/kg dry	10	02/16/22 14:11	EPA 6020B	
Гhallium	ND	0.135	0.270	mg/kg dry	10	02/16/22 14:11	EPA 6020B	
Vanadium	15.0	1.35	2.70	mg/kg dry	10	02/16/22 14:11	EPA 6020B	
Zinc	110	2.70	5.39	mg/kg dry	10	02/16/22 14:11	EPA 6020B	
HA-02A-0.0-0.5_0222 (A2B0202-20)				Matrix: Soi				
Batch: 22B0503								
Arsenic	1.90	1.89	3.78	mg/kg dry	10	02/16/22 14:16	EPA 6020B	Ja
3arium	51.1	1.89	3.78	mg/kg dry	10	02/16/22 14:16	EPA 6020B	
Beryllium	ND	0.378	0.756	mg/kg dry	10	02/16/22 14:16	EPA 6020B	
Cadmium	0.398	0.378	0.756	mg/kg dry	10	02/16/22 14:16	EPA 6020B	Ja
Chromium	8.93	1.89	3.78	mg/kg dry	10	02/16/22 14:16	EPA 6020B	
Cobalt	2.59	1.89	3.78	mg/kg dry	10	02/16/22 14:16	EPA 6020B	Ja
Copper	29.5	3.78	7.56	mg/kg dry	10	02/16/22 14:16	EPA 6020B	
Lead	38.5	0.378	0.756	mg/kg dry	10	02/16/22 14:16	EPA 6020B	
Nickel	ND	3.78	7.56	mg/kg dry	10	02/16/22 14:16	EPA 6020B	
Selenium	ND	1.89	3.78	mg/kg dry	10	02/16/22 14:16	EPA 6020B	

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Philip Nerenberg, Lab Director



AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

		Total Meta	als by EPA 60	20B (ICPMS)				
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-02A-0.0-0.5_0222 (A2B0202-20)				Matrix: Soi	ı			
Thallium	ND	0.378	0.756	mg/kg dry	10	02/16/22 14:16	EPA 6020B	
Vanadium	19.3	3.78	7.56	mg/kg dry	10	02/16/22 14:16	EPA 6020B	
Zinc	75.5	7.56	15.1	mg/kg dry	10	02/16/22 14:16	EPA 6020B	
HA-02B-0.0-0.5_0222 (A2B0202-21)				Matrix: Soi	I			
Batch: 22B0503								_
Arsenic	3.10	1.51	3.03	mg/kg dry	10	02/16/22 14:21	EPA 6020B	
Barium	51.3	1.51	3.03	mg/kg dry	10	02/16/22 14:21	EPA 6020B	
Beryllium	0.303	0.303	0.606	mg/kg dry	10	02/16/22 14:21	EPA 6020B	Ja
Cadmium	0.738	0.303	0.606	mg/kg dry	10	02/16/22 14:21	EPA 6020B	
Chromium	15.6	1.51	3.03	mg/kg dry	10	02/16/22 14:21	EPA 6020B	
Cobalt	4.64	1.51	3.03	mg/kg dry	10	02/16/22 14:21	EPA 6020B	
Copper	44.0	3.03	6.06	mg/kg dry	10	02/16/22 14:21	EPA 6020B	
Lead	86.6	0.303	0.606	mg/kg dry	10	02/16/22 14:21	EPA 6020B	
Selenium	ND	1.51	3.03	mg/kg dry	10	02/16/22 14:21	EPA 6020B	
Thallium	ND	0.303	0.606	mg/kg dry	10	02/16/22 14:21	EPA 6020B	
Vanadium	23.3	3.03	6.06	mg/kg dry	10	02/16/22 14:21	EPA 6020B	
Zinc	486	6.06	12.1	mg/kg dry	10	02/16/22 14:21	EPA 6020B	
HA-02B-0.0-0.5_0222 (A2B0202-21RE1)				Matrix: Soi	I			
Batch: 22B0503								
Nickel	13.6	3.03	6.06	mg/kg dry	10	02/17/22 22:58	EPA 6020B	
HA-02C-0.0-0.5_0222 (A2B0202-22)				Matrix: Soi	I			
Batch: 22B0503						<u> </u>		
Arsenic	ND	4.25	8.50	mg/kg dry	10	02/16/22 14:26	EPA 6020B	
Barium	81.6	4.25	8.50	mg/kg dry	10	02/16/22 14:26	EPA 6020B	
Beryllium	ND	0.850	1.70	mg/kg dry	10	02/16/22 14:26	EPA 6020B	
Cadmium	4.51	0.850	1.70	mg/kg dry	10	02/16/22 14:26	EPA 6020B	
Chromium	18.3	4.25	8.50	mg/kg dry	10	02/16/22 14:26	EPA 6020B	
Cobalt	5.52	4.25	8.50	mg/kg dry	10	02/16/22 14:26	EPA 6020B	Ja
Copper	208	8.50	17.0	mg/kg dry	10	02/16/22 14:26	EPA 6020B	
Lead	172	0.850	1.70	mg/kg dry	10	02/16/22 14:26	EPA 6020B	
Selenium	ND	4.25	8.50	mg/kg dry	10	02/16/22 14:26	EPA 6020B	

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Philip Nerenberg, Lab Director

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

<u>GSI Water Solutions</u> 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project Number: **Eatonville**Project Number: **00171.067**Project Manager: **Josh Bale**

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

		Total Meta	als by EPA 60	20B (ICPMS)				
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-02C-0.0-0.5_0222 (A2B0202-22)				Matrix: Soi	l			
Thallium	ND	0.850	1.70	mg/kg dry	10	02/16/22 14:26	EPA 6020B	
Vanadium	29.5	8.50	17.0	mg/kg dry	10	02/16/22 14:26	EPA 6020B	
Zinc	1940	17.0	34.0	mg/kg dry	10	02/16/22 14:26	EPA 6020B	
HA-02C-0.0-0.5_0222 (A2B0202-22RE1)				Matrix: Soi	I			
Batch: 22B0503								
Nickel	51.4	8.50	17.0	mg/kg dry	10	02/17/22 23:03	EPA 6020B	
HA-02D-0.0-0.5_0222 (A2B0202-23)				Matrix: Soi				
Batch: 22B0503								
Arsenic	6.01	3.73	7.47	mg/kg dry	10	02/16/22 14:33	EPA 6020B	Ja
Barium	116	3.73	7.47	mg/kg dry	10	02/16/22 14:33	EPA 6020B	
Beryllium	ND	0.747	1.49	mg/kg dry	10	02/16/22 14:33	EPA 6020B	
Cadmium	5.03	0.747	1.49	mg/kg dry	10	02/16/22 14:33	EPA 6020B	
Chromium	10.1	3.73	7.47	mg/kg dry	10	02/16/22 14:33	EPA 6020B	
Cobalt	6.37	3.73	7.47	mg/kg dry	10	02/16/22 14:33	EPA 6020B	Ja
Copper	61.1	7.47	14.9	mg/kg dry	10	02/16/22 14:33	EPA 6020B	
Lead	163	0.747	1.49	mg/kg dry	10	02/16/22 14:33	EPA 6020B	
Selenium	ND	3.73	7.47	mg/kg dry	10	02/16/22 14:33	EPA 6020B	
Гhallium	ND	0.747	1.49	mg/kg dry	10	02/16/22 14:33	EPA 6020B	
Vanadium	21.2	7.47	14.9	mg/kg dry	10	02/16/22 14:33	EPA 6020B	
Zinc	3420	14.9	29.9	mg/kg dry	10	02/16/22 14:33	EPA 6020B	
HA-02D-0.0-0.5_0222 (A2B0202-23RE1)				Matrix: Soi				
Batch: 22B0503								
Nickel	47.3	7.47	14.9	mg/kg dry	10	02/17/22 23:08	EPA 6020B	
HA-02E-0.0-0.5_0222 (A2B0202-24)				Matrix: Soi	l			
Batch: 22B0503								
Arsenic	12.5	2.13	4.26	mg/kg dry	10	02/16/22 14:42	EPA 6020B	
Barium	102	2.13	4.26	mg/kg dry	10	02/16/22 14:42	EPA 6020B	
Beryllium	ND	0.426	0.853	mg/kg dry	10	02/16/22 14:42	EPA 6020B	
Cadmium	1.23	0.426	0.853	mg/kg dry	10	02/16/22 14:42	EPA 6020B	
Chromium	15.6	2.13	4.26	mg/kg dry	10	02/16/22 14:42	EPA 6020B	

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Philip Nerenberg, Lab Director

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

		Total Meta	als by EPA 60	20B (ICPMS)				
	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
HA-02E-0.0-0.5_0222 (A2B0202-24)				Matrix: Soi	I			
Cobalt	82.3	2.13	4.26	mg/kg dry	10	02/16/22 14:42	EPA 6020B	
Copper	182	4.26	8.53	mg/kg dry	10	02/16/22 14:42	EPA 6020B	
Lead	80.4	0.426	0.853	mg/kg dry	10	02/16/22 14:42	EPA 6020B	
Selenium	ND	2.13	4.26	mg/kg dry	10	02/16/22 14:42	EPA 6020B	
Thallium	ND	0.426	0.853	mg/kg dry	10	02/16/22 14:42	EPA 6020B	
Vanadium	28.4	4.26	8.53	mg/kg dry	10	02/16/22 14:42	EPA 6020B	
Zinc	3920	8.53	17.1	mg/kg dry	10	02/16/22 14:42	EPA 6020B	
HA-02E-0.0-0.5_0222 (A2B0202-24RE1)				Matrix: Soi	I			
Batch: 22B0503								
Nickel	22.9	4.26	8.53	mg/kg dry	10	02/17/22 23:22	EPA 6020B	
HA-03A-0.0-0.5_0222 (A2B0202-25)				Matrix: Soi	I			
Batch: 22B0503								
Arsenic	4.83	2.72	5.43	mg/kg dry	10	02/16/22 14:57	EPA 6020B	Ja
Barium	111	2.72	5.43	mg/kg dry	10	02/16/22 14:57	EPA 6020B	
Beryllium	0.561	0.543	1.09	mg/kg dry	10	02/16/22 14:57	EPA 6020B	Ja
Cadmium	2.02	0.543	1.09	mg/kg dry	10	02/16/22 14:57	EPA 6020B	
Chromium	26.1	2.72	5.43	mg/kg dry	10	02/16/22 14:57	EPA 6020B	
Cobalt	5.32	2.72	5.43	mg/kg dry	10	02/16/22 14:57	EPA 6020B	Ja
Copper	123	5.43	10.9	mg/kg dry	10	02/16/22 14:57	EPA 6020B	
Lead	247	0.543	1.09	mg/kg dry	10	02/16/22 14:57	EPA 6020B	
Selenium	ND	2.72	5.43	mg/kg dry	10	02/16/22 14:57	EPA 6020B	
Thallium	ND	0.543	1.09	mg/kg dry	10	02/16/22 14:57	EPA 6020B	
Vanadium	38.8	5.43	10.9	mg/kg dry	10	02/16/22 14:57	EPA 6020B	
Zinc	380	10.9	21.7	mg/kg dry	10	02/16/22 14:57	EPA 6020B	
HA-03A-0.0-0.5_0222 (A2B0202-25RE1)				Matrix: Soi	I			
Batch: 22B0503					·			
Nickel	25.3	5.43	10.9	mg/kg dry	10	02/17/22 23:27	EPA 6020B	
HA-03B-0.0-0.5_0222 (A2B0202-26)				Matrix: Soi				
Batch: 22B0503								
Arsenic	2.68	1.81	3.61	mg/kg dry	10	02/16/22 15:02	EPA 6020B	Ja

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

		Total Meta	als by EPA 60	20B (ICPMS)				
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-03B-0.0-0.5_0222 (A2B0202-26)				Matrix: Soi	I			
Barium	56.1	1.81	3.61	mg/kg dry	10	02/16/22 15:02	EPA 6020B	
Beryllium	ND	0.361	0.722	mg/kg dry	10	02/16/22 15:02	EPA 6020B	
Cadmium	ND	0.361	0.722	mg/kg dry	10	02/16/22 15:02	EPA 6020B	
Chromium	9.67	1.81	3.61	mg/kg dry	10	02/16/22 15:02	EPA 6020B	
Cobalt	2.40	1.81	3.61	mg/kg dry	10	02/16/22 15:02	EPA 6020B	Ja
Copper	21.2	3.61	7.22	mg/kg dry	10	02/16/22 15:02	EPA 6020B	
Lead	88.9	0.361	0.722	mg/kg dry	10	02/16/22 15:02	EPA 6020B	
Nickel	ND	3.61	7.22	mg/kg dry	10	02/16/22 15:02	EPA 6020B	
Selenium	ND	1.81	3.61	mg/kg dry	10	02/16/22 15:02	EPA 6020B	
Thallium	ND	0.361	0.722	mg/kg dry	10	02/16/22 15:02	EPA 6020B	
Vanadium	23.3	3.61	7.22	mg/kg dry	10	02/16/22 15:02	EPA 6020B	
Zinc	107	7.22	14.4	mg/kg dry	10	02/16/22 15:02	EPA 6020B	
HA-03C-0.0-0.5_0222 (A2B0202-27)				Matrix: Soi	ı			
Batch: 22B0503								
Arsenic	ND	3.41	6.83	mg/kg dry	10	02/16/22 15:06	EPA 6020B	
Barium	66.8	3.41	6.83	mg/kg dry	10	02/16/22 15:06	EPA 6020B	
Beryllium	ND	0.683	1.37	mg/kg dry	10	02/16/22 15:06	EPA 6020B	
Cadmium	1.37	0.683	1.37	mg/kg dry	10	02/16/22 15:06	EPA 6020B	
Chromium	12.7	3.41	6.83	mg/kg dry	10	02/16/22 15:06	EPA 6020B	
Cobalt	ND	3.41	6.83	mg/kg dry	10	02/16/22 15:06	EPA 6020B	
Copper	27.3	6.83	13.7	mg/kg dry	10	02/16/22 15:06	EPA 6020B	
Lead	278	0.683	1.37	mg/kg dry	10	02/16/22 15:06	EPA 6020B	
Nickel	ND	6.83	13.7	mg/kg dry	10	02/16/22 15:06	EPA 6020B	
Selenium	ND	3.41	6.83	mg/kg dry	10	02/16/22 15:06	EPA 6020B	
Thallium	ND	0.683	1.37	mg/kg dry	10	02/16/22 15:06	EPA 6020B	
Vanadium	22.0	6.83	13.7	mg/kg dry	10	02/16/22 15:06	EPA 6020B	
Zinc	909	13.7	27.3	mg/kg dry	10	02/16/22 15:06	EPA 6020B	
HA-03D-0.0-0.5_0222 (A2B0202-28)				Matrix: Soi	1			
Batch: 22B0503								
Arsenic	ND	3.87	7.75	mg/kg dry	10	02/16/22 15:11	EPA 6020B	
Barium	58.0	3.87	7.75	mg/kg dry	10	02/16/22 15:11	EPA 6020B	
Beryllium	ND	0.775	1.55	mg/kg dry	10	02/16/22 15:11	EPA 6020B	

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Philip Nerenberg, Lab Director

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

		Total Meta	Is by EPA 60	20B (ICPMS)				
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-03D-0.0-0.5_0222 (A2B0202-28)				Matrix: Soi	I			
Cadmium	1.55	0.775	1.55	mg/kg dry	10	02/16/22 15:11	EPA 6020B	
Chromium	6.21	3.87	7.75	mg/kg dry	10	02/16/22 15:11	EPA 6020B	Ja
Cobalt	ND	3.87	7.75	mg/kg dry	10	02/16/22 15:11	EPA 6020B	
Copper	28.9	7.75	15.5	mg/kg dry	10	02/16/22 15:11	EPA 6020B	
Lead	141	0.775	1.55	mg/kg dry	10	02/16/22 15:11	EPA 6020B	
Nickel	ND	7.75	15.5	mg/kg dry	10	02/16/22 15:11	EPA 6020B	
Selenium	ND	3.87	7.75	mg/kg dry	10	02/16/22 15:11	EPA 6020B	
Thallium	ND	0.775	1.55	mg/kg dry	10	02/16/22 15:11	EPA 6020B	
Vanadium	22.9	7.75	15.5	mg/kg dry	10	02/16/22 15:11	EPA 6020B	
Zinc	2310	15.5	31.0	mg/kg dry	10	02/16/22 15:11	EPA 6020B	
HA-03E-0.0-0.5_0222 (A2B0202-29)				Matrix: Soi	I			
Batch: 22B0503								
Arsenic	ND	4.07	8.14	mg/kg dry	10	02/16/22 15:16	EPA 6020B	
Barium	65.3	4.07	8.14	mg/kg dry	10	02/16/22 15:16	EPA 6020B	
Beryllium	ND	0.814	1.63	mg/kg dry	10	02/16/22 15:16	EPA 6020B	
Cadmium	3.66	0.814	1.63	mg/kg dry	10	02/16/22 15:16	EPA 6020B	
Chromium	4.41	4.07	8.14	mg/kg dry	10	02/16/22 15:16	EPA 6020B	Ja
Cobalt	ND	4.07	8.14	mg/kg dry	10	02/16/22 15:16	EPA 6020B	
Copper	33.7	8.14	16.3	mg/kg dry	10	02/16/22 15:16	EPA 6020B	
Lead	62.3	0.814	1.63	mg/kg dry	10	02/16/22 15:16	EPA 6020B	
Nickel	ND	8.14	16.3	mg/kg dry	10	02/16/22 15:16	EPA 6020B	
Selenium	ND	4.07	8.14	mg/kg dry	10	02/16/22 15:16	EPA 6020B	
Thallium	ND	0.814	1.63	mg/kg dry	10	02/16/22 15:16	EPA 6020B	
Vanadium	16.5	8.14	16.3	mg/kg dry	10	02/16/22 15:16	EPA 6020B	
Zinc	3600	16.3	32.6	mg/kg dry	10	02/16/22 15:16	EPA 6020B	
EB-02 (A2B0202-34RE1)				Matrix: Wat	ter			
Batch: 22B0387								
Beryllium	ND	0.100	0.200	ug/L	1	02/16/22 16:42	EPA 6020B	
Cadmium	ND	0.100	0.200	ug/L	1	02/16/22 16:42	EPA 6020B	
PZ-01_0222 (A2B0202-35)				Matrix: Wat	ter			

Batch: 22B0387

Apex Laboratories

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Philip Nerenberg, Lab Director

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project Number: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

		Total Meta	als by EPA 60	20B (ICPMS	3)			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PZ-01_0222 (A2B0202-35)				Matrix: W	ater			
Iron	7010	25.0	50.0	ug/L	1	02/14/22 18:35	EPA 6020B	
PZ-01_0222 (A2B0202-35RE1)				Matrix: W	ater			
Batch: 22B0387								
Beryllium	0.240	0.100	0.200	ug/L	1	02/16/22 16:47	EPA 6020B	
Cadmium	ND	0.100	0.200	ug/L	1	02/16/22 16:47	EPA 6020B	
PZ-02_0222 (A2B0202-36)				Matrix: W	ater			
Batch: 22B0387								
Iron	3650	25.0	50.0	ug/L	1	02/14/22 18:40	EPA 6020B	
PZ-02_0222 (A2B0202-36RE1)				Matrix: W	ater			
Batch: 22B0387								
Beryllium	ND	0.100	0.200	ug/L	1	02/16/22 16:52	EPA 6020B	
Cadmium	ND	0.100	0.200	ug/L	1	02/16/22 16:52	EPA 6020B	
PZ-102_0222 (A2B0202-37)				Matrix: W	ater			
Batch: 22B0387								
Iron	3570	25.0	50.0	ug/L	1	02/14/22 18:45	EPA 6020B	
PZ-102_0222 (A2B0202-37RE1)				Matrix: W	ater			
Batch: 22B0387								
Arsenic	1.66	0.500	1.00	ug/L	1	02/16/22 16:57	EPA 6020B	
Beryllium	ND	0.100	0.200	ug/L	1	02/16/22 16:57	EPA 6020B	
Cadmium	ND	0.100	0.200	ug/L	1	02/16/22 16:57	EPA 6020B	
PZ-03_0222 (A2B0202-38)				Matrix: W	ater			
Batch: 22B0387								
Iron	1190	25.0	50.0	ug/L	1	02/14/22 18:50	EPA 6020B	
PZ-03_0222 (A2B0202-38RE1)				Matrix: W	ater			
Batch: 22B0387								
Beryllium	ND	0.100	0.200	ug/L	1	02/16/22 17:01	EPA 6020B	
Cadmium	ND	0.100	0.200	ug/L	1	02/16/22 17:01	EPA 6020B	
PZ-04_0222 (A2B0202-39)				Matrix: W	ater			

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

		Total Meta	ls by EPA 60	20B (ICPMS	5)				
	Sample	Detection	Reporting			Date			
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes	
PZ-04_0222 (A2B0202-39)				Matrix: W	ater				
Batch: 22B0387									
Iron	5780	25.0	50.0	ug/L	1	02/14/22 18:54	EPA 6020B		
PZ-04_0222 (A2B0202-39RE1)				Matrix: W	ater				
Batch: 22B0387									
Beryllium	ND	0.100	0.200	ug/L	1	02/16/22 17:06	EPA 6020B		
Cadmium	ND	0.100	0.200	ug/L	1	02/16/22 17:06	EPA 6020B		
PZ-05_0222 (A2B0202-40)	Matrix: Water								
Batch: 22B0387									
Iron	192	25.0	50.0	ug/L	1	02/14/22 18:59	EPA 6020B		
PZ-05_0222 (A2B0202-40RE1)				Matrix: W	ater				
Batch: 22B0387									
Beryllium	ND	0.100	0.200	ug/L	1	02/16/22 17:11	EPA 6020B		
Cadmium	ND	0.100	0.200	ug/L	1	02/16/22 17:11	EPA 6020B		
SW-09_0222 (A2B0202-41)				Matrix: W	ater				
Batch: 22B0387									
Iron	301	25.0	50.0	ug/L	1	02/14/22 19:04	EPA 6020B		
SW-09_0222 (A2B0202-41RE1)				Matrix: Wa	ater				
Batch: 22B0387									
Beryllium	ND	0.100	0.200	ug/L	1	02/16/22 17:16	EPA 6020B		
Cadmium	ND	0.100	0.200	ug/L	1	02/16/22 17:16	EPA 6020B		
SW-109_0222 (A2B0202-42)				Matrix: W	ater				
Batch: 22B0435									
Iron	120	25.0	50.0	ug/L	1	02/14/22 22:05	EPA 6020B		
SW-109_0222 (A2B0202-42RE1)				Matrix: W	ater				
Batch: 22B0435									
Beryllium	ND	0.100	0.200	ug/L	1	02/16/22 17:20	EPA 6020B		
Cadmium	ND	0.100	0.200	ug/L	1	02/16/22 17:20	EPA 6020B		
SW-07_0222 (A2B0202-43)				Matrix: W	ater				

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project Number: **Eatonville**Project Number: **00171.067**Project Manager: **Josh Bale**

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

		Total Meta	als by EPA 60	20B (ICPMS	S)				
Analyta	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes	
Analyte	Kesuit	Lillit	LIIIII			Allaryzeu	wiemod Kel.	Notes	
SW-07_0222 (A2B0202-43)				Matrix: W	ater				
Batch: 22B0435				_		00/44/07	PR. 6		
Iron	80.3	25.0	50.0	ug/L	1	02/14/22 22:10	EPA 6020B		
SW-07_0222 (A2B0202-43RE1)				Matrix: W	ater				
Batch: 22B0435									
Beryllium	ND	0.100	0.200	ug/L	1	02/16/22 17:35	EPA 6020B		
Cadmium	ND	0.100	0.200	ug/L	1	02/16/22 17:35	EPA 6020B		
SW-08_0222 (A2B0202-44)		Matrix: Water							
Batch: 22B0435	·							·	
Iron	38.4	25.0	50.0	ug/L	1	02/14/22 22:24	EPA 6020B	Ja	
SW-08_0222 (A2B0202-44RE1)				Matrix: W	ater				
Batch: 22B0435									
Beryllium	ND	0.100	0.200	ug/L	1	02/16/22 17:39	EPA 6020B		
Cadmium	ND	0.100	0.200	ug/L	1	02/16/22 17:39	EPA 6020B		
SW-10_0222 (A2B0202-45)				Matrix: W	ater				
Batch: 22B0435									
Iron	149	25.0	50.0	ug/L	1	02/14/22 22:29	EPA 6020B		
SW-10_0222 (A2B0202-45RE1)				Matrix: W	ater				
Batch: 22B0435									
Beryllium	ND	0.100	0.200	ug/L	1	02/16/22 17:44	EPA 6020B		
Cadmium	ND	0.100	0.200	ug/L	1	02/16/22 17:44	EPA 6020B		
SW-11_0222 (A2B0202-46)				Matrix: W	ater				
Batch: 22B0435									
Iron	289	25.0	50.0	ug/L	1	02/14/22 22:34	EPA 6020B		
SW-11_0222 (A2B0202-46RE1)				Matrix: W	ater				
Batch: 22B0435									
Beryllium	ND	0.100	0.200	ug/L	1	02/16/22 17:49	EPA 6020B		
Cadmium	ND	0.100	0.200	ug/L	1	02/16/22 17:49	EPA 6020B		
SW-12_0222 (A2B0202-47)				Matrix: W	ater				

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project Number: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

		Total Meta	als by EPA 60	20B (ICPMS	5)				
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes	
SW-12_0222 (A2B0202-47)				Matrix: W	ater				
Batch: 22B0435									
Iron	ND	26.8	53.6	ug/L	1	02/14/22 22:39	EPA 6020B	R-03	
SW-12_0222 (A2B0202-47RE1)		Matrix: Water							
Batch: 22B0435									
Beryllium	ND	0.107	0.214	ug/L	1	02/16/22 17:54	EPA 6020B	R-03	
Cadmium	0.349	0.107	0.214	ug/L	1	02/16/22 17:54	EPA 6020B	R-03	
SW-13_0222 (A2B0202-48)	_	_	_	Matrix: W	ater	_			
Batch: 22B0435									
Iron	ND	25.0	50.0	ug/L	1	02/14/22 22:43	EPA 6020B		
SW-13_0222 (A2B0202-48RE1)				Matrix: W	ater				
Batch: 22B0435									
Beryllium	ND	0.100	0.200	ug/L	1	02/16/22 17:58	EPA 6020B		
Cadmium	ND	0.100	0.200	ug/L	1	02/16/22 17:58	EPA 6020B		
SW-14_0222 (A2B0202-49)				Matrix: W	ater				
Batch: 22B0435									
Iron	197	25.0	50.0	ug/L	1	02/14/22 22:48	EPA 6020B		
SW-14_0222 (A2B0202-49RE1)				Matrix: W	ater				
Batch: 22B0435									
Beryllium	ND	0.100	0.200	ug/L	1	02/16/22 18:03	EPA 6020B		
Cadmium	ND	0.100	0.200	ug/L	1	02/16/22 18:03	EPA 6020B		

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Philip Nerenberg, Lab Director



AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

		Dissolved M	etals by EPA	6020B (ICP	MS)			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
EB-01 (A2B0202-33)				Matrix: W	ater			
Batch: 22B0436								
Arsenic	ND	0.500	1.00	ug/L	1	02/18/22 00:24	EPA 6020B (Diss)	
Barium	0.505	0.500	1.00	ug/L	1	02/18/22 00:24	EPA 6020B (Diss)	Ja
Beryllium	ND	0.100	0.200	ug/L	1	02/18/22 00:24	EPA 6020B (Diss)	
Cadmium	ND	0.100	0.200	ug/L	1	02/18/22 00:24	EPA 6020B (Diss)	
Chromium	ND	1.00	2.00	ug/L	1	02/18/22 00:24	EPA 6020B (Diss)	
Cobalt	ND	0.500	1.00	ug/L	1	02/18/22 00:24	EPA 6020B (Diss)	
Copper	ND	1.00	2.00	ug/L	1	02/18/22 00:24	EPA 6020B (Diss)	
Lead	ND	0.100	0.200	ug/L	1	02/18/22 00:24	EPA 6020B (Diss)	
Nickel	ND	1.00	2.00	ug/L	1	02/18/22 00:24	EPA 6020B (Diss)	
Selenium	ND	0.500	1.00	ug/L	1	02/18/22 00:24	EPA 6020B (Diss)	
Thallium	ND	0.100	0.200	ug/L	1	02/18/22 00:24	EPA 6020B (Diss)	
Vanadium	ND	1.00	2.00	ug/L	1	02/18/22 00:24	EPA 6020B (Diss)	
Zinc	ND	2.00	4.00	ug/L	1	02/18/22 00:24	EPA 6020B (Diss)	
EB-02 (A2B0202-34)				Matrix: W	ater			
Batch: 22B0436								
Arsenic	ND	0.500	1.00	ug/L	1	02/18/22 00:34	EPA 6020B (Diss)	
Barium	1.40	0.500	1.00	ug/L	1	02/18/22 00:34	EPA 6020B (Diss)	
Beryllium	ND	0.100	0.200	ug/L	1	02/18/22 00:34	EPA 6020B (Diss)	
Cadmium	ND	0.100	0.200	ug/L	1	02/18/22 00:34	EPA 6020B (Diss)	
Chromium	ND	1.00	2.00	ug/L	1	02/18/22 00:34	EPA 6020B (Diss)	
Cobalt	ND	0.500	1.00	ug/L	1	02/18/22 00:34	EPA 6020B (Diss)	
Copper	1.42	1.00	2.00	ug/L	1	02/18/22 00:34	EPA 6020B (Diss)	Ja
Lead	0.108	0.100	0.200	ug/L	1	02/18/22 00:34	EPA 6020B (Diss)	Ja
Nickel	2.82	1.00	2.00	ug/L	1	02/18/22 00:34	EPA 6020B (Diss)	
Selenium	ND	0.500	1.00	ug/L	1	02/18/22 00:34	EPA 6020B (Diss)	
Thallium	ND	0.100	0.200	ug/L	1	02/18/22 00:34	EPA 6020B (Diss)	
Vanadium	ND	1.00	2.00	ug/L	1	02/18/22 00:34	EPA 6020B (Diss)	
Zinc	3.10	2.00	4.00	ug/L	1	02/18/22 00:34	EPA 6020B (Diss)	Ja
PZ-01_0222 (A2B0202-35)				Matrix: W	ater			
Batch: 22B0436								
Arsenic	1.05	0.500	1.00	ug/L	1	02/18/22 00:43	EPA 6020B (Diss)	

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

		Dissolved M	etals by EPA	6020B (ICP	MS)			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Note
PZ-01_0222 (A2B0202-35)				Matrix: W	ater			
Barium	12.1	0.500	1.00	ug/L	1	02/18/22 00:43	EPA 6020B (Diss)	
Beryllium	ND	0.100	0.200	ug/L	1	02/18/22 00:43	EPA 6020B (Diss)	
Cadmium	ND	0.100	0.200	ug/L	1	02/18/22 00:43	EPA 6020B (Diss)	
Chromium	ND	1.00	2.00	ug/L	1	02/18/22 00:43	EPA 6020B (Diss)	
Cobalt	0.751	0.500	1.00	ug/L	1	02/18/22 00:43	EPA 6020B (Diss)	Ja
Copper	ND	1.00	2.00	ug/L	1	02/18/22 00:43	EPA 6020B (Diss)	
Iron	1200	25.0	50.0	ug/L	1	02/18/22 00:43	EPA 6020B (Diss)	
Lead	ND	0.100	0.200	ug/L	1	02/18/22 00:43	EPA 6020B (Diss)	
Nickel	1.24	1.00	2.00	ug/L	1	02/18/22 00:43	EPA 6020B (Diss)	Ja
Selenium	ND	0.500	1.00	ug/L	1	02/18/22 00:43	EPA 6020B (Diss)	
Thallium	ND	0.100	0.200	ug/L	1	02/18/22 00:43	EPA 6020B (Diss)	
Vanadium	ND	1.00	2.00	ug/L	1	02/18/22 00:43	EPA 6020B (Diss)	
Zinc	ND	2.00	4.00	ug/L	1	02/18/22 00:43	EPA 6020B (Diss)	
PZ-02_0222 (A2B0202-36)				Matrix: W	ater			
Batch: 22B0436								
Arsenic	1.41	0.500	1.00	ug/L	1	02/18/22 00:48	EPA 6020B (Diss)	
Barium	35.7	0.500	1.00	ug/L	1	02/18/22 00:48	EPA 6020B (Diss)	
Beryllium	ND	0.100	0.200	ug/L	1	02/18/22 00:48	EPA 6020B (Diss)	
Cadmium	ND	0.100	0.200	ug/L	1	02/18/22 00:48	EPA 6020B (Diss)	
Chromium	ND	1.00	2.00	ug/L	1	02/18/22 00:48	EPA 6020B (Diss)	
Cobalt	ND	0.500	1.00	ug/L	1	02/18/22 00:48	EPA 6020B (Diss)	
Copper	ND	1.00	2.00	ug/L	1	02/18/22 00:48	EPA 6020B (Diss)	
Iron	3240	25.0	50.0	ug/L	1	02/18/22 00:48	EPA 6020B (Diss)	
Lead	ND	0.100	0.200	ug/L	1	02/18/22 00:48	EPA 6020B (Diss)	
Nickel	ND	1.00	2.00	ug/L	1	02/18/22 00:48	EPA 6020B (Diss)	
Selenium	ND	0.500	1.00	ug/L	1	02/18/22 00:48	EPA 6020B (Diss)	
Thallium	ND	0.100	0.200	ug/L	1	02/18/22 00:48	EPA 6020B (Diss)	
Vanadium	ND	1.00	2.00	ug/L	1	02/18/22 00:48	EPA 6020B (Diss)	
Zinc	2.36	2.00	4.00	ug/L	1	02/18/22 00:48	EPA 6020B (Diss)	Ja
PZ-102_0222 (A2B0202-37)				Matrix: W	ater			
Batch: 22B0436								
Arsenic	1.51	0.500	1.00	ug/L	1	02/18/22 00:53	EPA 6020B (Diss)	

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

			etals by EPA	7020D (10F				
A 1.	Sample	Detection	Reporting	TT :	D'1 4'	Date	M.d. ID.C	N T :
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
PZ-102_0222 (A2B0202-37)				Matrix: W	ater			
Barium	35.9	0.500	1.00	ug/L	1	02/18/22 00:53	EPA 6020B (Diss)	
Beryllium	ND	0.100	0.200	ug/L	1	02/18/22 00:53	EPA 6020B (Diss)	
Cadmium	ND	0.100	0.200	ug/L	1	02/18/22 00:53	EPA 6020B (Diss)	
Chromium	ND	1.00	2.00	ug/L	1	02/18/22 00:53	EPA 6020B (Diss)	
Cobalt	ND	0.500	1.00	ug/L	1	02/18/22 00:53	EPA 6020B (Diss)	
Copper	ND	1.00	2.00	ug/L	1	02/18/22 00:53	EPA 6020B (Diss)	
Iron	3220	25.0	50.0	ug/L	1	02/18/22 00:53	EPA 6020B (Diss)	
Lead	ND	0.100	0.200	ug/L	1	02/18/22 00:53	EPA 6020B (Diss)	
Nickel	ND	1.00	2.00	ug/L	1	02/18/22 00:53	EPA 6020B (Diss)	
Selenium	ND	0.500	1.00	ug/L	1	02/18/22 00:53	EPA 6020B (Diss)	
Thallium	ND	0.100	0.200	ug/L	1	02/18/22 00:53	EPA 6020B (Diss)	
Vanadium	1.22	1.00	2.00	ug/L	1	02/18/22 00:53	EPA 6020B (Diss)	Ja
Zinc	ND	2.00	4.00	ug/L	1	02/18/22 00:53	EPA 6020B (Diss)	
PZ-03_0222 (A2B0202-38)				Matrix: W	ater			
Batch: 22B0436								
Arsenic	ND	0.500	1.00	ug/L	1	02/18/22 00:58	EPA 6020B (Diss)	
Barium	4.52	0.500	1.00	ug/L	1	02/18/22 00:58	EPA 6020B (Diss)	
Beryllium	ND	0.100	0.200	ug/L	1	02/18/22 00:58	EPA 6020B (Diss)	
Cadmium	ND	0.100	0.200	ug/L	1	02/18/22 00:58	EPA 6020B (Diss)	
Chromium	ND	1.00	2.00	ug/L	1	02/18/22 00:58	EPA 6020B (Diss)	
Cobalt	ND	0.500	1.00	ug/L	1	02/18/22 00:58	EPA 6020B (Diss)	
Copper	ND	1.00	2.00	ug/L	1	02/18/22 00:58	EPA 6020B (Diss)	
Iron	684	25.0	50.0	ug/L	1	02/18/22 00:58	EPA 6020B (Diss)	
Lead	ND	0.100	0.200	ug/L	1	02/18/22 00:58	EPA 6020B (Diss)	
Nickel	ND	1.00	2.00	ug/L	1	02/18/22 00:58	EPA 6020B (Diss)	
Selenium	ND	0.500	1.00	ug/L	1	02/18/22 00:58	EPA 6020B (Diss)	
Thallium	ND	0.100	0.200	ug/L	1	02/18/22 00:58	EPA 6020B (Diss)	
Vanadium	1.33	1.00	2.00	ug/L	1	02/18/22 00:58	EPA 6020B (Diss)	Ja
Zinc	3.41	2.00	4.00	ug/L	1	02/18/22 00:58	EPA 6020B (Diss)	Ja
PZ-04_0222 (A2B0202-39)				Matrix: W	ater			
Batch: 22B0436								
Arsenic	ND	0.500	1.00	ug/L	1	02/18/22 01:02	EPA 6020B (Diss)	

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Philip Nerenberg, Lab Director



AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

		Dissolved M	etals by EPA	6020B (ICP	MS)			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Note
PZ-04_0222 (A2B0202-39)				Matrix: W	ater			
Barium	21.6	0.500	1.00	ug/L	1	02/18/22 01:02	EPA 6020B (Diss)	
Beryllium	ND	0.100	0.200	ug/L	1	02/18/22 01:02	EPA 6020B (Diss)	
Cadmium	ND	0.100	0.200	ug/L	1	02/18/22 01:02	EPA 6020B (Diss)	
Chromium	ND	1.00	2.00	ug/L	1	02/18/22 01:02	EPA 6020B (Diss)	
Cobalt	ND	0.500	1.00	ug/L	1	02/18/22 01:02	EPA 6020B (Diss)	
Copper	ND	1.00	2.00	ug/L	1	02/18/22 01:02	EPA 6020B (Diss)	
Iron	9320	25.0	50.0	ug/L	1	02/18/22 01:02	EPA 6020B (Diss)	
Lead	ND	0.100	0.200	ug/L	1	02/18/22 01:02	EPA 6020B (Diss)	
Nickel	ND	1.00	2.00	ug/L	1	02/18/22 01:02	EPA 6020B (Diss)	
Selenium	ND	0.500	1.00	ug/L	1	02/18/22 01:02	EPA 6020B (Diss)	
Thallium	ND	0.100	0.200	ug/L	1	02/18/22 01:02	EPA 6020B (Diss)	
Vanadium	1.44	1.00	2.00	ug/L	1	02/18/22 01:02	EPA 6020B (Diss)	Ja
Zinc	3.67	2.00	4.00	ug/L	1	02/18/22 01:02	EPA 6020B (Diss)	Ja
PZ-05_0222 (A2B0202-40)				Matrix: W	ater			
Batch: 22B0436								
Arsenic	ND	0.500	1.00	ug/L	1	02/18/22 01:17	EPA 6020B (Diss)	
Barium	3.04	0.500	1.00	ug/L	1	02/18/22 01:17	EPA 6020B (Diss)	
Beryllium	ND	0.100	0.200	ug/L	1	02/18/22 01:17	EPA 6020B (Diss)	
Cadmium	ND	0.100	0.200	ug/L	1	02/18/22 01:17	EPA 6020B (Diss)	
Chromium	ND	1.00	2.00	ug/L	1	02/18/22 01:17	EPA 6020B (Diss)	
Cobalt	ND	0.500	1.00	ug/L	1	02/18/22 01:17	EPA 6020B (Diss)	
Copper	ND	1.00	2.00	ug/L	1	02/18/22 01:17	EPA 6020B (Diss)	
Iron	ND	25.0	50.0	ug/L	1	02/18/22 01:17	EPA 6020B (Diss)	
Lead	ND	0.100	0.200	ug/L	1	02/18/22 01:17	EPA 6020B (Diss)	
Nickel	ND	1.00	2.00	ug/L	1	02/18/22 01:17	EPA 6020B (Diss)	
Selenium	ND	0.500	1.00	ug/L	1	02/18/22 01:17	EPA 6020B (Diss)	
Thallium	ND	0.100	0.200	ug/L	1	02/18/22 01:17	EPA 6020B (Diss)	
Vanadium	1.61	1.00	2.00	ug/L	1	02/18/22 01:17	EPA 6020B (Diss)	Ja
Zinc	ND	2.00	4.00	ug/L	1	02/18/22 01:17	EPA 6020B (Diss)	
SW-09_0222 (A2B0202-41)				Matrix: W	ater			
Batch: 22B0436								
Arsenic	ND	0.500	1.00	ug/L	1	02/18/22 01:21	EPA 6020B (Diss)	
				-				

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

		DISSOIVEA M	etals by EPA	OUZUB (ICP	IVIO)			
	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Note
SW-09_0222 (A2B0202-41)				Matrix: W	ater			
Barium	3.17	0.500	1.00	ug/L	1	02/18/22 01:21	EPA 6020B (Diss)	
Beryllium	ND	0.100	0.200	ug/L	1	02/18/22 01:21	EPA 6020B (Diss)	
Cadmium	ND	0.100	0.200	ug/L	1	02/18/22 01:21	EPA 6020B (Diss)	
Chromium	ND	1.00	2.00	ug/L	1	02/18/22 01:21	EPA 6020B (Diss)	
Cobalt	ND	0.500	1.00	ug/L	1	02/18/22 01:21	EPA 6020B (Diss)	
Copper	ND	1.00	2.00	ug/L	1	02/18/22 01:21	EPA 6020B (Diss)	
Iron	ND	25.0	50.0	ug/L	1	02/18/22 01:21	EPA 6020B (Diss)	
Lead	ND	0.100	0.200	ug/L	1	02/18/22 01:21	EPA 6020B (Diss)	
Nickel	ND	1.00	2.00	ug/L	1	02/18/22 01:21	EPA 6020B (Diss)	
Selenium	ND	0.500	1.00	ug/L	1	02/18/22 01:21	EPA 6020B (Diss)	
Thallium	ND	0.100	0.200	ug/L	1	02/18/22 01:21	EPA 6020B (Diss)	
Vanadium	1.83	1.00	2.00	ug/L	1	02/18/22 01:21	EPA 6020B (Diss)	Ja
Zinc	12.1	2.00	4.00	ug/L	1	02/18/22 01:21	EPA 6020B (Diss)	
SW-109_0222 (A2B0202-42)				Matrix: W	ater			
Batch: 22B0436								
Arsenic	ND	0.500	1.00	ug/L	1	02/18/22 01:26	EPA 6020B (Diss)	
Barium	3.12	0.500	1.00	ug/L	1	02/18/22 01:26	EPA 6020B (Diss)	
Beryllium	ND	0.100	0.200	ug/L	1	02/18/22 01:26	EPA 6020B (Diss)	
Cadmium	ND	0.100	0.200	ug/L	1	02/18/22 01:26	EPA 6020B (Diss)	
Chromium	ND	1.00	2.00	ug/L	1	02/18/22 01:26	EPA 6020B (Diss)	
Cobalt	ND	0.500	1.00	ug/L	1	02/18/22 01:26	EPA 6020B (Diss)	
Copper	ND	1.00	2.00	ug/L	1	02/18/22 01:26	EPA 6020B (Diss)	
Iron	ND	25.0	50.0	ug/L	1	02/18/22 01:26	EPA 6020B (Diss)	
Lead	ND	0.100	0.200	ug/L	1	02/18/22 01:26	EPA 6020B (Diss)	
Nickel	ND	1.00	2.00	ug/L	1	02/18/22 01:26	EPA 6020B (Diss)	
Selenium	ND	0.500	1.00	ug/L	1	02/18/22 01:26	EPA 6020B (Diss)	
Thallium	ND	0.100	0.200	ug/L	1	02/18/22 01:26	EPA 6020B (Diss)	
Vanadium	1.89	1.00	2.00	ug/L	1	02/18/22 01:26	EPA 6020B (Diss)	Ja
Zinc	14.0	2.00	4.00	ug/L	1	02/18/22 01:26	EPA 6020B (Diss)	
SW-07_0222 (A2B0202-43)				Matrix: W	ater			
Batch: 22B0436								
Arsenic	ND	0.500	1.00	ug/L	1	02/18/22 01:31	EPA 6020B (Diss)	

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

		Dissolved M	etals by EPA	6020B (ICP	MS)			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Note
SW-07_0222 (A2B0202-43)				Matrix: W	ater			
Barium	3.62	0.500	1.00	ug/L	1	02/18/22 01:31	EPA 6020B (Diss)	
Beryllium	ND	0.100	0.200	ug/L	1	02/18/22 01:31	EPA 6020B (Diss)	
Cadmium	ND	0.100	0.200	ug/L	1	02/18/22 01:31	EPA 6020B (Diss)	
Chromium	ND	1.00	2.00	ug/L	1	02/18/22 01:31	EPA 6020B (Diss)	
Cobalt	ND	0.500	1.00	ug/L	1	02/18/22 01:31	EPA 6020B (Diss)	
Copper	ND	1.00	2.00	ug/L	1	02/18/22 01:31	EPA 6020B (Diss)	
Iron	30.0	25.0	50.0	ug/L	1	02/18/22 01:31	EPA 6020B (Diss)	Ja
Lead	ND	0.100	0.200	ug/L	1	02/18/22 01:31	EPA 6020B (Diss)	
Nickel	ND	1.00	2.00	ug/L	1	02/18/22 01:31	EPA 6020B (Diss)	
Selenium	ND	0.500	1.00	ug/L	1	02/18/22 01:31	EPA 6020B (Diss)	
Thallium	ND	0.100	0.200	ug/L	1	02/18/22 01:31	EPA 6020B (Diss)	
Vanadium	1.98	1.00	2.00	ug/L	1	02/18/22 01:31	EPA 6020B (Diss)	Ja
Zinc	3.73	2.00	4.00	ug/L	1	02/18/22 01:31	EPA 6020B (Diss)	Ja
SW-08_0222 (A2B0202-44)				Matrix: W	ater			
Batch: 22B0436								
Arsenic	ND	0.500	1.00	ug/L	1	02/18/22 01:36	EPA 6020B (Diss)	
Barium	2.73	0.500	1.00	ug/L	1	02/18/22 01:36	EPA 6020B (Diss)	
Beryllium	ND	0.100	0.200	ug/L	1	02/18/22 01:36	EPA 6020B (Diss)	
Cadmium	ND	0.100	0.200	ug/L	1	02/18/22 01:36	EPA 6020B (Diss)	
Chromium	ND	1.00	2.00	ug/L	1	02/18/22 01:36	EPA 6020B (Diss)	
Cobalt	ND	0.500	1.00	ug/L	1	02/18/22 01:36	EPA 6020B (Diss)	
Copper	ND	1.00	2.00	ug/L	1	02/18/22 01:36	EPA 6020B (Diss)	
Iron	ND	25.0	50.0	ug/L	1	02/18/22 01:36	EPA 6020B (Diss)	
Lead	ND	0.100	0.200	ug/L	1	02/18/22 01:36	EPA 6020B (Diss)	
Nickel	ND	1.00	2.00	ug/L	1	02/18/22 01:36	EPA 6020B (Diss)	
Selenium	ND	0.500	1.00	ug/L	1	02/18/22 01:36	EPA 6020B (Diss)	
Thallium	ND	0.100	0.200	ug/L	1	02/18/22 01:36	EPA 6020B (Diss)	
Vanadium	1.84	1.00	2.00	ug/L	1	02/18/22 01:36	EPA 6020B (Diss)	Ja
Zinc	6.11	2.00	4.00	ug/L	1	02/18/22 01:36	EPA 6020B (Diss)	
SW-10_0222 (A2B0202-45)				Matrix: W	ater			
Batch: 22B0436								
Arsenic	ND	0.500	1.00	ug/L	1	02/18/22 01:40	EPA 6020B (Diss)	

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

		Dissolved M	etals by EPA	6020B (ICP	MS)						
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Note			
SW-10_0222 (A2B0202-45)				Matrix: W	ater						
Barium	26.9	0.500	1.00	ug/L	1	02/18/22 01:40	EPA 6020B (Diss)				
Beryllium	ND	0.100	0.200	ug/L	1	02/18/22 01:40	EPA 6020B (Diss)				
Cadmium	ND	0.100	0.200	ug/L	1	02/18/22 01:40	EPA 6020B (Diss)				
Chromium	ND	1.00	2.00	ug/L	1	02/18/22 01:40	EPA 6020B (Diss)				
Cobalt	ND	0.500	1.00	ug/L	1	02/18/22 01:40	EPA 6020B (Diss)				
Copper	ND	1.00	2.00	ug/L	1	02/18/22 01:40	EPA 6020B (Diss)				
Iron	33.2	25.0	50.0	ug/L	1	02/18/22 01:40	EPA 6020B (Diss)	Ja			
Lead	ND	0.100	0.200	ug/L	1	02/18/22 01:40	EPA 6020B (Diss)				
Nickel	ND	1.00	2.00	ug/L	1	02/18/22 01:40	EPA 6020B (Diss)				
Selenium	ND	0.500	1.00	ug/L	1	02/18/22 01:40	EPA 6020B (Diss)				
Thallium	ND	0.100	0.200	ug/L	1	02/18/22 01:40	EPA 6020B (Diss)				
Vanadium	1.21	1.00	2.00	ug/L	1	02/18/22 01:40	EPA 6020B (Diss)	Ja			
Zinc	90.3	2.00	4.00	ug/L	1	02/18/22 01:40	EPA 6020B (Diss)				
SW-11_0222 (A2B0202-46)				Matrix: W	ater						
Batch: 22B0436											
Arsenic	ND	0.500	1.00	ug/L	1	02/18/22 01:45	EPA 6020B (Diss)				
Barium	8.06	0.500	1.00	ug/L	1	02/18/22 01:45	EPA 6020B (Diss)				
Beryllium	ND	0.100	0.200	ug/L	1	02/18/22 01:45	EPA 6020B (Diss)				
Cadmium	ND	0.100	0.200	ug/L	1	02/18/22 01:45	EPA 6020B (Diss)				
Chromium	ND	1.00	2.00	ug/L	1	02/18/22 01:45	EPA 6020B (Diss)				
Cobalt	ND	0.500	1.00	ug/L	1	02/18/22 01:45	EPA 6020B (Diss)				
Copper	ND	1.00	2.00	ug/L	1	02/18/22 01:45	EPA 6020B (Diss)				
Iron	ND	25.0	50.0	ug/L	1	02/18/22 01:45	EPA 6020B (Diss)				
Lead	ND	0.100	0.200	ug/L	1	02/18/22 01:45	EPA 6020B (Diss)				
Nickel	1.17	1.00	2.00	ug/L	1	02/18/22 01:45	EPA 6020B (Diss)	Ja			
Selenium	ND	0.500	1.00	ug/L	1	02/18/22 01:45	EPA 6020B (Diss)				
Thallium	ND	0.100	0.200	ug/L	1	02/18/22 01:45	EPA 6020B (Diss)				
Vanadium	1.45	1.00	2.00	ug/L	1	02/18/22 01:45	EPA 6020B (Diss)	Ja			
Zinc	49.0	2.00	4.00	ug/L	1	02/18/22 01:45	EPA 6020B (Diss)				
SW-12_0222 (A2B0202-47)				Matrix: W	ater						
Batch: 22B0436											
Arsenic	0.909	0.500	1.00	ug/L	1	02/18/22 01:50	EPA 6020B (Diss)	Ja			
				-							

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

Analyte	Sample Result	Detection	Reporting			Date		
		Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Note
SW-12_0222 (A2B0202-47)				Matrix: W	ater			
Barium	56.0	0.500	1.00	ug/L	1	02/18/22 01:50	EPA 6020B (Diss)	
Beryllium	ND	0.100	0.200	ug/L	1	02/18/22 01:50	EPA 6020B (Diss)	
Cadmium	0.117	0.100	0.200	ug/L	1	02/18/22 01:50	EPA 6020B (Diss)	Ja
Chromium	ND	1.00	2.00	ug/L	1	02/18/22 01:50	EPA 6020B (Diss)	
Cobalt	ND	0.500	1.00	ug/L	1	02/18/22 01:50	EPA 6020B (Diss)	
Copper	1.24	1.00	2.00	ug/L	1	02/18/22 01:50	EPA 6020B (Diss)	Ja
Iron	ND	25.0	50.0	ug/L	1	02/18/22 01:50	EPA 6020B (Diss)	
Lead	ND	0.100	0.200	ug/L	1	02/18/22 01:50	EPA 6020B (Diss)	
Nickel	1.13	1.00	2.00	ug/L	1	02/18/22 01:50	EPA 6020B (Diss)	Ja
Selenium	ND	0.500	1.00	ug/L	1	02/18/22 01:50	EPA 6020B (Diss)	
Thallium	ND	0.100	0.200	ug/L	1	02/18/22 01:50	EPA 6020B (Diss)	
Vanadium	3.17	1.00	2.00	ug/L	1	02/18/22 01:50	EPA 6020B (Diss)	
Zinc	137	2.00	4.00	ug/L	1	02/18/22 01:50	EPA 6020B (Diss)	
SW-13_0222 (A2B0202-48)				Matrix: W	ater			
Batch: 22B0436								
Arsenic	ND	0.500	1.00	ug/L	1	02/18/22 01:55	EPA 6020B (Diss)	
Barium	2.39	0.500	1.00	ug/L	1	02/18/22 01:55	EPA 6020B (Diss)	
Beryllium	ND	0.100	0.200	ug/L	1	02/18/22 01:55	EPA 6020B (Diss)	
Cadmium	ND	0.100	0.200	ug/L	1	02/18/22 01:55	EPA 6020B (Diss)	
Chromium	ND	1.00	2.00	ug/L	1	02/18/22 01:55	EPA 6020B (Diss)	
Cobalt	ND	0.500	1.00	ug/L	1	02/18/22 01:55	EPA 6020B (Diss)	
Copper	ND	1.00	2.00	ug/L	1	02/18/22 01:55	EPA 6020B (Diss)	
Iron	ND	25.0	50.0	ug/L	1	02/18/22 01:55	EPA 6020B (Diss)	
Lead	ND	0.100	0.200	ug/L	1	02/18/22 01:55	EPA 6020B (Diss)	
Nickel	ND	1.00	2.00	ug/L	1	02/18/22 01:55	EPA 6020B (Diss)	
Selenium	ND	0.500	1.00	ug/L	1	02/18/22 01:55	EPA 6020B (Diss)	
Thallium	ND	0.100	0.200	ug/L	1	02/18/22 01:55	EPA 6020B (Diss)	
Vanadium	1.75	1.00	2.00	ug/L	1	02/18/22 01:55	EPA 6020B (Diss)	Ja
Zinc	ND	2.00	4.00	ug/L	1	02/18/22 01:55	EPA 6020B (Diss)	
SW-14_0222 (A2B0202-49)				Matrix: Wa	ater			
Batch: 22B0436								
Arsenic	ND	0.500	1.00	ug/L	1	02/18/22 02:00	EPA 6020B (Diss)	

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

	Dissolved Metals by EPA 6020B (ICPMS)										
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes			
SW-14_0222 (A2B0202-49)				Matrix: Wa	ater						
Barium	5.50	0.500	1.00	ug/L	1	02/18/22 02:00	EPA 6020B (Diss)				
Beryllium	ND	0.100	0.200	ug/L	1	02/18/22 02:00	EPA 6020B (Diss)				
Cadmium	ND	0.100	0.200	ug/L	1	02/18/22 02:00	EPA 6020B (Diss)				
Chromium	ND	1.00	2.00	ug/L	1	02/18/22 02:00	EPA 6020B (Diss)				
Cobalt	ND	0.500	1.00	ug/L	1	02/18/22 02:00	EPA 6020B (Diss)				
Copper	2.00	1.00	2.00	ug/L	1	02/18/22 02:00	EPA 6020B (Diss)				
Iron	25.4	25.0	50.0	ug/L	1	02/18/22 02:00	EPA 6020B (Diss)	Ja			
Lead	0.429	0.100	0.200	ug/L	1	02/18/22 02:00	EPA 6020B (Diss)				
Nickel	1.46	1.00	2.00	ug/L	1	02/18/22 02:00	EPA 6020B (Diss)	Ja			
Selenium	ND	0.500	1.00	ug/L	1	02/18/22 02:00	EPA 6020B (Diss)				
Thallium	ND	0.100	0.200	ug/L	1	02/18/22 02:00	EPA 6020B (Diss)				
Vanadium	1.73	1.00	2.00	ug/L	1	02/18/22 02:00	EPA 6020B (Diss)	Ja			
Zinc	30.4	2.00	4.00	ug/L	1	02/18/22 02:00	EPA 6020B (Diss)				

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Philip Nerenberg, Lab Director

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project Number: **Eatonville**Project Number: **00171.067**Project Manager: **Josh Bale**

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

To	otal Hexav	alent Chromi	um by Color	imetric Spect	rophoton	netry			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes	
HA-01-Comp-0.5-1.0_0222 (A2B0202-01)				Matrix: Soil		Batch:	22B0347		
Chromium (VI)	ND	2.06	4.12	mg/kg dry	5	02/10/22 17:32	EPA 7196A	Q-57, R-04	
HA-01-Comp-1.0-2.0_0222 (A2B0202-02)				Matrix: Soil		Batch:	22B0347		
Chromium (VI)	ND	1.94	3.88	mg/kg dry	5	02/10/22 17:33	EPA 7196A	Q-57, R-04	
HA-02-Comp-0.5-1.0_0222 (A2B0202-03)				Matrix: Soil		Batch:	22B0347		
Chromium (VI)	ND	4.73	9.46	mg/kg dry	5	02/10/22 17:33	EPA 7196A	Q-57, R-04	
HA-02-Comp-1.0-2.0_0222 (A2B0202-04)				Matrix: Soil		Batch:	22B0347		
Chromium (VI)	ND	6.31	12.6	mg/kg dry	10	02/10/22 17:33	EPA 7196A	Q-57, R-04	
HA-102-Comp-0.5-1.0_0222 (A2B0202-05)				Matrix: Soil		Batch:			
Chromium (VI)	ND	4.77	9.55	mg/kg dry	5	02/10/22 17:34	EPA 7196A	Q-57, R-04	
HA-102-Comp-1.0-2.0_0222 (A2B0202-06)				Matrix: Soil		Batch:	Batch: 22B0347		
Chromium (VI)	ND	6.60	13.2	mg/kg dry	10	02/10/22 17:35	EPA 7196A	Q-57, R-04	
HA-03-Comp-0.5-1.0_0222 (A2B0202-07RI	E1)			Matrix: Soil		Batch:	22B0439		
Chromium (VI)	ND	8.65	17.3	mg/kg dry	10	02/14/22 12:26	EPA 7196A	Q-57, R-04	
HA-03-Comp-1.0-2.0_0222 (A2B0202-08Ri	E1)			Matrix: Soil		Batch:	22B0439		
Chromium (VI)	ND	4.28	8.55	mg/kg dry	10	02/14/22 12:26	EPA 7196A	Q-57, R-04	
HA-04-Comp-0.0-0.5_0222 (A2B0202-09Ri	E1)			Matrix: Soil		Batch:	22B0439		
Chromium (VI)	ND	12.9	25.8	mg/kg dry	10	02/14/22 12:27	EPA 7196A	Q-57, R-04	
HA-04-Comp-0.5-1.0_0222 (A2B0202-10RI	E1)			Matrix: Soil		Batch:	22B0439		
Chromium (VI)	ND	5.85	11.7	mg/kg dry	10	02/14/22 12:27	EPA 7196A	Q-57, R-04	
HA-04-Comp-1.0-2.0_0222 (A2B0202-11RE	E1)			Matrix: Soil		Batch: 22B0439			
Chromium (VI)	ND	3.83	7.66	mg/kg dry	10	02/14/22 12:27	EPA 7196A	Q-57, R-04	
HA-05-Comp-0.0-0.5_0222 (A2B0202-12RE1)			Matrix: Soil		Batch:	22B0439			
Chromium (VI)	ND	7.63	15.3	mg/kg dry	10	02/14/22 12:28	EPA 7196A	Q-57, R-04	
HA-05-Comp-0.5-1.0_0222 (A2B0202-13RI	E1)			Matrix: Soil		Batch:	22B0439		

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Philip Nevenberg



AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

<u>GSI Water Solutions</u> 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project Number: **Eatonville**Project Number: **00171.067**Project Manager: **Josh Bale**

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

	Total Hexav	alent Chrom	ium by Color	imetric Spect	rophoton	netry		
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-05-Comp-0.5-1.0_0222 (A2B0202-13		Dillit	Lillit	Matrix: Soil		•	22B0439	140168
	ND	6.24	12.5		10	02/14/22 12:28	EPA 7196A	Q-57, R-04
Chromium (VI)		0.24	12.3	mg/kg dry				Q-37, K-04
HA-05-Comp-1.0-2.0_0222 (A2B0202-14	4RE1)			Matrix: Soil		Batch:	22B0439	
Chromium (VI)	ND	3.79	7.57	mg/kg dry	10	02/14/22 12:29	EPA 7196A	Q-57, R-04
HA-01A-0.0-0.5_0222 (A2B0202-15)				Matrix: Soil		Batch:	22B0439	
Chromium (VI)	ND	2.99	5.99	mg/kg dry	10	02/14/22 12:30	EPA 7196A	Q-42, Q-57, R-04
HA-01B-0.0-0.5_0222 (A2B0202-16)				Matrix: Soil	<u> </u>	Batch:	22B0439	
Chromium (VI)	ND	7.87	15.7	mg/kg dry	10	02/14/22 12:36	EPA 7196A	Q-57, R-04
HA-01C-0.0-0.5_0222 (A2B0202-17)				Matrix: Soil		Batch:	22B0439	
Chromium (VI)	ND	17.0	33.9	mg/kg dry	10	02/14/22 12:36	EPA 7196A	Q-57, R-04
HA-01D-0.0-0.5_0222 (A2B0202-18)				Matrix: Soil		Batch: 22B0439		
Chromium (VI)	ND	8.72	15.1	mg/kg dry	10	02/14/22 12:36	EPA 7196A	Q-57, R-04
HA-01E-0.0-0.5_0222 (A2B0202-19)				Matrix: Soil		Batch:	22B0439	
Chromium (VI)	ND	2.72	5.43	mg/kg dry	10	02/14/22 12:37	EPA 7196A	Q-57, R-04
HA-02A-0.0-0.5_0222 (A2B0202-20)				Matrix: Soil		Batch:	22B0439	
Chromium (VI)	ND	7.13	14.3	mg/kg dry	10	02/14/22 12:37	EPA 7196A	Q-57, R-04
HA-02B-0.0-0.5_0222 (A2B0202-21RE1))			Matrix: Soil		Batch:	22B0707	
Chromium (VI)	ND	5.63	11.3	mg/kg dry	10	02/21/22 15:22	EPA 7196A	Q-42, Q-57, R-04
HA-02C-0.0-0.5_0222 (A2B0202-22RE1))			Matrix: Soil		Batch:	22B0707	
Chromium (VI)	ND	16.7	33.4	mg/kg dry	10	02/21/22 15:28	EPA 7196A	R-04, Q-57
HA-02D-0.0-0.5_0222 (A2B0202-23RE1))			Matrix: Soil		Batch: 22B0707		
Chromium (VI)	ND	14.7	29.3	mg/kg dry	10	02/21/22 15:29	EPA 7196A	Q-57, R-04
HA-02E-0.0-0.5_0222 (A2B0202-24RE1))			Matrix: Soil	Soil Batch: 22B0707			
Chromium (VI)	ND	7.78	15.6	mg/kg dry	10	02/21/22 15:29	EPA 7196A	Q-57, R-04

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project Number: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

Т	otal Hexav	alent Chrom	ium by Color	imetric Spec	trophoton	netry		
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-03A-0.0-0.5_0222 (A2B0202-25RE1)				Matrix: Soil	l	Batch:	22B0707	
Chromium (VI)	ND	10.6	21.2	mg/kg dry	10	02/21/22 15:29	EPA 7196A	Q-57, R-04
HA-03B-0.0-0.5_0222 (A2B0202-26RE1)				Matrix: Soil	l	Batch:	22B0707	
Chromium (VI)	ND	6.84	13.7	mg/kg dry	10	02/21/22 15:30	EPA 7196A	Q-57, R-04
HA-03C-0.0-0.5_0222 (A2B0202-27RE1)				Matrix: Soil	I	Batch:	22B0707	
Chromium (VI)	ND	13.1	26.2	mg/kg dry	10	02/21/22 15:30	EPA 7196A	Q-57, R-04
HA-03D-0.0-0.5_0222 (A2B0202-28RE1)				Matrix: Soil	I	Batch:	22B0707	
Chromium (VI)	ND	14.9	29.8	mg/kg dry	10	02/21/22 15:30	EPA 7196A	Q-57, R-04
HA-03E-0.0-0.5_0222 (A2B0202-29RE1)				Matrix: Soil Batch: 22B0707		22B0707		
Chromium (VI)	ND	16.1	32.2	mg/kg dry	10	02/21/22 15:31	EPA 7196A	Q-57, R-04

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project Number: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

	Ammo	nia by Gas D	iffusion and	Colorimetric	Detection			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PZ-01_0222 (A2B0202-35)				Matrix: Wa	ater	Batch:	22B0346	
Ammonia as N	ND	0.0100	0.0200	mg/L	1	02/09/22 15:20	SM 4500-NH3 G	
PZ-02_0222 (A2B0202-36)				Matrix: Wa	ater	Batch:	22B0346	
Ammonia as N	ND	0.0100	0.0200	mg/L	1	02/09/22 15:25	SM 4500-NH3 G	
PZ-102_0222 (A2B0202-37)				Matrix: Wa	ater	Batch:	22B0346	
Ammonia as N	ND	0.0100	0.0200	mg/L	1	02/09/22 15:26	SM 4500-NH3 G	
PZ-03_0222 (A2B0202-38)				Matrix: Wa	ater	Batch:	22B0346	
Ammonia as N	0.0420	0.0100	0.0200	mg/L	1	02/09/22 15:28	SM 4500-NH3 G	
PZ-04_0222 (A2B0202-39)				Matrix: Water Batch: 22B0346				
Ammonia as N	0.223	0.0100	0.0200	mg/L	1	02/09/22 15:29	SM 4500-NH3 G	
PZ-05_0222 (A2B0202-40)				Matrix: Water Batch: 22B0346				
Ammonia as N	ND	0.0100	0.0200	mg/L	1	02/09/22 15:31	SM 4500-NH3 G	
SW-09_0222 (A2B0202-41)				Matrix: Wa	ater	Batch:	22B0346	
Ammonia as N	0.0110	0.0100	0.0200	mg/L	1	02/09/22 15:40	SM 4500-NH3 G	Ja
SW-109_0222 (A2B0202-42RE1)				Matrix: Wa	ater	Batch:	22B0346	
Ammonia as N	ND	0.0100	0.0200	mg/L	1	02/09/22 16:55	SM 4500-NH3 G	
SW-07_0222 (A2B0202-43RE1)				Matrix: Wa	ater	Batch:	22B0346	
Ammonia as N	0.0140	0.0100	0.0200	mg/L	1	02/09/22 16:57	SM 4500-NH3 G	Ja
SW-08_0222 (A2B0202-44RE1)				Matrix: Wa	ater	Batch:	22B0346	
Ammonia as N	0.0170	0.0100	0.0200	mg/L	1	02/09/22 16:58	SM 4500-NH3 G	Ja
SW-10_0222 (A2B0202-45RE1)				Matrix: Wa	ater	Batch:	22B0346	
Ammonia as N	0.0300	0.0100	0.0200	mg/L	1	02/09/22 17:00	SM 4500-NH3 G	
SW-11_0222 (A2B0202-46RE1)				Matrix: Wa	ater	Batch:	22B0346	
Ammonia as N	0.0400	0.0100	0.0200	mg/L	1	02/09/22 17:01	SM 4500-NH3 G	
SW-12_0222 (A2B0202-47RE1)				Matrix: Wa	ater	Batch:	22B0346	

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

	Ammonia by Gas Diffusion and Colorimetric Detection										
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes			
SW-12_0222 (A2B0202-47RE1)				Matrix: Water Batch: 22B0346							
Ammonia as N	0.0860	0.0100	0.0200	mg/L	1	02/09/22 17:03	SM 4500-NH3 G				
SW-13_0222 (A2B0202-48RE1)				Matrix: Wa	ater	Batch:	22B0346				
Ammonia as N	0.0150	0.0100	0.0200	mg/L	1	02/09/22 17:04	SM 4500-NH3 G	Ja			
SW-14_0222 (A2B0202-49RE1)				Matrix: Water Batch: 22B0346							
Ammonia as N	ND	0.0100	0.0200	mg/L	1	02/09/22 16:46	SM 4500-NH3 G				

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AMENDED REPORT

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6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

		Anions	by Ion Chrom	atography					
	Sample	Detection	Reporting			Date			
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes	
EB-02 (A2B0202-34)				Matrix: W	ater				
Batch: 22B0241									
Nitrate-Nitrogen	ND	0.125	0.250	mg/L	1	02/05/22 21:04	EPA 300.0		
Nitrite-Nitrogen	ND	0.125	0.250	mg/L	1	02/05/22 21:04	EPA 300.0		
Sulfate	ND	0.500	1.00	mg/L	1	02/05/22 21:04	EPA 300.0		
(Calculated)									
Nitrate+Nitrite Nitrogen	ND		0.500	mg/L	1	02/05/22 21:04	EPA 300.0		
PZ-01_0222 (A2B0202-35)		Matrix: Water							
Batch: 22B0241									
Nitrate-Nitrogen	ND	0.125	0.250	mg/L	1	02/05/22 17:49	EPA 300.0		
Nitrite-Nitrogen	ND	0.125	0.250	mg/L	1	02/05/22 17:49	EPA 300.0		
Sulfate	6.90	0.500	1.00	mg/L	1	02/05/22 17:49	EPA 300.0		
(Calculated)									
Nitrate+Nitrite Nitrogen	ND		0.500	mg/L	1	02/05/22 17:49	EPA 300.0		
PZ-02_0222 (A2B0202-36)				Matrix: W	ater				
Batch: 22B0241									
Nitrate-Nitrogen	ND	0.125	0.250	mg/L	1	02/05/22 20:42	EPA 300.0		
Nitrite-Nitrogen	ND	0.125	0.250	mg/L	1	02/05/22 20:42	EPA 300.0		
Sulfate	9.08	0.500	1.00	mg/L	1	02/05/22 20:42	EPA 300.0		
(Calculated)									
Nitrate+Nitrite Nitrogen	ND		0.500	mg/L	1	02/05/22 20:42	EPA 300.0		
PZ-102_0222 (A2B0202-37)				Matrix: W	ater				
Batch: 22B0241									
Nitrate-Nitrogen	ND	0.125	0.250	mg/L	1	02/05/22 21:47	EPA 300.0	H-06	
Nitrite-Nitrogen	ND	0.125	0.250	mg/L	1	02/05/22 21:47	EPA 300.0	H-06	
Sulfate	9.08	0.500	1.00	mg/L	1	02/05/22 21:47	EPA 300.0		
(Calculated)									
Nitrate+Nitrite Nitrogen	ND		0.500	mg/L	1	02/05/22 21:47	EPA 300.0		
PZ-03_0222 (A2B0202-38)				Matrix: W	ater				
Batch: 22B0241									
Nitrate-Nitrogen	ND	0.125	0.250	mg/L	1	02/05/22 22:08	EPA 300.0	H-06	
Nitrite-Nitrogen	ND	0.125	0.250	mg/L	1	02/05/22 22:08	EPA 300.0	H-06	

