

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Seattle 5755 8th Street East Tacoma, WA 98424 Tel: (253)922-2310

TestAmerica Job ID: 580-79329-3

Client Project/Site: Portland Harbor Pre-Remedial Design

For:

AECOM 1111 Third Ave Suite 1600 Seattle, Washington 98101

Attn: Amy Dahl

M. Elains Walker

Authorized for release by: 8/26/2018 4:45:32 PM

Elaine Walker, Project Manager II (253)248-4972

elaine.walker@testamericainc.com

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client: AECOM

Project/Site: Portland Harbor Pre-Remedial Design

TestAmerica Job ID: 580-79329-3

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Case Narrative

Client: AECOM TestAmerica Job ID: 580-79329-3

Project/Site: Portland Harbor Pre-Remedial Design

Job ID: 580-79329-3

Laboratory: TestAmerica Seattle

Narrative

CASE NARRATIVE Client: AECOM

Project: Portland Harbor Pre-Remedial Design

Report Number: 580-79329-3

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) resulting from a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are an unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes within the calibration range of the instrument or that reduces the interferences thereby enabling the quantification of target analytes.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

Forty-six samples were received on 8/3/2018 1:45 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 8 coolers at receipt time were 1.2° C, 1.7° C, 2.2° C, 2.3° C, 2.4° C, 3.1° C, 3.9° C and 4.6° C.

A sample container was provided to be archived frozen at the TestAmerica Sacramento laboratory pending potential additional analyses.

This report contains results for Atterberg Limits, performed by TestAmerica Burlington.

The following sample was activated by the client on for Atterberg Limits on 8-7-2018. PDI-SC-S178-0to2 (580-79329-17).

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX OF SOILS

Samples PDI-SC-S178-0to2 (580-79329-17) and PDI-SC-S218-6to8 (580-79329-37) were analyzed for Liquid Limit, Plastic Limit and Plasticity Index of Soils in accordance with ASTM D4318. The samples were analyzed on 08/08/2018.

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

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Definitions/Glossary

Client: AECOM TestAmerica Job ID: 580-79329-3

Project/Site: Portland Harbor Pre-Remedial Design

Minimum Level (Dioxin)

Practical Quantitation Limit

Relative Error Ratio (Radiochemistry)

Toxicity Equivalent Factor (Dioxin)
Toxicity Equivalent Quotient (Dioxin)

Not Detected at the reporting limit (or MDL or EDL if shown)

Relative Percent Difference, a measure of the relative difference between two points

Reporting Limit or Requested Limit (Radiochemistry)

Not Calculated

Quality Control

Glossary

ML NC

ND

PQL

QC

RER

RPD TEF

TEQ

RL

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit

TestAmerica Seattle

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Client Sample Results

Client: AECOM TestAmerica Job ID: 580-79329-3

Project/Site: Portland Harbor Pre-Remedial Design

Client Sample ID: PDI-SC-S178-0to2 Lab Sample ID: 580-79329-17

Date Collected: 08/02/18 15:55 Matrix: Solid

Date Received: 08/03/18 13:45

Method: D4318 - Liquid Limit, I	Plastic Lim	it and Plasti	city Index o	of Soils					
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Liquid Limit	69				NONE			08/08/18 16:52	1
Plastic Limit	41				NONE			08/08/18 16:52	1
Plasticity Index	28				NONE			08/08/18 16:52	1

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Client Sample Results

Client: AECOM TestAmerica Job ID: 580-79329-3

Project/Site: Portland Harbor Pre-Remedial Design

Client Sample ID: PDI-SC-S218-6to8 Lab Sample ID: 580-79329-37

Date Collected: 08/02/18 11:35 Matrix: Solid

Date Received: 08/03/18 13:45

Method: D4318 - Liquid Limit, I	Plastic Lim	it and Plasti	city Index o	f Soils					
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Liquid Limit	53				NONE			08/08/18 16:52	1
Plastic Limit	40				NONE			08/08/18 16:52	1
Plasticity Index	13				NONE			08/08/18 16:52	1

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Lab Chronicle

Client: AECOM TestAmerica Job ID: 580-79329-3

Project/Site: Portland Harbor Pre-Remedial Design

Lab Sample ID: 580-79329-17 Client Sample ID: PDI-SC-S178-0to2

Date Collected: 08/02/18 15:55 **Matrix: Solid**

Date Received: 08/03/18 13:45

Batch Batch Dilution Batch Prepared **Prep Type** Method Run **Factor** Number or Analyzed Type Analyst Lab TAL BUR Total/NA Analysis D4318 132693 08/08/18 16:52 MAP

