

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

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TestAmerica Job ID: 580-77431-3

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

For:

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Authorized for release by:
7/26/2018 5:09:55 PM

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

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



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Case Narrative

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

TestAmerica Job ID: 580-77431-3

Job ID: 580-77431-3

Laboratory: TestAmerica Seattle

Narrative

CASE NARRATIVE

Client: AECOM

Project: Portland Harbor Pre-Remedial Design

Report Number: 580-77431-3

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

Eighteen samples were received on 5/21/2018 12:00 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 6 coolers at receipt time were 0.8° C, 1.2° C, 3.1° C, 3.2° C, 3.8° C and 4.5° 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-S195 (580-77431-1), PDI-SG-S159 (580-77431-2), PDI-SG-S162 (580-77431-3), PDI-SG-S163 (580-77431-4), PDI-SG-S160 (580-77431-5), PDI-SG-S142 (580-77431-6), PDI-SG-S150 (580-77431-7), PDI-SG-S210 (580-77431-8), PDI-SG-S217 (580-77431-9), PDI-SG-S212 (580-77431-10), PDI-SG-S209 (580-77431-11), PDI-SG-S207 (580-77431-12), PDI-SG-S206 (580-77431-13), PDI-SG-S205 (580-77431-14), PDI-SG-S202 (580-77431-15), PDI-SG-S197 (580-77431-16), PDI-SG-S197-D (580-77431-17) and PDI-SG-S132 (580-77431-18) were analyzed for polychlorinated biphenyls congeners (PCBs) in accordance with EPA Method 1668A. The samples were prepared on 06/01/2018 and 06/04/2018 and analyzed on 06/13/2018, 06/14/2018 and 06/15/2018.

Several analytes were detected in method blank MB 140-20796/14-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 140-20844/16-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

Case Narrative

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

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Laboratory: TestAmerica Seattle (Continued)

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

The following sample was observed to have a slight peak shifting due to sample matrix resulting in PCB 144 having the end of the chromatographic peak truncated by the instrument Multiple Ion Detection (MID) switch point: PDI-SG-S202 (580-77431-15) The loss of PCB 144 area is insignificant on the Total PCB congener results. PCB 144 is qualified with a "cn" qualifier in these cases.

One or more Isotope Dilution Analyte (IDA) recoveries are above the method recommended limit for the following samples: PDI-SG-S195 (580-77431-1), PDI-SG-S197 (580-77431-16) and PDI-SG-S197-D (580-77431-17). Quantitation by isotope dilution generally precludes any adverse effect on data quality due to elevated IDA recoveries.

The following samples exhibited elevated noise or matrix interferences for one or more analytes causing elevation of the detection limit (EDL): PDI-SG-S195 (580-77431-1), PDI-SG-S197 (580-77431-16) and PDI-SG-S197-D (580-77431-17). The reporting limit (RL) for the affected analytes has been raised to be equal to the EDL, and a "G" qualifier applied.

An ion abundance ratio is outside criteria for an Internal Standard associated with the following sample: PDI-SG-S195 (580-77431-1).

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

Definitions/Glossary

Client: AECOM

TestAmerica Job ID: 580-77431-3

Project/Site: Portland Harbor Pre-Remedial Design

Qualifiers

Dioxin

Qualifier	Qualifier Description
G	The reported quantitation limit has been raised due to an exhibited elevated noise or matrix interference
C93	The compound co-eluted with PCB-93
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.
B	Compound was found in the blank and sample.
C	The compound co-eluted with other compounds
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
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
*	Isotope Dilution analyte is outside acceptance limits.
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
cn	Refer to Case Narrative for further detail

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)