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

		AIIIOIIS	by Ion Chrom	atograpny				
A 1	Sample	Detection	Reporting	TT. 12	Dil (Date	M-41, 1D C	NT 4
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
PZ-03_0222 (A2B0202-38)				Matrix: W	ater			
Sulfate	3.42	0.500	1.00	mg/L	1	02/05/22 22:08	EPA 300.0	
(Calculated)								
Nitrate+Nitrite Nitrogen	ND		0.500	mg/L	1	02/05/22 22:08	EPA 300.0	
PZ-04_0222 (A2B0202-39)				Matrix: W	ater			
Batch: 22B0241								
Nitrate-Nitrogen	ND	0.125	0.250	mg/L	1	02/05/22 22:30	EPA 300.0	H-06
Nitrite-Nitrogen	ND	0.125	0.250	mg/L	1	02/05/22 22:30	EPA 300.0	H-06
Sulfate	38.4	0.500	1.00	mg/L	1	02/05/22 22:30	EPA 300.0	
(Calculated)								
Nitrate+Nitrite Nitrogen	ND		0.500	mg/L	1	02/05/22 22:30	EPA 300.0	
PZ-05_0222 (A2B0202-40)				Matrix: W	ater			
Batch: 22B0241								
Nitrate-Nitrogen	0.328	0.125	0.250	mg/L	1	02/05/22 18:54	EPA 300.0	
Nitrite-Nitrogen	ND	0.125	0.250	mg/L	1	02/05/22 18:54	EPA 300.0	
Sulfate (Calculated)	3.24	0.500	1.00	mg/L	1	02/05/22 18:54	EPA 300.0	
Nitrate+Nitrite Nitrogen	ND		0.500	mg/L	1	02/05/22 18:54	EPA 300.0	
SW-09_0222 (A2B0202-41)				Matrix: W	ater			
Batch: 22B0241								
Nitrate-Nitrogen	0.202	0.125	0.250	mg/L	1	02/05/22 22:52	EPA 300.0	Ja, H-06
Nitrite-Nitrogen	ND	0.125	0.250	mg/L	1	02/05/22 22:52	EPA 300.0	H-06
Sulfate	2.55	0.500	1.00	mg/L	1	02/05/22 22:52	EPA 300.0	
(Calculated)								
Nitrate+Nitrite Nitrogen	ND		0.500	mg/L	1	02/05/22 22:52	EPA 300.0	
SW-109_0222 (A2B0202-42)				Matrix: W	ater			
Batch: 22B0241		<u> </u>		<u> </u>				
Nitrate-Nitrogen	0.203	0.125	0.250	mg/L	1	02/05/22 23:13	EPA 300.0	Ja, H-06
Nitrite-Nitrogen	ND	0.125	0.250	mg/L	1	02/05/22 23:13	EPA 300.0	H-06
Sulfate (Calculated)	2.59	0.500	1.00	mg/L	1	02/05/22 23:13	EPA 300.0	
Nitrate+Nitrite Nitrogen	ND		0.500	mg/L	1	02/05/22 23:13	EPA 300.0	

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Philip Nerenberg, Lab Director

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project Number: **Eatonville**Project Number: **00171.067**Project Manager: **Josh Bale**

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

		Anions	by Ion Chrom	atography				
	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
SW-07_0222 (A2B0202-43)				Matrix: W	ater			
Batch: 22B0241								
Nitrate-Nitrogen	0.164	0.125	0.250	mg/L	1	02/05/22 23:35	EPA 300.0	Ja, H-06
Nitrite-Nitrogen	ND	0.125	0.250	mg/L	1	02/05/22 23:35	EPA 300.0	H-06
Sulfate (Calculated)	2.39	0.500	1.00	mg/L	1	02/05/22 23:35	EPA 300.0	
Nitrate+Nitrite Nitrogen	ND		0.500	mg/L	1	02/05/22 23:35	EPA 300.0	
SW-08_0222 (A2B0202-44)				Matrix: W	ater			
Batch: 22B0241								
Nitrate-Nitrogen	0.217	0.125	0.250	mg/L	1	02/06/22 00:39	EPA 300.0	Ja, H-06
Nitrite-Nitrogen	ND	0.125	0.250	mg/L	1	02/06/22 00:39	EPA 300.0	H-06
Sulfate	2.39	0.500	1.00	mg/L	1	02/06/22 00:39	EPA 300.0	
(Calculated)								
Nitrate+Nitrite Nitrogen	ND		0.500	mg/L	1	02/06/22 00:39	EPA 300.0	
SW-10_0222 (A2B0202-45)				Matrix: W	ater			
Batch: 22B0241								
Nitrate-Nitrogen	0.669	0.125	0.250	mg/L	1	02/06/22 01:01	EPA 300.0	H-06
Nitrite-Nitrogen (Calculated)	ND	0.125	0.250	mg/L	1	02/06/22 01:01	EPA 300.0	H-06
Nitrate+Nitrite Nitrogen	0.669		0.500	mg/L	1	02/06/22 01:01	EPA 300.0	
SW-10_0222 (A2B0202-45RE1)				Matrix: W	ater			
Batch: 22B0241								
Sulfate	118	2.50	5.00	mg/L	5	02/07/22 13:38	EPA 300.0	
SW-11_0222 (A2B0202-46)				Matrix: Wa	ater			
Batch: 22B0241								
Nitrate-Nitrogen	0.237	0.125	0.250	mg/L	1	02/06/22 01:22	EPA 300.0	Ja, H-06
Nitrite-Nitrogen	ND	0.125	0.250	mg/L	1	02/06/22 01:22	EPA 300.0	H-06
Sulfate (Calculated)	8.41	0.500	1.00	mg/L	1	02/06/22 01:22	EPA 300.0	
Nitrate+Nitrite Nitrogen	ND		0.500	mg/L	1	02/06/22 01:22	EPA 300.0	
SW-12_0222 (A2B0202-47)				Matrix: W	ater			

Batch: 22B0241

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Philip Nerenberg, Lab Director

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project Number: **Eatonville**Project Number: **00171.067**Project Manager: **Josh Bale**

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

	Anions by Ion Chromatography										
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes			
SW-12_0222 (A2B0202-47)				Matrix: Wa	ater						
Nitrate-Nitrogen	4.33	0.125	0.250	mg/L	1	02/06/22 01:44	EPA 300.0	H-06			
Nitrite-Nitrogen (Calculated)	ND	0.125	0.250	mg/L	1	02/06/22 01:44	EPA 300.0	H-06			
Nitrate+Nitrite Nitrogen	4.33		0.500	mg/L	1	02/06/22 01:44	EPA 300.0				
SW-12_0222 (A2B0202-47RE1)		Matrix: Water									
Batch: 22B0241											
Sulfate	487	10.0	20.0	mg/L	20	02/07/22 14:00	EPA 300.0				
SW-13_0222 (A2B0202-48)	Matrix: Water										
Batch: 22B0241											
Nitrate-Nitrogen	0.236	0.125	0.250	mg/L	1	02/06/22 02:06	EPA 300.0	Ja, H-06			
Nitrite-Nitrogen	ND	0.125	0.250	mg/L	1	02/06/22 02:06	EPA 300.0	H-06			
Sulfate (Calculated)	3.58	0.500	1.00	mg/L	1	02/06/22 02:06	EPA 300.0				
Nitrate+Nitrite Nitrogen	ND		0.500	mg/L	1	02/06/22 02:06	EPA 300.0				
SW-14_0222 (A2B0202-49)				Matrix: Wa	ater						
Batch: 22B0241											
Nitrate-Nitrogen	0.221	0.125	0.250	mg/L	1	02/05/22 21:25	EPA 300.0	Ja			
Nitrite-Nitrogen	ND	0.125	0.250	mg/L	1	02/05/22 21:25	EPA 300.0				
Sulfate (Calculated)	3.26	0.500	1.00	mg/L	1	02/05/22 21:25	EPA 300.0				
Nitrate+Nitrite Nitrogen	ND		0.500	mg/L	1	02/05/22 21:25	EPA 300.0				

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project Number: **Eatonville**Project Number: **00171.067**Project Manager: **Josh Bale**

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

Total Orga	nic Carbon (No	n-Purgeable	e) by Persulfa	te Oxidation	by Stand	ard Method 531	10C	
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PZ-01 0222 (A2B0202-35RE1)	Kesuit	Lillit	Lillit	Matrix: Wa			22B0383	notes
- ,	ND	1.00	1.00		1	02/11/22 12:00	SM 5310 C	
Total Organic Carbon	ND	1.00	1.00	mg/L				
PZ-02_0222 (A2B0202-36)				Matrix: Wa			22B0383	
Total Organic Carbon	ND	1.00	1.00	mg/L	1	02/10/22 19:06	SM 5310 C	
PZ-102_0222 (A2B0202-37)				Matrix: Wa	ater	Batch:	22B0383	
Total Organic Carbon	ND	1.00	1.00	mg/L	1	02/10/22 19:36	SM 5310 C	
PZ-03_0222 (A2B0202-38)				Matrix: Wa	ater	Batch:	22B0383	
Total Organic Carbon	2.66	1.00	1.00	mg/L	1	02/10/22 20:05	SM 5310 C	
PZ-04_0222 (A2B0202-39)				Matrix: Water Batch: 22B0383				
Total Organic Carbon	2.83	1.00	1.00	mg/L	1	02/10/22 20:35	SM 5310 C	
PZ-05_0222 (A2B0202-40)				Matrix: Wa	ater	Batch: 22B0383		
Total Organic Carbon	1.62	1.00	1.00	mg/L	1	02/10/22 21:05	SM 5310 C	
SW-09_0222 (A2B0202-41)				Matrix: Wa	ater	Batch: 22B0383		
Total Organic Carbon	1.95	1.00	1.00	mg/L	1	02/10/22 21:35	SM 5310 C	
SW-109_0222 (A2B0202-42)				Matrix: Wa	ater	Batch:	22B0383	
Total Organic Carbon	1.84	1.00	1.00	mg/L	1	02/10/22 23:04	SM 5310 C	
SW-07_0222 (A2B0202-43)				Matrix: Wa	ater	Batch:	22B0383	
Total Organic Carbon	2.87	1.00	1.00	mg/L	1	02/10/22 23:34	SM 5310 C	
SW-08_0222 (A2B0202-44)				Matrix: Wa	ater	Batch:	22B0383	
Total Organic Carbon	1.70	1.00	1.00	mg/L	1	02/11/22 01:03	SM 5310 C	
SW-10_0222 (A2B0202-45)				Matrix: Wa	ater	Batch:	22B0383	
Total Organic Carbon	3.74	1.00	1.00	mg/L	1	02/11/22 01:33	SM 5310 C	_
SW-11_0222 (A2B0202-46)				Matrix: Water Batch: 22B0383		22B0383		
Total Organic Carbon	2.80	1.00	1.00	mg/L	1	02/11/22 02:03	SM 5310 C	
SW-12_0222 (A2B0202-47)				Matrix: Wa	ater	Batch:	22B0383	

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

Total Organ	ic Carbon (No	on-Purgeable	e) by Persulfa	te Oxidatio	n by Stand	ard Method 531	10C		
	Sample	Detection	Reporting						
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes	
SW-12_0222 (A2B0202-47)		•		Matrix: Water Batch: 22B0383					
Total Organic Carbon	3.46	1.00	1.00	mg/L	1	02/11/22 02:33	SM 5310 C		
SW-13_0222 (A2B0202-48)				Matrix: W	ater	Batch:	22B0383		
Total Organic Carbon	1.73	1.00	1.00	mg/L	1	02/11/22 03:03	SM 5310 C		
SW-14_0222 (A2B0202-49)				Matrix: Water Batch: 22B0383					
Total Organic Carbon	1.99	1.00	1.00	mg/L	1	02/11/22 03:33	SM 5310 C		

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

		Conventio	nal Chemisti	y Parameters	3			
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
PZ-01_0222 (A2B0202-35)				Matrix: Wat	er			
Batch: 22B0402								
Total Alkalinity	94.8	20.0	20.0	mg CaCO3/L	1	02/10/22 15:37	SM 2320 B	
Bicarbonate Alkalinity	94.8	20.0	20.0	mg CaCO3/L	1	02/10/22 15:37	SM 2320 B	
Carbonate Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	02/10/22 15:37	SM 2320 B	
Hydroxide Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	02/10/22 15:37	SM 2320 B	
PZ-02_0222 (A2B0202-36)	Matrix: Water							
Batch: 22B0402								
Total Alkalinity	80.8	20.0	20.0	mg CaCO3/L	1	02/10/22 15:48	SM 2320 B	
Bicarbonate Alkalinity	80.8	20.0	20.0	mg CaCO3/L	1	02/10/22 15:48	SM 2320 B	
Carbonate Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	02/10/22 15:48	SM 2320 B	
Hydroxide Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	02/10/22 15:48	SM 2320 B	
PZ-102_0222 (A2B0202-37)	Matrix: Water							
Batch: 22B0402								
Total Alkalinity	79.2	20.0	20.0	mg CaCO3/L	1	02/10/22 15:57	SM 2320 B	
Bicarbonate Alkalinity	79.2	20.0	20.0	mg CaCO3/L	1	02/10/22 15:57	SM 2320 B	
Carbonate Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	02/10/22 15:57	SM 2320 B	
Hydroxide Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	02/10/22 15:57	SM 2320 B	
PZ-03_0222 (A2B0202-38)				Matrix: Wat	er			
Batch: 22B0402								
Total Alkalinity	40.0	20.0	20.0	mg CaCO3/L	1	02/10/22 16:04	SM 2320 B	
Bicarbonate Alkalinity	40.0	20.0	20.0	mg CaCO3/L	1	02/10/22 16:04	SM 2320 B	
Carbonate Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	02/10/22 16:04	SM 2320 B	
Hydroxide Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	02/10/22 16:04	SM 2320 B	
PZ-04_0222 (A2B0202-39)				Matrix: Wat	er			
Batch: 22B0402								
Total Alkalinity	64.5	20.0	20.0	mg CaCO3/L	1	02/10/22 16:13	SM 2320 B	
Bicarbonate Alkalinity	64.5	20.0	20.0	mg CaCO3/L	1	02/10/22 16:13	SM 2320 B	
Carbonate Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	02/10/22 16:13	SM 2320 B	
Hydroxide Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	02/10/22 16:13	SM 2320 B	
PZ-05 0222 (A2B0202-40)			_	Matrix: Wat	er			_

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

		Convention	nal Chemistr	y Parameters				
	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
PZ-05_0222 (A2B0202-40)				Matrix: Wat	er			
Batch: 22B0402								
Total Alkalinity	38.7	20.0	20.0	mg CaCO3/L	1	02/10/22 16:23	SM 2320 B	
Bicarbonate Alkalinity	38.7	20.0	20.0	mg CaCO3/L	1	02/10/22 16:23	SM 2320 B	
Carbonate Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	02/10/22 16:23	SM 2320 B	
Hydroxide Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	02/10/22 16:23	SM 2320 B	
SW-09_0222 (A2B0202-41)	Matrix: Water							
Batch: 22B0402								
Total Alkalinity	35.5	20.0	20.0	mg CaCO3/L	1	02/10/22 16:31	SM 2320 B	
Bicarbonate Alkalinity	35.5	20.0	20.0	mg CaCO3/L	1	02/10/22 16:31	SM 2320 B	
Carbonate Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	02/10/22 16:31	SM 2320 B	
Hydroxide Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	02/10/22 16:31	SM 2320 B	
SW-109_0222 (A2B0202-42)				Matrix: Wat	er			
Batch: 22B0402								
Total Alkalinity	35.8	20.0	20.0	mg CaCO3/L	1	02/10/22 16:37	SM 2320 B	
Bicarbonate Alkalinity	35.8	20.0	20.0	mg CaCO3/L	1	02/10/22 16:37	SM 2320 B	
Carbonate Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	02/10/22 16:37	SM 2320 B	
Hydroxide Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	02/10/22 16:37	SM 2320 B	
SW-07_0222 (A2B0202-43)				Matrix: Wat	er			
Batch: 22B0402								
Total Alkalinity	32.8	20.0	20.0	mg CaCO3/L	1	02/10/22 16:49	SM 2320 B	
Bicarbonate Alkalinity	32.8	20.0	20.0	mg CaCO3/L	1	02/10/22 16:49	SM 2320 B	
Carbonate Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	02/10/22 16:49	SM 2320 B	
Hydroxide Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	02/10/22 16:49	SM 2320 B	
SW-08_0222 (A2B0202-44)				Matrix: Wat	er			
Batch: 22B0402								
Total Alkalinity	37.3	20.0	20.0	mg CaCO3/L	1	02/10/22 16:55	SM 2320 B	
Bicarbonate Alkalinity	37.3	20.0	20.0	mg CaCO3/L	1	02/10/22 16:55	SM 2320 B	
Carbonate Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	02/10/22 16:55	SM 2320 B	
Hydroxide Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	02/10/22 16:55	SM 2320 B	
SW-10_0222 (A2B0202-45)				Matrix: Wat	er			

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

		Conventio	nal Chemistr	y Parameters				
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-10_0222 (A2B0202-45)				Matrix: Wat	er			
Batch: 22B0402								
Total Alkalinity	63.7	20.0	20.0	mg CaCO3/L	1	02/10/22 17:01	SM 2320 B	
Bicarbonate Alkalinity	63.7	20.0	20.0	mg CaCO3/L	1	02/10/22 17:01	SM 2320 B	
Carbonate Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	02/10/22 17:01	SM 2320 B	
Hydroxide Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	02/10/22 17:01	SM 2320 B	
SW-11_0222 (A2B0202-46)				Matrix: Wat	er			
Batch: 22B0402								
Total Alkalinity	36.8	20.0	20.0	mg CaCO3/L	1	02/10/22 17:12	SM 2320 B	
Bicarbonate Alkalinity	36.8	20.0	20.0	mg CaCO3/L	1	02/10/22 17:12	SM 2320 B	
Carbonate Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	02/10/22 17:12	SM 2320 B	
Hydroxide Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	02/10/22 17:12	SM 2320 B	
SW-12_0222 (A2B0202-47)				Matrix: Wat	er			
Batch: 22B0402								
Total Alkalinity	130	20.0	20.0	mg CaCO3/L	1	02/10/22 17:19	SM 2320 B	
Bicarbonate Alkalinity	130	20.0	20.0	mg CaCO3/L	1	02/10/22 17:19	SM 2320 B	
Carbonate Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	02/10/22 17:19	SM 2320 B	
Hydroxide Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	02/10/22 17:19	SM 2320 B	
SW-13_0222 (A2B0202-48)				Matrix: Wat	er			
Batch: 22B0402								
Total Alkalinity	37.5	20.0	20.0	mg CaCO3/L	1	02/10/22 17:27	SM 2320 B	
Bicarbonate Alkalinity	37.5	20.0	20.0	mg CaCO3/L	1	02/10/22 17:27	SM 2320 B	
Carbonate Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	02/10/22 17:27	SM 2320 B	
Hydroxide Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	02/10/22 17:27	SM 2320 B	
SW-14_0222 (A2B0202-49)				Matrix: Wat	er			
Batch: 22B0402								
Total Alkalinity	38.2	20.0	20.0	mg CaCO3/L	1	02/10/22 17:36	SM 2320 B	
Bicarbonate Alkalinity	38.2	20.0	20.0	mg CaCO3/L	1	02/10/22 17:36	SM 2320 B	
Carbonate Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	02/10/22 17:36	SM 2320 B	
Hydroxide Alkalinity	ND	20.0	20.0	mg CaCO3/L	1	02/10/22 17:36	SM 2320 B	

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project Number: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

		Pe	ercent Dry W	eight				
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-01-Comp-0.5-1.0_0222 (A2B0202-01)				Matrix: Soi	il	Batch:	22B0310	
% Solids	48.1	1.00	1.00	%	1	02/09/22 09:43	EPA 8000D	
HA-01-Comp-1.0-2.0_0222 (A2B0202-02)				Matrix: Soi	il	Batch:	22B0310	
% Solids	52.0	1.00	1.00	%	1	02/09/22 09:43	EPA 8000D	
HA-02-Comp-0.5-1.0_0222 (A2B0202-03)				Matrix: Soi	il	Batch:	22B0310	
% Solids	21.3	1.00	1.00	%	1	02/09/22 09:43	EPA 8000D	
HA-02-Comp-1.0-2.0_0222 (A2B0202-04)				Matrix: Soi	il	Batch:	22B0310	
% Solids	31.8	1.00	1.00	%	1	02/09/22 09:43	EPA 8000D	
HA-102-Comp-0.5-1.0_0222 (A2B0202-05)				Matrix: Soi	il	Batch:	22B0310	
% Solids	21.2	1.00	1.00	%	1	02/09/22 09:43	EPA 8000D	
HA-102-Comp-1.0-2.0_0222 (A2B0202-06)				Matrix: Soi	il	Batch:	22B0310	
% Solids	29.8	1.00	1.00	%	1	02/09/22 09:43	EPA 8000D	
HA-03-Comp-0.5-1.0_0222 (A2B0202-07)				Matrix: Soi	il	Batch:	22B0310	
% Solids	23.3	1.00	1.00	%	1	02/09/22 09:43	EPA 8000D	
HA-03-Comp-1.0-2.0_0222 (A2B0202-08)				Matrix: Soi	il	Batch:	22B0310	
% Solids	46.3	1.00	1.00	%	1	02/09/22 09:43	EPA 8000D	
HA-04-Comp-0.0-0.5_0222 (A2B0202-09)				Matrix: Soi	il	Batch:	22B0310	
% Solids	15.2	1.00	1.00	%	1	02/09/22 09:43	EPA 8000D	
HA-04-Comp-0.5-1.0_0222 (A2B0202-10)				Matrix: Soi	il	Batch:	22B0310	
% Solids	33.7	1.00	1.00	%	1	02/09/22 09:43	EPA 8000D	
HA-04-Comp-1.0-2.0_0222 (A2B0202-11)				Matrix: Soi	il	Batch:	22B0310	
% Solids	51.9	1.00	1.00	%	1	02/09/22 09:43	EPA 8000D	
HA-05-Comp-0.0-0.5_0222 (A2B0202-12)				Matrix: Soi	il	Batch:	22B0310	
% Solids	26.1	1.00	1.00	%	1	02/09/22 09:43	EPA 8000D	
HA-05-Comp-0.5-1.0_0222 (A2B0202-13)				Matrix: Soi	il	Batch:	22B0310	

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project Number: **Eatonville**Project Number: **00171.067**Project Manager: **Josh Bale**

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

		Pe	ercent Dry W	eight				
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
HA-05-Comp-0.5-1.0_0222 (A2B0202-13)				Matrix: S	Soil	Batch:	22B0310	
% Solids	32.2	1.00	1.00	%	1	02/09/22 09:43	EPA 8000D	
HA-05-Comp-1.0-2.0_0222 (A2B0202-14)				Matrix: S	Soil	Batch:	22B0310	
% Solids	51.8	1.00	1.00	%	1	02/09/22 09:43	EPA 8000D	
HA-01A-0.0-0.5_0222 (A2B0202-15)				Matrix: S	Soil	Batch:	22B0310	
% Solids	65.6	1.00	1.00	%	1	02/09/22 09:43	EPA 8000D	
HA-01B-0.0-0.5_0222 (A2B0202-16)				Matrix: S	Soil	Batch:	22B0310	
% Solids	24.8	1.00	1.00	%	1	02/09/22 09:43	EPA 8000D	
HA-01C-0.0-0.5_0222 (A2B0202-17)				Matrix: S	Soil	Batch:	22B0310	
% Solids	11.8	1.00	1.00	%	1	02/09/22 09:43	EPA 8000D	
HA-01D-0.0-0.5_0222 (A2B0202-18)				Matrix: S	Soil	Batch:	22B0310	
% Solids	26.0	1.00	1.00	%	1	02/09/22 09:43	EPA 8000D	
HA-01E-0.0-0.5_0222 (A2B0202-19)				Matrix: S	Soil	Batch:	22B0310	
% Solids	74.0	1.00	1.00	%	1	02/09/22 09:43	EPA 8000D	
HA-02A-0.0-0.5_0222 (A2B0202-20)				Matrix: S	Soil	Batch:	22B0310	
% Solids	27.4	1.00	1.00	%	1	02/09/22 09:43	EPA 8000D	Q-17
HA-02B-0.0-0.5_0222 (A2B0202-21)				Matrix: S	Soil	Batch:	22B0310	
% Solids	35.2	1.00	1.00	%	1	02/09/22 09:43	EPA 8000D	
HA-02C-0.0-0.5_0222 (A2B0202-22)				Matrix: S	Soil	Batch:	22B0310	
% Solids	11.9	1.00	1.00	%	1	02/09/22 09:43	EPA 8000D	
HA-02D-0.0-0.5_0222 (A2B0202-23)				Matrix: S	Soil	Batch:	22B0310	
% Solids	13.6	1.00	1.00	%	1	02/09/22 09:43	EPA 8000D	
HA-02E-0.0-0.5_0222 (A2B0202-24)				Matrix: S	Soil	Batch:	22B0310	
% Solids	25.4	1.00	1.00	%	1	02/09/22 09:43	EPA 8000D	
HA-03A-0.0-0.5_0222 (A2B0202-25)				Matrix: S	Soil	Batch:	22B0310	

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project Number: **Eatonville**Project Number: **00171.067**Project Manager: **Josh Bale**

Report ID: A2B0202 - 04 25 23 1115

ANALYTICAL SAMPLE RESULTS

	Pe	ercent Dry W	eight				
Sample	Detection	Reporting			Date		
Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
			Matrix: So	il	Batch:	22B0310	
18.6	1.00	1.00	%	1	02/09/22 09:43	EPA 8000D	
			Matrix: So	il	Batch:	22B0310	
29.6	1.00	1.00	%	1	02/09/22 09:43	EPA 8000D	
			Matrix: So	il	Batch:	22B0310	
15.1	1.00	1.00	%	1	02/09/22 09:43	EPA 8000D	
			Matrix: So	il	Batch:	22B0310	
13.2	1.00	1.00	%	1	02/09/22 09:43	EPA 8000D	
			Matrix: So	il	Batch:	22B0310	
12.5	1.00	1.00	%	1	02/09/22 09:43	EPA 8000D	
			Matrix: So	il	Batch:	22B0310	
40.4	1.00	1.00	%	1	02/09/22 09:43	EPA 8000D	
			Matrix: So	il	Batch:	22B0310	
24.8	1.00	1.00	%	1	02/09/22 09:43	EPA 8000D	
			Matrix: So	il	Batch:	22B0310	
19.0	1.00	1.00	%	1	02/09/22 09:43	EPA 8000D	
	18.6 29.6 15.1 13.2 12.5 40.4	Sample Result Detection Limit 18.6 1.00 29.6 1.00 15.1 1.00 13.2 1.00 40.4 1.00 24.8 1.00	Sample Result Detection Limit Reporting Limit 18.6 1.00 1.00 29.6 1.00 1.00 15.1 1.00 1.00 13.2 1.00 1.00 40.4 1.00 1.00 24.8 1.00 1.00	Result Limit Limit Units Matrix: So 18.6 1.00 1.00 % Matrix: So 29.6 1.00 1.00 % Matrix: So 15.1 1.00 1.00 % Matrix: So 13.2 1.00 1.00 % Matrix: So 40.4 1.00 1.00 % Matrix: So 24.8 1.00 1.00 % Matrix: So	Natrix: Soil Sample Result Limit Limit Units Dilution	Sample Result Detection Limit Reporting Limit Units Dilution Dilution Date Analyzed 18.6 1.00 1.00 % 1 02/09/22 09:43 Matrix: Soil Batch: 29.6 1.00 1.00 % 1 02/09/22 09:43 Matrix: Soil Batch: 15.1 1.00 1.00 % 1 02/09/22 09:43 Matrix: Soil Batch: 13.2 1.00 1.00 % 1 02/09/22 09:43 Matrix: Soil Batch: 40.4 1.00 1.00 % 1 02/09/22 09:43 Matrix: Soil Batch: 40.4 1.00 1.00 % 1 02/09/22 09:43 Matrix: Soil Batch: Matrix: Soil Batch: Matrix: Soil Batch: Matrix: Soil Batch:	Sample Result Detection Limit Reporting Limit Units Dilution Analyzed Method Ref. Matrix: Soil Batch: ≥≥B0310 18.6 1.00 1.00 % 1 02/09/22 09:43 EPA 8000D Matrix: Soil Batch: ≥≥B0310 29.6 1.00 1.00 % 1 02/09/22 09:43 EPA 8000D Matrix: Soil Batch: ≥2B0310 15.1 1.00 1.00 % 1 02/09/22 09:43 EPA 8000D Matrix: Soil Batch: ≥2B0310 12.5 1.00 1.00 % 1 02/09/22 09:43 EPA 8000D Matrix: Soil Batch: ≥2B0310 40.4 1.00 % 1 02/09/22 09:43 EPA 8000D Matrix: Soil Batch: ≥2B0310 24.8 1.00 1.00 % 1 02/09/22 09:43 EPA 8000D Matrix: Soil Batch: ≥2B0310 Matrix: Soil </td

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

Weck Laboratories, Inc.

ANALYTICAL SAMPLE RESULTS (Subcontracted)

		Hexav	alent Chrom	ium by IC						
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes		
EB-02 (A2B0202-34)				Matrix: W	ater	Batch: \	W2B0946			
Batch: W2B0946					1 02/14/22 13:18 EPA 218.6 Water Batch: W2B0946 1 02/14/22 13:30 EPA 218.6 Water Batch: W2B0946 1 02/14/22 13:42 EPA 218.6 Water Batch: W2B0946					
Chromium 6+, Dissolved	0.071	0.0079	0.020	ug/l	1	02/14/22 13:18	EPA 218.6			
PZ-01_0222 (A2B0202-35)				Matrix: W	ater	Batch: \	W2B0946			
Batch: W2B0946										
Chromium 6+, Dissolved	ND	0.0079	0.020	ug/l	1	02/14/22 13:30	EPA 218.6			
PZ-02_0222 (A2B0202-36)				Matrix: W	ater	Batch: \	W2B0946			
Batch: W2B0946										
Chromium 6+, Dissolved	ND	0.0079	0.020	ug/l	1	02/14/22 13:42	EPA 218.6			
PZ-102_0222 (A2B0202-37)				Matrix: W	ater	Batch: \	N2B0946			
Batch: W2B0946										
Chromium 6+, Dissolved	ND	0.0079	0.020	ug/l	1	02/14/22 13:53	EPA 218.6			
PZ-03_0222 (A2B0202-38)				Matrix: W	ater	Batch: \	W2B0946			
Batch: W2B0946										
Chromium 6+, Dissolved	ND	0.0079	0.020	ug/l	1	02/14/22 14:05	EPA 218.6			
PZ-04_0222 (A2B0202-39)				Matrix: W	ater	Batch: \	W2B0946			
Batch: W2B0946										
Chromium 6+, Dissolved	ND	0.0079	0.020	ug/l	1	02/14/22 14:17	EPA 218.6			
PZ-05_0222 (A2B0202-40)				Matrix: W	ater	Batch: \	W2B0946			
Batch: W2B0946										
Chromium 6+, Dissolved	0.12	0.0079	0.020	ug/l	1	02/14/22 14:53	EPA 218.6			
SW-09_0222 (A2B0202-41)				Matrix: W	ater	Batch: \	W2B0946			
Batch: W2B0946										
Chromium 6+, Dissolved	0.10	0.0079	0.020	ug/l	1	02/14/22 15:05	EPA 218.6			
SW-109_0222 (A2B0202-42)				Matrix: Water Batch: W2B0946						
Batch: W2B0946										
Chromium 6+, Dissolved	0.089	0.0079	0.020	ug/l	1	02/14/22 15:17	EPA 218.6			

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6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

Weck Laboratories, Inc.

ANALYTICAL SAMPLE RESULTS (Subcontracted)

		Hexav	alent Chromi	um by IC				
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
SW-07_0222 (A2B0202-43)				Matrix: W	ater	Batch: \	W2B0946	
Batch: W2B0946								
Chromium 6+, Dissolved	0.10	0.0079	0.020	ug/l	1	02/14/22 15:29	EPA 218.6	
SW-08_0222 (A2B0202-44)				Matrix: W	ater	Batch: \	W2B0946	
Batch: W2B0946								
Chromium 6+, Dissolved	0.13	0.0079	0.020	ug/l	1	02/14/22 15:40	EPA 218.6	
SW-10_0222 (A2B0202-45)				Matrix: W	ater	Batch: \	W2B0946	
Batch: W2B0946								
Chromium 6+, Dissolved	0.027	0.0079	0.020	ug/l	1	02/14/22 15:52	EPA 218.6	
SW-11_0222 (A2B0202-46)				Matrix: W	ater	Batch: \	W2B0946	
Batch: W2B0946								
Chromium 6+, Dissolved	0.090	0.0079	0.020	ug/l	1	02/14/22 16:04	EPA 218.6	
SW-12_0222 (A2B0202-47)				Matrix: W	ater	Batch: \	W2B0946	
Batch: W2B0946								
Chromium 6+, Dissolved	0.029	0.0079	0.020	ug/l	1	02/14/22 16:16	EPA 218.6	
SW-13_0222 (A2B0202-48)				Matrix: W	ater	Batch: \	W2B0946	
Batch: W2B0946								
Chromium 6+, Dissolved	0.12	0.0079	0.020	ug/l	1	02/14/22 16:28	EPA 218.6	
SW-14_0222 (A2B0202-49)				Matrix: W	ater	Batch: \	W2B0946	
Batch: W2B0946								
Chromium 6+, Dissolved	0.11	0.0079	0.020	ug/l	1	02/14/22 16:39	EPA 218.6	

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ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project Number: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

QUALITY CONTROL (QC) SAMPLE RESULTS

		D	iesel and/o	r Oil Hyd	rocarbor	s by NW	TPH-Dx					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22B0380 - EPA 3546 (F	uels)						So	il				
Blank (22B0380-BLK1)			Prepared	d: 02/10/22 0	8:40 Ana	lyzed: 02/10	0/22 10:22					
NWTPH-Dx												
Diesel	ND	9.09	25.0	mg/kg we	et 1							
Oil	ND	18.2	50.0	mg/kg we	et 1							
Surr: o-Terphenyl (Surr)		Rec	overy: 98 %	Limits: 50-	150 %	Dil	ution: 1x					
LCS (22B0380-BS1)			Prepared	d: 02/10/22 0	8:40 Ana	lyzed: 02/10	0/22 10:42					
NWTPH-Dx												
Diesel	125	10.0	25.0	mg/kg we	et 1	125		100	38-132%			
Surr: o-Terphenyl (Surr)		Reco	very: 101 %	Limits: 50-	150 %	Dil	ution: 1x					
Duplicate (22B0380-DUP1)			Prepared	d: 02/10/22 0	8:40 Ana	lyzed: 02/10	0/22 11:23					
QC Source Sample: Non-SDG (A2	2B0310-01R	<u>E1)</u>										
Diesel	24.7	9.44	25.0	mg/kg we	et 1		35.2			35	30%	Q-05, J
Oil	ND	18.9	50.0	mg/kg we	et 1		ND				30%	
Surr: o-Terphenyl (Surr)		Rec	overy: 71 %	Limits: 50-	150 %	Dil	ution: 1x					
Duplicate (22B0380-DUP2)			Prepared	d: 02/10/22 1	3:31 Ana	lyzed: 02/11	/22 00:11					
OC Source Sample: Non-SDG (AZ	2B0319-12)											
Diesel	ND	11.7	25.0	mg/kg dr	y 1		ND				30%	
Oil	ND	23.3	50.0	mg/kg dr	y 1		ND				30%	
Surr: o-Terphenyl (Surr)		Rec	overy: 60 %	Limits: 50-	150 %	Dil	ution: 1x					
Batch 22B0416 - EPA 3546 (F	uels)						So	il				
Blank (22B0416-BLK1)			Prepared	d: 02/10/22 1	5:22 Ana	lyzed: 02/10	0/22 20:51					
NWTPH-Dx												
Diesel	ND	9.09	25.0	mg/kg we	et 1							
Oil	ND	18.2	50.0	mg/kg we	et 1							
Surr: o-Terphenyl (Surr)		Reco	very: 102 %	Limits: 50-	150 %	Dil	ution: 1x					
LCS (22B0416-BS1)			Prepared	1: 02/10/22 1	5:22 Ana	lyzed: 02/10	0/22 21:12					
NWTPH-Dx												
Diesel	97.3	10.0	20.0	mg/kg we	et 1	125		78	38-132%			

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ORELAP ID: OR100062

AMENDED REPORT

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project Number: **Eatonville**Project Number: **00171.067**Project Manager: **Josh Bale**

Report ID: A2B0202 - 04 25 23 1115

QUALITY CONTROL (QC) SAMPLE RESULTS

		D	iesel and/d	or Oil Hyd	rocarbor	ns by NW7	ΓPH-Dx					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22B0416 - EPA 3546 (F	uels)						Soi	l				
LCS (22B0416-BS1)			Prepared	d: 02/10/22 1	5:22 Ana	lyzed: 02/10	/22 21:12					
Surr: o-Terphenyl (Surr)		Rec	overy: 95 %	Limits: 50	-150 %	Dilı	ution: 1x					
Duplicate (22B0416-DUP1)			Prepared	d: 02/10/22	5:22 Ana	lyzed: 02/10	/22 21:55					
QC Source Sample: HA-01-Comp	o-1.0-2.0 022	2 (A2B0202-0	2)									
Diesel	ND	18.8	37.6	mg/kg dr	y 1		ND				30%	
Oil	ND	37.6	75.2	mg/kg dı	y 1		49.1			***	30%	
Surr: o-Terphenyl (Surr)		Rec	overy: 82 %	Limits: 50	-150 %	Dilt	ution: 1x					
Duplicate (22B0416-DUP2)			Prepared	d: 02/10/22 1	5:22 Ana	lyzed: 02/10	/22 23:21					
QC Source Sample: HA-03-Comp	0-0.0-0.5 022	2 (A2B0202-3	2)									
Diesel	59.1	52.1	104	mg/kg dı	y 1		ND				30%	
Oil	143	104	208	mg/kg dr	•		113			23	30%	
Surr: o-Terphenyl (Surr)		Rec	overy: 97 %	Limits: 50	-150 %	Dilt	ution: 1x					

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project Number: **Eatonville**Project Number: **00171.067**Project Manager: **Josh Bale**

Report ID: A2B0202 - 04 25 23 1115

QUALITY CONTROL (QC) SAMPLE RESULTS

		Di	esel and/o	r Oil Hyd	rocarbon	s by NW7	ГРН-Dx					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22B0427 - EPA 3510C (Fuels/Acid	l Ext.)					Wa	ter				
Blank (22B0427-BLK1)			Prepared	1: 02/11/22	07:03 Anal	yzed: 02/11/	/22 22:51					
NWTPH-Dx												
Diesel	ND	0.0909	0.182	mg/L	1							
Oil	ND	0.182	0.364	mg/L	1							
Surr: o-Terphenyl (Surr)		Reco	very: 89 %	Limits: 50)-150 %	Dilı	ution: 1x					
LCS (22B0427-BS1)			Prepared	d: 02/11/22	07:03 Ana	lyzed: 02/11/	/22 23:11					
NWTPH-Dx												
Diesel	1.13	0.100	0.200	mg/L	1	1.25		91	36-132%			
Surr: o-Terphenyl (Surr)		Reco	very: 91 %	Limits: 50)-150 %	Dilı	ution: 1x					
LCS Dup (22B0427-BSD1)			Prepared	1: 02/11/22	07:03 Anal	yzed: 02/11/	/22 23:32					Q-19
NWTPH-Dx												
Diesel	1.19	0.100	0.200	mg/L	1	1.25		95	36-132%	5	30%	
Surr: o-Terphenyl (Surr)		Reco	very: 95 %	Limits: 50	0-150 %	Dilı	ution: 1x					

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

AMENDED REPORT

<u>GSI Water Solutions</u> 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project Number: **Eatonville**Project Number: **00171.067**Project Manager: **Josh Bale**

Report ID: A2B0202 - 04 25 23 1115

QUALITY CONTROL (QC) SAMPLE RESULTS

	Gasolir	ne Range H	lydrocarbo	ons (Benz	zene thro	ugh Naph	thalene)	by NWTP	H-Gx			
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22B0397 - EPA 5035A							So	il				
Blank (22B0397-BLK1)			Prepared	1: 02/10/22	08:00 Ana	yzed: 02/10	/22 12:54					
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	1.67	3.33	mg/kg w	vet 50							
Surr: 4-Bromofluorobenzene (Sur)		Reco	very: 116 %	Limits: 50	0-150 %	Dilt	ution: 1x					
1,4-Difluorobenzene (Sur)			106 %	50	0-150 %		"					
LCS (22B0397-BS2)			Prepared	1: 02/10/22	08:00 Ana	yzed: 02/10	/22 12:27					
NWTPH-Gx (MS)												
Gasoline Range Organics	27.4	2.50	5.00	mg/kg w	vet 50	25.0		110	80-120%			
Surr: 4-Bromofluorobenzene (Sur)		Reco	very: 114 %	Limits: 50	0-150 %	Dilı	ıtion: 1x					
1,4-Difluorobenzene (Sur)			106 %	50	0-150 %		"					
Duplicate (22B0397-DUP1)			Prepared	1: 02/04/22	17:00 Ana	yzed: 02/10	/22 15:09					
QC Source Sample: HA-01-Comp	-0.5-1.0 022	2 (A2B0202-0	<u>1)</u>									
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	8.78	17.6	mg/kg d	ry 50		ND				30%	
Surr: 4-Bromofluorobenzene (Sur)		Reco	very: 123 %	Limits: 50	0-150 %	Dilt	ution: 1x					
1,4-Difluorobenzene (Sur)			107 %	50	0-150 %		"					
Duplicate (22B0397-DUP2)			Prepared	1: 02/04/22	17:05 Ana	yzed: 02/10	/22 16:03					
OC Source Sample: HA-01-Comp	-1.0-2.0_022	2 (A2B0202-0	2)									
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	6.15	12.3	mg/kg d	ry 50		ND				30%	
Surr: 4-Bromofluorobenzene (Sur)		Reco	very: 123 %	Limits: 50	0-150 %	Dilı	ution: 1x					
1,4-Difluorobenzene (Sur)			108 %	50	0-150 %		"					

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project Number: **Eatonville**Project Number: **00171.067**Project Manager: **Josh Bale**

Report ID: A2B0202 - 04 25 23 1115

QUALITY CONTROL (QC) SAMPLE RESULTS

	Gasolii	ne Range H	ydrocarbo	ns (Ben	zene throu	igh Naphi	thalene)	by NWTP	H-Gx			
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22B0420 - EPA 5035A							Soi	I				
Blank (22B0420-BLK1)			Prepared	d: 02/10/22	09:00 Anal	yzed: 02/10/	/22 23:15					
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	1.67	3.33	mg/kg v	vet 50							
Surr: 4-Bromofluorobenzene (Sur)		Recov	very: 117 %	Limits: 5	0-150 %	Dilı	ution: 1x					
1,4-Difluorobenzene (Sur)			108 %	5	0-150 %		"					
LCS (22B0420-BS2)			Prepared	d: 02/10/22	09:00 Anal	yzed: 02/10/	/22 22:48					
NWTPH-Gx (MS)												
Gasoline Range Organics	27.8	2.50	5.00	mg/kg v	vet 50	25.0		111	80-120%			
Surr: 4-Bromofluorobenzene (Sur)		Recov	very: 113 %	Limits: 5	0-150 %	Dilı	ution: 1x					
1,4-Difluorobenzene (Sur)			108 %	5	0-150 %		"					
Duplicate (22B0420-DUP1)			Prepared	d: 02/01/22	16:30 Anal	yzed: 02/11/	/22 00:08					
QC Source Sample: HA-04-Comp	-0.0-0.5 022	2 (A2B0202-09	<u> </u>									
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	35.9	71.9	mg/kg o	dry 50		95.0			***	30%	Q-0
Surr: 4-Bromofluorobenzene (Sur)		Recov	ery: 127%	Limits: 5	0-150 %	Dilı	ution: 1x					
1,4-Difluorobenzene (Sur)			108 %	-	0-150 %		,,					

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6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

AMENDED REPORT

<u>GSI Water Solutions</u> 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project Number: **Eatonville**Project Number: **00171.067**Project Manager: **Josh Bale**

Report ID: A2B0202 - 04 25 23 1115

QUALITY CONTROL (QC) SAMPLE RESULTS

	Gasolin	e Range F	lydrocarbo	ons (Benz	ene thro	ugh Naph	thalene)	by NWTP	H-Gx			
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22B0469 - EPA 5030C							Wa	ter				
Blank (22B0469-BLK1)			Prepared	1: 02/12/22	09:00 Ana	lyzed: 02/12	/22 11:01					
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1							
Surr: 4-Bromofluorobenzene (Sur)		Reco	overy: 95 %	Limits: 50	0-150 %	Dilı	tion: 1x					
1,4-Difluorobenzene (Sur)			100 %	50	0-150 %		"					
LCS (22B0469-BS2)			Prepared	1: 02/12/22	09:00 Ana	lyzed: 02/12	/22 10:35					
NWTPH-Gx (MS)												
Gasoline Range Organics	0.504	0.0500	0.100	mg/L	1	0.500		101	80-120%			
Surr: 4-Bromofluorobenzene (Sur)		Reco	overy: 96 %	Limits: 50	0-150 %	Dilı	ution: 1x					
1,4-Difluorobenzene (Sur)			96 %	50	0-150 %		"					
Duplicate (22B0469-DUP1)			Prepared	1: 02/12/22	09:59 Ana	lyzed: 02/12	/22 12:21					
QC Source Sample: PZ-01 0222	(A2B0202-35)										
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1		ND				30%	
Surr: 4-Bromofluorobenzene (Sur)		Reco	overy: 94 %	Limits: 50	0-150 %	Dilı	ution: 1x					
1,4-Difluorobenzene (Sur)			103 %	50	0-150 %		"					
Duplicate (22B0469-DUP2)			Prepared	1: 02/12/22	09:59 Ana	lyzed: 02/12	/22 17:38					
OC Source Sample: SW-11_0222	(A2B0202-46	<u>D</u>										
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1		ND				30%	
Surr: 4-Bromofluorobenzene (Sur)		Recon	very: 103 %	Limits: 50	0-150 %	Dilı	ution: 1x					
1,4-Difluorobenzene (Sur)			110 %	50	0-150 %		"					

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D Detection % REC RPD Reporting Spike Source Analyte Result Limit Units Dilution % REC RPD Limit Amount Result Limits Limit Notes Batch 22B0469 - EPA 5030C Water Blank (22B0469-BLK1) Prepared: 02/12/22 09:00 Analyzed: 02/12/22 11:01 EPA 8260D ND 20.0 20.0 ICV-02 Acetone ug/L ND 2.00 Acrylonitrile 1.00 ug/L 1 Benzene ND 0.100 0.200 ug/L 1 Bromobenzene ND 0.250 0.500 ug/L 1 Bromochloromethane ND 0.500 1.00 ug/L 1 ND Bromodichloromethane 0.500 1.00 ug/L 1 Bromoform ND 0.500 1.00 ug/L 1 5.00 Bromomethane ND 5.00 ug/L 1 2-Butanone (MEK) ND 5.00 10.0 ug/L 1 n-Butylbenzene ND 0.500 1.00 1 ug/L sec-Butylbenzene ND 0.500 1.00 ug/L 1 ND 0.500 tert-Butylbenzene 1.00 1 ug/L ---Carbon disulfide ND 5.00 10.0 ug/L 1 Carbon tetrachloride ND 0.500 ug/L 1.00 1 Chlorobenzene ND 0.250 0.500 ug/L 1 Chloroethane ND 5.00 5.00 ug/L 1 ---Chloroform ND 0.500 1.00 ug/L 1 ND 2.50 5.00 Chloromethane 1 ug/L 2-Chlorotoluene ND 0.500 1.00 ug/L 1 4-Chlorotoluene ND 0.500 1.00 ug/L 1 Dibromochloromethane ND 0.500 1.00 ug/L 1 1,2-Dibromo-3-chloropropane ND 2.50 5.00 ug/L 1 1,2-Dibromoethane (EDB) ND 0.250 0.500 ug/L 1 ug/L Dibromomethane ND 0.500 1.00 1 0.250 1,2-Dichlorobenzene ND 0.500 ug/L 1 ug/L 1,3-Dichlorobenzene ND 0.250 0.500 1 1,4-Dichlorobenzene ND 0.250 0.500 ug/L 1 Dichlorodifluoromethane ND 0.500 1.00 ug/L 1 ---1,1-Dichloroethane ND 0.200 0.400ug/L 1 1,2-Dichloroethane (EDC) ND 0.200 0.400 ug/L 1 1,1-Dichloroethene ND 0.200 0.400 ug/L 1 cis-1,2-Dichloroethene ND 0.200 0.400 ug/L 1 trans-1,2-Dichloroethene 0.200 0.400 ND ug/L 1

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

QUALITY CONTROL (QC) SAMPLE RESULTS Volatile Organic Compounds by EPA 8260D

	Detection	Reporting			Spike	Source		% REC	RPD	
ecult	T 114	Limit	Unite	Dilution	Amount	Recult	% REC	Limite RPD	Limit	Notes

Analyte	Result	Limit	Limit	Units	Dilution	Amount	Result	% REC	Limits	RPD	Limit	Notes
Batch 22B0469 - EPA 5030C							Wa	ter				
Blank (22B0469-BLK1)			Prepared	: 02/12/22	09:00 Anal	lyzed: 02/12/	/22 11:01					
1,2-Dichloropropane	ND	0.250	0.500	ug/L	1							
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1							
2,2-Dichloropropane	ND	0.500	1.00	ug/L	1							
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1							
sis-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1							
rans-1,3-Dichloropropene	ND	0.500	1.00	ug/L	1							
Ethylbenzene	ND	0.250	0.500	ug/L	1							
Hexachlorobutadiene	ND	2.50	5.00	ug/L	1							
2-Hexanone	ND	5.00	10.0	ug/L	1							
sopropylbenzene	ND	0.500	1.00	ug/L	1							
-Isopropyltoluene	ND	0.500	1.00	ug/L	1							
Methylene chloride	ND	5.00	10.0	ug/L	1							
-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	ug/L	1							
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	ug/L	1							
Naphthalene	ND	1.00	2.00	ug/L	1							
-Propylbenzene	ND	0.250	0.500	ug/L	1							
tyrene	ND	0.500	1.00	ug/L	1							
,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1							
,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1							
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1							
Toluene	ND	0.500	1.00	ug/L	1							
,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1							
,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1							
,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1							
,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1							
Frichloroethene (TCE)	ND	0.200	0.400	ug/L	1							
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1							
,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1							
,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1							
,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1							
/inyl chloride	ND	0.200	0.400	ug/L	1							
n,p-Xylene	ND	0.500	1.00	ug/L	1							
-Xylene	ND	0.250	0.500	ug/L	1							

Surr: 1,4-Difluorobenzene (Surr) Recovery: 104 % Limits: 80-120 % Dilution: Ix

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

QUALITY CONTROL (QC) SAMPLE RESULTS

			Volatile Or	ganic Co	mpounds	by EPA 8	3260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22B0469 - EPA 5030C							Wa	ter				
Blank (22B0469-BLK1)			Prepared	1: 02/12/22	09:00 Ana	lyzed: 02/12	/22 11:01					
Surr: Toluene-d8 (Surr)		Rece	overy: 98 %	Limits: 80	0-120 %	Dilı	ution: 1x					
4-Bromofluorobenzene (Surr)			106 %	80	0-120 %		"					
LCS (22B0469-BS1)			Prepared	: 02/12/22	09:00 Ana	lyzed: 02/12	/22 10:06					
EPA 8260D												
Acetone	33.3	20.0	20.0	ug/L	1	40.0		83	80-120%			ICV-0
Acrylonitrile	18.5	1.00	2.00	ug/L	1	20.0		92	80-120%			
Benzene	19.4	0.100	0.200	ug/L	1	20.0		97	80-120%			
Bromobenzene	19.3	0.250	0.500	ug/L	1	20.0		97	80-120%			
Bromochloromethane	18.9	0.500	1.00	ug/L	1	20.0		95	80-120%			
Bromodichloromethane	19.4	0.500	1.00	ug/L	1	20.0		97	80-120%			
Bromoform	19.4	0.500	1.00	ug/L	1	20.0		97	80-120%			
Bromomethane	18.9	5.00	5.00	ug/L	1	20.0		94	80-120%			
2-Butanone (MEK)	34.8	5.00	10.0	ug/L	1	40.0		87	80-120%			
n-Butylbenzene	18.9	0.500	1.00	ug/L	1	20.0		94	80-120%			
sec-Butylbenzene	19.3	0.500	1.00	ug/L	1	20.0		97	80-120%			
tert-Butylbenzene	19.4	0.500	1.00	ug/L	1	20.0		97	80-120%			
Carbon disulfide	18.7	5.00	10.0	ug/L	1	20.0		94	80-120%			
Carbon tetrachloride	19.0	0.500	1.00	ug/L	1	20.0		95	80-120%			
Chlorobenzene	18.2	0.250	0.500	ug/L	1	20.0		91	80-120%			
Chloroethane	16.8	5.00	5.00	ug/L	1	20.0		84	80-120%			
Chloroform	19.0	0.500	1.00	ug/L	1	20.0		95	80-120%			
Chloromethane	18.4	2.50	5.00	ug/L	1	20.0		92	80-120%			
2-Chlorotoluene	21.6	0.500	1.00	ug/L	1	20.0		108	80-120%			
4-Chlorotoluene	21.0	0.500	1.00	ug/L	1	20.0		105	80-120%			
Dibromochloromethane	19.0	0.500	1.00	ug/L	1	20.0		95	80-120%			
1,2-Dibromo-3-chloropropane	19.0	2.50	5.00	ug/L	1	20.0		95	80-120%			
1,2-Dibromoethane (EDB)	19.4	0.250	0.500	ug/L	1	20.0		97	80-120%			
Dibromomethane	19.4	0.500	1.00	ug/L	1	20.0		97	80-120%			
1,2-Dichlorobenzene	20.0	0.250	0.500	ug/L	1	20.0		100	80-120%			
1,3-Dichlorobenzene	19.7	0.250	0.500	ug/L	1	20.0		98	80-120%			
1,4-Dichlorobenzene	18.2	0.250	0.500	ug/L	1	20.0		91	80-120%			
Dichlorodifluoromethane	21.2	0.500	1.00	ug/L	1	20.0		106	80-120%			
1,1-Dichloroethane	18.3	0.200	0.400	ug/L	1	20.0		92	80-120%			

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300 Pr
Portland, OR 97209 Pro

Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID:
A2B0202 - 04 25 23 1115

QUALITY CONTROL (QC) SAMPLE RESULTS Volatile Organic Compounds by EPA 8260D

Detection % REC RPD Reporting Spike Source % REC Analyte Result Limit Units Dilution Result RPD Limit Amount Limits Limit Notes Batch 22B0469 - EPA 5030C Water LCS (22B0469-BS1) Prepared: 02/12/22 09:00 Analyzed: 02/12/22 10:06 1,2-Dichloroethane (EDC) 17.6 0.200 0.400 ug/L 20.0 88 80-120% 1,1-Dichloroethene 18.0 0.200 0.400 ug/L 1 20.0 90 80-120% ---------20.0 99 cis-1,2-Dichloroethene 19.9 0.200 0.400 ug/L 1 80-120% trans-1,2-Dichloroethene 19.3 0.200 0.400 ug/L 1 20.0 97 80-120% 20.0 99 19.8 0.250 0.500 80-120% 1,2-Dichloropropane ug/L 1 20.0 95 1,3-Dichloropropane 19.1 0.500 1.00 ug/L 1 80-120% 2,2-Dichloropropane 19.3 0.5001.00 ug/L 1 20.0 97 80-120% 20.0 1,1-Dichloropropene 20.1 0.500 1.00 ug/L 1 101 80-120% 0.500 1.00 20.0 cis-1,3-Dichloropropene 21.2 ug/L 1 106 80-120% trans-1,3-Dichloropropene 20.6 0.500 1.00 ug/L 1 20.0 103 80-120% Ethylbenzene 20.0 97 19.4 0.250 0.500 80-120% ug/L 1 20.0 92 Hexachlorobutadiene 18.4 2.50 5.00 ug/L 1 80-120% 33.8 10.0 40.0 84 2-Hexanone 5.00 ug/L 1 ---80-120% ---Isopropylbenzene 18.7 0.500 1.00 ug/L 1 20.0 94 80-120% 19.9 0.500 20.0 100 80-120% 4-Isopropyltoluene 1.00 ug/L 1 Methylene chloride 18.8 5.00 10.0 ug/L 1 20.0 94 80-120% 5.00 10.0 40.0 91 4-Methyl-2-pentanone (MiBK) 36.4 1 80-120% ug/L Methyl tert-butyl ether (MTBE) 21.4 0.500 1.00 1 20.0 107 80-120% ug/L Naphthalene 19.6 1.00 2.00 20.0 98 80-120% ug/L 1 -----n-Propylbenzene 20.0 0.250 0.500 ug/L 1 20.0 100 80-120% 18.5 0.500 1.00 20.0 92 80-120% Styrene ug/L 1 1,1,1,2-Tetrachloroethane 18.7 0.200 0.400 ug/L 1 20.0 94 80-120% 1,1,2,2-Tetrachloroethane 19.3 0.250 0.500 20.0 96 80-120% ug/L 1 Tetrachloroethene (PCE) 19.4 0.200 0.400 ug/L 1 20.0 97 80-120% Toluene 17.9 0.500 1.00 20.0 89 ug/L 1 80-120% ------1,2,3-Trichlorobenzene 21.4 1.00 2.00 ug/L 1 20.0 107 80-120% 1,2,4-Trichlorobenzene 21.8 1.00 2.00 ug/L 20.0 109 80-120% 1 ------

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1,1,1-Trichloroethane

1.1.2-Trichloroethane

Trichloroethene (TCE)

Trichlorofluoromethane

1,2,3-Trichloropropane

1,2,4-Trimethylbenzene

1,3,5-Trimethylbenzene

18.6

18.9

18.8

18.0

19.2

19.7

19.5

0.200

0.250

0.200

1.00

0.500

0.500

0.500

0.400

0.500

0.400

2.00

1.00

1.00

1.00

ug/L

ug/L

ug/L

ug/L

ug/L

ug/L

ug/L

1

1

1

1

1

1

1

20.0

20.0

20.0

20.0

20.0

20.0

20.0

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93

95

94

90

96

98

97

80-120%

80-120%

80-120%

80-120%

80-120%

80-120%

80-120%

Philip Nerenberg, Lab Director

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209

Project: **Eatonville** Project Number: 00171.067 Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

QUALITY CONTROL (QC) SAMPLE RESULTS

		,	Volatile Or	ganic Co	mpounds	by EPA 8	3260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22B0469 - EPA 5030C							Wa	ter				
LCS (22B0469-BS1)			Prepared	1: 02/12/22	09:00 Ana	lyzed: 02/12	/22 10:06					
Vinyl chloride	20.8	0.200	0.400	ug/L	1	20.0		104	80-120%			
m,p-Xylene	37.3	0.500	1.00	ug/L	1	40.0		93	80-120%			
o-Xylene	18.9	0.250	0.500	ug/L	1	20.0		95	80-120%			
Surr: 1,4-Difluorobenzene (Surr)		Recov	very: 105 %	Limits: 80	0-120 %	Dilt	ution: 1x					
Toluene-d8 (Surr)			98 %	80	0-120 %		"					
4-Bromofluorobenzene (Surr)			104 %	80	0-120 %		"					
Duplicate (22B0469-DUP1)			Prepared	d: 02/12/22	09:59 Anal	yzed: 02/12	/22 12:21					
OC Source Sample: PZ-01_0222 (A2B0202-3	5)										
EPA 8260D												
Acetone	ND	20.0	20.0	ug/L	1		ND				30%	ICV-0
Acrylonitrile	ND	1.00	2.00	ug/L	1		ND				30%	
Benzene	ND	0.100	0.200	ug/L	1		ND				30%	
Bromobenzene	ND	0.250	0.500	ug/L	1		ND				30%	
Bromochloromethane	ND	0.500	1.00	ug/L	1		ND				30%	
Bromodichloromethane	ND	0.500	1.00	ug/L	1		ND				30%	
Bromoform	ND	0.500	1.00	ug/L	1		ND				30%	
Bromomethane	ND	5.00	5.00	ug/L	1		ND				30%	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1		ND				30%	
n-Butylbenzene	ND	0.500	1.00	ug/L	1		ND				30%	
sec-Butylbenzene	ND	0.500	1.00	ug/L	1		ND				30%	
tert-Butylbenzene	ND	0.500	1.00	ug/L	1		ND				30%	
Carbon disulfide	ND	5.00	10.0	ug/L	1		ND				30%	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1		ND				30%	
Chlorobenzene	ND	0.250	0.500	ug/L	1		ND				30%	
Chloroethane	ND	5.00	5.00	ug/L	1		ND				30%	
Chloroform	ND	0.500	1.00	ug/L	1		ND				30%	
Chloromethane	ND	2.50	5.00	ug/L	1		ND				30%	
2-Chlorotoluene	ND	0.500	1.00	ug/L	1		ND				30%	
4-Chlorotoluene	ND	0.500	1.00	ug/L	1		ND				30%	
Dibromochloromethane	ND	0.500	1.00	ug/L	1		ND				30%	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	ug/L	1		ND				30%	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	ug/L	1		ND				30%	
Dibromomethane	ND	0.500	1.00	ug/L	1		ND				30%	

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Page 117 of 177 Philip Nerenberg, Lab Director



AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions Project: 55 SW Yamhill St, Ste 300 Project Number: 00171.067 Portland, OR 97209 Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

QUALITY CONTROL (QC) SAMPLE RESULTS

Eatonville

Volatile Organic Compounds by EPA 8260D % REC RPD Detection Reporting Spike Source Analyte Result Units Dilution % REC RPD Limit Limit Amount Result Limits Limit Notes Batch 22B0469 - EPA 5030C Water Duplicate (22B0469-DUP1) Prepared: 02/12/22 09:59 Analyzed: 02/12/22 12:21 QC Source Sample: PZ-01 0222 (A2B0202-35) 1,2-Dichlorobenzene ND 0.250 0.500 ug/L 1 ND 30% ND 0.250 1,3-Dichlorobenzene 0.500 ug/L 1 ND 30% 1,4-Dichlorobenzene ND 0.250 0.500 ug/L 1 ND 30% Dichlorodifluoromethane ND 0.500 1.00 ug/L 1 ND 30% 1,1-Dichloroethane ND 0.200 0.400 1 ND 30% ug/L ------1,2-Dichloroethane (EDC) ND 0.200 0.400 ug/L 1 ND 30% 1,1-Dichloroethene ND 0.200 0.400ug/L 1 ND 30% ND 0.400 ND 30% cis-1,2-Dichloroethene 0.200 ug/L 1 trans-1,2-Dichloroethene ND 0.200 0.400 ug/L 1 ND 30% 1,2-Dichloropropane ND 0.250 0.500 ug/L 1 ND 30% 1,3-Dichloropropane ND 0.500 1.00 ug/L 1 ND 30% ND 0.500 1.00 30% 2,2-Dichloropropane ug/L 1 ND 1,1-Dichloropropene ND 0.500 1.00 ug/L 1 ND 30% ND 0.500 1.00 30% cis-1,3-Dichloropropene ug/L 1 ND 0.500 ug/L trans-1,3-Dichloropropene ND 1.00 1 ND 30% Ethylbenzene ND 0.250 0.500 ug/L 1 ND ___ 30% Hexachlorobutadiene ND 2.50 5.00 ug/L 1 ND 30% ND 30% 2-Hexanone 5.00 10.0 1 ND ug/L ND ND Isopropylbenzene 0.500 1.00 ug/L 1 30% 0.500 1.00 ND ND 30% 4-Isopropyltoluene ug/L 1 ND Methylene chloride 5.00 10.0 ug/L 1 ND 30% 4-Methyl-2-pentanone (MiBK) ND 5.00 10.0 ug/L 1 ND ---30% Methyl tert-butyl ether (MTBE) ND 0.500 1.00 ug/L 1 ND 30% Naphthalene ND ug/L ND 30% 1.00 2.00 1 ND 0.250 0.500 30% n-Propylbenzene ug/L 1 ND ND 0.500 1.00 ND 30% Styrene ug/L 1 1,1,1,2-Tetrachloroethane ND 0.200 0.400 ND 30% ug/L 1 1,1,2,2-Tetrachloroethane ND 0.250 0.500 ug/L 1 ND 30% Tetrachloroethene (PCE) ND 0.200 0.400 ug/L 1 ND 30% Toluene ND 0.500 1.00 ND 30% ug/L 1 ---1,2,3-Trichlorobenzene ND 1.00 2.00 ug/L 1 ND 30% 1.00 2.00 1,2,4-Trichlorobenzene ND 1 ND 30% ug/L 1,1,1-Trichloroethane ND 0.200 0.400 ug/L 1 ND 30%

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Page 118 of 177 Philip Nerenberg, Lab Director



AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions Project: 55 SW Yamhill St, Ste 300 Project Number: 00171.067 Portland, OR 97209 Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

QUALITY CONTROL (QC) SAMPLE RESULTS

Eatonville

		,	Volatile Or	ganic Co	mpounds	by EPA 8	3260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22B0469 - EPA 5030C							Wa	ter				
Duplicate (22B0469-DUP1)			Prepared	1: 02/12/22	09:59 Ana	lyzed: 02/12	/22 12:21					
QC Source Sample: PZ-01 0222 (A2B0202-35	<u>5)</u>										
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1		ND				30%	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1		ND				30%	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1		ND				30%	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1		ND				30%	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1		ND				30%	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1		ND				30%	
Vinyl chloride	ND	0.200	0.400	ug/L	1		ND				30%	
n,p-Xylene	ND	0.500	1.00	ug/L	1		ND				30%	
o-Xylene	ND	0.250	0.500	ug/L	1		ND				30%	
Surr: 1,4-Difluorobenzene (Surr)		Recov	ery: 104 %	Limits: 80	0-120 %	Dilı	ution: 1x					
Toluene-d8 (Surr)			100 %	80	0-120 %		"					
4-Bromofluorobenzene (Surr)			107 %	80	0-120 %		"					
QC Source Sample: SW-11 0222	(A2B0202-4	<u>6)</u>										
EPA 8260D Acetone	ND	20.0	20.0	,,,,/I	1		ND				30%	ICV-
	ND ND	1.00	2.00	ug/L	1		ND ND				30%	IC V-
Acrylonitrile Benzene	ND ND	0.100	0.200	ug/L			ND ND				30%	
		0.100	0.200	ug/L	1							
Bromobenzene	ND			ug/L	1		ND				30%	
Bromochloromethane	ND	0.500	1.00	ug/L	1		ND				30%	
Bromodichloromethane Bromoform	ND	0.500	1.00 1.00	ug/L	1		ND				30% 30%	
	ND	0.500		ug/L	1		ND					
Bromomethane (MEK)	ND	5.00	5.00	ug/L	1		ND				30%	
2-Butanone (MEK)	ND	5.00	10.0	ug/L	1		ND				30%	
n-Butylbenzene	ND	0.500	1.00	ug/L	1		ND				30%	
ec-Butylbenzene	ND	0.500	1.00	ug/L	1		ND				30%	
ert-Butylbenzene	ND	0.500	1.00	ug/L	1		ND				30%	
Carbon disulfide	ND	5.00	10.0	ug/L	1		ND				30%	
Carbon tetrachloride	ND	0.500	1.00	ug/L	1		ND				30%	
Chlorobenzene	ND	0.250	0.500	ug/L	1		ND				30%	
Chloroethane	ND	5.00	5.00	ug/L	1		ND				30%	
Chloroform	ND	0.500	1.00	ug/L	1		ND				30%	

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Page 119 of 177 Philip Nerenberg, Lab Director



AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions Project: 55 SW Yamhill St, Ste 300 Project Number: 00171.067 Portland, OR 97209 Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

QUALITY CONTROL (QC) SAMPLE RESULTS

Eatonville

Volatile Organic Compounds by EPA 8260D Detection % REC RPD Reporting Spike Source Analyte Result Limit Units Dilution Result % REC RPD Limit Amount Limits Limit Notes Batch 22B0469 - EPA 5030C Water Duplicate (22B0469-DUP2) Prepared: 02/12/22 09:59 Analyzed: 02/12/22 17:38 QC Source Sample: SW-11 0222 (A2B0202-46) Chloromethane ND 2.50 5.00 ug/L 1 ND 30% ND 0.500 1.00 2-Chlorotoluene ug/L 1 ND 30% 4-Chlorotoluene ND 0.500 1.00 ug/L 1 ND 30% Dibromochloromethane ND 0.500 1.00 ug/L 1 ND 30% 1,2-Dibromo-3-chloropropane ND 2.50 5.00 1 ND 30% ug/L ------ND 0.250 0.500 1,2-Dibromoethane (EDB) ug/L 1 ND 30% Dibromomethane ND 0.500 1.00 ug/L 1 ND 30% ND ND 30% 1,2-Dichlorobenzene 0.250 0.500 ug/L 1 1,3-Dichlorobenzene ND 0.250 0.500 ug/L 1 ND 30% 1,4-Dichlorobenzene ND 0.250 0.500 ug/L 1 ND 30% Dichlorodifluoromethane ND 0.500 1.00 ug/L 1 ND 30% ND 0.200 0.400ND 30% 1.1-Dichloroethane ug/L 1 1,2-Dichloroethane (EDC) ND 0.200 0.400 ug/L 1 ND 30% 1,1-Dichloroethene ND 0.200 0.400 ND 30% ug/L 1 0.200 0.400 cis-1,2-Dichloroethene ND ug/L 1 ND 30% trans-1,2-Dichloroethene ND 0.200 0.400 ug/L 1 ND ___ 30% 1,2-Dichloropropane ND 0.250 0.500 ug/L 1 ND 30% ND 0.500 ND 30% 1,3-Dichloropropane 1.00 1 ug/L ---ND ND 2,2-Dichloropropane 0.500 1.00 ug/L 1 30% 0.500 1.00 1,1-Dichloropropene ND ND 30% ug/L 1 ND 0.500 ND cis-1,3-Dichloropropene 1.00 ug/L 1 30% trans-1,3-Dichloropropene ND 0.500 1.00 ug/L 1 ND ---30% Ethylbenzene ND 0.250 0.500 ug/L 1 ND 30% ND ND 30% Hexachlorobutadiene 2.50 5.00 ug/L 1 ND 5.00 10.0 ND 30% 2-Hexanone ug/L 1 ND 0.500 1.00 ND 30% Isopropylbenzene ug/L 1 4-Isopropyltoluene ND 0.500 1.00 ND 30% ug/L 1 Methylene chloride ND 5.00 10.0 ug/L 1 ND 30% 4-Methyl-2-pentanone (MiBK) ND 5.00 10.0 ug/L 1 ND 30% Methyl tert-butyl ether (MTBE) ND 0.500 1.00 1 ND 30% ug/L ---Naphthalene ND 1.00 2.00 ug/L 1 ND 30% ND 0.250 0.500 ND n-Propylbenzene 1 30% ug/L Styrene ND 0.500 1.00 ug/L 1 ND 30%