Client Sample ID: PDI-SC-S218-6to8 Lab Sample ID: 580-79329-37

Date Collected: 08/02/18 11:35 Matrix: Solid

Date Received: 08/03/18 13:45

_	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	D4318		1	132693	08/08/18 16:52	MAP	TAL BUR

Laboratory References:

TAL BUR = TestAmerica Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

TestAmerica Seattle

Accreditation/Certification Summary

Client: AECOM TestAmerica Job ID: 580-79329-3

Project/Site: Portland Harbor Pre-Remedial Design

Laboratory: TestAmerica Seattle

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska (UST)	State Program	10	17-024	01-19-19
ANAB	DoD ELAP		L2236	01-19-19
ANAB	ISO/IEC 17025		L2236	01-19-19
California	State Program	9	2901	11-05-18
Montana (UST)	State Program	8	N/A	04-30-20
Oregon	NELAP	10	WA100007	11-05-18
US Fish & Wildlife	Federal		LE058448-0	07-31-19
USDA	Federal		P330-14-00126	02-10-20
Washington	State Program	10	C553	02-17-19

Laboratory: TestAmerica Burlington

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

Authority	Program	EPA Region	Identification Number	Expiration Date
ANAB	DoD ELAP		L2336	02-25-20
Connecticut	State Program	1	PH-0751	09-30-19
DE Haz. Subst. Cleanup Act (HSCA)	State Program	3	NA	02-01-19
Maine	State Program	1	VT00008	04-17-19
Minnesota	NELAP	5	050-999-436	12-31-18
New Hampshire	NELAP	1	2006	12-18-18
New Jersey	NELAP	2	VT972	06-30-19
New York	NELAP	2	10391	04-01-19
Pennsylvania	NELAP	3	68-00489	04-30-19
Rhode Island	State Program	1	LAO00298	12-30-18
US Fish & Wildlife	Federal		LE-058448-0	07-31-19
USDA	Federal		P330-11-00093	07-24-20
Vermont	State Program	1	VT-4000	12-31-18
Virginia	NELAP	3	460209	12-14-18

Sample Summary

Client: AECOM

Project/Site: Portland Harbor Pre-Remedial Design

TestAmerica Job ID: 580-79329-3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-79329-17	PDI-SC-S178-0to2	Solid	08/02/18 15:55	08/03/18 13:45
580-79329-37	PDI-SC-S218-6to8	Solid	08/02/18 11:35	08/03/18 13:45

