

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

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TestAmerica Job ID: 580-79894-1

Client Project/Site: Portland Harbor Pre-Remedial Design
Revision: 1

For:

AECOM
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Attn: Amy Dahl

M. Elaine Walker

Authorized for release by:
9/28/2018 7:14:06 PM

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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.

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Case Narrative

Client: AECOM
Project/Site: Portland Harbor Pre-Remedial Design

TestAmerica Job ID: 580-79894-1

Job ID: 580-79894-1

Laboratory: TestAmerica Seattle

Narrative

CASE NARRATIVE

Client: AECOM

Project: Portland Harbor Pre-Remedial Design

Report Number: 580-79894-1

REVISION 1: SEPTEMBER 28, 2018

This revision was required because the Hardness was reported by an incorrect method.

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

Fifteen samples were received on 8/27/2018 1:35 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 2.8° C and 5.6° C.

Client requested that the '-' be removed between the month and year in the sample IDs.

Several samples had their ID and/or collection time changed by the client; COC incorrect.

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.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples PDI-WS-T01W-1808 (580-79894-4), PDI-WS-T02W-1808 (580-79894-5), PDI-WS-T02N-1808 (580-79894-6), PDI-WS-T02E-1808 (580-79894-7), PDI-WS-T06NAV-1808 (580-79894-8), PDI-WS-T06E-1808 (580-79894-9), Trip Blank-T06 (580-79894-10), PDI-WS-T06W-1808 (580-79894-11), PDI-WS-T01N-1808 (580-79894-12), PDI-WS-T01E-1808 (580-79894-13), Trip Blank-T01 (580-79894-14) and Trip Blank-T02 (580-79894-15) were analyzed for volatile organic compounds (GC-MS) in accordance with 8260C. The samples were analyzed on 09/01/2018, 09/04/2018 and 09/05/2018.

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

CHLORINATED HERBICIDES

Samples PDI-WS-T02-1808 (580-79894-1), PDI-WS-T06-1808 (580-79894-2) and PDI-WS-T01-1808 (580-79894-3) were analyzed for chlorinated herbicides in accordance with EPA SW-846 8151A. The samples were prepared on 08/29/2018 and analyzed on 09/11/2018.

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

METALS (ICP)

Samples PDI-WS-T02-1808 (580-79894-1), PDI-WS-T06-1808 (580-79894-2) and PDI-WS-T01-1808 (580-79894-3) were analyzed for

Case Narrative

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Laboratory: TestAmerica Seattle (Continued)

Metals (ICP) in accordance with EPA SW-846 Method 6010C. The samples were prepared on 08/29/2018 and analyzed on 09/04/2018.

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

METALS (ICPMS)

Samples PDI-WS-T02-1808 (580-79894-1), PDI-WS-T06-1808 (580-79894-2) and PDI-WS-T01-1808 (580-79894-3) were analyzed for metals (ICPMS) in accordance with 6020A_LL. The samples were prepared on 08/29/2018 and analyzed on 08/30/2018.

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

METALS (ICPMS)

Samples PDI-WS-T02-1808 (580-79894-1), PDI-WS-T06-1808 (580-79894-2) and PDI-WS-T01-1808 (580-79894-3) were analyzed for Metals (ICPMS) in accordance with 6020A_LL. The samples were prepared on 08/29/2018 and analyzed on 08/30/2018.

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

HARDNESS

Samples PDI-WS-T02-1808 (580-79894-1), PDI-WS-T06-1808 (580-79894-2) and PDI-WS-T01-1808 (580-79894-3) were analyzed for hardness in accordance with SM20 2340B The samples were analyzed on 09/18/2018.

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

TOTAL DISSOLVED SOLIDS

Samples PDI-WS-T02-1808 (580-79894-1), PDI-WS-T06-1808 (580-79894-2) and PDI-WS-T01-1808 (580-79894-3) were analyzed for total dissolved solids in accordance with SM20 2540C. The samples were analyzed on 08/31/2018.

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

TOTAL SUSPENDED SOLIDS

Samples PDI-WS-T02-1808 (580-79894-1), PDI-WS-T06-1808 (580-79894-2) and PDI-WS-T01-1808 (580-79894-3) were analyzed for total suspended solids in accordance with SM20 2540D. The samples were analyzed on 08/28/2018.

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

DISSOLVED ORGANIC CARBON

Samples PDI-WS-T02-1808 (580-79894-1), PDI-WS-T06-1808 (580-79894-2) and PDI-WS-T01-1808 (580-79894-3) were analyzed for dissolved organic carbon in accordance with SM20 5310B. The samples were analyzed on 09/12/2018.

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

TOTAL ORGANIC CARBON

Samples PDI-WS-T02-1808 (580-79894-1), PDI-WS-T06-1808 (580-79894-2) and PDI-WS-T01-1808 (580-79894-3) were analyzed for total organic carbon in accordance with SM 5310B. The samples were analyzed on 08/29/2018.

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

Definitions/Glossary

Client: AECOM
Project/Site: Portland Harbor Pre-Remedial Design

TestAmerica Job ID: 580-79894-1

Qualifiers

Metals

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
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
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client Sample Results

Client: AECOM
Project/Site: Portland Harbor Pre-Remedial Design

TestAmerica Job ID: 580-79894-1

Client Sample ID: PDI-WS-T02-1808

Lab Sample ID: 580-79894-1

Date Collected: 08/24/18 12:22

Matrix: Water

Date Received: 08/27/18 13:35

Method: 8151A - Herbicides (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MCPPP	ND		1.1	0.18	ug/L		08/29/18 14:34	09/11/18 19:45	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	123		44 - 145				08/29/18 14:34	09/11/18 19:45	1

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	10		1.1	0.16	mg/L		08/29/18 16:03	09/04/18 14:45	1
Magnesium	3.8		1.1	0.13	mg/L		08/29/18 16:03	09/04/18 14:45	1

Method: 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.84	J	1.0	0.20	ug/L		08/29/18 17:16	08/30/18 12:22	1
Chromium	0.32	J	0.40	0.17	ug/L		08/29/18 17:16	08/30/18 12:22	1
Copper	0.84	J	2.0	0.60	ug/L		08/29/18 17:16	08/30/18 12:22	1
Zinc	2.2	J	7.0	1.9	ug/L		08/29/18 17:16	08/30/18 12:22	1

Method: 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.79	J	1.0	0.20	ug/L		08/29/18 16:03	08/30/18 17:18	1
Chromium	ND		0.40	0.17	ug/L		08/29/18 16:03	08/30/18 17:18	1
Copper	0.75	J	2.0	0.60	ug/L		08/29/18 16:03	08/30/18 17:18	1
Zinc	ND		7.0	1.9	ug/L		08/29/18 16:03	08/30/18 17:18	1