TestAmerica Seattle

Definitions/Glossary

Client: AECOM

Project/Site: Portland Harbor Pre-Remedial Design

TestAmerica Job ID: 580-77431-3

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client Sample Results

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S195

Lab Sample ID: 580-77431-1

Date Collected: 05/18/18 16:32

Matrix: Solid

Date Received: 05/21/18 12:00

Percent Solids: 56.3

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	ND		0.0099	0.00099	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-2	ND		0.0099	0.0012	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-3	ND		0.0099	0.0015	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-4	ND	G	0.022	0.022	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-5	ND	G	0.017	0.017	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-6	ND	G	0.015	0.015	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-7	ND	G	0.016	0.016	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-8	ND		0.020	0.014	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-9	ND	G	0.016	0.016	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-10	ND	G	0.017	0.017	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-11	0.021	q	0.020	0.015	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-12	ND	C	0.020	0.015	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-13	ND	C12	0.020	0.015	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-14	ND	G	0.013	0.013	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-15	ND	G	0.016	0.016	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-16	0.018		0.0099	0.0031	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-17	0.025		0.0099	0.0027	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-18	0.044	C q	0.020	0.0024	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-19	ND		0.0099	0.0034	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-20	0.072	C	0.020	0.0018	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-21	0.038	C	0.020	0.0018	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-22	0.016	q	0.0099	0.0018	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-23	ND		0.0099	0.0018	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-24	ND		0.0099	0.0023	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-25	0.0054	J	0.0099	0.0017	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-26	0.0099	J C q	0.020	0.0018	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-27	ND		0.0099	0.0020	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-28	0.072	C20	0.020	0.0018	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-29	0.0099	J C26 q	0.020	0.0018	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-30	0.044	C18 q	0.020	0.0024	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-31	0.050		0.020	0.0017	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-32	ND		0.0099	0.0019	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-33	0.038	C21	0.020	0.0018	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-34	ND		0.0099	0.0019	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-35	ND		0.0099	0.0018	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-36	ND		0.0099	0.0018	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-37	0.017		0.0099	0.0018	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-38	ND		0.0099	0.0019	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-39	ND		0.0099	0.0017	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-40	0.052	C q	0.030	0.0054	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-41	0.052	q C40	0.030	0.0054	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-42	ND		0.0099	0.0054	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-43	ND	C	0.020	0.0050	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-44	0.28	C B	0.030	0.0048	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-45	ND	C	0.020	0.0056	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-46	ND		0.0099	0.0068	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-47	0.28	B C44	0.030	0.0048	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-48	0.014	q	0.0099	0.0054	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-49	0.26	C	0.020	0.0044	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S195

Lab Sample ID: 580-77431-1

Date Collected: 05/18/18 16:32

Matrix: Solid

Date Received: 05/21/18 12:00

Percent Solids: 56.3

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	0.014	J C	0.020	0.0052	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-51	ND	C45	0.020	0.0056	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-52	0.58		0.0099	0.0053	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-53	0.014	J C50	0.020	0.0052	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-54	ND		0.0099	0.00024	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-55	ND		0.0099	0.0039	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-56	0.10		0.0099	0.0039	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-57	ND		0.0099	0.0040	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-58	ND		0.0099	0.0040	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-59	0.016	J C q	0.030	0.0038	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-60	0.016		0.0099	0.0040	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-61	0.55	C	0.040	0.0037	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-62	0.016	J C59 q	0.030	0.0038	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-63	0.014		0.0099	0.0036	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-64	0.071		0.0099	0.0036	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-65	0.28	B C44	0.030	0.0048	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-66	0.24		0.0099	0.0037	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-67	0.0067	J	0.0099	0.0034	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-68	0.011		0.0099	0.0035	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-69	0.26	C49	0.020	0.0044	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-70	0.55	C61	0.040	0.0037	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-71	0.052	q C40	0.030	0.0054	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-72	0.022		0.0099	0.0039	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-73	ND	C43	0.020	0.0050	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-74	0.55	C61	0.040	0.0037	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-75	0.016	J C59 q	0.030	0.0038	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-76	0.55	C61	0.040	0.0037	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-77	0.0099	B	0.0099	0.0037	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-78	ND		0.0099	0.0040	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-79	ND		0.0099	0.0035	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-80	ND		0.0099	0.0034	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-81	ND		0.0099	0.0037	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-82	0.11		0.0099	0.0010	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-83	1.0	C	0.020	0.00095	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-84	0.28		0.0099	0.0010	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-85	0.19	C	0.030	0.00077	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-86	0.69	C	0.059	0.00077	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-87	0.69	C86	0.059	0.00077	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-88	0.19	C	0.020	0.00094	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-89	ND		0.0099	0.0010	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-90	1.8	C	0.030	0.00079	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-91	0.19	C88	0.020	0.00094	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-92	0.40		0.0099	0.00089	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-93	0.050	C	0.020	0.00090	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-94	ND		0.0099	0.0010	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-95	1.4		0.0099	0.00098	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-96	ND		0.0099	0.00077	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-97	0.69	C86	0.059	0.00077	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-98	0.025	C q	0.020	0.00087	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S195