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Page 120 of 177 Philip Nerenberg, Lab Director



AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

QUALITY CONTROL (QC) SAMPLE RESULTS

		Detection	Reporting			Spike	Source		% REC		RPD	
Analyte	Result	Limit	Limit	Units	Dilution	Amount	Result	% REC	Limits	RPD	Limit	Notes
Batch 22B0469 - EPA 5030C							Wa	ter				
Duplicate (22B0469-DUP2)			Prepared	: 02/12/22	09:59 Ana	lyzed: 02/12	/22 17:38					
QC Source Sample: SW-11 0222	(A2B0202-4	<u>6)</u>										
1,1,1,2-Tetrachloroethane	ND	0.200	0.400	ug/L	1		ND				30%	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	ug/L	1		ND				30%	
Tetrachloroethene (PCE)	ND	0.200	0.400	ug/L	1		ND				30%	
Toluene	ND	0.500	1.00	ug/L	1		ND				30%	
1,2,3-Trichlorobenzene	ND	1.00	2.00	ug/L	1		ND				30%	
1,2,4-Trichlorobenzene	ND	1.00	2.00	ug/L	1		ND				30%	
1,1,1-Trichloroethane	ND	0.200	0.400	ug/L	1		ND				30%	
1,1,2-Trichloroethane	ND	0.250	0.500	ug/L	1		ND				30%	
Trichloroethene (TCE)	ND	0.200	0.400	ug/L	1		ND				30%	
Trichlorofluoromethane	ND	1.00	2.00	ug/L	1		ND				30%	
1,2,3-Trichloropropane	ND	0.500	1.00	ug/L	1		ND				30%	
1,2,4-Trimethylbenzene	ND	0.500	1.00	ug/L	1		ND				30%	
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1		ND				30%	
Vinyl chloride	ND	0.200	0.400	ug/L	1		ND				30%	
m,p-Xylene	ND	0.500	1.00	ug/L	1		ND				30%	
o-Xylene	ND	0.250	0.500	ug/L	1		ND				30%	
Surr: 1,4-Difluorobenzene (Surr)		Reco	very: 106 %	Limits: 80	0-120 %	Dilt	ution: 1x					
Toluene-d8 (Surr)			100 %	80	0-120 %		"					
4-Bromofluorobenzene (Surr)			105 %	80	0-120 %		"					
Matrix Spike (22B0469-MS1)			Prepared	: 02/12/22	09:59 Ana	lyzed: 02/12	/22 18:58					
QC Source Sample: SW-13 0222	(A2B0202-4	<u>8)</u>										
EPA 8260D												
Acetone	31.1	20.0	20.0	ug/L	1	40.0	ND	78	39-160%			ICA
Acrylonitrile	20.9	1.00	2.00	ug/L	1	20.0	ND	104	63-135%			
Benzene	21.3	0.100	0.200	ug/L	1	20.0	ND	106	79-120%			
Bromobenzene	16.9	0.250	0.500	ug/L	1	20.0	ND	84	80-120%			
Bromochloromethane	22.9	0.500	1.00	ug/L	1	20.0	ND	114	78-123%			
Bromodichloromethane	22.2	0.500	1.00	ug/L	1	20.0	ND	111	79-125%			

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Bromoform

Bromomethane

n-Butylbenzene

2-Butanone (MEK)

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102

111

85

97

66-130%

53-141%

56-143%

75-128%

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Philip Nerenberg, Lab Director

20.4

22.2

34.1

19.4

0.500

5.00

5.00

0.500

1.00

5.00

10.0

1.00

ug/L

ug/L

ug/L

ug/L

1

1

1

1

20.0

20.0

40.0

20.0

ND

ND

ND

ND

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D													
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes	
Batch 22B0469 - EPA 5030C							Wa	ter					
Matrix Spike (22B0469-MS1)			Prepared	: 02/12/22	09:59 Anal	yzed: 02/12/	/22 18:58						
QC Source Sample: SW-13 0222	(A2B0202-4	<u>8)</u>											
sec-Butylbenzene	19.2	0.500	1.00	ug/L	1	20.0	ND	96	77-126%				
ert-Butylbenzene	19.0	0.500	1.00	ug/L	1	20.0	ND	95	78-124%				
Carbon disulfide	21.6	5.00	10.0	ug/L	1	20.0	ND	108	64-133%				
Carbon tetrachloride	22.6	0.500	1.00	ug/L	1	20.0	ND	113	72-136%				
Chlorobenzene	19.1	0.250	0.500	ug/L	1	20.0	ND	96	80-120%				
Chloroethane	22.6	5.00	5.00	ug/L	1	20.0	ND	113	60-138%				
Chloroform	22.2	0.500	1.00	ug/L	1	20.0	ND	111	79-124%				
Chloromethane	17.8	2.50	5.00	ug/L	1	20.0	ND	89	50-139%				
2-Chlorotoluene	19.6	0.500	1.00	ug/L	1	20.0	ND	98	79-122%				
l-Chlorotoluene	20.0	0.500	1.00	ug/L	1	20.0	ND	100	78-122%				
Dibromochloromethane	20.1	0.500	1.00	ug/L	1	20.0	ND	100	74-126%				
,2-Dibromo-3-chloropropane	17.6	2.50	5.00	ug/L	1	20.0	ND	88	62-128%				
,2-Dibromoethane (EDB)	19.5	0.250	0.500	ug/L	1	20.0	ND	97	77-121%				
Dibromomethane	21.8	0.500	1.00	ug/L	1	20.0	ND	109	79-123%				
,2-Dichlorobenzene	18.3	0.250	0.500	ug/L	1	20.0	ND	91	80-120%				
,3-Dichlorobenzene	18.6	0.250	0.500	ug/L	1	20.0	ND	93	80-120%				
,4-Dichlorobenzene	17.5	0.250	0.500	ug/L	1	20.0	ND	88	79-120%				
Dichlorodifluoromethane	16.8	0.500	1.00	ug/L	1	20.0	ND	84	32-152%				
,1-Dichloroethane	21.8	0.200	0.400	ug/L	1	20.0	ND	109	77-125%				
,2-Dichloroethane (EDC)	21.2	0.200	0.400	ug/L	1	20.0	ND	106	73-128%				
,1-Dichloroethene	21.8	0.200	0.400	ug/L	1	20.0	ND	109	71-131%				
eis-1,2-Dichloroethene	21.5	0.200	0.400	ug/L	1	20.0	ND	107	78-123%				
rans-1,2-Dichloroethene	21.5	0.200	0.400	ug/L	1	20.0	ND	108	75-124%				
,2-Dichloropropane	22.2	0.250	0.500	ug/L	1	20.0	ND	111	78-122%				
,3-Dichloropropane	19.9	0.500	1.00	ug/L	1	20.0	ND	99	80-120%				
2,2-Dichloropropane	20.1	0.500	1.00	ug/L	1	20.0	ND	101	60-139%				
,1-Dichloropropene	22.2	0.500	1.00	ug/L	1	20.0	ND	111	79-125%				
is-1,3-Dichloropropene	18.2	0.500	1.00	ug/L	1	20.0	ND	91	75-124%				
rans-1,3-Dichloropropene	21.9	0.500	1.00	ug/L	1	20.0	ND	110	73-127%				
Ethylbenzene	21.1	0.250	0.500	ug/L	1	20.0	ND	106	79-121%				
Hexachlorobutadiene	18.0	2.50	5.00	ug/L	1	20.0	ND	90	66-134%				
2-Hexanone	32.4	5.00	10.0	ug/L	1	40.0	ND	81	57-139%				
sopropylbenzene	19.6	0.500	1.00	ug/L ug/L	1	20.0	ND	98	72-131%				

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D												
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22B0469 - EPA 5030C							Wa	ter				
Matrix Spike (22B0469-MS1)			Prepared	: 02/12/22	09:59 Anal	yzed: 02/12/	/22 18:58					
QC Source Sample: SW-13 0222 (A2B0202-4	<u>8)</u>										
4-Isopropyltoluene	18.9	0.500	1.00	ug/L	1	20.0	ND	95	77-127%			
Methylene chloride	20.7	5.00	10.0	ug/L	1	20.0	ND	104	74-124%			
l-Methyl-2-pentanone (MiBK)	41.6	5.00	10.0	ug/L	1	40.0	ND	104	67-130%			
Methyl tert-butyl ether (MTBE)	21.8	0.500	1.00	ug/L	1	20.0	ND	109	71-124%			
Naphthalene	16.6	1.00	2.00	ug/L	1	20.0	ND	83	61-128%			
-Propylbenzene	19.9	0.250	0.500	ug/L	1	20.0	ND	100	76-126%			
tyrene	19.4	0.500	1.00	ug/L	1	20.0	ND	97	78-123%			
,1,1,2-Tetrachloroethane	20.2	0.200	0.400	ug/L	1	20.0	ND	101	78-124%			
,1,2,2-Tetrachloroethane	19.8	0.250	0.500	ug/L	1	20.0	ND	99	71-121%			
etrachloroethene (PCE)	20.1	0.200	0.400	ug/L	1	20.0	ND	101	74-129%			
Coluene	19.1	0.500	1.00	ug/L	1	20.0	ND	95	80-121%			
,2,3-Trichlorobenzene	18.1	1.00	2.00	ug/L	1	20.0	ND	90	69-129%			
,2,4-Trichlorobenzene	18.4	1.00	2.00	ug/L	1	20.0	ND	92	69-130%			
,1,1-Trichloroethane	22.1	0.200	0.400	ug/L	1	20.0	ND	110	74-131%			
,1,2-Trichloroethane	19.9	0.250	0.500	ug/L	1	20.0	ND	100	80-120%			
richloroethene (TCE)	19.2	0.200	0.400	ug/L	1	20.0	ND	96	79-123%			
richlorofluoromethane	23.5	1.00	2.00	ug/L	1	20.0	ND	117	65-141%			
,2,3-Trichloropropane	18.4	0.500	1.00	ug/L	1	20.0	ND	92	73-122%			
,2,4-Trimethylbenzene	18.9	0.500	1.00	ug/L	1	20.0	ND	95	76-124%			
,3,5-Trimethylbenzene	19.1	0.500	1.00	ug/L	1	20.0	ND	96	75-124%			
inyl chloride	19.9	0.200	0.400	ug/L	1	20.0	ND	99	58-137%			
ı,p-Xylene	41.1	0.500	1.00	ug/L	1	40.0	ND	103	80-121%			
-Xylene	19.2	0.250	0.500	ug/L	1	20.0	ND	96	78-122%			
urr: 1,4-Difluorobenzene (Surr)		Recov	ery: 101 %	Limits: 80	1-120 %	Dilı	ution: 1x					
Toluene-d8 (Surr)			95 %	80	-120 %		"					
4-Bromofluorobenzene (Surr)			91 %	80	-120 %		"					

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

QUALITY CONTROL (QC) SAMPLE RESULTS

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22B0338 - EPA 3511 (B	ottle Extra	ction)					Wa	ter				
Blank (22B0338-BLK1)			Prepared	: 02/09/22	07:46 Ana	lyzed: 02/09/	/22 11:20					
EPA 8270E LVI												
Acenaphthene	ND	0.0160	0.0320	ug/L	1							
Acenaphthylene	ND	0.0160	0.0320	ug/L	1							
Anthracene	ND	0.0160	0.0320	ug/L	1							
Benz(a)anthracene	ND	0.00800	0.0160	ug/L	1							
Benzo(a)pyrene	ND	0.00800	0.0160	ug/L	1							
Benzo(b)fluoranthene	ND	0.00800	0.0160	ug/L	1							
Benzo(k)fluoranthene	ND	0.00800	0.0160	ug/L	1							
Benzo(g,h,i)perylene	ND	0.0160	0.0320	ug/L	1							
Chrysene	ND	0.00800	0.0160	ug/L	1							
Dibenz(a,h)anthracene	ND	0.00800	0.0160	ug/L	1							
Fluoranthene	ND	0.0160	0.0320	ug/L	1							
Fluorene	ND	0.0160	0.0320	ug/L	1							
Indeno(1,2,3-cd)pyrene	ND	0.00800	0.0160	ug/L	1							
1-Methylnaphthalene	ND	0.0320	0.0640	ug/L	1							
2-Methylnaphthalene	ND	0.0320	0.0640	ug/L	1							
Naphthalene	ND	0.0320	0.0640	ug/L	1							
Phenanthrene	ND	0.0320	0.0640	ug/L	1							
Pyrene	ND	0.0160	0.0320	ug/L	1							
Carbazole	ND	0.0160	0.0320	ug/L	1							
Dibenzofuran	ND	0.0160	0.0320	ug/L	1							
Surr: Acenaphthylene-d8 (Surr)		Reco	very: 97%		8-134 %	Dilı	ıtion: 1x					_
Benzo(a)pyrene-d12 (Surr)			96 %		0-132 %		"					
LCS (22B0338-BS1)			Prepared	: 02/09/22	07:46 Ana	lyzed: 02/09/	/22 11:52					
EPA 8270E LVI												
Acenaphthene	1.49	0.0160	0.0320	ug/L	1	1.60		93	80-120%			
Acenaphthylene	1.89	0.0160	0.0320	ug/L	1	1.60		118	80-124%			
Anthracene	1.47	0.0160	0.0320	ug/L	1	1.60		92	80-123%			
Benz(a)anthracene	1.51	0.00800	0.0160	ug/L	1	1.60		95	80-122%			
Benzo(a)pyrene	1.64	0.00800	0.0160	ug/L	1	1.60		102	80-129%			
Benzo(b)fluoranthene	1.54	0.00800	0.0160	ug/L	1	1.60		96	80-124%			
Benzo(k)fluoranthene	1.54	0.00800	0.0160	ug/L	1	1.60		96	80-125%			
Benzo(g,h,i)perylene	1.48	0.0160	0.0320	ug/L	1	1.60		93	80-120%			

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

QUALITY CONTROL (QC) SAMPLE RESULTS

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
<u> </u>			Lillit	Onto	Dilution	Minouilt			Lilling	мь	Lillit	
Batch 22B0338 - EPA 3511 (B	ottle Extra	ction)					Wa	ter				
LCS (22B0338-BS1)						yzed: 02/09	/22 11:52					
Chrysene	1.52	0.00800	0.0160	ug/L	1	1.60		95	80-120%			
Dibenz(a,h)anthracene	1.65	0.00800	0.0160	ug/L	1	1.60		103	80-120%			
Fluoranthene	1.66	0.0160	0.0320	ug/L	1	1.60		104	80-126%			
Fluorene	1.57	0.0160	0.0320	ug/L	1	1.60		98	77-127%			
ndeno(1,2,3-cd)pyrene	1.52	0.00800	0.0160	ug/L	1	1.60		95	80-121%			
l-Methylnaphthalene	1.71	0.0320	0.0640	ug/L	1	1.60		107	53-148%			
2-Methylnaphthalene	1.61	0.0320	0.0640	ug/L	1	1.60		100	48-150%			
Naphthalene	1.64	0.0320	0.0640	ug/L	1	1.60		103	78-120%			
Phenanthrene	1.51	0.0320	0.0640	ug/L	1	1.60		94	80-120%			
Pyrene	1.65	0.0160	0.0320	ug/L	1	1.60		103	80-125%			
Carbazole	1.48	0.0160	0.0320	ug/L	1	1.60		93	65-141%			
Dibenzofuran	1.78	0.0160	0.0320	ug/L	1	1.60		112	76-121%			
Surr: Acenaphthylene-d8 (Surr)		Reco	very: 97%	Limits: 78	2-134 %	Dilı	ıtion: 1x					
Benzo(a)pyrene-d12 (Surr)			100 %	80	-132 %		"					
LCS Dup (22B0338-BSD1)			Prepared:	02/09/22	07:46 Anal	yzed: 02/09	/22 12:25					Q-
EPA 8270E LVI												
Acenaphthene	1.43	0.0160	0.0320	ug/L	1	1.60		90	80-120%	4	30%	
Acenaphthylene	1.85	0.0160	0.0320	ug/L	1	1.60		116	80-124%	2	30%	
Anthracene	1.51	0.0160	0.0320	ug/L	1	1.60		95	80-123%	3	30%	
Benz(a)anthracene	1.57	0.00800	0.0160	ug/L	1	1.60		98	80-122%	4	30%	
Benzo(a)pyrene	1.69	0.00800	0.0160	ug/L	1	1.60		105	80-129%	3	30%	
Benzo(b)fluoranthene	1.56	0.00800	0.0160	ug/L	1	1.60		98	80-124%	1	30%	
Benzo(k)fluoranthene	1.58	0.00800	0.0160	ug/L	1	1.60		99	80-125%	3	30%	
Benzo(g,h,i)perylene	1.48	0.0160	0.0320	ug/L	1	1.60		93	80-120%	0.05	30%	
Chrysene	1.51	0.00800	0.0160	ug/L	1	1.60		94	80-120%	1	30%	
Dibenz(a,h)anthracene	1.68	0.00800	0.0160	ug/L	1	1.60		105	80-120%	2	30%	
Fluoranthene	1.72	0.0160	0.0320	ug/L	1	1.60		108	80-126%	3	30%	
luorene	1.56	0.0160	0.0320	ug/L	1	1.60		97	77-127%	0.9	30%	
ndeno(1,2,3-cd)pyrene	1.50	0.00800	0.0160	ug/L	1	1.60		94	80-121%	1	30%	
-Methylnaphthalene	1.65	0.0320	0.0640	ug/L	1	1.60		103	53-148%	4	30%	
2-Methylnaphthalene	1.53	0.0320	0.0640	ug/L	1	1.60		95	48-150%	5	30%	
Naphthalene	1.53	0.0320	0.0640	ug/L	1	1.60		96	78-120%	7	30%	
Phenanthrene	1.52	0.0320	0.0640	ug/L	1	1.60		95	80-120%	0.6	30%	

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

QUALITY CONTROL (QC) SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270E (Large Volume Injection) Detection Reporting Spike Source % REC **RPD** Limits RPD Analyte Result Ĺimit Units Dilution Amount Result % REC Limit Limit Notes Batch 22B0338 - EPA 3511 (Bottle Extraction) Water LCS Dup (22B0338-BSD1) Prepared: 02/09/22 07:46 Analyzed: 02/09/22 12:25 Q-19 Pyrene 1.70 0.0160 0.0320 ug/L 1.60 106 80-125% 30% 3 Carbazole 1.56 0.0160 0.0320 1.60 97 65-141% 5 30% ug/L 1 Dibenzofuran 0.0160 0.0320 1.60 1.73 ug/L 1 108 76-121% 3 30% Surr: Acenaphthylene-d8 (Surr) Recovery: 96 % 78-134 % Limits: Dilution: 1x Benzo(a)pyrene-d12 (Surr) 100 % 80-132 %

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Philip Nerenberg, Lab Director

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project Number: **Eatonville**Project Number: **00171.067**Project Manager: **Josh Bale**

Report ID: A2B0202 - 04 25 23 1115

QUALITY CONTROL (QC) SAMPLE RESULTS

			Penta	chloroph	enol by E	PA 8270E						
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22B0333 - EPA 3510C (A	cid Extra	ction)					Wa	ter				
Blank (22B0333-BLK2)			Prepared	1: 02/09/22	07:07 Ana	lyzed: 02/09	/22 13:21					
EPA 8270E Pentachlorophenol (PCP)	ND	0.0909	0.182	ug/L	1							
Surr: 2,4,6-Tribromophenol (Surr)	Recovery: 76% Limits: 43-140% Dilution: 1x											
LCS (22B0333-BS2)			Prepared	l: 02/09/22	07:07 Ana	lyzed: 02/09	/22 13:56					
EPA 8270E Pentachlorophenol (PCP)	3.45	0.100	0.200	ug/L	1	4.00		86	62-130%			
Surr: 2,4,6-Tribromophenol (Surr)	3.43		very: 84 %	Limits: 43			ution: Ix	60	02-130/0			
LCS Dup (22B0333-BSD2)			Prepared	1: 02/09/22	07:07 Ana	lyzed: 02/09/	/22 14:31					Q-
<u>EPA 8270E</u>												
Pentachlorophenol (PCP)	2.90	0.100	0.200	ug/L	1	4.00		73	62-130%	17	30%	
Surr: 2,4,6-Tribromophenol (Surr)		Reco	very: 83 %	Limits: 43	3-140 %	Dilı	ution: 1x					

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

QUALITY CONTROL (QC) SAMPLE RESULTS

			Total M	letals by l	EPA 6020	B (ICPMS	S)					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22B0382 - EPA 3051A							Soi	il				
Blank (22B0382-BLK1)			Prepared	: 02/10/22 0	9:03 Anal	yzed: 02/10	/22 17:18					
EPA 6020B												
Arsenic	ND	0.484	0.967	mg/kg we	et 10							
Barium	ND	0.484	0.967	mg/kg we	et 10							
Beryllium	ND	0.0967	0.193	mg/kg we	et 10							
Cadmium	ND	0.0967	0.193	mg/kg we	et 10							
Chromium	ND	0.484	0.967	mg/kg we	et 10							
Cobalt	ND	0.484	0.967	mg/kg we	et 10							
Copper	ND	0.967	1.93	mg/kg we	t 10							
Lead	ND	0.0967	0.193	mg/kg we	et 10							
Nickel	ND	0.967	1.93	mg/kg we	et 10							
Selenium	ND	0.484	0.967	mg/kg we	et 10							
Гhallium	ND	0.0967	0.193	mg/kg we	et 10							
Vanadium	ND	0.967	1.93	mg/kg we	t 10							
Zinc	ND	1.93	3.87	mg/kg we	et 10							
LCS (22B0382-BS1) <u>EPA 6020B</u>			Prepared	: 02/10/22 0	9:03 Anal	yzed: 02/10	/22 17:23					
Arsenic	48.1	0.500	1.00	mg/kg we	t 10	50.0		96	80-120%			
Barium	50.8	0.500	1.00	mg/kg we	et 10	50.0		102	80-120%			
Beryllium	24.5	0.100	0.200	mg/kg we	t 10	25.0		98	80-120%			
Cadmium	48.9	0.100	0.200	mg/kg we		50.0		98	80-120%			
Chromium	49.6	0.500	1.00	mg/kg we		50.0		99	80-120%			
Cobalt	50.0	0.500	1.00	mg/kg we		50.0		100	80-120%			
Copper	52.6	1.00	2.00	mg/kg we		50.0		105	80-120%			
Lead	49.4	0.100	0.200	mg/kg we	et 10	50.0		99	80-120%			
Nickel	51.4	1.00	2.00	mg/kg we	et 10	50.0		103	80-120%			
Selenium	23.8	0.500	1.00	mg/kg we		25.0		95	80-120%			
Γhallium	23.2	0.100	0.200	mg/kg we		25.0		93	80-120%			
Vanadium	49.4	1.00	2.00	mg/kg we	et 10	50.0		99	80-120%			
Zinc	50.6	2.00	4.00	mg/kg we		50.0		101	80-120%			
Duplicate (22B0382-DUP1)			Prepared	: 02/10/22 0	9:03 Anal	yzed: 02/10	/22 17:32					
QC Source Sample: Non-SDG (A2	2B0162-09)											

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

QUALITY CONTROL (QC) SAMPLE RESULTS

			Total M	letals by l	EPA 6020	B (ICPMS	S)					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22B0382 - EPA 3051A							Soi	I				
Duplicate (22B0382-DUP1)			Prepared	: 02/10/22 0	9:03 Ana	lyzed: 02/10	/22 17:32					
QC Source Sample: Non-SDG (A2	B0162-09)											
Barium	34.0	0.632	1.26	mg/kg dr	y 10		33.4			2	20%	
Beryllium	ND	0.126	0.253	mg/kg dr	y 10		ND				20%	
Cadmium	ND	0.126	0.253	mg/kg dr	y 10		ND				20%	
Chromium	4.85	0.632	1.26	mg/kg dr	y 10		5.54			13	20%	
Cobalt	3.59	0.632	1.26	mg/kg dr	y 10		3.45			4	20%	
Copper	5.64	1.26	2.53	mg/kg dr	y 10		4.94			13	20%	
Lead	1.91	0.126	0.253	mg/kg dr	y 10		1.87			2	20%	
Nickel	7.10	1.26	2.53	mg/kg dr	y 10		7.31			3	20%	
Selenium	ND	0.632	1.26	mg/kg dr	y 10		ND				20%	
Γhallium	ND	0.126	0.253	mg/kg dr	y 10		ND				20%	
Vanadium	16.6	1.26	2.53	mg/kg dr	y 10		16.5			0.06	20%	
Zinc	24.3	2.53	5.06	mg/kg dr	y 10		21.7			11	20%	
Matrix Spike (22B0382-MS1)			Prepared	: 02/10/22 0	9:03 Anai	lyzed: 02/10	/22.17:42					
QC Source Sample: Non-SDG (A2	R0162-10)		Trepured	. 02/10/22 0	7.05 Tina	19200. 02/10/	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,					
EPA 6020B	. <u>D0102-10)</u>											
Arsenic	64.6	0.667	1.33	mg/kg dr	y 10	66.7	0.894	96	75-125%			
Barium	110	0.667	1.33	mg/kg dr		66.7	51.0	89	75-125%			
Beryllium	33.8	0.133	0.267	mg/kg dr		33.3	0.133	101	75-125%			
Cadmium	64.9	0.133	0.267	mg/kg dr		66.7	ND	97	75-125%			
Chromium	72.3	0.667	1.33	mg/kg dr		66.7	6.24	99	75-125%			
Cobalt	69.2	0.667	1.33	mg/kg dr		66.7	3.81	98	75-125%			
Copper	74.6	1.33	2.67	mg/kg dr		66.7	5.06	104	75-125%			
Lead	67.8	0.133	0.267	mg/kg dr		66.7	1.84	99	75-125%			
Nickel	76.7	1.33	2.67	mg/kg dr		66.7	7.55	104	75-125%			
Selenium	31.6	0.667	1.33	mg/kg dr		33.3	ND	95	75-125%			
Γhallium	31.1	0.133	0.267	mg/kg dr		33.3	ND	93	75-125%			
Vanadium	85.4	1.33	2.67	mg/kg dr		66.7	20.6	97	75-125%			
Zinc	91.7	2.67	5.33	mg/kg dr		66.7	23.4	102	75-125%			

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Philip Neimberg

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6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

Apex Laboratories, LLC

ORELAP ID: OR100062

AMENDED REPORT

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

QUALITY CONTROL (QC) SAMPLE RESULTS

			Total M	letals by	EPA 6020	B (ICPMS	S)					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22B0387 - EPA 3015A							Wa	ter				
Blank (22B0387-BLK1)			Prepared	: 02/10/22	09:07 Anal	yzed: 02/14	/22 16:11					
EPA 6020B												
Arsenic	ND	0.500	1.00	ug/L	1							
Iron	ND	25.0	50.0	ug/L	1							
Blank (22B0387-BLK2)			Prepared	: 02/10/22	09:07 Anal	yzed: 02/16	/22 15:25					
EPA 6020B	·						·				<u> </u>	
Beryllium	ND	0.100	0.200	ug/L	1							Q-1
Cadmium	ND	0.100	0.200	ug/L	1							Q-1
LCS (22B0387-BS1)			Prepared	: 02/10/22	09:07 Anal	yzed: 02/14	/22 16:25					
EPA 6020B												
Arsenic	51.7	0.500	1.00	ug/L	1	55.6		93	80-120%			
Beryllium	25.6	0.500	1.00	ug/L	1	27.8		92	80-120%			
Cadmium	52.5	0.500	1.00	ug/L	1	55.6		94	80-120%			
Iron	2760	25.0	50.0	ug/L	1	2780		99	80-120%			
Duplicate (22B0387-DUP1)			Prepared	: 02/10/22	09:07 Anal	yzed: 02/14	/22 16:36					
QC Source Sample: Non-SDG (A2	B0158-07)											
Arsenic	1.42	0.500	1.00	ug/L	1		1.56			9	20%	
Beryllium	ND	0.500	1.00	ug/L	1		ND				20%	
Cadmium	ND	0.500	1.00	ug/L	1		ND				20%	
Iron	1360	25.0	50.0	ug/L	1		1550			13	20%	
Matrix Spike (22B0387-MS1)			Prepared	: 02/10/22	09:07 Anal	yzed: 02/14	/22 16:41					
QC Source Sample: Non-SDG (A2	B0158-07)											
EPA 6020B												
Arsenic	52.4	0.500	1.00	ug/L	1	55.6	1.56	92	75-125%			
Beryllium	26.0	0.500	1.00	ug/L	1	27.8	ND	94	75-125%			
Cadmium	52.7	0.500	1.00	ug/L	1	55.6	ND	95	75-125%			
Iron	4360	25.0	50.0	ug/L	1	2780	1550	101	75-125%			

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Philip Neimberg

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

QUALITY CONTROL (QC) SAMPLE RESULTS

			Total N	letals by l	EPA 6020	OB (ICPMS	S)					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22B0432 - EPA 3051A							So	il				
Blank (22B0432-BLK1)			Prepared	: 02/11/22 0	9:03 Ana	lyzed: 02/14	/22 14:28					
EPA 6020B												
Arsenic	ND	0.481	0.962	mg/kg we	et 10							
Barium	ND	0.481	0.962	mg/kg we	et 10							
Chromium	ND	0.481	0.962	mg/kg we	et 10							
Cobalt	ND	0.481	0.962	mg/kg we	et 10							
Copper	ND	0.962	1.92	mg/kg we	et 10							
Lead	ND	0.0962	0.192	mg/kg we	et 10							
Nickel	ND	0.962	1.92	mg/kg we	et 10							
Selenium	ND	0.481	0.962	mg/kg we	et 10							
Thallium	ND	0.0962	0.192	mg/kg we	et 10							
Vanadium	ND	0.962	1.92	mg/kg we	et 10							
Zinc	ND	1.92	3.85	mg/kg we								
Blank (22B0432-BLK2) EPA 6020B		0.0062				lyzed: 02/16	122 13:21					
Beryllium	ND	0.0962	0.192	mg/kg we								Q-1
Cadmium	ND	0.0962	0.192	mg/kg we	et 10							Q-1
LCS (22B0432-BS1)			Prepared	: 02/11/22 0	9:03 Ana	lyzed: 02/14	/22 14:33					
EPA 6020B												
Arsenic	47.8	0.500	1.00	mg/kg we	et 10	50.0		96	80-120%			
Barium	49.5	0.500	1.00	mg/kg we		50.0		99	80-120%			
Beryllium	23.5	0.500	1.00	mg/kg we		25.0		94	80-120%			
Cadmium	48.3	0.500	1.00	mg/kg we		50.0		97	80-120%			
Chromium	48.6	0.500	1.00	mg/kg we		50.0		97	80-120%			
Cobalt	48.4	0.500	1.00	mg/kg we		50.0		97	80-120%			
Copper	51.1	1.00	2.00	mg/kg we		50.0		102	80-120%			
Lead	48.9	0.100	0.200	mg/kg we		50.0		98	80-120%			
Nickel	50.8	1.00	2.00	mg/kg we		50.0		102	80-120%			
Selenium	24.2	0.500	1.00	mg/kg we	et 10	25.0		97	80-120%			B-0
Thallium	23.3	0.100	0.200	mg/kg we		25.0		93	80-120%			
Vanadium	47.7	1.00	2.00	mg/kg we	et 10	50.0		95	80-120%			
Zinc	51.0	2.00	4.00	mg/kg we	et 10	50.0		102	80-120%			

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Philip Nevenberg

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Philip Nerenberg, Lab Director

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

AMENDED REPORT

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

QUALITY CONTROL (QC) SAMPLE RESULTS

			Total N	letals by l	EPA 6020	B (ICPMS	3)					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22B0432 - EPA 3051A							So	il				
Duplicate (22B0432-DUP1)			Prepared	: 02/11/22 0	9:03 Anal	lyzed: 02/14	/22 14:42					
QC Source Sample: HA-05-Comp	-0.0-0.5 022	2 (A2B0202-12	<u>2)</u>									
EPA 6020B												
Arsenic	2.43	1.99	3.99	mg/kg dr	y 10		2.82			15	20%	
Barium	49.2	1.99	3.99	mg/kg dr	y 10		46.9			5	20%	
Chromium	12.9	1.99	3.99	mg/kg dr	y 10		11.6			11	20%	
Cobalt	2.39	1.99	3.99	mg/kg dr	y 10		2.11			12	20%	;
Copper	17.4	3.99	7.98	mg/kg dr	y 10		16.0			9	20%	
Lead	122	0.399	0.798	mg/kg dr	y 10		118			4	20%	
Nickel	9.11	3.99	7.98	mg/kg dr	y 10		7.38			21	20%	Q-0
Selenium	ND	1.99	3.99	mg/kg dr	y 10		ND				20%	
Thallium	ND	0.399	0.798	mg/kg dr	y 10		ND				20%	
Vanadium	28.4	3.99	7.98	mg/kg dr	y 10		25.4			11	20%	
Zinc	79.6	7.98	16.0	mg/kg dr	•		88.7			11	20%	
Dunlicate (22B0432-DIJP2)			Prepared	. 02/11/22 0	9·03 Anal	lyzed: 02/16	/22 15:54					
Duplicate (22B0432-DUP2)	0.0.0.5.022	2 (A2R0202 12	*	: 02/11/22 0	9:03 Anal	lyzed: 02/16	/22 15:54					
QC Source Sample: HA-05-Comp	-0.0-0.5 022	2 (A2B0202-12	*	: 02/11/22 0	9:03 Anal	lyzed: 02/16	/22 15:54					
QC Source Sample: HA-05-Comp EPA 6020B			2RE1)								20%	O-1
QC Source Sample: HA-05-Comp	-0.0-0.5 022 ND ND	2 (A2B0202-12 0.399 0.399	*	mg/kg dr	y 10	lyzed: 02/16	/22 15:54 ND ND				20% 20%	-
QC Source Sample: HA-05-Comp EPA 6020B Beryllium	ND	0.399	0.798		y 10		ND					Q-1 Q-1
QC Source Sample: HA-05-Comp EPA 6020B Beryllium	ND	0.399	0.798 0.798	mg/kg dr mg/kg dr	y 10 y 10		ND ND					-
OC Source Sample: HA-05-Comp EPA 6020B Beryllium Cadmium	ND ND	0.399 0.399	0.798 0.798 0.798 Prepared	mg/kg dr mg/kg dr	y 10 y 10		ND ND					-
QC Source Sample: HA-05-Comp EPA 6020B Beryllium Cadmium Matrix Spike (22B0432-MS1)	ND ND	0.399 0.399	0.798 0.798 0.798 Prepared	mg/kg dr mg/kg dr	y 10 y 10		ND ND			 		-
QC Source Sample: HA-05-Comp EPA 6020B Beryllium Cadmium Matrix Spike (22B0432-MS1) QC Source Sample: HA-05-Comp	ND ND	0.399 0.399	0.798 0.798 0.798 Prepared	mg/kg dr mg/kg dr	y 10 y 10 9:03 Anal		ND ND		 75-125%			-
OC Source Sample: HA-05-Comp EPA 6020B Beryllium Cadmium Matrix Spike (22B0432-MS1) OC Source Sample: HA-05-Comp EPA 6020B	ND ND	0.399 0.399 2 (A2B0202-12	0.798 0.798 Prepared	mg/kg dr mg/kg dr : 02/11/22 0	y 10 y 10 9:03 Anal	 lyzed: 02/14	ND ND /22 14:47				20%	-
OC Source Sample: HA-05-Comp EPA 6020B Beryllium Cadmium Matrix Spike (22B0432-MS1) OC Source Sample: HA-05-Comp EPA 6020B Arsenic	ND ND -0.0-0.5 022	0.399 0.399 2 (A2B0202-12	0.798 0.798 Prepared 2)	mg/kg dr mg/kg dr : 02/11/22 0 mg/kg dr	y 10 y 10 9:03 Anal y 10 y 10	 lyzed: 02/14.	ND ND /22 14:47	107	75-125%		20%	•
OC Source Sample: HA-05-Comp EPA 6020B Beryllium Cadmium Matrix Spike (22B0432-MS1) OC Source Sample: HA-05-Comp EPA 6020B Arsenic Barium	ND ND -0.0-0.5 022 201 262	0.399 0.399 2 (A2B0202-12 1.85 1.85	0.798 0.798 Prepared 2) 3.70 3.70	mg/kg dr mg/kg dr : 02/11/22 0 mg/kg dr mg/kg dr	y 10 y 10 9:03 Anal y 10 y 10 y 10	 lyzed: 02/14. 185 185	ND ND /22 14:47 2.82 46.9	107 116	75-125% 75-125%			•
OC Source Sample: HA-05-Comp EPA 6020B Beryllium Cadmium Matrix Spike (22B0432-MS1) OC Source Sample: HA-05-Comp EPA 6020B Arsenic Barium Chromium Cobalt	ND ND -0.0-0.5 022 201 262 214	0.399 0.399 2 (A2B0202-17 1.85 1.85 1.85	0.798 0.798 0.798 Prepared 2) 3.70 3.70 3.70	mg/kg dr mg/kg dr : 02/11/22 0 mg/kg dr mg/kg dr mg/kg dr mg/kg dr	y 10 y 10 9:03 Anal y 10 y 10 y 10 y 10	 lyzed: 02/14 185 185 185	ND ND /22 14:47 2.82 46.9 11.6	107 116 109	75-125% 75-125% 75-125%	 		-
OC Source Sample: HA-05-Comp EPA 6020B Beryllium Cadmium Matrix Spike (22B0432-MS1) OC Source Sample: HA-05-Comp EPA 6020B Arsenic Barium Chromium	ND ND 0.0-0.5 022 201 262 214 203	0.399 0.399 2 (A2B0202-12 1.85 1.85 1.85	0.798 0.798 0.798 Prepared 2) 3.70 3.70 3.70 3.70	mg/kg dr mg/kg dr : 02/11/22 0 mg/kg dr mg/kg dr mg/kg dr mg/kg dr mg/kg dr	y 10 y 10 9:03 Anal y 10 y 10 y 10 y 10 y 10	185 185 185 185	ND ND /22 14:47 2.82 46.9 11.6 2.11	107 116 109 108	75-125% 75-125% 75-125% 75-125%	 	 	-
OC Source Sample: HA-05-Comp EPA 6020B Beryllium Cadmium Matrix Spike (22B0432-MS1) OC Source Sample: HA-05-Comp EPA 6020B Arsenic Barium Chromium Cobalt Copper	ND ND -0.0-0.5 022 201 262 214 203 229	0.399 0.399 2 (A2B0202-12 1.85 1.85 1.85 1.85 3.70	0.798 0.798 0.798 Prepared 2) 3.70 3.70 3.70 3.70 7.41	mg/kg dr mg/kg dr : 02/11/22 0 mg/kg dr mg/kg dr mg/kg dr mg/kg dr mg/kg dr mg/kg dr	y 10 y 10 9:03 Anal y 10 y 10 y 10 y 10 y 10 y 10	185 185 185 185 185	ND ND /22 14:47 2.82 46.9 11.6 2.11 16.0	107 116 109 108 115	75-125% 75-125% 75-125% 75-125% 75-125%	 	 	
OC Source Sample: HA-05-Comp EPA 6020B Beryllium Cadmium Matrix Spike (22B0432-MS1) OC Source Sample: HA-05-Comp EPA 6020B Arsenic Barium Chromium Cobalt Copper Lead	ND ND -0.0-0.5 022 201 262 214 203 229 327	0.399 0.399 2 (A2B0202-12 1.85 1.85 1.85 1.85 3.70 0.370	0.798 0.798 0.798 Prepared 2) 3.70 3.70 3.70 3.70 7.41 0.741	mg/kg dr mg/kg dr : 02/11/22 0 mg/kg dr mg/kg dr mg/kg dr mg/kg dr mg/kg dr mg/kg dr	y 10 y 10 9:03 Anal y 10 y 10 y 10 y 10 y 10 y 10 y 10	185 185 185 185 185 185 185 185	ND ND /22 14:47 2.82 46.9 11.6 2.11 16.0 118	107 116 109 108 115 113 112	75-125% 75-125% 75-125% 75-125% 75-125% 75-125%	 	 	Q-1
OC Source Sample: HA-05-Comp EPA 6020B Beryllium Cadmium Matrix Spike (22B0432-MS1) OC Source Sample: HA-05-Comp EPA 6020B Arsenic Barium Chromium Cobalt Copper Lead Nickel	ND ND -0.0-0.5 022 201 262 214 203 229 327 216	0.399 0.399 2 (A2B0202-12 1.85 1.85 1.85 1.85 3.70 0.370 3.70	0.798 0.798 0.798 Prepared 2) 3.70 3.70 3.70 3.70 7.41 0.741 7.41	mg/kg dr mg/kg dr : 02/11/22 0 mg/kg dr mg/kg dr mg/kg dr mg/kg dr mg/kg dr mg/kg dr	y 10 y 10 9:03 Anal y 10 y 10 y 10 y 10 y 10 y 10 y 10 y 10	185 185 185 185 185 185	ND ND /22 14:47 2.82 46.9 11.6 2.11 16.0 118 7.38	107 116 109 108 115 113	75-125% 75-125% 75-125% 75-125% 75-125% 75-125%	 	 	-

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

AMENDED REPORT

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project Number: **Eatonville**Project Number: **00171.067**Project Manager: **Josh Bale**

Report ID: A2B0202 - 04 25 23 1115

QUALITY CONTROL (QC) SAMPLE RESULTS

			Total N	letals by	EPA 602	OB (ICPMS	S)					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22B0432 - EPA 3051A							So	il				
Matrix Spike (22B0432-MS1)			Prepared	1: 02/11/22 0	9:03 Ana	lyzed: 02/14	/22 14:47					
QC Source Sample: HA-05-Comp-	0.0-0.5 022	2 (A2B0202-1	2)									
Zinc	303	7.41	14.8	mg/kg dr	y 10	185	88.7	116	75-125%			
Matrix Spike (22B0432-MS2)			Prepared	1: 02/11/22 0	9:03 Ana	lyzed: 02/16	/22 15:59					
QC Source Sample: HA-05-Comp-	0.0-0.5 022	2 (A2B0202-1	2RE1)									
EPA 6020B												
Beryllium	89.1	0.370	0.741	mg/kg dr	y 10	92.6	ND	96	75-125%			Q-1
Cadmium	165	0.370	0.741	mg/kg dr	y 10	185	0.393	89	75-125%			Q-1

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Apex Laboratories, LLC

ORELAP ID: OR100062

AMENDED REPORT

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209

Project: **Eatonville** Project Number: 00171.067 Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

QUALITY CONTROL (QC) SAMPLE RESULTS

			Total N	letals by	EPA 6020	B (ICPMS	S)					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22B0435 - EPA 3015A							Wa	ter				
Blank (22B0435-BLK1)			Prepared	: 02/11/22	09:34 Anal	yzed: 02/14	/22 21:37					
EPA 6020B												
Iron	ND	25.0	50.0	ug/L	1							
Blank (22B0435-BLK2)			Prepared	: 02/11/22	09:34 Anal	yzed: 02/16	/22 15:30					
EPA 6020B												
Beryllium	ND	0.100	0.200	ug/L	1							Q-1
Cadmium	ND	0.100	0.200	ug/L	1							Q-1
LCS (22B0435-BS1)			Prepared	: 02/11/22	09:34 Anal	yzed: 02/14	/22 21:41					
EPA 6020B												
Beryllium	25.7	0.500	1.00	ug/L	1	27.8		92	80-120%			
Cadmium	52.2	0.500	1.00	ug/L	1	55.6		94	80-120%			
Iron	2690	25.0	50.0	ug/L	1	2780		97	80-120%			
Duplicate (22B0435-DUP1)			Prepared	: 02/11/22	09:34 Anal	yzed: 02/14	/22 22:58					
QC Source Sample: Non-SDG (A	2B0224-02)											
Beryllium	ND	0.500	1.00	ug/L	1		ND				20%	
Cadmium	ND	0.500	1.00	ug/L	1		ND				20%	
Iron	5490	25.0	50.0	ug/L	1		5230			5	20%	
Matrix Spike (22B0435-MS1)			Prepared	: 02/11/22	09:34 Anal	yzed: 02/14	/22 23:02					
QC Source Sample: Non-SDG (A EPA 6020B	2B0224-02)											
Beryllium	26.0	0.500	1.00	ug/L	1	27.8	ND	93	75-125%			
Cadmium	55.5	0.500	1.00	ug/L	1	55.6	ND	100	75-125%			
Iron	7970	25.0	50.0	ug/L	1	2780	5230	99	75-125%			

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Page 134 of 177 Philip Nerenberg, Lab Director



AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

QUALITY CONTROL (QC) SAMPLE RESULTS

			Total N	letals by E	PA 6020	OB (ICPMS	5)					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22B0503 - EPA 3051A							So	il				
Blank (22B0503-BLK1)			Prepared	: 02/14/22 11	1:14 Ana	lyzed: 02/16	/22 13:05					
EPA 6020B												
Arsenic	ND	0.481	0.962	mg/kg we	t 10							
Barium	ND	0.481	0.962	mg/kg we	t 10							
Beryllium	ND	0.0962	0.192	mg/kg we	t 10							
Cadmium	ND	0.0962	0.192	mg/kg we	t 10							
Chromium	ND	0.481	0.962	mg/kg we								
Cobalt	ND	0.481	0.962	mg/kg we	t 10							
Copper	ND	0.962	1.92	mg/kg we	t 10							
Lead	ND	0.0962	0.192	mg/kg we	t 10							
Nickel	ND	0.962	1.92	mg/kg we	t 10							
Selenium	ND	0.481	0.962	mg/kg we	t 10							
Thallium	ND	0.0962	0.192	mg/kg we	t 10							
Vanadium	ND	0.962	1.92	mg/kg we	t 10							
Zinc	ND	1.92	3.85	mg/kg we	t 10							
LCS (22B0503-BS1)			Prepared	: 02/14/22 11	1:14 Ana	lyzed: 02/16	/22 13:10					
EPA 6020B												
Arsenic	45.8	0.500	1.00	mg/kg we	t 10	50.0		92	80-120%			
Barium	47.3	0.500	1.00	mg/kg we	t 10	50.0		95	80-120%			
Beryllium	23.3	0.100	0.200	mg/kg we	t 10	25.0		93	80-120%			
Cadmium	44.1	0.100	0.200	mg/kg we	t 10	50.0		88	80-120%			
Chromium	44.6	0.500	1.00	mg/kg we	t 10	50.0		89	80-120%			
Cobalt	45.2	0.500	1.00	mg/kg we	t 10	50.0		90	80-120%			
Copper	47.9	1.00	2.00	mg/kg we	t 10	50.0		96	80-120%			
Lead	47.2	0.100	0.200	mg/kg we	t 10	50.0		94	80-120%			
Nickel	45.2	1.00	2.00	mg/kg we	t 10	50.0		90	80-120%			B-6
Selenium	21.6	0.500	1.00	mg/kg we	t 10	25.0		86	80-120%			
Thallium	22.3	0.100	0.200	mg/kg we	t 10	25.0		89	80-120%			
Vanadium	45.3	1.00	2.00	mg/kg we	t 10	50.0		91	80-120%			
Zinc	46.8	2.00	4.00	mg/kg we	t 10	50.0		94	80-120%			

Duplicate (22B0503-DUP1)

Prepared: 02/14/22 11:14 Analyzed: 02/16/22 13:19

QC Source Sample: HA-01A-0.0-0.5 0222 (A2B0202-15) EPA 6020B

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6700 S.W. Sandburg Street Tigard, OR 97223

Apex Laboratories, LLC

503-718-2323 ORELAP ID: **OR100062**

AMENDED REPORT

<u>GSI Water Solutions</u> 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

QUALITY CONTROL (QC) SAMPLE RESULTS

			Total N	letals by E	PA 6020	B (ICPMS	S)					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22B0503 - EPA 3051A							So	il				
Duplicate (22B0503-DUP1)			Prepared	: 02/14/22 1	l:14 Anal	yzed: 02/16	/22 13:19					
QC Source Sample: HA-01A-0.0-0	.5 0222 (A	2B0202-15)										
Arsenic	3.17	0.748	1.50	mg/kg dry	10		3.15			0.5	20%	
Barium	49.8	0.748	1.50	mg/kg dry	10		41.8			17	20%	
Beryllium	0.224	0.150	0.299	mg/kg dry	10		0.228			2	20%	
Cadmium	0.725	0.150	0.299	mg/kg dry	10		0.847			15	20%	
Chromium	14.7	0.748	1.50	mg/kg dry	10		12.9			12	20%	
Cobalt	6.14	0.748	1.50	mg/kg dry	10		6.34			3	20%	
Copper	94.9	1.50	2.99	mg/kg dry	10		86.9			9	20%	
Lead	148	0.150	0.299	mg/kg dry	10		149			1	20%	
Selenium	ND	0.748	1.50	mg/kg dry	10		ND				20%	
Гhallium	ND	0.150	0.299	mg/kg dry	10		ND				20%	
Vanadium	29.9	1.50	2.99	mg/kg dry	10		26.1			14	20%	
Zinc	321	2.99	5.98	mg/kg dry	10		389			19	20%	
Duplicate (22B0503-DUP2) OC Source Sample: HA-01A-0.0-0 EPA 6020B	.5 0222 (A2	2B0202-15RE1	•	: 02/14/22 1	l:14 Anal	yzed: 02/17	/22 22:35					
	.5 0222 (A) 17.9	2B0202-15RE1 1.50	•	: 02/14/22 1 mg/kg dry		yzed: 02/17	/22 22:35			10	20%	Q-1
QC Source Sample: HA-01A-0.0-0 EPA 6020B	_		2.99		10		16.2			10	20%	Q-1
QC Source Sample: HA-01A-0.0-0 EPA 6020B Nickel	17.9	1.50	2.99	mg/kg dry	10		16.2			10	20%	Q-1
QC Source Sample: HA-01A-0.0-0 EPA 6020B Nickel Matrix Spike (22B0503-MS1)	17.9	1.50	2.99	mg/kg dry	10		16.2			10	20%	Q-1
QC Source Sample: HA-01A-0.0-0 EPA 6020B Nickel Matrix Spike (22B0503-MS1) QC Source Sample: HA-01A-0.0-0	17.9	1.50	2.99	mg/kg dry	. 10 1:14 Anal		16.2	96	75-125%	10	20%	Q-1
QC Source Sample: HA-01A-0.0-0 EPA 6020B Nickel Matrix Spike (22B0503-MS1) QC Source Sample: HA-01A-0.0-0 EPA 6020B	17.9	1.50 2B0202-15)	2.99 Prepared	mg/kg dry:: 02/14/22 1	10 1:14 Anal	 yzed: 02/16	16.2 /22 13:24					Q-1
OC Source Sample: HA-01A-0.0-0 EPA 6020B Nickel Matrix Spike (22B0503-MS1) OC Source Sample: HA-01A-0.0-0 EPA 6020B Arsenic	17.9 .5 0222 (A)	1.50 2B0202-15) 0.836	2.99 Prepared	mg/kg dry : 02/14/22 1 mg/kg dry	10 1:14 Anal	 yzed: 02/16 83.6	16.2 /22 13:24 3.15	96	75-125%			Q-1
OC Source Sample: HA-01A-0.0-0 EPA 6020B Nickel Matrix Spike (22B0503-MS1) OC Source Sample: HA-01A-0.0-0 EPA 6020B Arsenic Barium	17.9 2.5 0222 (A) 83.4 141	1.50 2B0202-15) 0.836 0.836	2.99 Prepared 1.67 1.67	mg/kg dry : 02/14/22 1 mg/kg dry mg/kg dry	10 1:14 Anal	 syzed: 02/16 83.6 83.6	16.2 /22 13:24 3.15 41.8	96 118	75-125% 75-125%			Q-I
OC Source Sample: HA-01A-0.0-0 EPA 6020B Nickel Matrix Spike (22B0503-MS1) OC Source Sample: HA-01A-0.0-0 EPA 6020B Arsenic Barium Beryllium	17.9 .5 0222 (A2 83.4 141 39.7	1.50 2B0202-15) 0.836 0.836 0.167	2.99 Prepared 1.67 1.67 0.334	mg/kg dry : 02/14/22 1 mg/kg dry mg/kg dry mg/kg dry	10 1:14 Anal	yzed: 02/16 83.6 83.6 41.8	16.2 /22 13:24 3.15 41.8 0.228	96 118 94	75-125% 75-125% 75-125%	 	 	Q-1
OC Source Sample: HA-01A-0.0-0 EPA 6020B Nickel Matrix Spike (22B0503-MS1) OC Source Sample: HA-01A-0.0-0 EPA 6020B Arsenic Barium Beryllium Cadmium	17.9 83.4 141 39.7 80.2	1.50 2B0202-15) 0.836 0.836 0.167 0.167	2.99 Prepared 1.67 1.67 0.334 0.334	mg/kg dry : 02/14/22 1 mg/kg dry mg/kg dry mg/kg dry mg/kg dry	10 1:14 Anal	yzed: 02/16 83.6 83.6 41.8 83.6	3.15 41.8 0.228 0.847	96 118 94 95	75-125% 75-125% 75-125% 75-125%	 	 	Q-1
QC Source Sample: HA-01A-0.0-0 EPA 6020B Nickel Matrix Spike (22B0503-MS1) QC Source Sample: HA-01A-0.0-0 EPA 6020B Arsenic Barium Beryllium Cadmium Chromium	83.4 141 39.7 80.2 95.0	1.50 2B0202-15) 0.836 0.836 0.167 0.167 0.836	2.99 Prepared 1.67 1.67 0.334 0.334 1.67	mg/kg dry : 02/14/22 1 mg/kg dry mg/kg dry mg/kg dry mg/kg dry mg/kg dry	10 1:14 Anal	yzed: 02/16 83.6 83.6 41.8 83.6 83.6	3.15 41.8 0.228 0.847 12.9	96 118 94 95 98	75-125% 75-125% 75-125% 75-125% 75-125%	 	 	
QC Source Sample: HA-01A-0.0-0 EPA 6020B Nickel Matrix Spike (22B0503-MS1) QC Source Sample: HA-01A-0.0-0 EPA 6020B Arsenic Barium Beryllium Cadmium Chromium Cobalt	17.9 83.4 141 39.7 80.2 95.0 89.8	1.50 2B0202-15) 0.836 0.836 0.167 0.167 0.836 0.836	2.99 Prepared 1.67 1.67 0.334 0.334 1.67 1.67	mg/kg dry : 02/14/22 1 mg/kg dry mg/kg dry mg/kg dry mg/kg dry mg/kg dry	10 1:14 Anal	yzed: 02/16 83.6 83.6 41.8 83.6 83.6 83.6 83.6	3.15 41.8 0.228 0.847 12.9 6.34	96 118 94 95 98 100	75-125% 75-125% 75-125% 75-125% 75-125% 75-125%	 	 	
OC Source Sample: HA-01A-0.0-0 EPA 6020B Nickel Matrix Spike (22B0503-MS1) OC Source Sample: HA-01A-0.0-0 EPA 6020B Arsenic Barium Beryllium Cadmium Chromium Cobalt Copper	83.4 141 39.7 80.2 95.0 89.8 203	1.50 2B0202-15) 0.836 0.836 0.167 0.167 0.836 0.836 1.67	2.99 Prepared 1.67 1.67 0.334 0.334 1.67 1.67 3.34	mg/kg dry : 02/14/22 1 mg/kg dry mg/kg dry mg/kg dry mg/kg dry mg/kg dry mg/kg dry mg/kg dry	10 1:14 Anal 7 10 7 10 7 10 7 10 7 10 7 10 7 10 7 10	83.6 83.6 41.8 83.6 83.6 83.6 83.6	3.15 41.8 0.228 0.847 12.9 6.34 86.9	96 118 94 95 98 100 138	75-125% 75-125% 75-125% 75-125% 75-125% 75-125%	 	 	
OC Source Sample: HA-01A-0.0-0 EPA 6020B Nickel Matrix Spike (22B0503-MS1) OC Source Sample: HA-01A-0.0-0 EPA 6020B Arsenic Barium Beryllium Cadmium Chromium Cobalt Copper Lead	83.4 141 39.7 80.2 95.0 89.8 203 245	1.50 2B0202-15) 0.836 0.836 0.167 0.836 0.836 1.67 0.167	2.99 Prepared 1.67 1.67 0.334 0.334 1.67 1.67 3.34 0.334	mg/kg dry : 02/14/22 1 mg/kg dry mg/kg dry mg/kg dry mg/kg dry mg/kg dry mg/kg dry mg/kg dry mg/kg dry	10 1114 Anal	83.6 83.6 41.8 83.6 83.6 83.6 83.6 83.6	3.15 41.8 0.228 0.847 12.9 6.34 86.9 149	96 118 94 95 98 100 138 115	75-125% 75-125% 75-125% 75-125% 75-125% 75-125% 75-125%	 	 	Q-1

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

QUALITY CONTROL (QC) SAMPLE RESULTS

			Total N	letals by	EPA 602	OB (ICPMS	3)					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22B0503 - EPA 3051A							So	il				
Matrix Spike (22B0503-MS1)			Prepared	d: 02/14/22	11:14 Ana	lyzed: 02/16	/22 13:24					
QC Source Sample: HA-01A-0.0-0.	5_0222 (A	2B0202-15)										
Zinc	444	3.34	6.69	mg/kg d	ry 10	83.6	389	66	75-125%			Q-04
Matrix Spike (22B0503-MS2)			Prepared	d: 02/14/22	11:14 Ana	lyzed: 02/17	/22 22:39					
QC Source Sample: HA-01A-0.0-0.	5 0222 (A	2B0202-15RE1	1									
EPA 6020B												
Nickel	97.8	1.67	3.34	mg/kg d	ry 10	83.6	16.2	98	75-125%			Q-16

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

QUALITY CONTROL (QC) SAMPLE RESULTS

			Dissolved	i ivictais	Dy LFA 00	720D (ICP	1110)					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22B0436 - Matrix Mat	tched Direct	Inject					Wa	ter				
Blank (22B0436-BLK1)			Prepared	: 02/11/22	09:49 Anal	yzed: 02/18/	/22 00:05					
EPA 6020B (Diss)												
Arsenic	ND	0.500	1.00	ug/L	1							
Barium	ND	0.500	1.00	ug/L	1							
Beryllium	ND	0.100	0.200	ug/L	1							
Cadmium	ND	0.100	0.200	ug/L	1							
Chromium	ND	1.00	2.00	ug/L	1							
Cobalt	ND	0.500	1.00	ug/L	1							
Copper	ND	1.00	2.00	ug/L	1							
ron	ND	25.0	50.0	ug/L	1							
Lead	ND	0.100	0.200	ug/L	1							
Nickel	ND	1.00	2.00	ug/L	1							
Selenium	ND	0.500	1.00	ug/L	1							
Γhallium	ND	0.100	0.200	ug/L	1							
Vanadium	ND	1.00	2.00	ug/L	1							
Zinc	ND	2.00	4.00	ug/L	1							
LCS (22B0436-BS1) EPA 6020B (Diss)			Prepared	: 02/11/22	09:49 Anal	yzed: 02/18/	/22 00:19					
Arsenic	51.0	0.500	1.00	ug/L	1	55.6		92	80-120%			
Barium	54.1	0.500	1.00	ug/L ug/L	1	55.6		97	80-120%			
Beryllium	24.6	0.100	0.200	ug/L ug/L	1	27.8		89	80-120%			
Cadmium	51.2	0.100	0.200	ug/L ug/L	1	55.6		92	80-120%			
Chromium	51.4	1.00	2.00	ug/L	1	55.6		93	80-120%			
Cobalt	52.8	0.500	1.00	ug/L	1	55.6		95 95	80-120%			
Copper	54.0	1.00	2.00	ug/L ug/L	1	55.6		97	80-120%			
ron	2720	25.0	50.0	ug/L ug/L	1	2780		98	80-120%			
Lead	52.0	0.100	0.200	ug/L ug/L	1	55.6		94	80-120%			
Nickel	52.6	1.00	2.00	ug/L ug/L	1	55.6		95	80-120%			
	24.9	0.500	1.00	ug/L ug/L	1	27.8		90	80-120%			
Seleniim		0.100	0.200	ug/L ug/L	1	27.8		86	80-120%			
Selenium Fhallium			0.200	ug/L	1	21.0		30	30-12070			
Selenium Fhallium Vanadium	24.0 52.4	1.00	2.00	ug/L	1	55.6		94	80-120%			

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

AMENDED REPORT

<u>GSI Water Solutions</u> 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

QUALITY CONTROL (QC) SAMPLE RESULTS

			Dissolved	d Metals	by EPA 6	020B (ICP	MS)					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22B0436 - Matrix Matche	d Direct	Inject					Wa	ter				
Duplicate (22B0436-DUP1)			Prepared	: 02/11/22	09:49 Ana	lyzed: 02/18	/22 00:38					
QC Source Sample: EB-02 (A2B02	202-34)											
EPA 6020B (Diss)												
Arsenic	ND	0.500	1.00	ug/L	1		ND				20%	
Barium	1.40	0.500	1.00	ug/L	1		1.40			0.7	20%	
Beryllium	ND	0.100	0.200	ug/L	1		ND				20%	
Cadmium	ND	0.100	0.200	ug/L	1		ND				20%	
Chromium	ND	1.00	2.00	ug/L	1		ND				20%	
Cobalt	ND	0.500	1.00	ug/L	1		ND				20%	
Copper	1.44	1.00	2.00	ug/L	1		1.42			1	20%	
Iron	37.6	25.0	50.0	ug/L	1		35.3			6	20%	
Lead	0.103	0.100	0.200	ug/L	1		0.108			4	20%	
Nickel	2.78	1.00	2.00	ug/L	1		2.82			2	20%	
Selenium	ND	0.500	1.00	ug/L	1		ND				20%	
Thallium	ND	0.100	0.200	ug/L	1		ND				20%	
Vanadium	ND	1.00	2.00	ug/L	1		ND				20%	
Zinc	3.23	2.00	4.00	ug/L			3.10			4	20%	
Matrix Spike (22B0436-MS1)			Prepared	: 02/11/22	09:49 Ana	lyzed: 02/18	/22 00:29					
QC Source Sample: EB-01 (A2B02 EPA 6020B (Diss)	202-33)											
Arsenic	52.5	0.500	1.00	ug/L	1	55.6	ND	94	75-125%			
Barium	56.3	0.500	1.00	ug/L	1	55.6	0.505	100	75-125%			
Beryllium	25.6	0.100	0.200	ug/L	1	27.8	ND	92	75-125%			
Cadmium	51.8	0.100	0.200	ug/L	1	55.6	ND	93	75-125%			
Chromium	53.0	1.00	2.00	ug/L	1	55.6	ND	95	75-125%			
Cobalt	54.2	0.500	1.00	ug/L ug/L	1	55.6	ND	97	75-125%			
Copper	55.9	1.00	2.00	ug/L ug/L	1	55.6	ND	101	75-125%			
Iron	2730	25.0	50.0	ug/L ug/L	1	2780	ND	98	75-125%			
Lead	53.5	0.100	0.200	ug/L ug/L	1	55.6	ND ND	96	75-125% 75-125%			
Nickel	55.2	1.00	2.00	ug/L ug/L	1	55.6	ND ND	99	75-125%			
Selenium		0.500	1.00	_		27.8	ND ND	99				
Seienium Thallium	26.0			ug/L				94 90	75-125%			
	25.0	0.100	0.200	ug/L	1	27.8	ND		75-125%			
Vanadium 	53.6	1.00	2.00	ug/L		55.6	ND	96	75-125%			
Zinc	55.0	2.00	4.00	ug/L	1	55.6	ND	99	75-125%			

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Philip Nerenberg, Lab Director

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water SolutionsProject:Eatonville55 SW Yamhill St, Ste 300Project Number:00171.067Portland, OR 97209Project Manager:Josh Bale

Report ID: A2B0202 - 04 25 23 1115

QUALITY CONTROL (QC) SAMPLE RESULTS

Dissolved Metals by EPA 6020B (ICPMS)

Detection Reporting Spike Source % REC **RPD** Amount % REC Analyte Result Ĺimit Units Dilution Result Limits RPD Limit Notes Limit

Batch 22B0436 - Matrix Matched Direct Inject

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Water

Philip Nerenberg, Lab Director

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

<u>GSI Water Solutions</u> 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project Number: **Eatonville**Project Number: **00171.067**Project Manager: **Josh Bale**

Report ID: A2B0202 - 04 25 23 1115

QUALITY CONTROL (QC) SAMPLE RESULTS

		Total Hexa	valent Chr	omium b	y Colorin	netric Spe	ectropho	tometry				
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22B0347 - EPA 3060A							So	il				
Blank (22B0347-BLK1)			Prepared	: 02/09/22	09:40 Ana	lyzed: 02/10)/22 17:31					
EPA 7196A Chromium (VI)	ND	0.225	0.450	mg/kg w	ret 1							
LCS (22B0347-BS1)			Prepared	: 02/09/22	09:40 Ana	lyzed: 02/10)/22 17:32					
EPA 7196A Chromium (VI)	18.9	0.225	0.450	mg/kg w	ret 1	20.0		94	80-120%			
Duplicate (22B0347-DUP1)			Prepared	: 02/09/22	09:40 Ana	lyzed: 02/10	0/22 17:35					
QC Source Sample: HA-102-Comp	-1.0-2.0 02	222 (A2B0202-	<u>06)</u>									
EPA 7196A Chromium (VI)	ND	6.54	13.1	mg/kg d	ry 10		ND				20%	Q-57
Matrix Spike (22B0347-MS1)			Prepared	: 02/09/22	09:40 Ana	lyzed: 02/10	0/22 17:36					
OC Source Sample: HA-102-Comp EPA 7196A	-1.0-2.0_02	222 (A2B0202-	06)									
Chromium (VI)	9.36	6.57	13.1	mg/kg d	ry 10	64.8	ND	14	75-125%			Cr6-01, Q-57, Ja
Matrix Spike (22B0347-MS2)			Prepared	: 02/09/22	09:40 Ana	lyzed: 02/10)/22 17:37					
QC Source Sample: HA-102-Comp EPA 7196A	-1.0-2.0_02	22 (A2B0202-	<u>06)</u>									
Chromium (VI)	2570	67.3	135	mg/kg d	ry 100	4150	ND	62	75-125%			Cr6-01, Q-57
Post Spike (22B0347-PS1)			Prepared	: 02/09/22	09:40 Ana	lyzed: 02/10	0/22 17:41					
QC Source Sample: HA-102-Comp	-1.0-2.0 02	(A2B0202-	06)									
EPA 7196A Chromium (VI)	500	6.62	13.2	mg/kg d	ry 10	521	ND	96	85-115%			Q-57

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

<u>GSI Water Solutions</u> 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project Number: **Eatonville**Project Number: **00171.067**Project Manager: **Josh Bale**

Report ID: A2B0202 - 04 25 23 1115

QUALITY CONTROL (QC) SAMPLE RESULTS

		Total Hexa	valent Chr	omium by	Colorin	netric Spe	ectropho	tometry				
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22B0439 - EPA 3060A							So	il				
Blank (22B0439-BLK1)			Prepared	: 02/11/22 1	0:17 Ana	lyzed: 02/14	1/22 12:24					
EPA 7196A												
Chromium (VI)	ND	0.225	0.450	mg/kg we	t 1							
LCS (22B0439-BS1)			Prepared	: 02/11/22 1	0:17 Ana	lyzed: 02/14	1/22 12:25					
EPA 7196A												
Chromium (VI)	17.9	0.225	0.450	mg/kg we	t 1	20.0		89	80-120%			
Duplicate (22B0439-DUP1)			Prepared	: 02/11/22 1	0:17 Ana	lyzed: 02/14	1/22 12:31					
QC Source Sample: HA-01A-0.0-0.	5 0222 (A	2B0202-15)										
EPA 7196A												
Chromium (VI)	ND	3.01	6.01	mg/kg dr	y 10		ND				20%	Q-57
Matrix Spike (22B0439-MS1)			Prepared	: 02/11/22 1	0:17 Ana	lyzed: 02/14	1/22 12:31					
OC Source Sample: HA-01A-0.0-0. <u>EPA 7196A</u>	5_0222 (A	<u>2B0202-15)</u>										
Chromium (VI)	7.51	3.01	6.02	mg/kg dr	y 10	29.7	ND	25	75-125%			Cr6-01, Q-57
Matrix Spike (22B0439-MS2)			Prepared	: 02/11/22 1	0:17 Ana	lyzed: 02/14	1/22 12:32					
QC Source Sample: HA-01A-0.0-0.	5 0222 (A	2B0202-15)										
EPA 7196A												
Chromium (VI)	1530	30.2	60.3	mg/kg dr	y 100	1810	ND	85	75-125%			
Post Spike (22B0439-PS1)			Prepared	: 02/11/22 1	0:17 Ana	lyzed: 02/14	1/22 12:35					
QC Source Sample: HA-01A-0.0-0.	5 0222 (A	2B0202-15)										
EPA 7196A												
Chromium (VI)	217	3.01	6.01	mg/kg dr	y 10	236	ND	92	85-115%			Q-57

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Philip Neimberg

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6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

Apex Laboratories, LLC

ORELAP ID: OR100062

AMENDED REPORT

<u>GSI Water Solutions</u> 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project Number: **Eatonville**Project Number: **00171.067**Project Manager: **Josh Bale**

Report ID: A2B0202 - 04 25 23 1115

QUALITY CONTROL (QC) SAMPLE RESULTS

	Total Hexavalent Chromium by Colorimetric Spectrophotometry														
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes			
Batch 22B0565 - EPA 3060A							Soil								
Blank (22B0565-BLK1)			Prepared	: 02/15/22	12:18 Ana	lyzed: 02/17	/22 15:13								
EPA 7196A Chromium (VI)	ND	0.225	0.450	mg/kg v	vet 1										
Blank (22B0565-BLK2)			Prepared	: 02/15/22	12:18 Ana	lyzed: 02/17	/22 17:10								
EPA 7196A															
Chromium (VI)	ND	0.225	0.450	mg/kg v	vet 1										

