

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

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TestAmerica Job ID: 580-78109-3

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

For:

AECOM
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Attn: Karen Mixon

M. Elaine Walker

Authorized for release by:
7/27/2018 10:59:40 AM

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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: 580-78109-3

Job ID: 580-78109-3

Laboratory: TestAmerica Seattle

Narrative

CASE NARRATIVE

Client: AECOM

Project: Portland Harbor Pre-Remedial Design

Report Number: 580-78109-3

REVISION 1: JULY 25, 2018

This report was revised to include the Estimated Maximum Possible Concentrations (EMPCs) for PCB 5 and/or PCB 159 where the original values were outside the theoretical ion ratio limits and were not being adjusted to reflect the EMPC values.

This report was revised to correct results which were originally reported using zero area of one of the two masses used for quantitation.

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 6/15/2018 12:20 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 3 coolers at receipt time were -3.4° C, -1.3° C and -0.2° C.

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

This report contains results of PCB Congeners by Method 1668A, performed by TestAmerica Knoxville.

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.

POLYCHLORINATED BIPHENYLS CONGENERS (PCBS)

Samples PDI-SG-B208-BL1 (580-78109-1), PDI-SG-B389-BL1 (580-78109-2), PDI-SG-B391-BL1 (580-78109-3), PDI-SG-B392-BL1 (580-78109-4), PDI-SG-B428-BL1 (580-78109-5), PDI-SG-B427-BL1 (580-78109-6), PDI-SG-B426-BL1 (580-78109-7), PDI-SG-B415-BL1 (580-78109-8), PDI-SG-B320-BL1 (580-78109-9), PDI-SG-B404-BL1 (580-78109-10), PDI-SG-B419-BL1 (580-78109-11), PDI-SG-B421-BL1 (580-78109-12), PDI-SG-B422-BL1 (580-78109-13), PDI-SG-B192-BL1 (580-78109-14) and PDI-SG-B183-BL1 (580-78109-15) were analyzed for polychlorinated biphenyls congeners (PCBs) in accordance with EPA Method 1668A. The samples were prepared on 06/24/2018 and 06/26/2018 and analyzed on 07/06/2018 and 07/09/2018.

Several analytes were detected in method blank MB 140-21456/16-B at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Several analytes were detected in method blank MB 140-21516/17-B at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the

Case Narrative

Client: AECOM
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Laboratory: TestAmerica Seattle (Continued)

MDL and/or RL, the result has been flagged.

An Isotope Dilution Analyte (IDA) recovery is above the method recommended limit for the following sample: PDI-SG-B419-BL1 (580-78109-11). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries. The elevated recovery was due to ion suppression on the 32L, internal standard.

Sample PDI-SG-B183-BL1 (580-78109-15)[10X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No additional 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
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Qualifiers

Dioxin

Qualifier	Qualifier Description
C93	The compound co-eluted with PCB-93
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.
C90	The compound co-eluted with PCB-90
C98	The compound co-eluted with PCB-98
q	The reported result is the estimated maximum possible concentration of this analyte, quantitated using the theoretical ion ratio. The measured ion ratio does not meet qualitative identification criteria and indicates a possible interference.
C	The compound co-eluted with other compounds
C86	The compound co-eluted with PCB-86
C110	The compound co-eluted with PCB-110
C85	The compound co-eluted with PCB-85
C108	The compound co-eluted with PCB-108
C12	The compound co-eluted with PCB-12
C129	The compound co-eluted with PCB-129
C139	The compound co-eluted with PCB-139
C134	The compound co-eluted with PCB-134
C147	The compound co-eluted with PCB-147
C135	The compound co-eluted with PCB-135
C156	The compound co-eluted with PCB-156
C128	The compound co-eluted with PCB-128
C153	The compound co-eluted with PCB-153
C171	The compound co-eluted with PCB-171
C183	The compound co-eluted with PCB-183
C180	The compound co-eluted with PCB-180
C198	The compound co-eluted with PCB-198
C20	The compound co-eluted with PCB-20
C26	The compound co-eluted with PCB-26
C18	The compound co-eluted with PCB-18
C21	The compound co-eluted with PCB-21
C40	The compound co-eluted with PCB-40
C44	The compound co-eluted with PCB-44
C45	The compound co-eluted with PCB-45
C50	The compound co-eluted with PCB-50
C59	The compound co-eluted with PCB-59
C49	The compound co-eluted with PCB-49
C61	The compound co-eluted with PCB-61
C43	The compound co-eluted with PCB-43
C88	The compound co-eluted with PCB-88
C83	The compound co-eluted with PCB-83
*	Isotope Dilution analyte is outside acceptance limits.
S	Ion suppression

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	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

TestAmerica Seattle

Definitions/Glossary

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

TestAmerica Job ID: 580-78109-3

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
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: 580-78109-3

Client Sample ID: PDI-SG-B208-BL1

Lab Sample ID: 580-78109-1

Date Collected: 05/20/18 10:00

Matrix: Solid

Date Received: 06/15/18 12:20

Percent Solids: 70.2

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	ND		0.0098	0.000085	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-2	0.0016	J q	0.0098	0.000098	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-3	ND		0.0098	0.00011	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-4	0.0051	J q	0.020	0.0050	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-5	ND		0.0098	0.0039	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-6	ND		0.0098	0.0034	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-7	ND		0.0098	0.0035	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-8	0.0050	J q	0.020	0.0032	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-9	ND		0.0098	0.0036	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-10	ND		0.0098	0.0039	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-11	0.011	J B q	0.020	0.0034	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-12	ND	C	0.020	0.0035	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-13	ND	C12	0.020	0.0035	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-14	ND		0.0098	0.0030	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-15	0.0053	J q	0.0098	0.0036	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-16	0.0026	J	0.0098	0.00016	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-17	0.0048	J q	0.0098	0.00015	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-18	0.0044	J C q	0.020	0.00013	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-19	0.0077	J q	0.0098	0.00018	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-20	0.016	J C B	0.020	0.00040	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-21	0.0053	J C	0.020	0.00039	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-22	0.0028	J q	0.0098	0.00040	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-23	ND		0.0098	0.00040	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-24	ND		0.0098	0.00012	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-25	0.0013	J	0.0098	0.00036	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-26	0.0032	J C B	0.020	0.00039	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-27	0.0012	J	0.0098	0.00011	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-28	0.016	J B C20	0.020	0.00040	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-29	0.0032	J C26 B	0.020	0.00039	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-30	0.0044	J C18 q	0.020	0.00013	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-31	0.0073	J q	0.020	0.00039	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-32	0.0045	J B q	0.0098	0.00010	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-33	0.0053	J C21	0.020	0.00039	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-34	ND		0.0098	0.00042	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-35	ND		0.0098	0.00041	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-36	ND		0.0098	0.00039	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-37	0.0039	J q	0.0098	0.00040	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-38	ND		0.0098	0.00042	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-39	ND		0.0098	0.00038	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-40	0.0065	J C q	0.029	0.00073	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-41	0.0065	J q C40	0.029	0.00073	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-42	0.0027	J q	0.0098	0.00074	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-43	ND	C	0.020	0.00069	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-44	0.030	C	0.029	0.00065	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-45	0.0081	J C	0.020	0.00077	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-46	ND		0.0098	0.00093	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-47	0.030	C44	0.029	0.00065	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-48	0.0028	J q	0.0098	0.00073	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-49	0.014	J C	0.020	0.00060	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78109-3

Client Sample ID: PDI-SG-B208-BL1

Lab Sample ID: 580-78109-1

Date Collected: 05/20/18 10:00

Matrix: Solid

Date Received: 06/15/18 12:20

Percent Solids: 70.2

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	0.0044	J C q	0.020	0.00071	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-51	0.0081	J C45	0.020	0.00077	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-52	0.027		0.0098	0.00073	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-53	0.0044	J C50 q	0.020	0.00071	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-54	0.0026	J q	0.0098	0.000083	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-55	0.0015	J q	0.0098	0.00053	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-56	0.0061	J q	0.0098	0.00054	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-57	ND		0.0098	0.00054	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-58	ND		0.0098	0.00055	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-59	0.0020	J C	0.029	0.00052	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-60	0.0038	J	0.0098	0.00055	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-61	0.032	J C q	0.039	0.00051	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-62	0.0020	J C59	0.029	0.00052	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-63	ND		0.0098	0.00050	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-64	0.0063	J	0.0098	0.00049	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-65	0.030	C44	0.029	0.00065	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-66	0.020		0.0098	0.00051	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-67	ND		0.0098	0.00047	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-68	ND		0.0098	0.00048	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-69	0.014	J C49	0.020	0.00060	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-70	0.032	J C61 q	0.039	0.00051	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-71	0.0065	J q C40	0.029	0.00073	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-72	ND		0.0098	0.00053	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-73	ND	C43	0.020	0.00069	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-74	0.032	J C61 q	0.039	0.00051	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-75	0.0020	J C59	0.029	0.00052	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-76	0.032	J C61 q	0.039	0.00051	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-77	0.0021	J q	0.0098	0.00053	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-78	ND		0.0098	0.00055	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-79	ND		0.0098	0.00048	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-80	ND		0.0098	0.00047	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-81	ND		0.0098	0.00049	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-82	0.0051	J	0.0098	0.00056	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-83	0.032	C B	0.020	0.00051	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-84	0.0084	J q	0.0098	0.00057	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-85	0.0077	J C	0.029	0.00041	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-86	0.030	J C	0.059	0.00042	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-87	0.030	J C86	0.059	0.00042	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-88	0.0075	J C q	0.020	0.00051	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-89	ND		0.0098	0.00055	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-90	0.047	C B	0.029	0.00042	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-91	0.0075	J C88 q	0.020	0.00051	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-92	0.0079	J	0.0098	0.00048	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-93	0.0059	J C	0.020	0.00049	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-94	ND		0.0098	0.00055	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-95	0.033		0.0098	0.00053	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-96	ND		0.0098	0.00041	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-97	0.030	J C86	0.059	0.00042	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-98	0.0041	J C	0.020	0.00047	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78109-3

Client Sample ID: PDI-SG-B208-BL1

Lab Sample ID: 580-78109-1

Date Collected: 05/20/18 10:00

Matrix: Solid

Date Received: 06/15/18 12:20

Percent Solids: 70.2

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	0.032	C83 B	0.020	0.00051	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-100	0.0059	J C93	0.020	0.00049	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-101	0.047	B C90	0.029	0.00042	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-102	0.0041	J C98	0.020	0.00047	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-103	0.0020	J q	0.0098	0.00049	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-104	ND		0.0098	0.00037	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-105	0.016		0.0098	0.00087	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-106	ND		0.0098	0.00091	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-107	0.0033	J q	0.0098	0.00097	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-108	ND	C	0.020	0.00093	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-109	0.030	J C86	0.059	0.00042	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-110	0.049	C	0.020	0.00035	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-111	ND		0.0098	0.00034	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-112	ND		0.0098	0.00036	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-113	0.047	B C90	0.029	0.00042	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-114	ND		0.0098	0.00084	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-115	0.049	C110	0.020	0.00035	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-116	0.0077	J C85	0.029	0.00041	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-117	0.0077	J C85	0.029	0.00041	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-118	0.039	B q	0.0098	0.00086	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-119	0.030	J C86	0.059	0.00042	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-120	0.00035	J q	0.0098	0.00035	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-121	ND		0.0098	0.00036	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-122	ND		0.0098	0.0010	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-123	ND		0.0098	0.00088	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-124	ND	C108	0.020	0.00093	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-125	0.030	J C86	0.059	0.00042	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-126	ND		0.0098	0.00098	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-127	ND		0.0098	0.00091	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-128	0.010	J C q	0.020	0.00072	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-129	0.095	C	0.039	0.00074	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-130	0.0033	J q	0.0098	0.00098	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-131	ND		0.0098	0.0010	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-132	0.024		0.0098	0.00096	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-133	ND		0.0098	0.00093	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-134	0.0020	J C q	0.020	0.00097	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-135	0.033	C	0.020	0.000063	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-136	0.0084	J q	0.0098	0.000045	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-137	0.0036	J	0.0098	0.00084	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-138	0.095	C129	0.039	0.00074	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-139	ND	C	0.020	0.00082	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-140	ND	C139	0.020	0.00082	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-141	0.014	q	0.0098	0.00086	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-142	ND		0.0098	0.00092	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-143	0.0020	J C134 q	0.020	0.00097	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-144	0.0035	J q	0.0098	0.000057	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-145	ND		0.0098	0.000043	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-146	0.018		0.0098	0.00082	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-147	0.075	C	0.020	0.00093	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78109-3

Client Sample ID: PDI-SG-B208-BL1

Lab Sample ID: 580-78109-1

Date Collected: 05/20/18 10:00

Matrix: Solid

Date Received: 06/15/18 12:20

Percent Solids: 70.2

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	ND		0.0098	0.000061	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-149	0.075	C147	0.020	0.00093	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-150	ND		0.0098	0.000041	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-151	0.033	C135	0.020	0.000063	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-152	ND		0.0098	0.000044	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-153	0.086	C	0.020	0.00065	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-154	0.0033	J	0.0098	0.000049	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-155	ND		0.0098	0.000041	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-156	0.0066	J C	0.020	0.00081	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-157	0.0066	J C156	0.020	0.00081	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-158	0.0083	J q	0.0098	0.00058	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-159	ND		0.0098	0.00062	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-160	0.095	C129	0.039	0.00074	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-161	ND		0.0098	0.00061	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-162	ND		0.0098	0.00061	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-163	0.095	C129	0.039	0.00074	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-164	0.0057	J	0.0098	0.00065	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-165	ND		0.0098	0.00070	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-166	0.010	J C128 q	0.020	0.00072	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-167	0.0015	J q	0.0098	0.00046	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-168	0.086	C153	0.020	0.00065	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-169	ND		0.0098	0.00046	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-170	0.036		0.0098	0.00034	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-171	0.0098	J C q	0.020	0.00031	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-172	0.0042	J q	0.0098	0.00031	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-173	0.0098	J C171 q	0.020	0.00031	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-174	0.031	q	0.0098	0.00029	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-175	ND		0.0098	0.00028	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-176	0.0025	J q	0.0098	0.00021	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-177	0.021		0.0098	0.00030	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-178	0.0075	J q	0.0098	0.00031	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-179	0.013	q	0.0098	0.00023	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-180	0.067	C B	0.020	0.00024	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-181	ND		0.0098	0.00028	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-182	ND		0.0098	0.00027	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-183	0.022	C B	0.020	0.00028	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-184	ND		0.0098	0.00023	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-185	0.022	B C183	0.020	0.00028	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-186	ND		0.0098	0.00022	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-187	0.041	B q	0.0098	0.00026	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-188	ND		0.0098	0.00020	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-189	ND		0.0098	0.00055	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-190	0.0065	J q	0.0098	0.00020	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-191	ND		0.0098	0.00021	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-192	ND		0.0098	0.00024	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-193	0.067	C180 B	0.020	0.00024	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-194	0.016		0.0098	0.00026	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-195	0.0081	J q	0.0098	0.00029	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-196	0.0079	J	0.0098	0.000091	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78109-3

Client Sample ID: PDI-SG-B208-BL1

Lab Sample ID: 580-78109-1

Date Collected: 05/20/18 10:00

Matrix: Solid

Date Received: 06/15/18 12:20

Percent Solids: 70.2

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	ND		0.0098	0.000069	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-198	0.022	C	0.020	0.000092	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-199	0.022	C198	0.020	0.000092	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-200	0.0020	J q	0.0098	0.000062	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-201	0.0011	J q	0.0098	0.000063	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-202	0.0016	J q	0.0098	0.000071	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-203	0.0097	J q	0.0098	0.000082	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-204	ND		0.0098	0.000069	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-205	ND		0.0098	0.00022	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-206	0.011		0.0098	0.0016	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-207	ND		0.0098	0.0012	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-208	0.0019	J q	0.0098	0.0012	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
PCB-209	0.0084	J q	0.0098	0.000034	ng/g	☼	06/24/18 08:21	07/06/18 02:38	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-1L	57		30 - 140				06/24/18 08:21	07/06/18 02:38	1
PCB-3L	60		30 - 140				06/24/18 08:21	07/06/18 02:38	1
PCB-4L	71		30 - 140				06/24/18 08:21	07/06/18 02:38	1
PCB-15L	75		30 - 140				06/24/18 08:21	07/06/18 02:38	1
PCB-19L	80		30 - 140				06/24/18 08:21	07/06/18 02:38	1
PCB-37L	85		30 - 140				06/24/18 08:21	07/06/18 02:38	1
PCB-54L	97		30 - 140				06/24/18 08:21	07/06/18 02:38	1
PCB-77L	84		30 - 140				06/24/18 08:21	07/06/18 02:38	1
PCB-81L	85		30 - 140				06/24/18 08:21	07/06/18 02:38	1
PCB-104L	77		30 - 140				06/24/18 08:21	07/06/18 02:38	1
PCB-105L	87		30 - 140				06/24/18 08:21	07/06/18 02:38	1
PCB-114L	86		30 - 140				06/24/18 08:21	07/06/18 02:38	1
PCB-118L	85		30 - 140				06/24/18 08:21	07/06/18 02:38	1
PCB-123L	84		30 - 140				06/24/18 08:21	07/06/18 02:38	1
PCB-126L	84		30 - 140				06/24/18 08:21	07/06/18 02:38	1
PCB-155L	93		30 - 140				06/24/18 08:21	07/06/18 02:38	1
PCB-156L	84	C	30 - 140				06/24/18 08:21	07/06/18 02:38	1
PCB-157L	84	C156	30 - 140				06/24/18 08:21	07/06/18 02:38	1
PCB-167L	85		30 - 140				06/24/18 08:21	07/06/18 02:38	1
PCB-169L	89		30 - 140				06/24/18 08:21	07/06/18 02:38	1
PCB-170L	79		30 - 140				06/24/18 08:21	07/06/18 02:38	1
PCB-188L	87		30 - 140				06/24/18 08:21	07/06/18 02:38	1
PCB-189L	79		30 - 140				06/24/18 08:21	07/06/18 02:38	1
PCB-202L	104		30 - 140				06/24/18 08:21	07/06/18 02:38	1
PCB-205L	71		30 - 140				06/24/18 08:21	07/06/18 02:38	1
PCB-206L	79		30 - 140				06/24/18 08:21	07/06/18 02:38	1
PCB-208L	84		30 - 140				06/24/18 08:21	07/06/18 02:38	1
PCB-209L	80		30 - 140				06/24/18 08:21	07/06/18 02:38	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-28L	94		40 - 125				06/24/18 08:21	07/06/18 02:38	1
PCB-111L	84		40 - 125				06/24/18 08:21	07/06/18 02:38	1
PCB-178L	85		40 - 125				06/24/18 08:21	07/06/18 02:38	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78109-3

Client Sample ID: PDI-SG-B389-BL1

Lab Sample ID: 580-78109-2

Date Collected: 05/20/18 14:28

Matrix: Solid

Date Received: 06/15/18 12:20

Percent Solids: 51.8

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	ND		0.0097	0.00018	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-2	0.0025	J q	0.0097	0.00019	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-3	0.0025	J B	0.0097	0.00021	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-4	0.034		0.019	0.0049	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-5	ND		0.0097	0.0036	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-6	0.0041	J q	0.0097	0.0032	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-7	ND		0.0097	0.0033	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-8	0.0095	J	0.019	0.0030	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-9	ND		0.0097	0.0034	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-10	0.0036	J q	0.0097	0.0036	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-11	0.063	B	0.019	0.0031	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-12	ND	C	0.019	0.0033	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-13	ND	C12	0.019	0.0033	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-14	ND		0.0097	0.0028	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-15	0.011	q	0.0097	0.0032	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-16	0.0075	J q	0.0097	0.00027	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-17	0.044		0.0097	0.00025	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-18	0.030	C	0.019	0.00022	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-19	0.11		0.0097	0.00030	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-20	0.057	C B	0.019	0.00095	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-21	0.018	J C	0.019	0.00093	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-22	0.013		0.0097	0.00097	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-23	ND		0.0097	0.00097	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-24	0.0014	J q	0.0097	0.00021	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-25	0.0074	J q	0.0097	0.00088	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-26	0.0080	J C B	0.019	0.00094	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-27	0.014		0.0097	0.00018	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-28	0.057	B C20	0.019	0.00095	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-29	0.0080	J C26 B	0.019	0.00094	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-30	0.030	C18	0.019	0.00022	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-31	0.041		0.019	0.00093	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-32	0.026	B q	0.0097	0.00017	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-33	0.018	J C21	0.019	0.00093	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-34	ND		0.0097	0.0010	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-35	ND		0.0097	0.00098	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-36	ND		0.0097	0.00094	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-37	0.021		0.0097	0.00097	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-38	ND		0.0097	0.0010	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-39	ND		0.0097	0.00091	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-40	0.084	C	0.029	0.0035	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-41	0.084	C40	0.029	0.0035	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-42	0.026	q	0.0097	0.0035	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-43	0.0098	J C	0.019	0.0033	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-44	0.29	C	0.029	0.0031	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-45	0.090	C	0.019	0.0037	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-46	ND		0.0097	0.0044	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-47	0.29	C44	0.029	0.0031	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-48	0.0092	J q	0.0097	0.0035	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-49	0.19	C	0.019	0.0029	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78109-3

Client Sample ID: PDI-SG-B389-BL1

Lab Sample ID: 580-78109-2

Date Collected: 05/20/18 14:28

Matrix: Solid

Date Received: 06/15/18 12:20

Percent Solids: 51.8

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	0.11	C	0.019	0.0034	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-51	0.090	C45	0.019	0.0037	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-52	0.35		0.0097	0.0035	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-53	0.11	C50	0.019	0.0034	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-54	0.024		0.0097	0.000028	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-55	0.0042	J q	0.0097	0.0025	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-56	0.12		0.0097	0.0025	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-57	ND		0.0097	0.0026	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-58	0.0037	J q	0.0097	0.0026	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-59	0.010	J C q	0.029	0.0025	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-60	0.048		0.0097	0.0026	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-61	0.52	C	0.039	0.0024	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-62	0.010	J C59 q	0.029	0.0025	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-63	0.0087	J q	0.0097	0.0024	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-64	0.083		0.0097	0.0023	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-65	0.29	C44	0.029	0.0031	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-66	0.36		0.0097	0.0024	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-67	0.0039	J q	0.0097	0.0022	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-68	ND		0.0097	0.0023	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-69	0.19	C49	0.019	0.0029	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-70	0.52	C61	0.039	0.0024	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-71	0.084	C40	0.029	0.0035	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-72	0.0037	J q	0.0097	0.0025	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-73	0.0098	J C43	0.019	0.0033	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-74	0.52	C61	0.039	0.0024	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-75	0.010	J C59 q	0.029	0.0025	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-76	0.52	C61	0.039	0.0024	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-77	0.035		0.0097	0.0024	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-78	ND		0.0097	0.0026	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-79	0.0047	J	0.0097	0.0023	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-80	ND		0.0097	0.0022	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-81	ND		0.0097	0.0024	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-82	0.099		0.0097	0.00041	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-83	0.77	C B	0.019	0.00038	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-84	0.20		0.0097	0.00042	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-85	0.29	C	0.029	0.00031	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-86	0.61	C	0.058	0.00031	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-87	0.61	C86	0.058	0.00031	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-88	0.25	C	0.019	0.00037	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-89	ND		0.0097	0.00041	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-90	2.4	C B	0.029	0.00031	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-91	0.25	C88	0.019	0.00037	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-92	0.37		0.0097	0.00036	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-93	0.050	C q	0.019	0.00036	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-94	ND		0.0097	0.00041	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-95	1.8		0.0097	0.00039	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-96	0.016	q	0.0097	0.00031	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-97	0.61	C86	0.058	0.00031	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-98	0.034	C q	0.019	0.00035	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78109-3

Client Sample ID: PDI-SG-B389-BL1

Lab Sample ID: 580-78109-2

Date Collected: 05/20/18 14:28

Matrix: Solid

Date Received: 06/15/18 12:20

Percent Solids: 51.8

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	0.77	C83 B	0.019	0.00038	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-100	0.050	C93 q	0.019	0.00036	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-101	2.4	B C90	0.029	0.00031	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-102	0.034	C98 q	0.019	0.00035	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-103	0.039		0.0097	0.00036	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-104	ND		0.0097	0.00027	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-105	0.24		0.0097	0.0030	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-106	ND		0.0097	0.0030	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-107	0.053		0.0097	0.0032	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-108	0.033	C	0.019	0.0031	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-109	0.61	C86	0.058	0.00031	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-110	1.8	C	0.019	0.00026	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-111	ND		0.0097	0.00025	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-112	ND		0.0097	0.00027	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-113	2.4	B C90	0.029	0.00031	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-114	0.015		0.0097	0.0027	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-115	1.8	C110	0.019	0.00026	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-116	0.29	C85	0.029	0.00031	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-117	0.29	C85	0.029	0.00031	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-118	0.79	B	0.0097	0.0028	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-119	0.61	C86	0.058	0.00031	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-120	0.0080	J q	0.0097	0.00026	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-121	ND		0.0097	0.00026	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-122	0.017		0.0097	0.0035	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-123	0.021	q	0.0097	0.0030	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-124	0.033	C108	0.019	0.0031	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-125	0.61	C86	0.058	0.00031	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-126	ND		0.0097	0.0033	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-127	ND		0.0097	0.0030	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-128	0.65	C	0.019	0.0065	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-129	8.7	C	0.039	0.0068	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-130	0.30		0.0097	0.0089	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-131	0.057		0.0097	0.0093	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-132	2.5		0.0097	0.0087	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-133	0.097		0.0097	0.0084	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-134	0.42	C	0.019	0.0088	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-135	3.5	C	0.019	0.00014	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-136	1.1		0.0097	0.00010	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-137	0.081		0.0097	0.0076	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-138	8.7	C129	0.039	0.0068	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-139	0.037	C	0.019	0.0075	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-140	0.037	C139	0.019	0.0075	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-141	2.4		0.0097	0.0079	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-142	ND		0.0097	0.0084	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-143	0.42	C134	0.019	0.0088	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-144	0.44		0.0097	0.00013	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-145	ND		0.0097	0.000097	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-146	1.3		0.0097	0.0074	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-147	8.8	C	0.019	0.0085	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78109-3

Client Sample ID: PDI-SG-B389-BL1

Lab Sample ID: 580-78109-2

Date Collected: 05/20/18 14:28

Matrix: Solid

Date Received: 06/15/18 12:20

Percent Solids: 51.8

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	0.0097		0.0097	0.00014	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-149	8.8	C147	0.019	0.0085	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-150	0.0068	J q	0.0097	0.000092	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-151	3.5	C135	0.019	0.00014	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-152	ND		0.0097	0.000099	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-153	8.6	C	0.019	0.0059	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-154	0.061	q	0.0097	0.00011	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-155	ND		0.0097	0.000093	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-156	0.55	C	0.019	0.0074	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-157	0.55	C156	0.019	0.0074	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-158	0.77		0.0097	0.0053	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-159	0.12		0.0097	0.0056	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-160	8.7	C129	0.039	0.0068	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-161	ND		0.0097	0.0056	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-162	0.011		0.0097	0.0055	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-163	8.7	C129	0.039	0.0068	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-164	0.63		0.0097	0.0059	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-165	ND		0.0097	0.0063	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-166	0.65	C128	0.019	0.0065	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-167	0.21		0.0097	0.0040	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-168	8.6	C153	0.019	0.0059	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-169	0.017	q	0.0097	0.0044	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-170	4.4		0.0097	0.00016	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-171	1.3	C	0.019	0.00015	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-172	0.62		0.0097	0.00015	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-173	1.3	C171	0.019	0.00015	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-174	3.9		0.0097	0.00014	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-175	0.14		0.0097	0.00013	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-176	0.50		0.0097	0.00010	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-177	2.3		0.0097	0.00014	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-178	0.70		0.0097	0.00014	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-179	1.6		0.0097	0.00011	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-180	8.3	C B	0.019	0.00011	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-181	ND		0.0097	0.00013	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-182	0.035		0.0097	0.00013	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-183	2.9	C B	0.019	0.00013	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-184	ND		0.0097	0.00011	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-185	2.9	B C183	0.019	0.00013	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-186	ND		0.0097	0.00010	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-187	4.2	B	0.0097	0.00012	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-188	ND		0.0097	0.000089	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-189	0.13		0.0097	0.0026	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-190	0.71		0.0097	0.000095	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-191	0.16		0.0097	0.000099	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-192	ND		0.0097	0.00011	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-193	8.3	C180 B	0.019	0.00011	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-194	1.6		0.0097	0.0032	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-195	0.79		0.0097	0.0035	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-196	0.74		0.0097	0.00051	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78109-3

Client Sample ID: PDI-SG-B389-BL1

Lab Sample ID: 580-78109-2

Date Collected: 05/20/18 14:28

Matrix: Solid

Date Received: 06/15/18 12:20

Percent Solids: 51.8

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	0.058		0.0097	0.00039	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-198	1.3	C	0.019	0.00052	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-199	1.3	C198	0.019	0.00052	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-200	0.14		0.0097	0.00035	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-201	0.16		0.0097	0.00036	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-202	0.20		0.0097	0.00040	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-203	0.79		0.0097	0.00046	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-204	ND		0.0097	0.00039	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-205	0.084		0.0097	0.0027	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-206	0.32		0.0097	0.0028	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-207	0.035	q	0.0097	0.0019	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-208	0.070		0.0097	0.0019	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
PCB-209	0.11	q	0.0097	0.00019	ng/g	☼	06/24/18 08:21	07/06/18 03:39	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-1L	53		30 - 140				06/24/18 08:21	07/06/18 03:39	1
PCB-3L	59		30 - 140				06/24/18 08:21	07/06/18 03:39	1
PCB-4L	68		30 - 140				06/24/18 08:21	07/06/18 03:39	1
PCB-15L	79		30 - 140				06/24/18 08:21	07/06/18 03:39	1
PCB-19L	77		30 - 140				06/24/18 08:21	07/06/18 03:39	1
PCB-37L	88		30 - 140				06/24/18 08:21	07/06/18 03:39	1
PCB-54L	103		30 - 140				06/24/18 08:21	07/06/18 03:39	1
PCB-77L	85		30 - 140				06/24/18 08:21	07/06/18 03:39	1
PCB-81L	87		30 - 140				06/24/18 08:21	07/06/18 03:39	1
PCB-104L	82		30 - 140				06/24/18 08:21	07/06/18 03:39	1
PCB-105L	92		30 - 140				06/24/18 08:21	07/06/18 03:39	1
PCB-114L	94		30 - 140				06/24/18 08:21	07/06/18 03:39	1
PCB-118L	90		30 - 140				06/24/18 08:21	07/06/18 03:39	1
PCB-123L	91		30 - 140				06/24/18 08:21	07/06/18 03:39	1
PCB-126L	86		30 - 140				06/24/18 08:21	07/06/18 03:39	1
PCB-155L	97		30 - 140				06/24/18 08:21	07/06/18 03:39	1
PCB-156L	84	C	30 - 140				06/24/18 08:21	07/06/18 03:39	1
PCB-157L	84	C156	30 - 140				06/24/18 08:21	07/06/18 03:39	1
PCB-167L	86		30 - 140				06/24/18 08:21	07/06/18 03:39	1
PCB-169L	86		30 - 140				06/24/18 08:21	07/06/18 03:39	1
PCB-170L	83		30 - 140				06/24/18 08:21	07/06/18 03:39	1
PCB-188L	98		30 - 140				06/24/18 08:21	07/06/18 03:39	1
PCB-189L	82		30 - 140				06/24/18 08:21	07/06/18 03:39	1
PCB-202L	114		30 - 140				06/24/18 08:21	07/06/18 03:39	1
PCB-205L	72		30 - 140				06/24/18 08:21	07/06/18 03:39	1
PCB-206L	75		30 - 140				06/24/18 08:21	07/06/18 03:39	1
PCB-208L	85		30 - 140				06/24/18 08:21	07/06/18 03:39	1
PCB-209L	79		30 - 140				06/24/18 08:21	07/06/18 03:39	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-28L	93		40 - 125				06/24/18 08:21	07/06/18 03:39	1
PCB-111L	90		40 - 125				06/24/18 08:21	07/06/18 03:39	1
PCB-178L	94		40 - 125				06/24/18 08:21	07/06/18 03:39	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78109-3

Client Sample ID: PDI-SG-B391-BL1

Lab Sample ID: 580-78109-3

Date Collected: 05/20/18 16:11

Matrix: Solid

Date Received: 06/15/18 12:20

Percent Solids: 86.3

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.0039	J	0.0099	0.00021	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-2	0.0018	J	0.0099	0.00023	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-3	0.0034	J B	0.0099	0.00025	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-4	0.021		0.020	0.0032	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-5	ND		0.0099	0.0024	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-6	0.0085	J q	0.0099	0.0021	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-7	0.0028	J q	0.0099	0.0022	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-8	0.036		0.020	0.0020	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-9	0.0030	J q	0.0099	0.0022	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-10	ND		0.0099	0.0024	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-11	0.012	J B	0.020	0.0021	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-12	0.0058	J C q	0.020	0.0022	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-13	0.0058	J C12 q	0.020	0.0022	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-14	ND		0.0099	0.0018	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-15	0.026		0.0099	0.0022	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-16	0.036		0.0099	0.00030	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-17	0.073	q	0.0099	0.00027	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-18	0.10	C q	0.020	0.00024	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-19	0.090		0.0099	0.00033	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-20	0.21	C B	0.020	0.0012	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-21	0.096	C	0.020	0.0011	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-22	0.056		0.0099	0.0012	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-23	ND		0.0099	0.0012	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-24	0.0028	J	0.0099	0.00023	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-25	0.019		0.0099	0.0011	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-26	0.028	C B	0.020	0.0011	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-27	0.014	q	0.0099	0.00020	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-28	0.21	B C20	0.020	0.0012	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-29	0.028	C26 B	0.020	0.0011	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-30	0.10	C18 q	0.020	0.00024	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-31	0.16		0.020	0.0011	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-32	0.054	B	0.0099	0.00019	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-33	0.096	C21	0.020	0.0011	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-34	ND		0.0099	0.0012	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-35	0.0034	J q	0.0099	0.0012	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-36	ND		0.0099	0.0011	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-37	0.046		0.0099	0.0012	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-38	ND		0.0099	0.0012	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-39	0.0020	J q	0.0099	0.0011	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-40	0.15	C	0.030	0.0025	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-41	0.15	C40	0.030	0.0025	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-42	0.066	q	0.0099	0.0025	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-43	0.014	J C	0.020	0.0023	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-44	0.40	C	0.030	0.0022	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-45	0.12	C	0.020	0.0026	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-46	0.017	q	0.0099	0.0031	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-47	0.40	C44	0.030	0.0022	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-48	0.054		0.0099	0.0025	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-49	0.26	C	0.020	0.0020	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78109-3

Client Sample ID: PDI-SG-B391-BL1

Lab Sample ID: 580-78109-3

Date Collected: 05/20/18 16:11

Matrix: Solid

Date Received: 06/15/18 12:20

Percent Solids: 86.3

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	0.12	C	0.020	0.0024	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-51	0.12	C45	0.020	0.0026	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-52	0.43		0.0099	0.0024	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-53	0.12	C50	0.020	0.0024	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-54	0.029		0.0099	0.000032	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-55	0.0067	J q	0.0099	0.0018	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-56	0.13		0.0099	0.0018	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-57	ND		0.0099	0.0018	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-58	0.0023	J q	0.0099	0.0018	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-59	0.024	J C q	0.030	0.0017	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-60	0.033	q	0.0099	0.0018	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-61	0.50	C	0.040	0.0017	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-62	0.024	J C59 q	0.030	0.0017	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-63	0.012	q	0.0099	0.0017	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-64	0.11		0.0099	0.0016	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-65	0.40	C44	0.030	0.0022	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-66	0.28		0.0099	0.0017	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-67	0.0074	J q	0.0099	0.0016	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-68	0.0059	J	0.0099	0.0016	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-69	0.26	C49	0.020	0.0020	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-70	0.50	C61	0.040	0.0017	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-71	0.15	C40	0.030	0.0025	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-72	0.0069	J q	0.0099	0.0018	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-73	0.014	J C43	0.020	0.0023	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-74	0.50	C61	0.040	0.0017	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-75	0.024	J C59 q	0.030	0.0017	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-76	0.50	C61	0.040	0.0017	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-77	0.024		0.0099	0.0018	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-78	ND		0.0099	0.0018	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-79	0.0050	J	0.0099	0.0016	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-80	ND		0.0099	0.0016	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-81	ND		0.0099	0.0016	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-82	0.062		0.0099	0.00028	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-83	0.45	C B	0.020	0.00026	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-84	0.13	q	0.0099	0.00028	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-85	0.093	C	0.030	0.00021	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-86	0.36	C	0.060	0.00021	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-87	0.36	C86	0.060	0.00021	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-88	0.17	C	0.020	0.00025	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-89	0.0068	J q	0.0099	0.00028	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-90	0.82	C B	0.030	0.00021	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-91	0.17	C88	0.020	0.00025	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-92	0.16		0.0099	0.00024	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-93	0.045	C q	0.020	0.00024	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-94	0.018		0.0099	0.00027	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-95	0.71		0.0099	0.00027	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-96	0.017		0.0099	0.00021	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-97	0.36	C86	0.060	0.00021	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-98	0.031	C	0.020	0.00024	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78109-3