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		Client Contact		Project C	ontact: Amy	Project Contact: Amy Dahl / Chelsey Cook	y Cook	S	e Contact:	Jennifer I	Ray / Mich	Site Contact: Jennifer Ray / Michaela McCoog		Date: 8/3/18				COC No. 1		
	AECOM 1111 3rd Ave Suite 1600	009		Tel: G	106) 438-226	Tel: (206) 438-2261 / (206) 438-2010 Analysis Turnaround Time	010	I.a	boratory (Laboratory Contact: Elaine-Walker	laine-Wall	ter		Carrier: Courier	urier			3 of 4	pages	
	Seattle, WA 98101			Calendar (C	Calendar (C) or Work Days (W)	ays (W) W		Ī			*1									
	Phone: (206) 438-2700 Fax: 1+(86 Project Name: Portland Harbor Pre-F Investigation and Baseline Samulian	Phone: (206) 438-2700 Fax: 1+(866) 495-5288 Project Name: Portland Harbor Pre-Remedial Design Investigation and Baseline Sometime	×	21 days	ays		A.			_	ic Carbor)60, 160.3			g:						
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	Project #: 60566335 Study:	Study: Subsurface Sediment								9 0 /87	oT ,2 0758	MLS								
	Sample Type:							T	aeı	64d MTS	Prs, PAH 5 8082A,	2A stimi.								
	Samp	Sample Identification	Sample Date	Sample Time	Matrix	QC Sample	Sampler's T	Total No.	PCDD/Fs 16	Archive Grain size A	PCB Aroeld Fotal Solid	Atterberg I						ć		
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4	PDI-SC-S083	- 1.6 to 3.5	8/1/2018	17:35	SC		ED	7		-	×									
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Pa	PDI-SC-S083	- 5 to 6.6	8/1/2018	17:45	SC		ED L	+	×	x	×									
ge	PDI-SC-8032	- 0 to 2	8/1/2018	15:40	SC		ED	て	x	×	×									T
12	PDI-SC-8032	- 2 to 4	8/1/2018	15:45	SC		ED	7	x	×	×									T
of 2	PDI-SC-S032	- 4 to 6	8/1/2018	15:50	SC		ED	7	×		×									
29	PDI-SC-S032	- 6 to 8	8/1/2018	15:55	SC		ED	7	x		×									
TW'	PDI-SC-S032	8 to 10	8/1/2018	00:91	SC	USINSO) da	0	x		×									
,	PDI-SC-S032	- 10 to 12	8/1/2018	16:05	sc		ED	7	×		×									T
*	PDI-SC-S032	- 12 to 14	8/1/2018	16:10	SC		ED C	-	×		*									
*		0 to 2	8/2/2018	17:50	SC		<u>ф</u> д	,	×	×	×									
- 1	Container Type: Wn Preservative: HCl =	Container Type: WMG=Wide Mouth Glass Jar, P=HDPE, PP=Polypropylene, AG=amber glass, G=glass, Preservative: HCl = Hudrochloric Acid HPDA = Pheochoric Acid UNIO = Mind Acid Acid Acid UNIO = Mind Acid Acid Acid Acid Acid Acid Acid Aci	=HDPE, PP=P	olypropyle	ne, AG=am	per glass, G	-glass, RC=	RC=Resin Colu	AG AG	WMG	WMG	AG								
	Fraction: $D = Dissolv$	Fraction: D = Dissolved, PRT = Particulare, T = Total (unfiltered)	(unfiltered)	rola, mag	- Munc Ac	2			Sample Disposal	sposal		- [П
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AECOM		Tel:	(206) 438-22	Tel: (206) 438-2261 / (206) 438-2010	18-2010		Lahorato	V Contact	Lahoratory Contact: Flaine Wollton	Action in	5000 c		Date: 8/3/	18			Š.		T
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Project #: 60566335 Study: Subsurface Sediment Sample Type:									r, eha		49	10	021						
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Sample Identification	Sample Date	Sample Time	Matrix	QC Sample	Sampler's Initials	Total No. of Cont.	Fraction PCDD/Fs 1	Агеніче	Grain size / PCB Aroc Total Solid	Atterberg	-DM	MG-	DM				Samulo	Samle Specific Notes	
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PDI-SC-S228 - 0 to 2.3	8/3/2018	9:20	SC		ED	7	×	×										-	
PDI-SC-S221 - 0 to 2	8/3/2018	10:15	SC		ED	4	×	x	×								000	// 60	
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to to		791	SC		ED		1	X											
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Container Type: WMG=Wide Mouth Glass Jar, P=HDPE, PP=Polypropylene, AG=amber glass, G=glass,	P=HDPE, PP=	Polypropy	dene, AG=	amber glass		RC=Resin Colu	olu AG	AG WMG	IG WMG	ΟV									
Preservative: $HCI = Hydrochloric Acid_1 H3PO4 = Phosphoric Acid_1 HNO3 = Nitric Acid_1 Fraction: D = Dissolved, PRT = Particulate, T = Total (unfiltered)$	= Phosphoric (unfiltered)	Acid, HNC	33 = Nitric	Acid			Samu	Samule Disnocal			-		-						
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Date: 8/3/18

Carrier: Courier

IR5 = 1.2/1.2 wilcs. tro = 0.4/07 wils.