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6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

AMENDED REPORT

<u>GSI Water Solutions</u> 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project Number: **Eatonville**Project Number: **00171.067**Project Manager: **Josh Bale**

Report ID: A2B0202 - 04 25 23 1115

QUALITY CONTROL (QC) SAMPLE RESULTS

		Total Hexa	valent Chr	omium by	Colorin	etric Spe	ctropho	tometry				
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22B0707 - EPA 3060A							So	il				
Blank (22B0707-BLK1)			Prepared	: 02/18/22 0	8:31 Ana	yzed: 02/21	/22 15:20					
EPA 7196A Chromium (VI)	ND	0.225	0.450	mg/kg we	et 1							
LCS (22B0707-BS1)			Prepared	: 02/18/22 0	8:31 Ana	yzed: 02/21	/22 15:20					
EPA 7196A Chromium (VI)	18.4	0.225	0.450	mg/kg we	et 1	20.0		92	80-120%			
Duplicate (22B0707-DUP1)			Prepared	: 02/18/22 0	8:31 Ana	lyzed: 02/21	/22 15:23					
QC Source Sample: HA-02B-0.0-0	.5 0222 (A	2B0202-21RE1	1									
EPA 7196A Chromium (VI)	ND	5.72	11.4	mg/kg dr	y 10		ND				20%	Q-57, R-04
Matrix Spike (22B0707-MS1)			Prepared	: 02/18/22 0	8:31 Ana	yzed: 02/21	/22 15:23					
OC Source Sample: HA-02B-0.0-0	.5_0222 (A	2B0202-21RE1	1									
EPA 7196A Chromium (VI)	7.26	5.60	11.2	mg/kg dr	y 10	55.3	ND	13	75-125%			Cr6-01, Q-57, R-04, Ja
Matrix Spike (22B0707-MS2)			Prepared	: 02/18/22 0	8:31 Ana	lyzed: 02/21	/22 15:24					
QC Source Sample: HA-02B-0.0-0	.5 0222 (A	2B0202-21RE1	<u>)</u>									
EPA 7196A Chromium (VI)	2130	56.2	112	mg/kg dr	y 100	3290	ND	65	75-125%			Cr6-01, Q-57, R-04
Post Spike (22B0707-PS1)			Prepared	: 02/18/22 0	8:31 Ana	yzed: 02/21	/22 15:27			_		
QC Source Sample: HA-02B-0.0-0	.5 0222 (A	2B0202-21RE1	1									
EPA 7196A Chromium (VI)	384	5.66	11.3	mg/kg dr	y 10	445	ND	86	85-115%			Q-57, R-04

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Philip Nerenberg, Lab Director

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

AMENDED REPORT

<u>GSI Water Solutions</u> 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project Number: **Eatonville**Project Number: **00171.067**Project Manager: **Josh Bale**

Report ID: A2B0202 - 04 25 23 1115

QUALITY CONTROL (QC) SAMPLE RESULTS

		Ammo	nia by Gas	Diffusio	n and Co	olorimetri	C Detecti	on				
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22B0346 - Method Prep:	Aq						Wa	ter				
Blank (22B0346-BLK1)			Prepared	: 02/09/22	10:55 Ana	lyzed: 02/09	/22 15:16					
SM 4500-NH3 G Ammonia as N	ND	0.0100	0.0200	mg/L	1							
LCS (22B0346-BS1)			Prepared:	: 02/09/22	10:55 Ana	lyzed: 02/09	/22 15:17					
SM 4500-NH3 G Ammonia as N	2.03	0.0100	0.0200	mg/L	1	2.00		102	87-116%			
Matrix Spike (22B0346-MS1)			Prepared	: 02/09/22	10:55 Ana	lyzed: 02/09	/22 15:22					
OC Source Sample: PZ-01 0222 (2 SM 4500-NH3 G	A2B0202-35	5)										
Ammonia as N	2.58	0.0125	0.0250	mg/L	1	2.50	ND	103	87-116%			
Matrix Spike Dup (22B0346-M	Prepared	: 02/09/22	10:55 Ana	lyzed: 02/09	/22 15:23							
OC Source Sample: PZ-01_0222 (A	A2B0202-35	2)										
SM 4500-NH3 G Ammonia as N	2.66	0.0125	0.0250	mg/L	1	2.50	ND	106	87-116%	3	13%	

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

AMENDED REPORT

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project Number: **Eatonville**Project Number: **00171.067**Project Manager: **Josh Bale**

Report ID: A2B0202 - 04 25 23 1115

QUALITY CONTROL (QC) SAMPLE RESULTS

			Anio	ns by lon	Chroma	tography						
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22B0241 - Method Prep:	Aq						Wa	ter				
Blank (22B0241-BLK1)			Prepared	: 02/05/22	12:00 Ana	yzed: 02/05	/22 17:05					
EPA 300.0												
Nitrate-Nitrogen	ND	0.125	0.250	mg/L	1							
Nitrite-Nitrogen	ND	0.125	0.250	mg/L	1							
Sulfate	ND	0.500	1.00	mg/L	1							
LCS (22B0241-BS1)			Prepared	: 02/05/22	12:00 Ana	yzed: 02/05	/22 17:27					
EPA 300.0												
Nitrate-Nitrogen	1.94	0.125	0.250	mg/L	1	2.00		97	90-110%			
Nitrite-Nitrogen	1.98	0.125	0.250	mg/L	1	2.00		99	90-110%			
Sulfate	8.01	0.500	1.00	mg/L	1	8.00		100	90-110%			
Duplicate (22B0241-DUP1)			Prepared	: 02/05/22	12:00 Ana	yzed: 02/05	/22 18:11					
QC Source Sample: PZ-01 0222 (A2B0202-35	5)										
EPA 300.0												
Nitrate-Nitrogen	ND	0.125	0.250	mg/L	1		ND				5%	
Nitrite-Nitrogen	ND	0.125	0.250	mg/L	1		ND				10%	
Sulfate	6.92	0.500	1.00	mg/L	1		6.90			0.4	5%	
Duplicate (22B0241-DUP2)			Prepared	: 02/05/22	12:00 Ana	yzed: 02/05	/22 19:16					
QC Source Sample: PZ-05 0222 (A2B0202-40	<u>))</u>										
EPA 300.0												
Nitrate-Nitrogen	0.329	0.125	0.250	mg/L	1		0.328			0.5	5%	
Nitrite-Nitrogen	ND	0.125	0.250	mg/L	1		ND				10%	
Sulfate	3.18	0.500	1.00	mg/L	1		3.24			2	5%	
Matrix Spike (22B0241-MS1)			Prepared	: 02/05/22	12:00 Ana	yzed: 02/05	/22 18:33					
OC Source Sample: PZ-01_0222 (A2B0202-35	<u></u>										
EPA 300.0												
Nitrate-Nitrogen	2.45	0.156	0.312	mg/L	1	2.50	ND	98	86-118%			
Nitrite-Nitrogen	2.52	0.156	0.312	mg/L	1	2.50	ND	101	82-117%			
Sulfate	17.1	0.625	1.25	mg/L	1	10.0	6.90	102	84-119%			
Matrix Spike (22B0241-MS2)			Prepared	00/05/00	12 00 1	1.02/05						

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Philip Nerenberg, Lab Director

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ORELAP ID: OR100062

AMENDED REPORT

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

QUALITY CONTROL (QC) SAMPLE RESULTS

			Anio	ns by lor	Chroma	tography						
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22B0241 - Method Prep	: Aq						Wa	ter				
Matrix Spike (22B0241-MS2)			Prepared	: 02/05/22	12:00 Ana	yzed: 02/05	/22 20:21					
QC Source Sample: PZ-05 0222 (A2B0202-40	<u>))</u>										
EPA 300.0												
Nitrate-Nitrogen	2.77	0.156	0.312	mg/L	1	2.50	0.328	98	86-118%			
Nitrite-Nitrogen	2.50	0.156	0.312	mg/L	1	2.50	ND	100	82-117%			
Sulfate	13.4	0.625	1.25	mg/L	1	10.0	3.24	101	84-119%			

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

AMENDED REPORT

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project Number: **Eatonville**Project Number: **00171.067**Project Manager: **Josh Bale**

Report ID: A2B0202 - 04 25 23 1115

QUALITY CONTROL (QC) SAMPLE RESULTS

Tota	l Organio	Carbon (I	Non-Purgea	ble) by F	Persulfate	Oxidatio	n by Sta	ndard Me	thod 531	0C		
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22B0383 - Method Prep	: Aq						Wa	ter				
Blank (22B0383-BLK1)			Prepared	: 02/10/22	09:04 Anal	yzed: 02/10	/22 13:39					
SM 5310 C												
Total Organic Carbon	ND	1.00	1.00	mg/L	1							
LCS (22B0383-BS1)			Prepared	: 02/10/22	09:04 Anal	yzed: 02/10	/22 15:07					
SM 5310 C												
Total Organic Carbon	10.3	1.00	1.00	mg/L	1	10.0		103	90-114%			
Duplicate (22B0383-DUP1)			Prepared	: 02/10/22	09:04 Anal	yzed: 02/10	/22 22:04					
QC Source Sample: SW-09 0222	(A2B0202-4	1)										
<u>SM 5310 C</u>												
Total Organic Carbon	1.96	1.00	1.00	mg/L	1		1.95			0.7	15%	
Duplicate (22B0383-DUP2)			Prepared	: 02/10/22	09:04 Anal	lyzed: 02/11	/22 05:02					
OC Source Sample: Non-SDG (A2	2B0266-02)											
Total Organic Carbon	1.22	1.00	1.00	mg/L	1		1.15			6	15%	
Matrix Spike (22B0383-MS1)			Prepared	: 02/10/22	09:04 Anal	lyzed: 02/10	/22 22:34					
QC Source Sample: SW-09 0222	(A2B0202-4	<u>1)</u>										
SM 5310 C												
Total Organic Carbon	12.1	1.01	1.01	mg/L	1	10.0	1.95	102	85-115%			
Matrix Spike (22B0383-MS2)			Prepared	: 02/10/22	09:04 Anal	lyzed: 02/11	/22 05:32					
OC Source Sample: Non-SDG (A2	2B0266-02)											
<u>SM 5310 C</u>	11.4	1.01	1.01	/r	1	10.0	1.15	102	05 1150/			
Total Organic Carbon	11.4	1.01	1.01	mg/L	1	10.0	1.15	103	85-115%			

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

QUALITY CONTROL (QC) SAMPLE RESULTS

			Conven	tional Ch	emistry	Paramete	rs					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22B0402 - Method Prep	: Aq						Wa	ter				
Blank (22B0402-BLK1)			Prepared	: 02/10/22 1	2:10 Anal	yzed: 02/10/	/22 13:13					
SM 2320 B												
Total Alkalinity	ND	20.0	20.0	mg CaCO3/I	1							
Bicarbonate Alkalinity	ND	20.0	20.0	mg CaCO3/I	1							
Carbonate Alkalinity	ND	20.0	20.0	mg CaCO3/I	1							
Hydroxide Alkalinity	ND	20.0	20.0	mg CaCO3/I	1							
LCS (22B0402-BS1)			Prepared	: 02/10/22 1	2:10 Anal	yzed: 02/10/	/22 14:21					
SM 2320 B												
Total Alkalinity	104	20.0	20.0	mg CaCO3/I	1	100		104	90-110%			
Duplicate (22B0402-DUP1)			Prepared	: 02/10/22 1	2:10 Anal	yzed: 02/10/	/22 18:00					
QC Source Sample: Non-SDG (A2	B0258-02)											
Total Alkalinity	113	20.0	20.0	mg CaCO3/I	1		113			0	5%	
Bicarbonate Alkalinity	113	20.0	20.0	mg CaCO3/I	1		113			0	5%	
Carbonate Alkalinity	ND	20.0	20.0	mg CaCO3/I	1		ND				5%	
Hydroxide Alkalinity	ND	20.0	20.0	mg CaCO3/I	1		ND				5%	

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

<u>GSI Water Solutions</u> 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

QUALITY CONTROL (QC) SAMPLE RESULTS

				Percen	t Dry Wei	ght						
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22B0310 - Total Solids (I	Dry Weigl	ht)					Soi	l				
Duplicate (22B0310-DUP1)			Prepared	: 02/08/22	13:54 Ana	lyzed: 02/09	/22 09:43					PRO
QC Source Sample: Non-SDG (A21	B0131-02)											
% Solids	98.5	1.00	1.00	%	1		98.5			0.01	10%	
Duplicate (22B0310-DUP2)			Prepared	: 02/08/22	13:54 Ana	lyzed: 02/09	/22 09:43					
QC Source Sample: Non-SDG (A21	B0214-01)											
% Solids	92.7	1.00	1.00	%	1		92.7			0.08	10%	
Duplicate (22B0310-DUP3)			Prepared	: 02/08/22	13:54 Ana	lyzed: 02/09	/22 09:43					
QC Source Sample: Non-SDG (A21	B0224-01)											
% Solids	81.0	1.00	1.00	%	1		79.9			1	10%	
Duplicate (22B0310-DUP4)			Prepared	: 02/08/22	13:54 Ana	lyzed: 02/09	0/22 09:43					
QC Source Sample: Non-SDG (A2)	B0243-01)											
% Solids	89.9	1.00	1.00	%	1		89.1			0.9	10%	
Duplicate (22B0310-DUP5)			Prepared	: 02/08/22	15:21 Ana	lyzed: 02/09	/22 09:43					
QC Source Sample: HA-01-Comp-	0.5-1.0 022	2 (A2B0202-01	<u>1)</u>									
<u>EPA 8000D</u> % Solids	49.1	1.00	1.00	%	1		48.1			2	10%	
Duplicate (22B0310-DUP6)			Prepared	: 02/08/22	15:21 Ana	lyzed: 02/09	0/22 09:43					
QC Source Sample: HA-04-Comp-	0.5-1.0 022	2 (A2B0202-10	<u>))</u>									
<u>EPA 8000D</u> % Solids	32.9	1.00	1.00	%	1		33.7			2	10%	
Duplicate (22B0310-DUP7)			Prepared	: 02/08/22	15:21 Ana	lyzed: 02/09	/22 09:43					
OC Source Sample: HA-02A-0.0-0. EPA 8000D	5 0222 (A	2B0202-20)										
% Solids	35.2	1.00	1.00	%	1		27.4			25	10%	Q-0
Duplicate (22B0310-DUP8)			Prepared	: 02/08/22	15:21 Ana	lyzed: 02/09	0/22 09:43					

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6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

AMENDED REPORT

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project Number: **Eatonville**Project Number: **00171.067**Project Manager: **Josh Bale**

Report ID: A2B0202 - 04 25 23 1115

QUALITY CONTROL (QC) SAMPLE RESULTS

				Percen	t Dry Wei	ght						
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 22B0310 - Total Solids (Dry Weig	ht)					Soil					
Duplicate (22B0310-DUP8)			Prepared	: 02/08/22	15:21 Ana	lyzed: 02/09	/22 09:43					
QC Source Sample: HA-01-Comp-	-0.0-0.5 022	2 (A2B0202-3	<u>0)</u>									
EPA 8000D % Solids	40.3	1.00	1.00	%	1		40.4			0.09	10%	
Duplicate (22B0310-DUP9)			Prepared	: 02/08/22	15:21 Ana	lyzed: 02/09	/22 09:43					
QC Source Sample: Non-SDG (A2	B0253-07)											
% Solids	90.7	1.00	1.00	%	1		87.7			3	10%	
Duplicate (22B0310-DUPA)			Prepared	: 02/08/22	15:21 Ana	lyzed: 02/09	/22 09:43					
QC Source Sample: Non-SDG (A2	B0257-01)											
% Solids	79.7	1.00	1.00	%	1		79.2			0.6	10%	
Duplicate (22B0310-DUPB)			Prepared	: 02/08/22	18:10 Ana	lyzed: 02/09	/22 09:43					
QC Source Sample: Non-SDG (A2	B0274-01)											
% Solids	81.0	1.00	1.00	%	1		80.7			0.4	10%	
Duplicate (22B0310-DUPC)			Prepared	: 02/08/22	18:22 Ana	lyzed: 02/09	/22 09:43					
QC Source Sample: Non-SDG (A2	B0280-02)	·	·		·			·				
% Solids	78.3	1.00	1.00	%	1		79.6			2	10%	

No Client related Batch QC samples analyzed for this batch. See notes page for more information.

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

AMENDED REPORT

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project Number: **Eatonville**Project Number: **00171.067**Project Manager: **Josh Bale**

Report ID: A2B0202 - 04 25 23 1115

Weck Laboratories, Inc.

QUALITY CONTROL (QC) SAMPLE RESULTS

			Hex	avalent	Chromiur	n by IC						
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch W2B0946NONE (LC)							Wa	ter				
Blank (W2B0946-BLK1)			Prepared	: 02/14/22	09:30 Anal	yzed: 02/14	/22 11:05					
EPA 218.6												
Chromium 6+, Dissolved	ND	0.0079	0.020	ug/l	1							
LCS (W2B0946-BS1)			Prepared	: 02/14/22	09:30 Anal	yzed: 02/14	/22 11:17					
EPA 218.6												
Chromium 6+, Dissolved	5.11	0.0079	0.020	ug/l	1	5.00		102	90-110%			
Matrix Spike (W2B0946-MS1)			Prepared	: 02/14/22	09:30 Anal	yzed: 02/14	/22 11:29					
OC Source Sample: Non-SDG (1J) EPA 218.6	15022-01)											
Chromium 6+, Dissolved	4.94	0.0079	0.020	ug/l	1	5.00	ND	99	88-112%			
Matrix Spike (W2B0946-MS2)			Prepared	: 02/14/22	09:30 Anal	yzed: 02/14	/22 11:52					
OC Source Sample: A2B0202-23 (EPA 218.6	2B10031-01)										
Chromium 6+, Dissolved	5.28	0.0079	0.020	ug/l	1	5.00	0.0138	105	88-112%			
Matrix Spike Dup (W2B0946-N	MSD1)		Prepared	: 02/14/22	09:30 Anal	yzed: 02/14	/22 11:40					
QC Source Sample: Non-SDG (1J)	15022-01)											
Chromium 6+, Dissolved	5.25	0.0079	0.020	ug/l	1	5.00	ND	105	88-112%	6	10%	
Matrix Spike Dup (W2B0946-N	MSD2)		Prepared	: 02/14/22	09:30 Anal	yzed: 02/14	/22 12:04					
OC Source Sample: A2B0202-23 (EPA 218.6	2B10031-01)										
Chromium 6+, Dissolved	5.28	0.0079	0.020	ug/l	1	5.00	0.0138	105	88-112%	0.02	10%	

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

SAMPLE PREPARATION INFORMATION

		Dicoci an	d/or Oil Hydrocarbor				
Prep: EPA 3510C (Fu	uels/Acid Ext.)				Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
Batch: 22B0427							
A2B0202-33	Water	NWTPH-Dx	02/04/22 17:15	02/11/22 07:03	1030 mL/5 mL	1000mL/5mL	0.97
A2B0202-34	Water	NWTPH-Dx	02/04/22 17:30	02/11/22 07:03	800 mL/5 mL	1000mL/5mL	1.25
A2B0202-35	Water	NWTPH-Dx	02/04/22 12:35	02/11/22 07:03	1060 mL/5 mL	1000 mL/5 mL	0.94
A2B0202-36	Water	NWTPH-Dx	02/04/22 16:40	02/11/22 07:03	1050 mL/5 mL	1000mL/5mL	0.95
A2B0202-37	Water	NWTPH-Dx	02/03/22 16:50	02/11/22 07:03	1030 mL/5 mL	1000mL/5mL	0.97
A2B0202-38	Water	NWTPH-Dx	02/03/22 15:15	02/11/22 07:03	1040 mL/5 mL	1000 mL/5 mL	0.96
A2B0202-39	Water	NWTPH-Dx	02/03/22 12:05	02/11/22 07:03	1040 mL/5 mL	1000mL/5mL	0.96
A2B0202-40	Water	NWTPH-Dx	02/04/22 13:45	02/11/22 07:03	1050 mL/5 mL	1000mL/5mL	0.95
A2B0202-41	Water	NWTPH-Dx	02/02/22 13:25	02/11/22 07:03	1040mL/5mL	1000mL/5mL	0.96
A2B0202-42	Water	NWTPH-Dx	02/02/22 13:30	02/11/22 07:03	1050mL/5mL	1000mL/5mL	0.95
A2B0202-43	Water	NWTPH-Dx	02/02/22 11:00	02/11/22 07:03	1010mL/5mL	1000mL/5mL	0.99
A2B0202-44	Water	NWTPH-Dx	02/02/22 12:10	02/11/22 07:03	1020mL/5mL	1000mL/5mL	0.98
A2B0202-45	Water	NWTPH-Dx	02/02/22 14:22	02/11/22 07:03	1050mL/5mL	1000mL/5mL	0.95
A2B0202-46	Water	NWTPH-Dx	02/02/22 15:15	02/11/22 07:03	1040mL/5mL	1000mL/5mL	0.96
A2B0202-47	Water	NWTPH-Dx	02/02/22 16:00	02/11/22 07:03	1050mL/5mL	1000mL/5mL	0.95
A2B0202-48	Water	NWTPH-Dx	02/02/22 17:25	02/11/22 07:03	1010mL/5mL	1000mL/5mL	0.99
A2B0202-49	Water	NWTPH-Dx	02/04/22 14:55	02/11/22 07:03	1030mL/5mL	1000mL/5mL	0.97
Prep: EPA 3546 (Fue	els)				Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
Batch: 22B0380			*	*			
A2B0202-01	Soil	NWTPH-Dx	02/04/22 17:00	02/10/22 15:21	10.34g/5mL	10g/5mL	0.97
Batch: 22B0416							
A2B0202-02	Soil	NWTPH-Dx	02/04/22 17:05	02/10/22 15:22	10.8g/5mL	10g/5mL	0.93
A2B0202-02 A2B0202-03	Soil	NWTPH-Dx	02/03/22 16:06	02/10/22 15:22	10.32g/5mL	10g/5mL	0.93
A2D0202-03	Soil	NWTPH-Dx	02/03/22 16:04	02/10/22 15:22	Č	C	0.97
A 2D0202 04		NWTPH-Dx	02/03/22 16:04	02/10/22 15:22	10.28g/5mL	10g/5mL	0.97
	Call		02/03/22 10:10	02/10/22 13:22	10.09g/5mL	10g/5mL	0.99
A2B0202-05	Soil			02/10/22 15:22	10.72 g/5mJ	100/5ml	0.93
A2B0202-05 A2B0202-06	Soil	NWTPH-Dx	02/03/22 16:11	02/10/22 15:22	10.72g/5mL	10g/5mL	0.00
A2B0202-05 A2B0202-06 A2B0202-07	Soil Soil	NWTPH-Dx NWTPH-Dx	02/03/22 16:11 02/03/22 13:16	02/10/22 15:22	10.11g/5mL	10g/5mL	0.99
A2B0202-05 A2B0202-06 A2B0202-07 A2B0202-08	Soil Soil Soil	NWTPH-Dx NWTPH-Dx NWTPH-Dx	02/03/22 16:11 02/03/22 13:16 02/03/22 13:33	02/10/22 15:22 02/10/22 15:22	10.11g/5mL 10.8g/5mL	10g/5mL 10g/5mL	0.93
A2B0202-05 A2B0202-06 A2B0202-07 A2B0202-08 A2B0202-09	Soil Soil Soil	NWTPH-Dx NWTPH-Dx NWTPH-Dx NWTPH-Dx	02/03/22 16:11 02/03/22 13:16 02/03/22 13:33 02/01/22 16:30	02/10/22 15:22 02/10/22 15:22 02/10/22 15:22	10.11g/5mL 10.8g/5mL 10.06g/5mL	10g/5mL 10g/5mL 10g/5mL	0.93 0.99
A2B0202-05 A2B0202-06 A2B0202-07 A2B0202-08 A2B0202-09 A2B0202-10	Soil Soil Soil Soil Soil	NWTPH-Dx NWTPH-Dx NWTPH-Dx NWTPH-Dx NWTPH-Dx	02/03/22 16:11 02/03/22 13:16 02/03/22 13:33 02/01/22 16:30 02/01/22 16:40	02/10/22 15:22 02/10/22 15:22 02/10/22 15:22 02/10/22 15:22	10.11g/5mL 10.8g/5mL 10.06g/5mL 10.22g/5mL	10g/5mL 10g/5mL 10g/5mL 10g/5mL	0.93 0.99 0.98
A2B0202-05 A2B0202-06 A2B0202-07 A2B0202-08 A2B0202-09 A2B0202-10 A2B0202-11	Soil Soil Soil Soil Soil	NWTPH-Dx NWTPH-Dx NWTPH-Dx NWTPH-Dx NWTPH-Dx NWTPH-Dx	02/03/22 16:11 02/03/22 13:16 02/03/22 13:33 02/01/22 16:30 02/01/22 16:40 02/01/22 16:50	02/10/22 15:22 02/10/22 15:22 02/10/22 15:22 02/10/22 15:22 02/10/22 15:22	10.11g/5mL 10.8g/5mL 10.06g/5mL 10.22g/5mL 10.9g/5mL	10g/5mL 10g/5mL 10g/5mL 10g/5mL 10g/5mL	0.93 0.99 0.98 0.92
A2B0202-04 A2B0202-05 A2B0202-06 A2B0202-07 A2B0202-08 A2B0202-09 A2B0202-10 A2B0202-11 A2B0202-12 A2B0202-12	Soil Soil Soil Soil Soil	NWTPH-Dx NWTPH-Dx NWTPH-Dx NWTPH-Dx NWTPH-Dx	02/03/22 16:11 02/03/22 13:16 02/03/22 13:33 02/01/22 16:30 02/01/22 16:40	02/10/22 15:22 02/10/22 15:22 02/10/22 15:22 02/10/22 15:22	10.11g/5mL 10.8g/5mL 10.06g/5mL 10.22g/5mL	10g/5mL 10g/5mL 10g/5mL 10g/5mL	0.93 0.99 0.98

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Philip Neimberg

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

SAMPLE PREPARATION INFORMATION

		Diesel an	d/or Oil Hydrocarbor	s by NWTPH-Dx			
Prep: EPA 3546 (F	uels)				Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
A2B0202-14	Soil	NWTPH-Dx	02/01/22 12:45	02/10/22 15:22	10.1g/5mL	10g/5mL	0.99
A2B0202-30	Soil	NWTPH-Dx	02/04/22 16:55	02/10/22 15:22	10.09g/5mL	10g/5mL	0.99
A2B0202-31	Soil	NWTPH-Dx	02/04/22 18:30	02/10/22 15:22	10.01g/5mL	10g/5mL	1.00
A2B0202-32	Soil	NWTPH-Dx	02/04/22 18:35	02/10/22 15:22	10.05g/5mL	10g/5mL	1.00

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Prep: EPA 5030C					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
Batch: 22B0469							
A2B0202-34	Water	NWTPH-Gx (MS)	02/04/22 17:30	02/12/22 09:59	5mL/5mL	5mL/5mL	1.00
A2B0202-35	Water	NWTPH-Gx (MS)	02/04/22 12:35	02/12/22 09:59	5mL/5mL	5mL/5mL	1.00
A2B0202-36	Water	NWTPH-Gx (MS)	02/04/22 16:40	02/12/22 09:59	5mL/5mL	5mL/5mL	1.00
A2B0202-37	Water	NWTPH-Gx (MS)	02/03/22 16:50	02/12/22 09:59	5mL/5mL	5mL/5mL	1.00
A2B0202-38	Water	NWTPH-Gx (MS)	02/03/22 15:15	02/12/22 09:59	5mL/5mL	5mL/5mL	1.00
A2B0202-39	Water	NWTPH-Gx (MS)	02/03/22 12:05	02/12/22 09:59	5mL/5mL	5mL/5mL	1.00
A2B0202-40	Water	NWTPH-Gx (MS)	02/04/22 13:45	02/12/22 09:59	5mL/5mL	5mL/5mL	1.00
A2B0202-41	Water	NWTPH-Gx (MS)	02/02/22 13:25	02/12/22 09:59	5mL/5mL	5mL/5mL	1.00
A2B0202-42	Water	NWTPH-Gx (MS)	02/02/22 13:30	02/12/22 09:59	5mL/5mL	5mL/5mL	1.00
A2B0202-43	Water	NWTPH-Gx (MS)	02/02/22 11:00	02/12/22 09:59	5mL/5mL	5mL/5mL	1.00
A2B0202-44	Water	NWTPH-Gx (MS)	02/02/22 12:10	02/12/22 09:59	5mL/5mL	5mL/5mL	1.00
A2B0202-45	Water	NWTPH-Gx (MS)	02/02/22 14:22	02/12/22 09:59	5mL/5mL	5mL/5mL	1.00
A2B0202-46	Water	NWTPH-Gx (MS)	02/02/22 15:15	02/12/22 09:59	5mL/5mL	5mL/5mL	1.00
A2B0202-47	Water	NWTPH-Gx (MS)	02/02/22 16:00	02/12/22 09:59	5mL/5mL	5mL/5mL	1.00
A2B0202-48	Water	NWTPH-Gx (MS)	02/02/22 17:25	02/12/22 09:59	5mL/5mL	5mL/5mL	1.00
A2B0202-49	Water	NWTPH-Gx (MS)	02/04/22 14:55	02/12/22 09:59	5mL/5mL	5mL/5mL	1.00
Prep: EPA 5035A					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
Batch: 22B0397							
A2B0202-01	Soil	NWTPH-Gx (MS)	02/04/22 17:00	02/04/22 17:00	4.49g/5mL	5g/5mL	1.11
A2B0202-02	Soil	NWTPH-Gx (MS)	02/04/22 17:05	02/04/22 17:05	6.17g/5mL	5g/5mL	0.81
A2B0202-03	Soil	NWTPH-Gx (MS)	02/03/22 16:06	02/03/22 16:06	2.74g/5mL	5g/5mL	1.82
A2B0202-04	Soil	NWTPH-Gx (MS)	02/03/22 16:04	02/09/22 15:15	5.33g/5mL	5g/5mL	0.94

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Soil

Soil

Soil

NWTPH-Gx (MS)

NWTPH-Gx (MS)

NWTPH-Gx (MS)

A2B0202-05

A2B0202-06

A2B0202-07

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3.77g/5mL

6.17g/5mL

3.97g/5mL

5g/5mL

5g/5mL

5g/5mL

1.33

0.81

1.26

02/03/22 16:10

02/09/22 15:15

02/03/22 13:16

Philip Nerenberg, Lab Director

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02/03/22 16:10

02/03/22 16:11

02/03/22 13:16



AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

<u>GSI Water Solutions</u> 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

SAMPLE PREPARATION INFORMATION

	Gas	soline Range Hydrocart	oons (Benzene thro	ugn ivapnthalene) b	y NWTPH-GX		
Prep: EPA 5035A					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
A2B0202-08	Soil	NWTPH-Gx (MS)	02/03/22 13:33	02/09/22 15:15	5.29g/5mL	5g/5mL	0.95
A2B0202-11	Soil	NWTPH-Gx (MS)	02/01/22 16:50	02/09/22 15:15	6.03g/5mL	5g/5mL	0.83
A2B0202-14	Soil	NWTPH-Gx (MS)	02/01/22 12:45	02/09/22 15:15	6.04g/5mL	5g/5mL	0.83
Batch: 22B0420							
A2B0202-09	Soil	NWTPH-Gx (MS)	02/01/22 16:30	02/01/22 16:30	2.69g/5mL	5g/5mL	1.86
A2B0202-10	Soil	NWTPH-Gx (MS)	02/01/22 16:40	02/01/22 16:40	2.23g/5mL	5g/5mL	2.24
A2B0202-12	Soil	NWTPH-Gx (MS)	02/01/22 12:20	02/01/22 12:20	3.37g/5mL	5g/5mL	1.48
A2B0202-13	Soil	NWTPH-Gx (MS)	02/01/22 12:35	02/01/22 12:35	3.37g/5mL	5g/5mL	1.48
A2B0202-30	Soil	NWTPH-Gx (MS)	02/04/22 16:55	02/04/22 16:55	5.37g/5mL	5g/5mL	0.93
A2B0202-31	Soil	NWTPH-Gx (MS)	02/04/22 18:30	02/04/22 18:30	3.82g/5mL	5g/5mL	1.31
A2B0202-32	Soil	NWTPH-Gx (MS)	02/04/22 18:35	02/04/22 18:35	3.31g/5mL	5g/5mL	1.51

		Volatile	Organic Compounds	by EPA 8260D			
Prep: EPA 5030C					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
Batch: 22B0469							
A2B0202-35	Water	EPA 8260D	02/04/22 12:35	02/12/22 09:59	5mL/5mL	5mL/5mL	1.00
A2B0202-36	Water	EPA 8260D	02/04/22 16:40	02/12/22 09:59	5mL/5mL	5mL/5mL	1.00
A2B0202-37	Water	EPA 8260D	02/03/22 16:50	02/12/22 09:59	5mL/5mL	5mL/5mL	1.00
A2B0202-38	Water	EPA 8260D	02/03/22 15:15	02/12/22 09:59	5mL/5mL	5mL/5mL	1.00
A2B0202-39	Water	EPA 8260D	02/03/22 12:05	02/12/22 09:59	5mL/5mL	5mL/5mL	1.00
A2B0202-40	Water	EPA 8260D	02/04/22 13:45	02/12/22 09:59	5mL/5mL	5mL/5mL	1.00
A2B0202-41	Water	EPA 8260D	02/02/22 13:25	02/12/22 09:59	5mL/5mL	5mL/5mL	1.00
A2B0202-42	Water	EPA 8260D	02/02/22 13:30	02/12/22 09:59	5mL/5mL	5mL/5mL	1.00
A2B0202-43	Water	EPA 8260D	02/02/22 11:00	02/12/22 09:59	5mL/5mL	5mL/5mL	1.00
A2B0202-44	Water	EPA 8260D	02/02/22 12:10	02/12/22 09:59	5mL/5mL	5mL/5mL	1.00
A2B0202-45	Water	EPA 8260D	02/02/22 14:22	02/12/22 09:59	5mL/5mL	5mL/5mL	1.00
A2B0202-46	Water	EPA 8260D	02/02/22 15:15	02/12/22 09:59	5mL/5mL	5mL/5mL	1.00
A2B0202-47	Water	EPA 8260D	02/02/22 16:00	02/12/22 09:59	5mL/5mL	5mL/5mL	1.00
A2B0202-48	Water	EPA 8260D	02/02/22 17:25	02/12/22 09:59	5mL/5mL	5mL/5mL	1.00
A2B0202-49	Water	EPA 8260D	02/04/22 14:55	02/12/22 09:59	5mL/5mL	5mL/5mL	1.00

	Poly	aromatic Hydrocarb	ons (PAHs) by EPA	8270E (Large Volu	me Injection)		
Prep: EPA 3511 (E	Sottle Extraction)				Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

SAMPLE PREPARATION INFORMATION

	Po	lyaromatic Hydrocarb	ons (PAHs) by EPA	8270E (Large Volur	ne Injection)		
Prep: EPA 3511 (Bo	ttle Extraction)				Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
Batch: 22B0338							
A2B0202-35	Water	EPA 8270E LVI	02/04/22 12:35	02/09/22 07:46	91.17mL/5mL	125mL/5mL	1.37
A2B0202-36	Water	EPA 8270E LVI	02/04/22 16:40	02/09/22 07:46	105.25mL/5mL	125mL/5mL	1.19
A2B0202-37	Water	EPA 8270E LVI	02/03/22 16:50	02/09/22 07:46	107.17mL/5mL	125mL/5mL	1.17
A2B0202-38	Water	EPA 8270E LVI	02/03/22 15:15	02/09/22 07:46	113.58mL/5mL	125mL/5mL	1.10
A2B0202-39	Water	EPA 8270E LVI	02/03/22 12:05	02/09/22 07:46	87.57mL/5mL	125mL/5mL	1.43
A2B0202-40	Water	EPA 8270E LVI	02/04/22 13:45	02/09/22 07:46	109.34mL/5mL	125mL/5mL	1.14
A2B0202-41	Water	EPA 8270E LVI	02/02/22 13:25	02/09/22 07:46	91.98mL/5mL	125mL/5mL	1.36
A2B0202-42	Water	EPA 8270E LVI	02/02/22 13:30	02/09/22 07:46	98.47mL/5mL	125mL/5mL	1.27
A2B0202-43	Water	EPA 8270E LVI	02/02/22 11:00	02/09/22 07:46	113.71mL/5mL	125 mL/5 mL	1.10
A2B0202-44	Water	EPA 8270E LVI	02/02/22 12:10	02/09/22 07:46	120.05mL/5mL	125mL/5mL	1.04
A2B0202-45	Water	EPA 8270E LVI	02/02/22 14:22	02/09/22 07:46	113.66mL/5mL	125mL/5mL	1.10
A2B0202-46	Water	EPA 8270E LVI	02/02/22 15:15	02/09/22 07:46	120.22mL/5mL	125mL/5mL	1.04
A2B0202-47	Water	EPA 8270E LVI	02/02/22 16:00	02/09/22 07:46	119.4mL/5mL	125mL/5mL	1.05
A2B0202-48	Water	EPA 8270E LVI	02/02/22 17:25	02/09/22 07:46	118.27mL/5mL	125mL/5mL	1.06
A2B0202-49	Water	EPA 8270E LVI	02/04/22 14:55	02/09/22 07:46	120.05mL/5mL	125mL/5mL	1.04

		Pe	ntachlorophenol by E	EPA 8270E			
Prep: EPA 3510C (A	Acid Extraction)				Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
Batch: 22B0333							
A2B0202-35	Water	EPA 8270E	02/04/22 12:35	02/09/22 07:07	950mL/1mL	1000 mL/1 mL	1.05
A2B0202-36	Water	EPA 8270E	02/04/22 16:40	02/09/22 07:07	1020 mL/1 mL	1000 mL/1 mL	0.98
A2B0202-37	Water	EPA 8270E	02/03/22 16:50	02/09/22 07:07	1050 mL/1 mL	1000 mL/1 mL	0.95
A2B0202-38	Water	EPA 8270E	02/03/22 15:15	02/09/22 07:07	1010 mL/1 mL	1000 mL/1 mL	0.99
A2B0202-39	Water	EPA 8270E	02/03/22 12:05	02/09/22 07:07	1010 mL/1 mL	1000 mL/1 mL	0.99
A2B0202-40	Water	EPA 8270E	02/04/22 13:45	02/09/22 07:07	1040 mL/1 mL	1000 mL/1 mL	0.96
A2B0202-41	Water	EPA 8270E	02/02/22 13:25	02/09/22 07:07	1020 mL/1 mL	1000 mL/1 mL	0.98
A2B0202-42	Water	EPA 8270E	02/02/22 13:30	02/09/22 07:07	1020 mL/1 mL	1000 mL/1 mL	0.98
A2B0202-43	Water	EPA 8270E	02/02/22 11:00	02/09/22 07:07	960mL/1mL	1000 mL/1 mL	1.04
A2B0202-44	Water	EPA 8270E	02/02/22 12:10	02/09/22 07:07	1040 mL/1 mL	1000 mL/1 mL	0.96
A2B0202-45	Water	EPA 8270E	02/02/22 14:22	02/09/22 07:07	1030 mL/1 mL	1000 mL/1 mL	0.97
A2B0202-46	Water	EPA 8270E	02/02/22 15:15	02/09/22 07:07	1010 mL/1 mL	1000 mL/1 mL	0.99
A2B0202-47	Water	EPA 8270E	02/02/22 16:00	02/09/22 07:07	1040 mL/1 mL	1000mL/1mL	0.96
A2B0202-48	Water	EPA 8270E	02/02/22 17:25	02/09/22 07:07	1020 mL/1 mL	1000mL/1mL	0.98
A2B0202-49	Water	EPA 8270E	02/04/22 14:55	02/09/22 07:07	1050mL/1mL	1000mL/1mL	0.95

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Philip Nerenberg, Lab Director

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

SAMPLE PREPARATION INFORMATION

Pentachlorophenol by EPA 8270E

		Tota	al Metals by EPA 602	0B (ICPMS)			
Prep: EPA 3015A					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
Batch: 22B0387			*	*			
A2B0202-34RE1	Water	EPA 6020B	02/04/22 17:30	02/10/22 09:07	45mL/50mL	45mL/50mL	1.00
A2B0202-35	Water	EPA 6020B	02/04/22 12:35	02/10/22 09:07	45mL/50mL	45mL/50mL	1.00
A2B0202-35RE1	Water	EPA 6020B	02/04/22 12:35	02/10/22 09:07	45mL/50mL	45mL/50mL	1.00
A2B0202-36	Water	EPA 6020B	02/04/22 16:40	02/10/22 09:07	45mL/50mL	45mL/50mL	1.00
A2B0202-36RE1	Water	EPA 6020B	02/04/22 16:40	02/10/22 09:07	45mL/50mL	45mL/50mL	1.00
A2B0202-37	Water	EPA 6020B	02/03/22 16:50	02/10/22 09:07	45mL/50mL	45mL/50mL	1.00
A2B0202-37RE1	Water	EPA 6020B	02/03/22 16:50	02/10/22 09:07	45mL/50mL	45mL/50mL	1.00
A2B0202-38	Water	EPA 6020B	02/03/22 15:15	02/10/22 09:07	45mL/50mL	45mL/50mL	1.00
A2B0202-38RE1	Water	EPA 6020B	02/03/22 15:15	02/10/22 09:07	45mL/50mL	45 mL/50 mL	1.00
A2B0202-39	Water	EPA 6020B	02/03/22 12:05	02/10/22 09:07	45mL/50mL	45mL/50mL	1.00
A2B0202-39RE1	Water	EPA 6020B	02/03/22 12:05	02/10/22 09:07	45mL/50mL	45mL/50mL	1.00
A2B0202-40	Water	EPA 6020B	02/04/22 13:45	02/10/22 09:07	45mL/50mL	45 mL/50 mL	1.00
A2B0202-40RE1	Water	EPA 6020B	02/04/22 13:45	02/10/22 09:07	45mL/50mL	45 mL/50 mL	1.00
A2B0202-41	Water	EPA 6020B	02/02/22 13:25	02/10/22 09:07	45mL/50mL	45 mL/50 mL	1.00
A2B0202-41RE1	Water	EPA 6020B	02/02/22 13:25	02/10/22 09:07	45 mL/50 mL	45 mL/50 mL	1.00
Batch: 22B0435							
A2B0202-42	Water	EPA 6020B	02/02/22 13:30	02/11/22 09:34	45mL/50mL	45mL/50mL	1.00
A2B0202-42RE1	Water	EPA 6020B	02/02/22 13:30	02/11/22 09:34	45mL/50mL	45mL/50mL	1.00
A2B0202-43	Water	EPA 6020B	02/02/22 11:00	02/11/22 09:34	45mL/50mL	45mL/50mL	1.00
A2B0202-43RE1	Water	EPA 6020B	02/02/22 11:00	02/11/22 09:34	45mL/50mL	45mL/50mL	1.00
A2B0202-44	Water	EPA 6020B	02/02/22 12:10	02/11/22 09:34	45mL/50mL	45mL/50mL	1.00
A2B0202-44RE1	Water	EPA 6020B	02/02/22 12:10	02/11/22 09:34	45mL/50mL	45mL/50mL	1.00
A2B0202-45	Water	EPA 6020B	02/02/22 14:22	02/11/22 09:34	45mL/50mL	45mL/50mL	1.00
A2B0202-45RE1	Water	EPA 6020B	02/02/22 14:22	02/11/22 09:34	45mL/50mL	45mL/50mL	1.00
A2B0202-46	Water	EPA 6020B	02/02/22 15:15	02/11/22 09:34	45mL/50mL	45mL/50mL	1.00
A2B0202-46RE1	Water	EPA 6020B	02/02/22 15:15	02/11/22 09:34	45mL/50mL	45mL/50mL	1.00
A2B0202-47	Water	EPA 6020B	02/02/22 16:00	02/11/22 09:34	42mL/50mL	45mL/50mL	1.07
A2B0202-47RE1	Water	EPA 6020B	02/02/22 16:00	02/11/22 09:34	42mL/50mL	45mL/50mL	1.07
A2B0202-48	Water	EPA 6020B	02/02/22 17:25	02/11/22 09:34	45mL/50mL	45mL/50mL	1.00
A2B0202-48RE1	Water	EPA 6020B	02/02/22 17:25	02/11/22 09:34	45mL/50mL	45mL/50mL	1.00
A2B0202-49	Water	EPA 6020B	02/04/22 14:55	02/11/22 09:34	45mL/50mL	45mL/50mL	1.00
A2B0202-49RE1	Water	EPA 6020B	02/04/22 14:55	02/11/22 09:34	45mL/50mL	45mL/50mL	1.00

Apex Laboratories

Philip Manherg

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions Project: 55 SW Yamhill St, Ste 300 Project Number: 00171.067 Portland, OR 97209 Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

SAMPLE PREPARATION INFORMATION

Eatonville

		IOTA	al Metals by EPA 602	OB (ICPMS)			
Prep: EPA 3051A					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
Batch: 22B0382							
A2B0202-01	Soil	EPA 6020B	02/04/22 17:00	02/10/22 09:03	0.493g/50mL	0.5g/50mL	1.01
A2B0202-02	Soil	EPA 6020B	02/04/22 17:05	02/10/22 09:03	0.509g/50mL	0.5g/50mL	0.98
A2B0202-03	Soil	EPA 6020B	02/03/22 16:06	02/10/22 09:03	0.517g/50mL	0.5g/50mL	0.97
A2B0202-04	Soil	EPA 6020B	02/03/22 16:04	02/10/22 09:03	0.511g/50mL	0.5g/50mL	0.98
A2B0202-05	Soil	EPA 6020B	02/03/22 16:10	02/10/22 09:03	0.455g/50mL	0.5g/50mL	1.10
A2B0202-05RE2	Soil	EPA 6020B	02/03/22 16:10	02/10/22 09:03	0.455g/50mL	0.5g/50mL	1.10
A2B0202-06	Soil	EPA 6020B	02/03/22 16:11	02/10/22 09:03	0.513g/50mL	0.5g/50mL	0.98
A2B0202-07	Soil	EPA 6020B	02/03/22 13:16	02/10/22 09:03	0.472g/50mL	0.5g/50mL	1.06
A2B0202-08	Soil	EPA 6020B	02/03/22 13:33	02/10/22 09:03	0.473g/50mL	0.5g/50mL	1.06
A2B0202-09	Soil	EPA 6020B	02/01/22 16:30	02/10/22 09:03	0.452g/50mL	0.5g/50mL	1.11
A2B0202-10	Soil	EPA 6020B	02/01/22 16:40	02/10/22 09:03	0.513g/50mL	0.5g/50mL	0.98
A2B0202-11	Soil	EPA 6020B	02/01/22 16:50	02/10/22 09:03	0.512g/50mL	0.5g/50mL	0.98
Batch: 22B0432							
A2B0202-12	Soil	EPA 6020B	02/01/22 12:20	02/11/22 09:03	0.509g/50mL	0.5g/50mL	0.98
A2B0202-12RE1	Soil	EPA 6020B	02/01/22 12:20	02/11/22 09:03	0.509g/50mL	0.5g/50mL	0.98
A2B0202-13	Soil	EPA 6020B	02/01/22 12:35	02/11/22 09:03	0.496g/50mL	0.5g/50mL	1.01
A2B0202-13RE1	Soil	EPA 6020B	02/01/22 12:35	02/11/22 09:03	0.496g/50mL	0.5g/50mL	1.01
A2B0202-14	Soil	EPA 6020B	02/01/22 12:45	02/11/22 09:03	0.51g/50mL	0.5g/50mL	0.98
A2B0202-14RE1	Soil	EPA 6020B	02/01/22 12:45	02/11/22 09:03	0.51g/50mL	0.5g/50mL	0.98
Batch: 22B0503					S		
A2B0202-15	Soil	EPA 6020B	02/03/22 16:25	02/14/22 11:14	0.472g/50mL	0.5g/50mL	1.06
A2B0202-15 A2B0202-15RE1	Soil	EPA 6020B	02/03/22 16:25	02/14/22 11:14	0.472g/50mL 0.472g/50mL	0.5g/50mL 0.5g/50mL	1.06
A2B0202-15KE1 A2B0202-16	Soil	EPA 6020B	02/03/22 16:45	02/14/22 11:14	0.472g/30mL 0.494g/50mL	0.5g/50mL 0.5g/50mL	1.00
A2B0202-10 A2B0202-16RE1	Soil	EPA 6020B	02/03/22 16:45	02/14/22 11:14	0.494g/50mL	0.5g/50mL	1.01
A2B0202-10KE1 A2B0202-17	Soil	EPA 6020B	02/04/22 15:00	02/14/22 11:14	0.461g/50mL	0.5g/50mL	1.01
A2B0202-17 A2B0202-17RE1	Soil	EPA 6020B	02/04/22 15:00	02/14/22 11:14	0.461g/50mL	0.5g/50mL	1.08
A2B0202-17KE1 A2B0202-18	Soil	EPA 6020B	02/04/22 15:15	02/14/22 11:14	0.488g/50mL	0.5g/50mL	1.08
A2B0202-18 A2B0202-18RE1	Soil	EPA 6020B	02/04/22 15:15	02/14/22 11:14	0.488g/50mL	0.5g/50mL	1.02
A2B0202-18RE1	Soil	EPA 6020B	02/04/22 15:15	02/14/22 11:14	0.488g/50mL	0.5g/50mL	1.02
A2B0202-16KL2 A2B0202-19	Soil	EPA 6020B	02/04/22 15:15	02/14/22 11:14	0.501g/50mL	0.5g/50mL	1.02
A2B0202-19 A2B0202-20	Soil	EPA 6020B	02/04/22 15:35	02/14/22 11:14	0.482g/50mL	0.5g/50mL	1.04
A2B0202-20 A2B0202-21	Soil	EPA 6020B	02/03/22 15:45	02/14/22 11:14	0.469g/50mL	0.5g/50mL	1.04
A2B0202-21 A2B0202-21RE1	Soil	EPA 6020B EPA 6020B	02/03/22 15:45	02/14/22 11:14	0.469g/50mL 0.469g/50mL	0.5g/50mL 0.5g/50mL	1.07
A2B0202-21RE1 A2B0202-22	Soil	EPA 6020B EPA 6020B	02/03/22 15:43	02/14/22 11:14	0.496g/50mL	0.5g/50mL	1.07
A2B0202-22 A2B0202-22RE1	Soil	EPA 6020B	02/03/22 15:10	02/14/22 11:14	0.496g/50mL 0.496g/50mL	0.5g/50mL 0.5g/50mL	1.01

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Page 158 of 177 Philip Nerenberg, Lab Director



AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

<u>GSI Water Solutions</u> 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

SAMPLE PREPARATION INFORMATION

Total Metals by EPA 6020B (ICPMS)								
Prep: EPA 3051A					Sample	Default	RL Prep	
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor	
A2B0202-23	Soil	EPA 6020B	02/03/22 14:40	02/14/22 11:14	0.494g/50mL	0.5g/50mL	1.01	
A2B0202-23RE1	Soil	EPA 6020B	02/03/22 14:40	02/14/22 11:14	0.494g/50mL	0.5g/50mL	1.01	
A2B0202-24	Soil	EPA 6020B	02/03/22 14:00	02/14/22 11:14	0.461g/50mL	0.5g/50mL	1.08	
A2B0202-24RE1	Soil	EPA 6020B	02/03/22 14:00	02/14/22 11:14	0.461g/50mL	0.5g/50mL	1.08	
A2B0202-25	Soil	EPA 6020B	02/03/22 13:05	02/14/22 11:14	0.496g/50mL	0.5g/50mL	1.01	
A2B0202-25RE1	Soil	EPA 6020B	02/03/22 13:05	02/14/22 11:14	0.496g/50mL	0.5g/50mL	1.01	
A2B0202-26	Soil	EPA 6020B	02/03/22 12:15	02/14/22 11:14	0.468g/50mL	0.5g/50mL	1.07	
A2B0202-27	Soil	EPA 6020B	02/01/22 17:00	02/14/22 11:14	0.485g/50mL	0.5g/50mL	1.03	
A2B0202-28	Soil	EPA 6020B	02/03/22 10:00	02/14/22 11:14	0.488g/50mL	0.5g/50mL	1.02	
A2B0202-29	Soil	EPA 6020B	02/03/22 09:25	02/14/22 11:14	0.49g/50mL	0.5g/50mL	1.02	

Dissolved Metals by EPA 6020B (ICPMS)							
Prep: Matrix Matched Direct Inject					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
Batch: 22B0436							
A2B0202-33	Water	EPA 6020B (Diss)	02/04/22 17:15	02/11/22 09:49	45 mL/50 mL	45mL/50mL	1.00
A2B0202-34	Water	EPA 6020B (Diss)	02/04/22 17:30	02/11/22 09:49	45mL/50mL	45mL/50mL	1.00
A2B0202-35	Water	EPA 6020B (Diss)	02/04/22 12:35	02/11/22 09:49	45mL/50mL	45mL/50mL	1.00
A2B0202-36	Water	EPA 6020B (Diss)	02/04/22 16:40	02/11/22 09:49	45 mL/50 mL	45mL/50mL	1.00
A2B0202-37	Water	EPA 6020B (Diss)	02/03/22 16:50	02/11/22 09:49	45mL/50mL	45mL/50mL	1.00
A2B0202-38	Water	EPA 6020B (Diss)	02/03/22 15:15	02/11/22 09:49	45mL/50mL	45mL/50mL	1.00
A2B0202-39	Water	EPA 6020B (Diss)	02/03/22 12:05	02/11/22 09:49	45mL/50mL	45mL/50mL	1.00
A2B0202-40	Water	EPA 6020B (Diss)	02/04/22 13:45	02/11/22 09:49	45 mL/50 mL	45mL/50mL	1.00
A2B0202-41	Water	EPA 6020B (Diss)	02/02/22 13:25	02/11/22 09:49	45 mL/50 mL	45mL/50mL	1.00
A2B0202-42	Water	EPA 6020B (Diss)	02/02/22 13:30	02/11/22 09:49	45mL/50mL	45mL/50mL	1.00
A2B0202-43	Water	EPA 6020B (Diss)	02/02/22 11:00	02/11/22 09:49	45 mL/50 mL	45mL/50mL	1.00
A2B0202-44	Water	EPA 6020B (Diss)	02/02/22 12:10	02/11/22 09:49	45mL/50mL	45mL/50mL	1.00
A2B0202-45	Water	EPA 6020B (Diss)	02/02/22 14:22	02/11/22 09:49	45mL/50mL	45mL/50mL	1.00
A2B0202-46	Water	EPA 6020B (Diss)	02/02/22 15:15	02/11/22 09:49	45mL/50mL	45mL/50mL	1.00
A2B0202-47	Water	EPA 6020B (Diss)	02/02/22 16:00	02/11/22 09:49	45mL/50mL	45mL/50mL	1.00
A2B0202-48	Water	EPA 6020B (Diss)	02/02/22 17:25	02/11/22 09:49	45mL/50mL	45mL/50mL	1.00
A2B0202-49	Water	EPA 6020B (Diss)	02/04/22 14:55	02/11/22 09:49	45mL/50mL	45mL/50mL	1.00

Total Hexavalent Chromium by Colorimetric Spectrophotometry

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Philip Manherg

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

SAMPLE PREPARATION INFORMATION

Total Hexavalent Chromium by Colorimetric Spectrophotometry							
<u>Prep: EPA 3060A</u>					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
Batch: 22B0347							
A2B0202-01	Soil	EPA 7196A	02/04/22 17:00	02/09/22 09:40	2.5578g/100mL	2.5g/111mL	0.88
A2B0202-02	Soil	EPA 7196A	02/04/22 17:05	02/09/22 09:40	2.5134g/100mL	2.5g/111mL	0.90
A2B0202-03	Soil	EPA 7196A	02/03/22 16:06	02/09/22 09:40	2.5137g/100mL	2.5g/111mL	0.90
A2B0202-04	Soil	EPA 7196A	02/03/22 16:04	02/09/22 09:40	2.5253g/100mL	2.5g/111mL	0.89
A2B0202-05	Soil	EPA 7196A	02/03/22 16:10	02/09/22 09:40	2.5084g/100mL	2.5g/111mL	0.90
A2B0202-06	Soil	EPA 7196A	02/03/22 16:11	02/09/22 09:40	2.5736g/100mL	2.5g/111mL	0.88
Batch: 22B0439							
A2B0202-07RE1	Soil	EPA 7196A	02/03/22 13:16	02/11/22 10:17	2.5155g/100mL	2.5g/111mL	0.90
A2B0202-08RE1	Soil	EPA 7196A	02/03/22 13:33	02/11/22 10:17	2.5591g/100mL	2.5g/111mL	0.88
A2B0202-09RE1	Soil	EPA 7196A	02/01/22 16:30	02/11/22 10:17	2.583g/100mL	2.5g/111mL	0.87
A2B0202-10RE1	Soil	EPA 7196A	02/01/22 16:40	02/11/22 10:17	2.5679g/100mL	2.5g/111mL	0.88
A2B0202-11RE1	Soil	EPA 7196A	02/01/22 16:50	02/11/22 10:17	2.5504g/100mL	2.5g/111mL	0.88
A2B0202-12RE1	Soil	EPA 7196A	02/01/22 12:20	02/11/22 10:17	2.5433g/100mL	2.5g/111mL	0.89
A2B0202-13RE1	Soil	EPA 7196A	02/01/22 12:35	02/11/22 10:17	2.5178g/100mL	2.5g/111mL	0.90
A2B0202-14RE1	Soil	EPA 7196A	02/01/22 12:45	02/11/22 10:17	2.5851g/100mL	2.5g/111mL	0.87
A2B0202-15	Soil	EPA 7196A	02/03/22 16:25	02/11/22 10:17	2.5821g/100mL	2.5g/111mL	0.87
A2B0202-16	Soil	EPA 7196A	02/03/22 16:45	02/11/22 10:17	2.5935g/100mL	2.5g/111mL	0.87
A2B0202-17	Soil	EPA 7196A	02/04/22 15:00	02/11/22 10:17	2.5277g/100mL	2.5g/111mL	0.89
A2B0202-18	Soil	EPA 7196A	02/04/22 15:15	02/11/22 10:17	2.5841g/100mL	2.5g/111mL	0.87
A2B0202-19	Soil	EPA 7196A	02/04/22 15:35	02/11/22 10:17	2.5207g/100mL	2.5g/111mL	0.89
A2B0202-20	Soil	EPA 7196A	02/03/22 16:00	02/11/22 10:17	2.5924g/100mL	2.5g/111mL	0.87
Batch: 22B0707							
A2B0202-21RE1	Soil	EPA 7196A	02/03/22 15:45	02/18/22 08:31	2.5552g/100mL	2.5g/111mL	0.88
A2B0202-22RE1	Soil	EPA 7196A	02/03/22 15:10	02/18/22 08:31	2.5567g/100mL	2.5g/111mL	0.88
A2B0202-23RE1	Soil	EPA 7196A	02/03/22 14:40	02/18/22 08:31	2.5491g/100mL	2.5g/111mL	0.88
A2B0202-24RE1	Soil	EPA 7196A	02/03/22 14:00	02/18/22 08:31	2.5617g/100mL	2.5g/111mL	0.88
A2B0202-25RE1	Soil	EPA 7196A	02/03/22 13:05	02/18/22 08:31	2.5807g/100mL	2.5g/111mL	0.87
A2B0202-26RE1	Soil	EPA 7196A	02/03/22 12:15	02/18/22 08:31	2.5033g/100mL	2.5g/111mL	0.90
A2B0202-27RE1	Soil	EPA 7196A	02/01/22 17:00	02/18/22 08:31	2.5627g/100mL	2.5g/111mL	0.88
A2B0202-28RE1	Soil	EPA 7196A	02/03/22 10:00	02/18/22 08:31	2.5732g/100mL	2.5g/111mL	0.88
A2B0202-29RE1	Soil	EPA 7196A	02/03/22 09:25	02/18/22 08:31	2.5144g/100mL	2.5g/111mL	0.90

Ammonia by Gas Diffusion and Colorimetric Detection

Apex Laboratories

Philip Merenberg

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

SAMPLE PREPARATION INFORMATION

		Ammonia by 0	Gas Diffusion and C	olorimetric Detection	า		
Prep: Method Prep: A	<u></u>				Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
Batch: 22B0346							
A2B0202-35	Water	SM 4500-NH3 G	02/04/22 12:35	02/09/22 10:55	10mL/10mL	10mL/10mL	1.00
A2B0202-36	Water	SM 4500-NH3 G	02/04/22 16:40	02/09/22 10:55	10mL/10mL	10mL/10mL	1.00
A2B0202-37	Water	SM 4500-NH3 G	02/03/22 16:50	02/09/22 10:55	10mL/10mL	10mL/10mL	1.00
A2B0202-38	Water	SM 4500-NH3 G	02/03/22 15:15	02/09/22 10:55	10mL/10mL	10mL/10mL	1.00
A2B0202-39	Water	SM 4500-NH3 G	02/03/22 12:05	02/09/22 10:55	10mL/10mL	10mL/10mL	1.00
A2B0202-40	Water	SM 4500-NH3 G	02/04/22 13:45	02/09/22 10:55	10mL/10mL	10mL/10mL	1.00
A2B0202-41	Water	SM 4500-NH3 G	02/02/22 13:25	02/09/22 10:55	10mL/10mL	10mL/10mL	1.00
A2B0202-42RE1	Water	SM 4500-NH3 G	02/02/22 13:30	02/09/22 10:55	10mL/10mL	10mL/10mL	1.00
A2B0202-43RE1	Water	SM 4500-NH3 G	02/02/22 11:00	02/09/22 10:55	10mL/10mL	10mL/10mL	1.00
A2B0202-44RE1	Water	SM 4500-NH3 G	02/02/22 12:10	02/09/22 10:55	10mL/10mL	10mL/10mL	1.00
A2B0202-45RE1	Water	SM 4500-NH3 G	02/02/22 14:22	02/09/22 10:55	10mL/10mL	10mL/10mL	1.00
A2B0202-46RE1	Water	SM 4500-NH3 G	02/02/22 15:15	02/09/22 10:55	10mL/10mL	10mL/10mL	1.00
A2B0202-47RE1	Water	SM 4500-NH3 G	02/02/22 16:00	02/09/22 10:55	10mL/10mL	10mL/10mL	1.00
A2B0202-48RE1	Water	SM 4500-NH3 G	02/02/22 17:25	02/09/22 10:55	10mL/10mL	10mL/10mL	1.00
A2B0202-49RE1	Water	SM 4500-NH3 G	02/04/22 14:55	02/09/22 10:55	10 mL / 10 mL	10 mL / 10 mL	1.00

		Α	nions by Ion Chroma	itography			
Prep: Method Prep: A					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
Batch: 22B0241							
A2B0202-34	Water	EPA 300.0	02/04/22 17:30	02/05/22 12:00	5mL/5mL	5mL/5mL	1.00
A2B0202-35	Water	EPA 300.0	02/04/22 12:35	02/05/22 12:00	5mL/5mL	5mL/5mL	1.00
A2B0202-36	Water	EPA 300.0	02/04/22 16:40	02/05/22 12:00	5mL/5mL	5mL/5mL	1.00
A2B0202-37	Water	EPA 300.0	02/03/22 16:50	02/05/22 12:00	5mL/5mL	5mL/5mL	1.00
A2B0202-38	Water	EPA 300.0	02/03/22 15:15	02/05/22 12:00	5mL/5mL	5mL/5mL	1.00
A2B0202-39	Water	EPA 300.0	02/03/22 12:05	02/05/22 12:00	5mL/5mL	5mL/5mL	1.00
A2B0202-40	Water	EPA 300.0	02/04/22 13:45	02/05/22 12:00	5mL/5mL	5mL/5mL	1.00
A2B0202-41	Water	EPA 300.0	02/02/22 13:25	02/05/22 12:00	5mL/5mL	5mL/5mL	1.00
A2B0202-42	Water	EPA 300.0	02/02/22 13:30	02/05/22 12:00	5mL/5mL	5mL/5mL	1.00
A2B0202-43	Water	EPA 300.0	02/02/22 11:00	02/05/22 12:00	5mL/5mL	5mL/5mL	1.00
A2B0202-44	Water	EPA 300.0	02/02/22 12:10	02/05/22 12:00	5mL/5mL	5mL/5mL	1.00
A2B0202-45	Water	EPA 300.0	02/02/22 14:22	02/05/22 12:00	5mL/5mL	5mL/5mL	1.00
A2B0202-45RE1	Water	EPA 300.0	02/02/22 14:22	02/05/22 12:00	5mL/5mL	5mL/5mL	1.00
A2B0202-46	Water	EPA 300.0	02/02/22 15:15	02/05/22 12:00	5mL/5mL	5mL/5mL	1.00
A2B0202-47	Water	EPA 300.0	02/02/22 16:00	02/05/22 12:00	5mL/5mL	5mL/5mL	1.00

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Philip Nerenberg, Lab Director

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project Number: **Eatonville**Project Number: **00171.067**Project Manager: **Josh Bale**

Report ID: A2B0202 - 04 25 23 1115

SAMPLE PREPARATION INFORMATION

		Д	nions by Ion Chroma	atography			
Prep: Method Prep: A	<u>}q</u>				Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
A2B0202-47RE1	Water	EPA 300.0	02/02/22 16:00	02/05/22 12:00	5mL/5mL	5mL/5mL	1.00
A2B0202-48	Water	EPA 300.0	02/02/22 17:25	02/05/22 12:00	5mL/5mL	5mL/5mL	1.00
A2B0202-49	Water	EPA 300.0	02/04/22 14:55	02/05/22 12:00	5mL/5mL	5mL/5mL	1.00

	iolai Orgar	iic Carbon (Non-Pur	geable) by Persulfate	Oxidation by Stand	aaru weinod 5310	C	
Prep: Method Prep: Ac	1				Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
Batch: 22B0383							
A2B0202-35RE1	Water	SM 5310 C	02/04/22 12:35	02/10/22 09:04	40mL/40mL	40mL/40mL	1.00
A2B0202-36	Water	SM 5310 C	02/04/22 16:40	02/10/22 09:04	40mL/40mL	40mL/40mL	1.00
A2B0202-37	Water	SM 5310 C	02/03/22 16:50	02/10/22 09:04	40mL/40mL	40mL/40mL	1.00
A2B0202-38	Water	SM 5310 C	02/03/22 15:15	02/10/22 09:04	40mL/40mL	40mL/40mL	1.00
A2B0202-39	Water	SM 5310 C	02/03/22 12:05	02/10/22 09:04	40mL/40mL	40mL/40mL	1.00
A2B0202-40	Water	SM 5310 C	02/04/22 13:45	02/10/22 09:04	40mL/40mL	40mL/40mL	1.00
A2B0202-41	Water	SM 5310 C	02/02/22 13:25	02/10/22 09:04	40mL/40mL	40mL/40mL	1.00
A2B0202-42	Water	SM 5310 C	02/02/22 13:30	02/10/22 09:04	40mL/40mL	40mL/40mL	1.00
A2B0202-43	Water	SM 5310 C	02/02/22 11:00	02/10/22 09:04	40mL/40mL	40mL/40mL	1.00
A2B0202-44	Water	SM 5310 C	02/02/22 12:10	02/10/22 09:04	40mL/40mL	40mL/40mL	1.00
A2B0202-45	Water	SM 5310 C	02/02/22 14:22	02/10/22 09:04	40mL/40mL	40mL/40mL	1.00
A2B0202-46	Water	SM 5310 C	02/02/22 15:15	02/10/22 09:04	40mL/40mL	40mL/40mL	1.00
A2B0202-47	Water	SM 5310 C	02/02/22 16:00	02/10/22 09:04	40mL/40mL	40mL/40mL	1.00
A2B0202-48	Water	SM 5310 C	02/02/22 17:25	02/10/22 09:04	40mL/40mL	40mL/40mL	1.00
A2B0202-49	Water	SM 5310 C	02/04/22 14:55	02/10/22 09:04	40mL/40mL	40mL/40mL	1.00

		Cor	ventional Chemistry	Parameters			
Prep: Method Prep: A	∖ q				Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
Batch: 22B0402							
A2B0202-35	Water	SM 2320 B	02/04/22 12:35	02/10/22 12:10	30mL/30mL	60 mL / 60 mL	NA
A2B0202-36	Water	SM 2320 B	02/04/22 16:40	02/10/22 12:10	30mL/30mL	60 mL / 60 mL	NA
A2B0202-37	Water	SM 2320 B	02/03/22 16:50	02/10/22 12:10	30mL/30mL	60 mL / 60 mL	NA
A2B0202-38	Water	SM 2320 B	02/03/22 15:15	02/10/22 12:10	30mL/30mL	60 mL / 60 mL	NA
A2B0202-39	Water	SM 2320 B	02/03/22 12:05	02/10/22 12:10	30mL/30mL	60 mL / 60 mL	NA
A2B0202-40	Water	SM 2320 B	02/04/22 13:45	02/10/22 12:10	30mL/30mL	60mL/60mL	NA
A2B0202-41	Water	SM 2320 B	02/02/22 13:25	02/10/22 12:10	30mL/30mL	60mL/60mL	NA

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Philip Nerenberg, Lab Director

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

SAMPLE PREPARATION INFORMATION

		Cor	nventional Chemistry	Parameters			
Prep: Method Prep:	: Aq				Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
A2B0202-42	Water	SM 2320 B	02/02/22 13:30	02/10/22 12:10	30mL/30mL	60mL/60mL	NA
A2B0202-43	Water	SM 2320 B	02/02/22 11:00	02/10/22 12:10	30mL/30mL	60 mL / 60 mL	NA
A2B0202-44	Water	SM 2320 B	02/02/22 12:10	02/10/22 12:10	30mL/30mL	60 mL / 60 mL	NA
A2B0202-45	Water	SM 2320 B	02/02/22 14:22	02/10/22 12:10	30mL/30mL	60 mL / 60 mL	NA
A2B0202-46	Water	SM 2320 B	02/02/22 15:15	02/10/22 12:10	30mL/30mL	60 mL / 60 mL	NA
A2B0202-47	Water	SM 2320 B	02/02/22 16:00	02/10/22 12:10	30mL/30mL	60mL/60mL	NA
A2B0202-48	Water	SM 2320 B	02/02/22 17:25	02/10/22 12:10	30mL/30mL	60mL/60mL	NA
A2B0202-49	Water	SM 2320 B	02/04/22 14:55	02/10/22 12:10	30mL/30mL	60mL/60mL	NA

			Percent Dry We	ight			
Prep: Total Solids (Dry Weight)				Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
Batch: 22B0310							
A2B0202-01	Soil	EPA 8000D	02/04/22 17:00	02/08/22 15:21			NA
A2B0202-02	Soil	EPA 8000D	02/04/22 17:05	02/08/22 15:21			NA
A2B0202-03	Soil	EPA 8000D	02/03/22 16:06	02/08/22 15:21			NA
A2B0202-04	Soil	EPA 8000D	02/03/22 16:04	02/08/22 15:21			NA
A2B0202-05	Soil	EPA 8000D	02/03/22 16:10	02/08/22 15:21			NA
A2B0202-06	Soil	EPA 8000D	02/03/22 16:11	02/08/22 15:21			NA
A2B0202-07	Soil	EPA 8000D	02/03/22 13:16	02/08/22 15:21			NA
A2B0202-08	Soil	EPA 8000D	02/03/22 13:33	02/08/22 15:21			NA
A2B0202-09	Soil	EPA 8000D	02/01/22 16:30	02/08/22 15:21			NA
A2B0202-10	Soil	EPA 8000D	02/01/22 16:40	02/08/22 15:21			NA
A2B0202-11	Soil	EPA 8000D	02/01/22 16:50	02/08/22 15:21			NA
A2B0202-12	Soil	EPA 8000D	02/01/22 12:20	02/08/22 15:21			NA
A2B0202-13	Soil	EPA 8000D	02/01/22 12:35	02/08/22 15:21			NA
A2B0202-14	Soil	EPA 8000D	02/01/22 12:45	02/08/22 15:21			NA
A2B0202-15	Soil	EPA 8000D	02/03/22 16:25	02/08/22 15:21			NA
A2B0202-16	Soil	EPA 8000D	02/03/22 16:45	02/08/22 15:21			NA
A2B0202-17	Soil	EPA 8000D	02/04/22 15:00	02/08/22 15:21			NA
A2B0202-18	Soil	EPA 8000D	02/04/22 15:15	02/08/22 15:21			NA
A2B0202-19	Soil	EPA 8000D	02/04/22 15:35	02/08/22 15:21			NA
A2B0202-20	Soil	EPA 8000D	02/03/22 16:00	02/08/22 15:21			NA
A2B0202-21	Soil	EPA 8000D	02/03/22 15:45	02/08/22 15:21			NA
A2B0202-22	Soil	EPA 8000D	02/03/22 15:10	02/08/22 15:21			NA
A2B0202-23	Soil	EPA 8000D	02/03/22 14:40	02/08/22 15:21			NA

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project Number: Dosh Bale
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

SAMPLE PREPARATION INFORMATION

			Percent Dry We	ight			
Prep: Total Solids (I	Dry Weight)				Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
A2B0202-24	Soil	EPA 8000D	02/03/22 14:00	02/08/22 15:21			NA
A2B0202-25	Soil	EPA 8000D	02/03/22 13:05	02/08/22 15:21			NA
A2B0202-26	Soil	EPA 8000D	02/03/22 12:15	02/08/22 15:21			NA
A2B0202-27	Soil	EPA 8000D	02/01/22 17:00	02/08/22 15:21			NA
A2B0202-28	Soil	EPA 8000D	02/03/22 10:00	02/08/22 15:21			NA
A2B0202-29	Soil	EPA 8000D	02/03/22 09:25	02/08/22 15:21			NA
A2B0202-30	Soil	EPA 8000D	02/04/22 16:55	02/08/22 15:21			NA
A2B0202-31	Soil	EPA 8000D	02/04/22 18:30	02/08/22 15:21			NA
A2B0202-32	Soil	EPA 8000D	02/04/22 18:35	02/08/22 15:21			NA

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

Weck Laboratories, Inc.