Lab Sample ID: 580-77431-1

Date Collected: 05/18/18 16:32

Matrix: Solid

Date Received: 05/21/18 12:00

Percent Solids: 56.3

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	1.0	C83	0.020	0.00095	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-100	0.050	C93	0.020	0.00090	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-101	1.8	C90	0.030	0.00079	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-102	0.025	C98 q	0.020	0.00087	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-103	0.046		0.0099	0.00090	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-104	ND		0.0099	0.00068	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-105	0.25		0.0099	0.0032	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-106	ND		0.0099	0.0032	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-107	0.14	B	0.0099	0.0034	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-108	0.018	J C q	0.020	0.0033	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-109	0.69	C86	0.059	0.00077	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-110	1.6	C	0.020	0.00065	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-111	ND		0.0099	0.00063	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-112	ND		0.0099	0.00066	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-113	1.8	C90	0.030	0.00079	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-114	0.013		0.0099	0.0030	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-115	1.6	C110	0.020	0.00065	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-116	0.19	C85	0.030	0.00077	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-117	0.19	C85	0.030	0.00077	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-118	0.86		0.0099	0.0028	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-119	0.69	C86	0.059	0.00077	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-120	0.020	q	0.0099	0.00064	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-121	ND		0.0099	0.00066	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-122	ND		0.0099	0.0037	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-123	0.011	q	0.0099	0.0032	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-124	0.018	J q C108	0.020	0.0033	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-125	0.69	C86	0.059	0.00077	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-126	ND		0.0099	0.0034	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-127	ND		0.0099	0.0032	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-128	0.28	C B	0.020	0.0087	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-129	2.9	C B	0.040	0.0090	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-130	0.20	G	0.012	0.012	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-131	ND	G	0.012	0.012	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-132	0.82	G	0.012	0.012	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-133	0.062	G	0.011	0.011	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-134	0.13	C	0.020	0.012	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-135	1.1	C	0.020	0.0014	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-136	0.39		0.0099	0.0010	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-137	0.053	G	0.010	0.010	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-138	2.9	B C129	0.040	0.0090	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-139	0.037	C q	0.020	0.010	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-140	0.037	C139 q	0.020	0.010	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-141	0.47	G	0.011	0.011	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-142	ND	G	0.011	0.011	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-143	0.13	C134	0.020	0.012	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-144	0.10		0.0099	0.0013	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-145	ND		0.0099	0.00095	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-146	0.77		0.0099	0.0099	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-147	3.2	C	0.020	0.011	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S195