SUBSURFACE SEDIMENT

CHAIN OF CUSTODY

Laboratory Contact: Elaine-Walker

Site Contact: Jennifer Ray / Michaela McCoog

PCB Aroclors, PAHs, Total Organic Carbon Total Solids 8082A, 8270D-SIM, 9060, 160,3

WMG

AG

X posal By Lab

tterberg Limits ASTM D4318

TestAmerica-Seattle

5755-8th-Street-East Tacoma, WA 98424-1317

Ph: 253-922-2310

1111 3rd Ave Suite 1600

Phone: (206) 438-2700 Fax: 1+(866) 495-5288 Project Name: Portland Harbor Pre-Remedial Design

Project #: 60566335 Study: Subsurface Sediment

Sample Identification

0 to 2

2 to 4

4 to 6

6 to 8

8 to 10

10 to 12.1

0 to 2

0 to 2D

2 to 3.3

0 to 2

2 to 4.5

Fraction: D = Dissolved, PRT = Particulate, T = Total (unfiltered)

Investigation and Baseline Sampling

Seattle, WA 98101

AECOM

Portland, OR

Sample Type:

PDI-SC-S144 -

PDI-SC-S144 -

PDI-SC-S144 -

PDI-SC-S144 -

PDI-SC-S144 -

PDI-SC-S144 -

PDI-SC-S086 -

PDI-SC-S086 -

PDI-SC-S086 -

PDI-SC-S218 -

PDI-SC-S218 -

Relinquished by:

Relinguished by:

PDI-SC-S218 - 4.5 to 6

Fax: 253-922-5047 Client Contact

Project Contact: Amy Dahl / Chelsey Cook

Tel: (206) 438-2261 / (206) 438-2010

Analysis Turnaround Time

Sampler's

Initials

ED

ED

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QC Sample

Total No.

of Cont.

X

AG AG WMG

Sample Disposal Return To Client

Calendar (C) or Work Days (W) W

Matrix

SC

21 days

Other

Sample

Time

11:50

11:55

12:00

12:05

12:10

12:15

9:20

9:20

9:25

11:20

11:25

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Sample Date

8/1/2018

8/1/2018

8/1/2018

8/1/2018

8/1/2018

8/1/2018

8/2/2018

8/2/2018

8/2/2018

8/2/2018

8/2/2018

8/2/2018 Container Type: WMG=Wide Mouth Glass Jar, P=HDPE, PP=Polypropylene, AG=amber glass, G=glass, RC=Resin Colu

Preservative: HCl = Hydrochloric Acid, H3PO4 = Phosphoric Acid, HNO3 = Nitric Acid

Special Instructions/QC Requirements & Comments: Separate reports for each lab

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Sample Specific Notes:

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PDI-SC-S172 - 6 to 8.1	8/2/2018	18:05	SC		ED	4		х	х	x	X													***************************************		•
PDI-SC-S178 - 0 to 2	8/2/2018	15:55	SC		ED	5		X	х	x	х														***************************************	
PDI-SC-S178 - 2 to 3.7	8/2/2018	16:00	SC		ED	#		х	x	x	x															
PDI-SC-S178 - 3.7 to 4.7	8/2/2018	16:05	sc		ED	4	T	х	X	х	x											 				
PDI-SC-S178 - 4.7 to 6.7	8/2/2018	16:10	sc		ED	ч		х	х	х	x											 				
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PDI-SC-S178 - 8.7 to 10.7	8/2/2018	16:20	sc		ED	4	1	x	x	x	x											\vdash				
PDI-SC-S178 - 10.7 to 12.7	8/2/2018	16:25	SC		ED	4		x	X	X	X												<u></u>			
PDI-SC-S178 - 12.7 to 14	8/2/2018	16:30	SC		ED	4		x x	<u>x</u>	X	- A X															
ntainer Type: WMG=Wide Mouth Glass Jar, I	P=HDPE, PP=	Polypropy	ylene, AG≃a	amber glass. G	=qlass. F	AC=Resin	Colu			WMG		AG										 				
eservative: HCl = Hydrochloric Acid, H3PO4							-										-					 				
action: $D = D$ issolved, $PRT = P$ articulate, $T = T$ ota	il (unfiltered)					·		Sampi	e Disp	lszoc		<u> </u>														
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SUBSURFACE SEDIMENT

CHAIN OF CUSTODY

Laboratory Contact: Elaine-Walker

Site Contact: Jennifer Ray / Michaela McCoog

Werberg Limits ASTM D4318

Date: 8/3/18

Carrier: Courier

TestAmerica-Seattle

5755-8th-Street-East Tacoma, WA 98424-1317

Ph: 253-922-2310

Seattle, WA 98101

1111 3rd Ave Suite 1600

AECOM

Portland, OR

Sample Type:

Fax: 253-922-5047

Project Contact: Amy Dahl / Chelsey Cook

Tel: (206) 438-2261 / (206) 438-2010

Analysis Turnaround Time

QC Sample

Sampler's

Initials

ED

ED

Total No.

of Cont.