SAMPLE PREPARATION INFORMATION

			Hexavalent Chromiu	m by IC			
Prep: NONE (LC)					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
Batch: W2B0946							
A2B0202-34	Water	EPA 218.6	02/04/22 17:30	02/14/22 09:30	5ml/5ml	5ml/5ml	1.00
A2B0202-35	Water	EPA 218.6	02/04/22 12:35	02/14/22 09:30	5ml/5ml	5ml/5ml	1.00
A2B0202-36	Water	EPA 218.6	02/04/22 16:40	02/14/22 09:30	5ml/5ml	5ml/5ml	1.00
A2B0202-37	Water	EPA 218.6	02/03/22 16:50	02/14/22 09:30	5ml/5ml	5ml/5ml	1.00
A2B0202-38	Water	EPA 218.6	02/03/22 15:15	02/14/22 09:30	5ml/5ml	5ml/5ml	1.00
A2B0202-39	Water	EPA 218.6	02/03/22 12:05	02/14/22 09:30	5ml/5ml	5ml/5ml	1.00
A2B0202-40	Water	EPA 218.6	02/04/22 13:45	02/14/22 09:30	5ml/5ml	5ml/5ml	1.00
A2B0202-41	Water	EPA 218.6	02/02/22 13:25	02/14/22 09:30	5ml/5ml	5ml/5ml	1.00
A2B0202-42	Water	EPA 218.6	02/02/22 13:30	02/14/22 09:30	5ml/5ml	5ml/5ml	1.00
A2B0202-43	Water	EPA 218.6	02/02/22 11:00	02/14/22 09:30	5ml/5ml	5ml/5ml	1.00
A2B0202-44	Water	EPA 218.6	02/02/22 12:10	02/14/22 09:30	5ml/5ml	5ml/5ml	1.00
A2B0202-45	Water	EPA 218.6	02/02/22 14:22	02/14/22 09:30	5ml/5ml	5ml/5ml	1.00
A2B0202-46	Water	EPA 218.6	02/02/22 15:15	02/14/22 09:30	5ml/5ml	5ml/5ml	1.00
A2B0202-47	Water	EPA 218.6	02/02/22 16:00	02/14/22 09:30	5ml/5ml	5ml/5ml	1.00
A2B0202-48	Water	EPA 218.6	02/02/22 17:25	02/14/22 09:30	5ml/5ml	5ml/5ml	1.00
A2B0202-49	Water	EPA 218.6	02/04/22 14:55	02/14/22 09:30	5ml/5ml	5ml/5ml	1.00

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

QUALIFIER DEFINITIONS

Client Sample and Quality Control (QC) Sample Qualifier Definitions:

Apex Laboratories

oex Laborato	<u>ories</u>
B-02	Analyte detected in an associated blank at a level between one-half the MRL and the MRL. (See Notes and Conventions below.)
Cr6-01	Matrix Spike fails due to probable reducing conditions present in the sample. Sample is ND. Data quality is not affected because any hexavalent chromium present in the sample is likely to have been reduced to chromium three.
F-03	The result for this hydrocarbon range is elevated due to the presence of individual analyte peaks in the quantitation range that are not representative of the fuel pattern reported.
F-12	The result for this hydrocarbon range is primarily due to the presence of individual analyte peaks in the quantitation range. No fuel pattern detected.
F-13	The chromatographic pattern does not resemble the fuel standard used for quantitation
F-17	No fuel pattern detected. The Diesel result represents carbon range C12 to C24, and the Oil result represents >C24 to C40.
H-06	This sample was received, or the analysis requested, outside the recommended holding time.
ICV-02	Estimated Result. Initial Calibration Verification (ICV) failed low.
Ja	Estimated Result. Result detected below the lowest point of the calibration curve, but above the specified MDL.
PRES	Incomplete field preservation. Additional preservative was added to adjust the pH within the appropriate range for this analysis.
PRO	Sample has undergone sample processing prior to extraction and analysis.
Q-04	Spike recovery and/or RPD is outside control limits due to a non-homogeneous sample matrix.
Q-05	Analyses are not controlled on RPD values from sample and duplicate concentrations that are below 5 times the reporting level.
Q-16	Reanalysis of an original Batch QC sample.
Q-17	RPD between original and duplicate sample is outside of established control limits.
Q-19	Blank Spike Duplicate (BSD) sample analyzed in place of Matrix Spike/Duplicate samples due to limited sample amount available for analysis.
Q-42	Matrix Spike and/or Duplicate analysis was performed on this sample. % Recovery or RPD for this analyte is outside laboratory control limits. (Refer to the QC Section of Analytical Report.)
Q-57	Compensation for background color and/or turbidity has been made by subtracting the absorbance of a second aliquot of sample to which all reagents except the color producing reagent have been added, in accordance with the method.
R-03	Elevated Reporting Limits due to limited sample volume.
R-04	Reporting levels elevated due to preparation and/or analytical dilution necessary for analysis.
V-16	Sample aliquot was subsampled from the sample container in the laboratory. The subsampled aliquot was not preserved within 48 hours of sampling.
V-21	Sample aliquot was subsampled from a sample container that had been previously opened and had sample removed for another analysis.

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Philip Nerenberg, Lab Director



AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water SolutionsProject:Eatonville55 SW Yamhill St, Ste 300Project Number:00171.067Report ID:Portland, OR 97209Project Manager:Josh BaleA2B0202 - 04 25 23 1115

REPORTING NOTES AND CONVENTIONS:

Abbreviations:

DET Analyte DETECTED at or above the detection or reporting limit.

ND Analyte NOT DETECTED at or above the detection or reporting limit.

NR Result Not Reported

RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

Detection Limits: Limit of Detection (LOD)

Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).

If no value is listed ('----'), then the data has not been evaluated below the Reporting Limit.

Reporting Limits: Limit of Quantitation (LOQ)

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

Reporting Conventions:

Basis: Results for soil samples are generally reported on a 100% dry weight basis.

The Result Basis is listed following the units as "dry", "wet", or " " (blank) designation.

"dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")

See Percent Solids section for details of dry weight analysis.

"wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.

"___" Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

QC Source:

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.

Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) may not be included in this report. Please request a Full QC report if this data is required.

Miscellaneous Notes:

"---" QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to ½ the Reporting Limit (RL).

- -For Blank hits falling between ½ the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.
- -For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.

For further details, please request a copy of this document.

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AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions
55 SW Yamhill St, Ste 300
Portland, OR 97209

Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks (Cont.):

Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.

'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level.

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

Sampling and Preservation Notes:

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

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Philip Nerenberg, Lab Director

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Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

AMENDED REPORT

GSI Water Solutions 55 SW Yamhill St, Ste 300 Project Number: 00171.067 Portland, OR 97209 Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

LABORATORY ACCREDITATION INFORMATION

Eatonville

ORELAP Certification ID: OR100062 (Primary Accreditation) **EPA ID: OR01039**

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

Project:

Apex Laboratories

Matrix Analysis TNI ID TNI ID Accreditation Analyte

All reported analytes are included in Apex Laboratories' current ORELAP scope.

Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation.

Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

Field Testing Parameters

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Results for Field Tested data are provded by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

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Page 169 of 177 Philip Nerenberg, Lab Director



AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

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Company: CV7	rrojc	Project Mgr:	S		4		1	Project	Project Name: CATON VALATI	2	3	7,7	1				E.	Project #: 0	0011100	27		-
Address: 5550 YAMADLEST	PORTLAND	Q.			Phone:				Ä	ij	Sol	0	3	VF.C	Email: jbale @ Briws.com		PO#	,,,				
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Apex Laboratories

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Philip Nerenberg, Lab Director

Philip Maenberg

Page 170 of 177



AMENDED REPORT

Apex Laboratories, LLC

6700 S.W. Sandburg Street Tigard, OR 97223 503-718-2323

ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

Company: (-5)	Projec	Project Mgr:	Sort,	1/2	3				Project Name:	Name:		EARLYNERGE	3	y Y			Project #: OO	60171.067		
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Page 171 of 177



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ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

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Apex Laboratories

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Philip Nerenberg, Lab Director

Philip Nevenberg

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ORELAP ID: OR100062

GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 00171.067

Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

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Philip Nerenberg, Lab Director

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GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

Company: Jet La MER LOT	Г	Project Mor:	Josh	# 12	EME			Project	Project Name		STEVINOTIS	13	177				Benjagt #	4	1	Į į	779 10130	1		
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Page 174 of 177



- 1

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Project Number: 00171.067
Project Manager: Josh Bale

AMENDED REPORT

Report ID: A2B0202 - 04 25 23 1115

	WO# A2B0202
COC/Containe	r Discrepancies
COC Reads	Container Reads/Comments
HA-02-Comp-1.0-2.0_0222@1604 & 3 containers	Time reads 1610. I container provided
HA-102-comp-0.5-1.0_0222@1610	Time reads 1604.
+ A-102- Comp-1.0-2.0-0222 3 containers + HA-03- Comp-1.0-2.0-0222 - HA-04- Comp-1.0-20-0222 - HA-05- Comp-1.0-2.0-0222	I container provided.
2-04-0222	I abele ID on 1/2 125ml Ambers reads Sw-14 & ID on 1:ds reads PZ-04.
14 containers	5-40ml HCIVOAS + 1-40ml Cr le Poly + 1-250ml NaOH ZnAc Poly+1-250ml HNO3 Poly-FF + 1-250ml H2804 Poly +2-1L HCI Ambers+1-250ml MP Poly provided

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GSI Water Solutions 55 SW Yamhill St, Ste 300 Portland, OR 97209 Project: Eatonville
Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

	APEX LABS COOLER RECEIPT FORM	
Client: 6SI	Element WO#: A2 \$ 070	12
Project/Project #: FA	tonville / #00171.067	
Delivery Info: 215	22 By: ACK	
Cooler Inspection Date	ient X ESS FedEx UPS Swift Senvoy SDS Oth	ner
Chain of Custody included	e/time inspected: 1/5/12 @ 1/30 By: FAM	
Signed/dated by client?	? Yes <u>X</u> No Custody seals? Yes No X Yes <u>F</u> No	···
Signed/dated by Apex?	Yes	
Condition: Cooler out of temp? (Y/DP) Green dots applied to out of Out of temperature samples: Sample Inspection: Date/ All samples intact? Yes Y Bottle labels/COCs agree? Y See form.	Cooler #1 Cooler #2 Cooler #3 Cooler #4 Cooler #5 Cooler #6 P. P. P. P. P. P. P. P. P. P. P. P. P.	O. G T N Real Good
	appropriate for analysis? Yes \times No Comments: $\cancel{\text{CO-Ol}}$	01.0
+ HNO3 Poly + 2 HC	Ambers provided.	mic cropping
	eadspace? Yes No X NA	
Comments		
Comments:	Yes X No_NA_ pH appropriate? Yes X No_NA_ Subsampled by: A Witnessed by: A	tac]
Additional information: PZ SW-12 + SW-13±	-04+ SW-09 + SW-08 + SW-07 + SW-10+ SW-11+ SW-11+ 21712 HNO3 Poly marked as FF	
Labeled by:	Witness: Cooler Inspected by:	

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Project Number: 00171.067
Project Manager: Josh Bale

Report ID: A2B0202 - 04 25 23 1115

Client:		
Chent:	<u>551</u>	Element WO#: A2 100202
Project/Pr	roject#: <u>Fat</u>	tonville /00171.067
Delivery I	<u>nfo</u> :	aventur
Date/time r	received: 2	15/22 @ 11:15 By: AAK AKK
		Client X ESS FedEx UPS Swift Senvoy SDS Other
Cooler Ins	pection Da	ate/time inspected: 2/5/22 @ 11 30 By: ZAM
Chain of Cu	ustody include	
Signed/date	ed by client?	Yes No
Signed/date	ed by Apex?	Yes X No 215/22
		Cooler #Y Cooler #3 Cooler #4 Cooler #5 Cooler #6 Cooler #7
Temperature	e (°C)	0.4 0.3
Received on	ice? (Y/N)	y y
Temp, blank	cs? (Y/N)	N N
Ice type: (Ge	el/Real/Other)	Leal Real
Condition:		600d 600d
		erume inspected: VIAVV (a) 1900 By: WV
All samples i	intact? Yes	Yes No_Y Comments: See Page 1.
All samples i	intact? Yes	Y No Comments: See Page 1.
All samples i Bottle labels/ COC/contain	intact? Yes	Y No Comments:
All samples i Bottle labels/ COC/contain Containers/vo	intact? Yes	Yes No _Y Comments: _See Page 1. The sestion initiated? Yes Y No The propriate for analysis? Yes Y No Comments:
All samples in Bottle labels/ COC/contain Containers/vo	intact? Yes	Y No Comments:
All samples in Bottle labels/ COC/contain Containers/vo Do VOA vial Comments	intact? Yes	Yes No_Y Comments: See Page 1. es form initiated? Yes \(\frac{1}{2} \) No ed appropriate for analysis? Yes \(\frac{1}{2} \) No Comments: headspace? Yes No_X NA
All samples in Bottle labels/ COC/contain Containers/vo Do VOA vial Comments	intact? Yes	Yes No _Y Comments: _See _Qage 1. The sestion of the sestion o
All samples in Bottle labels/ COC/contain Containers/vo Do VOA vial Comments Water sample Comments:	intact? Yes	Yes No_Y Comments: See Page 1. es form initiated? Yes Y No ed appropriate for analysis? Yes Y No Comments: headspace? Yes No_X NA d: Yes_No_NA pH appropriate? Yes X No_NA
All samples in Bottle labels/ COC/contain Containers/voluments_ Do VOA vial Comments_ Water sample Comments:	intact? Yes	Yes No Y Comments: See Page 1. Tes form initiated? Yes Y No ted appropriate for analysis? Yes Y No Comments: theadspace? Yes No X NA It Yes No NA pH appropriate? Yes X No NA
All samples in Bottle labels/ COC/contain Containers/vo Do VOA vial Comments Water sample Comments:	intact? Yes	Yes No_Y Comments: See Page 1. es form initiated? Yes \(\frac{1}{2} \) No ed appropriate for analysis? Yes \(\frac{1}{2} \) No headspace? Yes No_X NA d: Yes_No_NA pH appropriate? Yes_No_NA Witness: Cooler Inspected by:
All samples in Bottle labels/ COC/contain Containers/voluments_ Do VOA vial Comments_ Water sample Comments:	intact? Yes	Yes No Y Comments: See Page 1. Tes form initiated? Yes Y No ted appropriate for analysis? Yes Y No Comments: theadspace? Yes No X NA It Yes No NA pH appropriate? Yes Y No NA

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Maenberg

April 28, 2023

Apex Laboratories ATTN: Philip Nerenberg 6700 S.W. Sandburg St.

Tigard, OR 97223



LA Cert #04140 EPA Methods TO3, TO14A, TO15, 25C/3C, ASTM D1946, RSK-175

> TX Cert T104704450-14-6 EPA Methods T014A, T015

UT Cert CA0133332015-3 EPA Methods TO3, TO14A, TO15, RSK-175

LABORATORY TEST RESULTS

Project Reference: A2B0202

Lab Number: N021001-01/15

Enclosed are REVISED results for sample(s) received 2/10/22 by Air Technology Laboratories and replaces in its entirety the report dated 2/24/2022. Sample was received intact and chilled to 3° C. Analyses were performed according to specifications on the chain of custody provided with the sample(s).

Report Narrative:

- The report has been revised to report to MDLs per client request.
- Unless otherwise noted in the report, sample analyses were performed within method performance criteria and meet all requirements of the TNI Standards.
- The enclosed results relate only to the sample(s).

ATL appreciates the opportunity to provide testing services to your company. If you have any questions regarding these results, please call me at (626) 964-4032.

Sincerely,

Mark Johnson

Operations Manager

MJohnson@AirTechLabs.com

Apex Laboratories

OPS 2/9/12 A2B0202

N

N021001a Page 2 of 11

SENDING LABORATORY:

Apex Laboratories

6700 S.W. Sandburg Street

Tigard, OR 97223

Phone: (503) 718-2323 Fax: (503) 336-0745

Project Manager: Philip Nerenberg

RECEIVING LABORATORY:

Air Technology Laboratories, Inc 18501 E. Gale Ave Suite 130 City of Industry, CA 91748 Phone:(626) 964-4032

Fax: (626) 964-5832

Sample Name: PZ-01_0222		Water	ID missing -0222 suffix. Sampled: 02/04/22 12:35	(A2B0202-35)
Analysis	Due	Expires	Comments	
RSK 175 Preserved (Meth, Eth, Eth) (Sub) Containers Supplied: (D)40 mL VOA - HCL (E)40 mL VOA - HCL	02/18/22 17:00	02/18/22 12:35		
Sample Name: PZ-02_0222		Water	ID missing -0222 suffix. Sampled: 02/04/22 16:40	(A2B0202-36)
Analysis	Due	Expires	Comments	
RSK 175 Preserved (Meth, Eth, Eth) (Sub) Containers Supplied: (D)40 mL VOA - HCL (E)40 mL VOA - HCL	02/18/22 17:00	02/18/22 16:40		
Sample Name: PZ-102_0222		Water	ID missing -0222 suffix. Sampled: 02/03/22 16:50	(A2B0202-37)
Analysis	Due	Expires	Comments	
RSK 175 Preserved (Meth, Eth, Eth) (Sub) Containers Supplied: (D)40 mL VOA - HCL (E)40 mL VOA - HCL	02/18/22 17:00	02/17/22 16:50		
Sample Name: PZ-03_0222		Water	ID missing -0222 suffix. Sampled: 02/03/22 15:15	(A2B0202-38)
Analysis	Due	Expires	Comments	
RSK 175 Preserved (Meth, Eth, Eth) (Sub) Containers Supplied: (D)40 mL VOA - HCL (E)40 mL VOA - HCL	02/18/22 17:00	02/17/22 15:15		
Standard THT				
Hammar Sorry 2) 9	12		(Shipper)	3°C
Released By Date UPS (Shipper) Released By Date	ow	Received By Received By	Date Date Date	1003

Apex Laboratories

N021001a Page 3 of 11

Mb 219 h1 A2B0202

	019 219hi	ZB0202	×	/
Sample Name: PZ-04_0222		Water	ID missing -0222 suffix. I Sampled: 02/03/22 12:05	D prefix on 2/2 125ml (A2B0202-39)
Analysis	Due	Expires	Comments	
RSK 175 Preserved (Meth, Eth, Eth) (Sub) Containers Supplied: (D)40 mL VOA - HCL (E)40 mL VOA - HCL	02/18/22 17:00	02/17/22 12:05		
Sample Name: PZ-05_0222	,	Water	ID missing -0222 suffix. Sampled: 02/04/22 13:45	(A2B0202-40)
Analysis	Due	Expires	Comments	(
RSK 175 Preserved (Meth, Eth, Eth) (Sub) Containers Supplied: (D)40 mL VOA - HCL (E)40 mL VOA - HCL	02/18/22 17:00	02/18/22 13:45		
Sample Name: SW-09_0222		Water	ID missing -0222 suffix. Sampled: 02/02/22 13:25	(A2B0202-41)
Analysis	Due	Expires	Comments	
RSK 175 Preserved (Meth, Eth, Eth) (Sub) Containers Supplied: (D)40 mL VOA - HCL (E)40 mL VOA - HCL	02/18/22 17:00	02/16/22 13:25		
Sample Name: SW-109_0222		Water	ID missing -0222 suffix. Sampled: 02/02/22 13:30	(A2B0202-42)
Analysis	Due	Expires	Comments	
RSK 175 Preserved (Meth, Eth, Eth) (Sub) Containers Supplied: (D)40 mL VOA - HCL (E)40 mL VOA - HCL	02/18/22 17:00	02/16/22 13:30		
Sample Name: SW-07_0222		Water	ID missing -0222 suffix. Sampled: 02/02/22 11:00	(4200202 42)
Analysis	Due	Expires	Comments	(A2B0202-43)
RSK 175 Preserved (Meth, Eth, Eth) (Sub) Containers Supplied: (D)40 mL VOA - HCL (E)40 mL VOA - HCL	02/18/22 17:00	02/16/22 11:00		
Ste	indered TA	H		
Hannah Jougne 29/2	indud Th	UPS (Shipper)	30
Released By UPS (Shipper) Released By Date Date	n	Received By Received By	Pate Date Date	1603
		,	·	Page 2 of 4

Apex Laboratories

OB 219 M

A2B0202

N021001a Page 4 of 11

Sample Name: SW-08_0222		Water	ID missing -0222 suffix. Sampled: 02/02/22 12:10	(A2B0202-44)
Analysis	Due	Expires	Comments	
RSK 175 Preserved (Meth, Eth, Eth) (Sub) Containers Supplied: (D)40 mL VOA - HCL (E)40 mL VOA - HCL	02/18/22 17:00	02/16/22 12:10		
Sample Name: SW-10_0222		Water	ID missing -0222 suffix. Sampled: 02/02/22 14:22	(A2B0202-45)
Analysis	Due	Expires	Comments	
RSK 175 Preserved (Meth, Eth, Eth) (Sub) Containers Supplied: (D)40 mL VOA - HCL (E)40 mL VOA - HCL	02/18/22 17:00	02/16/22 14:22		
Sample Name: SW-11_0222		Water	ID missing -0222 suffix. Sampled: 02/02/22 15:15	(A2B0202-46)
Analysis	Due	Expires	Comments	
RSK 175 Preserved (Meth, Eth, Eth) (Sub) Containers Supplied: (D)40 mL VOA - HCL (E)40 mL VOA - HCL	02/18/22 17:00	02/16/22 15:15		
Sample Name: SW-12_0222		Water	ID missing -0222 suffix. Sampled: 02/02/22 16:00	(A2B0202-47)
Analysis	Due	Expires	Comments	
RSK 175 Preserved (Meth, Eth, Eth) (Sub) Containers Supplied: (D)40 mL VOA - HCL (E)40 mL VOA - HCL	02/18/22 17:00	02/16/22 16:00		
Sample Name: SW-13_0222		Water	ID missing -0222 suffix. Sampled: 02/02/22 17:25	(A2B0202-48)
Analysis	Due	Expires	Comments	
RSK 175 Preserved (Meth, Eth, Eth) (Sub) Containers Supplied: (D)40 mL VOA - HCL (E)40 mL VOA - HCL	02/18/22 17:00	02/16/22 17:25		
	Standard	TAT		
H. Schiggs Aprex	<i>3</i> 1.	, - ,		30
Released By Date	122	UPS (Shipper) Date	
UPS (Shipper) Released By Date	8/W	Received By	- 2/18/W Date	1683

Apex Laboratories

N021001a Page 5 of 11

Mb 219HZ A2B0202

Sample Name: SW-14_0222		Water	ID missing -0222 suffix. Sampled: 02/04/22 14:55	(A2B0202-49)
Analysis	Due	Expires	Comments	<u></u>
RSK 175 Preserved (Meth, Eth, Eth) (Sub)	02/18/22 17:00	02/18/22 14:55		
Containers Supplied:				
(D)40 mL VOA - HCL				
(E)40 mL VOA - HCL				

Standard TAT

H-Scrings Aprex

WPS (Shipper)

Released By

UPS (Shipper)

Date

Received By

Received By

Pate

Received By

Pate

Apex Laboratories

Attn:

Philip Nerenberg

Project Name: Project No.:

NA

Date Received:

A2B0202 02/10/22

Matrix: Reporting Units: ug/L

Water

				R	SK175								
Lab No.:	N0	21001-01		I I	N021001-02	2	N0	21001-03		NO	21001-04		
Client Sample I.D.:		-01_0222 B0202-35)			PZ-02_0222 A2B0202-3			-102_0222 B0202-37)			Z-03_0222 B0202-38)	ı	
Date/Time Sampled:	2/4	/22 12:35		2	2/4/22 16:40	0	2/3	/22 16:50	-	2/3	3/22 15:15		
Date/Time Analyzed:	2/1′	7/22 10:56	·	2.	/17/22 11:0	7	2/1	6/22 15:25	-	2/1	6/22 15:37		
QC Batch No.:	2202	217GC8A2	!	22	0217GC8/	12	2202	216GC8A1	1	220	216GC8A	ĺ	
Analyst Initials:		CM			CM			CM			CM		
Dilution Factor:		1.0			1.0			1.0			1.0		
ANALYTE	Result ug/L	RL ug/L	MDL ug/L	Result ug/L	RL ug/L	MDL ug/L	Result ug/L	RL ug/L	MDL ug/L	Result ug/L	RL ug/L	MDL ug/L	
Ethene	0.80 J	1.0	0.050	0.061 J	1.0	0.050	ND	1.0	0.050	ND	1.0	0.050	
Ethane	1.5	1.0	0.057	0.069 J	1.0	0.057	ND	1.0	0.057	ND	1.0	0.057	
Methane	3.1	1.0	0.41	ND	1.0	0.41	ND	1.0	0.41	300	1.0	0.41	

MDL = Method Detection Limit

ND= Not Detected (below MDL)

The cover letter is an integral part of this analytical report

RL = Reporting Limit

 \boldsymbol{J} = Trace amount. Analyte concentration between RL and MDL.

Reviewed/Approved By:

Operations Manager

Apex Laboratories

Attn:

Philip Nerenberg

Project Name: Project No.:

NA

A2B0202 Date Received: 02/10/22

Matrix:

Water

Reporting Units: ug/L

				R	SK175								
Lab No.:	N0	21001-05		1	N021001-0	5	N0	21001-07		N0	21001-08		
Client Sample I.D.:		G-04_0222 B0202-39)		I	PZ-05_0222 A2B0202-40		I	7-09_0222 B0202-41)			-109_0222 B0202-42)		
Date/Time Sampled:	2/3	/22 12:05		2	2/4/22 13:45	5	2/2	/22 13:25		2/2	/22 13:30		
Date/Time Analyzed:	2/10	6/22 15:49		2.	/17/22 11:2	0	2/10	5/22 13:22		2/10	5/22 13:34		
QC Batch No.:	2202	216GC8A1		22	0217GC8A	12	2202	216GC8A1	1	2202	216GC8A1	i	
Analyst Initials:		CM			CM			CM			CM		
Dilution Factor:		1.0			1.0			1.0			1.0		
ANALYTE	Result ug/L	RL ug/L	MDL ug/L	Result ug/L	RL ug/L	MDL ug/L	Result ug/L	RL ug/L	MDL ug/L	Result ug/L	RL ug/L	MDL ug/L	
Ethene	ND	1.0	0.050	0.37 J	1.0	0.050	ND	1.0	0.050	ND	1.0	0.050	
Ethane	ND	1.0	0.057	0.58 J	1.0	0.057	ND	1.0	0.057	ND	1.0	0.057	
Methane	24	1.0	0.41	0.97 J	1.0	0.41	ND	1.0	0.41	ND	1.0	0.41	

MDL = Method Detection Limit

ND= Not Detected (below MDL)

RL = Reporting Limit

J = Trace amount. Analyte concentration between RL and MDL.

Reviewed/Approved By:

Mark Johnson

Operations Manager

Apex Laboratories

Attn:

Philip Nerenberg

Project Name:

NA

Project No.: Date Received:

A2B0202 02/10/22

Matrix: Reporting Units: ug/L

Water

				R	SK175								
Lab No.:	N021001-09			1	N021001-16)	N0	21001-11		N021001-12			
Client Sample I.D.:	SW-07_0222 (A2B0202-43)		SW-08_0222 (A2B0202-44)		SW-10_0222 (A2B0202-45)		SW-11_0222 (A2B0202-46)						
Date/Time Sampled:	2/2/22 11:00		2	2/2/22 12:10)	2/2/22 14:22			2/2/22 15:15				
Date/Time Analyzed:	2/16/22 13:50		2/16/22 14:01 2/16		16/22 14:23		2/16/22 14:47						
QC Batch No.:	220216GC8A1		220216GC8A1 22		2202	16GC8A	Į .	:	22021	16GC8A1			
Analyst Initials:		CM		СМ		CM				CM			
Dilution Factor:		1.0			1.0		1.0			1.0			
ANALYTE	Result ug/L	RL ug/L	MDL ug/L	Result ug/L	RL ug/L	MDL ug/L	Result ug/L	RL ug/L	MDL ug/L	Result ug/L		RL ug/L	MDL ug/L
Ethene	ND	1.0	0.050	ND	1.0	0.050	ND	1.0	0.050	ND		1.0	0.050
Ethane	ND	1.0	0.057	ND	1.0	0.057	ND	1.0	0.057	ND		1.0	0.057
Methane	0.99 J	1.0	0.41	ND	1.0	0.41	0.71 J	1.0	0.41	0.51	J	1.0	0.41

MDL = Method Detection Limit

ND= Not Detected (below MDL)

RL = Reporting Limit

J = Trace amount. Analyte concentration between RL and MDL.

Reviewed/Approved By:

Operations Manager

Apex Laboratories

Attn:

Philip Nerenberg

Project Name:

NA

Project No.: Date Received: A2B0202 02/10/22

Matrix:

Water

Reporting Units: ug/L

				R	SK175						
Lab No.:	N(N021001-13		I	N021001-14	1	N0	N021001-15			
Client Sample I.D.:	SW-12_02	SW-12_0222 (A2B0202-47)		SW-13_0222 (A2B0202-48)		SW-14_0222 (A2B0202-49)		202-49)			
Date/Time Sampled:	2/2	2/2/22 16:00		2	2/2/22 17:25	5	2/4	2/4/22 14:55			
Date/Time Analyzed:	2/1	2/16/22 15:02		2.	2/16/22 15:14 2/1		2/17/22 11:32				
QC Batch No.:	220	220216GC8A1		22	0216GC8A	1	2202	217GC8A	2		
Analyst Initials:		CM		CM			CM		 	-	
Dilution Factor:		1.0		1.0		1.0		i			
ANALYTE	Result ug/L	RL ug/L	MDL ug/L	Result ug/L	RL ug/L	MDL ug/L	Result ug/L	RL ug/L	MDL ug/L		
thene	ND	1.0	0.050	ND	1.0	0.050	ND	1.0	0.050		
thane	ND	1.0	0.057	ND	1.0	0.057	ND	1.0	0.057		
lethane	ND	1.0	0.41	ND	1.0	0.41	1.3	1.0	0.41		

MDL = Method Detection Limit

ND= Not Detected (below MDL)

RL = Reporting Limit

J = Trace amount. Analyte concentration between RL and MDL.

Reviewed/Approved By:

Operations Manager

QC Batch No:

220216GC8A1

Matrix:

Water

Reporting Units:

ug/L

RSK 175 LABORATORY CONTROL SAMPLE SUMMARY

Lab No.:	ME	METHOD BLANK			I	CS	LCSD					
Date/Time Analyzed:	2/	2/16/22 10:10			2/16/2	22 16:43	2/16/22 16:56					
Analyst Initials:		CM			(CM	(CM	1			
Dilution Factor:		1.0				1.0		1.0			Limits	
ANALYTE	Result ug/L	RL ug/L	MDL ug/L	SPIKE AMT. ug/L	Result ug/L	% Rec.	Result ug/L	% Rec.	RPD %	Low %Rec	High %Rec	Max. RPD
Ethene	ND	1.0	0.050	1,150	1,100	96	1,080	94	1.5	70	130	30
Ethane	ND	1.0	0.057	1,200	1,190	97	1,160	95	2.8	70	130	30
Methane	ND	1.0	0.41	650	641	98	624	95	2.7	70	130	30
						<u> </u>	<u> </u>	<u> </u>	<u> </u>			<u></u>

MDL = Method Detection Limit

ND= Not Detected (below MDL)

RL = Reporting Limit

J = Trace amount. Analyte concentration between RL and MDL.

Reviewed/Approved By:

Mark Johnson
Operations Manager

Date 4 28 23

QC Batch No:

220217GC8A2

Matrix:

Water

Reporting Units:

ug/L

RSK 175 LABORATORY CONTROL SAMPLE SUMMARY

Lab No.:	ME	METHOD BLANK			I	CS	LCSD					
Date/Time Analyzed:	2/	2/17/22 10:13			2/17/2	22 10:25	2/17/2	22 10:42	1			
Analyst Initials:		CM			(CM	(CM	1			
Dilution Factor:		1.0				1.0		1.0	1		Limits	
ANALYTE	Result ug/L	RL ug/L	MDL ug/L	SPIKE AMT. ug/L	Result ug/L	% Rec.	Result ug/L	% Rec.	RPD %	Low %Rec	High %Rec	Max. RPD
Ethene	ND	1.0	0.050	1,150	1,360	119	1,160	101	16.1	70	130	30
Ethane	ND	1.0	0.057	1,200	1,340	109	1,260	102	6.0	70	130	30
Methane	ND	1.0	0.41	650	704	108	676	103	4.0	70	130	30

MDL = Method Detection Limit

ND= Not Detected (below MDL)

RL = Reporting Limit

J = Trace amount. Analyte concentration between RL and MDL.

Reviewed/Approved By:

Operations Manager



Level 2 Data Validation Checks Eatonville Report 2109161

Comments:

• U-qualified samples are not included in this report unless the U qualification is for some other reason other than a simple non-detect.

SUMMARY OF QUALITY CONTROL CHECKS

Quality Control Check	Checked By	Comment
Completeness	MBF	Data set is 100 percent complete, no results rejected
Holding times	MBF	Holding times were acceptable.
Preservation	MBF	Preservation was acceptable.
COC Documentation	MBF	COC was included in lab report.
Analytical methods	MBF	Requested analytical methods were used.
Initial and continuing calibrations	MBF	The laboratory case narrative noted the ICV and CCV met the method acceptance criteria.
Method blanks, trip blank, and field blanks	MBF	No trip blank or field blanks were collected or analyzed. The method blank had no detections except for:
		• BDE-47
		• BDE-99
		All detected results associated with the MBK were < RL and were qualified U due to being < 2X the MBK.
Surrogate/labeled compounds	MBF	Labeled standards were analyzed and within control limits.
LCS/LCSD	MBF	An LCS was analyzed, and results were within control limits.
MS/MSD	MBF	Matrix spikes were not performed.
Field duplicates	MBF	Primary Sample: SW06-0921 Duplicate Sample: SW1006-092
		One field duplicate was collected. RPDs were within control limits.
Lab duplicates	MBF	Lab duplicates were not analyzed.
Dilution	MBF	No samples were diluted.
HRGC/HRMS		The lab reported EMPC results as non-detect. EMPC results were updated as detected and qualified as J+.
Overall Assessment		Qualifier codes added to results; table and notes below.

Notes

TABLE 1. SUMMARY OF QUALIFIED DATA

Sample ID	Analyte	Result (pg/L)	Qualifier Assigned	Reason for Qualification
-----------	---------	---------------	-----------------------	--------------------------

SW04-0921	PBDE-100, PBDE-17, PBDE-183/176, PBDE-204, PBDE-207, PBDE-208	1.4, 0.511, 2.57, 2.82, 8 8.39	J	Below reporting limit
SW04-0921	PBDE-119/120, PBDE-139, PBDE-15, PBDE-153, PBDE-28/33	0.984, 0.864, 0.252, 1.26, 1.39	J+	EMPC
SW04-0921	PBDE-47	15.3	U	Below reporting limit, Method blank contamination – Result < 2X MB
SW04-0921	PBDE-99	4.18	U	EMPC, Method blank contamination – Result < MB
SW05-0921	PBDE-100, PBDE-128/154, PBDE-15, PBDE-17, PBDE-197, PBDE-28/33	1.13, 0.32, 0.714, 0.222, 2.21, 1.54	J+	EMPC
SW05-0921	PBDE-47	16.4	U	Below reporting limit, Method blank contamination – Results < 2X MB
SW05-0921	PBDE-99	4.93	U	EMPC, Method blank contamination – Result < MB
SW06-0921	PBDE-100, PBDE-128/154, PBDE-153, PBDE-17	1.31, 2.47, 5.93, 0.337	J	Below reporting limit
SW06-0921	PBDE-119/120, PBDE-138, PBDE-139, PBDE-183/176, PBDE-28/33	0.649, 0.38, 1.65, 2.67, 0.813	J+	EMPC
SW06-0921	PBDE-47, PBDE-99	15.1, 7.23	U	Below reporting limit, Method blank contamination - PBDE-47 > MB, PBDE-99 < MB
SW1006-0921	PBDE-100	0.978	J	Below reporting limit

SW1006-0921	PBDE-153, PBDE-17, PBDE-183/176, PBDE-28/33	1.13, 0.439, 2.17, 1.07	J+	EMPC
SW1006-0921	PBDE-47	15.8	J+	Below reporting limit, Method blank contamination – Result > MB
SW1006-0921	PBDE-99	3.1	U	EMPC, Method blank contamination – Result < MB

Level 2 Data Validation Checks Eatonville Report 2109344

Comments:

• U-qualified samples are not included in this report unless the U qualification is for some other reason other than a simple non-detect.

SUMMARY OF QUALITY CONTROL CHECKS

Quality Control Check	Checked By	Comment			
Completeness	MBF	Data set is 100 percent complete, no results rejected			
Holding times	MBF	Holding times were acceptable.			
Preservation	MBF	Preservation was acceptable.			
COC Documentation	MBF	COC was not included in subcontract lab report, but case narrative stated the samples were received acceptable.			
Analytical methods	MBF	Requested analytical methods were used.			
Initial and continuing calibrations	MBF	The lab didn't report ICV/CCV results outside the control limits except for:			
		• HA-1003-0921 < LCL. Results non-detect (UJ-)			
		o Benzene			
		o Ethylbenzene			
		o M,p-Xylene			
		o O-Xylene			
		o Toluene			
Method blanks, trip blank, and field blanks	MBF	Method blanks were run per batch. There were no detections. Two equipment blanks were collected. There were no detections except for:			
		•EB01-0921			
		o Volatile Petroleum Hydrocarbons, >C10-C12 Aliphatics			
		 Volatile Petroleum Hydrocarbons, >C5- C6 Aliphatics 			
		◆EB02-0921			
		 Volatile Petroleum Hydrocarbons, >C5- C6 Aliphatics 			
		Results that were detected and less than the EB result were qualified non-detect. Results that were > EB result, but less than 5x EB result were qualified J+			
		Detected results qualified non-detect:			
		• Volatile Petroleum Hydrocarbons, >C5-C6 Aliphatics			
		o SW06-0921			
		o SW1006-0921			
Surrogate/labeled compounds	MBF	Surrogates were analyzed and results were within control limits.			
LCS/LCSD	MBF	LCS/LCSD were analyzed, and results were within			

Quality Control Check	Checked By	Comment
		control limits except for:
		• Batch 33794
		Extractable Petroleum Hydrocarbons,>C10-C12 Aliphatics
		Extractable Petroleum Hydrocarbons,>C10-C12 Aromatics
		• Batch 33813
		Extractable Petroleum Hydrocarbons,C10-C12 Aliphatics
		Extractable Petroleum Hydrocarbons,C16-C21 Aliphatics
		Non-detect results were qualified UJ- where the LCS < LCL. When one of the LCS/LCSD was within control limits and the other was not, results were qualified without direction bias (J/UJ).
MS/MSD	MBF	Matrix spikes were performed, and results were within control limits except for:
		DU-01-0921-After Processing
		Extractable Petroleum Hydrocarbons,>C10-C12 Aliphatics
		Extractable Petroleum Hydrocarbons,C10-C12 Aromatics
		Extractable Petroleum Hydrocarbons,C21-C34 Aliphatics
		• DU-01-0921-As Received
		 Volatile Petroleum Hydrocarbons, >C6- C8 Aliphatics
		Non-detect results were qualified UJ- where the MS/MSD < LCL. When one of the MS/MSD was within control limits and the other was not, results were qualified without direction bias (J/UJ).
Field duplicates	MBF	Primary Sample: HA-03-0921
-		Duplicate Sample: HA-1003-0921
		Primary Sample: SW06-0921 Duplicate Sample: SW1006-0921
		Two field duplicate samples were collected. RPDs were within control limits except:
		• HA-03-0921/ HA-1003-0921
		Extractable Petroleum Hydrocarbons,C21-C34 Aliphatics
		 Extractable Petroleum Hydrocarbons, C21-C34 Aromatics
		o Volatile Petroleum Hydrocarbons, >C10-C12 Aliphatics
		o Volatile Petroleum Hydrocarbons, >C12-C13 Aromatics

Quality Control Check	Checked By	Comment				
		 Volatile Petroleum Hydrocarbons, >C6- C8 Aliphatics 				
Lab duplicates	MBF	Lab duplicates were not analyzed.				
Dilution	MBF	No samples were diluted.				

Overall Assessment

Qualifier codes added to results; table and notes below.

Notes

TABLE 1. SUMMARY OF QUALIFIED DATA

Sample ID	Analyte	Result	Qualifier Assigned	Reason for Qualification
DU-01-0921-After Processing	Extractable Petroleum Hydrocarbons, >C10-C12 Aliphatics, Extractable Petroleum Hydrocarbons, >C10-C12 Aromatics	9.04 mg/kg, 9.04 mg/kg	UJ-	LCS < LCL, MS < LCL
DU-01-0921-After Processing	Extractable Petroleum Hydrocarbons, >C21-C34 Aliphatics	17 mg/kg	J	MSD < LCL, MS in Control Limits
DU-01-0921-As Received	Volatile Petroleum Hydrocarbons, >C6-C8 Aliphatics	3.34 mg/kg	J-	MS < LCL
DU-02-0921-After Processing	Extractable Petroleum Hydrocarbons, >C10-C12 Aliphatics, Extractable Petroleum Hydrocarbons, >C10-C12 Aromatics	9.99 mg/kg, 9.99 mg/kg	UJ-	LCS < LCL
EB01-0921, EB02-0921	Extractable Petroleum Hydrocarbons, >C10-C12 Aliphatics,	39.4 ug/L	UJ	LCS < LCL, LCS/LCSD RPD > RPD Limit
EB01-0921, EB02-0921	Extractable Petroleum Hydrocarbons, >C16-C21 Aliphatics	39.4 ug/L	UJ	LCSD < LCL, LCS in control limits
EB01-0921, EB02-0921	Extractable Petroleum Hydrocarbons, >C8-C10 Aliphatics	78.7 ug/L	UJ	LCS/LCSD RPD > RPD Limit

HA-01-0921, HA-02-0921, HA-03-0921	Extractable Petroleum Hydrocarbons, >C10-C12 Aliphatics, Extractable Petroleum Hydrocarbons, >C10-C12 Aromatics	21.3 mg/kg, 21.3 mg/kg	UJ-	LCS < LCL
HA-03-0921	Extractable Petroleum Hydrocarbons, >C21-C34 Aliphatics, Extractable Petroleum Hydrocarbons, >C21-C34 Aromatics, Volatile Petroleum Hydrocarbons, >C10-C12 Aliphatics, Volatile Petroleum Hydrocarbons, >C12-C13 Aromatics, Volatile Petroleum Hydrocarbons, >C12-C13 Aromatics, Aromatics, Volatile Petroleum Hydrocarbons, >C6-C8 Aliphatics	23.2 mg/kg, 107 mg/kg, 2.16 mg/kg, 2.16 mg/kg, 7.97 mg/kg	UJ, J, UJ, UJ, J	FD RPD > RPD Limit
HA-1003-0921	Benzene, Ethylbenzene, m,p-Xylene, o-Xylene, Toluene	4.3 mg/kg, 12.2 mg/kg, 7.17 mg/kg, 3.58 mg/kg, 3.58 mg/kg	UJ-	CCV < LCL
HA-1003-0921	Volatile Petroleum Hydrocarbons, >C10-C12 Aliphatics	16.5 mg/kg	J	FD RPD > RPD Limit
HA-1003-0921	Extractable Petroleum Hydrocarbons, >C21-C34 Aliphatics, Extractable Petroleum Hydrocarbons, >C21-C34 Aromatics, Volatile Petroleum Hydrocarbons, >C12-C13 Aromatics, Volatile Petroleum Hydrocarbons, >C6-C8 Aliphatics	291 mg/kg, 263 mg/kg, 13.3 mg/kg, 72.9 mg/kg	J	FD RPD > RPD Limit
HA-1003-0921	Extractable Petroleum Hydrocarbons, >C10-C12 Aliphatics, Extractable Petroleum Hydrocarbons, >C10-C12 Aromatics	29.6 mg/kg, 29.6 mg/kg	UJ-	LCS < LCL

SB18-9-10-0921	Extractable Petroleum Hydrocarbons, >C10-C12 Aliphatics, Extractable Petroleum Hydrocarbons, >C10-C12 Aromatics	10.8 mg/kg, 10.8 mg/kg	UJ-	LCS < LCL
SW04-0921	Volatile Petroleum Hydrocarbons, >C5-C6 Aliphatics	62.4 ug/L	J+	EB contamination, EB < Sample Result
SW04-0921, SW05-0921, SW06-0921, SW1006-0921	Extractable Petroleum Hydrocarbons, >C10-C12 Aliphatics	39.7 ug/L 39.6 ug/L, 39.8 ug/L	UJ	LCS < LCL, LCS/LCSD RPD > RPD Limit
SW04-0921, SW05-0921, SW06-0921, SW1006-0921	Extractable Petroleum Hydrocarbons, >C16-C21 Aliphatics	39.7 ug/L 39.6 ug/L, 39.8 ug/L	UJ	LCSD < LCL, LCS in control limits
SW04-0921, SW05-0921, SW06-0921	Extractable Petroleum Hydrocarbons, >C8-C10 Aliphatics	79.4 ug/L, 79.3 ug/L, 79.6 ug/L	UJ	LCS/LCSD RPD > RPD Limit
SW05-0921	Volatile Petroleum Hydrocarbons, >C5-C6 Aliphatics	60.5 ug/L	J+	EB contamination, EB < Sample Result
SW06-0921	Volatile Petroleum Hydrocarbons, >C5-C6 Aliphatics	49.5 ug/L	U	EB > Sample Result
SW1006-0921	Volatile Petroleum Hydrocarbons, >C5-C6 Aliphatics	41.9 ug/L	U	EB > Sample Result
SW1006-0921	Extractable Petroleum Hydrocarbons, >C8-C10 Aliphatics	116	J	LCS/LCSD RPD > RPD Limit

Level 2 Data Validation Checks Eatonville Report 2111482

Comments:

• U-qualified samples are not included in this report unless the U qualification is for some other reason other than a simple non-detect.

Quality Control Check	Checked By	Comment
Completeness	MBF	Data set is 100 percent complete, no results rejected
Holding times	MBF	All holding times were within the allowable time period.
Preservation	MBF	Preservation is acceptable.
COC Documentation	MBF	COC was not included with sub-contract work order, but the sample log-in check list was complete.
Analytical methods	MBF	Requested analytical methods were used.
Initial and continuing calibrations	MBF	The calibration verification associated with GW-Trip-Blank-1121 for Naphthalene was recovered low.
Method blanks, trip blank, and field blanks	MBF	A method blank was run per batch for metals. There were no detections.
		An equipment blank and trip blank were analyzed and both were detected for Volatile Petroleum Hydrocarbons, >C8-C10 Aliphatics. All sample results were qualified U as the trip blank result was > all other results.
Surrogate compounds	MBF	1-Chlorooctadecane was recovered low. Associated Aliphatic analytes qualified J-/UJ
LCS/LCSD	MBF	Aliphatic Hydrocarbon (C10-C12) & (C21-C34) LCS recovered low results qualified J-/UJ Aliphatic Hydrocarbon (C12-C16) was recovered low, but a duplicate analysis was performed and recovered within range, samples not qualified.
MS/MSD	MBF	The MS (GW-PZ-03-1121) was below the acceptable limits for EPH C10-C12, C12-C16, C16-C21 for Aromatics and C10-C12, C12-C16, and C21-C34 for Aliphatic. Results qualified J-/UJ
Field duplicates	MBF	FD (GW-Dup-1-1121) and the primary sample (GW-PZ-02-1121) both had all ND results or results qualified non-detect due to trip blank contamination.
Lab duplicates	MBF	Lab duplicates were not run. LCS/LCSD was run instead.
Dilution	MBF	No samples were diluted.
Overall Assessment		Qualifier codes added to results; table and notes below.

Sample ID	Analyte	Result	Qualifier Assigned	Reason for Qualification
GW-Dup-1-1121	Extractable Petroleum Hydrocarbons, >C12-C16 Aliphatics, Extractable Petroleum Hydrocarbons, >C16-C21 Aliphatics, Extractable Petroleum Hydrocarbons, >C8-C10 Aliphatics	9.81, 14.2, 39.5	UJ-	SUR < LCL
GW-Dup-1-1121	Extractable Petroleum Hydrocarbons, >C10-C12 Aliphatics, Extractable Petroleum Hydrocarbons, >C21-C34 Aliphatics	20.6, 22.5	UJ-	SUR < LCL, LCL < LCL
GW-Dup-1-1121	Volatile Petroleum Hydrocarbons, >C8-C10 Aliphatics	12.7	U	Trip blank contamination, Result < TB
GW-Equipment-Blank-1121	Extractable Petroleum Hydrocarbons, >C21-C34 Aromatics, Volatile Petroleum Hydrocarbons, >C5-C6 Aliphatics	27.9, 24.4	J	Below reporting limit
GW-Equipment-Blank-1121	Extractable Petroleum Hydrocarbons, >C10-C12 Aliphatics, Extractable Petroleum Hydrocarbons, >C21-C34 Aliphatics	20.6, 22.6	UJ-	LCS < LCL
GW-Equipment-Blank-1121	Volatile Petroleum Hydrocarbons, >C8-C10 Aliphatics	12.9	U	Trip blank contamination, Result < TB
GW-PZ-01-1121	Extractable Petroleum Hydrocarbons, >C16-C21 Aromatics	17	J	Below reporting limit
GW-PZ-01-1121	Extractable Petroleum Hydrocarbons,	9.84, 14.3, 39.6	UJ-	SUR < LCL

GW-PZ-01-1121	Extractable Petroleum Hydrocarbons, >C10-C12 Aliphatics, Extractable Petroleum Hydrocarbons, >C21-C34 Aliphatics	20.6, 22.6	UJ-	SUR < LCL, LCL < LCL
GW-PZ-01-1121	Volatile Petroleum Hydrocarbons, >C8-C10 Aliphatics	14	U	Trip blank contamination, Result > TB < 2X TB
GW-PZ-02-1121	Extractable Petroleum Hydrocarbons, >C12-C16 Aliphatics, Extractable Petroleum Hydrocarbons, >C16-C21 Aliphatics, Extractable Petroleum Hydrocarbons, >C8-C10 Aliphatics	9.78, 14.2, 39.3	UJ-	SUR < LCL
GW-PZ-02-1121	Extractable Petroleum Hydrocarbons, >C10-C12 Aliphatics, Extractable Petroleum Hydrocarbons, >C21-C34 Aliphatics	20.5, 22.4	UJ-	SUR < LCL, LCL < LCL
GW-PZ-02-1121	Volatile Petroleum Hydrocarbons, >C8-C10 Aliphatics	13.5	U	Trip blank contamination, Result < TB
GW-PZ-03-1121	Extractable Petroleum Hydrocarbons, >C10-C12 Aromatics, Extractable Petroleum Hydrocarbons, >C12-C16 Aromatics, Extractable Petroleum Hydrocarbons, >C16-C21 Aromatics	8.9, 6.98, 168	UJ-, UJ-, J-	MS < LCL
GW-PZ-03-1121	Extractable Petroleum Hydrocarbons, >C16-C21 Aliphatics, Extractable Petroleum Hydrocarbons, >C8-C10 Aliphatics	14.3, 39.6	UJ-	SUR < LCL
GW-PZ-03-1121	Extractable Petroleum Hydrocarbons, >C12-C16 Aliphatics	9.85	UJ-	SUR < LCL, MS < LCL
GW-PZ-03-1121	Extractable Petroleum Hydrocarbons, >C10-C12 Aliphatics, Extractable Petroleum Hydrocarbons, >C21-C34 Aliphatics	20.7, 22.6	UJ-	SUR < LCL, MS < LCL, LCS < LCL

GW-PZ-03-1121	Volatile Petroleum Hydrocarbons, >C8-C10 Aliphatics	12.7	U	Trip blank contamination, Result < TB
GW-PZ-04-1121	Extractable Petroleum Hydrocarbons, >C8-C10 Aromatics	27.4	J	Below reporting limit
GW-PZ-04-1121	Extractable Petroleum Hydrocarbons, >C12-C16 Aliphatics, Extractable Petroleum Hydrocarbons, >C16-C21 Aliphatics, Extractable Petroleum Hydrocarbons, >C8-C10 Aliphatics	9.82, 14.2, 39.5	UJ-	SUR < LCL
GW-PZ-04-1121	Extractable Petroleum Hydrocarbons, >C10-C12 Aliphatics, Extractable Petroleum Hydrocarbons, >C21-C34 Aliphatics	20.6, 22.5	UJ-	SUR < LCL, LCL < LCL
GW-PZ-04-1121	Volatile Petroleum Hydrocarbons, >C8-C10 Aliphatics	12.4	U	Trip blank contamination, Result < TB
GW-Trip-Blank-1121	Volatile Petroleum Hydrocarbons, >C8-C10 Aliphatics	13.9	J	Below reporting limit
GW-Trip-Blank-1121	Naphthalene	19.6	UJ-	ICV < LCL

Level 2 Data Validation Checks Eatonville Report 2202107

Comments:

• U-qualified samples are not included in this report unless the U qualification is for some other reason other than a simple non-detect.

Quality Control Check	Checked By	Comment		
Completeness	MBF	Data set is 100 percent complete, no results rejected		
Holding times	MBF	Holding times were acceptable.		
Preservation	MBF	Preservation was acceptable.		
COC Documentation	MBF	COC was included in lab report. PZ-04-0222 sample dawas 2/3/22 on the COC and 2/4/22 on the sample bott. Lab used the 2/3 sample date. It was also noted the bottl do not have the _0222 suffix and the lab added to the edd/report.		
Analytical methods	MBF	Requested analytical methods were used.		
Initial and continuing calibrations	MBF	The laboratory case narrative noted the ICV and CCV met the method acceptance criteria.		
Method blanks, trip blank, and field	MBF	An equipment blank was not collected.		
blanks		The method blank had no detections except for:		
		• PBDE-47		
		• PBDE-100		
		• PBDE-183/176		
		PZ-01_0222, SW07_0222, SW12_0222, SW13_0222, and SW14_0222 had EMPC or below detection limit results that were qualified U due to method blank contamination.		
Surrogate/labeled compounds	MBF	Labeled standards were analyzed and within control limits except for sample SW14_0222:		
		• 13C-BDE-183		
		PBDE-183/176 EMPC qualified for labeled standard > UCL		
LCS/LCSD	MBF	LCS/LCSD were analyzed, and results were within control limits.		
MS/MSD	MBF	Matrix spikes were not performed.		
Field duplicates	MBF	Primary Sample: PZ-02_0222 Duplicate Sample: PZ-102_0222		
		Primary Sample: SW09_0222 Duplicate Sample: SW109_0222		
		Two field duplicates were collected. RPDs were within control limits except for samples PZ-02_0222 and PZ-102_0222:		
		• PBDE-99		

Quality Control Check	Checked By	Comment
		• PBDE-100
Lab duplicates	MBF	Lab duplicates were not analyzed.
Dilution	MBF	No samples were diluted.
HRGC/HRMS		The lab reported EMPC results as non-detect. EMPC results were updated as detected and qualified as J+.
Overall Assessment	_	Qualifier codes added to results: table and notes below.

Notes

Sample ID	ARY OF QUALIFIED D Analyte	Result (pg/L)	Qualifier Assigned	Reason for Qualification
PZ-01_0222	PBDE-128/154, PBDE-139, PBDE-153, PBDE-197, PBDE-204, PBDE-206, PBDE-28/33, PBDE-99	2.73, 1.6, 4.35, 5.89, 16.7, 44, 1.29, 17.2	J	Below reporting limit
PZ-01_0222	PBDE-207, PBDE-208	33.4, 24.2	J+	EMPC
PZ-01_0222	PBDE-100, PBDE-47	3.9, 22.1	J	Below reporting limit, Method blank contamination – Result > 2x MB
PZ-01_0222	PBDE-183/176	2.1	U	EMPC, Method blank contamination – Result < MB
PZ-02_0222	PBDE-128/154, PBDE-140, PBDE-153, PBDE-17, PBDE-184, PBDE-49, PBDE-66, PBDE-75/51	103, 4.66, 95.1, 1.8, 1.15, 12.7, 11, 4.33	J	Below reporting limit

PZ-02_0222	PBDE-138, PBDE-139, PBDE-155, PBDE-204, PBDE-28/33	11.5, 13.9, 4.64, 41.6, 6.23	J+	EMPC
PZ-02_0222	PBDE-99	1080	J	Field duplicate RPD > RPD Limit
PZ-02_0222	PBDE-85	55.5	J	Below reporting limit
PZ-02_0222	PBDE-183/176	4.34	J+	EMPC, Method blank contamination – Result > MB
PZ-02_0222	PBDE-100	233	J	Field Duplicate RPD > RPD Limit
PZ-03_0222	PBDE-99	10.4	J	Below reporting limit
PZ-03_0222	PBDE-128/154, PBDE-17, PBDE-197, PBDE-204, PBDE-207, PBDE-28/33	1.34, 0.225, 3.52, 10.2, 7.19, 0.696	J+	EMPC
PZ-03_0222	PBDE-100, PBDE-47	2.27, 13.3	J+	Below reporting limit, Method blank contamination – Result < 3x MB
PZ-03_0222	PBDE-183/176	2.49	J+	EMPC, Method blank contamination – Result < 3x MB
PZ-04_0222	PBDE-99	11.9	J	Below reporting limit
PZ-04_0222	PBDE-128/154, PBDE-139, PBDE-153, PBDE-197, PBDE-204, PBDE-207, PBDE-208, PBDE-28/33	1.67, 1.19, 1.69, 5.59, 22.8, 19, 10.4, 1.24	J+	EMPC

PZ-04_0222	PBDE-47	18.5	J	Below reporting limit
PZ-04_0222	PBDE-100, PBDE-183/176	2.3, 2.52	J+	EMPC, Method blank contamination – Result > MB
PZ-05_0222	PBDE-153, PBDE-28/33, PBDE-99	2.83, 0.729, 10.6	J	Below reporting limit
PZ-05_0222	PBDE-139, PBDE-197, PBDE-204	1.27, 4.59, 17	J+	EMPC
PZ-05_0222	PBDE-100, PBDE-183/176	2.62, 2.99	J, J+	Below reporting limit, Method blank contamination – PBDE-100 < 3x MB, PBDE-183/176 < 3X MB
PZ-05_0222	PBDE-47	14.7	J	Below reporting limit
PZ-102_0222	PBDE-153, PBDE-204, PBDE-28/33	2.82, 20.8, 1.3	J	Below reporting limit
PZ-102_0222	PBDE-99	14.7	J	Below reporting limit, Field duplicate RPD > RPD Limit
PZ-102_0222	PBDE-197, PBDE-49	8.91, 0.693	J+	EMPC
PZ-102_0222	PBDE-47	25.3	J	Below reporting limit
PZ-102_0222	PBDE-183/176	3.81	J+	EMPC, Method blank contamination – Result < 3X MB
PZ-102_0222	PBDE-100	2.83	J+	EMPC, Field duplicate RPD > RPD Limit
SW07_0222	PBDE-155 PBDE-17, PBDE-207	0.384, 0.319, 8.14	J	Below reporting limit

SW07_0222	PBDE-128/154, PBDE-139, PBDE-153, PBDE-28/33, PBDE-99	0.632, 0.98, 1.09, 0.531, 4.46	J+	EMPC
SW07_0222	PBDE-47	7.28	J+	Below reporting limit, Method blank contamination – Result > MB
SW07_0222	PBDE-100, PBDE-183/176	0.974, 2.2	J+, U	EMPC, Method blank contamination – PBDE-100 > MB, PBDE-183/176 < MB
SW08_0222	PBDE-99	2.03	J	Below reporting limit
SW08_0222	PBDE-139, PBDE-207, PBDE-28/33, PBDE-77	0.984, 6.25, 0.567, 0.149	J+	ЕМРС
SW08_0222	PBDE-47	7.36	J+	Below reporting limit, Method blank contamination – Result > MB
SW08_0222	PBDE-100	1.18	J+	EMPC, Method blank contamination – Result > MB
SW09_0222	PBDE-139, PBDE-153, PBDE-207, PBDE-28/33, PBDE-99	1.36, 1.92, 6.52, 0.62, 5.52	J+	EMPC
SW09_0222	PBDE-100, PBDE-183/176, PBDE-47	1.41, 2.35, 7.54	J+	Below reporting limit, Method blank contamination – Result > MB
SW10_0222	PBDE-28/33	0.673	J	Below reporting limit
SW10_0222	PBDE-128/154, PBDE-153, PBDE-197, PBDE-204, PBDE-207, PBDE-208, PBDE-99	0.813, 2.07, 1.21, 2.21, 4.36, 3.33, 6.65	J+	EMPC
SW10_0222	PBDE-100, PBDE-47	1.5, 9.3	J+	Below reporting limit, Method blank contamination – Result > MB

SW10_0222	PBDE-183/176	2.72	J+	EMPC, Method blank contamination – Result > MB
SW109_0222	PBDE-153, PBDE-208	1.42, 5.35	J	Below reporting limit
SW109_0222	PBDE-119/120, PBDE-139, PBDE-17, PBDE-197, PBDE-204, PBDE-28/33, PBDE-99	0.796, 1.26, 0.333, 1.13, 1.48, 1.1, 4.69	J+	EMPC
SW109_0222	PBDE-183/176, PBDE-47	2.47, 11.8	J+, J+	Below reporting limit, Method blank contamination – PBDE-183/176 Result > MB, PBDE-47 Result < 3x MB
SW109_0222	PBDE-100	1.27	J+	EMPC, Method blank contamination – Result > MB
SW11_0222	PBDE-207, PBDE-99	8, 7.99	J	Below reporting limit
SW11_0222	PBDE-128/154, PBDE-139, PBDE-153, PBDE-28/33, PBDE-77	1.09, 0.731, 1.27, 0.41, 0.211	J+	EMPC
SW11_0222	PBDE-100, PBDE-47	1.86, 11.9	J+	Below reporting limit, Method blank contamination – Result > MB
SW11_0222	PBDE-183/176	2.81	J+	EMPC, Method blank contamination – Result > MB
SW12_0222	PBDE-99	3.94	J	Below reporting limit
SW12_0222	PBDE-139, PBDE-153, PBDE-190/171, PBDE-28/33	1.07, 1.13, 0.878, 0.455	J+	EMPC
SW12_0222	PBDE-47	6.17	J+	Below reporting limit, Method blank contamination – Result > MB

SW12_0222	PBDE-100, PBDE-183/176	0.985, 1.83	J+, U	EMPC, Method blank contamination – PBDE-100 Result > MB, PBDE-183/176 < MB
SW13_0222	PBDE-139, PBDE-99	0.837, 2.84	J	Below reporting limit
SW13_0222	PBDE-119/120, PBDE-153, PBDE-204, PBDE-28/33, PBDE-49, PBDE-77	0.726, 0.776, 2.53, 0.342, 0.251, 0.158	J+	EMPC
SW13_0222	PBDE-183/176, PBDE-47	2.08, 7.53	U, J+	Below reporting limit, Method blank contamination – PBDE-183/176 Result < MB, PBDE-47 Result > MB
SW13_0222	PBDE-100	0.543	U	EMPC, Method blank contamination – Result < MB
SW14_0222	PBDE-139, PBDE-28/33, PBDE-99	1.89, 0.984, 3.45	J	Below reporting limit
SW14_0222	PBDE-119/120, PBDE-153, PBDE-17, PBDE-207	1.13, 1.17, 0.304, 4.31	J+	EMPC
SW14_0222	PBDE-47	8.13	J+	Below reporting limit, Method blank contamination – Result > MB
SW14_0222	PBDE-100	1	J+	EMPC, Method blank contamination – Result > MB
SW14_0222	PBDE-183/176	1.52	U	EMPC, Method blank contamination – result < MB, Labeled standard > UCL

Level 2 Data Validation Checks Eatonville Report A1A0458

Comments:

• U-qualified samples are not included in this report unless the U qualification is for some other reason other than a simple non-detect.

Quality Control Check	Checked By	Comment
Completeness	MBF	Data set is 100 percent complete, no results rejected
Holding times	MBF	Holding times were acceptable.
Preservation	MBF	Preservation was acceptable.
COC Documentation	MBF	COC was included in lab report. SE01-0121 all containers except 1L ambers read time of 1300, SE02-0121 no date or time on HNO3 ploy bottle. Four trip blanks were received but not listed on the COC.
Analytical methods	MBF	Requested analytical methods were used.
Initial and continuing calibrations	MBF	The lab noted multiple Daily CCV/LCS and CCV values did not meet control limits for QC samples, but since this data is not reviewed during level 2 validation, results were not qualified based on this.
Method blanks, trip blank, and field blanks	MBF	Method blanks were run per batch. There were no detections.
Surrogate/labeled compounds	MBF	Surrogates were analyzed and results were within control limits except for GW01-0121 8270E:
		Nitrobenzene-d5
		2-Fluorobiphenyl
		Both surrogates were in the neutral/base fraction. No sample results were detected, so neutral/base fraction results were qualified UJ
LCS/LCSD	MBF	LCS/LCSD were analyzed, and results were within control limits except for batch 1012821 by 8260D:
		• Chloromethane < LCL
		Results were ND and qualified UJ
		Where LCS/LCSD were analyzed and the RPD > RPD limit. Non-detected results were not qualified since both LCS and LCSD were within their respective control limits.
MS/MSD	MBF	Matrix spikes were performed, and results were within control limits.
Field duplicates	MBF	Primary Sample: SE01-0121 Duplicate Sample: SE101-0121
		One field duplicate sample was collected. RPDs were within control limits except:
		Lead (total)
Lab duplicates	MBF	Lab duplicates were analyzed, and results were within control limits.

Quality Control Check	Checked By	Comment
Dilution	MBF	The following samples were diluted:
		• Method 353.2
		o GW01-0121
		o SE02-0121
		o SW01-0121

Overall Assessment

Qualifier codes added to results; table and notes below.