Method: SM 2340B - Total Hardness (as CaCO3) by calculation - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Hardness as calcium carbonate	41		1.1	1.1	mg/L			09/28/18 16:17	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	66		10	10	mg/L			08/31/18 09:47	1
Total Suspended Solids	3.6		2.0	2.0	mg/L			08/28/18 17:00	1
Total Organic Carbon	2.0		1.0	0.19	mg/L			08/29/18 18:19	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon	2.0		1.0	0.19	mg/L			09/12/18 15:47	1

Client Sample Results

Client: AECOM
Project/Site: Portland Harbor Pre-Remedial Design

TestAmerica Job ID: 580-79894-1

Client Sample ID: PDI-WS-T06-1808

Lab Sample ID: 580-79894-2

Date Collected: 08/24/18 16:32

Matrix: Water

Date Received: 08/27/18 13:35

Method: 8151A - Herbicides (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MCPP	ND		1.1	0.19	ug/L		08/29/18 14:34	09/11/18 20:11	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	103		44 - 145				08/29/18 14:34	09/11/18 20:11	1

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	6.8		1.1	0.16	mg/L		08/29/18 16:03	09/04/18 14:48	1
Magnesium	2.6		1.1	0.13	mg/L		08/29/18 16:03	09/04/18 14:48	1

Method: 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.61	J	1.0	0.20	ug/L		08/29/18 17:16	08/30/18 12:27	1
Chromium	0.30	J	0.40	0.17	ug/L		08/29/18 17:16	08/30/18 12:27	1
Copper	0.84	J	2.0	0.60	ug/L		08/29/18 17:16	08/30/18 12:27	1
Zinc	2.1	J	7.0	1.9	ug/L		08/29/18 17:16	08/30/18 12:27	1

Method: 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.58	J	1.0	0.20	ug/L		08/29/18 16:03	08/30/18 17:22	1
Chromium	0.24	J	0.40	0.17	ug/L		08/29/18 16:03	08/30/18 17:22	1
Copper	0.73	J	2.0	0.60	ug/L		08/29/18 16:03	08/30/18 17:22	1
Zinc	2.0	J	7.0	1.9	ug/L		08/29/18 16:03	08/30/18 17:22	1

Method: SM 2340B - Total Hardness (as CaCO3) by calculation - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Hardness as calcium carbonate	28		1.1	1.1	mg/L			09/28/18 16:17	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	44		10	10	mg/L			08/31/18 09:47	1
Total Suspended Solids	4.2		2.0	2.0	mg/L			08/28/18 17:00	1
Total Organic Carbon	2.8		1.0	0.19	mg/L			08/29/18 18:19	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon	3.2		1.0	0.19	mg/L			09/12/18 15:47	1

Client Sample Results

Client: AECOM
Project/Site: Portland Harbor Pre-Remedial Design

TestAmerica Job ID: 580-79894-1

Client Sample ID: PDI-WS-T01-1808

Lab Sample ID: 580-79894-3

Date Collected: 08/25/18 12:02

Matrix: Water

Date Received: 08/27/18 13:35

Method: 8151A - Herbicides (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MCPPP	ND		1.1	0.19	ug/L		08/29/18 14:34	09/11/18 20:37	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	67		44 - 145				08/29/18 14:34	09/11/18 20:37	1

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	16		1.1	0.16	mg/L		08/29/18 16:03	09/04/18 14:52	1
Magnesium	5.1		1.1	0.13	mg/L		08/29/18 16:03	09/04/18 14:52	1

Method: 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.97	J	1.0	0.20	ug/L		08/29/18 17:16	08/30/18 12:31	1
Chromium	0.28	J	0.40	0.17	ug/L		08/29/18 17:16	08/30/18 12:31	1
Copper	1.1	J	2.0	0.60	ug/L		08/29/18 17:16	08/30/18 12:31	1
Zinc	2.2	J	7.0	1.9	ug/L		08/29/18 17:16	08/30/18 12:31	1

Method: 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.96	J	1.0	0.20	ug/L		08/29/18 16:03	08/30/18 17:27	1
Chromium	0.25	J	0.40	0.17	ug/L		08/29/18 16:03	08/30/18 17:27	1
Copper	1.0	J	2.0	0.60	ug/L		08/29/18 16:03	08/30/18 17:27	1
Zinc	2.8	J	7.0	1.9	ug/L		08/29/18 16:03	08/30/18 17:27	1

Method: SM 2340B - Total Hardness (as CaCO3) by calculation - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Hardness as calcium carbonate	60		1.1	1.1	mg/L			09/28/18 16:17	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	71		10	10	mg/L			08/31/18 09:47	1
Total Suspended Solids	4.6		2.0	2.0	mg/L			08/28/18 17:00	1
Total Organic Carbon	2.0		1.0	0.19	mg/L			08/29/18 18:19	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon	2.3		1.0	0.19	mg/L			09/12/18 15:47	1

Client Sample Results

Client: AECOM
 Project/Site: Portland Harbor Pre-Remedial Design

TestAmerica Job ID: 580-79894-1

Client Sample ID: PDI-WS-T01W-1808

Lab Sample ID: 580-79894-4

Date Collected: 08/24/18 17:15

Matrix: Water

Date Received: 08/27/18 13:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		3.0	0.50	ug/L			09/01/18 11:12	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	102		80 - 122					09/01/18 11:12	1
Trifluorotoluene (Surr)	104		80 - 120					09/01/18 11:12	1
4-Bromofluorobenzene (Surr)	98		80 - 125					09/01/18 11:12	1
Dibromofluoromethane (Surr)	98		77 - 120					09/01/18 11:12	1
1,2-Dichloroethane-d4 (Surr)	96		80 - 126					09/01/18 11:12	1

Client Sample Results

Client: AECOM
 Project/Site: Portland Harbor Pre-Remedial Design

TestAmerica Job ID: 580-79894-1

Client Sample ID: PDI-WS-T02W-1808

Lab Sample ID: 580-79894-5

Date Collected: 08/23/18 18:50

Matrix: Water

Date Received: 08/27/18 13:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		3.0	0.50	ug/L			09/01/18 11:38	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	100		80 - 122					09/01/18 11:38	1
Trifluorotoluene (Surr)	104		80 - 120					09/01/18 11:38	1
4-Bromofluorobenzene (Surr)	97		80 - 125					09/01/18 11:38	1
Dibromofluoromethane (Surr)	101		77 - 120					09/01/18 11:38	1
1,2-Dichloroethane-d4 (Surr)	99		80 - 126					09/01/18 11:38	1