Client Sample ID: PDI-SG-B391-BL1

Lab Sample ID: 580-78109-3

Date Collected: 05/20/18 16:11

Matrix: Solid

Date Received: 06/15/18 12:20

Percent Solids: 86.3

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	0.45	C83 B	0.020	0.00026	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-100	0.045	C93 q	0.020	0.00024	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-101	0.82	B C90	0.030	0.00021	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-102	0.031	C98	0.020	0.00024	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-103	0.036		0.0099	0.00024	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-104	ND		0.0099	0.00018	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-105	0.11		0.0099	0.0016	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-106	ND		0.0099	0.0017	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-107	0.047		0.0099	0.0018	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-108	0.015	J C	0.020	0.0017	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-109	0.36	C86	0.060	0.00021	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-110	0.72	C	0.020	0.00018	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-111	ND		0.0099	0.00017	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-112	0.0051	J	0.0099	0.00018	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-113	0.82	B C90	0.030	0.00021	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-114	0.0066	J q	0.0099	0.0016	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-115	0.72	C110	0.020	0.00018	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-116	0.093	C85	0.030	0.00021	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-117	0.093	C85	0.030	0.00021	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-118	0.39	B	0.0099	0.0016	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-119	0.36	C86	0.060	0.00021	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-120	0.0062	J q	0.0099	0.00017	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-121	ND		0.0099	0.00018	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-122	0.0073	J q	0.0099	0.0019	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-123	0.0096	J	0.0099	0.0016	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-124	0.015	J C108	0.020	0.0017	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-125	0.36	C86	0.060	0.00021	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-126	0.0047	J	0.0099	0.0018	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-127	ND		0.0099	0.0017	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-128	0.12	C	0.020	0.0044	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-129	1.4	C	0.040	0.0045	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-130	0.073		0.0099	0.0060	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-131	ND		0.0099	0.0062	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-132	0.46		0.0099	0.0058	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-133	0.041		0.0099	0.0056	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-134	0.086	C	0.020	0.0059	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-135	0.63	C	0.020	0.00064	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-136	0.23		0.0099	0.00046	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-137	0.029	q	0.0099	0.0051	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-138	1.4	C129	0.040	0.0045	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-139	0.018	J C q	0.020	0.0050	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-140	0.018	J C139 q	0.020	0.0050	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-141	0.34		0.0099	0.0053	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-142	ND		0.0099	0.0056	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-143	0.086	C134	0.020	0.0059	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-144	0.071		0.0099	0.00058	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-145	ND		0.0099	0.00044	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-146	0.31		0.0099	0.0050	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-147	1.7	C	0.020	0.0057	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78109-3

Client Sample ID: PDI-SG-B391-BL1

Lab Sample ID: 580-78109-3

Date Collected: 05/20/18 16:11

Matrix: Solid

Date Received: 06/15/18 12:20

Percent Solids: 86.3

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	0.0077	J q	0.0099	0.00062	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-149	1.7	C147	0.020	0.0057	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-150	0.0086	J q	0.0099	0.00042	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-151	0.63	C135	0.020	0.00064	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-152	0.0046	J	0.0099	0.00045	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-153	1.4	C	0.020	0.0039	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-154	0.049		0.0099	0.00050	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-155	ND		0.0099	0.00042	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-156	0.094	C	0.020	0.0049	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-157	0.094	C156	0.020	0.0049	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-158	0.10		0.0099	0.0036	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-159	0.016		0.0099	0.0038	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-160	1.4	C129	0.040	0.0045	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-161	ND		0.0099	0.0037	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-162	0.0037	J	0.0099	0.0037	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-163	1.4	C129	0.040	0.0045	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-164	0.10		0.0099	0.0040	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-165	ND		0.0099	0.0042	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-166	0.12	C128	0.020	0.0044	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-167	0.029		0.0099	0.0027	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-168	1.4	C153	0.020	0.0039	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-169	ND		0.0099	0.0030	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-170	0.59		0.0099	0.00094	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-171	0.16	C	0.020	0.00082	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-172	0.093		0.0099	0.00081	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-173	0.16	C171	0.020	0.00082	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-174	0.60		0.0099	0.00076	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-175	0.024		0.0099	0.00074	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-176	0.071	q	0.0099	0.00056	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-177	0.35		0.0099	0.00078	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-178	0.13		0.0099	0.00080	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-179	0.30		0.0099	0.00059	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-180	1.2	C B	0.020	0.00062	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-181	0.0043	J B q	0.0099	0.00074	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-182	0.0082	J q	0.0099	0.00071	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-183	0.42	C B	0.020	0.00072	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-184	ND		0.0099	0.00060	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-185	0.42	B C183	0.020	0.00072	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-186	ND		0.0099	0.00059	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-187	0.75	B	0.0099	0.00068	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-188	ND		0.0099	0.00049	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-189	0.018		0.0099	0.0018	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-190	0.10		0.0099	0.00053	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-191	0.024		0.0099	0.00056	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-192	ND		0.0099	0.00062	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-193	1.2	C180 B	0.020	0.00062	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-194	0.32		0.0099	0.0030	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-195	0.16		0.0099	0.0033	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-196	0.12		0.0099	0.00068	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78109-3

Client Sample ID: PDI-SG-B391-BL1

Lab Sample ID: 580-78109-3

Date Collected: 05/20/18 16:11

Matrix: Solid

Date Received: 06/15/18 12:20

Percent Solids: 86.3

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	0.012		0.0099	0.00052	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-198	0.27	C	0.020	0.00069	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-199	0.27	C198	0.020	0.00069	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-200	0.026		0.0099	0.00046	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-201	0.033		0.0099	0.00047	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-202	0.048	q	0.0099	0.00053	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-203	0.16		0.0099	0.00061	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-204	ND		0.0099	0.00052	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-205	0.015	q	0.0099	0.0025	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-206	0.088		0.0099	0.0033	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-207	0.011		0.0099	0.0021	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-208	0.013	q	0.0099	0.0019	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
PCB-209	0.018		0.0099	0.000063	ng/g	☼	06/24/18 08:21	07/06/18 04:41	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-1L	56		30 - 140				06/24/18 08:21	07/06/18 04:41	1
PCB-3L	61		30 - 140				06/24/18 08:21	07/06/18 04:41	1
PCB-4L	71		30 - 140				06/24/18 08:21	07/06/18 04:41	1
PCB-15L	79		30 - 140				06/24/18 08:21	07/06/18 04:41	1
PCB-19L	75		30 - 140				06/24/18 08:21	07/06/18 04:41	1
PCB-37L	87		30 - 140				06/24/18 08:21	07/06/18 04:41	1
PCB-54L	102		30 - 140				06/24/18 08:21	07/06/18 04:41	1
PCB-77L	84		30 - 140				06/24/18 08:21	07/06/18 04:41	1
PCB-81L	86		30 - 140				06/24/18 08:21	07/06/18 04:41	1
PCB-104L	77		30 - 140				06/24/18 08:21	07/06/18 04:41	1
PCB-105L	91		30 - 140				06/24/18 08:21	07/06/18 04:41	1
PCB-114L	88		30 - 140				06/24/18 08:21	07/06/18 04:41	1
PCB-118L	88		30 - 140				06/24/18 08:21	07/06/18 04:41	1
PCB-123L	88		30 - 140				06/24/18 08:21	07/06/18 04:41	1
PCB-126L	86		30 - 140				06/24/18 08:21	07/06/18 04:41	1
PCB-155L	95		30 - 140				06/24/18 08:21	07/06/18 04:41	1
PCB-156L	81	C	30 - 140				06/24/18 08:21	07/06/18 04:41	1
PCB-157L	81	C156	30 - 140				06/24/18 08:21	07/06/18 04:41	1
PCB-167L	84		30 - 140				06/24/18 08:21	07/06/18 04:41	1
PCB-169L	77		30 - 140				06/24/18 08:21	07/06/18 04:41	1
PCB-170L	82		30 - 140				06/24/18 08:21	07/06/18 04:41	1
PCB-188L	97		30 - 140				06/24/18 08:21	07/06/18 04:41	1
PCB-189L	86		30 - 140				06/24/18 08:21	07/06/18 04:41	1
PCB-202L	115		30 - 140				06/24/18 08:21	07/06/18 04:41	1
PCB-205L	74		30 - 140				06/24/18 08:21	07/06/18 04:41	1
PCB-206L	78		30 - 140				06/24/18 08:21	07/06/18 04:41	1
PCB-208L	96		30 - 140				06/24/18 08:21	07/06/18 04:41	1
PCB-209L	79		30 - 140				06/24/18 08:21	07/06/18 04:41	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-28L	90		40 - 125				06/24/18 08:21	07/06/18 04:41	1
PCB-111L	89		40 - 125				06/24/18 08:21	07/06/18 04:41	1
PCB-178L	94		40 - 125				06/24/18 08:21	07/06/18 04:41	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78109-3

Client Sample ID: PDI-SG-B392-BL1

Lab Sample ID: 580-78109-4

Date Collected: 05/20/18 17:31

Matrix: Solid

Date Received: 06/15/18 12:20

Percent Solids: 66.5

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.0099		0.0095	0.00040	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-2	0.0054	J	0.0095	0.00044	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-3	0.0092	J B	0.0095	0.00047	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-4	0.034		0.019	0.0028	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-5	ND		0.0095	0.0021	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-6	0.011	q	0.0095	0.0019	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-7	0.0028	J q	0.0095	0.0019	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-8	0.055		0.019	0.0017	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-9	0.0034	J q	0.0095	0.0020	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-10	0.0022	J q	0.0095	0.0021	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-11	0.018	J B q	0.019	0.0018	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-12	0.0064	J C q	0.019	0.0019	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-13	0.0064	J C12 q	0.019	0.0019	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-14	ND		0.0095	0.0016	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-15	0.041		0.0095	0.0019	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-16	0.036	q	0.0095	0.00044	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-17	0.076	q	0.0095	0.00040	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-18	0.13	C	0.019	0.00035	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-19	0.080		0.0095	0.00048	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-20	0.29	C B	0.019	0.0013	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-21	0.092	C	0.019	0.0013	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-22	0.071		0.0095	0.0014	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-23	ND		0.0095	0.0013	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-24	0.0014	J q	0.0095	0.00033	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-25	0.029	q	0.0095	0.0012	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-26	0.037	C B q	0.019	0.0013	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-27	0.019		0.0095	0.00029	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-28	0.29	B C20	0.019	0.0013	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-29	0.037	C26 B q	0.019	0.0013	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-30	0.13	C18	0.019	0.00035	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-31	0.18		0.019	0.0013	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-32	0.065	B	0.0095	0.00028	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-33	0.092	C21	0.019	0.0013	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-34	ND		0.0095	0.0014	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-35	0.0045	J	0.0095	0.0014	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-36	ND		0.0095	0.0013	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-37	0.061		0.0095	0.0013	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-38	ND		0.0095	0.0014	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-39	ND		0.0095	0.0013	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-40	0.26	C	0.028	0.0037	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-41	0.26	C40	0.028	0.0037	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-42	0.11		0.0095	0.0037	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-43	0.032	C	0.019	0.0035	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-44	0.73	C	0.028	0.0033	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-45	0.19	C	0.019	0.0039	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-46	0.028	q	0.0095	0.0047	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-47	0.73	C44	0.028	0.0033	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-48	0.048	q	0.0095	0.0037	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-49	0.58	C	0.019	0.0030	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78109-3

Client Sample ID: PDI-SG-B392-BL1

Lab Sample ID: 580-78109-4

Date Collected: 05/20/18 17:31

Matrix: Solid

Date Received: 06/15/18 12:20

Percent Solids: 66.5

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	0.30	C	0.019	0.0036	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-51	0.19	C45	0.019	0.0039	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-52	0.93		0.0095	0.0037	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-53	0.30	C50	0.019	0.0036	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-54	0.023		0.0095	0.000030	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-55	0.010		0.0095	0.0027	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-56	0.16		0.0095	0.0027	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-57	0.0042	J	0.0095	0.0027	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-58	0.0090	J	0.0095	0.0028	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-59	0.032	C q	0.028	0.0026	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-60	0.068		0.0095	0.0027	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-61	0.76	C	0.038	0.0026	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-62	0.032	C59 q	0.028	0.0026	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-63	0.018		0.0095	0.0025	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-64	0.12		0.0095	0.0025	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-65	0.73	C44	0.028	0.0033	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-66	0.50		0.0095	0.0026	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-67	0.0092	J q	0.0095	0.0024	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-68	0.0089	J q	0.0095	0.0024	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-69	0.58	C49	0.019	0.0030	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-70	0.76	C61	0.038	0.0026	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-71	0.26	C40	0.028	0.0037	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-72	0.012	q	0.0095	0.0027	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-73	0.032	C43	0.019	0.0035	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-74	0.76	C61	0.038	0.0026	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-75	0.032	C59 q	0.028	0.0026	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-76	0.76	C61	0.038	0.0026	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-77	0.031		0.0095	0.0026	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-78	ND		0.0095	0.0028	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-79	0.0097		0.0095	0.0024	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-80	ND		0.0095	0.0024	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-81	ND		0.0095	0.0025	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-82	0.13	q	0.0095	0.00019	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-83	1.4	C B	0.019	0.00017	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-84	0.37		0.0095	0.00019	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-85	0.26	C	0.028	0.00014	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-86	0.98	C	0.057	0.00014	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-87	0.98	C86	0.057	0.00014	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-88	0.48	C	0.019	0.00017	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-89	ND		0.0095	0.00018	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-90	2.5	C B	0.028	0.00014	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-91	0.48	C88	0.019	0.00017	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-92	0.56		0.0095	0.00016	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-93	0.10	C q	0.019	0.00016	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-94	0.039	q	0.0095	0.00018	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-95	2.2		0.0095	0.00018	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-96	0.045		0.0095	0.00014	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-97	0.98	C86	0.057	0.00014	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-98	0.080	C	0.019	0.00016	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78109-3

Client Sample ID: PDI-SG-B392-BL1

Lab Sample ID: 580-78109-4

Date Collected: 05/20/18 17:31

Matrix: Solid

Date Received: 06/15/18 12:20

Percent Solids: 66.5

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	1.4	C83 B	0.019	0.00017	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-100	0.10	C93 q	0.019	0.00016	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-101	2.5	B C90	0.028	0.00014	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-102	0.080	C98	0.019	0.00016	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-103	0.13		0.0095	0.00016	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-104	ND		0.0095	0.00012	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-105	0.46		0.0095	0.0029	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-106	ND		0.0095	0.0030	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-107	0.13		0.0095	0.0032	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-108	0.041	C q	0.019	0.0031	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-109	0.98	C86	0.057	0.00014	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-110	2.0	C	0.019	0.00012	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-111	ND		0.0095	0.00011	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-112	ND		0.0095	0.00012	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-113	2.5	B C90	0.028	0.00014	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-114	0.025	q	0.0095	0.0028	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-115	2.0	C110	0.019	0.00012	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-116	0.26	C85	0.028	0.00014	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-117	0.26	C85	0.028	0.00014	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-118	1.2	B	0.0095	0.0028	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-119	0.98	C86	0.057	0.00014	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-120	0.016	q	0.0095	0.00012	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-121	ND		0.0095	0.00012	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-122	0.023		0.0095	0.0034	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-123	0.016	q	0.0095	0.0029	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-124	0.041	q C108	0.019	0.0031	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-125	0.98	C86	0.057	0.00014	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-126	0.0073	J	0.0095	0.0031	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-127	ND		0.0095	0.0030	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-128	0.42	C	0.019	0.0058	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-129	4.8	C	0.038	0.0060	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-130	0.19	q	0.0095	0.0079	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-131	0.035		0.0095	0.0082	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-132	1.6		0.0095	0.0077	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-133	0.15		0.0095	0.0075	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-134	0.30	C	0.019	0.0078	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-135	2.9	C	0.019	0.00034	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-136	1.0		0.0095	0.00024	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-137	0.098		0.0095	0.0068	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-138	4.8	C129	0.038	0.0060	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-139	0.078	C	0.019	0.0067	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-140	0.078	C139	0.019	0.0067	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-141	1.1		0.0095	0.0070	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-142	ND		0.0095	0.0075	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-143	0.30	C134	0.019	0.0078	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-144	0.24		0.0095	0.00030	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-145	ND		0.0095	0.00023	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-146	1.1		0.0095	0.0066	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-147	6.2	C	0.019	0.0075	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78109-3

Client Sample ID: PDI-SG-B392-BL1

Lab Sample ID: 580-78109-4

Date Collected: 05/20/18 17:31

Matrix: Solid

Date Received: 06/15/18 12:20

Percent Solids: 66.5

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	0.034		0.0095	0.00032	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-149	6.2	C147	0.019	0.0075	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-150	0.047		0.0095	0.00022	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-151	2.9	C135	0.019	0.00034	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-152	0.0093	J q	0.0095	0.00024	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-153	5.0	C	0.019	0.0052	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-154	0.18		0.0095	0.00026	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-155	ND		0.0095	0.00022	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-156	0.30	C	0.019	0.0068	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-157	0.30	C156	0.019	0.0068	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-158	0.40		0.0095	0.0047	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-159	0.061		0.0095	0.0050	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-160	4.8	C129	0.038	0.0060	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-161	ND		0.0095	0.0049	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-162	0.0092	J q	0.0095	0.0049	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-163	4.8	C129	0.038	0.0060	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-164	0.36		0.0095	0.0053	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-165	ND		0.0095	0.0056	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-166	0.42	C128	0.019	0.0058	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-167	0.12		0.0095	0.0037	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-168	5.0	C153	0.019	0.0052	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-169	ND		0.0095	0.0036	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-170	1.9		0.0095	0.00071	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-171	0.55	C	0.019	0.00066	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-172	0.32		0.0095	0.00065	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-173	0.55	C171	0.019	0.00066	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-174	2.2		0.0095	0.00061	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-175	0.072		0.0095	0.00059	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-176	0.27		0.0095	0.00045	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-177	1.3		0.0095	0.00063	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-178	0.48		0.0095	0.00064	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-179	1.2		0.0095	0.00047	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-180	4.2	C B	0.019	0.00050	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-181	ND		0.0095	0.00059	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-182	ND		0.0095	0.00057	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-183	1.4	C B	0.019	0.00058	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-184	ND		0.0095	0.00049	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-185	1.4	B C183	0.019	0.00058	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-186	ND		0.0095	0.00047	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-187	2.8	B	0.0095	0.00055	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-188	ND		0.0095	0.00041	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-189	0.056		0.0095	0.0021	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-190	0.33		0.0095	0.00043	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-191	0.075		0.0095	0.00045	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-192	ND		0.0095	0.00050	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-193	4.2	C180 B	0.019	0.00050	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-194	0.79		0.0095	0.0030	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-195	0.35		0.0095	0.0033	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-196	0.40		0.0095	0.00074	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78109-3

Client Sample ID: PDI-SG-B392-BL1

Lab Sample ID: 580-78109-4

Date Collected: 05/20/18 17:31

Matrix: Solid

Date Received: 06/15/18 12:20

Percent Solids: 66.5

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	0.025		0.0095	0.00057	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-198	0.88	C	0.019	0.00075	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-199	0.88	C198	0.019	0.00075	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-200	0.091		0.0095	0.00050	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-201	0.088		0.0095	0.00052	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-202	0.15		0.0095	0.00058	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-203	0.50		0.0095	0.00067	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-204	ND		0.0095	0.00057	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-205	0.035	q	0.0095	0.0026	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-206	0.21		0.0095	0.0021	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-207	0.023		0.0095	0.0016	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-208	0.041	q	0.0095	0.0017	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1
PCB-209	0.044	q	0.0095	0.000066	ng/g	☼	06/24/18 08:21	07/06/18 05:42	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	55		30 - 140	06/24/18 08:21	07/06/18 05:42	1
PCB-3L	61		30 - 140	06/24/18 08:21	07/06/18 05:42	1
PCB-4L	69		30 - 140	06/24/18 08:21	07/06/18 05:42	1
PCB-15L	79		30 - 140	06/24/18 08:21	07/06/18 05:42	1
PCB-19L	81		30 - 140	06/24/18 08:21	07/06/18 05:42	1
PCB-37L	86		30 - 140	06/24/18 08:21	07/06/18 05:42	1
PCB-54L	108		30 - 140	06/24/18 08:21	07/06/18 05:42	1
PCB-77L	89		30 - 140	06/24/18 08:21	07/06/18 05:42	1
PCB-81L	88		30 - 140	06/24/18 08:21	07/06/18 05:42	1
PCB-104L	81		30 - 140	06/24/18 08:21	07/06/18 05:42	1
PCB-105L	93		30 - 140	06/24/18 08:21	07/06/18 05:42	1
PCB-114L	93		30 - 140	06/24/18 08:21	07/06/18 05:42	1
PCB-118L	90		30 - 140	06/24/18 08:21	07/06/18 05:42	1
PCB-123L	91		30 - 140	06/24/18 08:21	07/06/18 05:42	1
PCB-126L	89		30 - 140	06/24/18 08:21	07/06/18 05:42	1
PCB-155L	97		30 - 140	06/24/18 08:21	07/06/18 05:42	1
PCB-156L	88	C	30 - 140	06/24/18 08:21	07/06/18 05:42	1
PCB-157L	88	C156	30 - 140	06/24/18 08:21	07/06/18 05:42	1
PCB-167L	89		30 - 140	06/24/18 08:21	07/06/18 05:42	1
PCB-169L	93		30 - 140	06/24/18 08:21	07/06/18 05:42	1
PCB-170L	87		30 - 140	06/24/18 08:21	07/06/18 05:42	1
PCB-188L	95		30 - 140	06/24/18 08:21	07/06/18 05:42	1
PCB-189L	79		30 - 140	06/24/18 08:21	07/06/18 05:42	1
PCB-202L	114		30 - 140	06/24/18 08:21	07/06/18 05:42	1
PCB-205L	76		30 - 140	06/24/18 08:21	07/06/18 05:42	1
PCB-206L	84		30 - 140	06/24/18 08:21	07/06/18 05:42	1
PCB-208L	83		30 - 140	06/24/18 08:21	07/06/18 05:42	1
PCB-209L	84		30 - 140	06/24/18 08:21	07/06/18 05:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	88		40 - 125	06/24/18 08:21	07/06/18 05:42	1
PCB-111L	89		40 - 125	06/24/18 08:21	07/06/18 05:42	1
PCB-178L	92		40 - 125	06/24/18 08:21	07/06/18 05:42	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78109-3

Client Sample ID: PDI-SG-B428-BL1

Lab Sample ID: 580-78109-5

Date Collected: 05/21/18 10:35

Matrix: Solid

Date Received: 06/15/18 12:20

Percent Solids: 78.6

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.0022	J	0.0099	0.00016	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-2	0.0016	J	0.0099	0.00018	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-3	0.0020	J B	0.0099	0.00019	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-4	ND		0.020	0.0039	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-5	ND		0.0099	0.0032	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-6	ND		0.0099	0.0028	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-7	ND		0.0099	0.0029	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-8	ND		0.020	0.0026	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-9	ND		0.0099	0.0030	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-10	ND		0.0099	0.0031	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-11	0.0039	J B q	0.020	0.0028	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-12	ND	C	0.020	0.0029	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-13	ND	C12	0.020	0.0029	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-14	ND		0.0099	0.0024	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-15	ND		0.0099	0.0030	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-16	ND		0.0099	0.00011	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-17	0.0026	J	0.0099	0.00010	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-18	0.0058	J C q	0.020	0.000089	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-19	ND		0.0099	0.00012	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-20	0.018	J C B	0.020	0.00046	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-21	0.0086	J C	0.020	0.00045	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-22	0.0053	J	0.0099	0.00048	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-23	ND		0.0099	0.00047	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-24	ND		0.0099	0.000085	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-25	0.0025	J q	0.0099	0.00043	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-26	0.0033	J C B q	0.020	0.00046	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-27	ND		0.0099	0.000074	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-28	0.018	J B C20	0.020	0.00046	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-29	0.0033	J C26 B q	0.020	0.00046	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-30	0.0058	J C18 q	0.020	0.000089	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-31	0.013	J	0.020	0.00045	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-32	0.0024	J B	0.0099	0.000070	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-33	0.0086	J C21	0.020	0.00045	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-34	ND		0.0099	0.00049	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-35	ND		0.0099	0.00048	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-36	ND		0.0099	0.00046	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-37	0.0044	J	0.0099	0.00047	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-38	ND		0.0099	0.00049	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-39	ND		0.0099	0.00044	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-40	0.013	J C	0.030	0.00088	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-41	0.013	J C40	0.030	0.00088	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-42	0.0083	J q	0.0099	0.00088	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-43	ND	C	0.020	0.00082	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-44	0.030	C	0.030	0.00078	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-45	0.0046	J C q	0.020	0.00092	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-46	0.0020	J q	0.0099	0.0011	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-47	0.030	C44	0.030	0.00078	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-48	0.0053	J q	0.0099	0.00088	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-49	0.023	C	0.020	0.00072	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78109-3

Client Sample ID: PDI-SG-B428-BL1

Lab Sample ID: 580-78109-5

Date Collected: 05/21/18 10:35

Matrix: Solid

Date Received: 06/15/18 12:20

Percent Solids: 78.6

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	0.0032	J C q	0.020	0.00085	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-51	0.0046	J C45 q	0.020	0.00092	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-52	0.036	q	0.0099	0.00087	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-53	0.0032	J C50 q	0.020	0.00085	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-54	ND		0.0099	0.000020	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-55	ND		0.0099	0.00064	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-56	0.012		0.0099	0.00064	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-57	ND		0.0099	0.00065	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-58	ND		0.0099	0.00066	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-59	ND	C	0.030	0.00062	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-60	0.0034	J q	0.0099	0.00065	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-61	0.046	C	0.040	0.00061	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-62	ND	C59	0.030	0.00062	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-63	ND		0.0099	0.00059	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-64	0.012		0.0099	0.00059	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-65	0.030	C44	0.030	0.00078	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-66	0.030		0.0099	0.00061	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-67	ND		0.0099	0.00056	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-68	ND		0.0099	0.00057	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-69	0.023	C49	0.020	0.00072	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-70	0.046	C61	0.040	0.00061	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-71	0.013	J C40	0.030	0.00088	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-72	ND		0.0099	0.00064	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-73	ND	C43	0.020	0.00082	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-74	0.046	C61	0.040	0.00061	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-75	ND	C59	0.030	0.00062	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-76	0.046	C61	0.040	0.00061	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-77	ND		0.0099	0.00063	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-78	ND		0.0099	0.00066	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-79	ND		0.0099	0.00057	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-80	ND		0.0099	0.00056	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-81	ND		0.0099	0.00059	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-82	0.0050	J q	0.0099	0.00037	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-83	0.023	C B q	0.020	0.00034	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-84	0.012	q	0.0099	0.00038	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-85	0.0087	J C	0.030	0.00028	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-86	0.030	J C q	0.059	0.00028	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-87	0.030	J C86 q	0.059	0.00028	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-88	0.0066	J C q	0.020	0.00034	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-89	ND		0.0099	0.00037	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-90	0.048	C B	0.030	0.00028	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-91	0.0066	J C88 q	0.020	0.00034	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-92	0.0075	J q	0.0099	0.00032	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-93	0.00086	J C q	0.020	0.00032	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-94	ND		0.0099	0.00036	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-95	0.045	q	0.0099	0.00035	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-96	ND		0.0099	0.00028	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-97	0.030	J C86 q	0.059	0.00028	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-98	0.0010	J C q	0.020	0.00031	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78109-3

Client Sample ID: PDI-SG-B428-BL1

Lab Sample ID: 580-78109-5

Date Collected: 05/21/18 10:35

Matrix: Solid

Date Received: 06/15/18 12:20

Percent Solids: 78.6

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	0.023	C83 B q	0.020	0.00034	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-100	0.00086	J C93 q	0.020	0.00032	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-101	0.048	B C90	0.030	0.00028	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-102	0.0010	J C98 q	0.020	0.00031	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-103	ND		0.0099	0.00032	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-104	ND		0.0099	0.00025	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-105	0.0091	J q	0.0099	0.00062	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-106	ND		0.0099	0.00067	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-107	0.0031	J q	0.0099	0.00072	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-108	0.0011	J C q	0.020	0.00069	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-109	0.030	J C86 q	0.059	0.00028	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-110	0.060	C	0.020	0.00024	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-111	ND		0.0099	0.00023	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-112	ND		0.0099	0.00024	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-113	0.048	B C90	0.030	0.00028	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-114	ND		0.0099	0.00064	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-115	0.060	C110	0.020	0.00024	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-116	0.0087	J C85	0.030	0.00028	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-117	0.0087	J C85	0.030	0.00028	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-118	0.026	B q	0.0099	0.00064	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-119	0.030	J C86 q	0.059	0.00028	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-120	ND		0.0099	0.00023	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-121	ND		0.0099	0.00024	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-122	ND		0.0099	0.00078	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-123	ND		0.0099	0.00067	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-124	0.0011	J q C108	0.020	0.00069	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-125	0.030	J C86 q	0.059	0.00028	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-126	ND		0.0099	0.00072	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-127	ND		0.0099	0.00067	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-128	0.0082	J C q	0.020	0.0012	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-129	0.061	C	0.040	0.0012	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-130	0.0034	J	0.0099	0.0016	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-131	ND		0.0099	0.0017	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-132	0.021		0.0099	0.0016	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-133	ND		0.0099	0.0015	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-134	0.0044	J C	0.020	0.0016	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-135	0.026	C	0.020	0.00020	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-136	0.0099		0.0099	0.00014	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-137	0.0028	J q	0.0099	0.0014	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-138	0.061	C129	0.040	0.0012	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-139	ND	C	0.020	0.0013	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-140	ND	C139	0.020	0.0013	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-141	0.011	q	0.0099	0.0014	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-142	ND		0.0099	0.0015	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-143	0.0044	J C134	0.020	0.0016	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-144	0.0029	J q	0.0099	0.00018	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-145	ND		0.0099	0.00014	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-146	0.0077	J q	0.0099	0.0013	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-147	0.061	C	0.020	0.0015	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78109-3

Client Sample ID: PDI-SG-B428-BL1

Lab Sample ID: 580-78109-5

Date Collected: 05/21/18 10:35

Matrix: Solid

Date Received: 06/15/18 12:20

Percent Solids: 78.6

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	ND		0.0099	0.00019	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-149	0.061	C147	0.020	0.0015	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-150	ND		0.0099	0.00013	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-151	0.026	C135	0.020	0.00020	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-152	ND		0.0099	0.00014	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-153	0.056	C	0.020	0.0011	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-154	0.0024	J q	0.0099	0.00015	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-155	ND		0.0099	0.00013	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-156	0.0025	J C q	0.020	0.0014	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-157	0.0025	J C156 q	0.020	0.0014	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-158	0.0043	J q	0.0099	0.00095	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-159	ND		0.0099	0.0010	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-160	0.061	C129	0.040	0.0012	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-161	ND		0.0099	0.00099	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-162	ND		0.0099	0.00098	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-163	0.061	C129	0.040	0.0012	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-164	0.0054	J	0.0099	0.0011	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-165	ND		0.0099	0.0011	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-166	0.0082	J C128 q	0.020	0.0012	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-167	ND		0.0099	0.00073	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-168	0.056	C153	0.020	0.0011	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-169	ND		0.0099	0.00073	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-170	0.015	q	0.0099	0.00083	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-171	0.0063	J C	0.020	0.00081	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-172	0.0027	J q	0.0099	0.00080	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-173	0.0063	J C171	0.020	0.00081	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-174	0.014	q	0.0099	0.00075	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-175	ND		0.0099	0.00073	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-176	0.0021	J q	0.0099	0.00055	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-177	0.010		0.0099	0.00077	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-178	0.0040	J q	0.0099	0.00079	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-179	0.0083	J q	0.0099	0.00058	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-180	0.042	C B	0.020	0.00061	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-181	ND		0.0099	0.00072	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-182	ND		0.0099	0.00070	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-183	0.016	J C B	0.020	0.00071	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-184	ND		0.0099	0.00059	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-185	0.016	J B C183	0.020	0.00071	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-186	ND		0.0099	0.00058	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-187	0.025	B	0.0099	0.00067	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-188	ND		0.0099	0.00052	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-189	ND		0.0099	0.00098	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-190	0.0030	J	0.0099	0.00053	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-191	ND		0.0099	0.00055	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-192	ND		0.0099	0.00061	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-193	0.042	C180 B	0.020	0.00061	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-194	0.0091	J q	0.0099	0.0018	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-195	ND		0.0099	0.0020	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-196	0.0036	J q	0.0099	0.00059	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78109-3

Client Sample ID: PDI-SG-B428-BL1

Lab Sample ID: 580-78109-5

Date Collected: 05/21/18 10:35

Matrix: Solid

Date Received: 06/15/18 12:20

Percent Solids: 78.6

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	ND		0.0099	0.00045	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-198	0.011	J C	0.020	0.00059	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-199	0.011	J C198	0.020	0.00059	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-200	ND		0.0099	0.00040	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-201	0.00097	J q	0.0099	0.00041	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-202	0.0025	J	0.0099	0.00046	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-203	0.0056	J q	0.0099	0.00053	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-204	ND		0.0099	0.00045	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-205	ND		0.0099	0.0015	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-206	0.0055	J	0.0099	0.0020	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-207	ND		0.0099	0.0014	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-208	ND		0.0099	0.0015	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
PCB-209	0.0043	J q	0.0099	0.000029	ng/g	☼	06/24/18 08:21	07/06/18 06:44	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-1L	59		30 - 140				06/24/18 08:21	07/06/18 06:44	1
PCB-3L	62		30 - 140				06/24/18 08:21	07/06/18 06:44	1
PCB-4L	71		30 - 140				06/24/18 08:21	07/06/18 06:44	1
PCB-15L	75		30 - 140				06/24/18 08:21	07/06/18 06:44	1
PCB-19L	86		30 - 140				06/24/18 08:21	07/06/18 06:44	1
PCB-37L	83		30 - 140				06/24/18 08:21	07/06/18 06:44	1
PCB-54L	110		30 - 140				06/24/18 08:21	07/06/18 06:44	1
PCB-77L	84		30 - 140				06/24/18 08:21	07/06/18 06:44	1
PCB-81L	86		30 - 140				06/24/18 08:21	07/06/18 06:44	1
PCB-104L	77		30 - 140				06/24/18 08:21	07/06/18 06:44	1
PCB-105L	89		30 - 140				06/24/18 08:21	07/06/18 06:44	1
PCB-114L	89		30 - 140				06/24/18 08:21	07/06/18 06:44	1
PCB-118L	88		30 - 140				06/24/18 08:21	07/06/18 06:44	1
PCB-123L	85		30 - 140				06/24/18 08:21	07/06/18 06:44	1
PCB-126L	86		30 - 140				06/24/18 08:21	07/06/18 06:44	1
PCB-155L	93		30 - 140				06/24/18 08:21	07/06/18 06:44	1
PCB-156L	88	C	30 - 140				06/24/18 08:21	07/06/18 06:44	1
PCB-157L	88	C156	30 - 140				06/24/18 08:21	07/06/18 06:44	1
PCB-167L	89		30 - 140				06/24/18 08:21	07/06/18 06:44	1
PCB-169L	93		30 - 140				06/24/18 08:21	07/06/18 06:44	1
PCB-170L	88		30 - 140				06/24/18 08:21	07/06/18 06:44	1
PCB-188L	92		30 - 140				06/24/18 08:21	07/06/18 06:44	1
PCB-189L	83		30 - 140				06/24/18 08:21	07/06/18 06:44	1
PCB-202L	106		30 - 140				06/24/18 08:21	07/06/18 06:44	1
PCB-205L	74		30 - 140				06/24/18 08:21	07/06/18 06:44	1
PCB-206L	84		30 - 140				06/24/18 08:21	07/06/18 06:44	1
PCB-208L	89		30 - 140				06/24/18 08:21	07/06/18 06:44	1
PCB-209L	86		30 - 140				06/24/18 08:21	07/06/18 06:44	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-28L	90		40 - 125				06/24/18 08:21	07/06/18 06:44	1
PCB-111L	87		40 - 125				06/24/18 08:21	07/06/18 06:44	1
PCB-178L	89		40 - 125				06/24/18 08:21	07/06/18 06:44	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78109-3