Notes

Sample ID	Analyte	Result	Qualifier Assigned	Reason for Qualification
GW01-0121	3,3'-Dichlorobenzidine	0.971 ug/L	UJ-	2 Fraction Surrogates < LCL, Reporting limit raised due to known erratic recoveries
GW01-0121	8270E Neutral/Base Fraction	ND	UJ-	2 Fraction Surrogates < LCL
GW01-0121	Chloromethane	5 ug/L	UJ-	LCS < LCL
GW01-0121	Copper (D), Nickel (D), Vanadium (D)	1.58 ug/l, 1.81 ug/l, 1.51 ug/l	J	Below reporting limit
SE01-0121	3,3'-Dichlorobenzidine	0.971 ug/L	UJ	Reporting limit raised due to known erratic recoveries
SE01-0121	Lead (T)	1.55 ug/L	J	Field duplicate RPD > RPD Limit
SE01-0121	Chloromethane	5 ug/L	UJ-	LCS < LCL
SE01-0121	Benzyl alcohol, Cadmium (T), Copper (D)	0.106 ug/l, 0.128 ug/l, 1.65 ug/lg	J	Below reporting limit
SE02-0121	3,3'-Dichlorobenzidine	0.962 ug/L	UJ	Reporting limit raised due to known erratic recoveries

SE02-0121	Chloromethane	5 ug/L	UJ-	LCS < LCL
SE02-0121	Antimony (T), Cadmium (T), Cadmium (D), Cobalt (T), Copper (D), Lead (D), Nickel (T)	0.575, 0.159, 0.103, 0.624, 1.94, 0.182, 1.61 ug/l	J	Below reporting limit
SE101-0121	3,3'-Dichlorobenzidine	0.99 ug/L	UJ	Reporting limit raised due to known erratic recoveries
SE101-0121	Lead (T)	3.27 ug/L	J	Field duplicate RPD > RPD Limit
SE101-0121	Chloromethane	5 ug/L	UJ-	LCS < LCL
SE101-0121	Cadmium (T), Copper (D)	0.128 ug/l, 1.66 ug/l	J	Below reporting limit
SW01-0121	3,3'-Dichlorobenzidine	1.04 ug/L	UJ	Reporting limit raised due to known erratic recoveries
SW01-0121	Chloromethane	5 ug/L	UJ-	LCS < LCL
SW01-0121	Copper (D), Vanadium (D)	1.7 ug/l, 1.91 ug/l	J	Below reporting limit
SW02-0121	3,3'-Dichlorobenzidine	1 ug/L	UJ	Reporting limit raised due to known erratic recoveries
SW02-0121	Chloromethane	5 ug/L	UJ-	LCS < LCL
SW02-0121	Lead (D), Vanadium (T)	0.103 ug/l, 1.03 ug/l	J	Below reporting limit

SW03-0121	3,3'-Dichlorobenzidine	0.962 ug/L	UJ	Reporting limit raised due to known erratic recoveries
SW03-0121	Chloromethane	5 ug/L	UJ-	LCS < LCL
SW03-0121	Vanadium (T), Vanadium (D)	1.02 ug/l, 1.14 ug/l	J	Below reporting limit

Level 2 Data Validation Checks Eatonville Report A1K0754

Comments:

• U-qualified samples are not included in this report unless the U qualification is for some other reason other than a simple non-detect.

SUMMARY OF QUALITY CONTROL CHECKS

Quality Control Check	Checked By	Comment
Completeness	MBF	Data set is 100 percent complete, no results rejected
Holding times	MBF	Holding times were acceptable.
Preservation	MBF	Preservation was acceptable.
COC Documentation	MBF	COC was included in lab report.
Analytical methods	MBF	Requested analytical methods were used.
Initial and continuing calibrations	MBF	Not independently verified during stage 2/a validation.
Method blanks, trip blank, and field blanks	MBF	Method blanks were run per batch. There were no detections.
Surrogate/labeled compounds	MBF	Surrogates were not analyzed or required per the method.
LCS/LCSD	MBF	An LCS analyzed, and results were within control limits.
MS/MSD	MBF	Matrix spikes were not performed on SDG samples and were not used for qualification.
Field duplicates	MBF	Field duplicates were not collected or analyzed.
Lab duplicates	MBF	Lab duplicates were analyzed, and results were within control limits.
Dilution	MBF	The sample was diluted for E6020B analysis.
Overall Assessment	·	No data was qualified.

Notes

Sample ID Anal	yte Result	Qualifier Assigned	Reason for Qualification
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Level 2 Data Validation Checks Eatonville Report A1K0892

Comments:

• U-qualified samples are not included in this report unless the U qualification is for some other reason other than a simple non-detect.

SUMMARY OF QUALITY CONTROL CHECKS

Quality Control Check	Checked By	Comment
Completeness	MBF	Data set is 100 percent complete, no results rejected
Holding times	MBF	All holding times were within the allowable time period.
Preservation	MBF	Preservation is acceptable.
COC Documentation	MBF	COC was included and complete.
Analytical methods	MBF	Requested analytical methods were used.
Initial and continuing calibrations	MBF	See "Surrogate compounds"
Method blanks, trip blank, and field blanks	MBF	A method blank was run per batch with no anomalies.
Surrogate compounds	MBF	2,4,6-Tribromophenol surrogate was recovered within range, but the lab noted the CCV was above the upper control limit and the results are likely biased high. No results were qualified.
LCS/LCSD	MBF	All LCS and LCSD samples were recovered within range and with RPD.
MS/MSD	MBF	All MS were recovered within acceptable range.
Field duplicates	MBF	FD samples had an acceptable RPD.
Lab duplicates	MBF	Lab duplicates were within the acceptable RPD.
Dilution	MBF	No samples were diluted.
Overall Assessment		Oualifier codes added to results: table and notes below.

Overall Assessment Qualifier codes added to results; table and notes below.

TABLE 1. SUMMARY OF QUALIFIED DATA

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Sample ID	Analyte	Result (ug/l)	Qualifier Assigned	Reason for Qualification	
	Copper (D),	1.06,			
GW-Dup-1-1121	Lead (D),	0.135,	J	Below reporting limit	
•	Vanadium (D)	1.42			
	Beryllium (D),	0.113,			
CW P7 01 1101	Chromium (D),	1.25,	т	D 1 2 11 14	
GW-PZ-01-1121	Nickel (D),	1.9,	J	Below reporting limit	
	Zinc (D)	3.92			
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GW-PZ-02-1121	Beryllium (T), Vanadium (D)	0.102, 1.34	J	Below reporting limit
GW-PZ-03-1121	Arsenic (D), Arsenic (T), Cobalt (T), Lead (D) Vanadium (D), Vanadium (T)	0.591, 0.602, 0.541, 0.166, 1.18, 1.12	1	Below reporting limit
GW-PZ-04-1121	Chromium (T), Cobalt (D), Nickel (T)	1.4, 0.81, 1.42	J	Below reporting limit
GW-PZ-05-1121	Arsenic (T), Chromium (T), Cobalt (D), Nickel (D), Vanadium (T)	0.609, 1.07, 0.862, 1.95, 1.98	J	Below reporting limit

Level 2 Data Validation Checks Eatonville Report A110619

Comments:

• U-qualified samples are not included in this report unless the U qualification is for some other reason other than a simple non-detect.

Quality Control Check	Checked By	Comment
Completeness	MBF	Package is complete and no data was rejected.
Holding times	MBF	HA-01-0921, HA-02-0921, HA-03-0921, HA-1003-0921, DU-01-0921As Received, DU-02-0921As Received were all exceeded holding times for VOC analysis and were given a J qualifier. DU-01-0921After Processing and DU-02-0921After Processing both exceeded holding times for Chromium, Hexavalent and Total Organic Carbon and were qualified as estimated. DU-01-0921After Processing and DU-02-0921After Processing were extracted for SVOC analysis after the recommended holding time requirements (greater than 2x the limit). Due to this, the non-detect results were qualified UJ and detected results were given a J qualifier.
Preservation	MBF	Preservation is acceptable. See "blanks" section for trip blank violation.
COC Documentation	MBF	Receipt form noted the bottles received didn't match the listed number of bottles on the COC.
Analytical methods	MBF	Requested analytical methods were used.
Initial and continuing calibrations	MBF	Some QC samples noted issues with ICV/CCVs, but sample results were unaffected by this.
Method blanks, trip blank, and field blanks	MBF	Trip Blank VOA vials had visible headspace. All trip blank results qualified as estimated.
Surrogate compounds	MBF	All surrogates were within acceptable range. Due to dilution, lab noted surrogate recoveries for DU-01-0921After Processing, DU-02-0921After Processing, and SB18-9-10-0921 were reported as estimated. No qualification since results were within limits.
LCS/LCSD	MBF	Batch 1090906 4-nitroaniline LCS was below the lower limit, but the LCSD was above the limit. The LCS/LCSD RPD was within limits, so associated data not qualified. Batch 1091097 Dichlorodifluoromethane LCS was below the LCL. Associated data was qualified as estimated. Non-detect results were not qualified when LCS was greater than the UCL.
MS/MSD	MBF	Batch 1090991 Hexavalent Chromium MS1 and MS2 (Sample HA-01-0921) had % recoveries of 0% and 2%. Significantly below the 75% lower limit. The Post Spike had a recovery of 99%,

Quality Control Check	Checked By	Comment
		indication there was a matrix interference and not an instrumentation capabilities issue. Batch 21K0136 MS1 (DU-01-0921After Processing) was low at 60%, but MS2 was 99%. Only the samples the matrix spike was performed on were qualified.
Field duplicates	MBF	HA-03-0921 and HA-1003-0921 duplicate had an RPD of 54.7% for Zinc which is greater than the 50% limit set in the QAPP. Zinc results for these two samples were qualified due to precision error.
Lab duplicates	MBF	HA-01-0921 Lab duplicate for PCBs (Aroclor 1254) was outside the 30% RPD limit (36%). Results not qualified because results were within 5x the RL. Phenanthrene results for HA-01-0921 had duplicate results which were > ABS(original – duplicate), results given J qualifier. HA-01-0921 results for TOC had a dup RPD > RPD limit. Qualified J.
Dilution	MBF	HA-01-0921, HA-02-0921, HA-03-0921, HA- 1003-0921, and SB18-9-10-0921, DU-01/DU-02 Before/After Processing had dilutions.
Overall Assessment		Qualifier codes added to results; table and notes below.

Sample ID	Analyte	Result	Qualifier Assigned	Reason for Qualification
SB18-9-10-0921	Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1254, Aroclor-1260	ND	UJ	Interference from coeluting organic compounds
HA-03-0921, HA-1003-0921	bis(2-Chloroethyl)ether	ND	J	Interference from coeluting organic compounds
HA-03-0921, HA-1003-0921	Zinc	400 mg/kg, 701 mg/kg	J	Field duplicate RPD was greater than 50%
DU-02-0921As Received, SB18-9-10-0921	Dichlorodifluoromethane	ND	UJ-	LCS < LCL
EB01-0921, EB02-0921, SW04-0921, SW05-0921, SW06-0921,	4-Chloroaniline, 3-Nitroaniline	ND	UJ	LCS/LCSD RPD > RPD Limit

EB01-0921, EB02-0921, SW04-0921, SW05-0921, SW06-0921, SW1006-0921	3,3'-Dichlorobenzidine	ND	UJ	LCS/LCSD RPD > RPD Limit, Erratic QC Recoveries as stated by the lab
HA-01-0921	Phenanthrene	0.397 mg/kg	J	Result was ND in original sample. In the duplicate, the result was greater than the RL, but less than 5x the RL. The duplicate result was > ABS(Original – Duplicate)
HA-01-0921	Total Organic Carbon	150,000 mg/kg	J	Lab Duplicate RPD > RPD Limit
HA-01-0921	Chromium, Hexavalent	ND	UJ	Matrix Spike < Rejection Limit. The post digestion spike was within limits.
HA-01-0921, HA-02-0921, HA-03-0921, HA-1003-0921, SB18-9-10-0921	3,3'-Dichlorobenzidine	ND	UJ	Erratic QC Recoveries as stated by the lab
TB01-0921	All Analytes Method SW8260D	ND	UJ	Trip blank had visible headspace upon arrival to the lab
HA-01-0921	Aroclor-1254	0.0704 mg/kg	NJ	Pattern does not match standard, estimated based on closest matching Aroclor
HA-03-0921, HA-1003-0921	All Results	All Results	J, UJ	Total Solids < 30%. Results qualified as estimated or estimated non-detect.
HA-01-0921, HA-02-0921	All Analytes Method SW8260D	ND	UJ	Holding time exceeded by 1 day
DU-01-0921As Received	All Analytes Method SW8260D	ND	UJ	Holding time exceeded by 2 days
DU-02-0921After Processing	Chromium, Hexavalent	ND	UJ	Holding time exceeded

DU-01-0921After Processing, DU-02-0921After Processing	Total Organic Carbon	11000 mg/kg, 41000 mg/kg	J	Holding time exceeded 2 weeks, but less than 2x holding time limit
DU-01-0921After Processing, DU-02-0921After Processing	All ND Analytes Method SW8270E	ND	UJ	Extracted > 2x holding time limit. Non-detected results qualified estimated due to holding time exceedance
DU-01-0921After Processing,	Benz(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(g,h,i)perylene, Chrysene, Dibenz(a,h)anthracene, Fluoranthene, Indeno(1,2,3-cd)pyrene, Phenanthrene, Pyrene	0.738 mg/kg, 1.05 mg/kg, 1.13 mg/kg, 0.844 mg/kg, 0.944 mg/kg, 0.186 mg/kg, 0.695 mg/kg, 0.693 mg/kg, 0.245 mg/kg, 1.01 mg/kg	J	Extracted > 2x holding time limit. Detected results qualified estimated due to holding time exceedance
DU-02-0921After Processing	Benz(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(g,h,i)perylene, Chrysene, Fluoranthene, Indeno(1,2,3-cd)pyrene, Phenanthrene, Pyrene	0.166 mg/kg, 0.238 mg/kg, 0.238 mg/kg, 0.166 mg/kg, 0.182 mg/kg, 0.215 mg/kg, 0.133 mg/kg, 0.173 mg/kg, 0.321 mg/kg	J	Extracted > 2x holding time limit. Detected results qualified estimated due to holding time exceedance
DU-02-0921After Processing	Percent Solids	97.2	J	Holding time exceeded
HA-01-0921, HA-02-0921, DU-01-0921As Received	Dichlorodifluoromethane	ND	UJ-	Holding time exceeded, LCS < LCL
HA-03-0921, HA-1003-0921	Dichlorodifluoromethane	ND	UJ-	Holding time exceeded, LCS < LCL, Total Solids < 30%

DU-01-0921After Processing	Benzo(k)fluoranthene	0.367	J	Holding time exceeded, peak separation for isomers insufficient
HA-03-0921, HA-1003-0921	All Analytes Method SW8260D	ND	UJ	Holding time exceeded, Total Solids < 30%
DU-01-0921After Processing	Chromium, Hexavalent	ND	UJ	MS < LCL, post digestion spike within limits, holding time exceeded

Level 2 Data Validation Checks Eatonville Report A2B0202

Comments:

• U-qualified samples are not included in this report unless the U qualification is for some other reason other than a simple non-detect.

Quality Control Check	Checked By	Comment
Completeness	MBF	Package is complete and no data was rejected.
Holding times	MBF	PZ-102_0222, PZ-03_0222, PZ-04_0222, SW-09_0222, SW-109_0222, SW-07_0222, SW-08_0222, SW-10_0222, SW-11_0222, SW-11_0222, SW-12_0222, SW-13_0222 were all analyzed past holding times for Nitrate, Nitrite (as N), and Nitrate/Nitrite.
Preservation	MBF	HA-02-Comp-1.0-2.0_0222, HA-102-Comp-1.0-2.0_0222, HA-03-Comp-1.0-2.0_0222, HA-05-Comp-1.0-2.0_0222 were subsampled by the lab and the aliquot was not preserved within 48 hours of original sampling. EB-02 incomplete field preservation, additional preservative was added to adjust pH within range. This was done within the unpreserved holding time, so not qualifier.
COC Documentation	MBF	All IDs were missing the _0222 that was present on COC. COC stated HA-02-Comp-1.0-2.0_0222 @ 1604 and 3 containers, time reads 1610 and 1 container provided. HA-102-Comp-0.5-1.0_0222@ 1610, time reads 1604. HA-102, HA-03, HA-04, HA-05-Comp-1.0-2.0_0222 3 containers on COC, but 1 provided. PZ-04_0222 ID on bottle reads SW-04 & ID on lid reads PZ-04. EB-02 14 containers on COC, but 12 provided.
Analytical methods	MBF	Requested analytical methods were used.
Initial and continuing calibrations	MBF	PZ-01_0222, PZ-02_0222, PZ-102_0222, PZ-03_0222, PZ-04_0222, PZ-05_0222, SW-09_0222, SW-109_0222, SW-07_0222, SW-08_0222, SW-10_0222, SW-11_0222, SW-12_0222, SW-13_0222, SW-14_0222 Acetone ICV was below the lower control limit. Estimated biased low.
Method blanks, trip blank, and field blanks	MBF	Equipment blank EB-02 had results for Nickel, Barium and Chromium, Hexavalent above the RL. No associated sample result detections for Nickel caused qualification. Associated Barium and Chromium, Hexavalent samples detected greater than equipment blank, but less than 3x the contamination were qualified J+. Associated samples detected less than the equipment blank qualified U, but still reported at sample result concentration.
Surrogate compounds	MBF	All surrogates were within acceptable range.
LCS/LCSD	MBF	All LCS were within acceptable range.
MS/MSD	MBF	Chromium, Hexavalent for HA-102-Comp-1.0-2.0_0222, HA-01A-0.0-0.5_0222, HA-02B-0.0-0.5_0222 MS were below the rejection limit, but MS2 were above the

Quality Control Check	Checked By	Comment			
		rejection limit and the post spikes were within range, so results not rejected and qualified UJ. HA-01A-0.0-0.5_0222 Copper MS was greater than the UCL and qualified J+. HA-01A-0.0-0.5_0222 Zinc MS was less than the LCL and qualified J			
Field duplicates	MBF	SW-09_0222 and SW-109_0222 Iron results had an RPD of 86%. The QAPP limits for RPD is set at 50%. These two results were qualified as estimated, J.			
Lab duplicates	MBF	HA-05-Comp-0.0-0.5_0222 Lab Duplicate for Nickel had RPD of 21% while the limit was set at 20%, qualified J. HA-02A-0.0-0.5_0222 Percent Solids had an RPD of 25% while the limit is 10%. Qualified J.			
Dilution	MBF	HA samples were diluted for method SW7196A, SW6020B, and NWTPH-Gx (MS). SW-10_0222 and W-12_0222 were diluted for E300.0 Sulfate analysis.			

Overall Assessment

Qualifier codes added to results; table and notes below.

Notes

Due to volume of results that were qualified for being below the reporting limit (90), results solely qualified for this reason or BRL + TSP (total solids) were not included in Table 1.

Sample ID	OF QUALIFIED DATA Analyte	Result	Qualifier	Reason for Qualification
Sample 1D	Analyte	Result	Assigned	Reason for Quantication
SW-08_0222, SW-13_0222	Barium	2.73 ug/L, 2.39 ug/L	J+	Detected in Equipment Blank. Sample results was greater than the EB result, but was less than 3x the EB result
PZ-05_0222, SW-09_0222, SW-109_0222, SW-07_0222, SW-08_0222, SW-11_0222, SW-13_0222, SW-14_0222	Chromium, Hexavalent	0.12 ug/L, 0.1 ug/L, 0.089 ug/L, 0.1 ug/L, 0.13 ug/L, 0.09 ug/L, 0.12 ug/L, 0.11 ug/L	J+	Detected in Equipment Blank. Sample results was greater than the EB result, but was less than 3x the EB result
SW-10_0222, SW-12_0222	Chromium, Hexavalent	0.027 ug/L, 0.029 ug/L	U	Detected in Equipment Blank. Sample results was less than EB result. Reported to the sample concentration, but qualified U
SW-12_0222	Iron, Beryllium, Cadmium	53.6 ug/L, 0.214 ug/L, 0.349 ug/L	UJ, UJ, J	Reporting limit raised due to limited sample volume
SW-09_0222, SW-109_0222	Iron	301 ug/L, 120 ug/L	J	Field Duplicate RPD of 86% > 50% RPD limit
PZ-102_0222, PZ-03_0222, PZ-04_0222, SW-07_0222, SW-08_0222, SW-09_0222, SW-109_0222, SW-10_0222, SW-11_0222, SW-12_0222, SW-13_0222	Method EPA 300.0, Nitrate, Nitrite, Nitrate/Nitrite	Varying	UJ, J	Holding time exceeded on short hold time requirement. Non-detects qualified UJ. Detects qualified J
PZ-01_0222, PZ-02_0222, PZ-102_0222, PZ-03_0222, PZ-04_0222, PZ-05_0222, SW-07_0222, SW-08_0222, SW-09_0222, SW-10_0222, SW-11_0222,	Acetone	ND	UJ	ICV < LCL

HA-05-Comp-0.0-0.5_0222	Nickel	7.38 mg/kg	J	Lab Duplicate RPD (21%) > RPD Limit (20%), Below reporting limit
HA-02A-0.0-0.5_0222	Percent Solids	27.4%	J	Lab Duplicate RPD (25%) > RPD Limit (10%)
HA-102-Comp-1.0-2.0_0222, HA-01A-0.0-0.5_0222, HA-02B-0.0-0.5_0222	Chromium, Hexavalent	ND	UJ	MS1 < MS Rejection Limit, Post spike within limits
HA-01A-0.0-0.5_0222	Copper, Zinc	86.9 mg/kg, 389 mg/kg	J+, J-	Copper MS > UCL, Zinc MS < LCL
HA-01-Comp-0.5-1.0_0222, HA-03-Comp-0.5-1.0_0222,	Heavy Oil Range Hydrocarbons	269 mg/kg, 324 mg/kg	J+	Individual analyte peaks in the quant range present, results elevated
HA-04-Comp-0.0-0.5_0222	Heavy Oil Range Hydrocarbons	434 mg/kg	J	No Fuel pattern present, results from diesel C12-C24 & Oil C24- C40
HA-04-Comp-0.0-0.5_0222	TPH-Gasoline Range Organics	95 mg/kg	J	No fuel pattern present, presence of individual analyte peaks
EB-01	TPH-Diesel Range Organics	0.499 mg/L	J	Chromatogram does not resemble standard
HA-02-Comp-1.0-2.0_0222, HA-102-Comp-1.0-2.0_0222, HA-03-Comp-1.0-2.0_0222, HA-04-Comp-1.0-2.0_0222, HA-05-Comp-1.0-2.0_0222	TPH-Gasoline Range Organics	ND	UJ	Aliquot taken for analysis was previously sampled and the subsampled aliquot was not preserved within 48 hours.

HA-02-Comp-0.5-1.0_0222, HA-102-Comp-0.5-1.0_0222, HA-102-Comp-1.0-2.0_0222, HA-03-Comp-0.5-1.0_0222, HA-04-Comp-0.0-0.5_0222, HA-05-Comp-0.0-0.5_0222, HA-01B-0.0-0.5_0222, HA-01C-0.0-0.5_0222, HA-01D-0.0-0.5_0222, HA-02A-0.0-0.5_0222, HA-02C-0.0-0.5_0222, HA-02D-0.0-0.5_0222, HA-03B-0.0-0.5_0222, HA-03B-0.0-0.5_0222, HA-03C-0.0-0.5_0222,	All Analytes	< 30 %	J, UJ	Results associated with these samples where the total solids < 30% were qualified J if detected and UJ if non-detect
SW-12_0222	Arsenic, Copper, Nickel	0.864 ug/l, 1.55 ug/l, 1.27 ug/l	J	Reporting limit raised due to limited sample volume, Below reporting limit

Level 2 Data Validation Checks Eatonville Report A2B0895

Comments:

• U-qualified samples are not included in this report unless the U qualification is for some other reason other than a simple non-detect.

SUMMARY OF QUALITY CONTROL CHECKS

Quality Control Check	Checked By	Comment
Completeness	MBF	Data set is 100 percent complete, no results rejected
Holding times	MBF	Holding times for all Solids analysis was exceeded and data qualified.
Preservation	MBF	Preservation is acceptable.
COC Documentation	MBF	COC was included in lab report. It was noted there were jars that broke during transit to lab.
Analytical methods	MBF	Requested analytical methods were used. There were also additional TCLP analysis performed on HA-01D-0.0-0.5_0222, HA-03C-0.0-0.5_0222, and HA-02D-0.0-0.5_0222 that was not on the COC.
Initial and continuing calibrations	MBF	No issues were noted.
Method blanks, trip blank, and field blanks	MBF	A method blank was run per batch. There were no detections.
Surrogate compounds	MBF	No surrogates were analyzed.
LCS/LCSD	MBF	LCS was run per batch. There were no issues.
MS/MSD	MBF	MS was run on per batch. Batch 22C0247 the MS (HA-01A-0.5-1.0_0222) was below the LCL for zinc and lead. Batch 22C0260 the MS (HA-03A-0.5-1.0_0222) was below the LCL for lead.
Field duplicates	MBF	Two field duplicates were run (PZ-102_0222 & SW-109_0222) and results of the duplicates as well as the parent samples were ND.
Lab duplicates	MBF	Batch 22C0247 lab duplicate (HA-01A-0.5-1.0_0222) RPD was greater than the RPD limit for zinc. Batch 22C0260 lab duplicate (HA-03A-0.5-1.0_0222) RPD was greater than the RPD limit for lead.
Dilution	MBF	All samples analyzed for zinc and lead were diluted 10x. LabSampleID A2B0895-41RE1 (HA-01D-0.0-0.5_0222) was diluted 100x for zinc analysis.
Overall Assessment		Qualifier codes added to results; table and notes below.

Notes

TABLE 1. SUMMARY OF QUALIFIED DATA						
Sample ID	Analyte	Result	Qualifier Assigned	Reason for Qualification		
All Samples	Total Solids		J	Holding Time Exceeded		
HA-01A-0.5-1.0_0222	Lead	338 mg/kg	J	MS < LCL		
HA-01A-0.5-1.0_0222	Zinc	663 mg/kg	J	Lab Duplicate > RPD Limit, MS < LCL		
HA-03A-0.5-1.0_0222	Lead	273 mg/kg	J	Lab Duplicate > RPD Limit, MS < LCL		
All Samples	Method SW8000D, Percent Solids	All Results	J	Holding time exceeded		
HA-01B-0.5-1.0_0222, HA-02A-0.5-1.0_0222, HA-02B-0.5-1.0_0222, HA-02C-0.5-1.0_0222, HA-02D-0.5-1.0_0222, HA-02D-1.0-2.0_0222, HA-03D-0.5-1.0_0222, HA-03E-0.5-1.0_0222, HA-03E-0.5-1.0_0222, HA-03E-1.0-2.0_0222, HA-04A-0.0-0.5_0222, HA-04B-0.0-0.5_0222, HA-04C-0.0-0.5_0222, HA-04C-0.0-0.5_0222, HA-04C-0.0-0.5_0222, HA-05C-0.0-0.5_0222, HA-05C-0.0-0.5_0222, HA-05C-0.0-0.5_0222, HA-05C-0.0-0.5_0222, HA-05C-0.0-0.5_0222, HA-05C-0.0-0.5_0222, HA-05C-0.0-0.5_0222, HA-05C-0.0-0.5_0222,	Lead, Zinc	ND, Detect	UJ, J	Total Solids < 30%		
HA-01D-0.0-0.5_0222	Lead	0.0333 mg/l	J	Below reporting limit, Total Solids < 30%		

Level 2 Data Validation Checks Eatonville Report A2H0521

Comments:

• U-qualified samples are not included in this report unless the U qualification is for some other reason other than a simple non-detect.

SUMMARY OF QUALITY CONTROL CHECKS

Quality Control Check	Checked By	Comment
Completeness	MBF	Data set is 100 percent complete, no results rejected
Holding times	MBF	Holding times were acceptable.
Preservation	MBF	Preservation was acceptable.
COC Documentation	MBF	COC was included in lab report.
Analytical methods	MBF	Requested analytical methods were used.
Initial and continuing calibrations	MBF	No issues were noted.
Method blanks, trip blank, and field blanks	MBF	A method blank was run per batch. There were no detections. Prep Batch 22H0772 was flagged for Zinc blank detection. Associated method blank was ND, detection likely in calibration. All QC passed and results were greater than 10x RL. No results qualified. Equipment blank zinc detection not used for qualification due to matrix difference ug/l to mg/kg for soil vs water.
Surrogate compounds	MBF	No surrogates were analyzed.
LCS/LCSD	MBF	LCS was run per batch. There were no issues.
MS/MSD	MBF	MS was run per batch. No issues.
Field duplicates	MBF	Primary Sample: HA-05Ab-0.0-0.5 Duplicate Sample: HA-105Ab-0.0-0.5 Primary Sample: HA-02F-0.0-0.5 Duplicate Sample: HA-102F-0.0-0.5 Field Duplicates were collected and RPDs were within control limits.
Lab duplicates	MBF	Batch 22H0772 lab duplicate > 20% RPD (35%). Duplicate was non-SDG. No results qualified.
Dilution	MBF	All solid samples analyzed for zinc and lead were diluted 10x. Aqueous Equipment Blank (EB-01_0822) was not diluted.
Overall Assessment		Qualifier codes added to results; table and notes below.

Notes

Sample ID	Analyte	Result	Qualifier Assigned	Reason for Qualification
HA-05G-0.0-0.5, HA-05F-0.0-0.5, HA-04Ab-0.0-0.5, HA-07B-0.0-0.5, HA-07C-0.0-0.5, HA-06C-0.0-0.5, HA-06I-0.0-0.5, HA-07I-0.0-0.5, HA-07I-0.0-0.5, HA-07D-0.0-0.5,	Lead, Zinc	15.8 mg/kg, 65.8 mg/kg 31.7 mg/kg, 733 mg/kg 31.0 mg/kg, 30.0 mg/kg 143 mg/kg, 45.5 mg/kg 112 mg/kg, 32.5 mg/kg 214 mg/kg, 60.8 mg/kg 501 mg/kg, 410 mg/kg 47.6 mg/kg, 1990 mg/kg 40.1 mg/kg, 1910 mg/kg 223 mg/kg, 192 mg/kg 38.5 mg/kg, 291 mg/kg 197 mg/kg, 548 mg/kg	J	Percent Solids < 30%
EB-01_0822	Zinc	2.38 ug/l	J	Below reporting limit

Level 2 Data Validation Checks Eatonville Report A2I0312

Comments:

• U-qualified samples are not included in this report unless the U qualification is for some other reason other than a simple non-detect.

SUMMARY OF QUALITY CONTROL CHECKS

Quality Control Check	Checked By	Comment	
Completeness	MBF	Data set is 100 percent complete, no results rejected	
Holding times	MBF	Holding times were acceptable.	
Preservation	MBF	Preservation was acceptable.	
COC Documentation	MBF	COC was included in lab report.	
Analytical methods	MBF	Requested analytical methods were used.	
Initial and continuing calibrations	MBF	No issues were noted.	
Method blanks, trip blank, and field blanks	MBF	A method blank was run per batch. There were no detections.	
Surrogate compounds	MBF	No surrogates were analyzed or required per the method.	
LCS/LCSD	MBF	LCS was run per batch. There were no issues.	
MS/MSD	MBF	MS was run per batch and result were within control limits except for:	
		Total Metals	
		• Barium 71% < 75% LCL	
		• Chromium 67% < 75% LCL	
		• Vanadium 74% < 75% LCL	
		• Zinc 144% > 125% UCL	
		Results qualified J/J- depending on other qualifications (See Table 1).	
Field duplicates	MBF	Field Duplicates were not collected or analyzed.	
Lab duplicates	MBF	Lab duplicates were within control limits except for:	
		Total Metals	
		• Chromium 27% > 20% RPD Limit	
		• Zinc 26% > 20% RPD Limit	
Dilution	MBF	All samples were diluted for each method except for Percent Solids.	
Overall Assessment		Qualifier codes added to results; table and notes below.	

Notes

TABLE 1. SUMMARY OF QUALIFIED DATA

Sample ID	Analyte	Result	Qualifier Assigned	Reason for Qualification
IDW-20220907	Cadmium (T), Mercury (T), Zinc (TCLP)	0.12 mg/kg, 0.0393 mg/kg, 0.437 mg/l	J	Below reporting limit
IDW-20220907	Chromium (T), Zinc (T)	47.3 mg/kg	J	LD RPD 27% > 20% Limit, MS 67% < 75% LCL
IDW-20220907	Zinc (T)	70.2 mg/kg	J	LD RPD 26% > 20% Limit, MS 144% > 125% LCL
IDW-20220907	Barium, Vanadium	91.5 mg/kg, 59 mg/kg	J-	MS 71% < 75% LCL, MS 74% < 75% LCL

Level 2 Data Validation Checks Eatonville Report N021001

Comments:

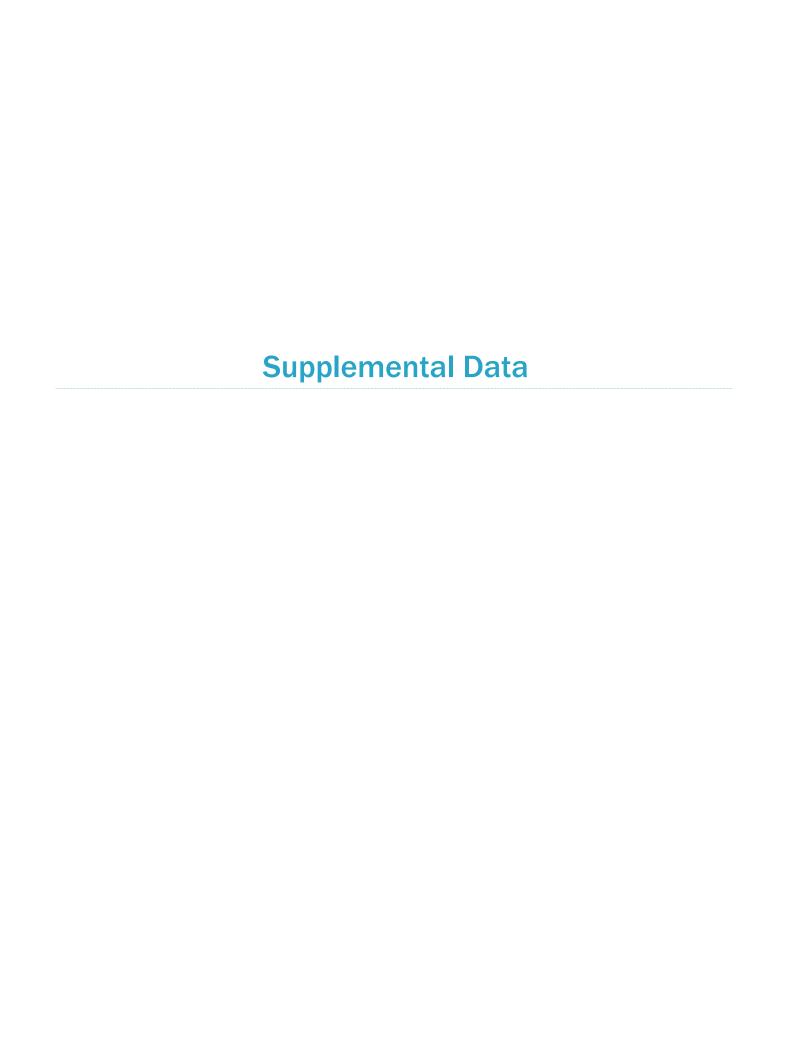
• U-qualified samples are not included in this report unless the U qualification is for some other reason other than a simple non-detect.

SUMMARY OF QUALITY CONTROL CHECKS

Quality Control Check	Checked By	Comment
Completeness	MBF	Data set is 100 percent complete, no results rejected
Holding times	MBF	The holding times for SW-109_1555 (4 min), SW-07- _0222 (170 min), SW-08_0222 (111 min), and SW- 10_0222 (1 min) were exceeded. Results were not qualified due to exceedances lasting minutes and less than one day.
Preservation	MBF	Preservation is acceptable.
COC Documentation	MBF	COC was present with parent lab report, but not included with subcontract lab report. It was specified in the subcontract case narrative that samples were received intact and appropriate temperature. All sample IDs were missing the -0222 suffix written on the COC.
Analytical methods	MBF	Requested analytical methods were used.
Initial and continuing calibrations	MBF	No issues were noted.
Method blanks, trip blank, and field blanks	MBF	A method blank was run per batch. There were no detections.
Surrogate compounds	MBF	No surrogates were analyzed.
LCS/LCSD	MBF	An LCS and LCSD were run per batch. No issues noted.
MS/MSD	MBF	MS/MSD samples were not requested or run.
Field duplicates	MBF	Two field duplicates were run (PZ-102_0222 & SW-109_0222) and results of the duplicates as well as the parent samples were ND.
Lab duplicates	MBF	Lab duplicates were not run. LCS/LCSD was run instead.
Dilution	MBF	No samples were diluted.
Overall Assessment		Qualifier codes added to results; table and notes below.

TABLE 1. SCHWART OF QUALIFIED DATA						
Sample ID	Analyte	Result (ug/l)	Qualifier Assigned	Reason for Qualification		
PZ-01_0222	Ethene	0.80	J	Below reporting limit		
PZ-02_0222	Ethene, Ethane	0.061, 0.069	J	Below reporting limit		

PZ-05_0222	Ethene, Ethane, Methane	0.37, 0.58, 0.97	J	Below reporting limit
SW-07_0222	Methane	0.99	J	Below reporting limit
SW-10_0222	Methane	0.71	J	Below reporting limit
SW-11_0222	Methane	0.51	J	Below reporting limit



	A B C	D E	F	G H I J K	L
1		Normal Backgrour	nd Statistics	for Uncensored Full Data Sets	
2	Heart Calcated Outland	T			
3	User Selected Options Date/Time of Computation	ProUCL 5.2 5/1/2023 2:3	9.27 DM		
4	From File	USGS_Top5_MF.xls	0.27 FIVI		
5	Full Precision	OFF			
6	Confidence Coefficient	90%			
7	Coverage	90%			
8 9	New or Future K Observations	1			
10					
11	Top5_Ba				
12	. –				
13	General Statistics				
14	Total	Number of Observations	25	Number of Distinct Observations	25
15		Minimum	247	First Quartile	335
16		Second Largest	651	Median	499
17		Maximum	1080	Third Quartile	563
18		Mean	470	SD	182.4
19		Coefficient of Variation	0.388	Skewness	1.466
20		Mean of logged Data	6.088	SD of logged Data	0.362
21					
22			or Backgrou	nd Threshold Values (BTVs)	
23	Tolei	rance Factor K (For UTL)	1.702	d2max (for USL)	2.486
24					
25			Normal C		
26		hapiro Wilk Test Statistic	0.869	Shapiro Wilk GOF Test	
27	1% SI	hapiro Wilk Critical Value	0.886	Data Not Normal at 1% Significance Level	
28	1	Lilliefors Test Statistic % Lilliefors Critical Value	0.12 0.201	Lilliefors GOF Test	
29	I			Data appear Normal at 1% Significance Level rmal at 1% Significance Level	
30		Бака арреат Аррі	IOXIIIIale NO	inia at 176 Significance Level	
31		Background S	tatistics Ass	uming Normal Distribution	
32	90% l	JTL with 90% Coverage	780.4	90% Percentile (z)	703.7
34		90% UPL (t)	715.1	95% Percentile (z)	769.9
35		90% USL	923.4	99% Percentile (z)	894.2
36					
37	Note: The use of USL t	ends to yield a conservati	ve estimate	of BTV, especially when the sample size starts exceeding 20.	
38	Therefore, one may us	e USL to estimate a BTV	only when th	ne data set represents a background data set free of outliers	
39		and consists of observa	tions collect	ed from clean unimpacted locations.	
40				false positives and false negatives provided the data	
41	represents a ba	ackground data set and wl	hen many on	site observations need to be compared with the BTV.	
42					
43	Top5_Co				
44					
45	General Statistics	N 1 (2)			
46	Total	Number of Observations	25	Number of Distinct Observations	25
47		Minimum	4.8	First Quartile	12
48		Second Largest	28.6	Median Third Quartile	16.3
49		Maximum	33.1 17.26	Third Quartile SD	7.01
50		Mean Coefficient of Variation	0.406	Skewness	0.58
51		Mean of logged Data	2.764	SD of logged Data	0.58
52		ivican or logged Data	2.704	oi loyged Data	0.433
53					

	Α	В	С			E al Values :	F for Backgrou	G nd Threshol	d Values	(BTVs)	I	J	J	K	L	L
54			Tole	erance F		(For UTL)			u (u.ucc	(2.10)			d2m	ax (for US		2.486
55					4010111	(1 01 0 1 2)	1.702						uziii	ux (101 00	_/	
56							Normal (GOF Test								
57			Ş	Shaniro	Wilk Te	st Statistic				Shar	niro Wi	ilk GOF	Test			
58				-		tical Value			Data a					ance Level		
59						st Statistic				• •		GOF T				
60			1			tical Value			Data a					ance Level		
61			•	170 211110				t 1% Significa		• •	Jimai a	, , , ,	9	21100 2010		
62 63																
64					Bac	karound S	Statistics Ass	suming Norm	nal Distrib	oution						
65			90%	UTL wit		Coverage						(90% P	ercentile (z)	26.24
)% UPL (t)								ercentile (1	28.79
66 67						90% USL	34.68							ercentile (33.56
68																
69		Note: The	use of USL	tends to	o vield a	conservat	ive estimate	of BTV, espe	ecially wh	en the sa	ample s	size sta	rts exc	ceedina 20		
								ne data set re	,		•					
70 71			- ,					ed from clear	-							
		TI	he use of US					false positive				ovided	the da	ata		
72 73								nsite observa								
73 74											•					
74 75	Top5_V															
76																
	General Sta	atistics														
78			Total	al Numbe	er of Ob	servations	25			1	Numbe	r of Dis	tinct C	bservation	าร	24
79						Minimum	70						F	irst Quarti	le	91
80					Secor	nd Largest	265							Media	an	113
81						Maximum	372						Т	hird Quarti	le	147
82						Mean	133.8							S	D	70.58
83				Coef	fficient o	f Variation	0.528							Skewnes	SS	2.015
84				Me	ean of lo	gged Data	4.797					;	SD of	logged Da	ta	0.429
85																
86					Critica	al Values	for Backgrou	nd Threshole	d Values	(BTVs)						
87	 		Tole	erance F	actor K	(For UTL)	1.702						d2m	ax (for US	L)	2.486
88																
89							Normal (GOF Test								
90			5	Shapiro	Wilk Te	st Statistic	0.784			Sha	piro Wi	ilk GOF	Test			
91			1% S	Shapiro \	Wilk Crit	tical Value	0.886		Data	Not Nor	mal at ²	1% Sigi	nifican	ice Level		
92				Lillie	efors Te	st Statistic	0.201			Lil	lliefors	GOF T	est			
93			1	1% Lillie	fors Crit	tical Value	0.201		Data a	ppear No	ormal a	t 1% Si	gnifica	ance Level		
94					Data a	ppear App	roximate No	rmal at 1% S	Significan	ce Leve						
95																
96					Bac	kground S	Statistics Ass	suming Norm	nal Distrib	oution						
97			90%	UTL wit		Coverage								ercentile (224.3
98)% UPL (t)								ercentile (249.9
99						90% USL	309.3					9	99 <u>%</u> P	ercentile (z)	298
100																
101								of BTV, espe								
102		Therefore	, one may us					ne data set re				data set	t free	of outliers		
103								ed from clear								
104					•			false positive		•						
105		rep	presents a b	oackgrou	und data	set and w	hen many or	nsite observa	itions nee	ed to be c	ompare	ed with	the B	TV.		
106																

	A B	С	D E	F		G	Н		J	K	L
1			Background Statistic	s for Data	Sets v	with Non-Dete	ects				
2	User Select										
3	Date/Time of Co	•	ProUCL 5.2 5/1/2023		М						
4		From File	USGS_Top5_MF.xls	1							
5		Precision	OFF								
6	Confidence C		90%								
7		Coverage	90%								
8	Different or Future K Obs		2000								
9	Number of Bootstrap C	регацопѕ	2000								
10	Top5_Se										
11	Торо_Зе										
12				Ger	neral S	Statistics					
13		Total	Number of Observati					Numbe	r of Missina (Observations	0
14			of Distinct Observati					Trambo	- or micening v		
15			Number of Dete						Number of	Non-Detects	15
16		Νι	umber of Distinct Dete					Numbe		Non-Detects	1
17			Minimum De		<u>, </u>					n Non-Detect	
18			Maximum De							n Non-Detect	
19			Variance Detec							Non-Detects	60%
20			Mean Detec							SD Detected	0.25
21 22		Mean	of Detected Logged D					SD		Logged Data	0.562
23											
24			Critical Valu	es for Back	kgrour	nd Threshold	Values (B	BTVs)			
25		Tolei	rance Factor K (For U		_				d2n	nax (for USL)	2.486
26											
27			N	lormal GOF	F Test	t on Detects C	Only				
28		S	hapiro Wilk Test Stati	stic 0.84	348			Shapiro W	ilk GOF Tes	t	
29		1% SI	hapiro Wilk Critical Va	alue 0.78	′81	Dete	ected Data	a appear Nor	mal at 1% Si	gnificance Le	vel
30			Lilliefors Test Stati	stic 0.2	48			Lilliefors	GOF Test		
31		1'	% Lilliefors Critical Va	alue 0.30	04	Dete	ected Data	a appear Nor	mal at 1% Signal	gnificance Le	vel
32			Detected D	ata appear	Norm	nal at 1% Sign	nificance L	_evel			
33											
34			Kaplan Meier (KM)	Background	d Stati	istics Assumi	ng Norma	l Distribution	1		
35			KM M	ean 0.29	92					KM SD	0.187
36			90% UTL90% Cover	•						% KM UPL (t)	
37			90% KM Percentile	` '						Percentile (z)	0.6
38			99% KM Percentile	e (z) 0.72	28					90% KM USL	0.758
39											
40			DL/2 Substitution B			stics Assumin	ng Normal	Distribution			
41				ean 0.23						SD	0.225
42			90% UTL90% Cover	ŭ						90% UPL (t)	0.534
43			90% Percentile	` '					95% I	Percentile (z)	0.602
44		D1 /0 :	99% Percentile	` '		uda de-		and 1-1-2 1		90% USL	0.791
45		DL/2 is r	not a recommended r	netnod. DL/	ı∠ pro	vided for com	iparisons a	and historica	ıı reasons		
46			0	OF T	or Da	tootod Obses	votion - O	nlv			
47	_					tected Obser			rling COL T	oot .	
48			A-D Test Stati			Dotostad		Anderson-Da			oo Lovel
49			5% A-D Critical Va			Detected		Kolmogorov		5% Significan	ce Level
50			5% K-S Critical Va			Detected		-		5% Significan	re Level
51			Detected data ap						istributed at	o /o Olymincan	CG LGVGI
52			Dotootou data ap								
53											

	Α	В	С		D	E	F	G	Н		J	K	L
54								Detected Da	ata Only				
55						k hat (MLE)					k star (bias cor	*	2.595
56						ta hat (MLE)				Theta	a star (bias cor	- 1	0.166
57						nu hat (MLE)					nu star (bia	s corrected)	51.9
58					•	s corrected)				000/ D	(0):	(0)	0.507
59				MILE	Sd (bia	s corrected)	0.267			90% Perce	entile of Chisqu	uare (2kstar)	9.507
60						commo BOS	Statistics u	sing Imputed	Non Dotos	nto.			
61			GROS m	av not h				• •			at multiple DLs		
62		GROS may		•					•		size is small (e	a <15-20)	
63								yield incorrec				J.g., 110 20)	
64			•					n the sample					
65 66		For gar	nma distrib	buted de			-	· · · · · · · · · · · · · · · · · · ·			oution on KM e	stimates	
67						Minimum						Mean	0.182
68						Maximum	0.9					Median	0.01
69						SD	0.258					CV	1.419
70						k hat (MLE)	0.483			ŀ	k star (bias cor	rected MLE)	0.452
71					The	ta hat (MLE)	0.376			Theta	a star (bias cor	rected MLE)	0.402
72					r	nu hat (MLE)	24.17				nu star (bia	s corrected)	22.6
73				MLE Me	ean (bia	s corrected)	0.182				MLE Sd (bia	s corrected)	0.27
74			90% Perc	entile of	Chisqu	uare (2kstar)	2.496				909	% Percentile	0.501
75						% Percentile						6 Percentile	1.273
76			The				-	g Gamma RC					
77				Upper	Limits	_		H) and Hawki	ins Wixley	(HW) Meth	ods		
78						WH	HW					WH	HW
79	90% App	orox. Gamma				0.695	0.735		9	0% Approx	. Gamma UPL	0.495	0.498
80			90%	% Gamm	na USL	1.309	1.539						
81							D		I/M Fations				
82					ES	Mean (KM)		meters using	KM Estima	ates		SD (KM)	0.187
83					\/s	riance (KM)					SE o	f Mean (KM)	0.187
84					VC	k hat (KM)					3L 0	k star (KM)	2.162
85						nu hat (KM)						nu star (KM)	108.1
86						eta hat (KM)						eta star (KM)	0.135
87 88			8			centile (KM)				90)% gamma per	, ,	0.558
89				•		centile (KM)					9% gamma per	, ,	0.937
90					•	. ,	<u>I</u>	<u>l</u>			<u> </u>	. ,	
91			TI	he follov	wing sta	atistics are c	omputed usi	ng gamma di	istribution a	and KM esti	imates		
92				Upper	Limits	using Wilso	n Hilferty (W	H) and Hawki	ins Wixley	(HW) Meth	ods		
93						WH	HW					WH	HW
94	90% App	rox. Gamma	UTL with 9	90% Co	verage	0.574	0.569		9	0% Approx	. Gamma UPL	0.496	0.49
95		90	% KM Gan	nma Per	rcentile	0.483	0.477			90%	Gamma USL	0.772	0.776
96												·	
97								etected Obse	ervations O				
98						est Statistic				•	Vilk GOF Test		
99			10%			critical Value		Detec	cted Data a		ormal at 10% S	Significance L	evel
100						est Statistic					s GOF Test		
101			·	10% Lilli		Critical Value					ormal at 10% S	Significance L	evel
102					Detec	ted Data ap	pear Lognor	mal at 10% S	Significance	Level			
103													

	Α		В		С		D		E	F	G		Н	I		J		K		L
104				Back	ground					s Assuming	Lognorma	al Disti	ribution (Using Ir	nputed					
105						N	lean in C											Log Sca		-2.07
106							SD in C	_		0.237								Log Sca		1.093
107							% UTL90		-						90% E	BCA UT		Covera	_	0.7
108				90%	Bootstr	rap (%	b) UTL90											% UPL	` ′	0.548
109								Percent	. ,	0.512						95		centile		0.762
110							99% I	Percent	tile (z)	1.604							!	90% U	SL	1.91
111																				
112					Stat		_			on Logged	Data and	Assun								
113						KM	Mean of	Logged	d Data	-1.361			90	% KM U	TL (Lo	gnorma	I)90% (Covera	ge	0.555
114							M SD of			0.454							•	ognorm	1	0.472
115					90% KI	M Per	centile L	ognorn	nal (z)	0.459					90	% KM L	JSL (Lo	ognorm	al)	0.792
116																				
117							Back	ground	DL/2	Statistics As	suming L	ognor	mal Dist	ribution						
118						N	lean in C)riginal	Scale	0.232						Me	ean in L	Log Sca	ale	-1.777
119							SD in C	riginal	Scale	0.225							SD in L	Log Sca	ale	0.741
120						909	% UTL90)% Cov	erage	0.597							909	% UPL	(t)	0.458
121							90% I	Percent	tile (z)	0.437						95	% Per	centile	(z)	0.573
122							99% I	Percent	tile (z)	0.949								90% U	SL	1.069
123				I	DL/2 is	not a	Recom	mende	d Meth	nod. DL/2 pr	ovided for	r comp	arisons	and his	torical	reason	s.			
124																				
125							No	onpara	metric	Distribution	Free Bac	ckgrou	nd Statis	stics						
126								Data	appea	ar to follow a	Discernil	ble Dis	stribution	1						
127																				
128				I	Nonpar	ramet	ric Uppe	r Limit	s for B	TVs(no dist	inction ma	ade be	tween d	etects a	nd nor	detects	s)			
129							Order	of Stat	istic, r	24					90%	UTL wit	:h90% (Covera	ge	0.9
130				Appro	x, f use	ed to c	ompute	achievo	ed CC	1.333	Approxi	imate /	Actual Co	onfidenc	e Coef	ficient a	achieve	d by U	TL	0.729
131	Approxi	mate	Samp	ole Siz	e need	ed to	achieve	specific	ed CC	22							!	90% UI	PL	0.7
132								90%	% USL	0.9		-			90)% KM	Chebys	shev Ul	PL	0.865
133												-								
134		No	te: Th	ne use	of USL	_ tend	s to yield	d a con	servati	ive estimate	of BTV, e	specia	Illy when	the san	nple siz	e starts	excee	ding 20	٥.	
135		Th	nerefo	re, on	ie may ι	use U	SL to es	timate	a BTV	only when the	ne data se	et repre	esents a	backgro	ound da	ita set	free of	outliers	;	
136						а	nd consi	sts of o	bserva	ations collect	ted from c	lean u	nimpacte	ed locati	ons.					
137				The u	ise of U	JSL te	nds to p	rovide a	a balar	nce between	false pos	itives	and false	negativ	es pro	vided th	ne data			
138				repres	sents a	backo	round d	ata set	and w	hen many or	nsite obse	rvation	ns need t	to be co	mpared	d with th	ne BTV			
139																				
100																				

	Α	В	С	D E	F	G H	I	J	K	L
1				Background Statistics for	r Uncensore	ed Full Data Sets				
2			cted Options							
3	Dat	te/Time of Co	•	ProUCL 5.2 5/1/2023 3:2						
4			From File	C:\Users\bjohnson\Desk	top\Eatonville	e ProUCL\USGS_Top5_I	MF.xlsx			
5			II Precision	OFF						
6		Confidence		90%						
7				90%						
8		Future K Ob		1						
9	Number o	of Bootstrap	Operations	2000						
10										
11	Top5_TI									
12										
13	General Sta	atistics							T	
14			Total	Number of Observations	25		Numbe		Observations	4
15				Minimum	0.1				First Quartile	0.2
16				Second Largest	0.4				Median	0.2
17				Maximum	0.4				Third Quartile	0.3
18				Mean	0.236				SD	0.081
19				Coefficient of Variation	0.343				Skewness	0.239
20				Mean of logged Data	-1.507			SD o	f logged Data	0.38
21										
22						nd Threshold Values (B1	ΓVs)			
23			Tolei	rance Factor K (For UTL)	1.702			d2r	nax (for USL)	2.486
24										
25				_	Normal C	GOF Test				
26				hapiro Wilk Test Statistic	0.865		=	ilk GOF Tes		
27			1% SI	napiro Wilk Critical Value	0.886	Data No		1% Significa	nce Level	
28				Lilliefors Test Statistic	0.272			GOF Test		
29			1'	% Lilliefors Critical Value	0.201		t Normal at	1% Significa	nce Level	
30				Data Not	Normal at 1	% Significance Level				
31										
32			000/ 1	<u>*</u>		uming Normal Distribution	on	000/	D .:: ()	0.04
33			90% L	JTL with 90% Coverage	0.374				Percentile (z)	0.34
34				90% UPL (t) 90% USL	0.345				Percentile (z)	0.369
35				90% USL	0.437			99%	Percentile (z)	0.425
36					Gamma (POE Tost				
37				A-D Test Statistic	1.727		eon-Dorlin	Gamma GC	Test	
38				5% A-D Critical Value	0.746	Data Not Gam				ol .
39				K-S Test Statistic	0.746			ov Gamma (<u>C1</u>
40				5% K-S Critical Value	0.248	Data Not Gam				ما
41						ed at 5% Significance Le		ieu ai 5 % 31(grinicatice Lev	<u>C1</u>
42				Data NUL Gallii	na visuibule	at 5 /6 Signinicance Le	¥ GI			
43					Gamma	Statistics				
44				k hat (MLE)	8.038	o.uuouoo	ŀ	star (hias co	rrected MLE)	7.1
45				Theta hat (MLE)	0.0294			•	rrected MLE)	0.0332
46				nu hat (MLE)	401.9		incia	•	as corrected)	355
47			ŊΛΙ	E Mean (bias corrected)	0.236				as corrected)	0.0886
48			IVIL	LE Micari (bias confected)	0.230			WILL OU (DI	as conecteu)	0.0000
49										

	A B C D E	F	G H I J K	L
50	-		uming Gamma Distribution	
51	90% Wilson Hilferty (WH) Approx. Gamma UPL	0.357	90% Percentile	0.354
52	90% Hawkins Wixley (HW) Approx. Gamma UPL	0.359	95% Percentile	0.398
53	90% WH Approx. Gamma UTL with 90% Coverage		99% Percentile	0.489
54	90% HW Approx. Gamma UTL with 90% Coverage	0.403		
55	90% WH USL	0.5	90% HW USL	0.514
56				
57			GOF Test	
58	Shapiro Wilk Test Statistic	0.834	Shapiro Wilk Lognormal GOF Test	
59	10% Shapiro Wilk Critical Value	0.931	Data Not Lognormal at 10% Significance Level	
60	Lilliefors Test Statistic	0.274	Lilliefors Lognormal GOF Test	
61	10% Lilliefors Critical Value	0.159	Data Not Lognormal at 10% Significance Level	
62	Data Not Le	ognormal at	10% Significance Level	
63				
64	Background Sta	atistics assu	ming Lognormal Distribution	
65	90% UTL with 90% Coverage	0.423	90% Percentile (z)	0.36
66	90% UPL (t)	0.369	95% Percentile (z)	0.413
67	90% USL	0.569	99% Percentile (z)	0.536
68		u.		
69	Nonparametric	Distribution	Free Background Statistics	
70	Data do n	ot follow a D	scernible Distribution	
71				
72	Nonparametric Upp	per Limits for	r Background Threshold Values	
73	Order of Statistic, order	25	90% UTL with 90% Coverage	0.4
74	Approx, f used to compute achieved CC	1.333	Approximate Actual Confidence Coefficient achieved by UTL	0.729
75			Approximate Sample Size needed to achieve specified CC	22
76	90% Percentile Bootstrap UTL with 90% Coverage	0.4	90% BCA Bootstrap UTL with 90% Coverage	0.2
77	90% UPL	0.34	90% Percentile	0.3
78	90% Chebyshev UPL	0.484	95% Percentile	0.38
79	95% Chebyshev UPL	0.596	99% Percentile	0.4
80	90% USL	0.4		
81		Ti-		
82	Note: The use of USL tends to yield a conservati	ive estimate	of BTV, especially when the sample size starts exceeding 20.	
83	Therefore, one may use USL to estimate a BTV	only when th	ne data set represents a background data set free of outliers	
84	and consists of observa	ations collect	ed from clean unimpacted locations.	
85	The use of USL tends to provide a balar	nce between	false positives and false negatives provided the data	
86	represents a background data set and w	hen many on	site observations need to be compared with the BTV.	
87				

	A B (С	D	E	F	G H I J K	L
1				UCL Statis	tics for Unc	ensored Full Data Sets	
3	User Selected O	ntions					
4	Date/Time of Computa	•		2 5/9/2023 10:	00:35 AM		
5	From			mpleteProUC			
6	Full Preci	ision	OFF				
7	Confidence Coeffic		95%				
8	Number of Bootstrap Operat	ions	2000				
9							
10 11	Barium						
12	Danum						
13					General	Statistics	
14		Total	Number of C	Observations	25	Number of Distinct Observations	25
15						Number of Missing Observations	65
16				Minimum	40	Mean	71.78
17				Maximum	116	Median	65.3
18			0 #: - :	SD	23.22	Std. Error of Mean	4.643
19 20			Coerricien	t of Variation	0.323	Skewness	0.546
21					Normal (GOF Test	
22		S	hapiro Wilk	Test Statistic	0.907	Shapiro Wilk GOF Test	
23				Critical Value	0.886	Data appear Normal at 1% Significance Level	
24				Test Statistic	0.205	Lilliefors GOF Test	
25		1		Critical Value	0.201	Data Not Normal at 1% Significance Level	
26			Data	appear App	roximate No	rmal at 1% Significance Level	
27				A -	oumina Na	nol Distribution	
28 29	0	5% N/	ormal UCL	As	suming Norr	nal Distribution 95% UCLs (Adjusted for Skewness)	
30	3:	376 INC		dent's-t UCL	79.72	95% OCLS (Adjusted for Skewness) 95% Adjusted-CLT UCL (Chen-1995)	79.96
31			3070 014	donto t dol	70.72	95% Modified-t UCL (Johnson-1978)	79.81
32							
33					Gamma (GOF Test	
34				Test Statistic	0.678	Anderson-Darling Gamma GOF Test	
35				Critical Value	0.745	Detected data appear Gamma Distributed at 5% Significance	e Level
36				Test Statistic Critical Value	0.167 0.174	Kolmogorov-Smirnov Gamma GOF Test	o Lovel
37 38						Detected data appear Gamma Distributed at 5% Significance stributed at 5% Significance Level	e Levei
39			Dolooloo	a data appear	Gaillina Di	Subdict at 0 % Olymnounce Ecver	
40					Gamma	Statistics	
41				k hat (MLE)	10.35	k star (bias corrected MLE)	9.137
42				ta hat (MLE)	6.933	Theta star (bias corrected MLE)	7.856
43				nu hat (MLE)	517.6	nu star (bias corrected)	456.9
44		MI	LE Mean (bia	as corrected)	71.78	MLE Sd (bias corrected) Approximate Chi Square Value (0.05)	23.75 408.3
45 46		Δdius	ted Level of	Significance	0.0395	Approximate Chi Square Value (0.05) Adjusted Chi Square Value	405.2
47		, agus		-ig.illicarice	0.0000	/ Myddicu Offi Oqualo Value	100.2
48				Ass	suming Gam	ma Distribution	
49	(95% A	pproximate (80.32	95% Adjusted Gamma UCL	80.94
50							
51		_	h :	F 0: :: · ·		GOF Test	
52 53	-			Test Statistic Critical Value	0.941 0.931	Shapiro Wilk Lognormal GOF Test Data appear Lognormal at 10% Significance Level	
53		10%5	•	Test Statistic	0.931	Lilliefors Lognormal GOF Test	
55		10		Critical Value	0.148	Data appear Lognormal at 10% Significance Level	
56						at 10% Significance Level	
57							
58						Statistics	
59				Logged Data	3.689	Mean of logged Data	4.225
60		N	Maximum of I	Logged Data	4.754	SD of logged Data	0.319
61				A = :	mine Lees	armal Distribution	
62 63				95% H-UCL	80.96	ormal Distribution 90% Chebyshev (MVUE) UCL	85.7
64		95%		MVUE) UCL	92.02	90% Chebyshev (MVUE) UCL	100.8
65			Chebyshev (118	37.570 GRODYSHOV (MIVOL) OCL	700.0
66			, (,			

	Α	В		С		D	E	F	G UC	H			J		K	L
67 68							•		tion Free UCI Discernible I							
69							vara apped	ai to ioliow a	ו פומוווופטפוע ו	วเอน เมนแป	11					
70							Nonpa	rametric Dis	tribution Free	UCLs						
71						95%	CLT UCL	79.42				95%	6 BCA B	ootstra	ap UCL	80.49
72				95%	Stan	dard Boo	tstrap UCL	79.49					95% Bo			80.79
73				9	95% H	lall's Boo	tstrap UCL	79.81			9!	5% Per	centile B	ootstra	ap UCL	79.68
74							n, Sd) UCL	85.71					yshev(M		-	92.02
75			97	'.5% Ch	nebys	hev(Meai	n, Sd) UCL	100.8			99%	6 Cheby	yshev(M	ean, S	d) UCL	118
76																
77						F0/ O: 1			UCL to Use							
78 79					9	5% Stude	ent's-t UCL	79.72								
80				W/hen	n a da	ta set foll	ows an ani	nrovimate di	stribution pass	ing only o	ne of the (GOF to	ete			
81									istribution pas							
82					9900				pa	g 20	<u></u>					
83		Note: Sugg	gestions	regard	ding th	ne selecti	on of a 95%	6 UCL are pi	ovided to help	the user t	o select th	ne most	t appropi	riate 95	5% UCL	
84									ution, and ske							
85	Н	owever, sim	nulation	s result	ts will	not cove	r all Real V	Vorld data se	ts; for addition	nal insight	the user n	nay wai	nt to con	sult a s	statistici	an.
86																
87																
	Chromium															
89									O							
90				Total	l Nium	har of Oh	servations	General 25	Statistics		Nive	nhar of	Distinct	Ohaan	otiono	24
91 92				Total	inuiii	bei oi Ot	servations	23					Missing			65
93							Minimum	4.41			Null	ibei oi	iviissirig	Observ	Mean	12.97
94							Maximum	26.1						1	Median	12.7
95							SD	4.622					Std.		f Mean	0.924
96					Со	efficient o	of Variation	0.356							wness	0.732
97															l	
98								Normal	GOF Test							
99							est Statistic	0.961					GOF Tes			
100				1% Sh			itical Value	0.886		Data app	ear Norm			cance	Level	
101							est Statistic	0.103					F Test			
102				1'	% Lill		itical Value	0.201	t 1% Significa		ear Norm	ial at 19	% Signifi	cance	Level	
103 104							рака арре	ar Normai a	t 1% Significa	ince Level						
105							As	sumina Nor	mal Distribution	on						
106				95% No	ormal	UCL					% UCLs (/	Adjuste	d for Sk	ewnes	s)	
107					9	5% Stude	ent's-t UCL	14.55			95% Adj					14.63
108											95% Mc	odified-t	UCL (Jo	ohnson	ı-1978)	14.57
109																
110									GOF Test							
111							st Statistic	0.214			erson-Dar					
112					5%		itical Value	0.746	Detected	data appe						e Level
113 114					50		est Statistic itical Value	0.0847 0.175	Dotoctod	data appe	gorov-Sm					eo Lovol
115									stributed at 5				bui c u ai	J /0 JI	griiicari	'e resei
116						J.55.664 (aw appea	. Gamma Di	Januarou ar J	,, Oigilillo	L671	- ,				
117								Gamma	Statistics							
118						k	hat (MLE)	7.974				k star	(bias co	rrecte	d MLE)	7.044
119							hat (MLE)	1.626			Th		(bias co			1.841
120							hat (MLE)	398.7					u star (b			352.2
121				ML	LE M	ean (bias	corrected)	12.97					E Sd (bi			4.886
122											Approxir					309.7
123				Adjus	sted L	evel of S	ignificance	0.0395				Adjus	ted Chi	Square	Value	307
124									ma Distribut							
125				QE0/ A	nnra	vimata Ca			nma Distributi	on		QE0/ /	\divotod	Comm	a LICI	1/ 00
125 126 127				90% A	hhiox	amate Ga	amma UCL	14.75	<u> </u>			95% F	Adjusted	Garnm	ıa UUL	14.88
12/ 120								Lognorma	I GOF Test							
129				S	Shanir	o Wilk Te	est Statistic	0.967	. 401 1631	Sha	apiro Wilk	Loano	rmal GO	F Test	ì	
128 129 130							itical Value	0.931	Г	Data appea						
131							est Statistic	0.0884			illiefors Lo					
132				10			itical Value	0.159		Data appea					e Level	
										·						