Client Sample Results

Client: AECOM
 Project/Site: Portland Harbor Pre-Remedial Design

TestAmerica Job ID: 580-79894-1

Client Sample ID: PDI-WS-T02N-1808

Lab Sample ID: 580-79894-6

Date Collected: 08/23/18 16:00

Matrix: Water

Date Received: 08/27/18 13:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		3.0	0.50	ug/L			09/01/18 12:04	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	102		80 - 122					09/01/18 12:04	1
Trifluorotoluene (Surr)	103		80 - 120					09/01/18 12:04	1
4-Bromofluorobenzene (Surr)	96		80 - 125					09/01/18 12:04	1
Dibromofluoromethane (Surr)	100		77 - 120					09/01/18 12:04	1
1,2-Dichloroethane-d4 (Surr)	96		80 - 126					09/01/18 12:04	1

Client Sample Results

Client: AECOM
 Project/Site: Portland Harbor Pre-Remedial Design

TestAmerica Job ID: 580-79894-1

Client Sample ID: PDI-WS-T02E-1808

Lab Sample ID: 580-79894-7

Date Collected: 08/24/18 11:25

Matrix: Water

Date Received: 08/27/18 13:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		3.0	0.50	ug/L			09/01/18 12:30	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	104		80 - 122					09/01/18 12:30	1
Trifluorotoluene (Surr)	103		80 - 120					09/01/18 12:30	1
4-Bromofluorobenzene (Surr)	98		80 - 125					09/01/18 12:30	1
Dibromofluoromethane (Surr)	99		77 - 120					09/01/18 12:30	1
1,2-Dichloroethane-d4 (Surr)	98		80 - 126					09/01/18 12:30	1

Client Sample Results

Client: AECOM
 Project/Site: Portland Harbor Pre-Remedial Design

TestAmerica Job ID: 580-79894-1

Client Sample ID: PDI-WS-T06NAV-1808

Lab Sample ID: 580-79894-8

Date Collected: 08/24/18 14:40

Matrix: Water

Date Received: 08/27/18 13:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		3.0	0.50	ug/L			09/01/18 12:56	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	102		80 - 122					09/01/18 12:56	1
Trifluorotoluene (Surr)	102		80 - 120					09/01/18 12:56	1
4-Bromofluorobenzene (Surr)	96		80 - 125					09/01/18 12:56	1
Dibromofluoromethane (Surr)	99		77 - 120					09/01/18 12:56	1
1,2-Dichloroethane-d4 (Surr)	96		80 - 126					09/01/18 12:56	1

Client Sample Results

Client: AECOM
 Project/Site: Portland Harbor Pre-Remedial Design

TestAmerica Job ID: 580-79894-1

Client Sample ID: PDI-WS-T06E-1808

Lab Sample ID: 580-79894-9

Date Collected: 08/24/18 11:42

Matrix: Water

Date Received: 08/27/18 13:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		3.0	0.50	ug/L			09/01/18 13:22	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	101		80 - 122					09/01/18 13:22	1
Trifluorotoluene (Surr)	104		80 - 120					09/01/18 13:22	1
4-Bromofluorobenzene (Surr)	98		80 - 125					09/01/18 13:22	1
Dibromofluoromethane (Surr)	100		77 - 120					09/01/18 13:22	1
1,2-Dichloroethane-d4 (Surr)	97		80 - 126					09/01/18 13:22	1

Client Sample Results

Client: AECOM
 Project/Site: Portland Harbor Pre-Remedial Design

TestAmerica Job ID: 580-79894-1

Client Sample ID: Trip Blank-T06

Lab Sample ID: 580-79894-10

Date Collected: 08/24/18 08:00

Matrix: Water

Date Received: 08/27/18 13:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		3.0	0.50	ug/L			09/01/18 05:34	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	101		80 - 122					09/01/18 05:34	1
Trifluorotoluene (Surr)	104		80 - 120					09/01/18 05:34	1
4-Bromofluorobenzene (Surr)	98		80 - 125					09/01/18 05:34	1
Dibromofluoromethane (Surr)	100		77 - 120					09/01/18 05:34	1
1,2-Dichloroethane-d4 (Surr)	101		80 - 126					09/01/18 05:34	1

Client Sample Results

Client: AECOM
 Project/Site: Portland Harbor Pre-Remedial Design

TestAmerica Job ID: 580-79894-1

Client Sample ID: PDI-WS-T06W-1808

Lab Sample ID: 580-79894-11

Date Collected: 08/24/18 08:47

Matrix: Water

Date Received: 08/27/18 13:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		3.0	0.50	ug/L			09/05/18 01:12	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	100		80 - 122					09/05/18 01:12	1
Trifluorotoluene (Surr)	102		80 - 120					09/05/18 01:12	1
4-Bromofluorobenzene (Surr)	98		80 - 125					09/05/18 01:12	1
Dibromofluoromethane (Surr)	102		77 - 120					09/05/18 01:12	1
1,2-Dichloroethane-d4 (Surr)	101		80 - 126					09/05/18 01:12	1

Client Sample Results

Client: AECOM
 Project/Site: Portland Harbor Pre-Remedial Design

TestAmerica Job ID: 580-79894-1

Client Sample ID: PDI-WS-T01N-1808

Lab Sample ID: 580-79894-12

Date Collected: 08/25/18 09:43

Matrix: Water

Date Received: 08/27/18 13:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		3.0	0.50	ug/L			09/05/18 01:38	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	100		80 - 122					09/05/18 01:38	1
Trifluorotoluene (Surr)	102		80 - 120					09/05/18 01:38	1
4-Bromofluorobenzene (Surr)	99		80 - 125					09/05/18 01:38	1
Dibromofluoromethane (Surr)	102		77 - 120					09/05/18 01:38	1
1,2-Dichloroethane-d4 (Surr)	101		80 - 126					09/05/18 01:38	1

Client Sample Results

Client: AECOM
 Project/Site: Portland Harbor Pre-Remedial Design

TestAmerica Job ID: 580-79894-1

Client Sample ID: PDI-WS-T01E-1808

Lab Sample ID: 580-79894-13

Date Collected: 08/25/18 08:35

Matrix: Water

Date Received: 08/27/18 13:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		3.0	0.50	ug/L			09/05/18 02:03	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	100		80 - 122					09/05/18 02:03	1
Trifluorotoluene (Surr)	103		80 - 120					09/05/18 02:03	1
4-Bromofluorobenzene (Surr)	96		80 - 125					09/05/18 02:03	1
Dibromofluoromethane (Surr)	102		77 - 120					09/05/18 02:03	1
1,2-Dichloroethane-d4 (Surr)	99		80 - 126					09/05/18 02:03	1

Client Sample Results

Client: AECOM
 Project/Site: Portland Harbor Pre-Remedial Design

TestAmerica Job ID: 580-79894-1

Client Sample ID: Trip Blank-T01

Lab Sample ID: 580-79894-14

Date Collected: 08/25/18 09:00

Matrix: Water

Date Received: 08/27/18 13:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		3.0	0.50	ug/L			09/04/18 23:54	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	102		80 - 122					09/04/18 23:54	1
Trifluorotoluene (Surr)	102		80 - 120					09/04/18 23:54	1
4-Bromofluorobenzene (Surr)	99		80 - 125					09/04/18 23:54	1
Dibromofluoromethane (Surr)	102		77 - 120					09/04/18 23:54	1
1,2-Dichloroethane-d4 (Surr)	101		80 - 126					09/04/18 23:54	1