Client Sample ID: PDI-SG-B427-BL1

Lab Sample ID: 580-78109-6

Date Collected: 05/21/18 11:40

Matrix: Solid

Date Received: 06/15/18 12:20

Percent Solids: 86.0

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.00072	J q	0.0099	0.000082	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-2	0.00067	J q	0.0099	0.000093	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-3	0.00088	J B q	0.0099	0.00010	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-4	ND		0.020	0.0036	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-5	ND		0.0099	0.0030	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-6	ND		0.0099	0.0026	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-7	ND		0.0099	0.0027	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-8	0.0025	J q	0.020	0.0024	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-9	ND		0.0099	0.0027	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-10	ND		0.0099	0.0029	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-11	0.0054	J B q	0.020	0.0026	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-12	ND	C	0.020	0.0026	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-13	ND	C12	0.020	0.0026	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-14	ND		0.0099	0.0022	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-15	0.0033	J q	0.0099	0.0028	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-16	ND		0.0099	0.00013	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-17	0.012	q	0.0099	0.00012	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-18	0.0065	J C	0.020	0.00011	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-19	0.0062	J q	0.0099	0.00015	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-20	0.056	C B	0.020	0.00060	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-21	0.0058	J C q	0.020	0.00058	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-22	0.0024	J	0.0099	0.00061	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-23	ND		0.0099	0.00061	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-24	ND		0.0099	0.00010	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-25	0.0086	J q	0.0099	0.00055	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-26	0.012	J C B	0.020	0.00059	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-27	0.0036	J q	0.0099	0.000088	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-28	0.056	B C20	0.020	0.00060	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-29	0.012	J C26 B	0.020	0.00059	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-30	0.0065	J C18	0.020	0.00011	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-31	0.021		0.020	0.00058	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-32	0.017	B q	0.0099	0.000084	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-33	0.0058	J C21 q	0.020	0.00058	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-34	ND		0.0099	0.00063	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-35	ND		0.0099	0.00061	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-36	ND		0.0099	0.00059	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-37	0.0025	J	0.0099	0.00061	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-38	ND		0.0099	0.00063	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-39	ND		0.0099	0.00057	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-40	0.15	C	0.030	0.0029	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-41	0.15	C40	0.030	0.0029	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-42	0.026	q	0.0099	0.0029	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-43	0.0080	J C	0.020	0.0027	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-44	0.24	C	0.030	0.0026	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-45	0.042	C	0.020	0.0030	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-46	0.020		0.0099	0.0037	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-47	0.24	C44	0.030	0.0026	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-48	0.0043	J q	0.0099	0.0029	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-49	0.21	C	0.020	0.0024	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78109-3

Client Sample ID: PDI-SG-B427-BL1

Lab Sample ID: 580-78109-6

Date Collected: 05/21/18 11:40

Matrix: Solid

Date Received: 06/15/18 12:20

Percent Solids: 86.0

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	0.058	C	0.020	0.0028	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-51	0.042	C45	0.020	0.0030	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-52	0.27		0.0099	0.0029	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-53	0.058	C50	0.020	0.0028	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-54	0.00090	J q	0.0099	0.000014	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-55	0.0037	J q	0.0099	0.0021	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-56	0.013		0.0099	0.0021	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-57	ND		0.0099	0.0021	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-58	ND		0.0099	0.0022	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-59	0.012	J C	0.030	0.0020	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-60	ND		0.0099	0.0021	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-61	0.13	C	0.040	0.0020	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-62	0.012	J C59	0.030	0.0020	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-63	ND		0.0099	0.0020	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-64	0.012		0.0099	0.0019	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-65	0.24	C44	0.030	0.0026	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-66	0.055		0.0099	0.0020	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-67	ND		0.0099	0.0018	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-68	0.0040	J	0.0099	0.0019	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-69	0.21	C49	0.020	0.0024	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-70	0.13	C61	0.040	0.0020	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-71	0.15	C40	0.030	0.0029	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-72	0.0057	J	0.0099	0.0021	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-73	0.0080	J C43	0.020	0.0027	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-74	0.13	C61	0.040	0.0020	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-75	0.012	J C59	0.030	0.0020	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-76	0.13	C61	0.040	0.0020	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-77	0.0044	J	0.0099	0.0020	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-78	ND		0.0099	0.0022	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-79	ND		0.0099	0.0019	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-80	ND		0.0099	0.0018	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-81	ND		0.0099	0.0020	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-82	0.018		0.0099	0.00025	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-83	0.11	C B	0.020	0.00023	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-84	0.082	q	0.0099	0.00025	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-85	0.028	J C	0.030	0.00019	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-86	0.10	C	0.059	0.00019	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-87	0.10	C86	0.059	0.00019	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-88	0.055	C	0.020	0.00023	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-89	ND		0.0099	0.00025	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-90	0.21	C B	0.030	0.00019	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-91	0.055	C88	0.020	0.00023	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-92	0.062		0.0099	0.00021	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-93	0.014	J C q	0.020	0.00022	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-94	0.0067	J q	0.0099	0.00024	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-95	0.29		0.0099	0.00024	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-96	0.0055	J q	0.0099	0.00018	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-97	0.10	C86	0.059	0.00019	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-98	0.020	C	0.020	0.00021	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78109-3

Client Sample ID: PDI-SG-B427-BL1

Lab Sample ID: 580-78109-6

Date Collected: 05/21/18 11:40

Matrix: Solid

Date Received: 06/15/18 12:20

Percent Solids: 86.0

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	0.11	C83 B	0.020	0.00023	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-100	0.014	J C93 q	0.020	0.00022	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-101	0.21	B C90	0.030	0.00019	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-102	0.020	C98	0.020	0.00021	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-103	0.0084	J q	0.0099	0.00022	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-104	ND		0.0099	0.00016	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-105	0.032		0.0099	0.00095	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-106	ND		0.0099	0.00097	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-107	0.011		0.0099	0.0010	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-108	0.0035	J C	0.020	0.00099	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-109	0.10	C86	0.059	0.00019	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-110	0.19	C	0.020	0.00016	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-111	ND		0.0099	0.00015	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-112	ND		0.0099	0.00016	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-113	0.21	B C90	0.030	0.00019	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-114	0.0027	J	0.0099	0.00090	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-115	0.19	C110	0.020	0.00016	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-116	0.028	J C85	0.030	0.00019	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-117	0.028	J C85	0.030	0.00019	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-118	0.10	B	0.0099	0.00089	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-119	0.10	C86	0.059	0.00019	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-120	ND		0.0099	0.00015	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-121	ND		0.0099	0.00016	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-122	0.0022	J	0.0099	0.0011	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-123	0.0017	J q	0.0099	0.00095	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-124	0.0035	J C108	0.020	0.00099	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-125	0.10	C86	0.059	0.00019	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-126	ND		0.0099	0.0011	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-127	ND		0.0099	0.00097	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-128	0.023	C	0.020	0.0014	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-129	0.15	C	0.040	0.0014	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-130	0.0088	J q	0.0099	0.0019	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-131	ND		0.0099	0.0020	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-132	0.050		0.0099	0.0019	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-133	0.0034	J	0.0099	0.0018	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-134	0.011	J C q	0.020	0.0019	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-135	0.067	C	0.020	0.000076	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-136	0.029		0.0099	0.000055	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-137	0.0063	J q	0.0099	0.0016	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-138	0.15	C129	0.040	0.0014	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-139	0.0040	J C q	0.020	0.0016	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-140	0.0040	J C139 q	0.020	0.0016	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-141	0.026		0.0099	0.0017	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-142	ND		0.0099	0.0018	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-143	0.011	J C134 q	0.020	0.0019	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-144	0.0051	J q	0.0099	0.000069	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-145	ND		0.0099	0.000052	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-146	0.023		0.0099	0.0016	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-147	0.15	C	0.020	0.0018	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78109-3

Client Sample ID: PDI-SG-B427-BL1

Lab Sample ID: 580-78109-6

Date Collected: 05/21/18 11:40

Matrix: Solid

Date Received: 06/15/18 12:20

Percent Solids: 86.0

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	0.0011	J q	0.0099	0.000073	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-149	0.15	C147	0.020	0.0018	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-150	0.0012	J	0.0099	0.000050	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-151	0.067	C135	0.020	0.000076	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-152	ND		0.0099	0.000054	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-153	0.12	C	0.020	0.0013	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-154	0.0046	J	0.0099	0.000059	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-155	ND		0.0099	0.000050	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-156	0.014	J C q	0.020	0.0016	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-157	0.014	J C156 q	0.020	0.0016	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-158	0.014	q	0.0099	0.0011	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-159	ND		0.0099	0.0012	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-160	0.15	C129	0.040	0.0014	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-161	ND		0.0099	0.0012	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-162	ND		0.0099	0.0012	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-163	0.15	C129	0.040	0.0014	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-164	0.012		0.0099	0.0013	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-165	ND		0.0099	0.0014	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-166	0.023	C128	0.020	0.0014	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-167	0.0065	J	0.0099	0.00087	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-168	0.12	C153	0.020	0.0013	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-169	ND		0.0099	0.00090	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-170	0.041		0.0099	0.00032	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-171	0.0096	J C q	0.020	0.00031	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-172	0.0064	J	0.0099	0.00031	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-173	0.0096	J C171 q	0.020	0.00031	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-174	0.039		0.0099	0.00029	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-175	ND		0.0099	0.00028	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-176	0.0049	J	0.0099	0.00021	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-177	0.020	q	0.0099	0.00030	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-178	0.0072	J q	0.0099	0.00030	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-179	0.018		0.0099	0.00022	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-180	0.079	C B	0.020	0.00024	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-181	ND		0.0099	0.00028	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-182	ND		0.0099	0.00027	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-183	0.025	C B q	0.020	0.00028	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-184	ND		0.0099	0.00023	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-185	0.025	B C183 q	0.020	0.00028	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-186	ND		0.0099	0.00022	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-187	0.049	B	0.0099	0.00026	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-188	ND		0.0099	0.00020	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-189	ND		0.0099	0.00064	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-190	0.0067	J q	0.0099	0.00020	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-191	0.0015	J	0.0099	0.00021	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-192	ND		0.0099	0.00024	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-193	0.079	C180 B	0.020	0.00024	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-194	0.013	q	0.0099	0.0011	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-195	0.0050	J q	0.0099	0.0012	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-196	0.0069	J	0.0099	0.00019	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78109-3

Client Sample ID: PDI-SG-B427-BL1

Lab Sample ID: 580-78109-6

Date Collected: 05/21/18 11:40

Matrix: Solid

Date Received: 06/15/18 12:20

Percent Solids: 86.0

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	0.00069	J q	0.0099	0.00014	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-198	0.016	J C q	0.020	0.00019	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-199	0.016	J C198 q	0.020	0.00019	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-200	0.0018	J	0.0099	0.00013	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-201	0.0023	J q	0.0099	0.00013	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-202	0.0037	J	0.0099	0.00015	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-203	0.0070	J q	0.0099	0.00017	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-204	ND		0.0099	0.00014	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-205	ND		0.0099	0.00092	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-206	0.0056	J q	0.0099	0.0014	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-207	ND		0.0099	0.00098	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-208	0.0029	J q	0.0099	0.00097	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
PCB-209	0.0033	J q	0.0099	0.000030	ng/g	☼	06/24/18 08:21	07/06/18 07:45	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-1L	58		30 - 140				06/24/18 08:21	07/06/18 07:45	1
PCB-3L	62		30 - 140				06/24/18 08:21	07/06/18 07:45	1
PCB-4L	74		30 - 140				06/24/18 08:21	07/06/18 07:45	1
PCB-15L	81		30 - 140				06/24/18 08:21	07/06/18 07:45	1
PCB-19L	80		30 - 140				06/24/18 08:21	07/06/18 07:45	1
PCB-37L	88		30 - 140				06/24/18 08:21	07/06/18 07:45	1
PCB-54L	104		30 - 140				06/24/18 08:21	07/06/18 07:45	1
PCB-77L	88		30 - 140				06/24/18 08:21	07/06/18 07:45	1
PCB-81L	88		30 - 140				06/24/18 08:21	07/06/18 07:45	1
PCB-104L	77		30 - 140				06/24/18 08:21	07/06/18 07:45	1
PCB-105L	90		30 - 140				06/24/18 08:21	07/06/18 07:45	1
PCB-114L	91		30 - 140				06/24/18 08:21	07/06/18 07:45	1
PCB-118L	90		30 - 140				06/24/18 08:21	07/06/18 07:45	1
PCB-123L	89		30 - 140				06/24/18 08:21	07/06/18 07:45	1
PCB-126L	86		30 - 140				06/24/18 08:21	07/06/18 07:45	1
PCB-155L	94		30 - 140				06/24/18 08:21	07/06/18 07:45	1
PCB-156L	88	C	30 - 140				06/24/18 08:21	07/06/18 07:45	1
PCB-157L	88	C156	30 - 140				06/24/18 08:21	07/06/18 07:45	1
PCB-167L	92		30 - 140				06/24/18 08:21	07/06/18 07:45	1
PCB-169L	90		30 - 140				06/24/18 08:21	07/06/18 07:45	1
PCB-170L	82		30 - 140				06/24/18 08:21	07/06/18 07:45	1
PCB-188L	94		30 - 140				06/24/18 08:21	07/06/18 07:45	1
PCB-189L	86		30 - 140				06/24/18 08:21	07/06/18 07:45	1
PCB-202L	113		30 - 140				06/24/18 08:21	07/06/18 07:45	1
PCB-205L	76		30 - 140				06/24/18 08:21	07/06/18 07:45	1
PCB-206L	86		30 - 140				06/24/18 08:21	07/06/18 07:45	1
PCB-208L	93		30 - 140				06/24/18 08:21	07/06/18 07:45	1
PCB-209L	83		30 - 140				06/24/18 08:21	07/06/18 07:45	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-28L	97		40 - 125				06/24/18 08:21	07/06/18 07:45	1
PCB-111L	91		40 - 125				06/24/18 08:21	07/06/18 07:45	1
PCB-178L	90		40 - 125				06/24/18 08:21	07/06/18 07:45	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78109-3

Client Sample ID: PDI-SG-B426-BL1

Lab Sample ID: 580-78109-7

Date Collected: 05/21/18 13:30

Matrix: Solid

Date Received: 06/15/18 12:20

Percent Solids: 83.2

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	ND		0.0098	0.000093	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-2	0.0015	J	0.0098	0.00011	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-3	ND		0.0098	0.00012	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-4	ND		0.020	0.0032	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-5	ND		0.0098	0.0025	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-6	ND		0.0098	0.0022	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-7	ND		0.0098	0.0023	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-8	ND		0.020	0.0021	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-9	ND		0.0098	0.0023	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-10	ND		0.0098	0.0025	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-11	0.0050	J q B	0.020	0.0022	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-12	ND	C	0.020	0.0023	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-13	ND	C12	0.020	0.0023	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-14	ND		0.0098	0.0019	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-15	ND		0.0098	0.0024	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-16	ND		0.0098	0.000093	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-17	0.0012	J q	0.0098	0.000083	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-18	ND	C	0.020	0.000073	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-19	0.0011	J q	0.0098	0.00010	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-20	0.0030	J C B	0.020	0.00028	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-21	0.00095	J C	0.020	0.00027	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-22	ND		0.0098	0.00028	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-23	ND		0.0098	0.00028	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-24	ND		0.0098	0.000070	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-25	ND		0.0098	0.00025	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-26	ND	C	0.020	0.00027	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-27	ND		0.0098	0.000061	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-28	0.0030	J C20 B	0.020	0.00028	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-29	ND	C26	0.020	0.00027	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-30	ND	C18	0.020	0.000073	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-31	0.0012	J q	0.020	0.00027	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-32	ND		0.0098	0.000058	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-33	0.00095	J C21	0.020	0.00027	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-34	ND		0.0098	0.00029	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-35	ND		0.0098	0.00028	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-36	ND		0.0098	0.00027	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-37	0.00091	J q	0.0098	0.00028	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-38	ND		0.0098	0.00029	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-39	ND		0.0098	0.00026	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-40	0.0024	J q C	0.029	0.00040	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-41	0.0024	J q C40	0.029	0.00040	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-42	ND		0.0098	0.00040	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-43	ND	C	0.020	0.00037	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-44	0.0058	J q C	0.029	0.00035	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-45	ND	C	0.020	0.00042	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-46	ND		0.0098	0.00051	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-47	0.0058	J q C44	0.029	0.00035	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-48	ND		0.0098	0.00040	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-49	0.0029	J q C	0.020	0.00033	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78109-3

Client Sample ID: PDI-SG-B426-BL1

Lab Sample ID: 580-78109-7

Date Collected: 05/21/18 13:30

Matrix: Solid

Date Received: 06/15/18 12:20

Percent Solids: 83.2

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	0.0017	J C	0.020	0.00039	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-51	ND	C45	0.020	0.00042	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-52	0.011	q	0.0098	0.00040	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-53	0.0017	J C50	0.020	0.00039	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-54	ND		0.0098	0.000021	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-55	ND		0.0098	0.00029	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-56	0.0033	J	0.0098	0.00029	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-57	ND		0.0098	0.00030	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-58	ND		0.0098	0.00030	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-59	ND	C	0.029	0.00028	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-60	0.0012	J q	0.0098	0.00030	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-61	0.014	J q C	0.039	0.00028	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-62	ND	C59	0.029	0.00028	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-63	ND		0.0098	0.00027	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-64	0.0026	J	0.0098	0.00027	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-65	0.0058	J q C44	0.029	0.00035	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-66	0.0062	J q	0.0098	0.00028	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-67	ND		0.0098	0.00026	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-68	0.00058	J	0.0098	0.00026	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-69	0.0029	J q C49	0.020	0.00033	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-70	0.014	J q C61	0.039	0.00028	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-71	0.0024	J q C40	0.029	0.00040	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-72	ND		0.0098	0.00029	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-73	ND	C43	0.020	0.00037	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-74	0.014	J q C61	0.039	0.00028	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-75	ND	C59	0.029	0.00028	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-76	0.014	J q C61	0.039	0.00028	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-77	ND		0.0098	0.00029	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-78	ND		0.0098	0.00030	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-79	ND		0.0098	0.00026	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-80	ND		0.0098	0.00025	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-81	ND		0.0098	0.00027	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-82	0.0036	J q	0.0098	0.00017	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-83	0.015	J C B	0.020	0.00016	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-84	0.0052	J q	0.0098	0.00017	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-85	0.0057	J q C	0.029	0.00013	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-86	0.019	J C	0.059	0.00013	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-87	0.019	J C86	0.059	0.00013	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-88	0.0028	J q C	0.020	0.00016	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-89	ND		0.0098	0.00017	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-90	0.030	C B	0.029	0.00013	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-91	0.0028	J q C88	0.020	0.00016	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-92	0.0054	J	0.0098	0.00015	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-93	ND	C	0.020	0.00015	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-94	ND		0.0098	0.00017	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-95	0.024	q	0.0098	0.00016	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-96	ND		0.0098	0.00013	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-97	0.019	J C86	0.059	0.00013	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-98	ND	C	0.020	0.00014	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78109-3

Client Sample ID: PDI-SG-B426-BL1

Lab Sample ID: 580-78109-7

Date Collected: 05/21/18 13:30

Matrix: Solid

Date Received: 06/15/18 12:20

Percent Solids: 83.2

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	0.015	J C83 B	0.020	0.00016	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-100	ND	C93	0.020	0.00015	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-101	0.030	C90 B	0.029	0.00013	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-102	ND	C98	0.020	0.00014	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-103	ND		0.0098	0.00015	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-104	ND		0.0098	0.00011	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-105	0.011		0.0098	0.00043	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-106	ND		0.0098	0.00043	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-107	0.0014	J	0.0098	0.00046	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-108	ND	C	0.020	0.00044	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-109	0.019	J C86	0.059	0.00013	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-110	0.034	C	0.020	0.00011	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-111	ND		0.0098	0.00010	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-112	ND		0.0098	0.00011	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-113	0.030	C90 B	0.029	0.00013	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-114	ND		0.0098	0.00039	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-115	0.034	C110	0.020	0.00011	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-116	0.0057	J q C85	0.029	0.00013	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-117	0.0057	J q C85	0.029	0.00013	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-118	0.027	B	0.0098	0.00040	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-119	0.019	J C86	0.059	0.00013	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-120	ND		0.0098	0.00011	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-121	ND		0.0098	0.00011	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-122	ND		0.0098	0.00050	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-123	0.00073	J q	0.0098	0.00042	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-124	ND	C108	0.020	0.00044	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-125	0.019	J C86	0.059	0.00013	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-126	ND		0.0098	0.00048	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-127	ND		0.0098	0.00043	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-128	0.0058	J q C	0.020	0.0011	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-129	0.049	C	0.039	0.0012	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-130	0.0032	J q	0.0098	0.0016	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-131	ND		0.0098	0.0016	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-132	0.013	q	0.0098	0.0015	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-133	ND		0.0098	0.0015	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-134	ND	C	0.020	0.0015	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-135	0.016	J C	0.020	0.000028	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-136	0.0055	J	0.0098	0.000020	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-137	0.0019	J q	0.0098	0.0013	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-138	0.049	C129	0.039	0.0012	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-139	ND	C	0.020	0.0013	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-140	ND	C139	0.020	0.0013	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-141	0.0079	J	0.0098	0.0014	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-142	ND		0.0098	0.0015	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-143	ND	C134	0.020	0.0015	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-144	ND		0.0098	0.000025	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-145	ND		0.0098	0.000019	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-146	0.0060	J q	0.0098	0.0013	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-147	0.040	q C	0.020	0.0015	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78109-3

Client Sample ID: PDI-SG-B426-BL1

Lab Sample ID: 580-78109-7

Date Collected: 05/21/18 13:30

Matrix: Solid

Date Received: 06/15/18 12:20

Percent Solids: 83.2

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	ND		0.0098	0.000027	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-149	0.040	q C147	0.020	0.0015	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-150	ND		0.0098	0.000018	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-151	0.016	J C135	0.020	0.000028	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-152	ND		0.0098	0.000020	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-153	0.036	C	0.020	0.0010	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-154	ND		0.0098	0.000022	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-155	ND		0.0098	0.000018	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-156	0.0047	J q C	0.020	0.0013	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-157	0.0047	J q C156	0.020	0.0013	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-158	0.0043	J q	0.0098	0.00092	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-159	ND		0.0098	0.00098	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-160	0.049	C129	0.039	0.0012	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-161	ND		0.0098	0.00097	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-162	ND		0.0098	0.00096	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-163	0.049	C129	0.039	0.0012	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-164	0.0042	J	0.0098	0.0010	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-165	ND		0.0098	0.0011	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-166	0.0058	J q C128	0.020	0.0011	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-167	ND		0.0098	0.00072	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-168	0.036	C153	0.020	0.0010	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-169	ND		0.0098	0.00072	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-170	0.013		0.0098	0.00031	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-171	0.0036	J q C	0.020	0.00029	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-172	0.0019	J q	0.0098	0.00029	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-173	0.0036	J q C171	0.020	0.00029	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-174	0.016	q	0.0098	0.00027	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-175	ND		0.0098	0.00026	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-176	0.0017	J q	0.0098	0.00020	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-177	0.0068	J	0.0098	0.00028	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-178	ND		0.0098	0.00029	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-179	0.0044	J q	0.0098	0.00021	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-180	0.029	C B	0.020	0.00022	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-181	ND		0.0098	0.00026	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-182	ND		0.0098	0.00025	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-183	0.010	J q C B	0.020	0.00026	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-184	ND		0.0098	0.00022	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-185	0.010	J q C183 E	0.020	0.00026	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-186	ND		0.0098	0.00021	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-187	0.021	B	0.0098	0.00025	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-188	ND		0.0098	0.00019	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-189	ND		0.0098	0.00054	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-190	0.0017	J q	0.0098	0.00019	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-191	ND		0.0098	0.00020	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-192	ND		0.0098	0.00022	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-193	0.029	C180 B	0.020	0.00022	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-194	0.0052	J	0.0098	0.00051	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-195	ND		0.0098	0.00056	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-196	0.0018	J q	0.0098	0.000080	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78109-3

Client Sample ID: PDI-SG-B426-BL1

Lab Sample ID: 580-78109-7

Date Collected: 05/21/18 13:30

Matrix: Solid

Date Received: 06/15/18 12:20

Percent Solids: 83.2

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	ND		0.0098	0.000061	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-198	0.0098	J C	0.020	0.000081	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-199	0.0098	J C198	0.020	0.000081	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-200	0.00072	J q	0.0098	0.000054	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-201	ND		0.0098	0.000056	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-202	0.0016	J q	0.0098	0.000062	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-203	0.0043	J q	0.0098	0.000072	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-204	ND		0.0098	0.000061	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-205	ND		0.0098	0.00043	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-206	ND		0.0098	0.0015	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-207	ND		0.0098	0.0011	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-208	ND		0.0098	0.0011	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
PCB-209	0.0038	J q	0.0098	0.000060	ng/g	☼	06/24/18 08:21	07/06/18 08:47	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-1L	64		30 - 140				06/24/18 08:21	07/06/18 08:47	1
PCB-3L	63		30 - 140				06/24/18 08:21	07/06/18 08:47	1
PCB-4L	73		30 - 140				06/24/18 08:21	07/06/18 08:47	1
PCB-15L	83		30 - 140				06/24/18 08:21	07/06/18 08:47	1
PCB-19L	85		30 - 140				06/24/18 08:21	07/06/18 08:47	1
PCB-37L	91		30 - 140				06/24/18 08:21	07/06/18 08:47	1
PCB-54L	110		30 - 140				06/24/18 08:21	07/06/18 08:47	1
PCB-77L	91		30 - 140				06/24/18 08:21	07/06/18 08:47	1
PCB-81L	89		30 - 140				06/24/18 08:21	07/06/18 08:47	1
PCB-104L	77		30 - 140				06/24/18 08:21	07/06/18 08:47	1
PCB-105L	90		30 - 140				06/24/18 08:21	07/06/18 08:47	1
PCB-114L	92		30 - 140				06/24/18 08:21	07/06/18 08:47	1
PCB-118L	92		30 - 140				06/24/18 08:21	07/06/18 08:47	1
PCB-123L	89		30 - 140				06/24/18 08:21	07/06/18 08:47	1
PCB-126L	88		30 - 140				06/24/18 08:21	07/06/18 08:47	1
PCB-155L	98		30 - 140				06/24/18 08:21	07/06/18 08:47	1
PCB-156L	91	C	30 - 140				06/24/18 08:21	07/06/18 08:47	1
PCB-157L	91	C156	30 - 140				06/24/18 08:21	07/06/18 08:47	1
PCB-167L	91		30 - 140				06/24/18 08:21	07/06/18 08:47	1
PCB-169L	96		30 - 140				06/24/18 08:21	07/06/18 08:47	1
PCB-170L	84		30 - 140				06/24/18 08:21	07/06/18 08:47	1
PCB-188L	92		30 - 140				06/24/18 08:21	07/06/18 08:47	1
PCB-189L	84		30 - 140				06/24/18 08:21	07/06/18 08:47	1
PCB-202L	111		30 - 140				06/24/18 08:21	07/06/18 08:47	1
PCB-205L	78		30 - 140				06/24/18 08:21	07/06/18 08:47	1
PCB-206L	85		30 - 140				06/24/18 08:21	07/06/18 08:47	1
PCB-208L	88		30 - 140				06/24/18 08:21	07/06/18 08:47	1
PCB-209L	85		30 - 140				06/24/18 08:21	07/06/18 08:47	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-28L	99		40 - 125				06/24/18 08:21	07/06/18 08:47	1
PCB-111L	93		40 - 125				06/24/18 08:21	07/06/18 08:47	1
PCB-178L	95		40 - 125				06/24/18 08:21	07/06/18 08:47	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78109-3

Client Sample ID: PDI-SG-B415-BL1

Lab Sample ID: 580-78109-8

Date Collected: 05/22/18 16:24

Matrix: Solid

Date Received: 06/15/18 12:20

Percent Solids: 85.0

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.00074	J q	0.0095	0.000088	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-2	0.00091	J	0.0095	0.000099	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-3	0.0016	J B	0.0095	0.00011	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-4	ND		0.019	0.0031	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-5	ND		0.0095	0.0027	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-6	ND		0.0095	0.0024	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-7	ND		0.0095	0.0024	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-8	ND		0.019	0.0022	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-9	ND		0.0095	0.0025	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-10	ND		0.0095	0.0027	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-11	0.0058	J B q	0.019	0.0023	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-12	ND	C	0.019	0.0024	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-13	ND	C12	0.019	0.0024	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-14	ND		0.0095	0.0020	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-15	ND		0.0095	0.0027	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-16	ND		0.0095	0.000094	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-17	ND		0.0095	0.000085	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-18	0.0023	J C q	0.019	0.000074	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-19	0.0053	J	0.0095	0.00010	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-20	0.0045	J C B	0.019	0.00022	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-21	0.0016	J C q	0.019	0.00022	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-22	0.0012	J q	0.0095	0.00023	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-23	ND		0.0095	0.00023	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-24	ND		0.0095	0.000071	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-25	0.00054	J	0.0095	0.00021	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-26	0.0013	J C B	0.019	0.00022	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-27	0.00062	J q	0.0095	0.000062	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-28	0.0045	J B C20	0.019	0.00022	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-29	0.0013	J C26 B	0.019	0.00022	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-30	0.0023	J C18 q	0.019	0.000074	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-31	0.0033	J	0.019	0.00022	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-32	0.0017	J B	0.0095	0.000059	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-33	0.0016	J C21 q	0.019	0.00022	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-34	ND		0.0095	0.00024	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-35	ND		0.0095	0.00023	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-36	ND		0.0095	0.00022	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-37	0.00095	J q	0.0095	0.00023	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-38	ND		0.0095	0.00024	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-39	ND		0.0095	0.00021	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-40	0.0029	J C q	0.029	0.00048	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-41	0.0029	J q C40	0.029	0.00048	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-42	0.0019	J	0.0095	0.00048	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-43	0.00092	J C	0.019	0.00045	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-44	0.013	J C	0.029	0.00042	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-45	0.0021	J C q	0.019	0.00050	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-46	0.0010	J q	0.0095	0.00060	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-47	0.013	J C44	0.029	0.00042	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-48	0.00092	J	0.0095	0.00047	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-49	0.0085	J C	0.019	0.00039	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78109-3

Client Sample ID: PDI-SG-B415-BL1

Lab Sample ID: 580-78109-8

Date Collected: 05/22/18 16:24

Matrix: Solid

Date Received: 06/15/18 12:20

Percent Solids: 85.0

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	0.0040	J C q	0.019	0.00046	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-51	0.0021	J C45 q	0.019	0.00050	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-52	0.016	q	0.0095	0.00047	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-53	0.0040	J C50 q	0.019	0.00046	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-54	0.0011	J q	0.0095	0.000030	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-55	ND		0.0095	0.00035	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-56	0.0041	J	0.0095	0.00035	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-57	ND		0.0095	0.00035	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-58	ND		0.0095	0.00036	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-59	0.0011	J C q	0.029	0.00034	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-60	0.0021	J	0.0095	0.00035	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-61	0.016	J C	0.038	0.00033	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-62	0.0011	J C59 q	0.029	0.00034	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-63	ND		0.0095	0.00032	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-64	0.0031	J	0.0095	0.00032	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-65	0.013	J C44	0.029	0.00042	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-66	0.0098		0.0095	0.00033	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-67	ND		0.0095	0.00030	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-68	ND		0.0095	0.00031	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-69	0.0085	J C49	0.019	0.00039	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-70	0.016	J C61	0.038	0.00033	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-71	0.0029	J q C40	0.029	0.00048	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-72	ND		0.0095	0.00034	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-73	0.00092	J C43	0.019	0.00045	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-74	0.016	J C61	0.038	0.00033	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-75	0.0011	J C59 q	0.029	0.00034	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-76	0.016	J C61	0.038	0.00033	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-77	0.0011	J q	0.0095	0.00035	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-78	ND		0.0095	0.00036	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-79	ND		0.0095	0.00031	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-80	ND		0.0095	0.00030	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-81	ND		0.0095	0.00031	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-82	0.0085	J	0.0095	0.00019	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-83	0.034	C B	0.019	0.00018	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-84	0.011		0.0095	0.00019	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-85	0.013	J C	0.029	0.00014	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-86	0.035	J C	0.057	0.00014	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-87	0.035	J C86	0.057	0.00014	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-88	0.012	J C	0.019	0.00017	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-89	ND		0.0095	0.00019	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-90	0.059	C B	0.029	0.00015	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-91	0.012	J C88	0.019	0.00017	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-92	0.0089	J q	0.0095	0.00017	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-93	0.0026	J C q	0.019	0.00017	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-94	ND		0.0095	0.00019	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-95	0.045		0.0095	0.00018	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-96	0.00058	J q	0.0095	0.00014	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-97	0.035	J C86	0.057	0.00014	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-98	0.0030	J C q	0.019	0.00016	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78109-3

Client Sample ID: PDI-SG-B415-BL1

Lab Sample ID: 580-78109-8

Date Collected: 05/22/18 16:24

Matrix: Solid

Date Received: 06/15/18 12:20

Percent Solids: 85.0

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	0.034	C83 B	0.019	0.00018	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-100	0.0026	J C93 q	0.019	0.00017	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-101	0.059	B C90	0.029	0.00015	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-102	0.0030	J C98 q	0.019	0.00016	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-103	0.0018	J	0.0095	0.00017	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-104	ND		0.0095	0.00013	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-105	0.017		0.0095	0.00054	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-106	ND		0.0095	0.00055	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-107	0.0037	J	0.0095	0.00059	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-108	0.0017	J C q	0.019	0.00057	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-109	0.035	J C86	0.057	0.00014	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-110	0.070	C	0.019	0.00012	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-111	ND		0.0095	0.00012	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-112	ND		0.0095	0.00012	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-113	0.059	B C90	0.029	0.00015	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-114	ND		0.0095	0.00051	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-115	0.070	C110	0.019	0.00012	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-116	0.013	J C85	0.029	0.00014	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-117	0.013	J C85	0.029	0.00014	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-118	0.038	B	0.0095	0.00050	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-119	0.035	J C86	0.057	0.00014	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-120	ND		0.0095	0.00012	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-121	ND		0.0095	0.00012	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-122	ND		0.0095	0.00064	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-123	0.0012	J q	0.0095	0.00056	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-124	0.0017	J q C108	0.019	0.00057	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-125	0.035	J C86	0.057	0.00014	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-126	ND		0.0095	0.00061	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-127	ND		0.0095	0.00055	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-128	0.015	J C q	0.019	0.00082	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-129	0.15	C	0.038	0.00084	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-130	0.0066	J	0.0095	0.0011	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-131	ND		0.0095	0.0012	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-132	0.040		0.0095	0.0011	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-133	0.0021	J	0.0095	0.0011	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-134	0.0080	J C	0.019	0.0011	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-135	0.046	C	0.019	0.00013	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-136	0.016		0.0095	0.000090	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-137	0.0048	J	0.0095	0.00095	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-138	0.15	C129	0.038	0.00084	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-139	0.0018	J C q	0.019	0.00094	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-140	0.0018	J C139 q	0.019	0.00094	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-141	0.030	q	0.0095	0.00098	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-142	ND		0.0095	0.0010	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-143	0.0080	J C134	0.019	0.0011	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-144	0.0060	J	0.0095	0.00011	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-145	ND		0.0095	0.000086	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-146	0.023		0.0095	0.00093	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-147	0.12	C	0.019	0.0011	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78109-3