Calendar (C) or Work Days (W) W

Matrix

SC

21 days

Other

Sample

Time

17:55

17:5/5

Sample Date

8/2/2018

8/2/2018

Client Contact

Phone: (206) 438-2700 Fax: 1+(866) 495-5288 Project Name: Portland Harbor Pre-Remedial Design

Project #: 60566335 Study: Subsurface Sediment

Sample Identification

2 to 4

2 to 4D

Investigation and Baseline Sampling

PDI-SC-S172 -

PDI-SC-S172 -

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Phone: (206) 438-2700 Fax: I+(866) 495-5288 Project Name: Portland Harbor Pre-Remedial Design investigation and Baseline Sampling	×		days	Days (W)						-	s, Total Organic Carbon 8270D-SIM, 9060, 160.3	D4318			11.0											
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roject #: 60566335 Study: Subsurface Sediment	7									Z8/D	Is. T.	ASTM														
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PDI-SC-S032 - 4 to 6	8/1/2018	15:50	sc		ED	4		x	х	x	X								*			İ		***************************************		
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PDI-SC-S172 - 0 to 2	8/2/2018	17:50	sc		ED	4		x	x	x	х															
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reservative: HCl = Hydrochloric Acid, H3PO4													·····											- · · · · · · · · · · · · · · · · · · ·		
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SUBSURFACE SEDIMENT

CHAIN OF CUSTODY

TestAmerica-Seattle

5755-8th-Street-East Tacoma, WA 98424-1317

Ph; 253-922-2310 Fax: 253-922-5047

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Client Contact	<u> </u>		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	iy Dahl / Che							≀ay / Mie		McCoo	g		Date:	8/3/18					COC No: 1		
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SUBSURFACE SEDIMENT

CHAIN OF CUSTODY

TestAmerica-Seattle

5755-8th-Street-East Tacoma, WA 98424-1317

Ph: 253-922-2310 Fax: 253-922-5047

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Test America-Scattle							SUI	SUR	FAC	SUBSURFACE SEDIMENT	IME	L				
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lacoma, WA 98424-1517 Ph: 253-922-2310 Fax: 253-922-5047	5047						0	HAIL	OF	CHAIN OF CUSTODY	CODY					
Client Contact			Project C	ontact: Amy	Project Contact: Amy Dahl / Chelsey Cook	ey Cook	9,	ite Conta	t: Jennif	Site Contact: Jennifer Ray / Michaela McCoog	Iichaela M	[cCoog	Date: 8/3/18		COC No: 1	Г
AECOM			Tel: ()	06) 438-226	Tel: (206) 438-2261 / (206) 438-2010	1010		aborator	Contact	Laboratory Contact: Elaine-Walker	Valker		Carrier: Courier		of pages	Γ
1111 3rd Ave Suite 1600			A	nalysis Turn	Analysis Turnaround Time				r	L						Γ
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Phone: (206) 438-2700 Fax: 1+(866) 495-5288 Project Name: Portland Harbor Pre-Remedial Design	95-5288 edial Design		ā	ا ا							*00.7 *00.	_				
Investigation and Baseline Sampling	b	×	710	ZI days												
Portland, OR			Other) [RJO						
Project #: 60566335 Study: Subsurfac	Subsurface Sediment									T,eH						
Sample Type:								8£ 15		IA¶ ,erol		580-79	580-79329 Chain of Custody	=		
Sample Identification		Sample Date	Sample Time	Matrix	QC Sample	Sampler's Initials	Total No. of Cent.	Praction	avidanA	Grain size A PCB Aroel Total Solfd	Atterberg	<u>.</u>		_	Sample Specific Notes.	
PDI-SC-S144 - 0 to 2		8/1/2018	11:50	SC		B	5	-	м	_	┢					Т
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PDI-SC-S218 - 0 to 2		8/2/2018	11:20	sc		Œ	+	×	×	×						
PDI-SC-S218 - 2 to 4.5		8/2/2018	11.25	SC		ED	3	н	×	×						
PDI-SC-S218 - 4.5 to 6		8/2/2018	11:30	SC		ED	_	×	×	×						
Container Type: WMG=Wide Mouth Glass Jar, P=HDPE, PP=Polytropytene, AG=amber glass, G=glass,	n Glass Jar, P	-HOPE, PP.	Polyprop	rlene, AG=	amber glass	G=glass, I	RC=Resin Colu	olu AG	ΑG	WMG WMG	G AG					
Preservative: HCl = Hydrochioric Acid, H3PO4 = Phosphoric Acid, HNO3 = Nitric Acid	\cid, H3PO4 =	- Phosphoric	Acid, HN	3 = Nitric	Acid			_		L						Γ
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estAmerica-Scattle