Client Sample Results

Client: AECOM
Project/Site: Portland Harbor Pre-Remedial Design

TestAmerica Job ID: 580-79894-1

Client Sample ID: Trip Blank-T02

Lab Sample ID: 580-79894-15

Date Collected: 08/24/18 15:45

Matrix: Water

Date Received: 08/27/18 13:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		3.0	0.50	ug/L			09/04/18 23:28	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	101		80 - 122					09/04/18 23:28	1
Trifluorotoluene (Surr)	103		80 - 120					09/04/18 23:28	1
4-Bromofluorobenzene (Surr)	99		80 - 125					09/04/18 23:28	1
Dibromofluoromethane (Surr)	100		77 - 120					09/04/18 23:28	1
1,2-Dichloroethane-d4 (Surr)	101		80 - 126					09/04/18 23:28	1

QC Sample Results

Client: AECOM
Project/Site: Portland Harbor Pre-Remedial Design

TestAmerica Job ID: 580-79894-1

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

Lab Sample ID: MB 580-283011/5

Matrix: Water

Analysis Batch: 283011

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		3.0	0.50	ug/L			09/01/18 03:50	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	101		80 - 122		09/01/18 03:50	1
Trifluorotoluene (Surr)	101		80 - 120		09/01/18 03:50	1
4-Bromofluorobenzene (Surr)	99		80 - 125		09/01/18 03:50	1
Dibromofluoromethane (Surr)	100		77 - 120		09/01/18 03:50	1
1,2-Dichloroethane-d4 (Surr)	100		80 - 126		09/01/18 03:50	1

Lab Sample ID: LCS 580-283011/6

Matrix: Water

Analysis Batch: 283011

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	10.0	9.43		ug/L		94	75 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	102		80 - 122
Trifluorotoluene (Surr)	102		80 - 120
4-Bromofluorobenzene (Surr)	100		80 - 125
Dibromofluoromethane (Surr)	100		77 - 120
1,2-Dichloroethane-d4 (Surr)	98		80 - 126

Lab Sample ID: LCSD 580-283011/7

Matrix: Water

Analysis Batch: 283011

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylbenzene	10.0	9.34		ug/L		93	75 - 120	1	14

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Toluene-d8 (Surr)	102		80 - 122
Trifluorotoluene (Surr)	102		80 - 120
4-Bromofluorobenzene (Surr)	103		80 - 125
Dibromofluoromethane (Surr)	100		77 - 120
1,2-Dichloroethane-d4 (Surr)	100		80 - 126

Lab Sample ID: MB 580-283142/5

Matrix: Water

Analysis Batch: 283142

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		3.0	0.50	ug/L			09/04/18 22:09	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	100		80 - 122		09/04/18 22:09	1
Trifluorotoluene (Surr)	106		80 - 120		09/04/18 22:09	1

TestAmerica Seattle

QC Sample Results

Client: AECOM
 Project/Site: Portland Harbor Pre-Remedial Design

TestAmerica Job ID: 580-79894-1

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

Lab Sample ID: MB 580-283142/5
Matrix: Water
Analysis Batch: 283142

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

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		80 - 125		09/04/18 22:09	1
Dibromofluoromethane (Surr)	102		77 - 120		09/04/18 22:09	1
1,2-Dichloroethane-d4 (Surr)	101		80 - 126		09/04/18 22:09	1

Lab Sample ID: LCS 580-283142/6
Matrix: Water
Analysis Batch: 283142

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	10.0	8.91		ug/L		89	75 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	101		80 - 122
Trifluorotoluene (Surr)	102		80 - 120
4-Bromofluorobenzene (Surr)	100		80 - 125
Dibromofluoromethane (Surr)	100		77 - 120
1,2-Dichloroethane-d4 (Surr)	101		80 - 126

Lab Sample ID: LCSD 580-283142/7
Matrix: Water
Analysis Batch: 283142

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylbenzene	10.0	9.03		ug/L		90	75 - 120	1	14

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Toluene-d8 (Surr)	100		80 - 122
Trifluorotoluene (Surr)	102		80 - 120
4-Bromofluorobenzene (Surr)	99		80 - 125
Dibromofluoromethane (Surr)	99		77 - 120
1,2-Dichloroethane-d4 (Surr)	101		80 - 126

Method: 8151A - Herbicides (GC/MS)

Lab Sample ID: MB 580-282791/1-A
Matrix: Water
Analysis Batch: 283698

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 282791

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
MCP	ND		1.0	0.17	ug/L		08/29/18 14:34	09/11/18 15:52	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	88		44 - 145	08/29/18 14:34	09/11/18 15:52	1

TestAmerica Seattle

QC Sample Results

Client: AECOM
Project/Site: Portland Harbor Pre-Remedial Design

TestAmerica Job ID: 580-79894-1

Method: 8151A - Herbicides (GC/MS) (Continued)

Lab Sample ID: LCS 580-282791/2-A
Matrix: Water
Analysis Batch: 283698

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 282791

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
MCPP	5.00	3.47		ug/L		69	61 - 135
		LCS LCS					
Surrogate	%Recovery	Qualifier	Limits				
2,4-Dichlorophenylacetic acid	82		44 - 145				

Lab Sample ID: LCSD 580-282791/3-A
Matrix: Water
Analysis Batch: 283698

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 282791

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
MCPP	5.00	4.29		ug/L		86	61 - 135	21	35
		LCSD LCSD							
Surrogate	%Recovery	Qualifier	Limits						
2,4-Dichlorophenylacetic acid	101		44 - 145						

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 580-282823/22-A
Matrix: Water
Analysis Batch: 283181

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 282823

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		1.1	0.16	mg/L		08/29/18 16:03	09/04/18 13:16	1
Magnesium	ND		1.1	0.13	mg/L		08/29/18 16:03	09/04/18 13:16	1

Lab Sample ID: LCS 580-282823/23-A
Matrix: Water
Analysis Batch: 283181

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 282823

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Calcium	20.0	22.8		mg/L		114	80 - 120
Magnesium	20.0	23.0		mg/L		115	80 - 120

Lab Sample ID: LCSD 580-282823/24-A
Matrix: Water
Analysis Batch: 283181

Client Sample ID: Lab Control Sample Dup
Prep Type: Total Recoverable
Prep Batch: 282823

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Calcium	20.0	21.4		mg/L		107	80 - 120	7	20
Magnesium	20.0	21.5		mg/L		107	80 - 120	7	20