Client Sample ID: PDI-SG-B415-BL1

Lab Sample ID: 580-78109-8

Date Collected: 05/22/18 16:24

Matrix: Solid

Date Received: 06/15/18 12:20

Percent Solids: 85.0

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	0.00049	J q	0.0095	0.00012	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-149	0.12	C147	0.019	0.0011	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-150	ND		0.0095	0.000082	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-151	0.046	C135	0.019	0.00013	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-152	ND		0.0095	0.000088	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-153	0.12	C	0.019	0.00074	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-154	0.0041	J q	0.0095	0.000098	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-155	ND		0.0095	0.000082	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-156	0.013	J C	0.019	0.00093	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-157	0.013	J C156	0.019	0.00093	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-158	0.015		0.0095	0.00066	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-159	0.0012	J q	0.0095	0.00070	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-160	0.15	C129	0.038	0.00084	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-161	ND		0.0095	0.00070	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-162	ND		0.0095	0.00069	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-163	0.15	C129	0.038	0.00084	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-164	0.0091	J q	0.0095	0.00074	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-165	ND		0.0095	0.00079	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-166	0.015	J C128 q	0.019	0.00082	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-167	0.0042	J q	0.0095	0.00052	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-168	0.12	C153	0.019	0.00074	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-169	ND		0.0095	0.00053	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-170	0.064		0.0095	0.00017	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-171	0.017	J C q	0.019	0.00016	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-172	0.011		0.0095	0.00016	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-173	0.017	J C171 q	0.019	0.00016	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-174	0.063		0.0095	0.00015	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-175	0.0024	J	0.0095	0.00015	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-176	0.0063	J q	0.0095	0.00011	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-177	0.034		0.0095	0.00016	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-178	0.012		0.0095	0.00016	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-179	0.026		0.0095	0.00012	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-180	0.15	C B	0.019	0.00012	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-181	ND		0.0095	0.00015	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-182	ND		0.0095	0.00014	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-183	0.048	C B	0.019	0.00014	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-184	ND		0.0095	0.00012	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-185	0.048	B C183	0.019	0.00014	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-186	ND		0.0095	0.00012	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-187	0.076	B	0.0095	0.00014	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-188	ND		0.0095	0.00010	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-189	0.0024	J	0.0095	0.00031	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-190	0.012	q	0.0095	0.00011	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-191	0.0032	J q	0.0095	0.00011	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-192	ND		0.0095	0.00012	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-193	0.15	C180 B	0.019	0.00012	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-194	0.036		0.0095	0.00042	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-195	0.015	q	0.0095	0.00046	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-196	0.019		0.0095	0.00012	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78109-3

Client Sample ID: PDI-SG-B415-BL1

Lab Sample ID: 580-78109-8

Date Collected: 05/22/18 16:24

Matrix: Solid

Date Received: 06/15/18 12:20

Percent Solids: 85.0

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	0.0013	J q	0.0095	0.000088	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-198	0.035	C	0.019	0.00012	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-199	0.035	C198	0.019	0.00012	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-200	0.0036	J	0.0095	0.000078	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-201	0.0035	J q	0.0095	0.000080	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-202	0.0055	J	0.0095	0.000090	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-203	0.021		0.0095	0.00010	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-204	ND		0.0095	0.000088	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-205	0.0021	J q	0.0095	0.00036	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-206	0.012		0.0095	0.00074	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-207	0.0021	J q	0.0095	0.00051	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-208	0.0035	J	0.0095	0.00050	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1
PCB-209	0.0045	J q	0.0095	0.00015	ng/g	☼	06/24/18 08:21	07/06/18 12:25	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	62		30 - 140	06/24/18 08:21	07/06/18 12:25	1
PCB-3L	63		30 - 140	06/24/18 08:21	07/06/18 12:25	1
PCB-4L	75		30 - 140	06/24/18 08:21	07/06/18 12:25	1
PCB-15L	81		30 - 140	06/24/18 08:21	07/06/18 12:25	1
PCB-19L	84		30 - 140	06/24/18 08:21	07/06/18 12:25	1
PCB-37L	90		30 - 140	06/24/18 08:21	07/06/18 12:25	1
PCB-54L	87		30 - 140	06/24/18 08:21	07/06/18 12:25	1
PCB-77L	90		30 - 140	06/24/18 08:21	07/06/18 12:25	1
PCB-81L	89		30 - 140	06/24/18 08:21	07/06/18 12:25	1
PCB-104L	81		30 - 140	06/24/18 08:21	07/06/18 12:25	1
PCB-105L	91		30 - 140	06/24/18 08:21	07/06/18 12:25	1
PCB-114L	91		30 - 140	06/24/18 08:21	07/06/18 12:25	1
PCB-118L	91		30 - 140	06/24/18 08:21	07/06/18 12:25	1
PCB-123L	88		30 - 140	06/24/18 08:21	07/06/18 12:25	1
PCB-126L	87		30 - 140	06/24/18 08:21	07/06/18 12:25	1
PCB-155L	95		30 - 140	06/24/18 08:21	07/06/18 12:25	1
PCB-156L	92	C	30 - 140	06/24/18 08:21	07/06/18 12:25	1
PCB-157L	92	C156	30 - 140	06/24/18 08:21	07/06/18 12:25	1
PCB-167L	93		30 - 140	06/24/18 08:21	07/06/18 12:25	1
PCB-169L	96		30 - 140	06/24/18 08:21	07/06/18 12:25	1
PCB-170L	90		30 - 140	06/24/18 08:21	07/06/18 12:25	1
PCB-188L	92		30 - 140	06/24/18 08:21	07/06/18 12:25	1
PCB-189L	84		30 - 140	06/24/18 08:21	07/06/18 12:25	1
PCB-202L	109		30 - 140	06/24/18 08:21	07/06/18 12:25	1
PCB-205L	76		30 - 140	06/24/18 08:21	07/06/18 12:25	1
PCB-206L	88		30 - 140	06/24/18 08:21	07/06/18 12:25	1
PCB-208L	91		30 - 140	06/24/18 08:21	07/06/18 12:25	1
PCB-209L	87		30 - 140	06/24/18 08:21	07/06/18 12:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	98		40 - 125	06/24/18 08:21	07/06/18 12:25	1
PCB-111L	89		40 - 125	06/24/18 08:21	07/06/18 12:25	1
PCB-178L	92		40 - 125	06/24/18 08:21	07/06/18 12:25	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78109-3

Client Sample ID: PDI-SG-B320-BL1

Lab Sample ID: 580-78109-9

Date Collected: 05/23/18 12:36

Matrix: Solid

Date Received: 06/15/18 12:20

Percent Solids: 70.1

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.0018	J	0.0098	0.00016	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-2	0.0017	J q	0.0098	0.00018	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-3	0.0026	J q B	0.0098	0.00019	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-4	0.0063	J q	0.020	0.0032	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-5	ND		0.0098	0.0026	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-6	0.0052	J q	0.0098	0.0023	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-7	ND		0.0098	0.0024	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-8	0.018	J q	0.020	0.0022	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-9	ND		0.0098	0.0024	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-10	ND		0.0098	0.0026	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-11	0.035	B	0.020	0.0023	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-12	0.0030	J q C	0.020	0.0024	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-13	0.0030	J q C12	0.020	0.0024	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-14	ND		0.0098	0.0020	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-15	0.0092	J q	0.0098	0.0025	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-16	0.011	q	0.0098	0.00030	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-17	0.023		0.0098	0.00027	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-18	0.036	C	0.020	0.00024	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-19	0.011	q	0.0098	0.00033	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-20	0.12	C B	0.020	0.0011	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-21	0.063	C	0.020	0.0010	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-22	0.029		0.0098	0.0011	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-23	ND		0.0098	0.0011	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-24	0.00062	J q	0.0098	0.00023	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-25	0.0057	J q	0.0098	0.00097	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-26	0.011	J C B	0.020	0.0010	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-27	0.0031	J	0.0098	0.00020	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-28	0.12	C20 B	0.020	0.0011	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-29	0.011	J C26 B	0.020	0.0010	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-30	0.036	C18	0.020	0.00024	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-31	0.075		0.020	0.0010	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-32	0.017	B	0.0098	0.00019	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-33	0.063	C21	0.020	0.0010	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-34	0.0012	J q	0.0098	0.0011	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-35	ND		0.0098	0.0011	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-36	ND		0.0098	0.0010	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-37	0.027		0.0098	0.0011	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-38	ND		0.0098	0.0011	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-39	ND		0.0098	0.0010	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-40	0.096	C	0.029	0.0020	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-41	0.096	C40	0.029	0.0020	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-42	0.053		0.0098	0.0020	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-43	0.012	J C	0.020	0.0018	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-44	0.21	C	0.029	0.0017	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-45	0.031	C	0.020	0.0021	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-46	0.0081	J q	0.0098	0.0025	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-47	0.21	C44	0.029	0.0017	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-48	0.036		0.0098	0.0020	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-49	0.17	C	0.020	0.0016	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78109-3

Client Sample ID: PDI-SG-B320-BL1

Lab Sample ID: 580-78109-9

Date Collected: 05/23/18 12:36

Matrix: Solid

Date Received: 06/15/18 12:20

Percent Solids: 70.1

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	0.029	C	0.020	0.0019	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-51	0.031	C45	0.020	0.0021	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-52	0.24		0.0098	0.0019	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-53	0.029	C50	0.020	0.0019	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-54	0.0020	J q	0.0098	0.000026	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-55	0.010		0.0098	0.0014	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-56	0.091		0.0098	0.0014	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-57	ND		0.0098	0.0014	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-58	0.0023	J	0.0098	0.0015	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-59	0.019	J C	0.029	0.0014	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-60	0.024		0.0098	0.0015	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-61	0.37	C	0.039	0.0014	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-62	0.019	J C59	0.029	0.0014	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-63	0.010		0.0098	0.0013	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-64	0.085		0.0098	0.0013	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-65	0.21	C44	0.029	0.0017	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-66	0.24		0.0098	0.0014	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-67	0.0034	J q	0.0098	0.0013	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-68	0.0041	J q	0.0098	0.0013	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-69	0.17	C49	0.020	0.0016	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-70	0.37	C61	0.039	0.0014	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-71	0.096	C40	0.029	0.0020	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-72	0.0058	J	0.0098	0.0014	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-73	0.012	J C43	0.020	0.0018	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-74	0.37	C61	0.039	0.0014	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-75	0.019	J C59	0.029	0.0014	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-76	0.37	C61	0.039	0.0014	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-77	0.015		0.0098	0.0014	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-78	ND		0.0098	0.0015	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-79	0.0027	J q	0.0098	0.0013	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-80	ND		0.0098	0.0012	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-81	ND		0.0098	0.0013	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-82	0.035	q	0.0098	0.00015	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-83	0.23	C B	0.020	0.00014	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-84	0.082		0.0098	0.00016	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-85	0.056	C	0.029	0.00011	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-86	0.19	C	0.059	0.00011	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-87	0.19	C86	0.059	0.00011	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-88	0.072	C	0.020	0.00014	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-89	0.0041	J q	0.0098	0.00015	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-90	0.38	C B	0.029	0.00012	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-91	0.072	C88	0.020	0.00014	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-92	0.083		0.0098	0.00013	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-93	0.0052	J q C	0.020	0.00013	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-94	0.0027	J	0.0098	0.00015	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-95	0.33		0.0098	0.00015	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-96	0.0037	J	0.0098	0.00011	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-97	0.19	C86	0.059	0.00011	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-98	0.013	J C	0.020	0.00013	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78109-3

Client Sample ID: PDI-SG-B320-BL1

Lab Sample ID: 580-78109-9

Date Collected: 05/23/18 12:36

Matrix: Solid

Date Received: 06/15/18 12:20

Percent Solids: 70.1

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	0.23	C83 B	0.020	0.00014	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-100	0.0052	J q C93	0.020	0.00013	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-101	0.38	C90 B	0.029	0.00012	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-102	0.013	J C98	0.020	0.00013	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-103	0.0098		0.0098	0.00013	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-104	ND		0.0098	0.00010	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-105	0.065		0.0098	0.0016	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-106	ND		0.0098	0.0017	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-107	0.028	q	0.0098	0.0018	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-108	0.0050	J q C	0.020	0.0017	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-109	0.19	C86	0.059	0.00011	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-110	0.38	C	0.020	0.000097	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-111	ND		0.0098	0.000093	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-112	0.0054	J	0.0098	0.000098	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-113	0.38	C90 B	0.029	0.00012	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-114	0.0041	J q	0.0098	0.0016	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-115	0.38	C110	0.020	0.000097	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-116	0.056	C85	0.029	0.00011	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-117	0.056	C85	0.029	0.00011	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-118	0.22	B	0.0098	0.0016	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-119	0.19	C86	0.059	0.00011	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-120	0.0033	J	0.0098	0.000095	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-121	ND		0.0098	0.000098	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-122	0.0037	J	0.0098	0.0019	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-123	0.0045	J	0.0098	0.0017	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-124	0.0050	J q C108	0.020	0.0017	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-125	0.19	C86	0.059	0.00011	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-126	ND		0.0098	0.0017	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-127	ND		0.0098	0.0017	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-128	0.058	C	0.020	0.0028	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-129	0.61	C	0.039	0.0029	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-130	0.037		0.0098	0.0038	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-131	ND		0.0098	0.0040	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-132	0.19		0.0098	0.0037	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-133	0.011	q	0.0098	0.0036	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-134	0.025	q C	0.020	0.0038	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-135	0.25	C	0.020	0.00018	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-136	0.081		0.0098	0.00013	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-137	0.012	q	0.0098	0.0033	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-138	0.61	C129	0.039	0.0029	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-139	0.0072	J q C	0.020	0.0032	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-140	0.0072	J q C139	0.020	0.0032	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-141	0.14		0.0098	0.0034	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-142	ND		0.0098	0.0036	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-143	0.025	q C134	0.020	0.0038	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-144	0.025		0.0098	0.00016	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-145	ND		0.0098	0.00012	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-146	0.13		0.0098	0.0032	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-147	0.72	C	0.020	0.0037	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78109-3

Client Sample ID: PDI-SG-B320-BL1

Lab Sample ID: 580-78109-9

Date Collected: 05/23/18 12:36

Matrix: Solid

Date Received: 06/15/18 12:20

Percent Solids: 70.1

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	0.0012	J q	0.0098	0.00017	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-149	0.72	C147	0.020	0.0037	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-150	0.0018	J	0.0098	0.00012	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-151	0.25	C135	0.020	0.00018	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-152	ND		0.0098	0.00013	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-153	0.68	C	0.020	0.0025	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-154	0.0094	J q	0.0098	0.00014	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-155	ND		0.0098	0.00012	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-156	0.038	C	0.020	0.0031	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-157	0.038	C156	0.020	0.0031	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-158	0.043		0.0098	0.0023	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-159	0.0074	J	0.0098	0.0024	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-160	0.61	C129	0.039	0.0029	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-161	ND		0.0098	0.0024	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-162	ND		0.0098	0.0024	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-163	0.61	C129	0.039	0.0029	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-164	0.049		0.0098	0.0025	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-165	ND		0.0098	0.0027	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-166	0.058	C128	0.020	0.0028	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-167	0.017		0.0098	0.0017	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-168	0.68	C153	0.020	0.0025	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-169	ND		0.0098	0.0020	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-170	0.23		0.0098	0.00044	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-171	0.069	C	0.020	0.00044	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-172	0.042	q	0.0098	0.00043	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-173	0.069	C171	0.020	0.00044	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-174	0.28		0.0098	0.00041	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-175	0.011		0.0098	0.00039	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-176	0.031		0.0098	0.00030	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-177	0.14		0.0098	0.00042	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-178	0.058		0.0098	0.00043	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-179	0.12		0.0098	0.00031	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-180	0.55	C B	0.020	0.00033	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-181	ND		0.0098	0.00039	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-182	0.0031	J q	0.0098	0.00038	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-183	0.18	C B	0.020	0.00039	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-184	ND		0.0098	0.00032	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-185	0.18	C183 B	0.020	0.00039	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-186	ND		0.0098	0.00031	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-187	0.32	B	0.0098	0.00037	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-188	ND		0.0098	0.00028	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-189	0.0055	J q	0.0098	0.0018	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-190	0.040		0.0098	0.00028	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-191	0.0096	J	0.0098	0.00030	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-192	ND		0.0098	0.00033	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-193	0.55	C180 B	0.020	0.00033	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-194	0.12		0.0098	0.0019	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-195	0.050		0.0098	0.0020	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-196	0.053	q	0.0098	0.00026	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78109-3

Client Sample ID: PDI-SG-B320-BL1

Lab Sample ID: 580-78109-9

Date Collected: 05/23/18 12:36

Matrix: Solid

Date Received: 06/15/18 12:20

Percent Solids: 70.1

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	0.0031	J q	0.0098	0.00020	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-198	0.12	C	0.020	0.00026	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-199	0.12	C198	0.020	0.00026	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-200	0.013		0.0098	0.00018	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-201	0.013		0.0098	0.00018	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-202	0.021		0.0098	0.00020	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-203	0.061	q	0.0098	0.00023	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-204	ND		0.0098	0.00020	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-205	0.0063	J	0.0098	0.0016	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-206	0.037		0.0098	0.0015	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-207	0.0049	J q	0.0098	0.0010	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-208	0.0096	J	0.0098	0.00098	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
PCB-209	0.018		0.0098	0.00023	ng/g	☼	06/24/18 08:21	07/06/18 13:26	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-1L	58		30 - 140				06/24/18 08:21	07/06/18 13:26	1
PCB-3L	63		30 - 140				06/24/18 08:21	07/06/18 13:26	1
PCB-4L	71		30 - 140				06/24/18 08:21	07/06/18 13:26	1
PCB-15L	76		30 - 140				06/24/18 08:21	07/06/18 13:26	1
PCB-19L	84		30 - 140				06/24/18 08:21	07/06/18 13:26	1
PCB-37L	90		30 - 140				06/24/18 08:21	07/06/18 13:26	1
PCB-54L	83		30 - 140				06/24/18 08:21	07/06/18 13:26	1
PCB-77L	83		30 - 140				06/24/18 08:21	07/06/18 13:26	1
PCB-81L	82		30 - 140				06/24/18 08:21	07/06/18 13:26	1
PCB-104L	84		30 - 140				06/24/18 08:21	07/06/18 13:26	1
PCB-105L	85		30 - 140				06/24/18 08:21	07/06/18 13:26	1
PCB-114L	89		30 - 140				06/24/18 08:21	07/06/18 13:26	1
PCB-118L	89		30 - 140				06/24/18 08:21	07/06/18 13:26	1
PCB-123L	89		30 - 140				06/24/18 08:21	07/06/18 13:26	1
PCB-126L	84		30 - 140				06/24/18 08:21	07/06/18 13:26	1
PCB-155L	97		30 - 140				06/24/18 08:21	07/06/18 13:26	1
PCB-156L	90	C	30 - 140				06/24/18 08:21	07/06/18 13:26	1
PCB-157L	90	C156	30 - 140				06/24/18 08:21	07/06/18 13:26	1
PCB-167L	94		30 - 140				06/24/18 08:21	07/06/18 13:26	1
PCB-169L	93		30 - 140				06/24/18 08:21	07/06/18 13:26	1
PCB-170L	88		30 - 140				06/24/18 08:21	07/06/18 13:26	1
PCB-188L	94		30 - 140				06/24/18 08:21	07/06/18 13:26	1
PCB-189L	87		30 - 140				06/24/18 08:21	07/06/18 13:26	1
PCB-202L	110		30 - 140				06/24/18 08:21	07/06/18 13:26	1
PCB-205L	75		30 - 140				06/24/18 08:21	07/06/18 13:26	1
PCB-206L	82		30 - 140				06/24/18 08:21	07/06/18 13:26	1
PCB-208L	91		30 - 140				06/24/18 08:21	07/06/18 13:26	1
PCB-209L	86		30 - 140				06/24/18 08:21	07/06/18 13:26	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-28L	96		40 - 125				06/24/18 08:21	07/06/18 13:26	1
PCB-111L	87		40 - 125				06/24/18 08:21	07/06/18 13:26	1
PCB-178L	94		40 - 125				06/24/18 08:21	07/06/18 13:26	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78109-3

Client Sample ID: PDI-SG-B404-BL1

Lab Sample ID: 580-78109-10

Date Collected: 05/23/18 10:40

Matrix: Solid

Date Received: 06/15/18 12:20

Percent Solids: 69.4

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.0069	J	0.0096	0.00024	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-2	ND		0.0096	0.00027	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-3	0.0021	J B q	0.0096	0.00030	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-4	0.23		0.019	0.0031	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-5	ND		0.0096	0.0025	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-6	0.0067	J q	0.0096	0.0022	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-7	ND		0.0096	0.0023	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-8	0.014	J q	0.019	0.0020	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-9	0.0030	J	0.0096	0.0023	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-10	0.0090	J q	0.0096	0.0025	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-11	0.015	J B	0.019	0.0022	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-12	0.0031	J C q	0.019	0.0022	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-13	0.0031	J C12 q	0.019	0.0022	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-14	ND		0.0096	0.0019	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-15	0.011	q	0.0096	0.0024	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-16	0.0091	J q	0.0096	0.00034	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-17	0.20		0.0096	0.00031	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-18	0.041	C q	0.019	0.00027	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-19	0.69		0.0096	0.00037	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-20	0.074	C B	0.019	0.00078	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-21	0.018	J C q	0.019	0.00076	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-22	0.0072	J q	0.0096	0.00079	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-23	ND		0.0096	0.00079	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-24	0.0028	J q	0.0096	0.00026	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-25	0.036		0.0096	0.00072	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-26	0.031	C B	0.019	0.00076	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-27	0.069		0.0096	0.00022	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-28	0.074	B C20	0.019	0.00078	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-29	0.031	C26 B	0.019	0.00076	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-30	0.041	C18 q	0.019	0.00027	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-31	0.045		0.019	0.00076	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-32	0.12	B	0.0096	0.00021	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-33	0.018	J C21 q	0.019	0.00076	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-34	ND		0.0096	0.00082	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-35	0.0021	J	0.0096	0.00080	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-36	ND		0.0096	0.00076	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-37	0.0070	J q	0.0096	0.00079	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-38	ND		0.0096	0.00082	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-39	ND		0.0096	0.00074	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-40	0.27	C	0.029	0.0043	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-41	0.27	C40	0.029	0.0043	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-42	0.052		0.0096	0.0043	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-43	0.086	C	0.019	0.0040	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-44	1.3	C	0.029	0.0038	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-45	0.67	C	0.019	0.0045	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-46	0.044	q	0.0096	0.0055	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-47	1.3	C44	0.029	0.0038	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-48	0.027		0.0096	0.0043	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-49	1.2	C	0.019	0.0035	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78109-3

Client Sample ID: PDI-SG-B404-BL1

Lab Sample ID: 580-78109-10

Date Collected: 05/23/18 10:40

Matrix: Solid

Date Received: 06/15/18 12:20

Percent Solids: 69.4

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	0.84	C	0.019	0.0042	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-51	0.67	C45	0.019	0.0045	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-52	1.8		0.0096	0.0043	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-53	0.84	C50	0.019	0.0042	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-54	0.20		0.0096	0.00019	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-55	0.0034	J	0.0096	0.0031	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-56	0.027		0.0096	0.0031	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-57	ND		0.0096	0.0032	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-58	0.0048	J	0.0096	0.0032	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-59	0.053	C	0.029	0.0030	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-60	0.0096		0.0096	0.0032	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-61	0.20	C	0.038	0.0030	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-62	0.053	C59	0.029	0.0030	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-63	0.0038	J q	0.0096	0.0029	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-64	0.042		0.0096	0.0029	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-65	1.3	C44	0.029	0.0038	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-66	0.11		0.0096	0.0030	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-67	ND		0.0096	0.0028	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-68	0.020	q	0.0096	0.0028	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-69	1.2	C49	0.019	0.0035	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-70	0.20	C61	0.038	0.0030	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-71	0.27	C40	0.029	0.0043	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-72	0.016		0.0096	0.0031	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-73	0.086	C43	0.019	0.0040	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-74	0.20	C61	0.038	0.0030	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-75	0.053	C59	0.029	0.0030	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-76	0.20	C61	0.038	0.0030	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-77	0.0062	J	0.0096	0.0031	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-78	ND		0.0096	0.0032	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-79	0.0072	J	0.0096	0.0028	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-80	ND		0.0096	0.0027	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-81	ND		0.0096	0.0029	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-82	0.052		0.0096	0.00022	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-83	0.81	C B	0.019	0.00020	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-84	0.26		0.0096	0.00023	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-85	0.10	C	0.029	0.00017	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-86	0.57	C	0.057	0.00017	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-87	0.57	C86	0.057	0.00017	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-88	0.74	C	0.019	0.00020	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-89	ND		0.0096	0.00022	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-90	2.2	C B	0.029	0.00017	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-91	0.74	C88	0.019	0.00020	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-92	0.40		0.0096	0.00019	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-93	0.36	C	0.019	0.00019	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-94	0.079		0.0096	0.00022	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-95	3.2		0.0096	0.00021	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-96	0.12		0.0096	0.00017	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-97	0.57	C86	0.057	0.00017	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-98	0.12	C q	0.019	0.00019	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78109-3

Client Sample ID: PDI-SG-B404-BL1

Lab Sample ID: 580-78109-10

Date Collected: 05/23/18 10:40

Matrix: Solid

Date Received: 06/15/18 12:20

Percent Solids: 69.4

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	0.81	C83 B	0.019	0.00020	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-100	0.36	C93	0.019	0.00019	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-101	2.2	B C90	0.029	0.00017	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-102	0.12	C98 q	0.019	0.00019	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-103	0.36		0.0096	0.00019	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-104	0.033		0.0096	0.00015	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-105	0.13		0.0096	0.0015	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-106	ND		0.0096	0.0015	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-107	0.050		0.0096	0.0016	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-108	0.015	J C	0.019	0.0015	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-109	0.57	C86	0.057	0.00017	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-110	1.3	C	0.019	0.00014	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-111	0.011		0.0096	0.00014	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-112	0.0083	J q	0.0096	0.00014	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-113	2.2	B C90	0.029	0.00017	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-114	0.0095	J	0.0096	0.0013	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-115	1.3	C110	0.019	0.00014	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-116	0.10	C85	0.029	0.00017	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-117	0.10	C85	0.029	0.00017	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-118	0.41	B	0.0096	0.0014	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-119	0.57	C86	0.057	0.00017	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-120	0.018		0.0096	0.00014	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-121	0.020	q	0.0096	0.00014	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-122	0.0062	J q	0.0096	0.0017	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-123	0.0055	J q	0.0096	0.0014	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-124	0.015	J C108	0.019	0.0015	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-125	0.57	C86	0.057	0.00017	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-126	ND		0.0096	0.0017	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-127	ND		0.0096	0.0015	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-128	0.21	C	0.019	0.0034	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-129	2.8	C	0.038	0.0035	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-130	0.11		0.0096	0.0046	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-131	0.022	q	0.0096	0.0048	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-132	1.2		0.0096	0.0045	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-133	0.11		0.0096	0.0043	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-134	0.21	C	0.019	0.0045	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-135	1.8	C	0.019	0.00031	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-136	0.91		0.0096	0.00022	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-137	0.044		0.0096	0.0039	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-138	2.8	C129	0.038	0.0035	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-139	0.057	C	0.019	0.0039	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-140	0.057	C139	0.019	0.0039	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-141	0.68		0.0096	0.0041	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-142	ND		0.0096	0.0043	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-143	0.21	C134	0.019	0.0045	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-144	0.16		0.0096	0.00028	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-145	0.0032	J q	0.0096	0.00021	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-146	0.72		0.0096	0.0038	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-147	4.8	C	0.019	0.0044	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78109-3

Client Sample ID: PDI-SG-B404-BL1

Lab Sample ID: 580-78109-10

Date Collected: 05/23/18 10:40

Matrix: Solid

Date Received: 06/15/18 12:20

Percent Solids: 69.4

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	0.034		0.0096	0.00030	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-149	4.8	C147	0.019	0.0044	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-150	0.054		0.0096	0.00020	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-151	1.8	C135	0.019	0.00031	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-152	0.012	q	0.0096	0.00022	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-153	3.0	C	0.019	0.0030	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-154	0.16		0.0096	0.00024	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-155	0.0047	J	0.0096	0.00020	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-156	0.13	C	0.019	0.0040	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-157	0.13	C156	0.019	0.0040	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-158	0.23		0.0096	0.0027	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-159	0.018	q	0.0096	0.0029	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-160	2.8	C129	0.038	0.0035	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-161	ND		0.0096	0.0029	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-162	ND		0.0096	0.0028	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-163	2.8	C129	0.038	0.0035	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-164	0.21		0.0096	0.0030	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-165	0.0091	J q	0.0096	0.0033	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-166	0.21	C128	0.019	0.0034	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-167	0.047		0.0096	0.0020	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-168	3.0	C153	0.019	0.0030	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-169	ND		0.0096	0.0023	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-170	0.63		0.0096	0.00077	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-171	0.21	C	0.019	0.00069	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-172	0.11		0.0096	0.00069	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-173	0.21	C171	0.019	0.00069	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-174	0.84		0.0096	0.00065	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-175	0.031		0.0096	0.00063	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-176	0.13		0.0096	0.00047	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-177	0.53		0.0096	0.00067	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-178	0.24		0.0096	0.00068	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-179	0.56		0.0096	0.00050	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-180	1.4	C B	0.019	0.00052	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-181	ND		0.0096	0.00062	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-182	0.014		0.0096	0.00060	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-183	0.56	C B	0.019	0.00061	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-184	ND		0.0096	0.00051	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-185	0.56	B C183	0.019	0.00061	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-186	ND		0.0096	0.00050	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-187	1.2	B	0.0096	0.00058	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-188	0.0077	J q	0.0096	0.00043	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-189	0.018		0.0096	0.0015	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-190	0.11		0.0096	0.00045	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-191	0.025		0.0096	0.00047	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-192	ND		0.0096	0.00053	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-193	1.4	C180 B	0.019	0.00052	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-194	0.31		0.0096	0.0026	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-195	0.15		0.0096	0.0028	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-196	0.14		0.0096	0.00068	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78109-3

Client Sample ID: PDI-SG-B404-BL1

Lab Sample ID: 580-78109-10

Date Collected: 05/23/18 10:40

Matrix: Solid

Date Received: 06/15/18 12:20

Percent Solids: 69.4

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	0.012	q	0.0096	0.00052	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-198	0.28	C	0.019	0.00069	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-199	0.28	C198	0.019	0.00069	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-200	0.036		0.0096	0.00046	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-201	0.043		0.0096	0.00047	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-202	0.075		0.0096	0.00053	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-203	0.17		0.0096	0.00061	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-204	ND		0.0096	0.00052	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-205	0.015		0.0096	0.0022	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-206	0.080		0.0096	0.0022	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-207	0.0089	J q	0.0096	0.0015	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-208	0.019		0.0096	0.0014	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1
PCB-209	0.017	q	0.0096	0.00027	ng/g	☼	06/24/18 08:21	07/06/18 14:28	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	60		30 - 140	06/24/18 08:21	07/06/18 14:28	1
PCB-3L	64		30 - 140	06/24/18 08:21	07/06/18 14:28	1
PCB-4L	74		30 - 140	06/24/18 08:21	07/06/18 14:28	1
PCB-15L	82		30 - 140	06/24/18 08:21	07/06/18 14:28	1
PCB-19L	83		30 - 140	06/24/18 08:21	07/06/18 14:28	1
PCB-37L	89		30 - 140	06/24/18 08:21	07/06/18 14:28	1
PCB-54L	81		30 - 140	06/24/18 08:21	07/06/18 14:28	1
PCB-77L	83		30 - 140	06/24/18 08:21	07/06/18 14:28	1
PCB-81L	83		30 - 140	06/24/18 08:21	07/06/18 14:28	1
PCB-104L	82		30 - 140	06/24/18 08:21	07/06/18 14:28	1
PCB-105L	93		30 - 140	06/24/18 08:21	07/06/18 14:28	1
PCB-114L	95		30 - 140	06/24/18 08:21	07/06/18 14:28	1
PCB-118L	94		30 - 140	06/24/18 08:21	07/06/18 14:28	1
PCB-123L	93		30 - 140	06/24/18 08:21	07/06/18 14:28	1
PCB-126L	84		30 - 140	06/24/18 08:21	07/06/18 14:28	1
PCB-155L	94		30 - 140	06/24/18 08:21	07/06/18 14:28	1
PCB-156L	82	C	30 - 140	06/24/18 08:21	07/06/18 14:28	1
PCB-157L	82	C156	30 - 140	06/24/18 08:21	07/06/18 14:28	1
PCB-167L	87		30 - 140	06/24/18 08:21	07/06/18 14:28	1
PCB-169L	80		30 - 140	06/24/18 08:21	07/06/18 14:28	1
PCB-170L	85		30 - 140	06/24/18 08:21	07/06/18 14:28	1
PCB-188L	104		30 - 140	06/24/18 08:21	07/06/18 14:28	1
PCB-189L	89		30 - 140	06/24/18 08:21	07/06/18 14:28	1
PCB-202L	113		30 - 140	06/24/18 08:21	07/06/18 14:28	1
PCB-205L	76		30 - 140	06/24/18 08:21	07/06/18 14:28	1
PCB-206L	81		30 - 140	06/24/18 08:21	07/06/18 14:28	1
PCB-208L	99		30 - 140	06/24/18 08:21	07/06/18 14:28	1
PCB-209L	82		30 - 140	06/24/18 08:21	07/06/18 14:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	92		40 - 125	06/24/18 08:21	07/06/18 14:28	1
PCB-111L	89		40 - 125	06/24/18 08:21	07/06/18 14:28	1
PCB-178L	98		40 - 125	06/24/18 08:21	07/06/18 14:28	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78109-3

Client Sample ID: PDI-SG-B419-BL1

Lab Sample ID: 580-78109-11

Date Collected: 05/23/18 16:20

Matrix: Solid

Date Received: 06/15/18 12:20

Percent Solids: 88.1

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	ND		0.0095	0.00027	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-2	ND		0.0095	0.00030	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-3	0.00086	J q B	0.0095	0.00033	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-4	ND		0.019	0.0028	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-5	ND		0.0095	0.0024	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-6	ND		0.0095	0.0021	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-7	ND		0.0095	0.0022	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-8	ND		0.019	0.0020	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-9	ND		0.0095	0.0022	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-10	ND		0.0095	0.0024	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-11	0.0024	J B	0.019	0.0021	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-12	ND	C	0.019	0.0021	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-13	ND	C12	0.019	0.0021	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-14	ND		0.0095	0.0018	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-15	ND		0.0095	0.0023	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-16	0.00044	J q	0.0095	0.000064	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-17	0.00073	J q	0.0095	0.000057	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-18	0.0012	J q C	0.019	0.000050	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-19	0.00073	J q	0.0095	0.000070	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-20	0.0032	J C B	0.019	0.00017	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-21	0.00095	J q C	0.019	0.00017	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-22	ND		0.0095	0.00018	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-23	ND		0.0095	0.00017	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-24	ND		0.0095	0.000048	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-25	ND		0.0095	0.00016	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-26	0.00050	J q C B	0.019	0.00017	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-27	ND		0.0095	0.000042	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-28	0.0032	J C20 B	0.019	0.00017	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-29	0.00050	J q C26 B	0.019	0.00017	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-30	0.0012	J q C18	0.019	0.000050	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-31	0.0025	J	0.019	0.00017	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-32	0.00056	J S B	0.0095	0.000040	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-33	0.00095	J q C21	0.019	0.00017	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-34	ND		0.0095	0.00018	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-35	ND		0.0095	0.00018	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-36	ND		0.0095	0.00017	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-37	0.0011	J	0.0095	0.00017	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-38	ND		0.0095	0.00018	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-39	ND		0.0095	0.00016	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-40	0.0028	J C	0.029	0.000070	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-41	0.0028	J C40	0.029	0.000070	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-42	0.00099	J	0.0095	0.000071	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-43	ND	C	0.019	0.000066	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-44	0.0060	J C	0.029	0.000062	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-45	0.0018	J q C	0.019	0.000074	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-46	ND		0.0095	0.000090	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-47	0.0060	J C44	0.029	0.000062	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-48	0.00065	J q	0.0095	0.000070	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-49	0.0041	J C	0.019	0.000058	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78109-3

Client Sample ID: PDI-SG-B419-BL1

Lab Sample ID: 580-78109-11

Date Collected: 05/23/18 16:20

Matrix: Solid

Date Received: 06/15/18 12:20

Percent Solids: 88.1

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	0.00069	J q C	0.019	0.000068	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-51	0.0018	J q C45	0.019	0.000074	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-52	0.0079	J q	0.0095	0.000070	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-53	0.00069	J q C50	0.019	0.000068	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-54	ND		0.0095	0.000072	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-55	ND		0.0095	0.000051	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-56	0.0019	J q	0.0095	0.000051	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-57	ND		0.0095	0.000052	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-58	ND		0.0095	0.000053	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-59	0.00040	J q C	0.029	0.000050	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-60	0.00070	J q	0.0095	0.000052	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-61	0.0065	J q C	0.038	0.000049	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-62	0.00040	J q C59	0.029	0.000050	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-63	ND		0.0095	0.000048	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-64	0.0019	J	0.0095	0.000047	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-65	0.0060	J C44	0.029	0.000062	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-66	0.0049	J	0.0095	0.000049	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-67	ND		0.0095	0.000045	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-68	0.00032	J q	0.0095	0.000046	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-69	0.0041	J C49	0.019	0.000058	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-70	0.0065	J q C61	0.038	0.000049	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-71	0.0028	J C40	0.029	0.000070	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-72	ND		0.0095	0.000051	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-73	ND	C43	0.019	0.000066	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-74	0.0065	J q C61	0.038	0.000049	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-75	0.00040	J q C59	0.029	0.000050	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-76	0.0065	J q C61	0.038	0.000049	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-77	0.00050	J q	0.0095	0.000048	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-78	ND		0.0095	0.000053	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-79	ND		0.0095	0.000046	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-80	ND		0.0095	0.000045	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-81	ND		0.0095	0.000050	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-82	0.0025	J	0.0095	0.000021	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-83	0.0094	J q C B	0.019	0.000019	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-84	0.0029	J q	0.0095	0.000021	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-85	0.0025	J q C	0.029	0.000016	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-86	0.0099	J C	0.057	0.000016	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-87	0.0099	J C86	0.057	0.000016	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-88	0.0038	J q C	0.019	0.000019	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-89	ND		0.0095	0.000021	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-90	0.019	J C B	0.029	0.000016	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-91	0.0038	J q C88	0.019	0.000019	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-92	0.0037	J q	0.0095	0.000018	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-93	ND	C	0.019	0.000018	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-94	ND		0.0095	0.000021	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-95	0.019	q	0.0095	0.000020	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-96	ND		0.0095	0.000016	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-97	0.0099	J C86	0.057	0.000016	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-98	ND	C	0.019	0.000018	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78109-3