Lab Sample ID: 580-77431-1

Date Collected: 05/18/18 16:32

Matrix: Solid

Date Received: 05/21/18 12:00

Percent Solids: 56.3

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	0.0066	J q	0.0099	0.0013	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-149	3.2	C147	0.020	0.011	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-150	0.0066	J q	0.0099	0.00091	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-151	1.1	C135	0.020	0.0014	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-152	ND		0.0099	0.00098	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-153	3.1	C	0.020	0.0079	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-154	0.073	q	0.0099	0.0011	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-155	ND		0.0099	0.00091	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-156	0.17	C	0.020	0.010	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-157	0.17	C156	0.020	0.010	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-158	0.17		0.0099	0.0071	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-159	ND		0.0099	0.0075	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-160	2.9	B C129	0.040	0.0090	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-161	ND		0.0099	0.0074	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-162	ND		0.0099	0.0074	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-163	2.9	B C129	0.040	0.0090	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-164	0.17		0.0099	0.0079	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-165	ND		0.0099	0.0085	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-166	0.28	C128 B	0.020	0.0087	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-167	0.064		0.0099	0.0054	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-168	3.1	C153	0.020	0.0079	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-169	ND		0.0099	0.0055	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-170	0.94	B	0.0099	0.00072	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-171	0.32	C	0.020	0.00070	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-172	0.17		0.0099	0.00070	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-173	0.32	C171	0.020	0.00070	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-174	0.99		0.0099	0.00066	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-175	0.037	q	0.0099	0.00063	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-176	0.13		0.0099	0.00048	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-177	0.63		0.0099	0.00067	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-178	0.23		0.0099	0.00069	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-179	0.49		0.0099	0.00051	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-180	2.4	C	0.020	0.00053	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-181	ND		0.0099	0.00063	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-182	ND		0.0099	0.00061	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-183	0.78	C	0.020	0.00062	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-184	ND		0.0099	0.00052	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-185	0.78	C183	0.020	0.00062	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-186	ND		0.0099	0.00050	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-187	1.5		0.0099	0.00059	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-188	ND		0.0099	0.00045	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-189	0.027		0.0099	0.0037	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-190	0.11		0.0099	0.00046	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-191	0.027	q	0.0099	0.00048	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-192	ND		0.0099	0.00053	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-193	2.4	C180	0.020	0.00053	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-194	0.57		0.0099	0.0038	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-195	0.22		0.0099	0.0042	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-196	0.34		0.0099	0.0010	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S195