TestAmerica Seattle

QC Sample Results

Client: AECOM
Project/Site: Portland Harbor Pre-Remedial Design

TestAmerica Job ID: 580-79894-1

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 580-282823/22-A
Matrix: Water
Analysis Batch: 282950

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 282823

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		1.0	0.20	ug/L		08/29/18 16:03	08/30/18 16:19	1
Chromium	ND		0.40	0.17	ug/L		08/29/18 16:03	08/30/18 16:19	1
Copper	ND		2.0	0.60	ug/L		08/29/18 16:03	08/30/18 16:19	1
Zinc	ND		7.0	1.9	ug/L		08/29/18 16:03	08/30/18 16:19	1

Lab Sample ID: LCS 580-282823/23-A
Matrix: Water
Analysis Batch: 282950

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 282823

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	4000	4020		ug/L		101	80 - 120
Chromium	400	397		ug/L		99	80 - 120
Copper	500	513		ug/L		103	80 - 120
Zinc	4000	3940		ug/L		98	80 - 120

Lab Sample ID: LCSD 580-282823/24-A
Matrix: Water
Analysis Batch: 282950

Client Sample ID: Lab Control Sample Dup
Prep Type: Total Recoverable
Prep Batch: 282823

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Arsenic	4000	3960		ug/L		99	80 - 120	2	20
Chromium	400	395		ug/L		99	80 - 120	0	20
Copper	500	510		ug/L		102	80 - 120	1	20
Zinc	4000	3870		ug/L		97	80 - 120	2	20

Lab Sample ID: MB 580-282833/22-A
Matrix: Water
Analysis Batch: 282881

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 282833

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		1.0	0.20	ug/L		08/29/18 17:16	08/30/18 11:24	1
Chromium	ND		0.40	0.17	ug/L		08/29/18 17:16	08/30/18 11:24	1
Copper	ND		2.0	0.60	ug/L		08/29/18 17:16	08/30/18 11:24	1
Zinc	ND		7.0	1.9	ug/L		08/29/18 17:16	08/30/18 11:24	1

Lab Sample ID: LCS 580-282833/23-A
Matrix: Water
Analysis Batch: 282881

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 282833

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	4000	4140		ug/L		103	80 - 120
Chromium	400	400		ug/L		100	80 - 120
Copper	500	515		ug/L		103	80 - 120
Zinc	4000	4090		ug/L		102	80 - 120

QC Sample Results

Client: AECOM
Project/Site: Portland Harbor Pre-Remedial Design

TestAmerica Job ID: 580-79894-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCSD 580-282833/24-A
Matrix: Water
Analysis Batch: 282881

Client Sample ID: Lab Control Sample Dup
Prep Type: Total Recoverable
Prep Batch: 282833

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Arsenic	4000	4070		ug/L		102	80 - 120	1	20
Chromium	400	400		ug/L		100	80 - 120	0	20
Copper	500	519		ug/L		104	80 - 120	1	20
Zinc	4000	4000		ug/L		100	80 - 120	2	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 580-282966/1
Matrix: Water
Analysis Batch: 282966

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	10	mg/L			08/31/18 09:47	1

Lab Sample ID: LCS 580-282966/2
Matrix: Water
Analysis Batch: 282966

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Total Dissolved Solids	1000	988		mg/L		99	80 - 120

Lab Sample ID: 580-79894-1 DU
Matrix: Water
Analysis Batch: 282966

Client Sample ID: PDI-WS-T02-1808
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Total Dissolved Solids	66		75.0		mg/L		13	20

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 580-282694/1
Matrix: Water
Analysis Batch: 282694

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		2.0	2.0	mg/L			08/28/18 17:00	1

Lab Sample ID: LCS 580-282694/2
Matrix: Water
Analysis Batch: 282694

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Total Suspended Solids	27.6	28.0		mg/L		101	70.6 - 120

TestAmerica Seattle

QC Sample Results

Client: AECOM
Project/Site: Portland Harbor Pre-Remedial Design

TestAmerica Job ID: 580-79894-1

Method: SM 2540D - Solids, Total Suspended (TSS) (Continued)

Lab Sample ID: 580-79894-1 DU
Matrix: Water
Analysis Batch: 282694

Client Sample ID: PDI-WS-T02-1808
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Suspended Solids	3.6		4.40		mg/L		20	20

Method: SM 5310B - Organic Carbon, Total (TOC)

Lab Sample ID: MB 580-282858/3
Matrix: Water
Analysis Batch: 282858

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		1.0	0.19	mg/L			08/29/18 18:19	1

Lab Sample ID: LCS 580-282858/4
Matrix: Water
Analysis Batch: 282858

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	10.0	10.6		mg/L		106	85 - 115

Method: SM 5310B - Organic Carbon, Dissolved (DOC)

Lab Sample ID: MB 580-283900/3
Matrix: Water
Analysis Batch: 283900

Client Sample ID: Method Blank
Prep Type: Dissolved

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dissolved Organic Carbon	ND		1.0	0.19	mg/L			09/12/18 15:47	1

Lab Sample ID: LCS 580-283900/4
Matrix: Water
Analysis Batch: 283900

Client Sample ID: Lab Control Sample
Prep Type: Dissolved

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dissolved Organic Carbon	10.0	9.59		mg/L		96	85 - 115

Lab Chronicle

Client: AECOM
Project/Site: Portland Harbor Pre-Remedial Design

TestAmerica Job ID: 580-79894-1

Client Sample ID: PDI-WS-T02-1808

Date Collected: 08/24/18 12:22

Date Received: 08/27/18 13:35

Lab Sample ID: 580-79894-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8151A			282791	08/29/18 14:34	JSM	TAL SEA
Total/NA	Analysis	8151A		1	283698	09/11/18 19:45	TL1	TAL SEA
Dissolved	Prep	3005A			282823	08/29/18 16:03	JKM	TAL SEA
Dissolved	Analysis	6010C		1	283181	09/04/18 14:45	HJM	TAL SEA
Dissolved	Prep	3005A			282823	08/29/18 16:03	JKM	TAL SEA
Dissolved	Analysis	6020B		1	282950	08/30/18 17:18	FCW	TAL SEA
Total Recoverable	Prep	3005A			282833	08/29/18 17:16	T1H	TAL SEA
Total Recoverable	Analysis	6020B		1	282881	08/30/18 12:22	FCW	TAL SEA
Dissolved	Analysis	SM 2340B		1	285246	09/28/18 16:17	SPP	TAL SEA
Total/NA	Analysis	SM 2540C		1	282966	08/31/18 09:47	R1K	TAL SEA
Total/NA	Analysis	SM 2540D		1	282694	08/28/18 17:00	TTN	TAL SEA
Dissolved	Analysis	SM 5310B		1	283900	09/12/18 15:47	TTN	TAL SEA
Total/NA	Analysis	SM 5310B		1	282858	08/29/18 18:19	TTN	TAL SEA