Client Sample ID: PDI-SG-B419-BL1

Lab Sample ID: 580-78109-11

Date Collected: 05/23/18 16:20

Matrix: Solid

Date Received: 06/15/18 12:20

Percent Solids: 88.1

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	0.0094	J q C83 B	0.019	0.00019	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-100	ND	C93	0.019	0.00018	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-101	0.019	J C90 B	0.029	0.00016	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-102	ND	C98	0.019	0.00018	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-103	ND		0.0095	0.00018	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-104	ND		0.0095	0.00014	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-105	0.0043	J	0.0095	0.00040	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-106	ND		0.0095	0.00042	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-107	ND		0.0095	0.00045	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-108	ND	C	0.019	0.00043	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-109	0.0099	J C86	0.057	0.00016	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-110	0.022	C	0.019	0.00013	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-111	ND		0.0095	0.00013	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-112	ND		0.0095	0.00014	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-113	0.019	J C90 B	0.029	0.00016	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-114	ND		0.0095	0.00042	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-115	0.022	C110	0.019	0.00013	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-116	0.0025	J q C85	0.029	0.00016	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-117	0.0025	J q C85	0.029	0.00016	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-118	0.0094	J q B	0.0095	0.00041	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-119	0.0099	J C86	0.057	0.00016	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-120	ND		0.0095	0.00013	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-121	ND		0.0095	0.00014	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-122	ND		0.0095	0.00048	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-123	ND		0.0095	0.00040	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-124	ND	C108	0.019	0.00043	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-125	0.0099	J C86	0.057	0.00016	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-126	ND		0.0095	0.00041	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-127	ND		0.0095	0.00042	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-128	0.0044	J C	0.019	0.00058	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-129	0.034	J C	0.038	0.00060	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-130	0.0022	J q	0.0095	0.00080	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-131	ND		0.0095	0.00083	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-132	ND		0.0095	0.00078	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-133	ND		0.0095	0.00075	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-134	0.0014	J q C	0.019	0.00079	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-135	0.013	J C	0.019	0.00016	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-136	0.0043	J	0.0095	0.00011	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-137	ND		0.0095	0.00068	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-138	0.034	J C129	0.038	0.00060	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-139	ND	C	0.019	0.00067	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-140	ND	C139	0.019	0.00067	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-141	0.0064	J q	0.0095	0.00070	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-142	ND		0.0095	0.00075	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-143	0.0014	J q C134	0.019	0.00079	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-144	0.0012	J	0.0095	0.00014	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-145	ND		0.0095	0.00011	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-146	0.0054	J	0.0095	0.00066	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-147	0.030	q C	0.019	0.00076	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78109-3

Client Sample ID: PDI-SG-B419-BL1

Lab Sample ID: 580-78109-11

Date Collected: 05/23/18 16:20

Matrix: Solid

Date Received: 06/15/18 12:20

Percent Solids: 88.1

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	ND		0.0095	0.00015	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-149	0.030	q C147	0.019	0.00076	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-150	ND		0.0095	0.00010	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-151	0.013	J C135	0.019	0.00016	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-152	ND		0.0095	0.00011	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-153	0.029	C	0.019	0.00053	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-154	ND		0.0095	0.00012	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-155	ND		0.0095	0.00010	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-156	0.0022	J q C	0.019	0.00069	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-157	0.0022	J q C156	0.019	0.00069	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-158	0.0025	J q	0.0095	0.00048	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-159	ND		0.0095	0.00050	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-160	0.034	J C129	0.038	0.00060	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-161	ND		0.0095	0.00050	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-162	ND		0.0095	0.00049	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-163	0.034	J C129	0.038	0.00060	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-164	0.0029	J	0.0095	0.00053	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-165	ND		0.0095	0.00057	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-166	0.0044	J C128	0.019	0.00058	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-167	ND		0.0095	0.00037	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-168	0.029	C153	0.019	0.00053	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-169	ND		0.0095	0.00037	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-170	0.011		0.0095	0.00045	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-171	0.0031	J q C	0.019	0.00043	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-172	0.0025	J q	0.0095	0.00043	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-173	0.0031	J q C171	0.019	0.00043	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-174	0.012	q	0.0095	0.00040	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-175	ND		0.0095	0.00039	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-176	ND		0.0095	0.00030	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-177	0.0066	J	0.0095	0.00042	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-178	0.0026	J	0.0095	0.00042	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-179	0.0044	J q	0.0095	0.00031	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-180	0.024	C B	0.019	0.00033	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-181	ND		0.0095	0.00039	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-182	ND		0.0095	0.00038	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-183	0.0085	J q C B	0.019	0.00038	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-184	ND		0.0095	0.00032	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-185	0.0085	J q C183 E	0.019	0.00038	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-186	ND		0.0095	0.00031	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-187	0.016	B	0.0095	0.00036	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-188	ND		0.0095	0.00028	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-189	ND		0.0095	0.00066	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-190	0.0023	J q	0.0095	0.00028	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-191	ND		0.0095	0.00029	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-192	ND		0.0095	0.00033	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-193	0.024	C180 B	0.019	0.00033	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-194	0.0074	J	0.0095	0.0011	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-195	0.0028	J	0.0095	0.0012	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-196	0.0021	J q	0.0095	0.00051	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78109-3

Client Sample ID: PDI-SG-B419-BL1

Lab Sample ID: 580-78109-11

Date Collected: 05/23/18 16:20

Matrix: Solid

Date Received: 06/15/18 12:20

Percent Solids: 88.1

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	ND		0.0095	0.00039	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-198	0.0063	J C	0.019	0.00052	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-199	0.0063	J C198	0.019	0.00052	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-200	ND		0.0095	0.00035	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-201	ND		0.0095	0.00036	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-202	ND		0.0095	0.00040	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-203	0.0030	J q	0.0095	0.00046	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-204	ND		0.0095	0.00039	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-205	ND		0.0095	0.00092	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-206	0.0039	J	0.0095	0.0010	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-207	ND		0.0095	0.00070	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-208	ND		0.0095	0.00070	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
PCB-209	0.0030	J	0.0095	0.00017	ng/g	☼	06/24/18 08:21	07/06/18 15:29	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-1L	56		30 - 140				06/24/18 08:21	07/06/18 15:29	1
PCB-3L	62		30 - 140				06/24/18 08:21	07/06/18 15:29	1
PCB-4L	73		30 - 140				06/24/18 08:21	07/06/18 15:29	1
PCB-15L	87		30 - 140				06/24/18 08:21	07/06/18 15:29	1
PCB-19L	143 *		30 - 140				06/24/18 08:21	07/06/18 15:29	1
PCB-37L	93		30 - 140				06/24/18 08:21	07/06/18 15:29	1
PCB-54L	116		30 - 140				06/24/18 08:21	07/06/18 15:29	1
PCB-77L	94		30 - 140				06/24/18 08:21	07/06/18 15:29	1
PCB-81L	91		30 - 140				06/24/18 08:21	07/06/18 15:29	1
PCB-104L	78		30 - 140				06/24/18 08:21	07/06/18 15:29	1
PCB-105L	92		30 - 140				06/24/18 08:21	07/06/18 15:29	1
PCB-114L	91		30 - 140				06/24/18 08:21	07/06/18 15:29	1
PCB-118L	89		30 - 140				06/24/18 08:21	07/06/18 15:29	1
PCB-123L	91		30 - 140				06/24/18 08:21	07/06/18 15:29	1
PCB-126L	90		30 - 140				06/24/18 08:21	07/06/18 15:29	1
PCB-155L	94		30 - 140				06/24/18 08:21	07/06/18 15:29	1
PCB-156L	91 C		30 - 140				06/24/18 08:21	07/06/18 15:29	1
PCB-157L	91 C156		30 - 140				06/24/18 08:21	07/06/18 15:29	1
PCB-167L	94		30 - 140				06/24/18 08:21	07/06/18 15:29	1
PCB-169L	97		30 - 140				06/24/18 08:21	07/06/18 15:29	1
PCB-170L	86		30 - 140				06/24/18 08:21	07/06/18 15:29	1
PCB-188L	90		30 - 140				06/24/18 08:21	07/06/18 15:29	1
PCB-189L	85		30 - 140				06/24/18 08:21	07/06/18 15:29	1
PCB-202L	102		30 - 140				06/24/18 08:21	07/06/18 15:29	1
PCB-205L	76		30 - 140				06/24/18 08:21	07/06/18 15:29	1
PCB-206L	83		30 - 140				06/24/18 08:21	07/06/18 15:29	1
PCB-208L	87		30 - 140				06/24/18 08:21	07/06/18 15:29	1
PCB-209L	87		30 - 140				06/24/18 08:21	07/06/18 15:29	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-28L	88		40 - 125				06/24/18 08:21	07/06/18 15:29	1
PCB-111L	89		40 - 125				06/24/18 08:21	07/06/18 15:29	1
PCB-178L	88		40 - 125				06/24/18 08:21	07/06/18 15:29	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78109-3

Client Sample ID: PDI-SG-B421-BL1

Lab Sample ID: 580-78109-12

Date Collected: 05/24/18 12:00

Matrix: Solid

Date Received: 06/15/18 12:20

Percent Solids: 79.1

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	ND		0.010	0.00013	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-2	0.0010	J q	0.010	0.00015	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-3	0.0017	J q B	0.010	0.00016	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-4	ND		0.020	0.0042	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-5	ND		0.010	0.0035	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-6	ND		0.010	0.0031	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-7	ND		0.010	0.0032	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-8	ND		0.020	0.0029	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-9	ND		0.010	0.0033	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-10	ND		0.010	0.0035	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-11	0.0043	J q B	0.020	0.0030	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-12	ND	C	0.020	0.0031	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-13	ND	C12	0.020	0.0031	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-14	ND		0.010	0.0027	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-15	ND		0.010	0.0034	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-16	ND		0.010	0.00019	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-17	0.00085	J	0.010	0.00017	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-18	ND	C	0.020	0.00015	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-19	ND		0.010	0.00021	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-20	0.0026	J C B	0.020	0.00029	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-21	ND	C	0.020	0.00029	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-22	ND		0.010	0.00030	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-23	ND		0.010	0.00030	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-24	ND		0.010	0.00014	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-25	ND		0.010	0.00027	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-26	ND	C	0.020	0.00029	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-27	ND		0.010	0.00012	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-28	0.0026	J C20 B	0.020	0.00029	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-29	ND	C26	0.020	0.00029	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-30	ND	C18	0.020	0.00015	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-31	0.0016	J q	0.020	0.00029	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-32	ND		0.010	0.00012	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-33	ND	C21	0.020	0.00029	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-34	ND		0.010	0.00031	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-35	ND		0.010	0.00030	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-36	ND		0.010	0.00029	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-37	0.00040	J q	0.010	0.00030	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-38	ND		0.010	0.00031	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-39	ND		0.010	0.00028	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-40	0.0015	J C	0.030	0.00058	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-41	0.0015	J C40	0.030	0.00058	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-42	ND		0.010	0.00058	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-43	ND	C	0.020	0.00055	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-44	0.0027	J q C	0.030	0.00051	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-45	ND	C	0.020	0.00061	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-46	ND		0.010	0.00074	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-47	0.0027	J q C44	0.030	0.00051	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-48	ND		0.010	0.00058	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-49	0.0030	J q C	0.020	0.00047	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78109-3

Client Sample ID: PDI-SG-B421-BL1

Lab Sample ID: 580-78109-12

Date Collected: 05/24/18 12:00

Matrix: Solid

Date Received: 06/15/18 12:20

Percent Solids: 79.1

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	ND	C	0.020	0.00056	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-51	ND	C45	0.020	0.00061	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-52	0.0048	J	0.010	0.00058	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-53	ND	C50	0.020	0.00056	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-54	ND		0.010	0.000058	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-55	ND		0.010	0.00042	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-56	0.0018	J q	0.010	0.00042	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-57	ND		0.010	0.00043	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-58	ND		0.010	0.00044	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-59	ND	C	0.030	0.00041	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-60	ND		0.010	0.00043	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-61	0.0054	J q C	0.040	0.00040	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-62	ND	C59	0.030	0.00041	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-63	ND		0.010	0.00039	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-64	ND		0.010	0.00039	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-65	0.0027	J q C44	0.030	0.00051	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-66	0.0041	J	0.010	0.00040	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-67	ND		0.010	0.00037	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-68	ND		0.010	0.00038	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-69	0.0030	J q C49	0.020	0.00047	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-70	0.0054	J q C61	0.040	0.00040	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-71	0.0015	J C40	0.030	0.00058	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-72	ND		0.010	0.00042	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-73	ND	C43	0.020	0.00055	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-74	0.0054	J q C61	0.040	0.00040	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-75	ND	C59	0.030	0.00041	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-76	0.0054	J q C61	0.040	0.00040	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-77	ND		0.010	0.00042	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-78	ND		0.010	0.00044	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-79	ND		0.010	0.00038	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-80	ND		0.010	0.00037	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-81	ND		0.010	0.00038	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-82	0.0020	J q	0.010	0.00022	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-83	0.0081	J q C B	0.020	0.00020	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-84	0.0021	J q	0.010	0.00022	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-85	0.0015	J q C	0.030	0.00016	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-86	0.010	J C	0.060	0.00016	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-87	0.010	J C86	0.060	0.00016	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-88	0.0013	J q C	0.020	0.00020	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-89	ND		0.010	0.00021	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-90	0.016	J C B	0.030	0.00016	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-91	0.0013	J q C88	0.020	0.00020	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-92	0.0028	J	0.010	0.00019	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-93	ND	C	0.020	0.00019	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-94	ND		0.010	0.00021	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-95	0.0094	J q	0.010	0.00021	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-96	ND		0.010	0.00016	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-97	0.010	J C86	0.060	0.00016	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-98	ND	C	0.020	0.00018	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78109-3

Client Sample ID: PDI-SG-B421-BL1

Lab Sample ID: 580-78109-12

Date Collected: 05/24/18 12:00

Matrix: Solid

Date Received: 06/15/18 12:20

Percent Solids: 79.1

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	0.0081	J q C83 B	0.020	0.00020	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-100	ND	C93	0.020	0.00019	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-101	0.016	J C90 B	0.030	0.00016	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-102	ND	C98	0.020	0.00018	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-103	ND		0.010	0.00019	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-104	ND		0.010	0.00014	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-105	0.0028	J q	0.010	0.00033	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-106	ND		0.010	0.00034	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-107	ND		0.010	0.00037	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-108	ND	C	0.020	0.00035	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-109	0.010	J C86	0.060	0.00016	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-110	0.016	J C	0.020	0.00014	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-111	ND		0.010	0.00013	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-112	ND		0.010	0.00014	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-113	0.016	J C90 B	0.030	0.00016	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-114	ND		0.010	0.00031	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-115	0.016	J C110	0.020	0.00014	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-116	0.0015	J q C85	0.030	0.00016	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-117	0.0015	J q C85	0.030	0.00016	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-118	0.0092	J B	0.010	0.00032	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-119	0.010	J C86	0.060	0.00016	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-120	ND		0.010	0.00013	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-121	ND		0.010	0.00014	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-122	ND		0.010	0.00039	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-123	ND		0.010	0.00034	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-124	ND	C108	0.020	0.00035	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-125	0.010	J C86	0.060	0.00016	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-126	ND		0.010	0.00037	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-127	ND		0.010	0.00034	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-128	0.0023	J q C	0.020	0.00051	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-129	0.025	J C	0.040	0.00053	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-130	ND		0.010	0.00069	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-131	ND		0.010	0.00072	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-132	0.0085	J	0.010	0.00068	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-133	ND		0.010	0.00066	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-134	ND	C	0.020	0.00069	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-135	0.0063	J q C	0.020	0.00068	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-136	0.0032	J q	0.010	0.00049	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-137	ND		0.010	0.00059	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-138	0.025	J C129	0.040	0.00053	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-139	ND	C	0.020	0.00058	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-140	ND	C139	0.020	0.00058	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-141	0.0038	J q	0.010	0.00061	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-142	ND		0.010	0.00065	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-143	ND	C134	0.020	0.00069	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-144	0.0017	J q	0.010	0.00061	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-145	ND		0.010	0.00046	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-146	0.0060	J	0.010	0.00058	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-147	0.029	C	0.020	0.00066	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78109-3

Client Sample ID: PDI-SG-B421-BL1

Lab Sample ID: 580-78109-12

Date Collected: 05/24/18 12:00

Matrix: Solid

Date Received: 06/15/18 12:20

Percent Solids: 79.1

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	ND		0.010	0.000065	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-149	0.029	C147	0.020	0.00066	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-150	ND		0.010	0.000044	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-151	0.0063	J q C135	0.020	0.000068	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-152	ND		0.010	0.000048	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-153	0.023	C	0.020	0.00046	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-154	0.0011	J q	0.010	0.000053	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-155	ND		0.010	0.000044	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-156	0.0013	J q C	0.020	0.00058	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-157	0.0013	J q C156	0.020	0.00058	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-158	0.0025	J q	0.010	0.00041	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-159	ND		0.010	0.00044	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-160	0.025	J C129	0.040	0.00053	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-161	ND		0.010	0.00043	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-162	ND		0.010	0.00043	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-163	0.025	J C129	0.040	0.00053	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-164	0.0014	J q	0.010	0.00046	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-165	ND		0.010	0.00049	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-166	0.0023	J q C128	0.020	0.00051	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-167	0.00039	J q	0.010	0.00032	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-168	0.023	C153	0.020	0.00046	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-169	ND		0.010	0.00033	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-170	0.0073	J	0.010	0.00029	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-171	0.0022	J C	0.020	0.00029	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-172	0.00094	J q	0.010	0.00029	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-173	0.0022	J C171	0.020	0.00029	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-174	0.0078	J	0.010	0.00027	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-175	ND		0.010	0.00026	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-176	0.0014	J q	0.010	0.00020	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-177	0.0063	J	0.010	0.00028	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-178	0.0019	J q	0.010	0.00029	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-179	0.0034	J q	0.010	0.00021	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-180	0.015	J q C B	0.020	0.00022	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-181	ND		0.010	0.00026	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-182	ND		0.010	0.00025	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-183	0.0068	J C B	0.020	0.00026	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-184	ND		0.010	0.00022	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-185	0.0068	J C183 B	0.020	0.00026	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-186	ND		0.010	0.00021	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-187	0.011	B	0.010	0.00025	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-188	ND		0.010	0.00019	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-189	ND		0.010	0.00030	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-190	0.00085	J q	0.010	0.00019	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-191	ND		0.010	0.00020	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-192	ND		0.010	0.00022	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-193	0.015	J q C180 E	0.020	0.00022	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-194	0.0030	J q	0.010	0.00092	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-195	ND		0.010	0.0010	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-196	0.0017	J q	0.010	0.00014	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78109-3

Client Sample ID: PDI-SG-B421-BL1

Lab Sample ID: 580-78109-12

Date Collected: 05/24/18 12:00

Matrix: Solid

Date Received: 06/15/18 12:20

Percent Solids: 79.1

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	ND		0.010	0.00010	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-198	0.0039	J q C	0.020	0.00014	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-199	0.0039	J q C198	0.020	0.00014	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-200	0.00051	J q	0.010	0.000093	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-201	ND		0.010	0.000096	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-202	ND		0.010	0.00011	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-203	0.0029	J	0.010	0.00012	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-204	ND		0.010	0.00011	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-205	ND		0.010	0.00078	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-206	0.0028	J q	0.010	0.0010	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-207	ND		0.010	0.00073	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-208	ND		0.010	0.00076	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
PCB-209	0.0041	J q	0.010	0.00026	ng/g	☼	06/24/18 08:21	07/06/18 16:31	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-1L	63		30 - 140				06/24/18 08:21	07/06/18 16:31	1
PCB-3L	64		30 - 140				06/24/18 08:21	07/06/18 16:31	1
PCB-4L	72		30 - 140				06/24/18 08:21	07/06/18 16:31	1
PCB-15L	77		30 - 140				06/24/18 08:21	07/06/18 16:31	1
PCB-19L	83		30 - 140				06/24/18 08:21	07/06/18 16:31	1
PCB-37L	88		30 - 140				06/24/18 08:21	07/06/18 16:31	1
PCB-54L	84		30 - 140				06/24/18 08:21	07/06/18 16:31	1
PCB-77L	89		30 - 140				06/24/18 08:21	07/06/18 16:31	1
PCB-81L	88		30 - 140				06/24/18 08:21	07/06/18 16:31	1
PCB-104L	80		30 - 140				06/24/18 08:21	07/06/18 16:31	1
PCB-105L	91		30 - 140				06/24/18 08:21	07/06/18 16:31	1
PCB-114L	92		30 - 140				06/24/18 08:21	07/06/18 16:31	1
PCB-118L	91		30 - 140				06/24/18 08:21	07/06/18 16:31	1
PCB-123L	87		30 - 140				06/24/18 08:21	07/06/18 16:31	1
PCB-126L	88		30 - 140				06/24/18 08:21	07/06/18 16:31	1
PCB-155L	94		30 - 140				06/24/18 08:21	07/06/18 16:31	1
PCB-156L	91	C	30 - 140				06/24/18 08:21	07/06/18 16:31	1
PCB-157L	91	C156	30 - 140				06/24/18 08:21	07/06/18 16:31	1
PCB-167L	91		30 - 140				06/24/18 08:21	07/06/18 16:31	1
PCB-169L	97		30 - 140				06/24/18 08:21	07/06/18 16:31	1
PCB-170L	87		30 - 140				06/24/18 08:21	07/06/18 16:31	1
PCB-188L	89		30 - 140				06/24/18 08:21	07/06/18 16:31	1
PCB-189L	84		30 - 140				06/24/18 08:21	07/06/18 16:31	1
PCB-202L	104		30 - 140				06/24/18 08:21	07/06/18 16:31	1
PCB-205L	76		30 - 140				06/24/18 08:21	07/06/18 16:31	1
PCB-206L	87		30 - 140				06/24/18 08:21	07/06/18 16:31	1
PCB-208L	88		30 - 140				06/24/18 08:21	07/06/18 16:31	1
PCB-209L	92		30 - 140				06/24/18 08:21	07/06/18 16:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-28L	94		40 - 125				06/24/18 08:21	07/06/18 16:31	1
PCB-111L	91		40 - 125				06/24/18 08:21	07/06/18 16:31	1
PCB-178L	86		40 - 125				06/24/18 08:21	07/06/18 16:31	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78109-3

Client Sample ID: PDI-SG-B422-BL1

Lab Sample ID: 580-78109-13

Date Collected: 05/24/18 14:10

Matrix: Solid

Date Received: 06/15/18 12:20

Percent Solids: 82.1

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	ND		0.0099	0.00021	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-2	ND		0.0099	0.00022	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-3	0.0011	J B q	0.0099	0.00023	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-4	0.0032	J q	0.020	0.0030	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-5	ND		0.0099	0.0025	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-6	ND		0.0099	0.0022	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-7	ND		0.0099	0.0023	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-8	ND		0.020	0.0020	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-9	ND		0.0099	0.0023	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-10	ND		0.0099	0.0025	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-11	0.0098	J B q	0.020	0.0022	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-12	ND	C	0.020	0.0022	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-13	ND	C12	0.020	0.0022	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-14	ND		0.0099	0.0019	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-15	0.0026	J q	0.0099	0.0024	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-16	0.0019	J q	0.0099	0.00020	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-17	0.0029	J q	0.0099	0.00018	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-18	0.0026	J C q	0.020	0.00016	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-19	0.0076	J q	0.0099	0.00022	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-20	0.0057	J C B q	0.020	0.00044	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-21	0.0024	J C q	0.020	0.00043	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-22	0.0015	J	0.0099	0.00045	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-23	ND		0.0099	0.00045	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-24	ND		0.0099	0.00015	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-25	ND		0.0099	0.00041	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-26	ND	C	0.020	0.00043	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-27	0.0017	J q	0.0099	0.00013	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-28	0.0057	J B C20 q	0.020	0.00044	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-29	ND	C26	0.020	0.00043	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-30	0.0026	J C18 q	0.020	0.00016	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-31	0.0045	J	0.020	0.00043	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-32	0.0026	J B q	0.0099	0.00012	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-33	0.0024	J C21 q	0.020	0.00043	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-34	ND		0.0099	0.00046	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-35	ND		0.0099	0.00045	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-36	ND		0.0099	0.00043	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-37	ND		0.0099	0.00045	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-38	ND		0.0099	0.00047	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-39	ND		0.0099	0.00042	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-40	0.0093	J C	0.030	0.0013	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-41	0.0093	J C40	0.030	0.0013	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-42	0.0018	J q	0.0099	0.0013	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-43	ND	C	0.020	0.0012	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-44	0.019	J C q	0.030	0.0011	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-45	0.0082	J C	0.020	0.0014	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-46	ND		0.0099	0.0016	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-47	0.019	J C44 q	0.030	0.0011	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-48	ND		0.0099	0.0013	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-49	0.011	J C	0.020	0.0011	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78109-3

Client Sample ID: PDI-SG-B422-BL1

Lab Sample ID: 580-78109-13

Date Collected: 05/24/18 14:10

Matrix: Solid

Date Received: 06/15/18 12:20

Percent Solids: 82.1

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	0.0078	J C q	0.020	0.0013	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-51	0.0082	J C45	0.020	0.0014	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-52	0.021	q	0.0099	0.0013	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-53	0.0078	J C50 q	0.020	0.0013	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-54	ND		0.0099	0.00011	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-55	ND		0.0099	0.00094	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-56	0.0045	J q	0.0099	0.00095	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-57	ND		0.0099	0.00096	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-58	ND		0.0099	0.00097	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-59	ND	C	0.030	0.00092	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-60	0.0026	J	0.0099	0.00096	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-61	0.021	J C	0.039	0.00090	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-62	ND	C59	0.030	0.00092	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-63	ND		0.0099	0.00088	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-64	0.0056	J q	0.0099	0.00087	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-65	0.019	J C44 q	0.030	0.0011	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-66	0.013		0.0099	0.00090	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-67	ND		0.0099	0.00083	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-68	ND		0.0099	0.00085	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-69	0.011	J C49	0.020	0.0011	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-70	0.021	J C61	0.039	0.00090	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-71	0.0093	J C40	0.030	0.0013	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-72	ND		0.0099	0.00094	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-73	ND	C43	0.020	0.0012	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-74	0.021	J C61	0.039	0.00090	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-75	ND	C59	0.030	0.00092	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-76	0.021	J C61	0.039	0.00090	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-77	0.0012	J q	0.0099	0.00097	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-78	ND		0.0099	0.00097	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-79	ND		0.0099	0.00084	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-80	ND		0.0099	0.00083	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-81	ND		0.0099	0.00084	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-82	0.011		0.0099	0.00020	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-83	0.040	C B	0.020	0.00018	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-84	0.037		0.0099	0.00020	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-85	0.012	J C q	0.030	0.00015	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-86	0.041	J C q	0.059	0.00015	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-87	0.041	J C86 q	0.059	0.00015	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-88	0.021	C q	0.020	0.00018	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-89	ND		0.0099	0.00019	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-90	0.076	C B	0.030	0.00015	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-91	0.021	C88 q	0.020	0.00018	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-92	0.019		0.0099	0.00017	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-93	0.0015	J C q	0.020	0.00017	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-94	ND		0.0099	0.00019	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-95	0.13		0.0099	0.00019	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-96	0.0020	J	0.0099	0.00015	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-97	0.041	J C86 q	0.059	0.00015	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-98	0.0064	J C q	0.020	0.00017	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78109-3

Client Sample ID: PDI-SG-B422-BL1

Lab Sample ID: 580-78109-13

Date Collected: 05/24/18 14:10

Matrix: Solid

Date Received: 06/15/18 12:20

Percent Solids: 82.1

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	0.040	C83 B	0.020	0.00018	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-100	0.0015	J C93 q	0.020	0.00017	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-101	0.076	B C90	0.030	0.00015	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-102	0.0064	J C98 q	0.020	0.00017	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-103	0.0019	J q	0.0099	0.00017	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-104	ND		0.0099	0.00013	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-105	0.020		0.0099	0.00084	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-106	ND		0.0099	0.00083	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-107	0.0035	J q	0.0099	0.00089	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-108	0.0025	J C	0.020	0.00085	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-109	0.041	J C86 q	0.059	0.00015	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-110	0.13	C	0.020	0.00012	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-111	ND		0.0099	0.00012	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-112	0.00074	J q	0.0099	0.00013	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-113	0.076	B C90	0.030	0.00015	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-114	ND		0.0099	0.00075	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-115	0.13	C110	0.020	0.00012	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-116	0.012	J C85 q	0.030	0.00015	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-117	0.012	J C85 q	0.030	0.00015	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-118	0.042	B	0.0099	0.00079	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-119	0.041	J C86 q	0.059	0.00015	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-120	ND		0.0099	0.00012	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-121	ND		0.0099	0.00013	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-122	ND		0.0099	0.00096	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-123	ND		0.0099	0.00080	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-124	0.0025	J C108	0.020	0.00085	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-125	0.041	J C86 q	0.059	0.00015	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-126	ND		0.0099	0.00090	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-127	ND		0.0099	0.00083	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-128	0.026	C	0.020	0.0014	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-129	0.17	C	0.039	0.0015	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-130	0.0093	J q	0.0099	0.0020	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-131	ND		0.0099	0.0020	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-132	0.069		0.0099	0.0019	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-133	ND		0.0099	0.0018	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-134	0.011	J C q	0.020	0.0019	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-135	0.078	C	0.020	0.00021	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-136	0.026		0.0099	0.00015	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-137	0.0068	J	0.0099	0.0017	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-138	0.17	C129	0.039	0.0015	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-139	ND	C	0.020	0.0016	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-140	ND	C139	0.020	0.0016	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-141	0.040		0.0099	0.0017	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-142	ND		0.0099	0.0018	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-143	0.011	J C134 q	0.020	0.0019	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-144	0.0097	J	0.0099	0.00019	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-145	ND		0.0099	0.00014	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-146	0.032		0.0099	0.0016	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-147	0.20	C	0.020	0.0019	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78109-3

Client Sample ID: PDI-SG-B422-BL1

Lab Sample ID: 580-78109-13

Date Collected: 05/24/18 14:10

Matrix: Solid

Date Received: 06/15/18 12:20

Percent Solids: 82.1

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	ND		0.0099	0.00020	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-149	0.20	C147	0.020	0.0019	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-150	ND		0.0099	0.00014	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-151	0.078	C135	0.020	0.00021	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-152	ND		0.0099	0.00015	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-153	0.14	C	0.020	0.0013	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-154	0.0012	J q	0.0099	0.00016	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-155	ND		0.0099	0.00014	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-156	0.0091	J C q	0.020	0.0016	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-157	0.0091	J C156 q	0.020	0.0016	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-158	0.020		0.0099	0.0012	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-159	ND		0.0099	0.0012	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-160	0.17	C129	0.039	0.0015	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-161	ND		0.0099	0.0012	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-162	ND		0.0099	0.0012	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-163	0.17	C129	0.039	0.0015	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-164	0.013	q	0.0099	0.0013	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-165	ND		0.0099	0.0014	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-166	0.026	C128	0.020	0.0014	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-167	0.0052	J	0.0099	0.00090	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-168	0.14	C153	0.020	0.0013	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-169	ND		0.0099	0.00095	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-170	0.048		0.0099	0.00036	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-171	0.018	J C	0.020	0.00032	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-172	0.0090	J	0.0099	0.00032	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-173	0.018	J C171	0.020	0.00032	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-174	0.054		0.0099	0.00030	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-175	0.0020	J q	0.0099	0.00029	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-176	0.0073	J	0.0099	0.00022	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-177	0.029		0.0099	0.00031	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-178	0.012	q	0.0099	0.00032	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-179	0.028		0.0099	0.00023	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-180	0.092	C B	0.020	0.00024	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-181	ND		0.0099	0.00029	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-182	ND		0.0099	0.00028	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-183	0.042	C B	0.020	0.00029	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-184	ND		0.0099	0.00024	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-185	0.042	B C183	0.020	0.00029	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-186	ND		0.0099	0.00023	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-187	0.063	B	0.0099	0.00027	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-188	ND		0.0099	0.00020	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-189	ND		0.0099	0.00078	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-190	0.0069	J	0.0099	0.00021	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-191	0.0022	J q	0.0099	0.00022	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-192	ND		0.0099	0.00025	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-193	0.092	C180 B	0.020	0.00024	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-194	0.019		0.0099	0.0012	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-195	0.010	q	0.0099	0.0013	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-196	0.011		0.0099	0.00028	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78109-3

Client Sample ID: PDI-SG-B422-BL1

Lab Sample ID: 580-78109-13

Date Collected: 05/24/18 14:10

Matrix: Solid

Date Received: 06/15/18 12:20

Percent Solids: 82.1

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	0.00070	J q	0.0099	0.00022	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-198	0.021	C	0.020	0.00029	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-199	0.021	C198	0.020	0.00029	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-200	0.0017	J q	0.0099	0.00019	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-201	0.0021	J q	0.0099	0.00020	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-202	0.0032	J q	0.0099	0.00022	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-203	0.012		0.0099	0.00025	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-204	ND		0.0099	0.00022	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-205	ND		0.0099	0.00098	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-206	0.0098	J	0.0099	0.0025	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-207	ND		0.0099	0.0016	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-208	ND		0.0099	0.0015	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
PCB-209	0.0049	J q	0.0099	0.00034	ng/g	☼	06/24/18 08:29	07/06/18 17:33	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-1L	58		30 - 140				06/24/18 08:29	07/06/18 17:33	1
PCB-3L	64		30 - 140				06/24/18 08:29	07/06/18 17:33	1
PCB-4L	72		30 - 140				06/24/18 08:29	07/06/18 17:33	1
PCB-15L	81		30 - 140				06/24/18 08:29	07/06/18 17:33	1
PCB-19L	82		30 - 140				06/24/18 08:29	07/06/18 17:33	1
PCB-37L	90		30 - 140				06/24/18 08:29	07/06/18 17:33	1
PCB-54L	85		30 - 140				06/24/18 08:29	07/06/18 17:33	1
PCB-77L	88		30 - 140				06/24/18 08:29	07/06/18 17:33	1
PCB-81L	88		30 - 140				06/24/18 08:29	07/06/18 17:33	1
PCB-104L	82		30 - 140				06/24/18 08:29	07/06/18 17:33	1
PCB-105L	92		30 - 140				06/24/18 08:29	07/06/18 17:33	1
PCB-114L	96		30 - 140				06/24/18 08:29	07/06/18 17:33	1
PCB-118L	93		30 - 140				06/24/18 08:29	07/06/18 17:33	1
PCB-123L	91		30 - 140				06/24/18 08:29	07/06/18 17:33	1
PCB-126L	87		30 - 140				06/24/18 08:29	07/06/18 17:33	1
PCB-155L	94		30 - 140				06/24/18 08:29	07/06/18 17:33	1
PCB-156L	83	C	30 - 140				06/24/18 08:29	07/06/18 17:33	1
PCB-157L	83	C156	30 - 140				06/24/18 08:29	07/06/18 17:33	1
PCB-167L	85		30 - 140				06/24/18 08:29	07/06/18 17:33	1
PCB-169L	81		30 - 140				06/24/18 08:29	07/06/18 17:33	1
PCB-170L	85		30 - 140				06/24/18 08:29	07/06/18 17:33	1
PCB-188L	102		30 - 140				06/24/18 08:29	07/06/18 17:33	1
PCB-189L	90		30 - 140				06/24/18 08:29	07/06/18 17:33	1
PCB-202L	110		30 - 140				06/24/18 08:29	07/06/18 17:33	1
PCB-205L	75		30 - 140				06/24/18 08:29	07/06/18 17:33	1
PCB-206L	83		30 - 140				06/24/18 08:29	07/06/18 17:33	1
PCB-208L	99		30 - 140				06/24/18 08:29	07/06/18 17:33	1
PCB-209L	85		30 - 140				06/24/18 08:29	07/06/18 17:33	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-28L	93		40 - 125				06/24/18 08:29	07/06/18 17:33	1
PCB-111L	88		40 - 125				06/24/18 08:29	07/06/18 17:33	1
PCB-178L	96		40 - 125				06/24/18 08:29	07/06/18 17:33	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78109-3