8/26/2018

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Chain of Custody Record 580-78229 Chain of Custody

	Sampler:	Leb PM:	ľ		
Client Information (Sub Contract Lab)		Walker, Elaine M	3	COC No: SRD-57RD4 1	1
Shipping/Recalving	Phone:	E-Mail: elaine welken@	E-Mail: State of Origin:	Page:	6
Company: TestAmerica Laboratories Inc.		Accreditations		Page 1 of 1	27
				580-79329-1	29-1
Sommunity Drive, Suite 11,	Nue Date Requested: 8/21/2018		Analysis Reginested	Preserva	Preservation Codes:
gton	TAT Requested (days):			A-HCI	
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Transland Manner		33		I - los	
Hojek name: Portland Harbor Pre-Remedial Design	Project #: 58012120	الكتي		_	
Sifts	*#MOSS	logd/m			4. oner (apecity)
		Materix		Stant I	
Sample Identification - Cilent ID (Leb ID)	Sample Date C=comp.	-		d5	Special Indiructions/Notes:
PDI-SC-S218-6h8 (580-79329-37)	11.35		新灰面 独立地形 100 mm 100 mm		
	8/2/18 Pacific	Solid			
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Possible Hazard Identification		Sample	Sample Disposal (A fee may be assessed if complete many and in the complete of the complete o	market and and a factor of the	
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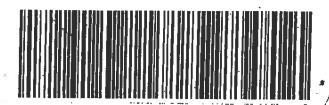
SHIPPING/RECEIVING TESTAMERICA LABORATORIES, INC.

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Chain of Custody Record

	Chain of Custody Record	stody Rec		580-79329 Chain of Custody	12 1/2	TestAmerico	TCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC
Client Information (Sub Contract Lab)	Sampler:	Lab PM: Walker, Elaine M	laine M		2 36	COC No: 580-57804.1	
Client Contact: Shipping/Receiving	Phone:	E-Mail: elaine.wa	E-Mail: elaine.walker@testamericainc.com	State of Origin: .com Oregon	<u>a</u> <u>a</u>	Page: Page 1 of 1	
Company: TestAmerica Laboratories, Inc.		Acare	Accreditations Required (See note):		Jo	Job #: 580-79329-1	
Address: 30 Community Drive, Suite 11,	Due Date Requested: 8/21/2018		A A	Analysis Requested	Pr	lö	
City: South Burlington	TAT Requested (days):				▼ M O	A - HCL M - He: B - NaOH N - Nor C - Zn Acetate O - Ash	M - Hexane N - None O - AsNaO2
State, Zip: VT, 05403			4		<u> </u>		:04s :S03
Phone: 802-660-1990(Tel) 802-660-1919(Fax)	PO#	1. 4.			. О т	7	SSZO3 SO4 Dodecabydrate
Email:	WO #:		*\/o\				tone AA
Project Name: Portland Harbor Pre-Remedial Design	Project #: 58012120		t vo se				W - pH 4-5 Z - other (specify)
Site:	SSOW#:		i ne			Other:	
	Sample Type Sample (C=comp.	Matrix (w=water, S=solid, D	MisM moor 818) TedmuM iš		
Sample Identification - Client ID (Lab ID)	1	ation Code:			101	Special Instructions/Note:	ons/Note:
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					#8 - 12.		
Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory or currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, inc.	tories, Inc. places the ownership of method, ana tts/matrix being analyzed, the samples must be sont to date, return the signed Chain of Custody at	yte & accreditation comp hipped back to the TestA esting to said complicand	liance upon out subcontra merica laboratory or other e to TestAmerica Laboral	uct laboratories. This sample shipme rinstructions will be provided. Any coories, Inc.	ant is forwarded under charthanges to accreditation s	ain-of-custody. If the laboratatus should be brought to	If the laboratory does not brought to TestAmerica
Possible Hazard Identification		S	ample Disposal (A	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)	nples are retained	longer than 1 month	
Unconfirmed			Return To Clien	Return To Client Disposal By Lab	5 Archive For	For Mor	Months
Deliverable Kequested: I, II, III, IV, Other (specify)	Primary Deliverable Rank: 2	S	pecial Instructions/Q	C Requirements:			
Empty Kit Relinquished by:	Date:	Time:		Method of Shipment:	shipment:		
Kelinquished by:	Date/Time:	Company	Received by:	TAG	Date/Time:	Company Company	1 Swr
Touristic of the	Caterinite.	Company	Received by:	2	Date/Time:	Сотралу	Λι
	Date/Time:	Сотрапу	Received by:		Date/Time:	Company	Кı
Custody Seals Intact: Custody Seal No.: NO #₹			Cooler Temperature(s)	Cooler Temperature(s) °C and Other Remarks:	4		
						() / X	0,000,000,000