Lab Sample ID: 580-77431-1

Date Collected: 05/18/18 16:32

Matrix: Solid

Date Received: 05/21/18 12:00

Percent Solids: 56.3

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	0.015		0.0099	0.00079	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-198	0.77	C	0.020	0.0010	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-199	0.77	C198	0.020	0.0010	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-200	0.071		0.0099	0.00070	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-201	0.057	q	0.0099	0.00072	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-202	0.18		0.0099	0.00081	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-203	0.47		0.0099	0.00093	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-204	ND		0.0099	0.00079	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-205	0.020	q	0.0099	0.0032	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-206	0.75		0.0099	0.0041	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-207	0.075		0.0099	0.0027	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-208	0.29		0.0099	0.0027	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1
PCB-209	1.2		0.0099	0.0021	ng/g	☼	06/01/18 11:00	06/15/18 14:06	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	92		30 - 140	06/01/18 11:00	06/15/18 14:06	1
PCB-3L	68		30 - 140	06/01/18 11:00	06/15/18 14:06	1
PCB-4L	69		30 - 140	06/01/18 11:00	06/15/18 14:06	1
PCB-15L	78		30 - 140	06/01/18 11:00	06/15/18 14:06	1
PCB-19L	273	*	30 - 140	06/01/18 11:00	06/15/18 14:06	1
PCB-37L	99		30 - 140	06/01/18 11:00	06/15/18 14:06	1
PCB-54L	161	*	30 - 140	06/01/18 11:00	06/15/18 14:06	1
PCB-77L	87		30 - 140	06/01/18 11:00	06/15/18 14:06	1
PCB-81L	84		30 - 140	06/01/18 11:00	06/15/18 14:06	1
PCB-104L	86		30 - 140	06/01/18 11:00	06/15/18 14:06	1
PCB-105L	91		30 - 140	06/01/18 11:00	06/15/18 14:06	1
PCB-114L	94		30 - 140	06/01/18 11:00	06/15/18 14:06	1
PCB-118L	90		30 - 140	06/01/18 11:00	06/15/18 14:06	1
PCB-123L	91		30 - 140	06/01/18 11:00	06/15/18 14:06	1
PCB-126L	84		30 - 140	06/01/18 11:00	06/15/18 14:06	1
PCB-155L	70		30 - 140	06/01/18 11:00	06/15/18 14:06	1
PCB-156L	84	C	30 - 140	06/01/18 11:00	06/15/18 14:06	1
PCB-157L	84	C156	30 - 140	06/01/18 11:00	06/15/18 14:06	1
PCB-167L	91		30 - 140	06/01/18 11:00	06/15/18 14:06	1
PCB-169L	92		30 - 140	06/01/18 11:00	06/15/18 14:06	1
PCB-170L	83		30 - 140	06/01/18 11:00	06/15/18 14:06	1
PCB-188L	84		30 - 140	06/01/18 11:00	06/15/18 14:06	1
PCB-189L	90		30 - 140	06/01/18 11:00	06/15/18 14:06	1
PCB-202L	72		30 - 140	06/01/18 11:00	06/15/18 14:06	1
PCB-205L	75		30 - 140	06/01/18 11:00	06/15/18 14:06	1
PCB-206L	71		30 - 140	06/01/18 11:00	06/15/18 14:06	1
PCB-208L	72		30 - 140	06/01/18 11:00	06/15/18 14:06	1
PCB-209L	60		30 - 140	06/01/18 11:00	06/15/18 14:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	103		40 - 125	06/01/18 11:00	06/15/18 14:06	1
PCB-111L	93		40 - 125	06/01/18 11:00	06/15/18 14:06	1
PCB-178L	79		40 - 125	06/01/18 11:00	06/15/18 14:06	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S159

Lab Sample ID: 580-77431-2

Date Collected: 05/18/18 15:04

Matrix: Solid

Date Received: 05/21/18 12:00

Percent Solids: 39.8

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.023		0.012	0.00066	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-2	0.0072	J q	0.012	0.00072	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-3	0.010	J q	0.012	0.00076	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-4	0.21		0.025	0.0064	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-5	0.011	J	0.012	0.0050	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-6	0.099		0.012	0.0044	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-7	0.022	q	0.012	0.0045	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-8	0.42		0.025	0.0040	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-9	0.033	q	0.012	0.0046	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-10	0.012	q	0.012	0.0049	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-11	0.075		0.025	0.0043	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-12	0.032	C	0.025	0.0044	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-13	0.032	C12	0.025	0.0044	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-14	ND		0.012	0.0038	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-15	0.16		0.012	0.0045	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-16	0.31		0.012	0.0012	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-17	0.36		0.012	0.0011	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-18	0.76	C	0.025	0.00093	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-19	0.088		0.012	0.0013	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-20	0.77	C	0.025	0.0014	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-21	0.47	C	0.025	0.0013	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-22	0.27		0.012	0.0014	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-23	ND		0.012	0.0014	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-24	0.016		0.012	0.00089	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-25	0.067		0.012	0.0013	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-26	0.14	C	0.025	0.0013	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-27	0.052		0.012	0.00077	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-28	0.77	C20	0.025	0.0014	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-29	0.14	C26	0.025	0.0013	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-30	0.76	C18	0.025	0.00093	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-31	0.69		0.025	0.0013	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-32	0.16		0.012	0.00074	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-33	0.47	C21	0.025	0.0013	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-34	ND		0.012	0.0014	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-35	0.0096	J	0.012	0.0014	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-36	ND		0.012	0.0013	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-37	0.14		0.012	0.0014	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-38	ND		0.012	0.0014	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-39	ND		0.012	0.0013	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-40	0.33	C	0.037	0.0018	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-41	0.33	C40	0.037	0.0018	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-42	0.16		0.012	0.0018	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-43	0.018	J C q	0.025	0.0017	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-44	0.63	C B	0.037	0.0016	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-45	0.14	C	0.025	0.0019	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-46	0.041		0.012	0.0023	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-47	0.63	B C44	0.037	0.0016	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-48	0.15		0.012	0.0018	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-49	0.37	C	0.025	0.0015	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S159