Client Sample ID: PDI-SG-B192-BL1

Lab Sample ID: 580-78109-14

Date Collected: 05/31/18 14:15

Matrix: Solid

Date Received: 06/15/18 12:20

Percent Solids: 67.1

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.0020	J B	0.0099	0.00012	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-2	0.0013	J B	0.0099	0.00013	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-3	0.0024	J q B	0.0099	0.00016	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-4	0.0057	J	0.020	0.00036	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-5	ND		0.0099	0.00026	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-6	0.0025	J	0.0099	0.00026	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-7	0.00067	J q	0.0099	0.00025	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-8	0.0074	J	0.020	0.00025	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-9	ND		0.0099	0.00029	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-10	0.00047	J	0.0099	0.00028	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-11	0.017	J B	0.020	0.00024	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-12	0.0013	J q C	0.020	0.00024	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-13	0.0013	J q C12	0.020	0.00024	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-14	ND		0.0099	0.00022	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-15	0.0078	J	0.0099	0.00027	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-16	0.0085	J	0.0099	0.00027	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-17	0.0085	J B	0.0099	0.00020	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-18	0.014	J q C B	0.020	0.00018	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-19	0.0059	J	0.0099	0.00025	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-20	0.046	C B	0.020	0.00035	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-21	0.014	J C B	0.020	0.00033	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-22	0.013		0.0099	0.00036	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-23	ND		0.0099	0.00035	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-24	0.00049	J q	0.0099	0.00015	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-25	0.0032	J q	0.0099	0.00034	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-26	0.0054	J q C	0.020	0.00035	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-27	0.0021	J q	0.0099	0.00015	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-28	0.046	C20 B	0.020	0.00035	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-29	0.0054	J q C26	0.020	0.00035	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-30	0.014	J q C18 B	0.020	0.00018	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-31	0.029	B	0.020	0.00033	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-32	0.010	B	0.0099	0.00014	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-33	0.014	J C21 B	0.020	0.00033	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-34	ND		0.0099	0.00037	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-35	0.0011	J q	0.0099	0.00035	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-36	ND		0.0099	0.00032	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-37	0.014		0.0099	0.00033	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-38	ND		0.0099	0.00035	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-39	0.00060	J	0.0099	0.00031	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-40	0.069	C	0.030	0.00056	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-41	0.069	C40	0.030	0.00056	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-42	0.031		0.0099	0.00057	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-43	0.0026	J q C	0.020	0.00051	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-44	0.12	C B	0.030	0.00051	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-45	0.021	q C	0.020	0.00060	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-46	0.0069	J q	0.0099	0.00070	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-47	0.12	C44 B	0.030	0.00051	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-48	0.018	B	0.0099	0.00054	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-49	0.065	C B	0.020	0.00045	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78109-3

Client Sample ID: PDI-SG-B192-BL1

Lab Sample ID: 580-78109-14

Date Collected: 05/31/18 14:15

Matrix: Solid

Date Received: 06/15/18 12:20

Percent Solids: 67.1

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	0.017	J C B	0.020	0.00057	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-51	0.021	q C45	0.020	0.00060	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-52	0.13	B	0.0099	0.00059	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-53	0.017	J C50 B	0.020	0.00057	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-54	0.00018	J q	0.0099	0.000047	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-55	0.0030	J q	0.0099	0.00038	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-56	0.059		0.0099	0.00039	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-57	ND		0.0099	0.00039	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-58	ND		0.0099	0.00038	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-59	0.0098	J C	0.030	0.00038	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-60	0.033	B	0.0099	0.00038	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-61	0.12	C B	0.040	0.00037	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-62	0.0098	J C59	0.030	0.00038	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-63	0.0038	J q	0.0099	0.00034	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-64	0.053		0.0099	0.00036	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-65	0.12	C44 B	0.030	0.00051	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-66	0.12	B	0.0099	0.00037	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-67	ND		0.0099	0.00036	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-68	ND		0.0099	0.00034	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-69	0.065	C49 B	0.020	0.00045	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-70	0.12	C61 B	0.040	0.00037	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-71	0.069	C40	0.030	0.00056	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-72	0.00082	J	0.0099	0.00039	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-73	0.0026	J q C43	0.020	0.00051	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-74	0.12	C61 B	0.040	0.00037	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-75	0.0098	J C59	0.030	0.00038	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-76	0.12	C61 B	0.040	0.00037	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-77	0.013		0.0099	0.00036	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-78	ND		0.0099	0.00038	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-79	0.0011	J q	0.0099	0.00032	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-80	ND		0.0099	0.00034	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-81	ND		0.0099	0.00036	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-82	0.023		0.0099	0.00038	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-83	0.079	C	0.020	0.00036	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-84	0.037		0.0099	0.00040	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-85	0.028	J C B	0.030	0.00027	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-86	0.086	C	0.059	0.00029	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-87	0.086	C86	0.059	0.00029	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-88	0.021	C	0.020	0.00034	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-89	0.0031	J q	0.0099	0.00037	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-90	0.11	C B	0.030	0.00029	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-91	0.021	C88	0.020	0.00034	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-92	0.022		0.0099	0.00035	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-93	0.0059	J q C	0.020	0.00035	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-94	0.0011	J q	0.0099	0.00037	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-95	0.097	B	0.0099	0.00036	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-96	0.0012	J q	0.0099	0.00028	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-97	0.086	C86	0.059	0.00029	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-98	0.0059	J q C	0.020	0.00035	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78109-3

Client Sample ID: PDI-SG-B192-BL1

Lab Sample ID: 580-78109-14

Date Collected: 05/31/18 14:15

Matrix: Solid

Date Received: 06/15/18 12:20

Percent Solids: 67.1

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	0.079	C83	0.020	0.00036	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-100	0.0059	J q C93	0.020	0.00035	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-101	0.11	C90 B	0.030	0.00029	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-102	0.0059	J q C98	0.020	0.00035	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-103	0.0014	J q	0.0099	0.00032	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-104	ND		0.0099	0.00025	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-105	0.056	B	0.0099	0.00060	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-106	ND		0.0099	0.00063	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-107	0.0094	J B	0.0099	0.00061	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-108	0.0052	J C	0.020	0.00063	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-109	0.086	C86	0.059	0.00029	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-110	0.14	C B	0.020	0.00024	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-111	ND		0.0099	0.00022	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-112	ND		0.0099	0.00024	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-113	0.11	C90 B	0.030	0.00029	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-114	0.0037	J q	0.0099	0.00057	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-115	0.14	C110 B	0.020	0.00024	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-116	0.028	J C85 B	0.030	0.00027	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-117	0.028	J C85 B	0.030	0.00027	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-118	0.10	B	0.0099	0.00057	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-119	0.086	C86	0.059	0.00029	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-120	0.00060	J q	0.0099	0.00022	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-121	ND		0.0099	0.00024	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-122	0.0030	J B	0.0099	0.00069	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-123	0.0021	J q	0.0099	0.00056	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-124	0.0052	J C108	0.020	0.00063	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-125	0.086	C86	0.059	0.00029	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-126	ND		0.0099	0.00060	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-127	ND		0.0099	0.00060	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-128	0.024	C	0.020	0.00071	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-129	0.16	C B	0.040	0.00073	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-130	0.0089	J	0.0099	0.00097	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-131	0.0012	J q	0.0099	0.00098	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-132	0.049	B	0.0099	0.00094	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-133	0.0027	J	0.0099	0.00091	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-134	0.010	J C	0.020	0.00095	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-135	0.057	C	0.020	0.000064	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-136	0.020		0.0099	0.000046	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-137	0.0052	J q	0.0099	0.00079	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-138	0.16	C129 B	0.040	0.00073	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-139	0.0016	J q C	0.020	0.00081	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-140	0.0016	J q C139	0.020	0.00081	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-141	0.033		0.0099	0.00084	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-142	ND		0.0099	0.00092	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-143	0.010	J C134	0.020	0.00095	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-144	0.0075	J	0.0099	0.000060	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-145	ND		0.0099	0.000046	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-146	0.025	B	0.0099	0.00077	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-147	0.13	C B	0.020	0.00082	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78109-3

Client Sample ID: PDI-SG-B192-BL1

Lab Sample ID: 580-78109-14

Date Collected: 05/31/18 14:15

Matrix: Solid

Date Received: 06/15/18 12:20

Percent Solids: 67.1

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	0.00023	J q	0.0099	0.000062	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-149	0.13	C147 B	0.020	0.00082	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-150	0.00017	J q	0.0099	0.000042	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-151	0.057	C135	0.020	0.000064	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-152	ND		0.0099	0.000045	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-153	0.13	C B	0.020	0.00064	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-154	0.0027	J	0.0099	0.000054	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-155	ND		0.0099	0.000042	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-156	0.014	J C B	0.020	0.00077	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-157	0.014	J C156 B	0.020	0.00077	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-158	0.015		0.0099	0.00056	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-159	0.0031	J	0.0099	0.00058	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-160	0.16	C129 B	0.040	0.00073	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-161	ND		0.0099	0.00060	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-162	ND		0.0099	0.00057	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-163	0.16	C129 B	0.040	0.00073	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-164	0.011	B	0.0099	0.00062	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-165	ND		0.0099	0.00069	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-166	0.024	C128	0.020	0.00071	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-167	0.0049	J	0.0099	0.00042	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-168	0.13	C153 B	0.020	0.00064	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-169	ND		0.0099	0.00045	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-170	0.071		0.0099	0.000057	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-171	0.020	C	0.020	0.000057	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-172	0.0099		0.0099	0.000056	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-173	0.020	C171	0.020	0.000057	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-174	0.064	B	0.0099	0.000059	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-175	0.0029	J	0.0099	0.000053	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-176	0.0065	J	0.0099	0.000037	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-177	0.038		0.0099	0.000059	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-178	0.013		0.0099	0.000055	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-179	0.023		0.0099	0.000041	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-180	0.14	C B	0.020	0.000043	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-181	0.0026	J	0.0099	0.000050	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-182	ND		0.0099	0.000048	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-183	0.042	C B	0.020	0.000049	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-184	ND		0.0099	0.000041	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-185	0.042	C183 B	0.020	0.000049	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-186	ND		0.0099	0.000039	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-187	0.071	B	0.0099	0.000050	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-188	ND		0.0099	0.000037	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-189	0.0032	J	0.0099	0.00029	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-190	0.014		0.0099	0.000038	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-191	0.0029	J q	0.0099	0.000038	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-192	ND		0.0099	0.000040	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-193	0.14	C180 B	0.020	0.000043	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-194	0.045		0.0099	0.00053	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-195	0.019		0.0099	0.00059	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-196	0.019		0.0099	0.00016	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78109-3

Client Sample ID: PDI-SG-B192-BL1

Lab Sample ID: 580-78109-14

Date Collected: 05/31/18 14:15

Matrix: Solid

Date Received: 06/15/18 12:20

Percent Solids: 67.1

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	0.0012	J q	0.0099	0.00011	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-198	0.042	C	0.020	0.00017	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-199	0.042	C198	0.020	0.00017	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-200	0.0043	J q	0.0099	0.00012	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-201	0.0045	J	0.0099	0.00012	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-202	0.0071	J q	0.0099	0.00013	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-203	0.027		0.0099	0.00015	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-204	ND		0.0099	0.00012	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-205	0.0028	J q	0.0099	0.00039	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-206	0.024		0.0099	0.00092	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-207	0.0030	J	0.0099	0.00062	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-208	0.0064	J	0.0099	0.00067	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
PCB-209	0.019	q B	0.0099	0.000072	ng/g	☼	06/26/18 10:40	07/09/18 03:56	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-1L	66		30 - 140				06/26/18 10:40	07/09/18 03:56	1
PCB-3L	64		30 - 140				06/26/18 10:40	07/09/18 03:56	1
PCB-4L	75		30 - 140				06/26/18 10:40	07/09/18 03:56	1
PCB-15L	77		30 - 140				06/26/18 10:40	07/09/18 03:56	1
PCB-19L	78		30 - 140				06/26/18 10:40	07/09/18 03:56	1
PCB-37L	80		30 - 140				06/26/18 10:40	07/09/18 03:56	1
PCB-54L	89		30 - 140				06/26/18 10:40	07/09/18 03:56	1
PCB-77L	81		30 - 140				06/26/18 10:40	07/09/18 03:56	1
PCB-81L	80		30 - 140				06/26/18 10:40	07/09/18 03:56	1
PCB-104L	85		30 - 140				06/26/18 10:40	07/09/18 03:56	1
PCB-105L	79		30 - 140				06/26/18 10:40	07/09/18 03:56	1
PCB-114L	78		30 - 140				06/26/18 10:40	07/09/18 03:56	1
PCB-118L	82		30 - 140				06/26/18 10:40	07/09/18 03:56	1
PCB-123L	81		30 - 140				06/26/18 10:40	07/09/18 03:56	1
PCB-126L	80		30 - 140				06/26/18 10:40	07/09/18 03:56	1
PCB-155L	94		30 - 140				06/26/18 10:40	07/09/18 03:56	1
PCB-156L	79	C	30 - 140				06/26/18 10:40	07/09/18 03:56	1
PCB-157L	79	C156	30 - 140				06/26/18 10:40	07/09/18 03:56	1
PCB-167L	79		30 - 140				06/26/18 10:40	07/09/18 03:56	1
PCB-169L	78		30 - 140				06/26/18 10:40	07/09/18 03:56	1
PCB-170L	77		30 - 140				06/26/18 10:40	07/09/18 03:56	1
PCB-188L	80		30 - 140				06/26/18 10:40	07/09/18 03:56	1
PCB-189L	82		30 - 140				06/26/18 10:40	07/09/18 03:56	1
PCB-202L	84		30 - 140				06/26/18 10:40	07/09/18 03:56	1
PCB-205L	73		30 - 140				06/26/18 10:40	07/09/18 03:56	1
PCB-206L	69		30 - 140				06/26/18 10:40	07/09/18 03:56	1
PCB-208L	68		30 - 140				06/26/18 10:40	07/09/18 03:56	1
PCB-209L	64		30 - 140				06/26/18 10:40	07/09/18 03:56	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-28L	75		40 - 125				06/26/18 10:40	07/09/18 03:56	1
PCB-111L	81		40 - 125				06/26/18 10:40	07/09/18 03:56	1
PCB-178L	83		40 - 125				06/26/18 10:40	07/09/18 03:56	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78109-3

Client Sample ID: PDI-SG-B183-BL1

Lab Sample ID: 580-78109-15

Date Collected: 05/31/18 14:04

Matrix: Solid

Date Received: 06/15/18 12:20

Percent Solids: 66.7

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.0059	J q B	0.099	0.0015	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-2	ND		0.099	0.0018	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-3	ND		0.099	0.0024	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-4	ND		0.20	0.0025	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-5	ND		0.099	0.0020	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-6	ND		0.099	0.0020	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-7	ND		0.099	0.0019	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-8	ND		0.20	0.0019	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-9	0.0074	J	0.099	0.0022	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-10	ND		0.099	0.0021	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-11	0.0093	J q B	0.20	0.0018	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-12	ND	C	0.20	0.0018	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-13	ND	C12	0.20	0.0018	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-14	ND		0.099	0.0017	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-15	ND		0.099	0.0023	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-16	ND		0.099	0.00038	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-17	ND		0.099	0.00029	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-18	ND	C	0.20	0.00026	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-19	ND		0.099	0.00036	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-20	0.020	J C B	0.20	0.0024	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-21	0.0089	J C B	0.20	0.0022	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-22	ND		0.099	0.0024	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-23	ND		0.099	0.0024	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-24	ND		0.099	0.00022	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-25	ND		0.099	0.0022	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-26	0.0048	J C	0.20	0.0023	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-27	ND		0.099	0.00022	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-28	0.020	J C20 B	0.20	0.0024	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-29	0.0048	J C26	0.20	0.0023	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-30	ND	C18	0.20	0.00026	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-31	0.010	J q B	0.20	0.0022	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-32	0.00040	J q B	0.099	0.00020	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-33	0.0089	J C21 B	0.20	0.0022	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-34	ND		0.099	0.0024	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-35	ND		0.099	0.0023	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-36	ND		0.099	0.0021	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-37	0.0089	J	0.099	0.0022	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-38	ND		0.099	0.0023	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-39	ND		0.099	0.0021	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-40	0.0090	J C	0.30	0.0014	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-41	0.0090	J C40	0.30	0.0014	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-42	0.0059	J	0.099	0.0014	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-43	ND	C	0.20	0.0012	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-44	0.029	J C B	0.30	0.0012	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-45	ND	C	0.20	0.0014	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-46	ND		0.099	0.0017	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-47	0.029	J C44 B	0.30	0.0012	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-48	0.0030	J q B	0.099	0.0013	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-49	0.021	J C B	0.20	0.0011	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78109-3

Client Sample ID: PDI-SG-B183-BL1

Lab Sample ID: 580-78109-15

Date Collected: 05/31/18 14:04

Matrix: Solid

Date Received: 06/15/18 12:20

Percent Solids: 66.7

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	0.0030	J q C B	0.20	0.0014	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-51	ND	C45	0.20	0.0014	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-52	0.049	J B	0.099	0.0014	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-53	0.0030	J q C50 B	0.20	0.0014	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-54	ND		0.099	0.00033	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-55	ND		0.099	0.00092	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-56	0.010	J q	0.099	0.00094	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-57	ND		0.099	0.00095	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-58	ND		0.099	0.00091	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-59	0.0018	J q C	0.30	0.00092	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-60	0.0059	J q B	0.099	0.00092	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-61	0.059	J C B	0.40	0.00089	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-62	0.0018	J q C59	0.30	0.00092	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-63	ND		0.099	0.00082	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-64	0.0049	J q	0.099	0.00086	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-65	0.029	J C44 B	0.30	0.0012	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-66	0.028	J B	0.099	0.00090	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-67	ND		0.099	0.00087	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-68	ND		0.099	0.00082	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-69	0.021	J C49 B	0.20	0.0011	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-70	0.059	J C61 B	0.40	0.00089	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-71	0.0090	J C40	0.30	0.0014	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-72	0.0023	J q	0.099	0.00093	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-73	ND	C43	0.20	0.0012	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-74	0.059	J C61 B	0.40	0.00089	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-75	0.0018	J q C59	0.30	0.00092	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-76	0.059	J C61 B	0.40	0.00089	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-77	0.0012	J q	0.099	0.00085	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-78	ND		0.099	0.00091	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-79	ND		0.099	0.00078	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-80	ND		0.099	0.00081	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-81	ND		0.099	0.00087	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-82	0.0067	J q	0.099	0.0023	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-83	0.055	J q C	0.20	0.0022	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-84	0.017	J q	0.099	0.0024	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-85	0.019	J C B	0.30	0.0016	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-86	0.059	J C	0.60	0.0017	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-87	0.059	J C86	0.60	0.0017	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-88	0.013	J C	0.20	0.0021	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-89	ND		0.099	0.0022	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-90	0.12	J C B	0.30	0.0018	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-91	0.013	J C88	0.20	0.0021	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-92	0.022	J	0.099	0.0021	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-93	0.0039	J C	0.20	0.0021	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-94	ND		0.099	0.0022	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-95	0.077	J B	0.099	0.0022	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-96	ND		0.099	0.0017	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-97	0.059	J C86	0.60	0.0017	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-98	0.0038	J q C	0.20	0.0021	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78109-3

Client Sample ID: PDI-SG-B183-BL1

Lab Sample ID: 580-78109-15

Date Collected: 05/31/18 14:04

Matrix: Solid

Date Received: 06/15/18 12:20

Percent Solids: 66.7

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	0.055	J q C83	0.20	0.0022	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-100	0.0039	J C93	0.20	0.0021	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-101	0.12	J C90 B	0.30	0.0018	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-102	0.0038	J q C98	0.20	0.0021	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-103	ND		0.099	0.0019	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-104	ND		0.099	0.0015	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-105	0.026	J q B	0.099	0.0019	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-106	ND		0.099	0.0020	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-107	0.0093	J B	0.099	0.0020	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-108	ND	C	0.20	0.0020	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-109	0.059	J C86	0.60	0.0017	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-110	0.098	J C B	0.20	0.0014	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-111	ND		0.099	0.0013	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-112	ND		0.099	0.0015	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-113	0.12	J C90 B	0.30	0.0018	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-114	ND		0.099	0.0018	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-115	0.098	J C110 B	0.20	0.0014	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-116	0.019	J C85 B	0.30	0.0016	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-117	0.019	J C85 B	0.30	0.0016	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-118	0.087	J B	0.099	0.0019	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-119	0.059	J C86	0.60	0.0017	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-120	ND		0.099	0.0013	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-121	ND		0.099	0.0014	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-122	ND		0.099	0.0022	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-123	ND		0.099	0.0018	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-124	ND	C108	0.20	0.0020	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-125	0.059	J C86	0.60	0.0017	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-126	ND		0.099	0.0021	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-127	ND		0.099	0.0019	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-128	0.037	J C	0.20	0.0025	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-129	0.19	J C B	0.40	0.0026	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-130	0.010	J q	0.099	0.0034	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-131	ND		0.099	0.0035	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-132	0.056	J B	0.099	0.0033	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-133	ND		0.099	0.0032	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-134	0.0099	J C	0.20	0.0034	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-135	0.078	J C	0.20	0.00044	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-136	0.017	J q	0.099	0.00032	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-137	0.0093	J	0.099	0.0028	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-138	0.19	J C129 B	0.40	0.0026	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-139	ND	C	0.20	0.0029	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-140	ND	C139	0.20	0.0029	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-141	0.040	J	0.099	0.0030	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-142	ND		0.099	0.0033	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-143	0.0099	J C134	0.20	0.0034	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-144	0.0082	J q	0.099	0.00041	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-145	ND		0.099	0.00032	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-146	0.029	J q B	0.099	0.0027	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-147	0.16	J q C B	0.20	0.0029	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78109-3

Client Sample ID: PDI-SG-B183-BL1

Lab Sample ID: 580-78109-15

Date Collected: 05/31/18 14:04

Matrix: Solid

Date Received: 06/15/18 12:20

Percent Solids: 66.7

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	ND		0.099	0.00043	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-149	0.16	J q C147 B	0.20	0.0029	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-150	ND		0.099	0.00029	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-151	0.078	J C135	0.20	0.00044	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-152	ND		0.099	0.00031	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-153	0.20	C B	0.20	0.0022	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-154	0.0044	J q	0.099	0.00037	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-155	ND		0.099	0.00029	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-156	0.019	J C B	0.20	0.0027	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-157	0.019	J C156 B	0.20	0.0027	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-158	0.018	J	0.099	0.0020	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-159	0.0033	J q	0.099	0.0021	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-160	0.19	J C129 B	0.40	0.0026	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-161	ND		0.099	0.0021	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-162	ND		0.099	0.0020	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-163	0.19	J C129 B	0.40	0.0026	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-164	0.0096	J q B	0.099	0.0022	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-165	ND		0.099	0.0024	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-166	0.037	J C128	0.20	0.0025	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-167	0.0071	J	0.099	0.0015	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-168	0.20	C153 B	0.20	0.0022	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-169	0.0052	J q	0.099	0.0016	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-170	0.080	J	0.099	0.0017	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-171	0.029	J q C	0.20	0.0017	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-172	0.013	J q	0.099	0.0016	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-173	0.029	J q C171	0.20	0.0017	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-174	0.12	B	0.099	0.0017	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-175	0.0054	J q	0.099	0.0015	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-176	0.011	J q	0.099	0.0011	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-177	0.065	J	0.099	0.0017	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-178	0.038	J	0.099	0.0016	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-179	0.050	J q	0.099	0.0012	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-180	0.29	C B	0.20	0.0013	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-181	ND		0.099	0.0015	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-182	ND		0.099	0.0014	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-183	0.099	J C B	0.20	0.0014	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-184	ND		0.099	0.0012	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-185	0.099	J C183 B	0.20	0.0014	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-186	ND		0.099	0.0011	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-187	0.21	B	0.099	0.0014	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-188	ND		0.099	0.0011	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-189	ND		0.099	0.0026	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-190	0.016	J q	0.099	0.0011	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-191	0.0049	J q	0.099	0.0011	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-192	ND		0.099	0.0012	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-193	0.29	C180 B	0.20	0.0013	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-194	0.16		0.099	0.0045	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-195	0.038	J	0.099	0.0050	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-196	0.11		0.099	0.0029	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-78109-3

Client Sample ID: PDI-SG-B183-BL1

Lab Sample ID: 580-78109-15

Date Collected: 05/31/18 14:04

Matrix: Solid

Date Received: 06/15/18 12:20

Percent Solids: 66.7

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	0.0041	J	0.099	0.0020	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-198	0.44	C	0.20	0.0030	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-199	0.44	C198	0.20	0.0030	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-200	0.018	J q	0.099	0.0022	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-201	0.038	J	0.099	0.0021	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-202	0.14		0.099	0.0024	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-203	0.23		0.099	0.0027	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-204	ND		0.099	0.0022	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-205	0.0065	J	0.099	0.0034	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-206	1.7		0.099	0.015	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-207	0.10		0.099	0.0098	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-208	0.65		0.099	0.010	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
PCB-209	2.7	B	0.099	0.0036	ng/g	☼	06/26/18 10:40	07/09/18 04:59	10
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-1L	69		30 - 140				06/26/18 10:40	07/09/18 04:59	10
PCB-3L	59		30 - 140				06/26/18 10:40	07/09/18 04:59	10
PCB-4L	78		30 - 140				06/26/18 10:40	07/09/18 04:59	10
PCB-15L	77		30 - 140				06/26/18 10:40	07/09/18 04:59	10
PCB-19L	82		30 - 140				06/26/18 10:40	07/09/18 04:59	10
PCB-37L	77		30 - 140				06/26/18 10:40	07/09/18 04:59	10
PCB-54L	92		30 - 140				06/26/18 10:40	07/09/18 04:59	10
PCB-77L	83		30 - 140				06/26/18 10:40	07/09/18 04:59	10
PCB-81L	82		30 - 140				06/26/18 10:40	07/09/18 04:59	10
PCB-104L	79		30 - 140				06/26/18 10:40	07/09/18 04:59	10
PCB-105L	83		30 - 140				06/26/18 10:40	07/09/18 04:59	10
PCB-114L	82		30 - 140				06/26/18 10:40	07/09/18 04:59	10
PCB-118L	83		30 - 140				06/26/18 10:40	07/09/18 04:59	10
PCB-123L	84		30 - 140				06/26/18 10:40	07/09/18 04:59	10
PCB-126L	82		30 - 140				06/26/18 10:40	07/09/18 04:59	10
PCB-155L	87		30 - 140				06/26/18 10:40	07/09/18 04:59	10
PCB-156L	80	C	30 - 140				06/26/18 10:40	07/09/18 04:59	10
PCB-157L	80	C156	30 - 140				06/26/18 10:40	07/09/18 04:59	10
PCB-167L	80		30 - 140				06/26/18 10:40	07/09/18 04:59	10
PCB-169L	78		30 - 140				06/26/18 10:40	07/09/18 04:59	10
PCB-170L	79		30 - 140				06/26/18 10:40	07/09/18 04:59	10
PCB-188L	82		30 - 140				06/26/18 10:40	07/09/18 04:59	10
PCB-189L	87		30 - 140				06/26/18 10:40	07/09/18 04:59	10
PCB-202L	84		30 - 140				06/26/18 10:40	07/09/18 04:59	10
PCB-205L	78		30 - 140				06/26/18 10:40	07/09/18 04:59	10
PCB-206L	77		30 - 140				06/26/18 10:40	07/09/18 04:59	10
PCB-208L	70		30 - 140				06/26/18 10:40	07/09/18 04:59	10
PCB-209L	68		30 - 140				06/26/18 10:40	07/09/18 04:59	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-28L	75		40 - 125				06/26/18 10:40	07/09/18 04:59	10
PCB-111L	75		40 - 125				06/26/18 10:40	07/09/18 04:59	10
PCB-178L	82		40 - 125				06/26/18 10:40	07/09/18 04:59	10

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-78109-3

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Lab Sample ID: MB 140-21456/16-B
Matrix: Solid
Analysis Batch: 21737

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 21456

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	ND		0.010	0.000094	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-2	ND		0.010	0.00011	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-3	0.00107	J q	0.010	0.00012	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-4	ND		0.020	0.0034	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-5	ND		0.010	0.0030	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-6	ND		0.010	0.0026	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-7	ND		0.010	0.0027	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-8	ND		0.020	0.0024	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-9	ND		0.010	0.0028	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-10	ND		0.010	0.0030	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-11	0.00373	J	0.020	0.0026	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-12	ND	C	0.020	0.0027	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-13	ND	C12	0.020	0.0027	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-14	ND		0.010	0.0023	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-15	ND		0.010	0.0030	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-16	ND		0.010	0.00019	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-17	ND		0.010	0.00017	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-18	ND	C	0.020	0.00015	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-19	ND		0.010	0.00021	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-20	0.000516	J q C	0.020	0.00020	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-21	ND	C	0.020	0.00020	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-22	ND		0.010	0.00021	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-23	ND		0.010	0.00021	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-24	ND		0.010	0.00015	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-25	ND		0.010	0.00019	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-26	0.000392	J q C	0.020	0.00020	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-27	ND		0.010	0.00013	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-28	0.000516	J q C20	0.020	0.00020	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-29	0.000392	J q C26	0.020	0.00020	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-30	ND	C18	0.020	0.00015	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-31	ND		0.020	0.00020	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-32	0.00122	J	0.010	0.00012	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-33	ND	C21	0.020	0.00020	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-34	ND		0.010	0.00021	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-35	ND		0.010	0.00021	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-36	ND		0.010	0.00020	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-37	ND		0.010	0.00021	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-38	ND		0.010	0.00022	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-39	ND		0.010	0.00019	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-40	ND	C	0.030	0.00046	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-41	ND	C40	0.030	0.00046	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-42	ND		0.010	0.00046	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-43	ND	C	0.020	0.00043	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-44	ND	C	0.030	0.00040	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-45	ND	C	0.020	0.00048	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-46	ND		0.010	0.00058	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-47	ND	C44	0.030	0.00040	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-48	ND		0.010	0.00046	ng/g		06/24/18 08:29	07/05/18 18:11	1

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-78109-3

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: MB 140-21456/16-B
Matrix: Solid
Analysis Batch: 21737

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 21456

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-49	ND	C	0.020	0.00037	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-50	ND	C	0.020	0.00044	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-51	ND	C45	0.020	0.00048	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-52	ND		0.010	0.00045	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-53	ND	C50	0.020	0.00044	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-54	ND		0.010	0.00012	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-55	ND		0.010	0.00033	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-56	ND		0.010	0.00033	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-57	ND		0.010	0.00034	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-58	ND		0.010	0.00034	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-59	ND	C	0.030	0.00032	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-60	ND		0.010	0.00034	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-61	ND	C	0.040	0.00032	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-62	ND	C59	0.030	0.00032	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-63	ND		0.010	0.00031	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-64	ND		0.010	0.00031	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-65	ND	C44	0.030	0.00040	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-66	ND		0.010	0.00032	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-67	ND		0.010	0.00029	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-68	ND		0.010	0.00030	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-69	ND	C49	0.020	0.00037	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-70	ND	C61	0.040	0.00032	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-71	ND	C40	0.030	0.00046	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-72	ND		0.010	0.00033	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-73	ND	C43	0.020	0.00043	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-74	ND	C61	0.040	0.00032	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-75	ND	C59	0.030	0.00032	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-76	ND	C61	0.040	0.00032	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-77	ND		0.010	0.00033	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-78	ND		0.010	0.00034	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-79	ND		0.010	0.00030	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-80	ND		0.010	0.00029	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-81	ND		0.010	0.00031	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-82	ND		0.010	0.00020	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-83	0.00131	J q C	0.020	0.00018	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-84	ND		0.010	0.00020	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-85	ND	C	0.030	0.00015	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-86	ND	C	0.060	0.00015	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-87	ND	C86	0.060	0.00015	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-88	ND	C	0.020	0.00018	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-89	ND		0.010	0.00020	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-90	0.00160	J q C	0.030	0.00015	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-91	ND	C88	0.020	0.00018	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-92	ND		0.010	0.00017	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-93	ND	C	0.020	0.00017	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-94	ND		0.010	0.00020	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-95	ND		0.010	0.00019	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-96	ND		0.010	0.00015	ng/g		06/24/18 08:29	07/05/18 18:11	1

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-78109-3

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: MB 140-21456/16-B
Matrix: Solid
Analysis Batch: 21737

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 21456

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-97	ND	C86	0.060	0.00015	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-98	ND	C	0.020	0.00017	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-99	0.00131	J q C83	0.020	0.00018	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-100	ND	C93	0.020	0.00017	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-101	0.00160	J q C90	0.030	0.00015	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-102	ND	C98	0.020	0.00017	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-103	ND		0.010	0.00017	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-104	ND		0.010	0.00013	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-105	ND		0.010	0.00021	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-106	ND		0.010	0.00022	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-107	ND		0.010	0.00023	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-108	ND	C	0.020	0.00023	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-109	ND	C86	0.060	0.00015	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-110	ND	C	0.020	0.00013	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-111	ND		0.010	0.00012	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-112	ND		0.010	0.00013	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-113	0.00160	J q C90	0.030	0.00015	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-114	ND		0.010	0.00020	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-115	ND	C110	0.020	0.00013	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-116	ND	C85	0.030	0.00015	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-117	ND	C85	0.030	0.00015	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-118	0.00131	J	0.010	0.00020	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-119	ND	C86	0.060	0.00015	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-120	ND		0.010	0.00012	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-121	ND		0.010	0.00013	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-122	ND		0.010	0.00025	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-123	ND		0.010	0.00021	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-124	ND	C108	0.020	0.00023	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-125	ND	C86	0.060	0.00015	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-126	ND		0.010	0.00025	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-127	ND		0.010	0.00022	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-128	ND	C	0.020	0.0016	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-129	ND	C	0.040	0.0016	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-130	ND		0.010	0.0022	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-131	ND		0.010	0.0023	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-132	ND		0.010	0.0021	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-133	ND		0.010	0.0021	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-134	ND	C	0.020	0.0021	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-135	ND	C	0.020	0.00021	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-136	ND		0.010	0.00015	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-137	ND		0.010	0.0019	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-138	ND	C129	0.040	0.0016	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-139	ND	C	0.020	0.0018	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-140	ND	C139	0.020	0.0018	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-141	ND		0.010	0.0019	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-142	ND		0.010	0.0020	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-143	ND	C134	0.020	0.0021	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-144	ND		0.010	0.00019	ng/g		06/24/18 08:29	07/05/18 18:11	1

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-78109-3

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: MB 140-21456/16-B
Matrix: Solid
Analysis Batch: 21737

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 21456

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-145	ND		0.010	0.00014	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-146	ND		0.010	0.0018	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-147	ND	C	0.020	0.0021	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-148	ND		0.010	0.00020	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-149	ND	C147	0.020	0.0021	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-150	ND		0.010	0.00014	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-151	ND	C135	0.020	0.00021	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-152	ND		0.010	0.00015	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-153	ND	C	0.020	0.0014	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-154	ND		0.010	0.00016	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-155	ND		0.010	0.00014	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-156	ND	C	0.020	0.0018	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-157	ND	C156	0.020	0.0018	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-158	ND		0.010	0.0013	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-159	ND		0.010	0.0014	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-160	ND	C129	0.040	0.0016	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-161	ND		0.010	0.0014	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-162	ND		0.010	0.0013	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-163	ND	C129	0.040	0.0016	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-164	ND		0.010	0.0014	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-165	ND		0.010	0.0015	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-166	ND	C128	0.020	0.0016	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-167	ND		0.010	0.00098	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-168	ND	C153	0.020	0.0014	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-169	ND		0.010	0.0011	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-170	ND		0.010	0.00022	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-171	ND	C	0.020	0.00022	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-172	ND		0.010	0.00021	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-173	ND	C171	0.020	0.00022	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-174	ND		0.010	0.00020	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-175	ND		0.010	0.00019	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-176	ND		0.010	0.00015	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-177	ND		0.010	0.00021	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-178	ND		0.010	0.00021	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-179	ND		0.010	0.00016	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-180	0.00148	J q C	0.020	0.00016	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-181	0.00115	J q	0.010	0.00019	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-182	ND		0.010	0.00019	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-183	0.00116	J C	0.020	0.00019	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-184	ND		0.010	0.00016	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-185	0.00116	J C183	0.020	0.00019	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-186	ND		0.010	0.00016	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-187	0.000808	J q	0.010	0.00018	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-188	ND		0.010	0.00014	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-189	ND		0.010	0.00017	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-190	ND		0.010	0.00014	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-191	ND		0.010	0.00015	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-192	ND		0.010	0.00016	ng/g		06/24/18 08:29	07/05/18 18:11	1