	400	A B C D E	F	G H I J K	L	
Comman Statistics Comman Statistics Comman Statistics Comman Congress Congress	133	Data appear L	_ognormal a	at 10% Significance Level		
Minimum of Logged Data 1.484 Mean of Logged Data 2.498			Lognorma	l Statistics		
Maximum of Logged Data 3.262 SD of logged Data 0.377	136				2.498	
Assuming Assuming Lognormal Distribution 16.04 6.04 6.05 6.04 6.05 6.04 6.05 6.04 6.05 6.04 6.05 6	137		3.262		0.377	
140	138					
141					10.04	
143				, , ,		
143				37.3% Chebyshev (MVOL) OCL	19.51	
Nonparametric Distribution Free UCL Statistics Deta appear to Distribution Tree UCL	143					
145	144	Nonparame	tric Distribu	tion Free UCL Statistics		
147	145	Data appear	to follow a	Discernible Distribution		
148						
149 95% Blandard Bookstrap UCL 14.55 95% Bookstrap UCL 14.67 14.54 95% Chebyshev(Mean, Sd) UCL 15.74 95% Chebyshev(Mean, Sd) UCL 17.7 15.15 97.5% Chebyshev(Mean, Sd) UCL 15.74 95% Chebyshev(Mean, Sd) UCL 17.7 15.75					14.61	
150						
151		•				
15.2	151	•		·		
Suggestion 14.55 96% Student's + UCL 14.55 1	152	97.5% Chebyshev(Mean, Sd) UCL	18.74	99% Chebyshev(Mean, Sd) UCL	22.17	
155	153					
156				UCL to Use		
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.		95% Student's-t UCL	14.55			
Recommendations are based upon data size, data distribution, and skewness using results from simulation studies.		Note: Suggestions regarding the selection of a 95%	UCL are pr	ovided to help the user to select the most appropriate 95% LICL		
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.	158					
160	159	·			n.	
162 Copper 163 164 General Statistics 24 165 Total Number of Observations 25 Number of Missing Observations 24 166 167 Minimum 10.6 Mean 50.25 168 Maximum 208 Median 29.9 169 S.D. 50.02 Std. Error of Mean 10.170 Coefficient of Variation 0.996 Std. Error of Mean 10.170 Coefficient of Variation 0.996 Std. Error of Mean 10.170 Coefficient of Variation 0.996 Std. Error of Mean 10.170 Coefficient of Variation 0.996 Std. Error of Mean 10.170 Skewness 2.258 Coefficient of Variation 0.996 Skewness 2.258 Coefficient of Variation 0.996 Skewness 2.258 Coefficient of Variation 0.996 Skewness 2.258 Coefficient of Variation 0.996 Skewness 2.258 Coefficient of Variation 0.996 Skewness 2.258 Coefficient of Variation 0.996 Skewness 2.258 Coefficient of Variation 0.996 Skewness 2.258 Coefficient of Variation 0.996 Skewness 2.258 Coefficient of Variation 0.996 Skewness 2.258 Coefficient of Variation 0.996 Skewness 2.258 Coefficient of Variation 0.996 Skewness 2.258 Coefficient of Variation 0.996 Skewness 0.246 Coefficient of Variation 0.946 Coefficient	160					
163						
		Copper				
Total Number of Observations 25			General	Statistics		
166		Total Number of Observations			24	
Minimum 10.6 Maximum 20.8 Median 29.9	166			Number of Missing Observations		
SD SD SD SD SD SD SD St. Error of Mean 10	167	Minimum	10.6	Mean		
To Coefficient of Variation 0.996	168					
Normal GOF Test Normal GOF Test						
Normal GOF Test	170	Coefficient of Variation	0.996	Skewness	2.258	
173			Normal (GOF Test		
174 1% Shapiro Wilk Critical Value 0.886 Data Not Normal at 1% Significance Level 175 Lilliefors Test Statistic 0.246 Lilliefors GOF Test 176 1% Lilliefors Critical Value 0.201 Data Not Normal at 1% Significance Level 177 Data Not Normal at 1% Significance Level Assuming Normal 187 PSW UCLs (Adjusted for Skewness) PSW UCLs (Adjusted For Skewness) PSW Normal UCL 95% VUCLs (Adjusted for Skewness) PSW Adjusted-CLT UCL (Chen-1995) 71.53 188 95% Modified-t UCL (Johnson-1978) 68.12 Base Statistic Gemma GOF Test Statistic A-D Test Statistic O.76 Data Not Gamma Distributed at 5% Significance Level 188 A-D Test Statistic O.157 Kolmogorov-Smirnov Gamma GOF Test 188 5% K-S Critical Value 0.157 Kolmogorov-Smirnov Gamma GOF Test 189 Detected data follow Appr. Gamma Distribution at 5% Significance Level		Shapiro Wilk Test Statistic				
175 Lilliefors Test Statistic 0.246 Lilliefors GOF Test 176 1% Lilliefors Critical Value 0.201 Data Not Normal at 1% Significance Level 177 Data Not Normal at 1% Significance Level 178 Test Statistic 179 Assuming Normal Distribution 180 95% Normal UCL 95% UCLs (Adjusted for Skewness) 181 95% Modified-t UCL (Chen-1995) 71.53 182 Gamma GOF Test 183 Gamma GOF Test 184 Camma GOF Test 185 A-D Test Statistic 0.941 Anderson-Darling Gamma GOF Test 186 5% A-D Critical Value 0.76 Data Not Gamma Distributed at 5% Significance Level 187 K-S Test Statistic 0.157 Kolmogorov-Smirnov Gamma GOF Test 188 5% K-S Critical Value 0.177 Detected data appear Gamma Distributed at 5% Significance Level 199 Detected Male Miller 1.679 k stat (bias corrected MLE)	174		0.886	Data Not Normal at 1% Significance Level		
Data Not Normal at 1% Significance Level 178 Assuming Normal Distribution 180 95% Normal UCL 95% UCLs (Adjusted for Skewness) 181 95% Student's-t UCL 67.36 95% Adjusted-CLT UCL (Chen-1995) 71.53 182 95% Modified-t UCL (Johnson-1978) 68.12 183 Camma GOF Test 185 A-D Test Statistic 0.941 Anderson-Darling Gamma GOF Test 186 5% A-D Critical Value 0.76 Data Not Gamma Distributed at 5% Significance Level 187 K-S Test Statistic 0.157 Kolmogorov-Smirnov Gamma GOF Test 188 5% K-S Critical Value 0.177 Detected data appear Gamma Distributed at 5% Significance Level 189 Detected data follow Appr. Gamma Statistics 190 Gamma Statistics 191 Gamma Statistics 192 k hat (MLE) 1.504 193 Theta hat (MLE) </td <td>175</td> <td></td> <td></td> <td></td> <td></td>	175					
178	176			•		
179 Assuming Normal Distribution 180 95% Normal UCL 95% UCLs (Adjusted for Skewness) 181 95% Student's-t UCL 67.36 95% Adjusted-CLT UCL (Chen-1995) 71.53 182 95% Modified-t UCL (Johnson-1978) 68.12 88.12 88.12 184 Camma GOF Test 185 A-D Test Statistic 0.941 Anderson-Darling Gamma GOF Test 186 55% A-D Critical Value 0.76 Data Not Gamma Distributed at 5% Significance Level 187 K-S Test Statistic 0.157 Kolmogorov-Smirnov Gamma GOF Test 188 Detected data follow Appr. Gamma Distribution at 5% Significance Level 199 Gamma Statistics 190 Gamma Statistics 191 Gamma Statistics 192 K hat (MLE) 1.509 K star (bias corrected MLE) 3.3.4 <	177	Data Not	Normal at 1	% Significance Level		
180 95% Normal UCL 95% UCLs (Adjusted for Skewness) 181 95% Student's-t UCL 67.36 95% Adjusted-CLT UCL (Chen-1995) 71.53 182 95% Modified-t UCL (Johnson-1978) 68.12 183 84 Gamma GOF Test 185 A-D Test Statistic 0.941 Anderson-Darling Gamma GOF Test 186 5% A-D Critical Value 0.76 Data Not Gamma Distributed at 5% Significance Level 187 K-S Test Statistic 0.157 Kolmogorov-Smirnov Gamma GOF Test 188 5% K-S Critical Value 0.177 Detected data appear Gamma Distributed at 5% Significance Level 189 Detected data follow Appr. Gamma Distribution at 5% Significance Level 190 Significance Level 190 k hat (MLE) 1.679 k star (bias corrected MLE) 1.504 193 Theta hat (MLE) 29.93 Theta star (bias corrected MLE) 33.4 194 nu hat (MLE) 8.396 nu star (bias corrected) 75.21 195 MLE Mean (bias corrected) 50.25 MLE Sd (bias corrected) 40.97 196	1/ŏ 170	Δος	sumina Nor	mal Distribution		
181 95% Student's-t UCL 67.36 95% Adjusted-CLT UCL (Chen-1995) 71.53 182 95% Modified-t UCL (Johnson-1978) 68.12 183 184	180					
182 95% Modified-t UCL (Johnson-1978) 68.12 183 Gamma GOF Test 185 A-D Test Statistic 0.941 Anderson-Darling Gamma GOF Test 186 5% A-D Critical Value 0.76 Data Not Gamma Distributed at 5% Significance Level 187 K-S Test Statistic 0.157 Kolmogorov-Smirnov Gamma GOF Test 188 5% K-S Critical Value 0.177 Detected data appear Gamma Distributed at 5% Significance Level 189 Detected data follow Appr. Gamma Distribution at 5% Significance Level 190 Gamma Statistics 192 A hat (MLE) 1.679 k star (bias corrected MLE) 1.504 193 Theta star (bias corrected MLE) 3.4 194 nu hat (MLE) 83.96 nu star (bias corrected) 75.21 195 MLE Mean (bias corrected) 50.25 MLE Sd (bias corrected) 40.97 196 <td cols<="" td=""><td>181</td><td></td><td>67.36</td><td>95% Adjusted-CLT UCL (Chen-1995)</td><td>71.53</td></td>	<td>181</td> <td></td> <td>67.36</td> <td>95% Adjusted-CLT UCL (Chen-1995)</td> <td>71.53</td>	181		67.36	95% Adjusted-CLT UCL (Chen-1995)	71.53
184 Gamma GOF Test 185 A-D Test Statistic 0.941 Anderson-Darling Gamma GOF Test 186 5% A-D Critical Value 0.76 Data Not Gamma Distributed at 5% Significance Level 187 K-S Test Statistic 0.157 Kolmogorov-Smirnov Gamma GOF Test 188 5% K-S Critical Value 0.177 Detected data appear Gamma Distributed at 5% Significance Level 189 Detected data follow Appr. Gamma Distribution at 5% Significance Level 190 Gamma Statistics 192 K hat (MLE) 1.679 k star (bias corrected MLE) 1.504 193 Theta hat (MLE) 29.93 Theta star (bias corrected MLE) 33.4 194 nu star (bias corrected) 75.21 195 MLE Mean (bias corrected) 50.25 MLE Sd (bias corrected) 40.97 196 Approximate Chi Square Value (0.05) 56.24 197 Adjusted Level of Significance 0.0395 Adjusted Chi Square Value 55.12	182			95% Modified-t UCL (Johnson-1978)	68.12	
185 A-D Test Statistic 0.941 Anderson-Darling Gamma GOF Test 186 5% A-D Critical Value 0.76 Data Not Gamma Distributed at 5% Significance Level 187 K-S Test Statistic 0.157 Kolmogorov-Smirnov Gamma GOF Test 188 5% K-S Critical Value 0.177 Detected data appear Gamma Distributed at 5% Significance Level 189 Detected data follow Appr. Gamma Distribution at 5% Significance Level 190 Gamma Statistics 192 K k hat (MLE) 1.679 K star (bias corrected MLE) 1.504 193 Theta star (bias corrected MLE) 33.4 194 nu hat (MLE) 83.96 nu star (bias corrected) 75.21 195 MLE Mean (bias corrected) 50.25 MLE Sd (bias corrected) 40.97 196 Approximate Chi Square Value (0.05) 56.24 197 Adjusted Chi Square Value 55.12	183					
186 5% A-D Critical Value 0.76 Data Not Gamma Distributed at 5% Significance Level 187 K-S Test Statistic 0.157 Kolmogorov-Smirnov Gamma GOF Test 188 5% K-S Critical Value 0.177 Detected data appear Gamma Distributed at 5% Significance Level 189 Detected data follow Appr. Gamma Distribution at 5% Significance Level 190 Gamma Statistics 192 K hat (MLE) 1.679 k star (bias corrected MLE) 1.504 193 Theta star (bias corrected MLE) 33.4 194 One of the colspan="2">MLE Mean (bias corrected) 50.25 MLE Sd (bias corrected) 40.97 196 Approximate Chi Square Value (0.05) 56.24 197 Adjusted Level of Significance		A D Total Or et al.				
187 K-S Test Statistic 0.157 Kolmogorov-Smirnov Gamma GOF Test 188 5% K-S Critical Value 0.177 Detected data appear Gamma Distributed at 5% Significance Level 189 Detected data follow Appr. Gamma Distribution at 5% Significance Level 190 Gamma Statistics 192 K k hat (MLE) 1.679 k star (bias corrected MLE) 1.504 193 Theta hat (MLE) 29.93 Theta star (bias corrected MLE) 33.4 194 nu hat (MLE) 83.96 nu star (bias corrected) 75.21 195 MLE Mean (bias corrected) 50.25 MLE Sd (bias corrected) 40.97 196 Approximate Chi Square Value (0.05) 56.24 197 Adjusted Chi Square Value 55.12					اد	
188 Detected data follow Appr. Gamma Distribution at 5% Significance Level 189 Detected data follow Appr. Gamma Distribution at 5% Significance Level 190 191 Gamma Statistics 192					/1	
189 Detected data follow Appr. Gamma Distribution at 5% Significance Level 190	188				e Level	
190 Gamma Statistics 192 k hat (MLE) 1.679 k star (bias corrected MLE) 1.504 193 Theta star (bias corrected MLE) 33.4 194 nu hat (MLE) 83.96 nu star (bias corrected) 75.21 195 MLE Mean (bias corrected) 50.25 MLE Sd (bias corrected) 40.97 196 Approximate Chi Square Value (0.05) 56.24 197 Adjusted Level of Significance 0.0395 Adjusted Chi Square Value 55.12	189					
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197 Adjusted Level of Significance 0.0395 Adjusted Chi Square Value 55.12		MILL MEAN (DIAS CONTECTED)	50.25			
	197	Adjusted Level of Significance	0.0395			
	198		<u> </u>			
					<u></u>	

199	Α	В	С	D	E Ass	F suming Gam	G I ma Distribu t	H tion	I	J K		L
200			95% A	pproximate G		67.2			95	5% Adjusted Gamma UC	L 6	68.57
201				•						•		
202						Lognorma	GOF Test					
203				Shapiro Wilk Te		0.952				gnormal GOF Test		
204			10% S	hapiro Wilk Cr	ritical Value	0.931				at 10% Significance Lev	el	
205				Lilliefors Te	est Statistic	0.118				ormal GOF Test		
206			10	% Lilliefors Cr		0.159				at 10% Significance Lev	el	
207				D	ata appear	Lognormal a	at 10% Signi	ficance Leve	el			
208												
209							I Statistics					
210				Minimum of Lo		2.361				Mean of logged Dat		3.591
211			N	Maximum of Lo	ogged Data	5.338				SD of logged Dat	а	0.776
212												
213							rmal Distrib	ution				
214			050/		95% H-UCL	69.71				Chebyshev (MVUE) UC		72.74
215				Chebyshev (M		83.84			97.5%	Chebyshev (MVUE) UC	L	99.23
216			99%	Chebyshev (M	IVUE) UCL	129.5						
217					.		= 116	N 0: " "				
218					•		tion Free UC					
219					שמta appea	r to tollow a	Discernible	Distribution				
220					NI	omotels Di-	mibusias F	- IIC! -				
221				050	Nonpar CLT UCL %	66.7	tribution Fre	UULS		95% BCA Bootstrap UC	-	72.82
222			050/							· · · · · · · · · · · · · · · · · · ·		
223				Standard Boo	-	66.15			OE 0/	95% Bootstrap-t UC		78.99
224				95% Hall's Boo		81.68 80.26				Percentile Bootstrap UC		67.48 93.86
225				nebyshev(Mea		112.7				hebyshev(Mean, Sd) UC	_	49.8
226			97.5% Cn	nebyshev(Mea	n, Sa) UCL	112.7			99% C	hebyshev(Mean, Sd) UC	L 14	49.8
227						Cummantad	LICI to Lies					
228			05	% Adjusted G	ommo LICI	68.57	UCL to Use					
229 230			90	76 Aujusteu G	aiiiiia UCL	00.07						
231			Whor	n a data set fol	lowe on one	rovimata dia	tribution noo	cina only on	o of the CO	E tooto		
232				ggested to use								
233			it is su	ggested to use	a UCL bas	eu upon a u	istribution pa	ssing both C	ioi iesis iii	FIUUCL		
234		Note: Sugge	stions regard	ling the selecti	ion of a 95%	LICL are nr	ovided to hel	n the user to	select the r	nost appropriate 95% U('I	
235										m simulation studies.	, L.	
236	H									want to consult a statist	cian	
237		0110	ilations result	io will flot cove	or all rical vi	ona aata se	io, for additio	na moignt a	ic door may	want to consult a statist	ciaii.	
238												
	Lead											
240												
241						General	Statistics					
242			Total	Number of Ob	oservations	80						
243									Numbe	er of Distinct Observation	s	76
244												76 10
245					Minimum	3.29				er of Distinct Observation r of Missing Observation Mea	s ·	
246						3.29 501				r of Missing Observation	s ·	10 91.86
247					Minimum Maximum SD	3.29 501 90.35				r of Missing Observation Mea Media	s on s	10
				Coefficient	Maximum SD	501				r of Missing Observation Mea	s · n · s	10 91.86 57.8
				Coefficient (Maximum SD	501 90.35				r of Missing Observation Mea Media Std. Error of Mea	s · n · s	10 91.86 57.8 10.1
248				Coefficient (Maximum SD	501 90.35 0.984	GOF Test			r of Missing Observation Mea Media Std. Error of Mea	s · n · s	10 91.86 57.8 10.1
248 249			S		Maximum SD of Variation	501 90.35 0.984 Normal 0	GOF Test		Numbe	r of Missing Observation Mea Media Std. Error of Mea Skewnes	s · n · s	10 91.86 57.8 10.1
248249250				Shapiro Wilk Te	Maximum SD of Variation est Statistic	501 90.35 0.984 Normal (GOF Test	Data No	Numbe	r of Missing Observation Mea Media Std. Error of Mea Skewnes	s · n · s	10 91.86 57.8 10.1
248249250251					Maximum SD of Variation est Statistic /ilk P Value	501 90.35 0.984 Normal 0 0.826 3.277E-13	GOF Test	Data No	Numbe Shapiro W t Normal at	r of Missing Observation Mea Media Std. Error of Mea Skewnes	s · n · s	10 91.86 57.8 10.1
248 249 250 251 252				Shapiro Wilk Te 1% Shapiro W	Maximum SD of Variation est Statistic //ilk P Value est Statistic	501 90.35 0.984 Normal (GOF Test		Numbe Shapiro W t Normal at Lilliefors	r of Missing Observation Mea Media Std. Error of Mea Skewnes ilk GOF Test 1% Significance Level	s · n · s	10 91.86 57.8 10.1
248 249 250 251 252 253				Shapiro Wilk Te 1% Shapiro W Lilliefors Te	Maximum SD of Variation est Statistic /ilk P Value est Statistic ritical Value	501 90.35 0.984 Normal (0.826 3.277E-13 0.173 0.115		Data No	Numbe Shapiro W t Normal at Lilliefors	r of Missing Observation Mea Media Std. Error of Mea Skewnes ilk GOF Test 1% Significance Level	s · n · s n · s	10 91.86 57.8 10.1
248 249 250 251 252 253 254				Shapiro Wilk Te 1% Shapiro W Lilliefors Te	Maximum SD of Variation est Statistic //ilk P Value est Statistic ritical Value	501 90.35 0.984 Normal (0.826 3.277E-13 0.173 0.115	GOF Test % Significar	Data No	Numbe Shapiro W t Normal at Lilliefors	r of Missing Observation Mea Media Std. Error of Mea Skewnes ilk GOF Test 1% Significance Level	s · n · s n · s	10 91.86 57.8 10.1
248 249 250 251 252 253 254 255				Shapiro Wilk Te 1% Shapiro W Lilliefors Te	Maximum SD of Variation est Statistic /ilk P Value est Statistic ritical Value Data Not	501 90.35 0.984 Normal (0.826 3.277E-13 0.173 0.115 Normal at 1	% Significar	Data No nce Level	Numbe Shapiro W t Normal at Lilliefors	r of Missing Observation Mea Media Std. Error of Mea Skewnes ilk GOF Test 1% Significance Level	s · n · s n · s	10 91.86 57.8 10.1
248 249 250 251 252 253 254 255 256			1	Shapiro Wilk Te 1% Shapiro W Lilliefors Te % Lilliefors Cr	Maximum SD of Variation est Statistic /ilk P Value est Statistic ritical Value Data Not	501 90.35 0.984 Normal (0.826 3.277E-13 0.173 0.115 Normal at 1		Data No nce Level ion	Shapiro W t Normal at Lilliefors t Normal at	r of Missing Observation Mea Media Std. Error of Mea Skewnes ilk GOF Test 1% Significance Level GOF Test 1% Significance Level	s · n · s n · s	10 91.86 57.8 10.1
248 249 250 251 252 253 254 255 256 257			1	Shapiro Wilk Te 1% Shapiro W Lilliefors Te % Lilliefors Cr	Maximum SD of Variation est Statistic /ilk P Value est Statistic ritical Value Data Not	501 90.35 0.984 Normal (0.826 3.277E-13 0.173 0.115 Normal at 1	% Significar	Data No nce Level ion 95%	Shapiro W t Normal at Lilliefors t Normal at	r of Missing Observation Mea Media Std. Error of Mea Skewnes ilk GOF Test 1% Significance Level GOF Test 1% Significance Level	s	10 91.86 57.8 10.1
248 249 250 251 252 253 254 255 256 257 258			1	Shapiro Wilk Te 1% Shapiro W Lilliefors Te % Lilliefors Cr	Maximum SD of Variation est Statistic /ilk P Value est Statistic ritical Value Data Not	90.35 0.984 Normal (0.826 3.277E-13 0.173 0.115 Normal at 1	% Significar	Data No nce Level ion 95%	Shapiro W t Normal at Lilliefors t Normal at UCLs (Adj 95% Adjust	r of Missing Observation Mea Media Std. Error of Mea Skewnes ilk GOF Test 1% Significance Level GOF Test 1% Significance Level usted for Skewness) ed-CLT UCL (Chen-1998)	s	10 91.86 57.8 10.1 1.872
248 249 250 251 252 253 254 255 256 257 258 259			1	Shapiro Wilk Te 1% Shapiro W Lilliefors Te % Lilliefors Cr	Maximum SD of Variation est Statistic /ilk P Value est Statistic ritical Value Data Not	90.35 0.984 Normal (0.826 3.277E-13 0.173 0.115 Normal at 1	% Significar	Data No nce Level ion 95%	Shapiro W t Normal at Lilliefors t Normal at UCLs (Adj 95% Adjust	r of Missing Observation Mea Media Std. Error of Mea Skewnes ilk GOF Test 1% Significance Level GOF Test 1% Significance Level	s	10 91.86 57.8 10.1 1.872
248 249 250 251 252 253 254 255 256 257 258 259 260			1	Shapiro Wilk Te 1% Shapiro W Lilliefors Te % Lilliefors Cr	Maximum SD of Variation est Statistic /ilk P Value est Statistic ritical Value Data Not	90.35 0.984 Normal (0.826 3.277E-13 0.173 0.115 Normal at 1	% Significar	Data No nce Level ion 95%	Shapiro W t Normal at Lilliefors t Normal at UCLs (Adj 95% Adjust	r of Missing Observation Mea Media Std. Error of Mea Skewnes ilk GOF Test 1% Significance Level GOF Test 1% Significance Level usted for Skewness) ed-CLT UCL (Chen-1998)	s	10 91.86 57.8 10.1 1.872
248 249 250 251 252 253 254 255 256 257 258 259 260 261			1	Shapiro Wilk Te 1% Shapiro W Lilliefors Te % Lilliefors Cr ormal UCL 95% Stud	Maximum SD of Variation est Statistic filk P Value est Statistic ritical Value Data Not As: ent's-t UCL	90.35 0.984 Normal (0.826 3.277E-13 0.173 0.115 Normal at 1 suming Normal	% Significar	Data No nce Level ion 95%	Shapiro W t Normal at Lilliefors t Normal at UCLs (Adj 95% Adjust 95% Modif	r of Missing Observation Mea Media Std. Error of Mea Skewnes illk GOF Test 1% Significance Level GOF Test 1% Significance Level usted for Skewness) ed-CLT UCL (Chen-1998) ed-t UCL (Johnson-1978)	s	10 91.86 57.8 10.1 1.872
248 249 250 251 252 253 254 255 256 257 258 259 260 261 262			1	Shapiro Wilk Te 1% Shapiro W Lilliefors Te % Lilliefors Cr ormal UCL 95% Stud	Maximum SD of Variation est Statistic /ilk P Value est Statistic ritical Value Data Not Ass ent's-t UCL	501 90.35 0.984 Normal (0.826 3.277E-13 0.173 0.115 Normal at 1 suming Normal 108.7 Gamma (0.328	% Significar mal Distribut GOF Test	Data Nonce Level ion 95% Ander	Shapiro W t Normal at Lilliefors t Normal at UCLs (Adj) 95% Adjust 95% Modif	r of Missing Observation Mea Media Std. Error of Mea Skewnes ilk GOF Test 1% Significance Level GOF Test 1% Significance Level usted for Skewness) ed-CLT UCL (Chen-1998) ed-t UCL (Johnson-1978) Gamma GOF Test	s	10 91.86 57.8 10.1 1.872
248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263			1	Shapiro Wilk Te 1% Shapiro W Lilliefors Te % Lilliefors Cr bormal UCL 95% Stud A-D Te 5% A-D Cr	Maximum SD of Variation est Statistic /ilk P Value est Statistic ritical Value Data Not Assent's-t UCL est Statistic ritical Value	501 90.35 0.984 Normal (0.826 3.277E-13 0.173 0.115 Normal at 1 suming Normal 108.7 Gamma (0.328 0.78	% Significar mal Distribut GOF Test	Data No nce Level ion 95% Ander d data appea	Shapiro W t Normal at Lilliefors t Normal at UCLs (Adj) 95% Adjust 95% Modif	r of Missing Observation Mea Media Std. Error of Mea Skewnes ilk GOF Test 1% Significance Level GOF Test 1% Significance Level usted for Skewness) ed-CLT UCL (Chen-1998) ed-t UCL (Johnson-1978) J Gamma GOF Test istributed at 5% Significance at 5%	s	10 91.86 57.8 10.1 1.872
248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264			1	Shapiro Wilk Te 1% Shapiro W Lilliefors Te % Lilliefors Cr ormal UCL 95% Stud A-D Te 5% A-D Cr K-S Te	Maximum SD of Variation est Statistic /ilk P Value est Statistic ritical Value Data Not As: ent's-t UCL est Statistic ritical Value est Statistic	501 90.35 0.984 Normal 0 0.826 3.277E-13 0.173 0.115 Normal at 1 suming Normal 108.7 Gamma 0 0.328 0.78 0.0635	% Significar mal Distribut GOF Test Detected	Data No nce Level ion 95% Ander d data appea	Shapiro W t Normal at Lilliefors t Normal at UCLs (Adjust 95% Adjust 95% Modif	r of Missing Observation Mea Media Std. Error of Mea Skewnes ilk GOF Test 1% Significance Level GOF Test 1% Significance Level usted for Skewness) ed-CLT UCL (Chen-1998) ed-t UCL (Johnson-1978) g Gamma GOF Test istributed at 5% Significator Gamma GOF Test	s	10 91.86 57.8 10.1 1.872
248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263			1	Shapiro Wilk Te 1% Shapiro W Lilliefors Te % Lilliefors Cr ormal UCL 95% Stud A-D Te 5% A-D Cr K-S Te	Maximum SD of Variation est Statistic /ilk P Value est Statistic ritical Value Data Not Assent's-t UCL est Statistic ritical Value	501 90.35 0.984 Normal (0.826 3.277E-13 0.173 0.115 Normal at 1 suming Normal 108.7 Gamma (0.328 0.78	% Significar mal Distribut GOF Test Detected	Data No nce Level ion 95% Ander d data appea	Shapiro W t Normal at Lilliefors t Normal at UCLs (Adjust 95% Adjust 95% Modif	r of Missing Observation Mea Media Std. Error of Mea Skewnes ilk GOF Test 1% Significance Level GOF Test 1% Significance Level usted for Skewness) ed-CLT UCL (Chen-1998) ed-t UCL (Johnson-1978) J Gamma GOF Test istributed at 5% Significance at 5%	s	10 91.86 57.8 10.1 1.872

	Α		В		С			D		E	F		G		Н				J			K		L
266			_				D	etecte	d data	appear	r Gamma D	Distrib	uted at	5% Si	gnific	ance	Level							
267 268											Gamma	a Stat	istice											
269									k hat	t (MLE)	1.093	Julia	iouco					k sta	ır (bias	s corr	ecte	d MLE)	1	.06
270								The		t (MLE)	84.08											d MLE)		6.67
271	,									t (MLE)	174.8							r	nu star	r (bia	s cor	rected)	169	9.6
272 273	-					MLE	Е Ме	an (bi	as cor	rected)	91.86									•		rected)		9.23
273																App						e (0.05)		
274					Α	djuste	ed L	evel of	f Signi	ficance	0.047							Adju	sted C	Chi S	quare	e Value	140)
275 276										۸۵	numina Co	mmo	Dietrib	ition										
276					959	% Anı	nrov	imate	Gamn	na UCL	suming Ga 110.9	IIIIIa	DISTIDI	Juon			c	15%	Δdinet	ted C	amn	na UCL	. 11	1 3
278					- 55	70 AP	prox	imate	aamii	ia ool	110.5							70 70	Aujus	ica C	amm	1000		1.0
279											Lognorm	al GC	F Test											
280						Sh	apiro	Wilk	Test S	Statistic	0.957						Wilk L							
281						10°	% SI	napiro	Wilk F	^o Value	0.0304			Dat			ormal					Level		
282										Statistic	0.0906						rs Log							
283						10%				l Value	0.0907		1 . 40					al at	10% S	Signif	icand	e Leve	<u> </u>	
284								Data a	ppear	Approx	cimate Log	norma	al at 10	% Sigr	nificai	nce L	evel							
285 286											Lognorm	al Sta	atietice											
287						М	linim	um of	Logae	ed Data	1.191	.a. ou	400UC3						Mea	n of I	oaae	ed Data	. 3	.997
288		-								ed Data	6.217	1										ed Data		.142
289									335			1									335			
290											ıming Logr	norma	l Distril	bution										
291										H-UCL	142.4											E) UCL		
292										E) UCL	174.3						97.5%	% Ch	nebysh	nev (N	ΛVUI	E) UCL	. 205	5.2
293					99	9% C	heb	/shev	(MVUI	E) UCL	265.7												<u> </u>	
294									Non	narame	etric Distrib	ution	Eroo II	CI Sta	tietic	•								
295 296										•	r to follow													
297									Date	а аррос	10 1011011	u Dis	COTTIBLE	Distri	Dutio									
298										Nonpa	rametric Di	stribu	tion Fre	ee UCI	Ls									
299								9.		T UCL	108.5							95	% BC	A Bo	otstra	ap UCL	. 110	0.2
300					9	95% S	Stand	dard B	ootstra	ap UCL	107.9											o-t UCL		
301										ap UCL	110.6											ap UCL		
302										d) UCL	122.2											d) UCL		
303				ξ	37.5%	Che	bysh	nev(Me	ean, S	d) UCL	154.9						99% (Cheb	yshev	/(Mea	an, S	d) UCL	192	2.4
304 305											Suggeste	41101	to Hea	<u> </u>										
306					959	% Anı	nrox	imate	Gamn	na UCL	110.9	u oci	- 10 036	,									T	
307						, o , (p	prox	mato	Guiiii	10 002	110.0													
308		Note	e: Sugg	estio	ns reg	gardir	ng th	e sele	ction c	of a 95%	UCL are p	rovid	ed to he	elp the	user	to sel	ect the	mos	st appr	ropria	ite 95	5% UCI	L.	
309									<u> </u>		, data distri													
310	-	Howe	ver, sim	ulatio	ons re	esults	will	not co	ver all	Real W	orld data s	ets; fo	or additi	onal in	sight	the u	ser ma	ıy wa	ant to o	consu	ılt a s	tatistic	ian.	
311																								
312	Vonedium																							
314	Vanadium																							
315		-									Genera	l Stat	istics									-	-	
316					T	otal N	Numl	per of (Obser	vations	25						Numb	er o	f Distir	nct O	bser	vations	22	2
317																	Numb	er of	f Missi	ing O	bser	vations	65	5
318										inimum	16.5											Mean		0.32
319									Ма	aximum	55.3											Median		8.4
320							_	· ·		SD	11.07								St	td. Er		f Mean		2.213
321							Coe	efficier	nt of Va	ariation	0.365										Ske	ewness	0	.932
322 323											Normal	COF	Test											
323						Sh	anir) Wilk	Test S	Statistic	0.89	GUE	1 C Sl			Sh	apiro V	Nilk	GOF :	Test				
325					19		•			l Value	0.886			Da	ta apı		Vormal				nce	Level		
326										Statistic	0.171				11		.illiefor							
327						1%			Critica	l Value	0.201					pear N	Vormal				nce	Level		
328									Dat	ta appe	ar Normal	at 1%	Signific	cance	Leve	ĺ								
329																								

	330	Α	В	С	D	E As	F suming Norr	G mal Distribution	H on		J	K	L
				95% N	Normal UCL					UCLs (Ad	justed for Sk	ewness)	
333						dent's-t UCL	34.1						34.4
	333												34.17
Section Sec	334						,I						
335	335						Gamma	GOF Test					
Section Sec	336				A-D T	est Statistic							
1939 1939	337				5% A-D C	ritical Value	0.745	Detected					ce Level
	338				K-S T	est Statistic							
	339										Distributed at	5% Significant	ce Level
Section					Detected	data appea	r Gamma Di	stributed at 5	% Significa	nce Level			
March Marc													
The start MELE 3.492								Statistics					
MILE Man (Is Mice Man (Is Mi											•		
MLE Man (bias corrected) 0.0.32										Theta	•		
Agrical Adjusted Level of Significance 0.0395											,		
Adjusted Level of Significance 0.0395				N	/ILE Mean (bias	s corrected)	30.32						
												, ,	
Section Sect				Adjı	usted Level of S	Significance	0.0395				Adjusted Chi	Square Value	336.1
								ıma Distributi	on				
				95%	Approximate G	amma UCL	34.29	<u> </u>		9	5% Adjusted	Gamma UCL	34.57
Shapiro Wilk Test Statistic													
10% Shapiro Wilk Critical Value 0.931								GOF Test					
Second Continue													
10% Lilliefors Critical Value 0.159 Data appear Lognormal at 10% Significance Level		<u></u>		10% 5				Γ					
Signal								<u> </u>					
Second Second Statistics Second Statistics Second S				1							ıl at 10% Sign	nificance Level	
360 Lognomus Italistics 361 Minimum of Logged Data Italian 3.33 3 3.35 3					D	Data appear	Lognormal a	at 10% Signifi	icance Lev	el			
361 Minimum of Logged Data 2.803 Mean of logged Data 3.353 362 Maximum of Logged Data 4.013 SD of logged Data 3.451 363 364 Assimum of Logged Data 3.451 90% Chebyshev (MVUE) UCL 3.661 366 95% Chebyshev (MVUE) UCL 3.9.5 97.5% Chebyshev (MVUE) UCL 43.5 367 99% Chebyshev (MVUE) UCL 51.55 97.5% Chebyshev (MVUE) UCL 43.5 368 Nonparametric Distribution Free UCL Statistics 379 Nopparametric Distribution Free UCL Statistics 370 Nopparametric Distribution Free UCL Statistics 371 Nopparametric Distribution Free UCL Statistics 372 Nopparametric Distribution Free UCL Statistics 373 Nopparametric Distribution Free UCL Statistics 372 Nopparametric Distribution Free UCL Statistics 373 Nopparametric Distribution Free UCL Statistics 374 95% Standard Bootstrap UCL 33.93 95% BOA Bootstrap UCL 34.93 375 Statistics <	359												
Maximum of Logged Data 4.013 SD of logged Data 0.344	360							I Statistics					
Sas Sas													
Section Sec					Maximum of L	ogged Data	4.013				SD o	f logged Data	0.344
95% H-UCL 34.51 90% Chebyshev (MVUE) UCL 34.51 97.5% Chebyshev (MVUE) UCL 43.5													
366 95% Chebyshev (MVUE) UCL 39.5 97.5% Chebyshev (MVUE) UCL 43.5 367 99% Chebyshev (MVUE) UCL 51.35 1 368 369 Nonparametrol Distribution 370 Data appear to follow a Discernible Distribution 371 USECRIBIO DISTRIBUTION 372 Nonparametric Distribution Free UCLs 373 Secondary DUCL 3.93 95% BCA Bootstrap UCL 34.93 374 95% Standard Bootstrap UCL 33.93 95% Bootstrap UCL 34.93 375 95% Chebyshev(Mean, Sd) UCL 34.44 95% Chebyshev(Mean, Sd) UCL 39.96 377 97.5% Chebyshev(Mean, Sd) UCL 34.1 99% Chebyshev(Mean, Sd) UCL 34.1 99% Chebyshev(Mean, Sd) UCL 35.2 Suggested UCL to Use 38.2 Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL 38.2 Note: Suggestions regarding the selection of a 95% UCL are provided to help								ormal Distribu	ıtion				
Section Sec													
See Nonparametric Distribution Free UCL Statistics Nonparametric Distribution Pree UCL Statistics Nonparametric Distribution Pree UCL Statistics Nonparametric Distribution N										97.5%	6 Chebyshev	(MVUE) UCL	43.5
369	367			99%	6 Chebyshev (N	MVUE) UCL	51.35						
370 Observation Ob													
371 Nonerwetric Distriction Free UCLs 372 Nonerwetric Distriction Free UCLs 373 95% CLT UCL 33.96 95% BCA Bootstrap UCL 34.33 374 95% Standard Bootstrap UCL 33.93 95% Percentile Bootstrap UCL 34.93 375 95% Chebyshev(Mean, Sd) UCL 36.96 95% Chebyshev(Mean, Sd) UCL 39.96 376 95% Chebyshev(Mean, Sd) UCL 36.96 95% Chebyshev(Mean, Sd) UCL 39.96 377 97.5% Chebyshev(Mean, Sd) UCL 44.14 99% Chebyshev(Mean, Sd) UCL 39.96 378 Suggestor 379 Suggestor 380 95% Student's-t UCL 34.1 99% Chebyshev(Mean, Sd) UCL 35.2 381 Suggestors regarding the selection of a 95% UCL are volume to select the most appropriate 95% UCL 382 Note: Suggestions regarding the selection of a 95% UCL are volume to select the most appropriate 95% UCL 383 Recommendations are based upon data size,													
372 Nonparteric Distriction Free UCLs 373 95% CLT UCL 33.96 95% BCA Bootstrap UCL 34.33 374 95% Standard Bootstrap UCL 33.93 95% Bootstrap+UCL 33.93 375 95% Half's Bootstrap UCL 34.44 95% Percentile Bootstrap UCL 33.96 376 90% Chebyshev(Mean, Sd) UCL 36.96 95% Chebyshev(Mean, Sd) UCL 39.96 378 V 50% Chebyshev(Mean, Sd) UCL 44.14 99% Chebyshev(Mean, Sd) UCL 52.34 378 V 50% Chebyshev(Mean, Sd) UCL 44.14 99% Chebyshev(Mean, Sd) UCL 52.34 378 V 50% Chebyshev(Mean, Sd) UCL 44.14 99% Chebyshev(Mean, Sd) UCL 52.34 379 SUSCIENT 50% Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL 15 381 Recommendations are based upon data size, data distribution, and skewness using results from simulation studies. 15 382 Florial Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL 15 383 Florial Suggestions regard	370					Data appea	ar to follow a	Discernible [Distribution				
373 95% Standard Bootstrap UCL 33.96 95% BCA Bootstrap UCL 34.93 374 95% Standard Bootstrap UCL 33.93 95% Bootstrap-t UCL 34.93 375 95% Hall's Bootstrap UCL 36.96 95% Chebyshev(Mean, Sd) UCL 39.96 376 97.5% Chebyshev(Mean, Sd) UCL 44.14 99% Chebyshev(Mean, Sd) UCL 52.34 378 Suggested UCL to Use 379 Suggested UCL to Use 380 95% Student's-t UCL 34.1 99% Chebyshev(Mean, Sd) UCL 52.34 381 UCL to Use 382 Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL 383 Recommendations are based upon data size, data distribution, and skewness using results from simulation studies. 384 However, simulations results will not cover all Real West and distribution, and skewness using results from simulation studies. 385 Time statistics 386 Simulations results will not cover all Real West and distribution, and skewness using results from simulation studies. 387 Simulations results	371												
374 95% Standard Bootstrap UCL 33.93 95% Bootstrap+ UCL 34.93 375 95% Hall's Bootstrap UCL 34.44 95% Percentile Bootstrap UCL 33.96 376 90% Chebyshev(Mean, Sd) UCL 36.96 95% Chebyshev(Mean, Sd) UCL 39.96 377 97.5% Chebyshev(Mean, Sd) UCL 44.14 99% Chebyshev(Mean, Sd) UCL 52.34 378 Suggested UCL to Use 380 Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. 381 Recommendations are based upon data size, data distribution, and skewness using results from simulation studies. 383 Recommendations are based upon data size, data distribution, and skewness using results from simulation studies. 384 However, simulations results will not cover all Real World data set; for additional insight the user may want to consult a statistical. 385 Sinc 386 Sepam= Statistics 387 Clares 388 Sepam= Statistics 399 Number of Distinct Observations of Mean in Mean in Mean in Mean in Mean in Mean in Mean in Mean in Mean in Mean in Mean in M	372							tribution Free	UCLs				
375 95% Hall's Bootstrap UCL 34.44 95% Percentile Bootstrap UCL 33.96 376 90% Chebyshev(Mean, Sd) UCL 36.96 95% Chebyshev(Mean, Sd) UCL 39.96 377 97.5% Chebyshev(Mean, Sd) UCL 44.14 99% Chebyshev(Mean, Sd) UCL 52.34 378 380 Suggested UCL to Use 381 382 Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. 383 Recommendations are based upon data size, data distribution, and skewness using results from simulation studies. 384 However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistic static 385 Zinc 386 Simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistic static 387 Zinc 388 Jinc 389 Control Number of Observations 90 Number of Distinct Observations 87 391 Total Number of Maximum 5420 Number of Missing Observations	373												
376 90% Chebyshev(Mean, Sd) UCL 36.96 95% Chebyshev(Mean, Sd) UCL 39.96 377 97.5% Chebyshev(Mean, Sd) UCL 44.14 99% Chebyshev(Mean, Sd) UCL 52.34 378 Suggested UCL to Use 380 95% Student's-t UCL 34.1 Suggested UCL to Use 381 UCL are provided to help the user to select the most appropriate 95% UCL. 382 Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. 383 Recommendations are based upon data size, data distribution, and skewness using results from simulation studies. 384 However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician. 385 Zinc 387 Zinc 388 Cinc 389 Colspan="3">Statistics 390 Number of Distinct Observations 87 391 Total Number of Observations 90 Number of Missing Observations 0 392 Number of Mean 683.5 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>													
377 97.5% Chebyshev(Mean, Sd) UCL 44.14 99% Chebyshev(Mean, Sd) UCL 52.34 378 379 Suggested UCL to Use 380 95% Student's-t UCL 34.1 ■ Provided to help the user to select the most appropriate 95% UCL 381 ■ Recommendations are based upon data size, data distribution, and skewness using results from simulation studies. 383 ■ However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statisticious. 385 ■ Since 387 Zinc 388 ■ Total Number of Observations 90 Number of Distinct Observations 87 390 Total Number of Observations 90 Number of Missing Observations 0 392 Minimum 10.1 Number of Median 88 393 Maximum 5420 Median 89.4 394 Description of Variation 1.718 Steveness 2.179												•	
378 Suggested UCL to Use 380 95% Student's-t UCL 34.1 ■ Maximum ■ Maximum 38.1 ■ Maximum 58.5 Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL ■ Maximum ■ Maximum ■ Maximum ■ Maximum Maximum Maximum Maximum 5420 Median 683.5 99 Number of Distinct Observations 87 99 Number of Missing Observations 87 99 Number of Missing Observations 87 99 Number of Missing Observations 87 99 Number of Missing Observations 87 99 Number of Missing Observations 87 99 Number of Missing Observations 87 99 Number of Missing Observations 87 99 Number of Missing Observations 99 Number of Missing Observations	376												
379 Suggested UCL to Use 380 95% Student's-t UCL 34.1 Image: Control of the part o				97.5% C	hebyshev(Mea	an, Sd) UCL	44.14			99% (Chebyshev(M	ean, Sd) UCL	52.34
380 95% Student's-t UCL 34.1 381													
Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. Recommendations are based upon data size, data distribution, and skewness using results from simulation studies. However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician. Solution of the user may want to consult a statistician statistician. Solution of the user may want to consult a statistician statistician. Solution of the user may want to consult a statistician statistician. Solution of the user may want to consult a statistician. Solution of the user may want to consult a statistician. Solution of the user may want to consult a statistician. Solution of the user may want to consult a statistician. Solution of want to experiment of the user may want to consult a statistician. Solution of want to experiment of a statistic or additional insight the user may want to consult a statistician. Solution of want to experiment of want to experiment of a statistic or additional insight the user may want to consult a statistician. Solution of want to experiment of want to experiment of a statistic or additional insight the user may want to consult a statistician. Solution of want to experiment								UCL to Use					
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Recommendations are based upon data size, data distribution, and skewness using results from simulation studies. However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician. Size Size Size Size Size Size Size Size													
384 However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician. 385 386 387 Zinc 388 General Statistics 390 Total Number of Observations 90 Number of Distinct Observations 87 391 Number of Missing Observations 0 392 Number of Missing Observations 0 393 Maximum 10.1 394 Maximum 5420 395 Median 89.4 395 Coefficient of Variation 1.718													
385 386 Zinc General Statistics 389 Ceneral Statistics 390 Number of Distinct Observations 87 391 Number of Missing Observations 0 392 Number of Missing Observations 0 393 Maximum 10.1 Mean 683.5 394 Maximum 5420 Median 89.4 395 Coefficient of Variation 1.718 Skewness 2.179													
386 387 Zinc General Statistics 389 Total Number of Observations 90 Number of Distinct Observations 87 391 Number of Missing Observations 90 Number of Missing Observ			However, sim	ulations resu	ılts will not cove	er all Real W	Vorld data se	ts; for addition	nal insight t	he user ma	y want to con	sult a statisticia	an.
387 Zinc 388 Sign Statistics 390 Statistics 391 Sign Sign Sign Sign Sign Sign Sign Sign										<u> </u>			
388 General Statistics 390 Number of Distinct Observations 87 391 Number of Missing Observations 0 392 Number of Missing Observations 0 393 Maximum 10.1 Mean 683.5 394 Maximum 5420 Median 89.4 395 Coefficient of Variation 1.718 Skewness 2.179													
General Statistics 390 Total Number of Observations 90 Number of Distinct Observations 87 391 Number of Missing Observations 0 392 Minimum 10.1 Mean 683.5 393 Maximum 5420 Median 89.4 394 Std. Error of Mean 123.8 395 Coefficient of Variation 1.718 Skewness 2.179		Zinc											
390 Total Number of Observations 90 Number of Distinct Observations 87 391 Number of Missing Observations 0 392 Minimum 10.1 Mean 683.5 393 Maximum 5420 Median 89.4 394 Std. Error of Mean 123.8 395 Coefficient of Variation 1.718 Skewness 2.179													
391 Number of Missing Observations 0 392 Minimum 10.1 Mean 683.5 393 Maximum 5420 Median 89.4 394 SD 1174 Std. Error of Mean 123.8 395 Coefficient of Variation 1.718 Skewness 2.179								Statistics					
392 Minimum 10.1 Mean 683.5 393 Maximum 5420 Median 89.4 394 Std. Error of Mean 123.8 395 Coefficient of Variation 1.718 Skewness 2.179				Tota	al Number of O	bservations	90						87
393 Maximum 5420 Median 89.4 394 SD 1174 Std. Error of Mean 123.8 395 Coefficient of Variation 1.718 Skewness 2.179										Numb	er of Missing	Observations	_
393 Maximum 5420 Median 89.4 394 SD 1174 Std. Error of Mean 123.8 395 Coefficient of Variation 1.718 Skewness 2.179						Minimum						Mean	
394 SD 1174 Std. Error of Mean 123.8 395 Coefficient of Variation 1.718 Skewness 2.179	393					Maximum	5420					Median	89.4
395 Coefficient of Variation 1.718 Skewness 2.179				_		SD	1174				Std.	Error of Mean	123.8
					Coefficient	of Variation	1.718					Skewness	2.179
												_	

397	Α	В	С		D	E	F Norma	G al GOF Test	Щ.	Н	<u> </u>		J	K		L
398				Shap	iro Wilk	Test Statisti					Shapiro \	Wilk GC	OF Test			
399						Wilk P Valu				Data No	ot Normal a			ce Leve	l	
400						Test Statisti						rs GOF				
401				1% L	illiefors C	Critical Valu					ot Normal a	at 1% Si	gnifican	ce Leve		
402						Data N	ot Normal a	nt 1% Signific	cance	Level						
403																
404						^	Assuming N	ormal Distrib	oution							
405			959	% Norma		dent's-t UC	L 889.3				UCLs (Ad				00E)	917.5
406 407					95% Siu	denis-i oc	L 009.3				95% Adjus 95% Mod					894
407											33 /0 IVIOU	illieu-t O	JOE (301	1113011-13	770)	034
409							Gamm	a GOF Test								
410					A-D	Test Statisti				Ander	rson-Darlir	ng Gam	ma GO	F Test		
411				í	5% A-D (Critical Valu	e 0.833		Data		nma Distrib					el
412						Test Statisti					jorov-Smir					
413						Critical Valu					nma Distrib	outed at	5% Sigi	nificance	e Lev	əl
414					Da	ata Not Gar	nma Distrib	outed at 5% S	Signifi	cance Le	evel					
415							Comm	a Statistica								
416 417						k hat (MLE		na Statistics				k star /l	bias cori	rected M	ll E)	0.433
417					The	ta hat (MLE	,					ta star (t				1580
419						nu hat (MLE	,		-				star (bia			77.88
420				MLE N		s corrected	,						Sd (bia		,	1039
421											Approxima	ate Chi S	Square '	Value (0	.05)	58.55
422			P	Adjusted	Level of	Significanc	e 0.0473	3				Adjuste	d Chi S	quare V	alue	58.28
423																
424			25	O/ A	lu 1			amma Distrib	bution	<u> </u>		OE0/ 4 :		\	ICI	010.4
425			95	% Appro	ximate (Gamma UC	L 909.2					95% Adj	justed G	amma (JUL	913.4
426 427							Lognore	nal GOF Tes	st .							
428				Shap	iro Wilk	Test Statisti		ilai GOI Tes	,.	Shar	piro Wilk L	oanorm	nal GOF	Test		
429						Wilk P Valu		7			_ognormal				vel	
430						Test Statisti	ic 0.135		-		liefors Log					
431				10% L	illiefors (Critical Valu					_ognormal	at 10%	Signific	ance Le	vel	
432						Data Not	Lognormal	at 10% Sign	ifican	ce Level						
433							•									
434				N #:	mum -f	Logged Dat		mal Statistics	5				loop of	المعماد)o+c	5.054
435 436						Logged Dat Logged Dat							lean of	logged [1.8
437				IVIGA	indin or i	Logged Dat	.a 0.000						00 01	logged I	Jala	-1.0
438						As	suming Log	normal Distr	ributic	on						
439						95% H-UC					900	% Cheb	yshev (ľ	MVUE) I	JCL	1398
440						MVUE) UC						% Cheb				2093
441			9	9% Che	byshev (MVUE) UC	L 2885									
442						Neve	and Piri	hada - E - 1		01-21-11						
443 444								bution Free la Discernible								
444						Data u0	HOLIUHUW 8	DISCELLING	וואוטיי	ibulion						
446						Nonn	arametric D	Distribution F	ree U	CLs						
447					95	% CLT UC						95%	BCA Bo	otstrap l	JCL	923.9
448					ndard Bo	otstrap UC	L 888.4					9	5% Boo	tstrap-t	JCL	935.8
449						otstrap UC						% Perce				896.3
450						an, Sd) UC						Chebysl				1223
451			97.5%	6 Cheby	shev(Me	an, Sd) UC	L 1457				99% (Chebysl	hev(Mea	an, Sd) l	JCL	1915
452							Suggest:									
453 454					95% Str	dent's-t UC		ed UCL to Us	5 6							
454					JJ /0 JIU	401113 - 1 UU	_ 003.3									
456		The ca	alculated	UCLs a	re based	d on assum	ptions that	the data wer	e coll	ected in a	a random :	and unt	piased n	nanner.		
457								collected fro								
458				If th				dgmental or o				ds,				
459					th	en contact	a statisticia	n to correctly	y calc	ulate UC	Ls.					
460																
461								provided to h							UCL.	
462	LI.							ribution, and sets; for addi			•				ictici	
463	HC	wever, Simi	มเสนเบกร โ	ะธนแร่ W	III HOL COV	rei all Real	vvoilu data	seis, iui audi	เแบทสเ	msignt tr	ie user ma	ay want	io const	uii a Sial	isucia	111.

	A B C	D E	F	G H I J K Sets with Non-Detects	L
1		UCL Statist	ics for Data	Sets with Non-Detects	
2	User Selected Option				
3	Date/Time of Computation		Q·15 ΔΜ		
4	From File	WetlandCompleteProUC			
5	Full Precision	OFF	L.XIS		
6	Confidence Coefficient				
7	Number of Bootstrap Operations				
8	Number of Bootstrap Operations	2000			
9	Arsenic				
10	7 1301110				
11			General	Statistics	
12	Tota	al Number of Observations	25	Number of Distinct Observations	25
13				Number of Missing Observations	65
14		Number of Detects	21	Number of Non-Detects	4
15	<u> </u>	Number of Distinct Detects	21	Number of Distinct Non-Detects	4
16		Minimum Detect	1.19	Minimum Non-Detect	3.41
17		Maximum Detect	12.5	Maximum Non-Detect	4.25
18		Variance Detects	6.154	Percent Non-Detects	16%
19		Mean Detects	4.1	SD Detects	2.481
20		Median Detects	3.99	CV Detects	0.605
21		Skewness Detects	1.888	CV Detects Kurtosis Detects	5.878
22		Mean of Logged Detects	1.252	SD of Logged Detects	0.589
23		Mean of Logged Detects	1.232	3D 01 Logged Detects	0.389
24		Norm	al GOF Test	t on Detects Only	
25		Shapiro Wilk Test Statistic	0.833	Shapiro Wilk GOF Test	
26		Shapiro Wilk Critical Value	0.873	Detected Data Not Normal at 1% Significance Level	
27	. 70	Lilliefors Test Statistic	0.153	Lilliefors GOF Test	
28 29		1% Lilliefors Critical Value	0.219	Detected Data appear Normal at 1% Significance Levi	el
30		Detected Data appear	Approximate	Normal at 1% Significance Level	
31			••		
32	Kaplan	n-Meier (KM) Statistics using	g Normal Cri	itical Values and other Nonparametric UCLs	
33		KM Mean	3.81	KM Standard Error of Mean	0.486
34		90KM SD	2.341	95% KM (BCA) UCL	4.677
35		95% KM (t) UCL	4.642	95% KM (Percentile Bootstrap) UCL	4.672
36		95% KM (z) UCL	4.61	95% KM Bootstrap t UCL	4.98
37		90% KM Chebyshev UCL	5.268	95% KM Chebyshev UCL	5.929
38	9	7.5% KM Chebyshev UCL	6.845	99% KM Chebyshev UCL	8.646
39					
40		Gamma GOF	Tests on De	tected Observations Only	
41		A-D Test Statistic	0.367	Anderson-Darling GOF Test	
42		5% A-D Critical Value	0.749	Detected data appear Gamma Distributed at 5% Significance	e Level
43		K-S Test Statistic	0.122	Kolmogorov-Smirnov GOF	
44		5% K-S Critical Value	0.191	Detected data appear Gamma Distributed at 5% Significand	e Level
45		Detected data appear	Gamma Dis	tributed at 5% Significance Level	
46					
47		Gamma	Statistics on	Detected Data Only	
48		k hat (MLE)	3.302	k star (bias corrected MLE)	2.862
49		Theta hat (MLE)	1.242	Theta star (bias corrected MLE)	1.433
50		nu hat (MLE)	138.7	nu star (bias corrected)	120.2
51		Mean (detects)	4.1		
52					
	•				

			3 11 1	
53			ing Imputed Non-Detects	
54	•		NDs with many tied observations at multiple DLs	
55			s <1.0, especially when the sample size is small (e.g., <15-20)	
56			yield incorrect values of UCLs and BTVs	
57	•	-	n the sample size is small.	
58			by be computed using gamma distribution on KM estimates	
59	Minimum	1.19	Mean	3.791
60	Maximum	12.5	Median	3.1
61	SD	2.377	CV	0.627
62	k hat (MLE)	3.335	k star (bias corrected MLE)	2.962
63	Theta hat (MLE)	1.137	Theta star (bias corrected MLE)	1.28
64	nu hat (MLE)	166.8	nu star (bias corrected)	148.1
65	Adjusted Level of Significance (β)	0.0395		
66	Approximate Chi Square Value (148.09, α)	121	Adjusted Chi Square Value (148.09, β)	119.3
67	95% Gamma Approximate UCL	4.641	95% Gamma Adjusted UCL	4.706
68				
69	Estimates of G	amma Paran	neters using KM Estimates	
	Mean (KM)	3.81	SD (KM)	2.341
70	Variance (KM)	5.478	SE of Mean (KM)	0.486
71	k hat (KM)	2.65	k star (KM)	2.359
72	nu hat (KM)	132.5	nu star (KM)	117.9
73	theta hat (KM)	1.438	theta star (KM)	1.615
74	80% gamma percentile (KM)	5.593	90% gamma percentile (KM)	7.132
75	95% gamma percentile (KM)	8.586	99% gamma percentile (KM)	11.78
76	95% gamma percentile (Kivi)	0.000	99% gamma percentile (Kivi)	11.70
77	0	a Kamlan Ma	ion (I/AA) Chatiation	
78		•	eier (KM) Statistics	00.00
79	Approximate Chi Square Value (117.93, α)	93.85	Adjusted Chi Square Value (117.93, β)	92.39
80	95% KM Approximate Gamma UCL	4.787	95% KM Adjusted Gamma UCL	4.863
81				
82			etected Observations Only	
83	Shapiro Wilk Test Statistic	0.953	Shapiro Wilk GOF Test	
84	10% Shapiro Wilk Critical Value	0.923	Detected Data appear Lognormal at 10% Significance Lognormal	evel
85	Lilliefors Test Statistic	0.157	Lilliefors GOF Test	
86	10% Lilliefors Critical Value	0.173	Detected Data appear Lognormal at 10% Significance Lognormal	evel
87	Detected Data app	ear Lognorn	nal at 10% Significance Level	
88				
89	Lognormal ROS	Statistics U	Ising Imputed Non-Detects	
$\overline{}$	Mean in Original Scale	3.799	Mean in Log Scale	1.179
90		2.372	SD in Log Scale	0.565
	SD in Original Scale	2.372		4.581
91	SD in Original Scale 95% t UCL (assumes normality of ROS data)	4.611	95% Percentile Bootstrap UCL	
91 92			95% Percentile Bootstrap UCL 95% Bootstrap t UCL	4.937
90 91 92 93	95% t UCL (assumes normality of ROS data)	4.611		4.937
91 92 93 94	95% t UCL (assumes normality of ROS data) 95% BCA Bootstrap UCL	4.611 4.756		4.937
91 92 93 94 95	95% t UCL (assumes normality of ROS data) 95% BCA Bootstrap UCL 95% H-UCL (Log ROS)	4.611 4.756 4.81	95% Bootstrap t UCL	4.937
91 92 93 94 95 96	95% t UCL (assumes normality of ROS data) 95% BCA Bootstrap UCL 95% H-UCL (Log ROS) Statistics using KM estimates of	4.611 4.756 4.81 on Logged Da		4.937
91 92 93 94 95 96	95% t UCL (assumes normality of ROS data) 95% BCA Bootstrap UCL 95% H-UCL (Log ROS) Statistics using KM estimates of KM Mean (logged)	4.611 4.756 4.81 on Logged Da 1.172	95% Bootstrap t UCL ata and Assuming Lognormal Distribution KM Geo Mean	3.23
91 92 93 94 95 96 97	95% t UCL (assumes normality of ROS data) 95% BCA Bootstrap UCL 95% H-UCL (Log ROS) Statistics using KM estimates of KM Mean (logged) KM SD (logged)	4.611 4.756 4.81 on Logged Da 1.172 0.579	ata and Assuming Lognormal Distribution KM Geo Mean 95% Critical H Value (KM-Log)	3.23 2.028
91 92 93 94 95 96 97 98	95% t UCL (assumes normality of ROS data) 95% BCA Bootstrap UCL 95% H-UCL (Log ROS) Statistics using KM estimates of KM Mean (logged) KM SD (logged) KM Standard Error of Mean (logged)	4.611 4.756 4.81 on Logged Da 1.172 0.579 0.124	95% Bootstrap t UCL ata and Assuming Lognormal Distribution KM Geo Mean 95% Critical H Value (KM-Log) 95% H-UCL (KM -Log)	3.23 2.028 4.854
91 92 93 94 95 96 97 98 99	95% t UCL (assumes normality of ROS data) 95% BCA Bootstrap UCL 95% H-UCL (Log ROS) Statistics using KM estimates of KM Mean (logged) KM SD (logged) KM Standard Error of Mean (logged) KM SD (logged)	4.611 4.756 4.81 on Logged Da 1.172 0.579 0.124 0.579	ata and Assuming Lognormal Distribution KM Geo Mean 95% Critical H Value (KM-Log)	3.23 2.028
91 92 93 94 95 96 97	95% t UCL (assumes normality of ROS data) 95% BCA Bootstrap UCL 95% H-UCL (Log ROS) Statistics using KM estimates of KM Mean (logged) KM SD (logged) KM Standard Error of Mean (logged) KM SD (logged) KM SD (logged) KM SD (logged)	4.611 4.756 4.81 on Logged Da 1.172 0.579 0.124	95% Bootstrap t UCL ata and Assuming Lognormal Distribution KM Geo Mean 95% Critical H Value (KM-Log) 95% H-UCL (KM -Log)	3.23 2.028 4.854

Α

В

С

D

Ε

F

G

Н

J

K

	Α		В			С		D		E	F DI /2 9	G Statistics		Н					J		K		L
103						DL/2	Nor	mal			טטע ז	riausuos				יו וח	2 I oa-'	Trans	formed				
104						DUZ			Origin	al Scale	3.756						LUg-	IIalis	Mean		ا مم د	Scalo	1.158
105							- 11			al Scale												Scale	0.582
106						35% +	HCI			ormality)											_	UCL	4.801
107					•			`		• • •	ethod, provid	led for com	nari	eone s	and h	ietori	cal res	eone		/0 1 1-	-Siai	UCL	4.601
108						DUZ	. 15 11	Ji a Ieci	Omme	ilueu III	eulou, provid	ieu ioi com	pan	30113 6	and n	iiStOi i	Carre	350115)				
109									No	nnarama	etric Distribu	tion Eree I I		Statict	ice								
110						D	otoo	ad Data			oximate Nor					ifico	200 0	wol					
111						De	BIEC	eu Dala	appe	аі Арріс	DXIIIIale NOII	ilai Distribu	ileu	al 170	Sigil	IIIICai	ice Le	VEI					
112											Suggested	UCL to Use											
113								95	% KM	I (t) UCL		UCL 10 US											
114								33	70 IXIV	i (i) OCL	4.042											\longrightarrow	
115						\//ho	n a	tata sat	follow	ve an an	proximate d	ietribution n	200	ina on	ly on	o of t	ho GC)E toc	tc				
116										-		-		-	-								
						11 15 51	ugge	sieu io	use a	UCL Da	seu upon a i	JISHIDUHOH	pas	sing b	our G	IOF I	esis III	FIOC	JCL				
118		NI.	nta: Suar	IOC+	iono	regor	dina	the sel-	action	of a DEC	% LICL ara n	rovidad ta b	مام	tho	or to	colo	ot the	most	annron	riota	0 0 5 0	% HCI	
		110				•	_																
		Цс																					an.
		TOW	ever, sim	iula	tions	s resu	iits w	III not co	over a	ii Reai v	voria data se	ets; for addi	tion	ai insi	gnt tr	ie us	er may	/ wan	t to con	ISUIT	a sta	JUSUCI	an.
	Codmium																						
123																							
											Conorol	Statistics											
it is suggested to use a UCL based upon a distribution passing both GOF tests in ProUCL Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UC Recommendations are based upon data size, data distribution, and skewness using results from simulation studies. However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistic Cadmium Cadmium Cadmium Total Number of Observations Total Number of Observations Number of Missing Observations Number of Non-Detects Number of Non-Detects				tiona	25																		
						Tota	ai inu	mber or	Obse	ervations	25												
								NI	<i>. 6</i>	D-11-	10					ľ	numbe						65
128																							7
129						N	Num										Numb						7
130										n Detect									Minimur				0.188
131										n Detect									laximur				0.727
132										Detects								- 1	Percent				28%
133										Detects												tects	1.394
134										Detects									17			tects	0.865
135										Detects								_				tects	1.586
136							IVIE	an of Lo	oggea	Detects	0.176							5	D of Lo	gge	a De	tects	0.786
137										N 1	- 1 00F T-												
138							01	: \A/:II	. T		nal GOF Tes	st on Detect	IS O	nıy		01	\4	::. O	>= T				
139										Statistic									OF Test				
140						1% 5				al Value			De	etected	ı Dat				1% Sig	nitic	ance	Leve	1
141										Statistic			D - 4	41 1			lliefors			·· · ·	<i>c</i> :	1	1
142										al Value								mai a	at 1% S	ignit	ican	ce Lev	/ei
143							١)etecte	d Data	appear	Approximat	e Normal at	t 1%	Signi	tican	ce Le	evel						
144								(128.4)	O: ::														
145					K	apıan	-ме	er (KM)			ng Normal C	ritical Value	es ai	na otn	er No	npar				_			0.07
146										M Mean							K		andard I				0.27
147								^-		0KM SD						050	178.4.4		95% KI	•	•		1.707
148										() UCL						95%	KM (l		entile Bo				1.701
149							000			(z) UCL									KM Bo		•		1.859
150										nev UCL									KM Ch				2.395
151						9	/ .5%	KM Ch	nebysł	nev UCL	2.904							99%	KM Ch	ebys	shev	UCL	3.905
152																							

	Α	В	С	D	E		F	G	Н		J	K	L
153								tected Obse					
154					Test Statis		0.541				rling GOF Te		
155					Critical Va		0.754	Detected			istributed at		nce Level
156					S Test Statis		0.137				Smirnov GO		
157					Critical Va		0.207				istributed at	5% Significar	nce Level
158				Detecte	ed data app	ear Gai	mma Dis	tributed at 5°	% Significan	ce Level			
159					Com	ma Ctat	4ia4iaa an	Datastad Da	nto Only				
160								Detected Da	ata Only	I.	/bi		1.544
161				TL	k hat (Mi neta hat (Mi	- 1	1.809 0.891				star (bias co		
162					nu hat (M		65.11			Пеца	•	as corrected)	
163					/lean (dete	,	1.612				nu star (bia	as corrected)	55.59
164					nean (detet	J(S)	1.012						
165					Gamma R	OS Sta	itietice ile	ing Imputed	Non-Detects	•			
166			GROS may	not he use				<u> </u>			t multiple DLs		
167		GROS may	•						•		size is small (
168		— artoo may						yield incorre		·	,	c.g., 110-20)	
169				J Such Situ				n the sample					
170		For dar	mma distribut	ted detecte		•		•			ution on KM	estimates	
171		- Tor gar	Tima distribu		Minim	-	0.01	y be compa	tou doing gu	Tima distrib		Mean	1.163
172					Maxim		5.03					Median	
173							1.384					CV	
174					k hat (MI	_	0.486			k	star (bias co		0.454
175				Th	neta hat (M	- 1	2.395				star (bias co	,	
176 177					nu hat (M		24.28				•	as corrected)	22.7
178			Adjusted	Level of S	,	1	0.0395						
179		Apr	oroximate Ch		-		12.87			Adjusted Ch	ni Square Val	ue (22.70, β)	12.36
180			95% G	amma App	roximate U	JCL	2.053				5% Gamma A		
181													
182				ı	Estimates o	of Gamn	na Paran	neters using	KM Estimate	es			
183					Mean (k	(M)	1.217					SD (KM)	1.312
184				,	Variance (k	(M)	1.722				SE c	of Mean (KM)	0.27
185	-				k hat (k	(M)	0.861					k star (KM)	0.784
186					nu hat (k	(M) 4	43.03					nu star (KM)	39.2
187				,	theta hat (k	(M)	1.415				the	eta star (KM)	1.553
188			80%	% gamma p	ercentile (k	(M)	1.992			909	% gamma pe	rcentile (KM)	2.975
189			95%	% gamma p	ercentile (k	(M)	3.978			999	% gamma pe	rcentile (KM)	6.351
190						ı		•					
191					Ga	mma Ka	aplan-Me	eier (KM) Sta	itistics				
192		App	oroximate Ch	i Square V	alue (39.20	, α) 2	25.86			Adjusted Ch	ni Square Val	ue (39.20, β)	25.12
193			95% KM A	pproximate	Gamma L	JCL	1.846			95% k	(M Adjusted (Gamma UCL	1.9
194													
195								etected Obse	ervations On	•			
196				hapiro Will			0.95			-	ilk GOF Test		
197			10% S	hapiro Wilk			0.914	Dete	cted Data ap		ormal at 10%	Significance	Level
198					Test Statis		0.0946				GOF Test		
199			10	% Lilliefors			0.185				ormal at 10%	Significance	Level
200				Det	ected Data	appear	r Lognorr	nal at 10% S	ignificance L	_evel			
201													
_	· · · · · · · · · · · · · · · · · · ·	·								·	· · · · · · · · · · · · · · · · · · ·		

202	Α	В	С	D Lo	E ognormal ROS	F S Statistics U	G Ising Imput	H ed Non-Det	ects		J	K	L
203				Mean in C	Original Scale	1.218					Mean	in Log Scale	-0.319
204				SD in C	Original Scale	1.338					SD	in Log Scale	1.048
205		95% t	UCL (assum	es normality	of ROS data)	1.676			95	% Perc	entile Bo	ootstrap UCL	1.673
206				95% BCA B	ootstrap UCL	1.737				9	95% Boo	otstrap t UCL	1.881
207				95% H-UC	CL (Log ROS)	2.176							
208													
209			Stati	stics using K	M estimates o	on Logged D	ata and Ass	suming Log	normal Dist	ribution			
210				KM N	lean (logged)	-0.327					K	M Geo Mean	0.721
211				KN	1 SD (logged)	1.041			95'	% Critic	al H Va	lue (KM-Log)	2.547
212			KM Standa	ard Error of M	lean (logged)	0.215				95	5% H-U0	CL (KM -Log)	2.129
213				KN	1 SD (logged)	1.041			95	% Critic	al H Va	lue (KM-Log)	2.547
214			KM Standa	ard Error of M	lean (logged)	0.215							
215													
216						DL/2 St	atistics						
217			DL/2	Normal					DL/2 Lo	g-Trans	formed		
218				Mean in C	Original Scale	1.206					Mean	in Log Scale	-0.41
219				SD in C	Original Scale	1.348					SD	in Log Scale	1.188
220			95% t	UCL (Assum	es normality)	1.668					95%	6 H-Stat UCL	2.614
221			DL/2	is not a reco	mmended me	thod, provid	ed for comp	arisons and	d historical r	reasons	i		
222													
223					Nonparame	tric Distribut	ion Free UC	CL Statistics	3				
224			De	etected Data	appear Appro	ximate Norn	nal Distribut	ed at 1% S	ignificance l	Level			
225													
226						Suggested	UCL to Use						
227				959	% KM (t) UCL	1.68							-
228													
229			Whe	n a data set	follows an app	oroximate dis	stribution pa	ssing only	one of the C	GOF tes	ts,		
230			it is su	iggested to ι	ise a UCL bas	sed upon a d	istribution p	assing both	GOF tests	in Prol	JCL		
231													
232		Note: Sugge	estions regar	ding the sele	ction of a 95%	6 UCL are pr	ovided to h	elp the user	r to select th	ne most	appropi	riate 95% UC	
233		Recor	nmendations	are based u	pon data size	, data distrib	ution, and s	kewness u	sing results	from sir	nulation	studies.	
234	Н	owever, sim	ulations resu	lts will not co	ver all Real W	orld data se	ts; for addit	ional insigh	t the user m	nay wan	t to cons	sult a statistic	ian.
235													
236 C	Cobalt												
237													
238						General	Statistics						
239			Tota	I Number of	Observations	25			Num	ber of E	Distinct (Observations	25
240						*			Num	ber of N	lissing (Observations	65
241				Numb	er of Detects	21						Non-Detects	4
242			N	lumber of Dis	stinct Detects	21			Nun	nber of	Distinct	Non-Detects	4
243				Mir	nimum Detect	1.82				N	Minimun	n Non-Detect	3.41
244				Мах	kimum Detect	82.3				N	laximun	n Non-Detect	4.07
245				Vari	ance Detects	295				ı	Percent	Non-Detects	16%
246				Ŋ	Mean Detects	7.735						SD Detects	17.17
247				Me	edian Detects	4.64						CV Detects	2.22
248					ness Detects	4.504					Kur	tosis Detects	20.49
249					gged Detects	1.434				S		gged Detects	0.822
250					Norm	al GOF Tes	t on Detects	Only					
251				Shapiro Wilk	Test Statistic	0.31			Shapiro	Wilk GO	OF Test		
252					Critical Value	0.873		Detected Γ	•			nificance Leve	<u> </u>
253			.,,,		Test Statistic	0.466				ors GOF			
254					Critical Value	0.400		Detected F				nificance Leve	<u> </u>
255					vaiu6	5.215		_ J.JJ.J.J. L		ai at	Oigi		-