Lab Sample ID: 580-77431-2

Date Collected: 05/18/18 15:04

Matrix: Solid

Date Received: 05/21/18 12:00

Percent Solids: 39.8

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	0.096	C	0.025	0.0018	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-51	0.14	C45	0.025	0.0019	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-52	0.64		0.012	0.0018	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-53	0.096	C50	0.025	0.0018	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-54	0.0052	J	0.012	0.00016	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-55	0.0014	J q	0.012	0.0013	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-56	0.096		0.012	0.0013	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-57	ND		0.012	0.0014	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-58	ND		0.012	0.0014	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-59	0.057	C	0.037	0.0013	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-60	0.031		0.012	0.0014	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-61	0.49	C	0.050	0.0013	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-62	0.057	C59	0.037	0.0013	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-63	0.013		0.012	0.0012	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-64	0.22		0.012	0.0012	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-65	0.63	B C44	0.037	0.0016	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-66	0.27		0.012	0.0013	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-67	0.010	J	0.012	0.0012	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-68	0.0097	J q	0.012	0.0012	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-69	0.37	C49	0.025	0.0015	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-70	0.49	C61	0.050	0.0013	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-71	0.33	C40	0.037	0.0018	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-72	0.0038	J q	0.012	0.0013	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-73	0.018	J C43 q	0.025	0.0017	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-74	0.49	C61	0.050	0.0013	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-75	0.057	C59	0.037	0.0013	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-76	0.49	C61	0.050	0.0013	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-77	0.022	B q	0.012	0.0013	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-78	ND		0.012	0.0014	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-79	0.0035	J q	0.012	0.0012	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-80	ND		0.012	0.0012	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-81	ND		0.012	0.0012	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-82	0.052		0.012	0.00068	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-83	0.29	C	0.025	0.00062	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-84	0.10		0.012	0.00068	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-85	0.079	C	0.037	0.00050	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-86	0.25	C	0.075	0.00050	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-87	0.25	C86	0.075	0.00050	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-88	0.069	C q	0.025	0.00061	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-89	0.0037	J q	0.012	0.00066	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-90	0.45	C	0.037	0.00051	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-91	0.069	C88 q	0.025	0.00061	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-92	0.090		0.012	0.00058	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-93	0.013	J C	0.025	0.00059	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-94	ND		0.012	0.00066	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-95	0.39		0.012	0.00064	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-96	0.0070	J	0.012	0.00050	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-97	0.25	C86	0.075	0.00050	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-98	0.020	J C	0.025	0.00057	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S159