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-78109-3

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: MB 140-21456/16-B
Matrix: Solid
Analysis Batch: 21737

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 21456

Analyte	MB	MB	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
PCB-193	0.00148	J q C180	0.020	0.00016	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-194	ND		0.010	0.00015	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-195	ND		0.010	0.00016	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-196	ND		0.010	0.00011	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-197	ND		0.010	0.000080	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-198	ND	C	0.020	0.00011	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-199	ND	C198	0.020	0.00011	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-200	ND		0.010	0.000071	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-201	ND		0.010	0.000073	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-202	ND		0.010	0.000082	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-203	ND		0.010	0.000095	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-204	ND		0.010	0.000080	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-205	ND		0.010	0.00012	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-206	ND		0.010	0.00087	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-207	ND		0.010	0.00066	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-208	ND		0.010	0.00070	ng/g		06/24/18 08:29	07/05/18 18:11	1
PCB-209	ND		0.010	0.00018	ng/g		06/24/18 08:29	07/05/18 18:11	1

Isotope Dilution	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
PCB-1L	70		30 - 140	06/24/18 08:29	07/05/18 18:11	1
PCB-3L	70		30 - 140	06/24/18 08:29	07/05/18 18:11	1
PCB-4L	77		30 - 140	06/24/18 08:29	07/05/18 18:11	1
PCB-15L	80		30 - 140	06/24/18 08:29	07/05/18 18:11	1
PCB-19L	82		30 - 140	06/24/18 08:29	07/05/18 18:11	1
PCB-37L	86		30 - 140	06/24/18 08:29	07/05/18 18:11	1
PCB-54L	76		30 - 140	06/24/18 08:29	07/05/18 18:11	1
PCB-77L	84		30 - 140	06/24/18 08:29	07/05/18 18:11	1
PCB-81L	86		30 - 140	06/24/18 08:29	07/05/18 18:11	1
PCB-104L	79		30 - 140	06/24/18 08:29	07/05/18 18:11	1
PCB-105L	89		30 - 140	06/24/18 08:29	07/05/18 18:11	1
PCB-114L	90		30 - 140	06/24/18 08:29	07/05/18 18:11	1
PCB-118L	89		30 - 140	06/24/18 08:29	07/05/18 18:11	1
PCB-123L	86		30 - 140	06/24/18 08:29	07/05/18 18:11	1
PCB-126L	85		30 - 140	06/24/18 08:29	07/05/18 18:11	1
PCB-155L	91		30 - 140	06/24/18 08:29	07/05/18 18:11	1
PCB-156L	88	C	30 - 140	06/24/18 08:29	07/05/18 18:11	1
PCB-157L	88	C156	30 - 140	06/24/18 08:29	07/05/18 18:11	1
PCB-167L	91		30 - 140	06/24/18 08:29	07/05/18 18:11	1
PCB-169L	92		30 - 140	06/24/18 08:29	07/05/18 18:11	1
PCB-170L	82		30 - 140	06/24/18 08:29	07/05/18 18:11	1
PCB-188L	88		30 - 140	06/24/18 08:29	07/05/18 18:11	1
PCB-189L	80		30 - 140	06/24/18 08:29	07/05/18 18:11	1
PCB-202L	99		30 - 140	06/24/18 08:29	07/05/18 18:11	1
PCB-205L	78		30 - 140	06/24/18 08:29	07/05/18 18:11	1
PCB-206L	87		30 - 140	06/24/18 08:29	07/05/18 18:11	1
PCB-208L	84		30 - 140	06/24/18 08:29	07/05/18 18:11	1
PCB-209L	90		30 - 140	06/24/18 08:29	07/05/18 18:11	1

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-78109-3

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: MB 140-21456/16-B
Matrix: Solid
Analysis Batch: 21737

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 21456

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
PCB-28L	97		40 - 125	06/24/18 08:29	07/05/18 18:11	1
PCB-111L	92		40 - 125	06/24/18 08:29	07/05/18 18:11	1
PCB-178L	89		40 - 125	06/24/18 08:29	07/05/18 18:11	1

Lab Sample ID: LCS 140-21456/17-B
Matrix: Solid
Analysis Batch: 21737

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 21456

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.
							Limits
PCB-1	0.500	0.415		ng/g		83	50 - 150
PCB-3	0.500	0.451		ng/g		90	50 - 150
PCB-4	0.500	0.475		ng/g		95	50 - 150
PCB-15	0.500	0.513		ng/g		103	50 - 150
PCB-19	0.500	0.569		ng/g		114	50 - 150
PCB-37	0.500	0.505		ng/g		101	50 - 150
PCB-54	0.500	0.513		ng/g		103	50 - 150
PCB-77	0.500	0.500		ng/g		100	50 - 150
PCB-81	0.500	0.478		ng/g		96	50 - 150
PCB-104	0.500	0.553		ng/g		111	50 - 150
PCB-105	0.500	0.523		ng/g		105	50 - 150
PCB-114	0.500	0.553		ng/g		111	50 - 150
PCB-118	0.500	0.519		ng/g		104	50 - 150
PCB-123	0.500	0.578		ng/g		116	50 - 150
PCB-126	0.500	0.549		ng/g		110	50 - 150
PCB-155	0.500	0.530		ng/g		106	50 - 150
PCB-156	1.00	1.10	C	ng/g		110	50 - 150
PCB-157	1.00	1.10	C156	ng/g		110	50 - 150
PCB-167	0.500	0.539		ng/g		108	50 - 150
PCB-169	0.500	0.490		ng/g		98	50 - 150
PCB-188	0.500	0.534		ng/g		107	50 - 150
PCB-189	0.500	0.553		ng/g		111	50 - 150
PCB-202	0.500	0.478		ng/g		96	50 - 150
PCB-205	0.500	0.606		ng/g		121	50 - 150
PCB-206	0.500	0.507		ng/g		101	50 - 150
PCB-208	0.500	0.528		ng/g		106	50 - 150
PCB-209	0.500	0.562		ng/g		112	50 - 150

Isotope Dilution	LCS LCS		Limits
	%Recovery	Qualifier	
PCB-1L	68		30 - 140
PCB-3L	68		30 - 140
PCB-4L	73		30 - 140
PCB-15L	77		30 - 140
PCB-19L	82		30 - 140
PCB-37L	88		30 - 140
PCB-54L	79		30 - 140
PCB-77L	85		30 - 140
PCB-81L	85		30 - 140
PCB-104L	78		30 - 140

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-78109-3

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: LCS 140-21456/17-B
Matrix: Solid
Analysis Batch: 21737

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 21456

Isotope Dilution	LCS LCS		Limits
	%Recovery	Qualifier	
PCB-105L	91		30 - 140
PCB-114L	90		30 - 140
PCB-118L	90		30 - 140
PCB-123L	87		30 - 140
PCB-126L	87		30 - 140
PCB-155L	87		30 - 140
PCB-156L	90	C	30 - 140
PCB-157L	90	C156	30 - 140
PCB-167L	91		30 - 140
PCB-169L	95		30 - 140
PCB-170L	86		30 - 140
PCB-188L	86		30 - 140
PCB-189L	83		30 - 140
PCB-202L	100		30 - 140
PCB-205L	76		30 - 140
PCB-206L	87		30 - 140
PCB-208L	86		30 - 140
PCB-209L	90		30 - 140

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
PCB-28L	92		40 - 125
PCB-111L	91		40 - 125
PCB-178L	89		40 - 125

Lab Sample ID: LCSD 140-21456/18-B
Matrix: Solid
Analysis Batch: 21737

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 21456

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.		RPD	Limit
							Limits	RPD		
PCB-1	0.500	0.421		ng/g		84	50 - 150	1	50	
PCB-3	0.500	0.450		ng/g		90	50 - 150	0	50	
PCB-4	0.500	0.439		ng/g		88	50 - 150	8	50	
PCB-15	0.500	0.546		ng/g		109	50 - 150	6	50	
PCB-19	0.500	0.574		ng/g		115	50 - 150	1	50	
PCB-37	0.500	0.516		ng/g		103	50 - 150	2	50	
PCB-54	0.500	0.515		ng/g		103	50 - 150	0	50	
PCB-77	0.500	0.488		ng/g		98	50 - 150	2	50	
PCB-81	0.500	0.451		ng/g		90	50 - 150	6	50	
PCB-104	0.500	0.544		ng/g		109	50 - 150	2	50	
PCB-105	0.500	0.523		ng/g		105	50 - 150	0	50	
PCB-114	0.500	0.552		ng/g		110	50 - 150	0	50	
PCB-118	0.500	0.537		ng/g		107	50 - 150	3	50	
PCB-123	0.500	0.578		ng/g		116	50 - 150	0	50	
PCB-126	0.500	0.564		ng/g		113	50 - 150	3	50	
PCB-155	0.500	0.536		ng/g		107	50 - 150	1	50	
PCB-156	1.00	1.10	C	ng/g		110	50 - 150	0	50	
PCB-157	1.00	1.10	C156	ng/g		110	50 - 150	0	50	
PCB-167	0.500	0.545		ng/g		109	50 - 150	1	50	

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-78109-3

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: LCSD 140-21456/18-B
Matrix: Solid
Analysis Batch: 21737

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 21456

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-169	0.500	0.486		ng/g		97	50 - 150	1	50
PCB-188	0.500	0.515		ng/g		103	50 - 150	4	50
PCB-189	0.500	0.524		ng/g		105	50 - 150	5	50
PCB-202	0.500	0.484		ng/g		97	50 - 150	1	50
PCB-205	0.500	0.597		ng/g		119	50 - 150	2	50
PCB-206	0.500	0.500		ng/g		100	50 - 150	1	50
PCB-208	0.500	0.533		ng/g		107	50 - 150	1	50
PCB-209	0.500	0.525		ng/g		105	50 - 150	7	50

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	LCSD Limits
PCB-1L	70		30 - 140
PCB-3L	68		30 - 140
PCB-4L	76		30 - 140
PCB-15L	76		30 - 140
PCB-19L	80		30 - 140
PCB-37L	86		30 - 140
PCB-54L	77		30 - 140
PCB-77L	85		30 - 140
PCB-81L	83		30 - 140
PCB-104L	79		30 - 140
PCB-105L	90		30 - 140
PCB-114L	88		30 - 140
PCB-118L	89		30 - 140
PCB-123L	89		30 - 140
PCB-126L	85		30 - 140
PCB-155L	88		30 - 140
PCB-156L	87	C	30 - 140
PCB-157L	87	C156	30 - 140
PCB-167L	91		30 - 140
PCB-169L	94		30 - 140
PCB-170L	84		30 - 140
PCB-188L	87		30 - 140
PCB-189L	82		30 - 140
PCB-202L	96		30 - 140
PCB-205L	76		30 - 140
PCB-206L	85		30 - 140
PCB-208L	84		30 - 140
PCB-209L	87		30 - 140

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
PCB-28L	94		40 - 125
PCB-111L	89		40 - 125
PCB-178L	87		40 - 125

QC Sample Results

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

TestAmerica Job ID: 580-78109-3

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: MB 140-21516/17-B
Matrix: Solid
Analysis Batch: 21780

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 21516

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.00160	J q	0.010	0.000086	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-2	0.00222	J	0.010	0.00010	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-3	0.00101	J q	0.010	0.00013	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-4		ND	0.020	0.00042	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-5		ND	0.010	0.00036	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-6		ND	0.010	0.00035	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-7		ND	0.010	0.00034	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-8		ND	0.020	0.00035	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-9		ND	0.010	0.00039	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-10		ND	0.010	0.00038	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-11	0.00377	J	0.020	0.00032	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-12		ND C	0.020	0.00032	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-13		ND C12	0.020	0.00032	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-14		ND	0.010	0.00030	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-15		ND	0.010	0.00043	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-16		ND	0.010	0.00010	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-17	0.000223	J q	0.010	0.000080	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-18	0.000940	J C	0.020	0.000070	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-19		ND	0.010	0.000098	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-20	0.000938	J q C	0.020	0.00017	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-21	0.000869	J C	0.020	0.00016	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-22		ND	0.010	0.00018	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-23		ND	0.010	0.00017	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-24		ND	0.010	0.000060	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-25		ND	0.010	0.00016	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-26		ND C	0.020	0.00017	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-27		ND	0.010	0.000060	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-28	0.000938	J q C20	0.020	0.00017	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-29		ND C26	0.020	0.00017	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-30	0.000940	J C18	0.020	0.000070	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-31	0.000643	J q	0.020	0.00016	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-32	0.000222	J q	0.010	0.000055	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-33	0.000869	J C21	0.020	0.00016	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-34		ND	0.010	0.00018	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-35		ND	0.010	0.00017	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-36		ND	0.010	0.00015	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-37		ND	0.010	0.00016	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-38		ND	0.010	0.00017	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-39		ND	0.010	0.00015	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-40		ND C	0.030	0.000074	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-41		ND C40	0.030	0.000074	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-42		ND	0.010	0.000075	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-43		ND C	0.020	0.000067	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-44	0.00159	J q C	0.030	0.000066	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-45		ND C	0.020	0.000078	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-46		ND	0.010	0.000091	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-47	0.00159	J q C44	0.030	0.000066	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-48	0.0000958	J q	0.010	0.000071	ng/g		06/26/18 10:40	07/09/18 02:53	1

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-78109-3

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: MB 140-21516/17-B
Matrix: Solid
Analysis Batch: 21780

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 21516

Analyte	MB	MB	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
PCB-49	0.000397	J q C	0.020	0.000059	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-50	0.000171	J q C	0.020	0.000074	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-51	ND	C45	0.020	0.000078	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-52	0.000106	J q	0.010	0.000078	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-53	0.000171	J q C50	0.020	0.000074	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-54	ND		0.010	0.000046	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-55	ND		0.010	0.000050	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-56	ND		0.010	0.000051	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-57	ND		0.010	0.000051	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-58	ND		0.010	0.000049	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-59	ND	C	0.030	0.000050	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-60	0.000300	J	0.010	0.000050	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-61	0.000835	J q C	0.040	0.000049	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-62	ND	C59	0.030	0.000050	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-63	ND		0.010	0.000045	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-64	ND		0.010	0.000047	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-65	0.00159	J q C44	0.030	0.000066	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-66	0.000462	J q	0.010	0.000049	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-67	ND		0.010	0.000047	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-68	0.0000558	J q	0.010	0.000045	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-69	0.000397	J q C49	0.020	0.000059	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-70	0.000835	J q C61	0.040	0.000049	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-71	ND	C40	0.030	0.000074	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-72	ND		0.010	0.000050	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-73	ND	C43	0.020	0.000067	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-74	0.000835	J q C61	0.040	0.000049	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-75	ND	C59	0.030	0.000050	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-76	0.000835	J q C61	0.040	0.000049	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-77	ND		0.010	0.000049	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-78	ND		0.010	0.000050	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-79	ND		0.010	0.000042	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-80	ND		0.010	0.000044	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-81	ND		0.010	0.000045	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-82	ND		0.010	0.000074	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-83	ND	C	0.020	0.000071	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-84	ND		0.010	0.000078	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-85	0.0000627	J q C	0.030	0.000054	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-86	ND	C	0.060	0.000057	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-87	ND	C86	0.060	0.000057	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-88	ND	C	0.020	0.000067	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-89	ND		0.010	0.000073	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-90	0.000333	J q C	0.030	0.000057	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-91	ND	C88	0.020	0.000067	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-92	ND		0.010	0.000069	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-93	ND	C	0.020	0.000069	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-94	ND		0.010	0.000073	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-95	0.000837	J q	0.010	0.000071	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-96	ND		0.010	0.000055	ng/g		06/26/18 10:40	07/09/18 02:53	1

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-78109-3

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: MB 140-21516/17-B
Matrix: Solid
Analysis Batch: 21780

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 21516

Analyte	MB MB		RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
PCB-97	ND	C86	0.060	0.000057	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-98	ND	C	0.020	0.000068	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-99	ND	C83	0.020	0.000071	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-100	ND	C93	0.020	0.000069	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-101	0.000333	J q C90	0.030	0.000057	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-102	ND	C98	0.020	0.000068	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-103	ND		0.010	0.000063	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-104	ND		0.010	0.000049	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-105	0.000501	J	0.010	0.00012	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-106	ND		0.010	0.00012	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-107	0.000173	J q	0.010	0.00012	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-108	ND	C	0.020	0.00012	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-109	ND	C86	0.060	0.000057	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-110	0.000552	J q C	0.020	0.000047	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-111	ND		0.010	0.000044	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-112	ND		0.010	0.000048	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-113	0.000333	J q C90	0.030	0.000057	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-114	ND		0.010	0.00010	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-115	0.000552	J q C110	0.020	0.000047	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-116	0.0000627	J q C85	0.030	0.000054	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-117	0.0000627	J q C85	0.030	0.000054	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-118	0.000366	J q	0.010	0.00011	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-119	ND	C86	0.060	0.000057	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-120	ND		0.010	0.000043	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-121	ND		0.010	0.000047	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-122	0.000148	J q	0.010	0.00013	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-123	ND		0.010	0.00011	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-124	ND	C108	0.020	0.00012	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-125	ND	C86	0.060	0.000057	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-126	ND		0.010	0.00013	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-127	ND		0.010	0.00012	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-128	ND	C	0.020	0.000068	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-129	0.000721	J q C	0.040	0.000069	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-130	ND		0.010	0.000092	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-131	ND		0.010	0.000093	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-132	0.000357	J q	0.010	0.000089	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-133	ND		0.010	0.000087	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-134	ND	C	0.020	0.000090	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-135	ND	C	0.020	0.000071	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-136	ND		0.010	0.000052	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-137	ND		0.010	0.000075	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-138	0.000721	J q C129	0.040	0.000069	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-139	ND	C	0.020	0.000077	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-140	ND	C139	0.020	0.000077	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-141	ND		0.010	0.000080	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-142	ND		0.010	0.000087	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-143	ND	C134	0.020	0.000090	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-144	ND		0.010	0.000067	ng/g		06/26/18 10:40	07/09/18 02:53	1

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-78109-3

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: MB 140-21516/17-B
Matrix: Solid
Analysis Batch: 21780

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 21516

Analyte	MB	MB	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
PCB-145	ND		0.010	0.000052	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-146	0.000113	J q	0.010	0.000072	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-147	0.000509	J q C	0.020	0.000077	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-148	ND		0.010	0.000069	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-149	0.000509	J q C147	0.020	0.000077	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-150	ND		0.010	0.000046	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-151	ND	C135	0.020	0.000071	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-152	ND		0.010	0.000050	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-153	0.000227	J q C	0.020	0.000060	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-154	ND		0.010	0.000060	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-155	ND		0.010	0.000047	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-156	0.000114	J q C	0.020	0.000071	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-157	0.000114	J q C156	0.020	0.000071	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-158	ND		0.010	0.000053	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-159	ND		0.010	0.000055	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-160	0.000721	J q C129	0.040	0.000069	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-161	ND		0.010	0.000057	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-162	ND		0.010	0.000054	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-163	0.000721	J q C129	0.040	0.000069	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-164	0.000127	J q	0.010	0.000058	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-165	ND		0.010	0.000065	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-166	ND	C128	0.020	0.000068	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-167	ND		0.010	0.000040	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-168	0.000227	J q C153	0.020	0.000060	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-169	ND		0.010	0.000044	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-170	ND		0.010	0.000037	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-171	ND	C	0.020	0.000036	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-172	ND		0.010	0.000035	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-173	ND	C171	0.020	0.000036	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-174	0.000213	J q	0.010	0.000037	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-175	ND		0.010	0.000033	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-176	ND		0.010	0.000023	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-177	ND		0.010	0.000037	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-178	ND		0.010	0.000034	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-179	ND		0.010	0.000025	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-180	0.000524	J q C	0.020	0.000027	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-181	ND		0.010	0.000032	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-182	ND		0.010	0.000030	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-183	0.000189	J q C	0.020	0.000030	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-184	ND		0.010	0.000026	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-185	0.000189	J q C183	0.020	0.000030	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-186	ND		0.010	0.000025	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-187	0.000569	J	0.010	0.000031	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-188	0.0000653	J q	0.010	0.000023	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-189	ND		0.010	0.000043	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-190	ND		0.010	0.000024	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-191	ND		0.010	0.000024	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-192	ND		0.010	0.000025	ng/g		06/26/18 10:40	07/09/18 02:53	1

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-78109-3

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: MB 140-21516/17-B
Matrix: Solid
Analysis Batch: 21780

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 21516

Analyte	MB	MB	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
PCB-193	0.000524	J q C180	0.020	0.000027	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-194	ND		0.010	0.000022	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-195	ND		0.010	0.000024	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-196	ND		0.010	0.000047	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-197	ND		0.010	0.000032	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-198	ND	C	0.020	0.000050	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-199	ND	C198	0.020	0.000050	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-200	ND		0.010	0.000036	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-201	ND		0.010	0.000034	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-202	ND		0.010	0.000039	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-203	ND		0.010	0.000044	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-204	ND		0.010	0.000036	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-205	ND		0.010	0.000016	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-206	ND		0.010	0.000054	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-207	ND		0.010	0.000036	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-208	ND		0.010	0.000039	ng/g		06/26/18 10:40	07/09/18 02:53	1
PCB-209	0.000101	J q	0.010	0.000028	ng/g		06/26/18 10:40	07/09/18 02:53	1

Isotope Dilution	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
PCB-1L	74		30 - 140	06/26/18 10:40	07/09/18 02:53	1
PCB-3L	67		30 - 140	06/26/18 10:40	07/09/18 02:53	1
PCB-4L	80		30 - 140	06/26/18 10:40	07/09/18 02:53	1
PCB-15L	68		30 - 140	06/26/18 10:40	07/09/18 02:53	1
PCB-19L	82		30 - 140	06/26/18 10:40	07/09/18 02:53	1
PCB-37L	78		30 - 140	06/26/18 10:40	07/09/18 02:53	1
PCB-54L	94		30 - 140	06/26/18 10:40	07/09/18 02:53	1
PCB-77L	75		30 - 140	06/26/18 10:40	07/09/18 02:53	1
PCB-81L	76		30 - 140	06/26/18 10:40	07/09/18 02:53	1
PCB-104L	85		30 - 140	06/26/18 10:40	07/09/18 02:53	1
PCB-105L	80		30 - 140	06/26/18 10:40	07/09/18 02:53	1
PCB-114L	80		30 - 140	06/26/18 10:40	07/09/18 02:53	1
PCB-118L	82		30 - 140	06/26/18 10:40	07/09/18 02:53	1
PCB-123L	80		30 - 140	06/26/18 10:40	07/09/18 02:53	1
PCB-126L	80		30 - 140	06/26/18 10:40	07/09/18 02:53	1
PCB-155L	96		30 - 140	06/26/18 10:40	07/09/18 02:53	1
PCB-156L	77	C	30 - 140	06/26/18 10:40	07/09/18 02:53	1
PCB-157L	77	C156	30 - 140	06/26/18 10:40	07/09/18 02:53	1
PCB-167L	77		30 - 140	06/26/18 10:40	07/09/18 02:53	1
PCB-169L	77		30 - 140	06/26/18 10:40	07/09/18 02:53	1
PCB-170L	78		30 - 140	06/26/18 10:40	07/09/18 02:53	1
PCB-188L	80		30 - 140	06/26/18 10:40	07/09/18 02:53	1
PCB-189L	79		30 - 140	06/26/18 10:40	07/09/18 02:53	1
PCB-202L	83		30 - 140	06/26/18 10:40	07/09/18 02:53	1
PCB-205L	74		30 - 140	06/26/18 10:40	07/09/18 02:53	1
PCB-206L	70		30 - 140	06/26/18 10:40	07/09/18 02:53	1
PCB-208L	68		30 - 140	06/26/18 10:40	07/09/18 02:53	1
PCB-209L	66		30 - 140	06/26/18 10:40	07/09/18 02:53	1

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-78109-3

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: MB 140-21516/17-B
Matrix: Solid
Analysis Batch: 21780

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 21516

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
PCB-28L	78		40 - 125	06/26/18 10:40	07/09/18 02:53	1
PCB-111L	82		40 - 125	06/26/18 10:40	07/09/18 02:53	1
PCB-178L	85		40 - 125	06/26/18 10:40	07/09/18 02:53	1

Lab Sample ID: LCS 140-21516/18-B
Matrix: Solid
Analysis Batch: 21780

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 21516

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-3	0.500	0.564		ng/g		113	50 - 150
PCB-4	0.500	0.465		ng/g		93	50 - 150
PCB-15	0.500	0.530		ng/g		106	50 - 150
PCB-19	0.500	0.473		ng/g		95	50 - 150
PCB-37	0.500	0.525		ng/g		105	50 - 150
PCB-54	0.500	0.459		ng/g		92	50 - 150
PCB-77	0.500	0.464		ng/g		93	50 - 150
PCB-81	0.500	0.471		ng/g		94	50 - 150
PCB-104	0.500	0.477		ng/g		95	50 - 150
PCB-105	0.500	0.487		ng/g		97	50 - 150
PCB-114	0.500	0.524		ng/g		105	50 - 150
PCB-118	0.500	0.491		ng/g		98	50 - 150
PCB-123	0.500	0.470		ng/g		94	50 - 150
PCB-126	0.500	0.495		ng/g		99	50 - 150
PCB-155	0.500	0.463		ng/g		93	50 - 150
PCB-156	1.00	0.954	C	ng/g		95	50 - 150
PCB-157	1.00	0.954	C156	ng/g		95	50 - 150
PCB-167	0.500	0.474		ng/g		95	50 - 150
PCB-169	0.500	0.467		ng/g		93	50 - 150
PCB-188	0.500	0.467		ng/g		93	50 - 150
PCB-189	0.500	0.504		ng/g		101	50 - 150
PCB-202	0.500	0.471		ng/g		94	50 - 150
PCB-205	0.500	0.479		ng/g		96	50 - 150
PCB-206	0.500	0.475		ng/g		95	50 - 150
PCB-208	0.500	0.467		ng/g		93	50 - 150
PCB-209	0.500	0.466		ng/g		93	50 - 150

Isotope Dilution	LCS LCS		Limits
	%Recovery	Qualifier	
PCB-1L	74		30 - 140
PCB-3L	67		30 - 140
PCB-4L	80		30 - 140
PCB-15L	70		30 - 140
PCB-19L	77		30 - 140
PCB-37L	77		30 - 140
PCB-54L	90		30 - 140
PCB-77L	79		30 - 140
PCB-81L	77		30 - 140
PCB-104L	84		30 - 140

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-78109-3

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: LCS 140-21516/18-B
Matrix: Solid
Analysis Batch: 21780

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 21516

<i>Isotope Dilution</i>	LCS LCS		Limits
	%Recovery	Qualifier	
PCB-105L	80		30 - 140
PCB-114L	80		30 - 140
PCB-118L	83		30 - 140
PCB-123L	81		30 - 140
PCB-126L	81		30 - 140
PCB-155L	94		30 - 140
PCB-156L	79	C	30 - 140
PCB-157L	79	C156	30 - 140
PCB-167L	78		30 - 140
PCB-169L	79		30 - 140
PCB-170L	79		30 - 140
PCB-188L	78		30 - 140
PCB-189L	81		30 - 140
PCB-202L	85		30 - 140
PCB-205L	74		30 - 140
PCB-206L	70		30 - 140
PCB-208L	70		30 - 140
PCB-209L	67		30 - 140

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
PCB-28L	73		40 - 125
PCB-111L	81		40 - 125
PCB-178L	81		40 - 125

Lab Sample ID: LCSD 140-21516/19-B
Matrix: Solid
Analysis Batch: 21780

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 21516

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.		RPD	
							Limits	RPD	Limit	
PCB-1	0.500	0.537		ng/g		107	50 - 150	1	50	
PCB-3	0.500	0.545		ng/g		109	50 - 150	3	50	
PCB-4	0.500	0.466		ng/g		93	50 - 150	0	50	
PCB-15	0.500	0.517		ng/g		103	50 - 150	2	50	
PCB-19	0.500	0.461		ng/g		92	50 - 150	3	50	
PCB-37	0.500	0.525		ng/g		105	50 - 150	0	50	
PCB-54	0.500	0.462		ng/g		92	50 - 150	1	50	
PCB-77	0.500	0.448		ng/g		90	50 - 150	3	50	
PCB-81	0.500	0.462		ng/g		92	50 - 150	2	50	
PCB-104	0.500	0.481		ng/g		96	50 - 150	1	50	
PCB-105	0.500	0.487		ng/g		97	50 - 150	0	50	
PCB-114	0.500	0.525		ng/g		105	50 - 150	0	50	
PCB-118	0.500	0.511		ng/g		102	50 - 150	4	50	
PCB-123	0.500	0.505		ng/g		101	50 - 150	7	50	
PCB-126	0.500	0.492		ng/g		98	50 - 150	1	50	
PCB-155	0.500	0.461		ng/g		92	50 - 150	0	50	
PCB-156	1.00	0.944	C	ng/g		94	50 - 150	1	50	
PCB-157	1.00	0.944	C156	ng/g		94	50 - 150	1	50	
PCB-167	0.500	0.479		ng/g		96	50 - 150	1	50	

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-78109-3

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Lab Sample ID: LCSD 140-21516/19-B
Matrix: Solid
Analysis Batch: 21780

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 21516

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-169	0.500	0.482		ng/g		96	50 - 150	3	50
PCB-188	0.500	0.473		ng/g		95	50 - 150	1	50
PCB-189	0.500	0.500		ng/g		100	50 - 150	1	50
PCB-202	0.500	0.485		ng/g		97	50 - 150	3	50
PCB-205	0.500	0.481		ng/g		96	50 - 150	0	50
PCB-206	0.500	0.479		ng/g		96	50 - 150	1	50
PCB-208	0.500	0.476		ng/g		95	50 - 150	2	50
PCB-209	0.500	0.451		ng/g		90	50 - 150	3	50

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	LCSD Limits
PCB-1L	75		30 - 140
PCB-3L	69		30 - 140
PCB-4L	80		30 - 140
PCB-15L	72		30 - 140
PCB-19L	81		30 - 140
PCB-37L	83		30 - 140
PCB-54L	94		30 - 140
PCB-77L	85		30 - 140
PCB-81L	82		30 - 140
PCB-104L	84		30 - 140
PCB-105L	83		30 - 140
PCB-114L	82		30 - 140
PCB-118L	85		30 - 140
PCB-123L	84		30 - 140
PCB-126L	84		30 - 140
PCB-155L	96		30 - 140
PCB-156L	83	C	30 - 140
PCB-157L	83	C156	30 - 140
PCB-167L	81		30 - 140
PCB-169L	81		30 - 140
PCB-170L	81		30 - 140
PCB-188L	81		30 - 140
PCB-189L	84		30 - 140
PCB-202L	87		30 - 140
PCB-205L	77		30 - 140
PCB-206L	72		30 - 140
PCB-208L	71		30 - 140
PCB-209L	70		30 - 140

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
PCB-28L	79		40 - 125
PCB-111L	87		40 - 125
PCB-178L	89		40 - 125

Lab Chronicle

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

TestAmerica Job ID: 580-78109-3

Client Sample ID: PDI-SG-B208-BL1

Lab Sample ID: 580-78109-1

Date Collected: 05/20/18 10:00

Matrix: Solid

Date Received: 06/15/18 12:20

Percent Solids: 70.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			21456	06/24/18 08:21	BRS	TAL KNX
Total/NA	Cleanup	Split			21536	06/26/18 13:20	SMM	TAL KNX
Total/NA	Analysis	1668A		1	21749	07/06/18 02:38	LKM	TAL KNX

Client Sample ID: PDI-SG-B389-BL1

Lab Sample ID: 580-78109-2

Date Collected: 05/20/18 14:28

Matrix: Solid

Date Received: 06/15/18 12:20

Percent Solids: 51.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			21456	06/24/18 08:21	BRS	TAL KNX
Total/NA	Cleanup	Split			21536	06/26/18 13:20	SMM	TAL KNX
Total/NA	Analysis	1668A		1	21749	07/06/18 03:39	LKM	TAL KNX

Client Sample ID: PDI-SG-B391-BL1

Lab Sample ID: 580-78109-3

Date Collected: 05/20/18 16:11

Matrix: Solid

Date Received: 06/15/18 12:20

Percent Solids: 86.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			21456	06/24/18 08:21	BRS	TAL KNX
Total/NA	Cleanup	Split			21536	06/26/18 13:20	SMM	TAL KNX
Total/NA	Analysis	1668A		1	21749	07/06/18 04:41	LKM	TAL KNX

Client Sample ID: PDI-SG-B392-BL1

Lab Sample ID: 580-78109-4

Date Collected: 05/20/18 17:31

Matrix: Solid

Date Received: 06/15/18 12:20

Percent Solids: 66.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			21456	06/24/18 08:21	BRS	TAL KNX
Total/NA	Cleanup	Split			21536	06/26/18 13:20	SMM	TAL KNX
Total/NA	Analysis	1668A		1	21749	07/06/18 05:42	LKM	TAL KNX

Client Sample ID: PDI-SG-B428-BL1

Lab Sample ID: 580-78109-5

Date Collected: 05/21/18 10:35

Matrix: Solid

Date Received: 06/15/18 12:20

Percent Solids: 78.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			21456	06/24/18 08:21	BRS	TAL KNX
Total/NA	Cleanup	Split			21536	06/26/18 13:20	SMM	TAL KNX
Total/NA	Analysis	1668A		1	21749	07/06/18 06:44	LKM	TAL KNX

Lab Chronicle

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

TestAmerica Job ID: 580-78109-3

Client Sample ID: PDI-SG-B427-BL1

Lab Sample ID: 580-78109-6

Date Collected: 05/21/18 11:40

Matrix: Solid

Date Received: 06/15/18 12:20

Percent Solids: 86.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			21456	06/24/18 08:21	BRS	TAL KNX
Total/NA	Cleanup	Split			21536	06/26/18 13:20	SMM	TAL KNX
Total/NA	Analysis	1668A		1	21749	07/06/18 07:45	LKM	TAL KNX

Client Sample ID: PDI-SG-B426-BL1

Lab Sample ID: 580-78109-7

Date Collected: 05/21/18 13:30

Matrix: Solid

Date Received: 06/15/18 12:20

Percent Solids: 83.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			21456	06/24/18 08:21	BRS	TAL KNX
Total/NA	Cleanup	Split			21536	06/26/18 13:20	SMM	TAL KNX
Total/NA	Analysis	1668A		1	21749	07/06/18 08:47	LKM	TAL KNX

Client Sample ID: PDI-SG-B415-BL1

Lab Sample ID: 580-78109-8

Date Collected: 05/22/18 16:24

Matrix: Solid

Date Received: 06/15/18 12:20

Percent Solids: 85.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			21456	06/24/18 08:21	BRS	TAL KNX
Total/NA	Cleanup	Split			21536	06/26/18 13:20	SMM	TAL KNX
Total/NA	Analysis	1668A		1	21757	07/06/18 12:25	JMN	TAL KNX

Client Sample ID: PDI-SG-B320-BL1

Lab Sample ID: 580-78109-9

Date Collected: 05/23/18 12:36

Matrix: Solid

Date Received: 06/15/18 12:20

Percent Solids: 70.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			21456	06/24/18 08:21	BRS	TAL KNX
Total/NA	Cleanup	Split			21536	06/26/18 13:20	SMM	TAL KNX
Total/NA	Analysis	1668A		1	21757	07/06/18 13:26	JMN	TAL KNX

Client Sample ID: PDI-SG-B404-BL1

Lab Sample ID: 580-78109-10

Date Collected: 05/23/18 10:40

Matrix: Solid

Date Received: 06/15/18 12:20

Percent Solids: 69.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			21456	06/24/18 08:21	BRS	TAL KNX
Total/NA	Cleanup	Split			21536	06/26/18 13:20	SMM	TAL KNX
Total/NA	Analysis	1668A		1	21757	07/06/18 14:28	JMN	TAL KNX

TestAmerica Seattle

Lab Chronicle

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

TestAmerica Job ID: 580-78109-3

Client Sample ID: PDI-SG-B419-BL1

Lab Sample ID: 580-78109-11

Date Collected: 05/23/18 16:20

Matrix: Solid

Date Received: 06/15/18 12:20

Percent Solids: 88.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			21456	06/24/18 08:21	BRS	TAL KNX
Total/NA	Cleanup	Split			21536	06/26/18 13:20	SMM	TAL KNX
Total/NA	Analysis	1668A		1	21757	07/06/18 15:29	JMN	TAL KNX