Client Sample ID: PDI-WS-T06-1808

Date Collected: 08/24/18 16:32

Date Received: 08/27/18 13:35

Lab Sample ID: 580-79894-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8151A			282791	08/29/18 14:34	JSM	TAL SEA
Total/NA	Analysis	8151A		1	283698	09/11/18 20:11	TL1	TAL SEA
Dissolved	Prep	3005A			282823	08/29/18 16:03	JKM	TAL SEA
Dissolved	Analysis	6010C		1	283181	09/04/18 14:48	HJM	TAL SEA
Dissolved	Prep	3005A			282823	08/29/18 16:03	JKM	TAL SEA
Dissolved	Analysis	6020B		1	282950	08/30/18 17:22	FCW	TAL SEA
Total Recoverable	Prep	3005A			282833	08/29/18 17:16	T1H	TAL SEA
Total Recoverable	Analysis	6020B		1	282881	08/30/18 12:27	FCW	TAL SEA
Dissolved	Analysis	SM 2340B		1	285246	09/28/18 16:17	SPP	TAL SEA
Total/NA	Analysis	SM 2540C		1	282966	08/31/18 09:47	R1K	TAL SEA
Total/NA	Analysis	SM 2540D		1	282694	08/28/18 17:00	TTN	TAL SEA
Dissolved	Analysis	SM 5310B		1	283900	09/12/18 15:47	TTN	TAL SEA
Total/NA	Analysis	SM 5310B		1	282858	08/29/18 18:19	TTN	TAL SEA

Client Sample ID: PDI-WS-T01-1808

Date Collected: 08/25/18 12:02

Date Received: 08/27/18 13:35

Lab Sample ID: 580-79894-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8151A			282791	08/29/18 14:34	JSM	TAL SEA
Total/NA	Analysis	8151A		1	283698	09/11/18 20:37	TL1	TAL SEA
Dissolved	Prep	3005A			282823	08/29/18 16:03	JKM	TAL SEA
Dissolved	Analysis	6010C		1	283181	09/04/18 14:52	HJM	TAL SEA

TestAmerica Seattle

Lab Chronicle

Client: AECOM
Project/Site: Portland Harbor Pre-Remedial Design

TestAmerica Job ID: 580-79894-1

Client Sample ID: PDI-WS-T01-1808

Date Collected: 08/25/18 12:02
Date Received: 08/27/18 13:35

Lab Sample ID: 580-79894-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			282823	08/29/18 16:03	JKM	TAL SEA
Dissolved	Analysis	6020B		1	282950	08/30/18 17:27	FCW	TAL SEA
Total Recoverable	Prep	3005A			282833	08/29/18 17:16	T1H	TAL SEA
Total Recoverable	Analysis	6020B		1	282881	08/30/18 12:31	FCW	TAL SEA
Dissolved	Analysis	SM 2340B		1	285246	09/28/18 16:17	SPP	TAL SEA
Total/NA	Analysis	SM 2540C		1	282966	08/31/18 09:47	R1K	TAL SEA
Total/NA	Analysis	SM 2540D		1	282694	08/28/18 17:00	TTN	TAL SEA
Dissolved	Analysis	SM 5310B		1	283900	09/12/18 15:47	TTN	TAL SEA
Total/NA	Analysis	SM 5310B		1	282858	08/29/18 18:19	TTN	TAL SEA

Client Sample ID: PDI-WS-T01W-1808

Date Collected: 08/24/18 17:15
Date Received: 08/27/18 13:35

Lab Sample ID: 580-79894-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	283011	09/01/18 11:12	CJ	TAL SEA

Client Sample ID: PDI-WS-T02W-1808

Date Collected: 08/23/18 18:50
Date Received: 08/27/18 13:35

Lab Sample ID: 580-79894-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	283011	09/01/18 11:38	CJ	TAL SEA

Client Sample ID: PDI-WS-T02N-1808

Date Collected: 08/23/18 16:00
Date Received: 08/27/18 13:35

Lab Sample ID: 580-79894-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	283011	09/01/18 12:04	CJ	TAL SEA

Client Sample ID: PDI-WS-T02E-1808

Date Collected: 08/24/18 11:25
Date Received: 08/27/18 13:35

Lab Sample ID: 580-79894-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	283011	09/01/18 12:30	CJ	TAL SEA

TestAmerica Seattle

Lab Chronicle

Client: AECOM
Project/Site: Portland Harbor Pre-Remedial Design

TestAmerica Job ID: 580-79894-1

Client Sample ID: PDI-WS-T06NAV-1808

Date Collected: 08/24/18 14:40

Date Received: 08/27/18 13:35

Lab Sample ID: 580-79894-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	283011	09/01/18 12:56	CJ	TAL SEA

Client Sample ID: PDI-WS-T06E-1808

Date Collected: 08/24/18 11:42

Date Received: 08/27/18 13:35

Lab Sample ID: 580-79894-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	283011	09/01/18 13:22	CJ	TAL SEA

Client Sample ID: Trip Blank-T06

Date Collected: 08/24/18 08:00

Date Received: 08/27/18 13:35

Lab Sample ID: 580-79894-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	283011	09/01/18 05:34	CJ	TAL SEA

Client Sample ID: PDI-WS-T06W-1808

Date Collected: 08/24/18 08:47

Date Received: 08/27/18 13:35

Lab Sample ID: 580-79894-11

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	283142	09/05/18 01:12	CJ	TAL SEA

Client Sample ID: PDI-WS-T01N-1808

Date Collected: 08/25/18 09:43

Date Received: 08/27/18 13:35

Lab Sample ID: 580-79894-12

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	283142	09/05/18 01:38	CJ	TAL SEA

Client Sample ID: PDI-WS-T01E-1808

Date Collected: 08/25/18 08:35

Date Received: 08/27/18 13:35

Lab Sample ID: 580-79894-13

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	283142	09/05/18 02:03	CJ	TAL SEA

TestAmerica Seattle

Lab Chronicle

Client: AECOM
Project/Site: Portland Harbor Pre-Remedial Design

TestAmerica Job ID: 580-79894-1

Client Sample ID: Trip Blank-T01

Lab Sample ID: 580-79894-14

Date Collected: 08/25/18 09:00

Matrix: Water

Date Received: 08/27/18 13:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	283142	09/04/18 23:54	CJ	TAL SEA

Client Sample ID: Trip Blank-T02

Lab Sample ID: 580-79894-15

Date Collected: 08/24/18 15:45

Matrix: Water

Date Received: 08/27/18 13:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	283142	09/04/18 23:28	CJ	TAL SEA

Laboratory References:

TAL SEA = TestAmerica Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

Accreditation/Certification Summary

Client: AECOM

TestAmerica Job ID: 580-79894-1

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
Nevada	State Program	9	WA000502019-1	07-31-19
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

Sample Summary

Client: AECOM

TestAmerica Job ID: 580-79894-1

Project/Site: Portland Harbor Pre-Remedial Design

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-79894-1	PDI-WS-T02-1808	Water	08/24/18 12:22	08/27/18 13:35
580-79894-2	PDI-WS-T06-1808	Water	08/24/18 16:32	08/27/18 13:35
580-79894-3	PDI-WS-T01-1808	Water	08/25/18 12:02	08/27/18 13:35
580-79894-4	PDI-WS-T01W-1808	Water	08/24/18 17:15	08/27/18 13:35
580-79894-5	PDI-WS-T02W-1808	Water	08/23/18 18:50	08/27/18 13:35
580-79894-6	PDI-WS-T02N-1808	Water	08/23/18 16:00	08/27/18 13:35
580-79894-7	PDI-WS-T02E-1808	Water	08/24/18 11:25	08/27/18 13:35
580-79894-8	PDI-WS-T06NAV-1808	Water	08/24/18 14:40	08/27/18 13:35
580-79894-9	PDI-WS-T06E-1808	Water	08/24/18 11:42	08/27/18 13:35
580-79894-10	Trip Blank-T06	Water	08/24/18 08:00	08/27/18 13:35
580-79894-11	PDI-WS-T06W-1808	Water	08/24/18 08:47	08/27/18 13:35
580-79894-12	PDI-WS-T01N-1808	Water	08/25/18 09:43	08/27/18 13:35
580-79894-13	PDI-WS-T01E-1808	Water	08/25/18 08:35	08/27/18 13:35
580-79894-14	Trip Blank-T01	Water	08/25/18 09:00	08/27/18 13:35
580-79894-15	Trip Blank-T02	Water	08/24/18 15:45	08/27/18 13:35

SURFACE WATER
CHAIN OF CUSTODY

Client Contact: AECOM
1111 3rd Ave Sello 1600
Seattle, WA 98101
Phone: (206) 438-2700 Fax: (206) 438-4281
Project Name: Redmond Teacher Res-Remedial Design Investigation and Baseline Sampling

Project Contact: Amy Bell / Casey Cook
Tel: (206) 438-4281 / (206) 438-4018
Analysis: Instrumental (C) or Walk Down (W)
21 days

High Contact: Jennifer Day / Michael McCune
Laboratory Contact: ERM - WA
Date: 8/27/18
COC No: 9 of 2 - CO3

Sample Identification	Sample Date	Sample Time	Matrix	QC Sample	Sampler's Initials	Total No. of Cols.	Method	Result
PDI-WS-T 02	8/24/2018	12:22	SW		ML	1	ED	3
PDI-WS-T 01	8/24/2018	16:58	SW		ED	1	ED	3
PDI-WS-T 01	8/24/2018	12:52	SW		AC	1	ED	3
PDI-WS-T 02 W	8/24/2018	17:15	SW		ML	1	ED	3
PDI-WS-T 02 W	8/24/2018	18:40	SW		ML	1	ED	3
PDI-WS-T 02 N	8/24/2018	16:40	SW		ML	1	ED	3
PDI-WS-T 02 E	8/24/2018	11:25	SW		ML	1	ED	3
PDI-WS-T 06 N/A/V	8/24/2018	14:40	SW		ED	1	ED	3
PDI-WS-T 06 E	8/24/2018	11:42	SW		ED	1	ED	3
Tip Blank-T 06	8/24/2018	8:00	W		ED	1	ED	3
PDI-WS-T 06 W	8/24/2018	8:47	SW		ED	1	ED	3
PDI-WS-T 01 N	8/24/2018	9:43	SW		ML	1	ED	3

Special Instructions: QC Sample Analysis & Comments
 Return To Client Report By Lab Retain For 12 Months

Requested by: [Signature]
 Company: AECOM
 Date/Time: 8/27/18 12:42
 Requested by: [Signature]
 Company: M.A.E.
 Date/Time: 8/27/18 12:42

SURFACE WATER
CHAIN OF CUSTODY

Transmittal Receipt
5755-4th Street-East
Roanoke, VA 24061-1917
P.O. Box 281-422-3318 JF 281-422-4847
Client Contact:
AECOM
1111 3rd Ave S.W. 1600
Seattle, WA 98101
Phone: (206) 438-4700 Fax: 1-(866) 495-5288
Project Name: Fertilizer Facility Pre-Operational Design
Investigation and Sample Sampling
Portland, OR
Project #: 60566335 Study: Surface Water

Project Contact: Amy Sisk / Quality Control
Tel: (206) 438-2261 / (206) 438-2810
Analysis Turnaround Time
Onsite (C) or Work Day (W)
21 days
Other:

Lab Contact: Jennifer King / Nicholas McCaughey
Laboratory Contact: Eshale Woldemariam
Date: 8/27/18
COC No: 1 of 1 COCs

Sample Identification	Sample Date	Sample Time	Matrix	QC Sample	Sampler's Initials	Total No. of Cans
PDX-WS-T-01E-18-08	8/23/2018	1:00	STW	W	AC	3
1lip Blank-T-02	8/23/2018	5:00	W	W	AC	3
PDX-WS-T	8/24/2018	15:45	W	W	NM	3
PDX-WS-T						
PDX-WS-T						
PDX-WS-T						
PDX-WS-T						
PDX-WS-T						
1lip Blank-T						
PDX-WS-T						

Fraction	Method	Result
Edythemone, EPA 8260C		
MCPY, EPA Method 8181A		
Metals (Total), EPA Method 8210-LL		
Total Suspended Solids, Standard Method 2540D		
Total Dissolved Solids, Standard Method 2540C		
Total Organic Carbon, 8000108		
Metals (Dissolved) + Hardness as CaCO3, EPA Method 8210-LL		
Dissolved Organic Carbon, 8000108		

Container Type: Ultra-High Purity (UHP), PP-Polypropylene, No-metal glass, G-glass, NO-Metal Cap
Preservatives: HCl - Hydrochloric Acid, H3PO4 - Phosphoric Acid, HNO3 - Nitric Acid
Preservatives: D - Disinfectant, RT - Formalin, T - Total (aliquots)
Special Instructions: QC Requirements & Comments

Sample Transport: Return To Client Transport By Lab Archive For 12 Months

Prepared by: *[Signature]*
Company: AECOM
Date: 8/27/18 1242

Received by: *[Signature]*
Company: N.E.
Date: 8/27/18 1242



580-79894 Chain of Custody

SURFACE WATER

CHAIN OF CUSTODY

TestAmerica-Seattle
5755-8th-Street-East
Tacoma, WA 98424-1317
Phone: (206) 438-2310 Fax: 253-922-5047