	A B C D E	F Not Normal	G H I J K at 1% Significance Level	L
256	Delected Date	4 140t 1401111ai	at 170 Oignineance 20701	
257	Kanlan-Meier (KM) Statistics usin	a Normal Cri	tical Values and other Nonparametric UCLs	
258	KM Mean		KM Standard Error of Mean	3.174
259	90KM SD		95% KM (BCA) UCL	13.36
260	95% KM (t) UCL		95% KM (Percentile Bootstrap) UCL	13.06
261		12.3	95% KM (Percentile Bootstrap) UCL	41.66
262	95% KM (z) UCL			
263	90% KM Chebyshev UCL		95% KM Chebyshev UCL	20.71
264	97.5% KM Chebyshev UCL	26.7	99% KM Chebyshev UCL	38.46
265	Gamma GOF	Tests on Det	tected Observations Only	
266	A-D Test Statistic		Anderson-Darling GOF Test	
267	5% A-D Critical Value		Detected Data Not Gamma Distributed at 5% Significance	Lovol
268	K-S Test Statistic		Kolmogorov-Smirnov GOF	Level
269	5% K-S Critical Value		Detected Data Not Gamma Distributed at 5% Significance	Lovel
270			-	Level
271	Detected Data Not C	aamma Distri	ibuted at 5% Significance Level	
272	0	01-41-41	Date at all Date Only	
273			Detected Data Only	0.040
274	k hat (MLE)		k star (bias corrected MLE)	0.846
275	Theta hat (MLE)		Theta star (bias corrected MLE)	9.146
276	nu hat (MLE)		nu star (bias corrected)	35.52
277	Mean (detects)	7.735		
278				
279			ing Imputed Non-Detects	
280			NDs with many tied observations at multiple DLs	
281	·		s <1.0, especially when the sample size is small (e.g., <15-20)	
282		=	yield incorrect values of UCLs and BTVs	
283	·	-	n the sample size is small.	
284			by be computed using gamma distribution on KM estimates	
285	Minimum	0.01	Mean	6.499
286	Maximum		Median	2.6
287	SD	15.94	CV	2.453
288	k hat (MLE)	0.459	k star (bias corrected MLE)	0.43
289	Theta hat (MLE)	14.17	Theta star (bias corrected MLE)	15.1
290	nu hat (MLE)	22.93	nu star (bias corrected)	21.51
291	Adjusted Level of Significance (β)	0.0395		
292	Approximate Chi Square Value (21.51, α)	11.97	Adjusted Chi Square Value (21.51, β)	11.49
				11.43
	95% Gamma Approximate UCL	11.68	95% Gamma Adjusted UCL	12.17
293	95% Gamma Approximate UCL	11.68	95% Gamma Adjusted UCL	
293 294	•		95% Gamma Adjusted UCL	
293 294 295	•	amma Paran	·	
293294295296	Estimates of G	amma Paran	neters using KM Estimates	12.17
293 294 295 296 297	Estimates of G Mean (KM)	6.873 239.9	neters using KM Estimates SD (KM)	12.17
293 294 295 296 297 298	Estimates of G Mean (KM) Variance (KM)	amma Param 6.873 239.9 0.197	neters using KM Estimates SD (KM) SE of Mean (KM)	12.17 15.49 3.174
293 294 295 296 297 298 299	Estimates of G Mean (KM) Variance (KM) k hat (KM)	6.873 239.9 0.197 9.844	neters using KM Estimates SD (KM) SE of Mean (KM) k star (KM)	12.17 15.49 3.174 0.2
293 294 295 296 297 298 299	Estimates of G Mean (KM) Variance (KM) k hat (KM) nu hat (KM)	amma Param 6.873 239.9 0.197 9.844 34.91	neters using KM Estimates SD (KM) SE of Mean (KM) k star (KM) nu star (KM)	12.17 15.49 3.174 0.2 9.996
293 294 295 296 297 298 299 300 301	Estimates of G Mean (KM) Variance (KM) k hat (KM) nu hat (KM) theta hat (KM)	6.873 239.9 0.197 9.844 34.91 9.054	SD (KM) SE of Mean (KM) k star (KM) nu star (KM) theta star (KM)	12.17 15.49 3.174 0.2 9.996 34.38
293 294 295 296 297 298 299 300 301	Estimates of G Mean (KM) Variance (KM) k hat (KM) nu hat (KM) theta hat (KM) 80% gamma percentile (KM)	6.873 239.9 0.197 9.844 34.91 9.054	SD (KM) SE of Mean (KM) k star (KM) nu star (KM) theta star (KM) 90% gamma percentile (KM)	12.17 15.49 3.174 0.2 9.996 34.38 20.79
293 294 296 297 298 299 300 301 302 303	Estimates of G Mean (KM) Variance (KM) k hat (KM) nu hat (KM) theta hat (KM) 80% gamma percentile (KM) 95% gamma percentile (KM)	6.873 239.9 0.197 9.844 34.91 9.054 35.42	SD (KM) SE of Mean (KM) k star (KM) nu star (KM) theta star (KM) 90% gamma percentile (KM) 99% gamma percentile (KM)	12.17 15.49 3.174 0.2 9.996 34.38 20.79
293 294 295 296 297 298 299 300 301 302 303 304	Estimates of G Mean (KM) Variance (KM) k hat (KM) nu hat (KM) theta hat (KM) 80% gamma percentile (KM) 95% gamma percentile (KM)	6.873 239.9 0.197 9.844 34.91 9.054 35.42	SD (KM) SE of Mean (KM) k star (KM) nu star (KM) theta star (KM) 90% gamma percentile (KM) 99% gamma percentile (KM)	12.17 15.49 3.174 0.2 9.996 34.38 20.79 75.69
293 294 295 296 297 298 299 300 301 302 303 304 305	Estimates of G Mean (KM) Variance (KM) k hat (KM) nu hat (KM) theta hat (KM) 80% gamma percentile (KM) 95% gamma percentile (KM)	6.873 239.9 0.197 9.844 34.91 9.054 35.42	SD (KM) SE of Mean (KM) k star (KM) nu star (KM) theta star (KM) 90% gamma percentile (KM) 99% gamma percentile (KM) 499% gamma percentile (KM) 499% gamma percentile (KM) 499% gamma percentile (KM)	12.17 15.49 3.174 0.2 9.996 34.38 20.79 75.69
293 294 295 296 297 298 299 300 301	Estimates of G Mean (KM) Variance (KM) k hat (KM) nu hat (KM) theta hat (KM) 80% gamma percentile (KM) 95% gamma percentile (KM)	6.873 239.9 0.197 9.844 34.91 9.054 35.42	SD (KM) SE of Mean (KM) k star (KM) nu star (KM) theta star (KM) 90% gamma percentile (KM) 99% gamma percentile (KM)	12.17 15.49 3.174 0.2 9.996 34.38 20.79 75.69

	Α		В		С		D		E	F	G	Н		I		J		K		L
308										OF Test on D	etected Obs	ervations (
309									t Statistic					napiro \						
310					10% \$				cal Value		D	etected Da		•			Signif	icance L	evel	
311									Statistic					Lilliefo						
312					1	0% L			cal Value			etected Da		•	rmal a	it 10%	Signif	icance L	evel	
313								Detecte	ed Data	Not Lognorm	al at 10% Si	ignificance	Level							
314																				
315										OS Statistics	Using Impute	ed Non-Det	tects						_	
316						М			nal Scale									og Scale		1.349
317								•	nal Scale									og Scale		0.776
318		(95% t L	JCL (assum				OS data	1				959				trap UCL		13.12
319									trap UCI							95% B	ootstr	ap t UCL	- 4	42.03
320						95	5% H-L	JCL (L	og ROS	7.418										
321																				
322					Stat	istics	_			on Logged I	Data and Ass	suming Log	gnorma	al Distri	ibutior					
323									(logged	-								eo Mean		3.818
324									(logged					95%				KM-Log)		2.219
325				KM	Stand	ard E			(logged	<i>'</i>							,	KM -Log)	'	7.264
326									(logged					95%	% Criti	cal H V	'alue (KM-Log))	2.219
327				KM	Stand	ard E	rror of	Mean	(logged	0.158										
328																				
329										DL/2 S	Statistics									
330					DL/2	Norn							DI	L/2 Log	g-Trans					
331						М			nal Scale									og Scale		1.305
332								•	nal Scale									og Scale		0.81
333							`		ormality	<i>'</i>							5% H-S	Stat UCL	-	7.443
334					DL/2	2 is no	ot a rec	comme	ended m	nethod, provi	ded for comp	arisons an	nd histo	orical re	eason	S				
335																				
336									•	netric Distribu										
337)ata do i	not follow a [Discernible D	istribution								
338																				
339											UCL to Use	1								
340							9	5% KN	/I (t) UCL	L 12.3									L	
341																				
342			The ca	lculat	ed UC	CLs ar			•	tions that the					d unbi	ased m	nanne	r		
343										data were co										
344						If the				d using judgı				nethods	s,					
345								then c	ontact a	a statistician	o correctly c	alculate UC	CLs.							
346																				
347										% UCL are p									L.	
348								-		e, data distri										
349	Ho	oweve	r, simu	lation	s resu	ılts wi	ill not c	cover a	ıll Real \	World data s	ets; for additi	ional insigh	nt the ι	user ma	ay war	nt to co	nsult a	a statistic	cian.	
350																				

	Α	В	С		D		E	F	G	Н		J	K	L
351	Nickel													
352														
353									Statistics					
354			Tota	al Num	ber of	Obse	rvations	25				er of Distinct (-
355											Numbe	r of Missing (
356							Detects	-					Non-Detects	
357			<u> </u>	Numbe			Detects	20			Numb	er of Distinct		-
358							n Detect						n Non-Detect	
359							n Detect	_					n Non-Detect	-
360							Detects					Percent	Non-Detects	
361							Detects						SD Detects	
362							Detects	12.85					CV Detects	
363							Detects	1.904					tosis Detects	
364				Mea	n of Lo	gged	Detects	2.627				SD of Log	gged Detects	0.614
365														
366								nal GOF Tes	t on Detects	Only				
367							Statistic				="	ilk GOF Test		
368			1% 5	•			al Value	0.868		Detected Da		al at 1% Sign	ificance Leve	el
369							Statistic	0.195				GOF Test		
370							al Value					mal at 1% Sig	gnificance Le	evel
371				De	etected	l Data	appear	Approximate	e Normal at	1% Significa	nce Level			
372														
373			Kaplan	-Meie	r (KM)			<u> </u>	itical Values	and other N	•			
374							M Mean	14.42			KI	M Standard E		
375							OKM SD						I (BCA) UCL	
376							(t) UCL	18.63			•	Percentile Bo	• •	
377							(z) UCL	18.47				95% KM Boo	•	
378						•	nev UCL					95% KM Che	•	
379			9	7.5% I	KM Che	ebysh	nev UCL	29.79				99% KM Che	byshev UCL	38.9
380														
381					(Gamr	na GOF	Tests on De	tected Obse	ervations Onl				
382					A-D	Test	Statistic					rling GOF Te		
383				59			al Value		Detecte			istributed at		nce Level
384							Statistic					-Smirnov GO		
385		 					al Value					istributed at !	5% Significar	nce Level
386				D	etecte	d data	a appear	Gamma Dis	stributed at 5	5% Significan	ice Level			
387		 												
388								Statistics on	Detected D	ata Only				
389							et (MLE)					star (bias cor		
390					The	eta ha	at (MLE)	6.301			Theta	star (bias cor	rected MLE)	
391						nu ha	at (MLE)	107				nu star (bia	as corrected)	92.32
392					М	ean (detects)	16.86						
393														

394	A D C D E		GHIJK	L
			ing Imputed Non-Detects	
95			6 NDs with many tied observations at multiple DLs	
96			s <1.0, especially when the sample size is small (e.g., <15-20)	
97	For such situations, GROS	method may	yield incorrect values of UCLs and BTVs	
98	This is especi	ally true whe	en the sample size is small.	
99	For gamma distributed detected data, BTVs a	and UCLs ma	ay be computed using gamma distribution on KM estimates	
00	Minimum	0.01	Mean	13.57
01	Maximum	51.4	Median	10.2
02	SD	13.01	CV	0.959
03	k hat (MLE)	0.585	k star (bias corrected MLE)	0.542
04	Theta hat (MLE)	23.19	Theta star (bias corrected MLE)	25.05
05	nu hat (MLE)	29.27	nu star (bias corrected)	27.09
	Adjusted Level of Significance (β)	0.0395	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	
)6)7	Approximate Chi Square Value (27.09, α)		Adjusted Chi Square Value (27.09, β)	15.65
)7	95% Gamma Approximate UCL	22.66	95% Gamma Adjusted UCL	23.5
80	- Con Gamma / pproximate GGE	22.00	30% damma / ajasisa 302	20.0
)9	Estimates of G	amma Daran	neters using KM Estimates	
10	Mean (KM)	14.42	SD (KM)	11.98
11		143.5	SE of Mean (KM)	2.461
12	Variance (KM)		, ,	
13	k hat (KM)	1.449	k star (KM)	1.302
14	nu hat (KM)	72.47	nu star (KM)	65.1
15	theta hat (KM)	9.949	theta star (KM)	11.07
16	80% gamma percentile (KM)		90% gamma percentile (KM)	31.11
17	95% gamma percentile (KM)	39.4	99% gamma percentile (KM)	58.31
18				
19	Gamm	na Kaplan-Me	eier (KM) Statistics	
20	Approximate Chi Square Value (65.10, α)	47.54	Adjusted Chi Square Value (65.10, β)	46.51
21	95% KM Approximate Gamma UCL	19.75	95% KM Adjusted Gamma UCL	20.18
22				
	Lognormal GO	F Test on De	etected Observations Only	
23	Lognormal GO Shapiro Wilk Test Statistic		etected Observations Only Shapiro Wilk GOF Test	
23 24		0.94	•	evel
23 24 25	Shapiro Wilk Test Statistic	0.94	Shapiro Wilk GOF Test	evel
22 23 24 25 26	Shapiro Wilk Test Statistic 10% Shapiro Wilk Critical Value	0.94 0.92	Shapiro Wilk GOF Test Detected Data appear Lognormal at 10% Significance Le	
23 24 25 26 27	Shapiro Wilk Test Statistic 10% Shapiro Wilk Critical Value Lilliefors Test Statistic 10% Lilliefors Critical Value	0.94 0.92 0.117 0.176	Shapiro Wilk GOF Test Detected Data appear Lognormal at 10% Significance Le Lilliefors GOF Test	
23 24 25 26 27 28	Shapiro Wilk Test Statistic 10% Shapiro Wilk Critical Value Lilliefors Test Statistic 10% Lilliefors Critical Value	0.94 0.92 0.117 0.176	Shapiro Wilk GOF Test Detected Data appear Lognormal at 10% Significance Le Lilliefors GOF Test Detected Data appear Lognormal at 10% Significance Le	
23 24 25 26 27 28	Shapiro Wilk Test Statistic 10% Shapiro Wilk Critical Value Lilliefors Test Statistic 10% Lilliefors Critical Value Detected Data app	0.94 0.92 0.117 0.176 pear Lognorr	Shapiro Wilk GOF Test Detected Data appear Lognormal at 10% Significance Le Lilliefors GOF Test Detected Data appear Lognormal at 10% Significance Le mal at 10% Significance Level	
23 24 25 26 27 28 29	Shapiro Wilk Test Statistic 10% Shapiro Wilk Critical Value Lilliefors Test Statistic 10% Lilliefors Critical Value Detected Data app	0.94 0.92 0.117 0.176 pear Lognorr	Shapiro Wilk GOF Test Detected Data appear Lognormal at 10% Significance Le Lilliefors GOF Test Detected Data appear Lognormal at 10% Significance Le mal at 10% Significance Level Using Imputed Non-Detects	evel
23 24 25 26 27 28 29 30	Shapiro Wilk Test Statistic 10% Shapiro Wilk Critical Value Lilliefors Test Statistic 10% Lilliefors Critical Value Detected Data app Lognormal ROS Mean in Original Scale	0.94 0.92 0.117 0.176 pear Lognorr S Statistics U	Shapiro Wilk GOF Test Detected Data appear Lognormal at 10% Significance Le Lilliefors GOF Test Detected Data appear Lognormal at 10% Significance Le mal at 10% Significance Level Using Imputed Non-Detects Mean in Log Scale	2.38
23 24 25 26 27 28 29 30 31	Shapiro Wilk Test Statistic 10% Shapiro Wilk Critical Value Lilliefors Test Statistic 10% Lilliefors Critical Value Detected Data app Lognormal ROS Mean in Original Scale SD in Original Scale	0.94 0.92 0.117 0.176 pear Lognorr S Statistics L 14.32 12.3	Shapiro Wilk GOF Test Detected Data appear Lognormal at 10% Significance Le Lilliefors GOF Test Detected Data appear Lognormal at 10% Significance Le mal at 10% Significance Level Jsing Imputed Non-Detects Mean in Log Scale SD in Log Scale	2.38 0.75
23 24 25 26 27 28 29 30 31 32 33	Shapiro Wilk Test Statistic 10% Shapiro Wilk Critical Value Lilliefors Test Statistic 10% Lilliefors Critical Value Detected Data app Lognormal ROS Mean in Original Scale SD in Original Scale 95% t UCL (assumes normality of ROS data)	0.94 0.92 0.117 0.176 pear Lognorr S Statistics L 14.32 12.3 18.53	Shapiro Wilk GOF Test Detected Data appear Lognormal at 10% Significance Le Lilliefors GOF Test Detected Data appear Lognormal at 10% Significance Le mal at 10% Significance Level Using Imputed Non-Detects Mean in Log Scale SD in Log Scale 95% Percentile Bootstrap UCL	2.38 0.75 18.45
23 24 25 26 27 28 29 30 31 32 33 34	Shapiro Wilk Test Statistic 10% Shapiro Wilk Critical Value Lilliefors Test Statistic 10% Lilliefors Critical Value Detected Data app Lognormal ROS Mean in Original Scale SD in Original Scale 95% t UCL (assumes normality of ROS data) 95% BCA Bootstrap UCL	0.94 0.92 0.117 0.176 pear Lognorr S Statistics L 14.32 12.3 18.53 19.18	Shapiro Wilk GOF Test Detected Data appear Lognormal at 10% Significance Le Lilliefors GOF Test Detected Data appear Lognormal at 10% Significance Le mal at 10% Significance Level Jsing Imputed Non-Detects Mean in Log Scale SD in Log Scale	2.38 0.75
23	Shapiro Wilk Test Statistic 10% Shapiro Wilk Critical Value Lilliefors Test Statistic 10% Lilliefors Critical Value Detected Data app Lognormal ROS Mean in Original Scale SD in Original Scale 95% t UCL (assumes normality of ROS data)	0.94 0.92 0.117 0.176 pear Lognorr S Statistics L 14.32 12.3 18.53	Shapiro Wilk GOF Test Detected Data appear Lognormal at 10% Significance Le Lilliefors GOF Test Detected Data appear Lognormal at 10% Significance Le mal at 10% Significance Level Using Imputed Non-Detects Mean in Log Scale SD in Log Scale 95% Percentile Bootstrap UCL	2.38 0.75 18.45
23 24 25 26 27 28 29 30 31 32 33 34 35 36	Shapiro Wilk Test Statistic 10% Shapiro Wilk Critical Value Lilliefors Test Statistic 10% Lilliefors Critical Value Detected Data app Lognormal ROS Mean in Original Scale SD in Original Scale SD in Original Scale 95% t UCL (assumes normality of ROS data) 95% BCA Bootstrap UCL 95% H-UCL (Log ROS)	0.94 0.92 0.117 0.176 pear Lognorr S Statistics U 14.32 12.3 18.53 19.18 20.04	Shapiro Wilk GOF Test Detected Data appear Lognormal at 10% Significance Le Lilliefors GOF Test Detected Data appear Lognormal at 10% Significance Le mal at 10% Significance Level Using Imputed Non-Detects Mean in Log Scale SD in Log Scale 95% Percentile Bootstrap UCL 95% Bootstrap t UCL	2.38 0.75 18.45
23 24 25 26 27 28 29 30 31 32 33 34 35 36	Shapiro Wilk Test Statistic 10% Shapiro Wilk Critical Value Lilliefors Test Statistic 10% Lilliefors Critical Value Detected Data app Lognormal ROS Mean in Original Scale SD in Original Scale SD in Original Scale 95% t UCL (assumes normality of ROS data) 95% BCA Bootstrap UCL 95% H-UCL (Log ROS) Statistics using KM estimates of	0.94 0.92 0.117 0.176 pear Lognorr S Statistics L 14.32 12.3 18.53 19.18 20.04	Shapiro Wilk GOF Test Detected Data appear Lognormal at 10% Significance Le Lilliefors GOF Test Detected Data appear Lognormal at 10% Significance Le mal at 10% Significance Level Jsing Imputed Non-Detects Mean in Log Scale SD in Log Scale 95% Percentile Bootstrap UCL 95% Bootstrap t UCL ata and Assuming Lognormal Distribution	2.38 0.75 18.45 20.8
23 24 25 26 27 28 29 30 31 32 33 34 35 36 37	Shapiro Wilk Test Statistic 10% Shapiro Wilk Critical Value Lilliefors Test Statistic 10% Lilliefors Critical Value Detected Data app Lognormal ROS Mean in Original Scale SD in Original Scale SD in Original Scale 95% t UCL (assumes normality of ROS data) 95% BCA Bootstrap UCL 95% H-UCL (Log ROS) Statistics using KM estimates of KM Mean (logged)	0.94 0.92 0.117 0.176 pear Lognorr S Statistics U 14.32 12.3 18.53 19.18 20.04 on Logged D 2.4	Shapiro Wilk GOF Test Detected Data appear Lognormal at 10% Significance Le Lilliefors GOF Test Detected Data appear Lognormal at 10% Significance Le mal at 10% Significance Level Using Imputed Non-Detects Mean in Log Scale SD in Log Scale 95% Percentile Bootstrap UCL 95% Bootstrap t UCL ata and Assuming Lognormal Distribution KM Geo Mean	2.38 0.75 18.45 20.8
23 24 25 26 27 28 29 30 31 32 33 34 35 36 37	Shapiro Wilk Test Statistic 10% Shapiro Wilk Critical Value Lilliefors Test Statistic 10% Lilliefors Critical Value Detected Data app Lognormal ROS Mean in Original Scale SD in Original Scale SD in Original Scale 95% t UCL (assumes normality of ROS data) 95% BCA Bootstrap UCL 95% H-UCL (Log ROS) Statistics using KM estimates of KM Mean (logged) KM SD (logged)	0.94 0.92 0.117 0.176 pear Lognorr S Statistics L 14.32 12.3 18.53 19.18 20.04 on Logged D 2.4 0.713	Shapiro Wilk GOF Test Detected Data appear Lognormal at 10% Significance Le Lilliefors GOF Test Detected Data appear Lognormal at 10% Significance Le mal at 10% Significance Level Jsing Imputed Non-Detects Mean in Log Scale SD in Log Scale 95% Percentile Bootstrap UCL 95% Bootstrap t UCL ata and Assuming Lognormal Distribution KM Geo Mean 95% Critical H Value (KM-Log)	2.38 0.75 18.45 20.8
23	Shapiro Wilk Test Statistic 10% Shapiro Wilk Critical Value Lilliefors Test Statistic 10% Lilliefors Critical Value Detected Data app Lognormal ROS Mean in Original Scale SD in Original Scale SD in Original Scale 95% t UCL (assumes normality of ROS data) 95% BCA Bootstrap UCL 95% H-UCL (Log ROS) Statistics using KM estimates of KM Mean (logged) KM SD (logged) KM SD (logged)	0.94 0.92 0.117 0.176 pear Lognorr S Statistics L 14.32 12.3 18.53 19.18 20.04 on Logged D 2.4 0.713 0.149	Shapiro Wilk GOF Test Detected Data appear Lognormal at 10% Significance Le Lilliefors GOF Test Detected Data appear Lognormal at 10% Significance Le mal at 10% Significance Level Using Imputed Non-Detects Mean in Log Scale SD in Log Scale 95% Percentile Bootstrap UCL 95% Bootstrap t UCL ata and Assuming Lognormal Distribution KM Geo Mean	2.38 0.75 18.45 20.8
23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39	Shapiro Wilk Test Statistic 10% Shapiro Wilk Critical Value Lilliefors Test Statistic 10% Lilliefors Critical Value Detected Data app Lognormal ROS Mean in Original Scale SD in Original Scale SD in Original Scale 95% t UCL (assumes normality of ROS data) 95% BCA Bootstrap UCL 95% H-UCL (Log ROS) Statistics using KM estimates of KM Mean (logged) KM SD (logged)	0.94 0.92 0.117 0.176 pear Lognorr S Statistics L 14.32 12.3 18.53 19.18 20.04 on Logged D 2.4 0.713 0.149	Shapiro Wilk GOF Test Detected Data appear Lognormal at 10% Significance Le Lilliefors GOF Test Detected Data appear Lognormal at 10% Significance Le mal at 10% Significance Level Jsing Imputed Non-Detects Mean in Log Scale SD in Log Scale 95% Percentile Bootstrap UCL 95% Bootstrap t UCL ata and Assuming Lognormal Distribution KM Geo Mean 95% Critical H Value (KM-Log)	2.38 0.75 18.45 20.8 11.02 2.159 19.47
23 24 25 26 27	Shapiro Wilk Test Statistic 10% Shapiro Wilk Critical Value Lilliefors Test Statistic 10% Lilliefors Critical Value Detected Data app Lognormal ROS Mean in Original Scale SD in Original Scale SD in Original Scale 95% t UCL (assumes normality of ROS data) 95% BCA Bootstrap UCL 95% H-UCL (Log ROS) Statistics using KM estimates of KM Mean (logged) KM SD (logged) KM SD (logged)	0.94 0.92 0.117 0.176 pear Lognorr S Statistics L 14.32 12.3 18.53 19.18 20.04 on Logged D 2.4 0.713 0.149 0.713	Shapiro Wilk GOF Test Detected Data appear Lognormal at 10% Significance Le Lilliefors GOF Test Detected Data appear Lognormal at 10% Significance Le mal at 10% Significance Level Jsing Imputed Non-Detects Mean in Log Scale SD in Log Scale 95% Percentile Bootstrap UCL 95% Bootstrap t UCL ata and Assuming Lognormal Distribution KM Geo Mean 95% Critical H Value (KM-Log) 95% H-UCL (KM -Log)	2.38 0.75 18.45

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455							953	% KM ((t) UCL	18.63													
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458					it is su	igges	ied to t	ise a C	JCL bas	sea upon a	a distributi	on pas	ssing bot	n G	OF I	ests ir	1 Prot	JCL					
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460		Note: Sug	-		•	-					•	-							•			ىL.	
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462	H	owever, sir	ııuıa	uons	resul	is Wil	i iiot co	ver all	real W	ronu data	seis; for a	uuitiOf	ıaı ınsıgr	ıı (N	e use	ei ma	y war	ii io co	ıısu	ııı a	รเสแรน	cian	•
463	Beryllium																						
404	beryllium																						
465										Conor	al Statistic	<u> </u>											
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467					TOta	I INUII	ibei oi	Observ	valions	25								/lissing					65
468							Numb	or of F	Detects	4						lullibe		mber o					21
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470					IN	lullib			Detect	0.262						INUITIL		Minimu					0.188
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474									Detects	0.395 0.373											Detects		0.14
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478									Norm	nal GOF T	oot on Do	ooto C)nh.										
479						Shopi	ro Wilk	Toot C		0.936		ecis c	llly		Char	iro \A	iilk Ci	OF Tes	.				
480										0.930		Dot	tootod De							oifi o c	nno I	امیرما	
481					170 5		o Wilk			0.687		Det	tected Da	aid i				Test		mica	ance L	evel	
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486				V.	anlan	Maia	r (KAA)	Station	ice ucir	g Normal	Critical \/	dues s	nd other	· NI~	nnor	amet-	ic LIC	l e					
487				N	ahigi i-	wele	i (I/IVI)		Mean	9 Normal 0.27	Onucai Va	iiues 8	niu Otilel	INO	nihqig			endard	1 Er	ror o	f Maa	2	0.0374
488									M SD							r\	ivi Sti	95% k					0.0374 N/A
489							OEC		(t) UCL	0.107					QE0/	KM/	Doros	entile B		•			N/A N/A
490															30%	L/IAI (. ,		N/A N/A
491						000/		6 KM (•	0.332								KM B					
492							KM Ch			0.382								KM CI		•			0.433
					97	1.5%	KM Ch	ebysne	ev UCL	0.504							99%	KM CI	neb	ysne	ev UCI	-	0.642
493 494					·-																		

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495						Gamma GC			tected Of	bserva	tions C			N = -4!	00F T				
496						Test Statist		.289						_	GOF T				
497				5		Critical Valu		.657	Dete	cted d	ata app						Significar	ice Leve)
498						Test Statist		.266	Dete		la t a a		_		rnov GC		``:6:		-1
499						Critical Valu		.395						Distrit	outed at	5% 5	Significar	ice Leve	31
500				U		d data appe													
501					NOT	te GOF test	is may b	e unre	liable for s	small s	sample	e sizes	i						
502							aa Chadio		Datastas	d Data	Only								
503									Detected	o Data	Only			l. sts.	/h:		-4 MI E)	2.0	-
504					TI.	k hat (MLI	-	0.74							•		ed MLE)		
505						eta hat (MLI	1	0367					Ine		`		ed MLE)		
506						nu hat (MLI	- 1	5.88						nı	ı star (b	ias co	orrected)	22.8	<u>'</u>
507					Me	ean (detect	is) 0	.395											
508						0 0	20 0: "												
509			0000			Gamma RC									.: I DI				
510		0000				d when data											.dE 00\		
511		GROS may	•							•	•		-		s small	(e.g.,	<15-20)		
512			!	For suc		tions, GRO							Ls and	BIVs					
513						This is espe	-			-					148.4				
514		For gar	nma distrib	buted de	etected	I data, BTV:			ay be com	nputed	using	gamm	na distr	ibution	on KM	estim			-
515						Minimu		.105									Mean		
516						Maximu		.57									Median		
517								0956									CV	0.42	
518						k hat (MLI	-	.962							-		ed MLE)		
519						eta hat (MLI	<i>'</i>	0281					The		`		ed MLE)		
520						nu hat (MLI	1							nı	ı star (b	ias co	orrected)	351.6	j
521			=		_	gnificance (0395											
522		Appr				ie (351.64,	1					Adju					51.64, β)		,
523			95%	₀ Gamm	na Appr	oximate UC	JL 0	.255						95% G	amma <i>i</i>	Adjus	ted UCL	N/A	
524																			
525					E	stimates of			neters us	ing KN	/I Estim	nates					OD (KIA)	0.4	0.7
526						Mean (KN	- 1	.27									SD (KM)		
527					V	ariance (KN	•	0114							SE		an (KM)		
528						k hat (KN		.378									tar (KM)	5.63	39
529						nu hat (KN	,										tar (KM)		
530				200/		neta hat (KN	,	0423						200/			tar (KM)		
531				•	•	ercentile (KI	1	.358						•			tile (KM)		
532			9:	15% gan	nma pe	ercentile (KN	M) 0	.48					9	19% ga	mma pe	ercen	tile (KM)	0.60	J2
533									. ((2) 4)	- · · ·									
534			0						eier (KM)	Statist	tics	A 1:		1:0		(0)	24 07 0	044 -	_
535		Appr				ıe (281.97,	-					Adju				•	81.97, β)		
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537										<u> </u>		<u> </u>							
538				<u> </u>		ognormal C			etected O	DServa	ations (A f !!! -	OF T				
539						Test Statist		.948			15:		-		OF Tes				
540			10%			Critical Valu		.792	D	Jetecte	ed Data		•			Sign	ificance	Level	
541						Test Statist		.229					Lilliefo						
542				10% Lil		Critical Valu		.346						norma	at 10%	Sign	ificance	Level	
543						cted Data a													
544					Not	te GOF test	ts may b	e unre	liable for	smalls	sample	e sizes							
545																			

	Α	I	В		С		D		E		F	(Н		ı		J			K	L
546								-			tatistics (Jsing Ir	nputed	d No	n-Dete	cts							
547								_	inal Sca		0.245								Me	an ir	n Log	Scale	-1.446
548								-	inal Sca		0.0853		SD in Log Scale										0.263
549			95% t l	JCL	(assume					,	0.274		95% Percentile Bootstrap UCL										0.276
550									strap UC		0.288								95% I	Boot	tstrap	t UCL	0.324
551						95%	H-UC	CL (I	Log RO	S)	0.268												
552																							
553					Statis	stics u	-				Logged D	ata an	d Assu	umin	g Logn	orma	l Distri	buti	on				
554									า (logge		-1.372											Mean	0.254
555									(logge		0.337						95%	6 Cı	ritical H		•	٠,	1.837
556				KM	Standa	rd Erre	or of N	Mear	n (logge	ed)	0.13								95% H-	-UCI	L (KN	1 -Log)	0.305
557							KN	M SE	(logge	ed)	0.337						95%	6 Cı	itical H	Valu	ie (KN	vI-Log)	1.837
558					Standa					,	0.13												
559				N	ote: KM	UCLs	may b	be b	iased lo	w wit	h this dat	aset. C	ther su	ubst	itution	metho	od reco	omr	nended				
560																							
561											DL/2 S	tatistic	3										
562					DL/2 I	Norma	al									DL	/2 Log	-Tra	ansform	ed			
563						Mea	an in C	Origi	inal Sca	ale	0.36								Me	an ir	n Log	Scale	-1.214
564								_	inal Sca		0.254										_	Scale	0.619
565		95% t UCL (Assumes normality)						ty)	0.447								9	5%	H-Sta	at UCL	0.467		
566		DL/2 is not a recommended me							metho	od, provid	led for	compa	ariso	ns and	histo	rical re	easo	ons					
567																							
568									•		Distribu												
569		Detected Data appear Normal Distributed at 1% Significance Level																					
570																							
571										Sı	uggested	UCL to	Use										
572							95%	% K	M (t) UC	CL	0.334												
573																							
574		No	ote: Sugge	stion	s regard	ding th	ne sele	ectio	n of a 9	5% U	ICL are p	rovided	to hel	lp the	e user	to sel	ect the	e m	ost appr	opria	ate 95	5% UCL	
575			Recom	nmer	dations	are ba	ased u	upon	ı data si	ize, da	ata distrib	oution, a	and sk	kewn	ess us	ing re	sults f	rom	simulat	ion	studie	es.	
576	Н	low	ever, simu	ılatio	ns result	ts will	not co	over	all Real	l Worl	ld data se	ets; for	additio	onal i	nsight	the u	ser ma	ay w	ant to c	onsı	ult a s	statistici	an.
577																							
578 ^{\$}	Selenium																						
579																							
580											General	Statisti	cs										
581					Total	l Numb	ber of	Obs	servatio	ns	25						Numb	er (of Distin	ct O	bserv	ations	25
582																	Numb		of Missin				65
583									of Detec		0								Number				25
584					N	umber	r of Dis	istino	ct Detec	cts	0						Num	ber	of Distir	nct N	√on-D	etects	25
585																							
586											IDs), ther												
587											her statis												
588		Th	e Project T	Гeam	may de	ecide t	o use	alte	rnative	site s	pecific va	lues to	estima	ate e	environ	ment	al para	me	ters (e.g	j., Ε	PC, B	³TV).	
589																							
590							TI	he d	lata set	for va	ariable Se	elenium	was n	not p	rocess	ed!			-				
591																							
592																							

	Α	В	С	D	E	F	G	Н	I	J	K	L	
593	Thallium												
594													
595						General	Statistics						
596			Total	Number of C	Observations	25			Number	of Distinct C	Observations	25	
597									Number	of Missing C	Observations	65	
598				Numbe	er of Detects	0				Number of	Non-Detects	25	
599	Number of Distinct Datasts 0												
600													
601		Warr	ning: All obse	rvations are	Non-Detects	(NDs), there	efore all stati	stics and est	imates shoul	d also be NI	Os!		
602		Specific	cally, sample	mean, UCL	s, UPLs, and	other statist	ics are also l	NDs lying be	low the large	st detection	limit!		
603	Т	he Project T	eam may de	cide to use a	alternative sit	e specific va	lues to estim	ate environn	nental param	eters (e.g., E	PC, BTV).		
604													
605		·		Th	ne data set fo	r variable Th	nallium was n	not processe	d!	·			
606													
607													

USGS Soil Background Data

Lab ID	Site ID	State ID	Latitude	Longitude	Collection Date	Land Cover	Land Cover Subtype	Top5_Ba	Top5_Co	Top5_TI	Top5_V	Top5_Se	D_Top5_Se*
C-353889	1274	WA	45.83	-121.0832	06/22/10	Forested Upland	Mixed Forest	528	28.6	0.3	230	0.2	0
C-353892	1722	WA	46.52	-121.6709	06/21/10	Forested Upland	Mixed Forest	269	16.3	0.2	108	0.2	0
C-353893	1822	WA	47.6905	-122.9015	07/22/10	Forested Upland	Mixed Forest	509	16.9	0.3	142	0.2	1
C-353895	2334	WA	47.9525	-124.1985	07/23/10	Forested Upland	Mixed Forest	344	4.8	0.2	71	0.4	1
C-353899	2446	WA	46.1379	-117.8107	06/11/10	Forested Upland	Mixed Forest	651	25.9	0.3	265	0.2	0
C-353903	2746	WA	47.5588	-122.0629	07/22/10	Forested Upland	Mixed Forest	416	12	0.2	89	0.2	1
C-353905	2846	WA	48.3409	-122.2894	07/21/10	Forested Upland	Mixed Forest	502	11.8	0.1	95	0.2	0
C-354245	3514	WA	46.2865	-122.7227	07/14/10	Forested Upland	Mixed Forest	400	20.8	0.2	147	0.2	0
C-353926	5370	WA	46.0734	-121.599	06/22/10	Forested Upland	Mixed Forest	278	13.3	0.2	74	0.2	0
C-353928	5406	WA	47.4644	-123.2198	07/22/10	Forested Upland	Mixed Forest	329	24.3	0.1	199	0.2	0
C-353979	6446	WA	48.6613	-121.239	07/20/10	Forested Upland	Mixed Forest	594	16.8	0.4	113	0.3	1
C-353985	6842	WA	47.1976	-121.875	07/16/10	Forested Upland	Mixed Forest	263	9.7	0.2	70	0.7	1
C-353989	7454	WA	47.96	-124.283	07/23/10	Forested Upland	Mixed Forest	366	11.4	0.3	101	0.9	1
C-353997	8014	WA	47.015	-120.7162	07/16/10	Forested Upland	Mixed Forest	522	27.2	0.2	185	0.2	0
C-353999	8334	WA	47.3742	-120.6514	07/18/10	Forested Upland	Mixed Forest	642	14.4	0.2	94	0.2	0
C-354004	8990	WA	47.8453	-121.5052	07/22/10	Forested Upland	Mixed Forest	306	8.7	0.2	77	0.4	1
C-353953	9502	WA	47.7386	-123.0724	07/22/10	Forested Upland	Mixed Forest	499	15.6	0.3	131	0.2	0
C-353958	9914	WA	47.153	-121.701	07/16/10	Forested Upland	Mixed Forest	335	17.3	0.4	92	0.7	1
C-353960	10014	WA	48.2593	-121.7082	07/21/10	Forested Upland	Mixed Forest	553	17.8	0.3	118	0.2	0
C-353961	10170	WA	46.0159	-122.7338	07/13/10	Forested Upland	Mixed Forest	247	26.9	0.1	158	0.2	0
C-353971	11310	WA	47.8739	-120.8696	07/18/10	Forested Upland	Mixed Forest	605	18.3	0.2	113	0.2	1
C-353940	12430	WA	47.8748	-120.2622	07/20/10	Forested Upland	Mixed Forest	563	12.1	0.2	87	0.2	0
C-353941	12538	WA	45.9545	-120.6654	06/22/10	Forested Upland	Mixed Forest	608	33.1	0.3	372	0.2	0
C-353946	12986	WA	46.4945	-122.0168	06/21/10	Forested Upland	Mixed Forest	341	16.2	0.2	91	0.2	0
C-353947	13086	WA	48.0885	-121.2984	07/21/10	Forested Upland	Mixed Forest	1080	11.2	0.3	123	0.3	1

Notes

Data are from the top 5 centimeters of soil.

* Selenium is the only metal in the table with undetected background concentrations. The starred column indicates which results are detects (1) and which are nondetects (0).

Ba = barium

Co = cobalt

TI = thallium

V = vanadium

Se = selenium

USGS = United States Geological Survey

WA = Washington

-APPENDIX G-

Geophysical Survey Report

Remedial Investigation/Feasibility Study
Former Eatonville Landfill

Geophysical Survey LLC 711 S Tacoma Street Kennewick, Washington 99336

January 30, 2022

Chris Rhea GSI Water Solutions, Inc 55 SW Yamhill Street, Suite 300 Portland, OR 97204

Re:

Seismic Survey Eatonville Landfill Pierce County, Washington

Mr. Rhea:

Geophysical Survey LLC conducted a seismic survey at the Eatonville Landfill in Pierce County on January 20 & 21, 2022. The objective of the investigation was determine the depth of landfill material.

Methodology

Seismic Refraction

The seismic refraction method is based on the measurement of the travel time of seismic waves refracted at the interfaces between subsurface layers of different velocity. Seismic energy is provided by a source ('shot') located on the surface. The source of the seismic energy was a 16 lb. sledgehammer.

Energy radiates out from the shot point, either travelling directly through the upper layer (direct arrivals) or travelling down to and then laterally along higher velocity layers (refracted arrivals) before returning to the surface. This energy is detected on surface using a linear array (or spread) of geophones spaced at regular intervals. Beyond a certain distance from the shot point, known as the cross-over distance, the refracted signal is observed as a first-arrival signal at the geophones (arriving before the direct arrival). Observation of the travel-times of the direct and refracted signals provides information on the depth profile of the refractor.

Shots are deployed beyond both ends of the geophone spread in order to acquire refracted energy as first arrivals at each geophone position. Additional shots are deployed throughout the geophone spread.

Data are recorded on a seismograph and later downloaded to computer for analysis of the first-arrival times to the geophones from each shot position. Travel-time versus distance graphs are then constructed and velocities calculated for the overburden and refractor layers through analysis of the direct arrival and T-minus graph gradients. Depth profiles for each refractor are produced by an analytical procedure based on consideration of shot and receiver geometry and the measured travel-times and calculated velocities. The final

Eatonville Landfill

January 30, 2022

output comprises a depth profile of the refractor layers and a velocity model of the subsurface.

Seismic Surface Waves

Microtremor Array Measurements

The Microtremor Array Measurements (MAM) method is based on the change in phase velocity with frequency of seismic surface waves. Shear wave velocity (Vs) is calculated by mathematical inversion of the dispersive phase velocity of surface waves. There are multiple types of surface waves, MAM utilizes Rayleigh waves which is the dominant component of ground roll. MAM utilizes a 'passive source' for seismic energy, also referred to as 'microtremor surveying'. The sources of seismic energy are wind, wave motion or cultural noise. The seismic energy creates Rayleigh waves which are recorded over a line of receivers in a linear array linked to a seismograph.

Surface wave energy decays exponentially with depth beneath the surface. Longer wavelength data (longer period and lower frequency) surface waves travel deeper and contain more information about deeper velocity structure. MAM data is most useful for lower frequency, deeper velocity structure.

Multi-channel Analysis of Surface Waves

The Multi-channel Analysis of Surface Wave (MASW) method is based on the change in phase velocity with frequency of seismic surface waves. Shear wave velocity (Vs) is calculated by mathematical inversion of the dispersive phase velocity of surface waves. There are multiple types of surface waves, MASW utilizes Rayleigh waves which is the dominant component of ground roll. MASW utilizes an 'active source' for seismic energy that is generated at a specific location and recording begins when source energy is imparted into the ground. The seismic energy creates Rayleigh waves which are recorded over a line of receivers in a linear array linked to a seismograph.

Surface wave energy decays exponentially with depth beneath the surface. Longer wavelength data (longer period and lower frequency) surface waves travel deeper and contain more information about deeper velocity structure. MASW data is most useful for higher frequency, shallow velocity structure.

FIELD SURVEY

Mapping Control

Line shotpoints and geophones were mapped with a Trimble Pro6H GNSS (Global Navigation Satellite System) receiver with sub-foot accuracy (<12 inches).

Seismic Refraction Data Acquisition

Seismic data were recorded on twenty four 4.5 Hz geophones spaced 5 feet apart using a Geometrics ES-3000 seismic controller. Five to nine shotpoints per 24 geophone spread were collected and digitally recorded on a laptop computer.

Seismic data was interpreted using SeisImager 2D software V5.2 from Geometrics. A two layer earth model was created using a time term inversion. The time term model was used as an initial model for tomographic analysis which iteratively traces rays through the model with the goal of minimizing the RMS error between the observed and calculated traveltimes. Seismic refraction results are presented on Figures 2 & 3.

Seismic Surface Wave Acquisition

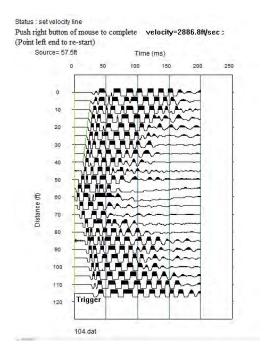
MASW data were recorded on twenty-four 4.5Hz geophones spaced 5 feet apart using a Geometrics ES-3000 seismic controller. Two shotpoints off each end of the 24 geophone spread were collected and digitally recorded on a laptop computer. Data were recorded at 0.5 millisecond intervals for 2 second records at each shot point.

MAM data were recorded on twenty-four 4.5Hz geophones spaced 5 feet apart using a Geometrics ES-3000 seismic controller. 40 records, each 32 seconds long with a 2.0 millisecond sample interval, were recorded at lines 1 & 2.

A phase velocity -frequency plot was made from MASW wave forms and phase velocities were picked on amplitude. MASW phase velocity dispersion curves were combined and used to create an initial 1-D Vs model with depth. The initial model was inverted using a least squares method to determine the best fit of the model to the data. The MASW models (Figure 4) are an average of values over the total length of the 115 foot lines.

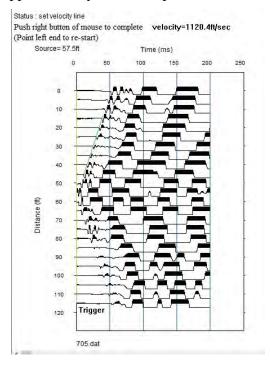
RESULTS AND INTERPRETATION

Figure 1 shows the location of the seismic refraction lines. Line 1 on Figure 3 was run outside of the landfill, near surface compression wave velocities were over 2000 feet per second. The image below, Seismic Data 1, shows a shot record taken at the middle of Line 1, the apparent velocity is approximately 2890 feet per second.



Seismic Data 1

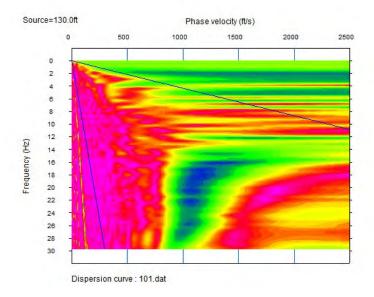
Layer 1 arrivals within the area of the landfill were slower than early arrivals on Line 1. The image below, Seismic Data 2, shows a shot record taken at the middle of Line 6. Apparent velocities are approximately 1120 feet per second.



Seismic Data 2

Shear wave velocities from MASW data were 1000 feet per second on Line 1 as shown below in image Seismic Data 3. The image is the dispersion curve showing phase-velocity plotted against frequency.

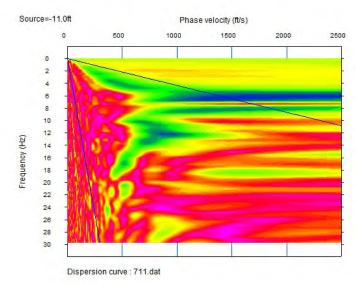
Press Enter key to continue Surface Wave Analysis Wizard.



Seismic Data 3

In the footprint of the landfill shear wave velocities dropped to 400 to 600 feet per second were recorded. The image below, Seismic Data 4, is from Line 5. The quality of the MASW data was poor due to the effects of the stream northwest of the site.

Press Enter key to continue Surface Wave Analysis Wizard.



Seismic Data 4

January 30, 2022

Microtremor data was not used in determination of shear wave values. The passive data recorded did not yield a dispersion curve, an analysis of the frequency content in the data showed large spikes in the 15 to 20 Hz range due to the water in the stream. Frequency content in the 4-10 Hz range is desirable for passive data.

Seismic Refraction Velocity (P-wave)	Interpretation
>1350 feet/second	Landfill material
<1350 feet/second	Native material

Table 1

CLOSURE

Geophysical surveys performed as part of this survey may or may not successfully detect or delineate any or all subsurface objects or features present. Locations, depths and scale of buried objects or subsurface features mapped as a result of this survey are a result of geophysical interpretation only, and should be considered as confirmed, actual, or accurate only where recovered by excavation or drilling.

Geophysical Survey LLC performed this work in a manner consistent with the level of skill ordinarily exercised by members of the profession currently practicing under similar conditions. No warranty, express or implied, beyond exercise of reasonable care and professional diligence, is made. This report is intended for use only in accordance with the purposes of the study described within.

Respectfully,

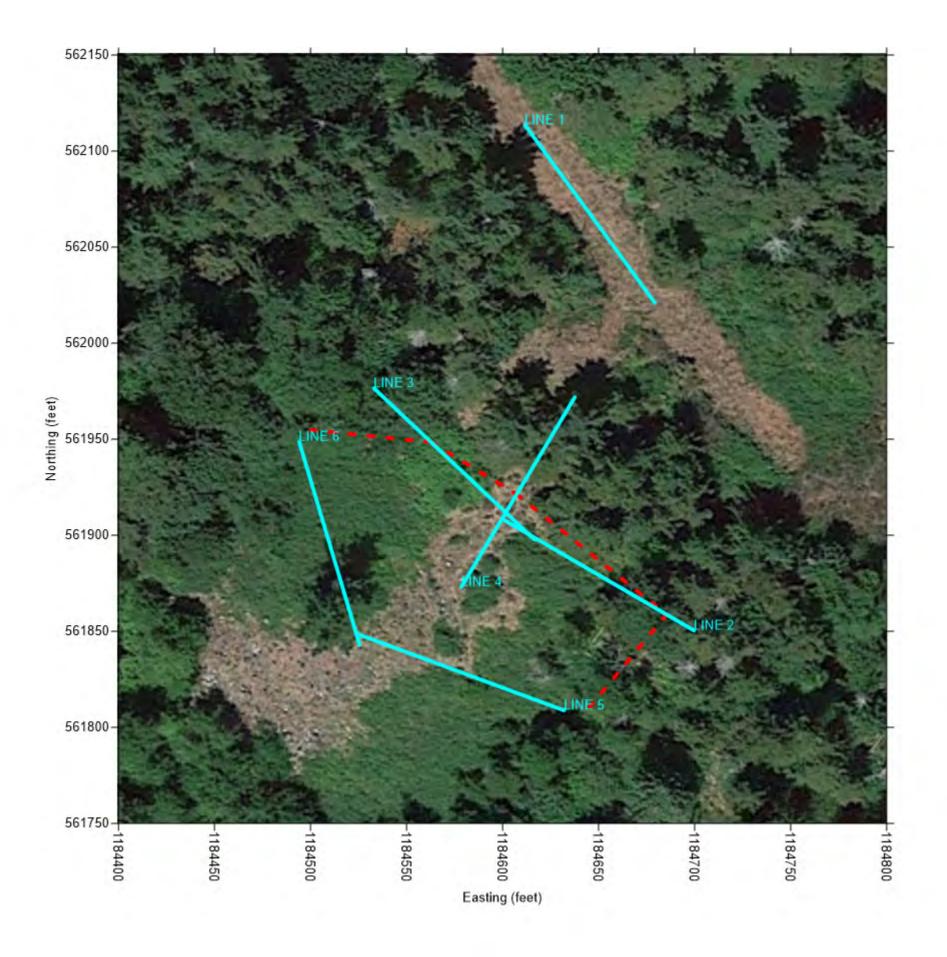
Geophysical Survey LLC

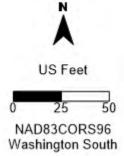
Mark Villa L.G.

Seismic Survey Eatonville Landfill Pierce County, Washington

LIST OF FIGURES

Figure 1	Site Map
Figure 2	Seismic Refraction Data Contours
Figure 3	Seismic Refraction Data Contours
Figure 4	MASW Shear Wave Profiles



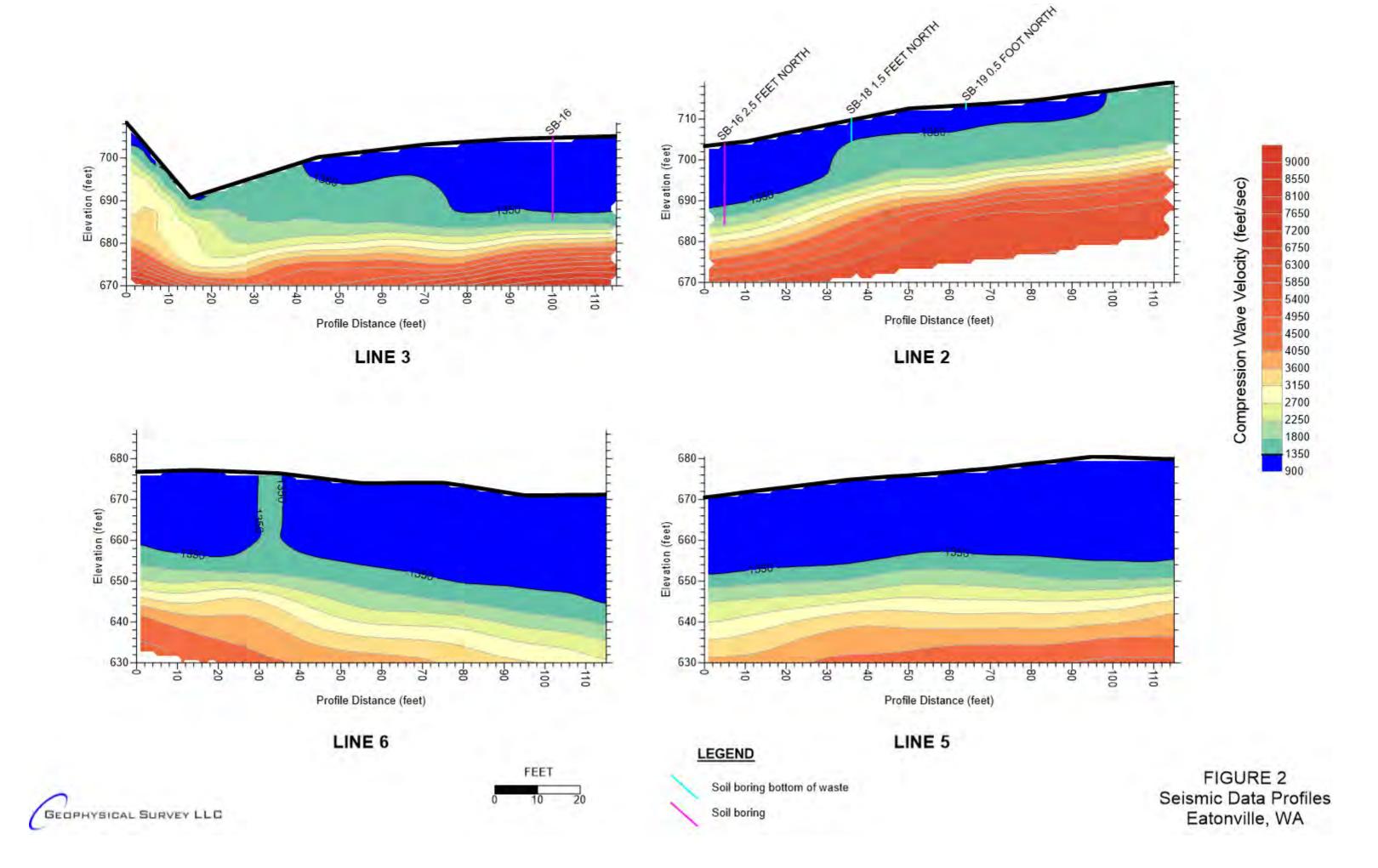


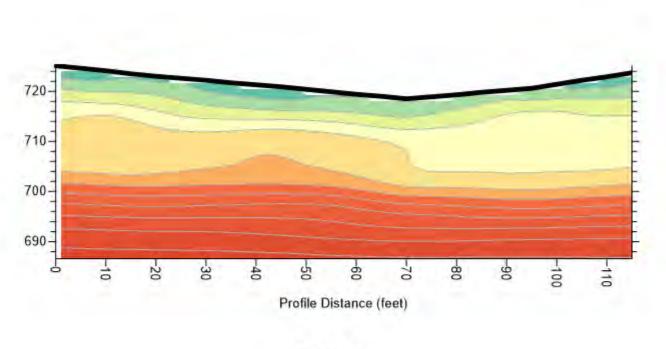
LEGEND

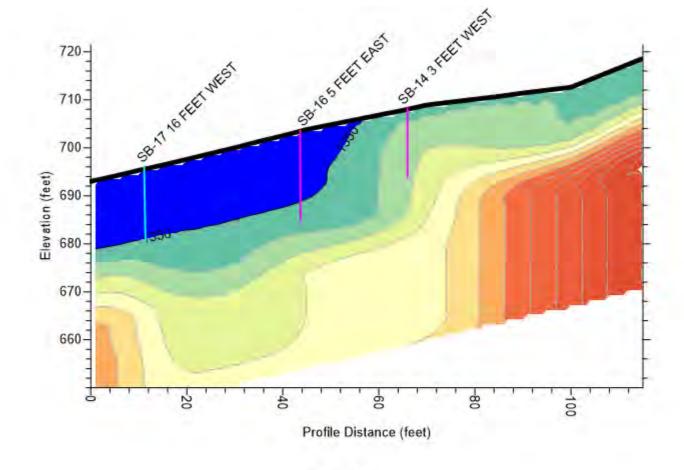




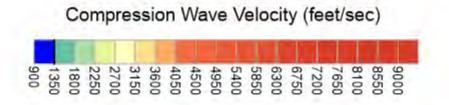
FIGURE 1 Site Map Eatonville, WA

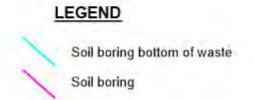






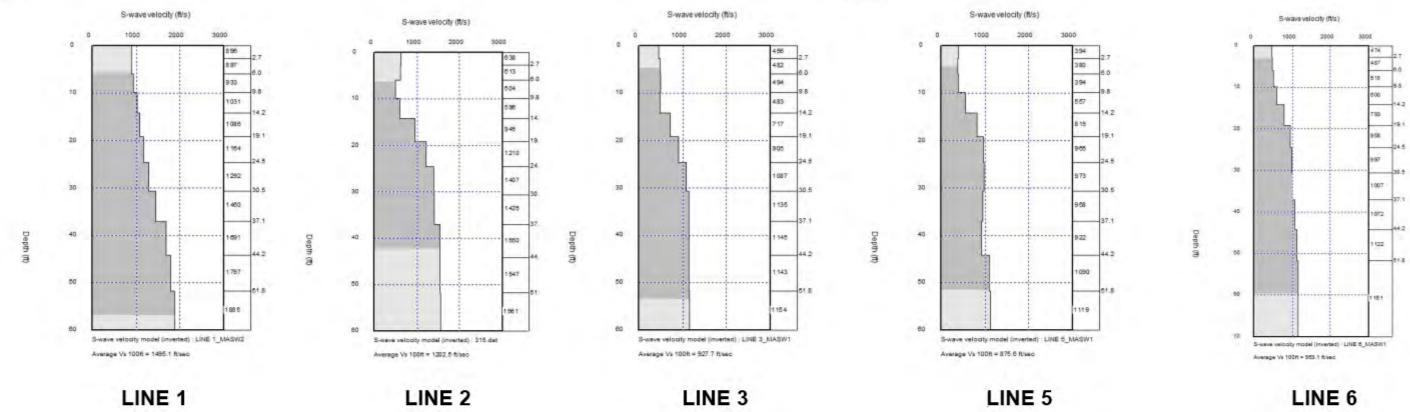
LINE 1 LINE 4







Site name :





-APPENDIX H-

Alternative Cost Estimating Tables

Remedial Investigation/Feasibility Study Former Eatonville Landfill

APPENDIX H. Table H1 - Landfill Area Removal Alternative Cost Estimating Table

LANDFILL AREA REMOVAL COSTS									
	N	Alternative 1 Impacted So laxumum Prad	il F	Removal to	Αl		Partial Waste and I and Capping		
Hom Bookston	Pre	evailing Wage	1	Non-Prevailing Wage	Pr	evailing Wage	No	on-Prevailing Wage	
Item Description Pre-Construction Work			<u> </u>	_				-	
Pre-Construction Work Pre-Construction Test Pits	Φ.	15.000	<u>+</u>	12.500	φ.	1F 000	φ.	12 500	
	\$	225,000	\$		\$	15,000 225,000		13,500 225,000	
Engineering Design	\$	45,000	\$	· · · · · · · · · · · · · · · · · · ·	\$	45,000	_	45,000	
Permitting General Construction Costs	Φ	45,000	Φ	45,000	Ф	45,000	Ф	45,000	
Third Party Construction Oversight	\$	258,165	\$	258,165	\$	315,175	\$	315,175	
Contractor Work Plans and Submittals	\$	25,868	\$		\$	25,868	\$	25,868	
Mobilization	\$	35,800	\$,	\$	44.167	\$	44,167	
Demobilization	\$	25,625	\$,	\$	25,625		25,625	
Contractor Site Management, Travel, and Per diems	\$	625,300	\$		\$	769,900	\$	769,900	
Construction Site Facilities/General Support Equipment & Materials	\$	108,504	\$		\$	135,630	\$	135,630	
Surveys	<u> </u>	200,00	, ·	200,001	_	200,000	<u> </u>	200,000	
Pre-Construction Survey	\$	15,000	\$	15,000	\$	15,000	\$	15,000	
Intermediate Surveys	\$	-	\$		\$	25,000		25,000	
As-Built Survey	\$	20,000	\$		\$	20,000	\$	20,000	
Site Preparation and Temporary Construction		-,,,,,,		,,,,,		.,		.,	
Site Preparation (clearing and grubbing, laydown area, access roads)	\$	85,512	\$	57,690	\$	85,512	\$	57,690	
Landfill Remediation and Transportation & Disposal	<u> </u>	,	<u> </u>	21,000	Ė	,		- 1,000	
Excavate & Loadout Landfill Materials and Soil	\$	679,920	\$	470,640	\$	353,400	\$	249,000	
Segregate Waste Streams	\$	126,720	\$		\$	63,360		43,680	
Transport & Dispose of Tires	\$	15,700	\$		\$	15,700		15,700	
Soil Removal (soil below landfill waste. Assume 1.0 ft scrape)	\$	63,991	\$,	\$	-,: -	\$		
Confirmation Sampling	\$	25,000	\$		\$	25,000	\$	25,000	
Landfill Footprint Restoration	-	· · · · · · · · · · · · · · · · · · ·	<u> </u>	,		· · · · · · · · · · · · · · · · · · ·		<u> </u>	
Screen, Place, and Compact Onsite Material (to be used at toe of slope)	\$	36,370	\$	26,185	\$	-	\$	-	
Import Topsoil (purchased and delivered)	\$	178,500	\$	178,500	\$	158,100	\$	158,100	
Finish Grade & Place Topsoil	\$	232,683	\$		\$	312,466	\$	216,892	
Install Stormwater Drainage System for Hillside (including materials)	\$	133,573	\$		\$	133,573	\$	98,117	
Plantings (trees & shrubs) and Coir Fabric	\$	238,770	\$	233,139	\$	-	\$	-	
Drill Additional Monitoring Wells	\$	22,500	\$		\$	22,500	\$	22,500	
Landfill Cap Construction	1		<u> </u>	· · · · · · · · · · · · · · · · · · ·		<u></u>			
Import Clean Structural Fill (delivered)	\$	-	\$	-	\$	79,170	\$	79,170	
Place and Compact Structural Fill	\$	-	\$	-	\$	30,915	\$	21,795	
Install Methane Venting System	\$	-	\$	-	\$	142,459	\$	118,265	
Purchase Clean Cover (under liner)	\$	-	\$	-	\$	259,762	\$	259,762	
Place Clean Cover over Landfill Materials (under liner)	\$	-	\$	-	\$	100,577	\$	70,906	
60 mil HDPE and Geocomposite System Installation	\$	-	\$	-	\$	343,771	\$	343,771	
Purchase Clean Cover (over liner)	\$	-	\$	-	\$	259,762	\$	259,762	
Place Clean Cover over Landfill Materials (over liner)	\$	-	\$	-	\$	100,577	\$	70,906	
Reactive Barrier Wall	\$	-	\$	-	\$	134,318	\$	110,055	
Buttress at Toe of Slope	\$	-	\$	-	\$	103,236	\$	73,437	
Hydroseeding, Erosion Control, and Plantings - Regraded Historic Landfill	\$	-	\$	-	\$	238,770	\$	233,139	
	\$	3,238,501	\$	2,818,380	\$	4,624,294	\$	4,187,513	
Transportation & Disposal of Waste									
Offhaul Scrap Metals	\$	51,150	\$	51,150	\$	51,150	\$	51,150	
Recycle Scrap Metals	\$	-	\$		\$		\$		
Transportation to Municipal Landfill	\$	920,736	\$	732,848	\$	459,936	\$	366,080	
Disposal at Municipal Landfill (No markup. Direct contract with Client)	\$	5,643,750	\$	5,643,750	\$	3,150,000	\$	3,150,000	
Transportation to Landfill - Soil Below Landfill Waste	\$	97,827	\$	77,254	\$	-	\$	-	
Disposal at Landfill - Soil Below Landfill Waste (No markup. Direct contract with	\$	242,025	\$	242,025	\$	_	\$	_	
Client)				·	_				
	\$	6,955,488	\$	6,747,028	\$	3,661,086	\$	3,567,230	
Post Construction Operation and Maintenance and Compliance Monitoring									
Closure Reporting, as-builts, submittal to regulatory agency	\$	45,000	\$	45,000	\$	45,000	\$	45,000	
Inspection and reporting (\$15,000/event; FULL = 8 events and PARTIAL = 25	\$	117,073	\$	117,073	\$	305,946	\$	305,946	
events) Operation and Maintenance (FULL: \$8,000/year for 5 years; PARTIAL:				, ,				,	
\$30,000/year for 20 years)	\$	37,167	\$	37,167	\$	467,675	\$	467,675	
, , , , , , , , , , , , , , , , , ,	\$	154,240	\$	154,240	\$	773,621	\$	773,621	
Miscellaneous				,2.3				,	
WA State Sales Tax (8%)	Т	BD if applies		TBD if applies		TBD if applies	Т	BD if applies	
B&O Tax (retail project = 0.00471 applied to contract value)	\$	48,740	\$		\$	42,668		40,169	
(\$	10,396,969	\$	·	\$	9,101,668	\$	8,568,533	
	_	,		3,. 33,121	-	3,232,300		3,500,000	
Agency Costs (5%)	\$	519,848	\$	488,271	\$	455,083	\$	428,427	
Agono 0030 (370)				10,253,698		9,556,752		8,996,960	
			Ψ	_0,_00,000	Ψ.	3,000,102	Ψ	3,550,500	
Grand Total	Ψ								
Grand Total					¢	1 011 250	¢	1 700 200	
		2,183,363 13,100,180		2,050,740	\$	1,911,350 11,468,102		1,799,393 10,796,353	

Yellow highlighted rows indicate work performed outside of construction contract.

APPENDIX H. Table H2 - Wetland Area Removal Alternative Cost Estimating Table

WETLAND AREA REMOVAL COSTS								
	Al	Iternative 2A: Fo Rem		•		Alternative 2 Attenuation an Cont		
Item Description	Pr	revailing Wage	N	lon-Prevailing Wage	Pr	evailing Wage	No	n-Prevailing Wage
Pre-Construction Work								
Wetland Impacts Analysis / Agency Negotiations	\$	100,000	\$	100,000	\$	-	\$	-
Permitting	\$	45,000	\$	45,000	\$	-	\$	-
Engineering Design	\$	40,000	\$	40,000	\$	-	\$	-
General Construction Costs								
Third Party Construction Oversight	\$	49,647	\$	49,647	\$	-	\$	-
Contractor Work Plans and Submittals	\$	9,500	\$	9,500	\$	-	\$	-
Mobilization	\$	55,000	\$	55,000	\$	-	\$	-
Demobilization	\$	32,000	\$	32,000	\$	-	\$	-
Contractor Site Management, Travel, and Per diems	\$	121,250	\$	121,250	\$	-	\$	-
Site Facilities/Support - Wetland Area Remediation	\$	25,000	\$	25,000	\$	-	\$	-
Site Preparation and Temporary Construction		·		·				
Site Preparation (lined staging area)	\$	55,300	\$	47,005	\$	-	\$	-
Access Roads	\$	89,920	\$	78,295	\$	-	\$	-
Clear & Grub Remediation Area	\$	18,915	\$	12,987	\$	-	\$	-
Temporarily rerouting natural spring during removal	\$	35,000	\$	28,000				
Remediate Wetland Area Soils		·		,				
Excavate Metals Impacted Soil & Haul to Staging Area	\$	52,700	\$	48,620	\$	-	\$	-
Confirmation Sampling and Analysis	\$	25,000	\$	25,000	1	25,000	\$	25,000
Purchase Wetland Area Fill	\$	119,340	\$	119,340		-	\$	
Place Fill	\$	70,720	\$	53,040	\$	-	\$	-
Revegetation of Wetland Area	\$	50,700	\$	50,700	\$	_	\$	_
The second of the second rises	\$		\$	940,384	\$	25,000	\$	25,000
Transportation & Disposal of Waste	Ţ		Ţ		Ť		·	
Transport Metals Impacted Soil to Landfill	\$	56,100	\$	56,100	\$	-	\$	_
Disposal of Metals Impacted Soil (No markup, Landfill to directly contract with Client)	\$		\$	892,500	_	_	\$	_
Sispessal of metale impassed con (No marrapi Zarianii to anosaly contact mar chorty	\$	948,600		948,600		-	\$	-
Post Construction O&M and Monitoring (PV using 7% discount rate)	ΙΨ	340,000	ΙΨ	040,000	Ψ		Ψ	
Closure Reporting (wetland portion only), as-builts, submittal to regulatory agency	\$	35,000	\$	35,000	\$	_	\$	_
Annual wetland area inspection and reporting (Alt 2A: \$20,000/year for 5 years, Alt 2B \$20K at 5								
year point)	\$	92,917	\$	92,917	\$	19,512	\$	19,512
Operation and Maintenance (\$12,000/year for 5 years)	\$	55,750	\$	55,750	\$	-	\$	-
	\$	148,667	\$	148,667	\$	19,512	\$	19,512
Miscellaneous								
NA State Sales Tax (8%)	T -	TBD if applies		TBD if applies		TBD if applies	Т	BD if applies
B&O Tax (retail project = 0.00471 applied to contract value)	\$	9,855	\$	9,597	\$	118	_	118
	\$	2,102,113	\$	2,047,248	\$	44,630	\$	44,630
Agency Costs (5% for Alt. 2A, \$25K for Alt. 2B)	\$	105,106	\$	102,362	\$	25,000	\$	25,000
Grand Total	\$	2,207,219	\$	2,149,610	\$	69,630	\$	69,630
Contingency (20%)	\$	441,444	\$	429,922	\$	13,926	\$	13,926

Grand Total w/ Contingency \$

2,648,663 \$

2,579,532 \$

83,556 \$

83,556

Notes:

Yellow highlighted rows indicate work performed outside of construction contract.