HIP DATE: 06AUG18 CTWGT: 27.70 LB AD: 0996922/CAFE3210

ORIGIN ID:BNOA (503) 906-9240 SAMPLE CONTROL TESTAMERICA PORTLAND 8920 SW GEMINI DR BUILDING 7 BEAVERTON, OR 970087145 UNITED STATES US

BILL RECIPIENT

TO SHIPPING/RECEIVING
TESTAMERICA LABORATORIES, INC.
30 COMMUNITY DRIVE
SUITE 11
SOUTH BURLINGTON VT 05403

(802) 660 – 1990 REF: \$580 – 30119

FedEx Express

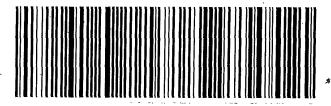


TRK# 0201 4423 0750 8380

TUE - 07 AUG 10:30A PRIORITY OVERNIGHT

XH BTVA

05403 VT-US BTV



Land Comment

Client: AECOM Job Number: 580-79329-3

Login Number: 79329 List Source: TestAmerica Seattle

List Number: 1

Creator: O'Connell, Jason I

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

TestAmerica Seattle

Client: AECOM Job Number: 580-79329-3

Login Number: 79329
List Source: TestAmerica Burlington
List Number: 3
List Creation: 08/07/18 11:38 AM

Creator: Johnson, Eleanor E

Greator. Johnson, Eleanor E		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td> <td>Lab does not accept radioactive samples.</td>	True	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	Seal present with no number.
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.7°C
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	Received extra samples not listed on COC.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	N/A	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	No analysis requiring residual chlorine check assigned.

Client: AECOM Job Number: 580-79329-3

Login Number: 79329
List Source: TestAmerica Burlington
List Number: 4
List Creation: 08/07/18 05:47 PM

Creator: Johnson, Eleanor E

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

Walker, M Elaine

From:

Ray, Jennifer < jennifer.ray@aecom.com>

Sent:

Tuesday, August 07, 2018 12:13 PM

To:

Walker, M Elaine; Dahl, Amy

Cc:

Cook, Chelsey

Subject:

RE: Atterberg Limits for sample PDI-SC-S178-0to2 (580-79329-17)



Please log in for atterberg.

Thanks,

Jennifer Ray, EIT

Environmental Engineering, Environment, Portland

D +1-503-948-7206 M +1-971-373-1622

jennifer.ray@aecom.com

PRIVILEGED AND CONFIDENTIAL/JOINT DEFENSE COMMUNICATION/ATTORNEY WORK PRODUCT

From: Walker, M Elaine [mailto:M.Elaine.Walker@testamericainc.com]

Sent: Tuesday, August 07, 2018 9:27 AM

To: Dahl, Amy

Cc: Ray, Jennifer; Cook, Chelsey

Subject: Atterberg Limits for sample PDI-SC-S178-0to2 (580-79329-17)

Importance: High

Goof morning,

A container for Atterberg Limits was received for the referenced sample, but it is not requested on the COC (see attached). The sample container does list Atterberg Limits on the label. Does this sample need to be logged for Atterberg Limits? Burlington does have the container in their custody now.

Thanks,

M, ELAINE WALKER

Project Manager

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

5755 8th Street East Tacoma, WA 98424

Tel 253.248.4972 | Fax 253.922.5047

www.testamericainc.com

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