Client Contact
AECOM
1111 3rd Ave Suite 1600
Seattle, WA 98101
Phone: (206) 438-2700 Fax: 1+(866) 493-5288

Project Name: Portland Harbor Pre-Remedial Design Investigation and Baseline Sampling

Portland, OR
Project #: 60566335 Study: Surface Water

Project Contact: Amy Dahl / Chelsea Cook
Tel: (206) 438-2261 / (206) 438-2010

Analysis Turnaround Time

Calendar (C) or Work Days (W)

21 days

Other

Date: 8/27/2018

Carrier:

COC No: 1

of 2 COCs

Site Contact: Jennifer Ray / Michaela McCoog

Laboratory Contact: Elaine Walker

MCPP, EPA Method 8151A

2540D

Total Suspended Solids, Standard Method

2540C

Total Dissolved Solids, Standard Method

Total Organic Carbon, SM5310B

Metals (Dissolved) + Hardness as CaCO3, EPA Method 6020B-LL

Dissolved Organic Carbon, SM5310B

Fraction

Sample Identification

Sample Date

Sample Time

Matrix

QC Sample

Sampler's Initials

Total No. of Cont.

Sample Specific Notes:

Sample Identification	Sample Date	Sample Time	Matrix	QC Sample	Sampler's Initials	Total No. of Cont.	Sample Specific Notes:
PDI-WS-T 02 18 08	8/24/2018	12:22	SW		MM	8	
PDI-WS-T 06 18 08	8/24/2018	16:32	SW		ED	8	
PDI-WS-T 01 18 08	8/25/2018	12:02	SW		AC	8	
PDI-WS-T 02 W 18 08	8/24/2018	17:15	SW		MM	3	
PDI-WS-T 02 W 18 08	8/24/2018	18:50	SW		MM	3	
PDI-WS-T 02 N 18 08	8/24/2018	16:00	SW		MM	3	
PDI-WS-T 02 E 18 08	8/24/2018	11:25	SW		MM	3	
PDI-WS-T 06 NAV 18 08	8/24/2018	14:40	SW		ED	3	
PDI-WS-T 06 E 18 08	8/24/2018	11:42	SW		ED	3	
Trip Blank-T 06	8/24/2018	8:00	W		ED	3	
PDI-WS-T 06 W 18 08	8/24/2018	8:47	SW		ED	3	
PDI-WS-T 01 N 18 08	8/25/2018	9:43	SW		MM	3	

Container Type: VMG-Wide Mouth Glass Jar, P-HDPE, PP-Polypropylene, AG=amber glass, G-glass, RC=Resin Column

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

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

Sample Disposal

Return To Client

Disposal By Lab

Archive For 12 Months

Special Instructions/QC Requirements & Comments:

208,566

Relinquished by: *[Signature]*
Relinquished by: *[Signature]*
Relinquished by: *[Signature]*

Company: AECOM

Company: M.E.

Company:

Date/Time: 8/27/18 12:42

Date/Time: 8/27/18 13:35

Date/Time:

Received by: *[Signature]*

Received by: *[Signature]*

Received by: *[Signature]*

Company: M.E.

Company: TAPOR

Company:

Date/Time: 8/27/18 12:42

Date/Time: 8/27/18 13:35

Date/Time:



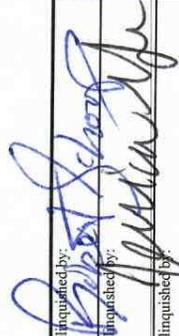
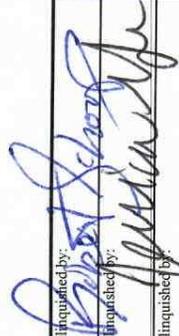
SURFACE WATER CHAIN OF CUSTODY

TestAmerica-Seattle 5755-8th-Street-East Tacoma, WA 98424-1317 Ph: 253-922-2310 F 253-922-5047	Project Contact: Amy Dahl / Chelsey Cook Tel: (206) 438-2261 / (206) 438-2010 Analysis Turnaround Time Calendar (C) or Work Days (W) 21 days	Date: 8/27/2018 Carrier:	COC No: 2 of 2 COCs
Client Contact AECOM 1111 3rd Ave Suite 1600 Seattle, WA 98101 Phone: (206) 438-2700 Fax: (206) 495-5288 Project Name: Portland Harbor Pre-Remedial Design Investigation and Baseline Sampling Portland, OR Project #: 60506335 Study: Surface Water	Project Contact: Jennifer Ray / Michaela McCoo Laboratory Contact: Elaine-Walker Total Dissolved Solids, Standard Method 2540D Metals (Total), EPA Method 6020-B-LL Total Suspended Solids, Standard Method 2540C Total Organic Carbon, SM5310B Metals (Dissolved) + Hardness as CaCO3, EPA Method 6020B-LL Dissolved Organic Carbon, SM5310B		

Sample Identification	Sample Date	Sample Time	Matrix	QC Sample	Sampler's Initials	Total No. of Cont.	Fraction
PDI-WS-T-01E-18-08	8/25/2018	12:02	SW		AC	3	Ethylbenzene, EPA 8260C
Trip Blank-T-01	8/25/2018	9:00	W		AC	3	Metals (Total), EPA Method 6020-B-LL
Trip Blank-T-02	8/24/2018	15:45	W		MM	3	Total Dissolved Solids, Standard Method 2540C
PDI-WS-T							Total Organic Carbon, SM5310B
PDI-WS-T							Metals (Dissolved) + Hardness as CaCO3, EPA Method 6020B-LL
PDI-WS-T							Dissolved Organic Carbon, SM5310B
PDI-WS-T							
PDI-WS-T							
PDI-WS-T							
Trip Blank-T							
PDI-WS-T							
PDI-WS-T							

Container Type: WMG=Wide Mouth Glass Jar, P=HDPE, PP=Polypropylene, AG=amber glass, G=glass, RC=Resin Column
 Preservative: HCl = Hydrochloric Acid, H3PO4 = Phosphoric Acid, HNO3 = Nitric Acid
 Fraction: D = Dissolved, PRT = Particulate, T = Total (unfiltered)

Special Instructions/QC Requirements & Comments:

Relinquished by: 	Date/Time: 8/27/18 1242	Company: AECOM	Received by: 	Date/Time: 8/27/18 1242	Company: M.E.
Relinquished by: 	Date/Time: 8/27/18 1335	Company: M.E.	Received by: 	Date/Time: 8/27/18 1335	Company: JAPOR
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:

Sample Disposal: Return To Client Disposal By Lab Archive For 12 Months



Login Sample Receipt Checklist

Client: AECOM

Job Number: 580-79894-1

Login Number: 79894

List Source: TestAmerica Seattle

List Number: 1

Creator: Antonson, Angeline D

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	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	