Client Sample ID: PDI-SG-B421-BL1

Lab Sample ID: 580-78109-12

Date Collected: 05/24/18 12:00

Matrix: Solid

Date Received: 06/15/18 12:20

Percent Solids: 79.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			21456	06/24/18 08:21	BRS	TAL KNX
Total/NA	Cleanup	Split			21536	06/26/18 13:20	SMM	TAL KNX
Total/NA	Analysis	1668A		1	21757	07/06/18 16:31	JMN	TAL KNX

Client Sample ID: PDI-SG-B422-BL1

Lab Sample ID: 580-78109-13

Date Collected: 05/24/18 14:10

Matrix: Solid

Date Received: 06/15/18 12:20

Percent Solids: 82.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			21456	06/24/18 08:29	BRS	TAL KNX
Total/NA	Cleanup	Split			21536	06/26/18 13:20	SMM	TAL KNX
Total/NA	Analysis	1668A		1	21757	07/06/18 17:33	JMN	TAL KNX

Client Sample ID: PDI-SG-B192-BL1

Lab Sample ID: 580-78109-14

Date Collected: 05/31/18 14:15

Matrix: Solid

Date Received: 06/15/18 12:20

Percent Solids: 67.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			21516	06/26/18 10:40	CLI	TAL KNX
Total/NA	Cleanup	Split			21603	06/28/18 12:07	EBS	TAL KNX
Total/NA	Analysis	1668A		1	21780	07/09/18 03:56	LKM	TAL KNX

Client Sample ID: PDI-SG-B183-BL1

Lab Sample ID: 580-78109-15

Date Collected: 05/31/18 14:04

Matrix: Solid

Date Received: 06/15/18 12:20

Percent Solids: 66.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			21516	06/26/18 10:40	CLI	TAL KNX
Total/NA	Cleanup	Split			21603	06/28/18 12:07	EBS	TAL KNX
Total/NA	Analysis	1668A		10	21780	07/09/18 04:59	LKM	TAL KNX

Laboratory References:

TAL KNX = TestAmerica Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

TestAmerica Seattle

Accreditation/Certification Summary

Client: AECOM

TestAmerica Job ID: 580-78109-3

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	07-31-18
USDA	Federal		P330-14-00126	02-10-20
Washington	State Program	10	C553	02-17-19

Laboratory: TestAmerica Knoxville

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
	AFCEE		N/A	
ANAB	DoD ELAP		L2311	02-13-19
Arkansas DEQ	State Program	6	88-0688	06-16-19
California	State Program	9	2423	06-30-19
Colorado	State Program	8	TN00009	02-28-19
Connecticut	State Program	1	PH-0223	09-30-19
Florida	NELAP	4	E87177	06-30-19
Georgia	State Program	4	906	04-13-20
Hawaii	State Program	9	N/A	04-13-19
Kansas	NELAP	7	E-10349	10-31-18
Kentucky (DW)	State Program	4	90101	12-31-18
Louisiana	NELAP	6	83979	06-30-19
Louisiana (DW)	NELAP	6	LA160005	12-31-18
Maryland	State Program	3	277	03-31-19
Michigan	State Program	5	9933	04-13-20
Nevada	State Program	9	TN00009	07-31-18
New Jersey	NELAP	2	TN001	06-30-19
New York	NELAP	2	10781	03-31-19
North Carolina (DW)	State Program	4	21705	07-31-19
North Carolina (WW/SW)	State Program	4	64	12-31-18
Ohio VAP	State Program	5	CL0059	11-22-18
Oklahoma	State Program	6	9415	08-31-18
Oregon	NELAP	10	TNI0189	01-01-19
Pennsylvania	NELAP	3	68-00576	12-31-18
Tennessee	State Program	4	2014	04-13-20
Texas	NELAP	6	T104704380-16-9	08-31-18
US Fish & Wildlife	Federal		LE-058448-0	07-31-18
USDA	Federal		P330-16-00262	08-20-19
Utah	NELAP	8	TN00009	07-31-18
Virginia	NELAP	3	460176	09-14-18
Washington	State Program	10	C593	01-19-19
West Virginia (DW)	State Program	3	9955C	12-31-18
West Virginia DEP	State Program	3	345	04-30-19
Wisconsin	State Program	5	998044300	08-31-18

TestAmerica Seattle

Sample Summary

Client: AECOM

TestAmerica Job ID: 580-78109-3

Project/Site: Portland Harbor Pre-Remedial Design

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-78109-1	PDI-SG-B208-BL1	Solid	05/20/18 10:00	06/15/18 12:20
580-78109-2	PDI-SG-B389-BL1	Solid	05/20/18 14:28	06/15/18 12:20
580-78109-3	PDI-SG-B391-BL1	Solid	05/20/18 16:11	06/15/18 12:20
580-78109-4	PDI-SG-B392-BL1	Solid	05/20/18 17:31	06/15/18 12:20
580-78109-5	PDI-SG-B428-BL1	Solid	05/21/18 10:35	06/15/18 12:20
580-78109-6	PDI-SG-B427-BL1	Solid	05/21/18 11:40	06/15/18 12:20
580-78109-7	PDI-SG-B426-BL1	Solid	05/21/18 13:30	06/15/18 12:20
580-78109-8	PDI-SG-B415-BL1	Solid	05/22/18 16:24	06/15/18 12:20
580-78109-9	PDI-SG-B320-BL1	Solid	05/23/18 12:36	06/15/18 12:20
580-78109-10	PDI-SG-B404-BL1	Solid	05/23/18 10:40	06/15/18 12:20
580-78109-11	PDI-SG-B419-BL1	Solid	05/23/18 16:20	06/15/18 12:20
580-78109-12	PDI-SG-B421-BL1	Solid	05/24/18 12:00	06/15/18 12:20
580-78109-13	PDI-SG-B422-BL1	Solid	05/24/18 14:10	06/15/18 12:20
580-78109-14	PDI-SG-B192-BL1	Solid	05/31/18 14:15	06/15/18 12:20
580-78109-15	PDI-SG-B183-BL1	Solid	05/31/18 14:04	06/15/18 12:20

SURFACE SEDIMENT CHAIN OF CUSTODY

TestAmerica-Seattle
 5755-8th-Street-East
 Tacoma, WA 98424-1317
Ph: 253-922-2310 Fax: 253-922-5047
Client Contact
 AFCCOM
 1111 3rd Ave Suite 1600
 Seattle, WA 98101
 Phone: (206) 438-2700 Fax: (1)(866) 495-5288
 Project Name: Portland Harbor Pre-Remedial Design
 Investigation and Baseline Sampling
 Portland, OR
 Project #: 60566335 Study: Surface Sediment

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 _____

Site Contact: Jennifer Ray / Michaela McCoo
 Laboratory Contact: Elaine Walker
 Carrier: courier
 6/15/2018 COC No: 4
 1 of 2 pages

Date/Time: 6/15/18 / 10:50
 Date/Time: 6/15/18 / 12:20
 Date/Time: 6/15/18 / 12:00

Sample Identification	Sample Date	Sample Time	Matrix	QC Sample	Sampler's Initials	Total No. of Cont.	Fraction	Archive Archive -20 C	PCB Congeners 168A	PCDD/Fs 1613B	TPH Diesel, Metals, Mercury NWTPH	Dx, 6020B, 7471A	Grain size ASTM D7928/D6913	Total organic carbon, Total solids 9060	Sample Specific Notes:
PDI-SG-B208-BL1	5/20/2018	10:00	SS		AC	6		X	X	X	X	X	X	X	Frozen 5/20/18 18:30
PDI-SG-B389-BL1	5/20/2018	14:28	SS		BC	6		X	X	X	X	X	X	X	Frozen 5/20/18 18:30
PDI-SG-B391-BL1	5/20/2018	16:11	SS		BC	6		X	X	X	X	X	X	X	Frozen 5/20/18 18:30
PDI-SG-B392-BL1	5/20/2018	17:31	SS		BC	6		X	X	X	X	X	X	X	Frozen 5/20/18 18:30
PDI-SG-B428-BL1	5/21/2018	10:35	SS		AM	6		X	X	X	X	X	X	X	Frozen 5/21/18 18:40
PDI-SG-B427-BL1	5/21/2018	11:40	SS		AM	6		X	X	X	X	X	X	X	Frozen 5/21/18 18:40
PDI-SG-B426-BL1	5/21/2018	13:30	SS		AM	6		X	X	X	X	X	X	X	Frozen 5/21/18 18:40
PDI-SG-B415-BL1	5/22/2018	16:24	SS		MM	6		X	X	X	X	X	X	X	Frozen 5/22/18 17:00
PDI-SG-B320-BL1	5/23/2018	12:36	SS		MM	6		X	X	X	X	X	X	X	Frozen 5/23/18 13:50
PDI-SG-B404-BL1	5/23/2018	10:40	SS		MT	6		X	X	X	X	X	X	X	Frozen 5/23/18 18:40
PDI-SG-B419-BL1	5/23/2018	16:20	SS		MT	6		X	X	X	X	X	X	X	Frozen 5/23/18 18:40
PDI-SG-B421-BL1	5/24/2018	12:00	SS		MT	6		X	X	X	X	X	X	X	Frozen 5/24/18 18:15

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

Special Instructions/QC Requirements & Comments:
 Return To Client Disposal By Lab Archive For 12 Months

FREEZE SAMPLES UPON RECEIPT

Separate reports for each lab
 Relinquished by: *[Signature]* Company: *AFCCOM* Date/Time: 6/15/18 / 11:50
 Relinquished by: *[Signature]* Company: *M.E* Date/Time: 6-15-18 / 12:20
 Relinquished by: *[Signature]* Company: *[Signature]* Date/Time: 6/15/18 / 12:00

-0.2, -1.3, -3.4

Received by: *[Signature]* Company: *M.E* Date/Time: 6-15-18 / 10:50
 Received by: *[Signature]* Company: *AFCCOM* Date/Time: 6/15/18 / 12:20
 Received by: *[Signature]* Company: *[Signature]* Date/Time: 6/15/18 / 12:00

SURFACE SEDIMENT CHAIN OF CUSTODY

TestAmerica-Seattle 5755-8th-Street-East Tacoma, WA 98424-1317 PW: 253-922-2310 Fax: 253-922-5047 Client Contact AECOM 1111 3rd Ave Suite 1600 Seattle, WA 98101 Phone: (206) 438-2700 Fax: 1+(866) 495-5288 Project Name: Portland Harbor Pre-Remedial Design Investigation and Baseline Sampling Portland, OR Project #: 60566335 Study: Surface Sediment	Project Contact: Amy Dahl / Chelsea Cook Tel: (206) 438-2261 / (206) 438-2010 Analysis Turnaround Time Calendar (C) or Work Days (W) 21 days <input type="checkbox"/> Other	Site Contact: Jennifer Ray / Michaela McCoog Laboratory Contact: Elaine-Walker Carrier: courier 6/15/2018 2 of 2 pages COC No: 4	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Sample Identification</th> <th>Sample Date</th> <th>Sample Time</th> <th>Matrix</th> <th>QC Sample</th> <th>Sampler's Initials</th> <th>Total No. of Cont.</th> <th>Fraction</th> </tr> </thead> <tbody> <tr> <td>PDI-SG-B422-BL1</td> <td>5/24/2018</td> <td>14:10</td> <td>SS</td> <td></td> <td>MT</td> <td>6</td> <td>Archive Archive-20 C</td> </tr> <tr> <td>PDI-SG-B192-BL1</td> <td>5/31/2018</td> <td>14:15</td> <td>SS</td> <td></td> <td>LS</td> <td>6</td> <td>PCB Congeners 168A</td> </tr> <tr> <td>PDI-SG-B183-BL1</td> <td>5/31/2018</td> <td>14:04</td> <td>SS</td> <td></td> <td>AM</td> <td>6</td> <td>PCDD/Fs 1613B</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>TPH Diesel, Metals, Mercury NWTPH-DX, 6020B, 7471A</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>Grain size ASTM D7928/D6913</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>Total organic carbon, Total solids 9060</td> </tr> </tbody> </table>	Sample Identification	Sample Date	Sample Time	Matrix	QC Sample	Sampler's Initials	Total No. of Cont.	Fraction	PDI-SG-B422-BL1	5/24/2018	14:10	SS		MT	6	Archive Archive-20 C	PDI-SG-B192-BL1	5/31/2018	14:15	SS		LS	6	PCB Congeners 168A	PDI-SG-B183-BL1	5/31/2018	14:04	SS		AM	6	PCDD/Fs 1613B								TPH Diesel, Metals, Mercury NWTPH-DX, 6020B, 7471A								Grain size ASTM D7928/D6913								Total organic carbon, Total solids 9060
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Sample Disposal <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For 12 Months																																																											

FREEZE SAMPLES UPON RECEIPT

Relinquished by:	Company: AECOM Date/Time: 6/15/18 11:50	Received by:	Company: Date/Time: 6-15-18 11:50
Relinquished by:	Company: Date/Time: 6-15-18 12:20	Received by:	Company: Date/Time: 6/15/18 12:20

Special Instructions/QC Requirements & Comments:
 Separate reports for each lab
 -0.2




TestAmerica-Seattle
 5755-8th-Street-East
 Tacoma, WA 98424-1317
 Ph: 253-922-2310 Fax: 253-922-5047

**SURFACE SEDIMENT
 CHAIN OF CUSTODY**

Client Contact: AECOM
Project Contact: Amy Dahl / Chelsey Cook
Site Contact: Jennifer Ray / Michaela McCoog
Carrier: courier
 Date: 6/15/2018 COC No: 4

Analysis Turnaround Time:
 Calendar (C) or Work Days (W)
 21 days
 Other _____

Laboratory Contact: Elaine-Walker
 PCB Congeners 168A
 PCDD/ES 1613B
 TPH Diesel, Metals, Mercury NWT PH-DX, 6020B, 7471A
 Grain size ASTM D7928/D6913
 Total organic carbon, Total solids 9060






1 of 2 pages

 580-78109 Chain of Custody

Sample Identification	Sample Date	Sample Time	Matrix	QC Sample	Sampler's Initials	Total No. of Cont.	Fraction	Archive Archive -20 C	PCB Congeners 168A	PCDD/ES 1613B	TPH Diesel, Metals, Mercury NWT PH-DX, 6020B, 7471A	Grain size ASTM D7928/D6913	Total organic carbon, Total solids 9060	Sample Specific Notes:
PDI-SG-B208-BL1	5/20/2018	10:00	SS		AC	6		x	x	x	x	x	x	Frozen 5/20/18 18:30
PDI-SG-B389-BL1	5/20/2018	14:28	SS		BC	6		x	x	x	x	x	x	Frozen 5/20/18 18:30
PDI-SG-B391-BL1	5/20/2018	16:11	SS		BC	6		x	x	x	x	x	x	Frozen 5/20/18 18:30
PDI-SG-B392-BL1	5/20/2018	17:31	SS		BC	6		x	x	x	x	x	x	Frozen 5/20/18 18:30
PDI-SG-B428-BL1	5/21/2018	10:35	SS		AM	6		x	x	x	x	x	x	Frozen 5/21/18 18:40
PDI-SG-B427-BL1	5/21/2018	11:40	SS		AM	6		x	x	x	x	x	x	Frozen 5/21/18 18:40
PDI-SG-B426-BL1	5/21/2018	13:30	SS		AM	6		x	x	x	x	x	x	Frozen 5/21/18 18:40
PDI-SG-B415-BL1	5/22/2018	16:24	SS		MM	6		x	x	x	x	x	x	Frozen 5/22/18 17:00
PDI-SG-B320-BL1	5/23/2018	12:36	SS		MM	6		x	x	x	x	x	x	Frozen 5/23/18 13:50
PDI-SG-B404-BL1	5/23/2018	10:40	SS		MT	6		x	x	x	x	x	x	Frozen 5/23/18 18:40
PDI-SG-B419-BL1	5/23/2018	16:20	SS		MT	6		x	x	x	x	x	x	Frozen 5/23/18 18:40
PDI-SG-B421-BL1	5/24/2018	12:00	SS		MT	6		x	x	x	x	x	x	Frozen 5/24/18 18:15

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)

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

Special Instructions/QC Requirements & Comments:
FREEZE SAMPLES UPON RECEIPT
 Separate reports for each lab

Relinquished by: 	Company: AECOM	Date/Time: 6/15/18 1150	Received by: 	Company: MIE	Date/Time: 6-15-18 1150
Relinquished by: 	Company: MIE	Date/Time: 6-15-18 1220	Received by: 	Company: TAPOR	Date/Time: 6/15/18 1220
Relinquished by: 	Company: TAPOR	Date/Time: 6/15/18 1700	Received by: B. Gou B. Gall	Company: SE at TN	Date/Time: 6/16/18 1000

-0.2, -1.3, -3.4

IRS = -371-37 w/c-s.

TestAmerica-Seattle
 5755-8th-Street-East
 Tacoma, WA 98424-1317
 Ph: 253-922-2310 Fax: 253-922-5047

Client Contact
 AECOM
 1111 3rd Ave Suite 1600
 Seattle, WA 98101
 Phone: (206) 438-2700 Fax: 1+(866) 495-3288

Project Name: Portland Harbor Pre-Remedial Design Investigation and Baseline Sampling
 Portland, OR
 Project #: 60566335 Study: Surface Sediment

**SURFACE SEDIMENT
 CHAIN OF CUSTODY**

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

Site Contact: Jennifer Ray / Michaela McCoog
 Laboratory Contact: Elaine-Walker

6/15/2018 COC No: 4
 2 of 2 pages
 Carrier: courier

Analysis Turnaround Time
 Calendar (C) or Work Days (W)

21 days
 Other _____

Sample Identification	Sample Date	Sample Time	Matrix	QC Sample	Sampler's Initials	Total No. of Cont.	Fraction	Archive Archive - 20 C	PCB congeners 1608A	PCDD/Fs (613B)	TPH Diesel, Metals, Mercury NW/TPH-DX, 6020B, 7471A	Grain size ASTM D7928/D6913	Total organic carbon, Total solids 9060	Sample Specific Notes:											
PDI-SG-B422-BL1	5/24/2018	14:10	SS		MT	6		x	x	x	x	x	x	Frozen 5/24/18 18:15											
PDI-SG-B192-BL1	5/31/2018	14:15	SS		CS	6		x	x	x	x	x	x	Frozen 5/31/18 17:50											
PDI-SG-B183-BL1	5/31/2018	14:04	SS		AM	6		x	x	x	x	x	x	Frozen 5/31/18 17:50											

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)

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

Special Instructions/QC Requirements & Comments:
FREEZE SAMPLES UPON RECEIPT
 Separate reports for each lab

Relinquished by: <i>JR</i>	Company: AECOM	Date/Time: 6/15/18 1150	Received by: <i>AM</i>	Company: NE	Date/Time: 6-15-18/1150
Relinquished by: <i>AM</i>	Company: TAPOR	Date/Time: 6-15-18 1220	Received by: <i>AM</i>	Company: TAPOR	Date/Time: 6/15/18 1220
Relinquished by: <i>AM</i>	Company: TAPOR	Date/Time: 6/15/18 1700	Received by:	Company:	Date/Time:



Chain of Custody Record

580-78109 Chain of Custody

Client Information (Sub Contract Lab)		Lab P/M: Walker, Elaine M
Client Contact: TestAmerica Laboratories, Inc.		E-Mail: elaine.walker@testamericainc.com
Shipping/Receiving: 5815 Middlebrook Pike, Knoxville, TN, 37921		State of Origin: Oregon
Phone: 865-291-3000(Tel) 865-584-4315(Fax)		Page: Page 1 of 2
Email:		Job #: 580-78109-1
Project Name: Portland Harbor Pre-Remedial Design		Preservation Codes: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 X - EDTA L - EDA Other:
Site:		Special Instructions/Note:
Due Date Requested: 7/5/2018		
TAT Requested (days):		
PO #:		
WO #:		
Project #:		
58012120		
SSOW#:		
Accreditations Required (See note):		
Analysis Requested		
Total Number of Containers		
Field Filled Sample (Yes or No)		
1668A/1668_P_Sox (MOD) 209 PCBs plus Totals		
1668A/1668_Split (MOD) 209 PCBs plus Totals		
Screen_1668/Screen_PCB_P_9		
Form MS/MSD (Yes/No)		
Preservation Codes		
Sample ID (Lab ID)		
Sample Date		
Sample Time		
Sample Type (C=comp, G=grab)		
Matrix (W=water, S=solid, O=waste/oil, B=BI-Tissue, A=Air)		
PDI-SG-B208-BL1 (580-78109-1)		
PDI-SG-B389-BL1 (580-78109-2)		
PDI-SG-B391-BL1 (580-78109-3)		
PDI-SG-B392-BL1 (580-78109-4)		
PDI-SG-B428-BL1 (580-78109-5)		
PDI-SG-B427-BL1 (580-78109-6)		
PDI-SG-B426-BL1 (580-78109-7)		
PDI-SG-B415-BL1 (580-78109-8)		
PDI-SG-B320-BL1 (580-78109-9)		
Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon subcontract laboratories. This sample shipment is forwarded under chain-of-custody, if the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the 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 compliance to TestAmerica Laboratories, Inc.		
Possible Hazard Identification		
Unconfirmed		
Deliverable Requested: I, II, III, IV, Other (specify)		
Primary Deliverable Rank: 2		
Time:		
Date:		
Relinquished by:		
Date/Time:		
Relinquished by:		
Date/Time:		
Relinquished by:		
Date/Time:		
Custody Seals Intact:		
Δ Yes Δ No		
Custody Seal No.:		
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)		
Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For <input type="checkbox"/> Months		
Special Instructions/QC Requirements:		
Method of Shipment:		
Received by:		
Date/Time:		
Company:		
Received by:		
Date/Time:		
Company:		
Received by:		
Date/Time:		
Company:		
Cooler Temperature(s) °C and Other Remarks:		



Chain of Custody Record

Client Information (Sub Contract Lab)		Sampler:	Carrier Tracking No(s):	COC No: 580-56340.2	
Client Contact: Walking, Elaine M		Lab PIV: Walker, Elaine M	State of Origin: Oregon	Page: 2 of 2	
Shipping/Receiving: TestAmerica Laboratories, Inc.		E-Mail: elaine.walker@testamericainc.com	Accreditations Required (See note):	Job #: 580-78109-1	
Address: 5815 Middlebrook Pike, Knoxville TN, 37921		Due Date Requested: 7/5/2018 TAT Requested (days):		Preservation Codes: M - Hexane N - None O - AsNaO2 P - Na2OAS Q - NaZSO3 R - NaZSO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 L - EDTA Z - other (specify) Other:	
Phone: 865-291-3000(Tel) 865-584-4315(Fax)		PO #:	Analysis Requested		
Email:		WO #:	Total Number of Containers		
Project Name: Portland Harbor Pre-Remedial Design		Project #: 58012120	1668A/1668 p Sox (MOD) 209 PCBs plus Totals	X	
Site:		SSOW#:	1668A/1668 p Split (MOD) 209 PCBs plus Totals	X	
			Screen 1668/Screen PCB_p_s	X	
			Field Filtered Sample (Yes or No)	X	
			Perform MS/MSD (Yes or No)	X	

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Water, Solid, Organics)	Preservation Code (IPE-Tissue, A-Alt)	Total Number of Containers	Special Instructions/Note:
PDI-SG-B404-BL1 (580-78109-10)	5/23/18	10:40 Pacific	Solid	Solid			
PDI-SG-B419-BL1 (580-78109-11)	5/23/18	16:20 Pacific	Solid	Solid			
PDI-SG-B421-BL1 (580-78109-12)	5/24/18	12:00 Pacific	Solid	Solid			
PDI-SG-B422-BL1 (580-78109-13)	5/24/18	14:10 Pacific	Solid	Solid			
PDI-SG-B192-BL1 (580-78109-14)	5/31/18	14:15 Pacific	Solid	Solid			
PDI-SG-B183-BL1 (580-78109-15)	5/31/18	14:04 Pacific	Solid	Solid			

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. I

Possible Hazard Identification
Unconfirmed

Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2

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

TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST

Review Items	Yes	No	NA	If No, what was the problem?	Comments/Actions Taken
1. Are the shipping containers intact?	/			<input type="checkbox"/> Containers, Broken	RT: 14.8°C CT: -14.8°C Cooler Custody Seal intact TR# 4433 750' 5256 KWB/16/18
2. Were ambient air containers received intact?			/	<input type="checkbox"/> Checked in lab	
3. The coolers/containers custody seal if present, is it intact?	/			<input type="checkbox"/> Yes <input type="checkbox"/> NA	
4. Is the cooler temperature within limits? (> freezing temp. of water to 6°C, VOST: 10°C) Thermometer ID: <u>SC 68</u> Correction factor: <u>0.0°C</u>	/			<input type="checkbox"/> Cooler Out of Temp, Client Contacted, Proceed/Cancel <input type="checkbox"/> Cooler Out of Temp, Same Day Receipt	
5. Were all of the sample containers received intact?	/			<input type="checkbox"/> Containers, Broken	
6. Were samples received in appropriate containers?	/			<input type="checkbox"/> Containers, Improper; Client Contacted; Proceed/Cancel	
7. Do sample container labels match COC? (IDs, Dates, Times)	/			<input type="checkbox"/> COC & Samples Do Not Match <input type="checkbox"/> COC Incorrect/Incomplete <input type="checkbox"/> COC Not Received	
8. Were all of the samples listed on the COC received?	/			<input type="checkbox"/> Sample Received, Not on COC <input type="checkbox"/> Sample on COC, Not Received	
9. Is the date/time of sample collection noted?	/			<input type="checkbox"/> COC; No Date/Time; Client Contacted	
10. Was the sampler identified on the COC?			/	<input type="checkbox"/> Sampler Not Listed on COC	
11. Is the client and project name/# identified?	/			<input type="checkbox"/> COC Incorrect/Incomplete	
12. Are tests/parameters listed for each sample?	/			<input type="checkbox"/> COC No tests on COC	
13. Is the matrix of the samples noted?	/			<input type="checkbox"/> COC Incorrect/Incomplete	
14. Was COC relinquished? (Signed/Dated/Timed)	/			<input type="checkbox"/> COC Incorrect/Incomplete	
15. Were samples received within holding time?	/			<input type="checkbox"/> Holding Time - Receipt	
16. Were samples received with correct chemical preservative (excluding Encore)?			/	<input type="checkbox"/> pH Adjusted, pH Included (See box 16A) <input type="checkbox"/> Incorrect Preservative	
17. Were VOA samples received without headspace?			/	<input type="checkbox"/> Headspace (VOA only)	
18. Did you check for residual chlorine, if necessary? (e.g. 1613B, 1668) Chlorine test strip lot number:			/	<input type="checkbox"/> Residual Chlorine	
19. For 1613B water samples is pH<9?			/	<input type="checkbox"/> If no, lab will adjust	
20. For rad samples was sample activity info. Provided?			/	<input type="checkbox"/> Project missing info	
Project #:	PM Instructions:				

Box 16A: pH Preservation	Box 18A: Residual Chlorine
Preservative:	
Lot Number:	
Exp Date:	
Analyst:	
Date:	
Time:	

Sample Receiving Associate: [Signature] Date: 6/16/18



Login Sample Receipt Checklist

Client: AECOM

Job Number: 580-78109-3

Login Number: 78109

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.	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	

Isotope Dilution Summary

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

TestAmerica Job ID: 580-78109-3

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS)

Matrix: Solid

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PCB1L	PCB3L	PCB4L	PCB15L	PCB19L	PCB37L	PCB54L	PCB77L
		(30-140)	(30-140)	(30-140)	(30-140)	(30-140)	(30-140)	(30-140)	(30-140)
580-78109-1	PDI-SG-B208-BL1	57	60	71	75	80	85	97	84
580-78109-2	PDI-SG-B389-BL1	53	59	68	79	77	88	103	85
580-78109-3	PDI-SG-B391-BL1	56	61	71	79	75	87	102	84
580-78109-4	PDI-SG-B392-BL1	55	61	69	79	81	86	108	89
580-78109-5	PDI-SG-B428-BL1	59	62	71	75	86	83	110	84
580-78109-6	PDI-SG-B427-BL1	58	62	74	81	80	88	104	88
580-78109-7	PDI-SG-B426-BL1	64	63	73	83	85	91	110	91
580-78109-8	PDI-SG-B415-BL1	62	63	75	81	84	90	87	90
580-78109-9	PDI-SG-B320-BL1	58	63	71	76	84	90	83	83
580-78109-10	PDI-SG-B404-BL1	60	64	74	82	83	89	81	83
580-78109-11	PDI-SG-B419-BL1	56	62	73	87	143 *	93	116	94
580-78109-12	PDI-SG-B421-BL1	63	64	72	77	83	88	84	89
580-78109-13	PDI-SG-B422-BL1	58	64	72	81	82	90	85	88
580-78109-14	PDI-SG-B192-BL1	66	64	75	77	78	80	89	81
580-78109-15	PDI-SG-B183-BL1	69	59	78	77	82	77	92	83
LCS 140-21456/17-B	Lab Control Sample	68	68	73	77	82	88	79	85
LCS 140-21516/18-B	Lab Control Sample	74	67	80	70	77	77	90	79
LCSD 140-21456/18-B	Lab Control Sample Dup	70	68	76	76	80	86	77	85
LCSD 140-21516/19-B	Lab Control Sample Dup	75	69	80	72	81	83	94	85
MB 140-21456/16-B	Method Blank	70	70	77	80	82	86	76	84
MB 140-21516/17-B	Method Blank	74	67	80	68	82	78	94	75

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PCB81L	PCB104L	PCB105L	P114L	PCB118L	PCB123L	PCB126L	PCB155L
		(30-140)	(30-140)	(30-140)	(30-140)	(30-140)	(30-140)	(30-140)	(30-140)
580-78109-1	PDI-SG-B208-BL1	85	77	87	86	85	84	84	93
580-78109-2	PDI-SG-B389-BL1	87	82	92	94	90	91	86	97
580-78109-3	PDI-SG-B391-BL1	86	77	91	88	88	88	86	95
580-78109-4	PDI-SG-B392-BL1	88	81	93	93	90	91	89	97
580-78109-5	PDI-SG-B428-BL1	86	77	89	89	88	85	86	93
580-78109-6	PDI-SG-B427-BL1	88	77	90	91	90	89	86	94
580-78109-7	PDI-SG-B426-BL1	89	77	90	92	92	89	88	98
580-78109-8	PDI-SG-B415-BL1	89	81	91	91	91	88	87	95
580-78109-9	PDI-SG-B320-BL1	82	84	85	89	89	89	84	97
580-78109-10	PDI-SG-B404-BL1	83	82	93	95	94	93	84	94
580-78109-11	PDI-SG-B419-BL1	91	78	92	91	89	91	90	94
580-78109-12	PDI-SG-B421-BL1	88	80	91	92	91	87	88	94
580-78109-13	PDI-SG-B422-BL1	88	82	92	96	93	91	87	94
580-78109-14	PDI-SG-B192-BL1	80	85	79	78	82	81	80	94
580-78109-15	PDI-SG-B183-BL1	82	79	83	82	83	84	82	87
LCS 140-21456/17-B	Lab Control Sample	85	78	91	90	90	87	87	87
LCS 140-21516/18-B	Lab Control Sample	77	84	80	80	83	81	81	94
LCSD 140-21456/18-B	Lab Control Sample Dup	83	79	90	88	89	89	85	88
LCSD 140-21516/19-B	Lab Control Sample Dup	82	84	83	82	85	84	84	96
MB 140-21456/16-B	Method Blank	86	79	89	90	89	86	85	91
MB 140-21516/17-B	Method Blank	76	85	80	80	82	80	80	96

TestAmerica Seattle

Isotope Dilution Summary

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

TestAmerica Job ID: 580-78109-3

Method: 1668A - Chlorinated Biphenyl Congeners (HRGC/HRMS) (Continued)

Matrix: Solid

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PCB156L	PCB157L	PCB167L	PCB169L	PCB170L	PCB188L	PCB189L	PCB202L
		(30-140)	(30-140)	(30-140)	(30-140)	(30-140)	(30-140)	(30-140)	(30-140)
580-78109-1	PDI-SG-B208-BL1	84 C	84 C156	85	89	79	87	79	104
580-78109-2	PDI-SG-B389-BL1	84 C	84 C156	86	86	83	98	82	114
580-78109-3	PDI-SG-B391-BL1	81 C	81 C156	84	77	82	97	86	115
580-78109-4	PDI-SG-B392-BL1	88 C	88 C156	89	93	87	95	79	114
580-78109-5	PDI-SG-B428-BL1	88 C	88 C156	89	93	88	92	83	106
580-78109-6	PDI-SG-B427-BL1	88 C	88 C156	92	90	82	94	86	113
580-78109-7	PDI-SG-B426-BL1	91 C	91 C156	91	96	84	92	84	111
580-78109-8	PDI-SG-B415-BL1	92 C	92 C156	93	96	90	92	84	109
580-78109-9	PDI-SG-B320-BL1	90 C	90 C156	94	93	88	94	87	110
580-78109-10	PDI-SG-B404-BL1	82 C	82 C156	87	80	85	104	89	113
580-78109-11	PDI-SG-B419-BL1	91 C	91 C156	94	97	86	90	85	102
580-78109-12	PDI-SG-B421-BL1	91 C	91 C156	91	97	87	89	84	104
580-78109-13	PDI-SG-B422-BL1	83 C	83 C156	85	81	85	102	90	110
580-78109-14	PDI-SG-B192-BL1	79 C	79 C156	79	78	77	80	82	84
580-78109-15	PDI-SG-B183-BL1	80 C	80 C156	80	78	79	82	87	84
LCS 140-21456/17-B	Lab Control Sample	90 C	90 C156	91	95	86	86	83	100
LCS 140-21516/18-B	Lab Control Sample	79 C	79 C156	78	79	79	78	81	85
LCSD 140-21456/18-B	Lab Control Sample Dup	87 C	87 C156	91	94	84	87	82	96
LCSD 140-21516/19-B	Lab Control Sample Dup	83 C	83 C156	81	81	81	81	84	87
MB 140-21456/16-B	Method Blank	88 C	88 C156	91	92	82	88	80	99
MB 140-21516/17-B	Method Blank	77 C	77 C156	77	77	78	80	79	83

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PCB205L	PCB206L	PCB208L	PCB209L
		(30-140)	(30-140)	(30-140)	(30-140)
580-78109-1	PDI-SG-B208-BL1	71	79	84	80
580-78109-2	PDI-SG-B389-BL1	72	75	85	79
580-78109-3	PDI-SG-B391-BL1	74	78	96	79
580-78109-4	PDI-SG-B392-BL1	76	84	83	84
580-78109-5	PDI-SG-B428-BL1	74	84	89	86
580-78109-6	PDI-SG-B427-BL1	76	86	93	83
580-78109-7	PDI-SG-B426-BL1	78	85	88	85
580-78109-8	PDI-SG-B415-BL1	76	88	91	87
580-78109-9	PDI-SG-B320-BL1	75	82	91	86
580-78109-10	PDI-SG-B404-BL1	76	81	99	82
580-78109-11	PDI-SG-B419-BL1	76	83	87	87
580-78109-12	PDI-SG-B421-BL1	76	87	88	92
580-78109-13	PDI-SG-B422-BL1	75	83	99	85
580-78109-14	PDI-SG-B192-BL1	73	69	68	64
580-78109-15	PDI-SG-B183-BL1	78	77	70	68
LCS 140-21456/17-B	Lab Control Sample	76	87	86	90
LCS 140-21516/18-B	Lab Control Sample	74	70	70	67
LCSD 140-21456/18-B	Lab Control Sample Dup	76	85	84	87
LCSD 140-21516/19-B	Lab Control Sample Dup	77	72	71	70
MB 140-21456/16-B	Method Blank	78	87	84	90
MB 140-21516/17-B	Method Blank	74	70	68	66

Surrogate Legend

PCB1L = PCB-1L
 PCB3L = PCB-3L

Isotope Dilution Summary

Client: AECOM

Project/Site: Portland Harbor Pre-Remedial Design

TestAmerica Job ID: 580-78109-3

PCB4L = PCB-4L
PCB15L = PCB-15L
PCB19L = PCB-19L
PCB37L = PCB-37L
PCB54L = PCB-54L
PCB77L = PCB-77L
PCB81L = PCB-81L
PCB104L = PCB-104L
PCB105L = PCB-105L
P114L = PCB-114L
PCB118L = PCB-118L
PCB123L = PCB-123L
PCB126L = PCB-126L
PCB155L = PCB-155L
PCB156L = PCB-156L
PCB157L = PCB-157L
PCB167L = PCB-167L
PCB169L = PCB-169L
PCB170L = PCB-170L
PCB188L = PCB-188L
PCB189L = PCB-189L
PCB202L = PCB-202L
PCB205L = PCB-205L
PCB206L = PCB-206L
PCB208L = PCB-208L
PCB209L = PCB-209L

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