Lab Sample ID: 580-77431-2

Date Collected: 05/18/18 15:04

Matrix: Solid

Date Received: 05/21/18 12:00

Percent Solids: 39.8

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	0.29	C83	0.025	0.00062	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-100	0.013	J C93	0.025	0.00059	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-101	0.45	C90	0.037	0.00051	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-102	0.020	J C98	0.025	0.00057	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-103	0.0087	J	0.012	0.00058	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-104	ND		0.012	0.00044	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-105	0.14		0.012	0.0022	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-106	ND		0.012	0.0022	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-107	0.034	B	0.012	0.0024	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-108	0.011	J C q	0.025	0.0023	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-109	0.25	C86	0.075	0.00050	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-110	0.51	C	0.025	0.00043	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-111	ND		0.012	0.00041	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-112	ND		0.012	0.00043	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-113	0.45	C90	0.037	0.00051	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-114	0.0065	J q	0.012	0.0021	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-115	0.51	C110	0.025	0.00043	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-116	0.079	C85	0.037	0.00050	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-117	0.079	C85	0.037	0.00050	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-118	0.36		0.012	0.0021	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-119	0.25	C86	0.075	0.00050	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-120	0.0036	J q	0.012	0.00042	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-121	ND		0.012	0.00043	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-122	0.0041	J	0.012	0.0026	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-123	0.0059	J q	0.012	0.0022	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-124	0.011	J q C108	0.025	0.0023	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-125	0.25	C86	0.075	0.00050	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-126	ND		0.012	0.0023	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-127	ND		0.012	0.0022	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-128	0.098	C B	0.025	0.0047	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-129	0.79	C B	0.050	0.0049	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-130	0.051		0.012	0.0064	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-131	ND		0.012	0.0067	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-132	0.23		0.012	0.0063	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-133	0.0087	J q	0.012	0.0061	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-134	0.031	C	0.025	0.0064	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-135	0.23	C	0.025	0.00088	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-136	0.081		0.012	0.00063	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-137	0.025		0.012	0.0055	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-138	0.79	B C129	0.050	0.0049	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-139	0.011	J C	0.025	0.0054	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-140	0.011	J C139	0.025	0.0054	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-141	0.14		0.012	0.0057	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-142	ND		0.012	0.0061	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-143	0.031	C134	0.025	0.0064	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-144	0.024		0.012	0.00080	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-145	ND		0.012	0.00060	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-146	0.14		0.012	0.0054	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-147	0.71	C	0.025	0.0061	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S159

Lab Sample ID: 580-77431-2

Date Collected: 05/18/18 15:04

Matrix: Solid

Date Received: 05/21/18 12:00

Percent Solids: 39.8

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	ND		0.012	0.00085	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-149	0.71	C147	0.025	0.0061	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-150	0.0028	J q	0.012	0.00058	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-151	0.23	C135	0.025	0.00088	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-152	ND		0.012	0.00062	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-153	0.69	C	0.025	0.0042	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-154	0.012	q	0.012	0.00068	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-155	ND		0.012	0.00058	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-156	0.068	C	0.025	0.0052	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-157	0.068	C156	0.025	0.0052	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-158	0.063		0.012	0.0038	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-159	ND		0.012	0.0041	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-160	0.79	B C129	0.050	0.0049	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-161	ND		0.012	0.0040	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-162	ND		0.012	0.0040	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-163	0.79	B C129	0.050	0.0049	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-164	0.058		0.012	0.0043	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-165	ND		0.012	0.0046	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-166	0.098	C128 B	0.025	0.0047	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-167	0.022		0.012	0.0029	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-168	0.69	C153	0.025	0.0042	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-169	ND		0.012	0.0033	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-170	0.24	B	0.012	0.0024	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-171	0.069	C	0.025	0.0021	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-172	0.040		0.012	0.0021	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-173	0.069	C171	0.025	0.0021	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-174	0.25		0.012	0.0020	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-175	0.0087	J	0.012	0.0019	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-176	0.028		0.012	0.0014	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-177	0.14		0.012	0.0020	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-178	0.053		0.012	0.0021	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-179	0.11		0.012	0.0015	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-180	0.54	C	0.025	0.0016	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-181	ND		0.012	0.0019	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-182	ND		0.012	0.0018	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-183	0.17	C	0.025	0.0019	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-184	ND		0.012	0.0016	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-185	0.17	C183	0.025	0.0019	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-186	ND		0.012	0.0015	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-187	0.33		0.012	0.0018	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-188	ND		0.012	0.0013	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-189	0.0087	J	0.012	0.0026	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-190	0.033	q	0.012	0.0014	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-191	0.010	J q	0.012	0.0014	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-192	ND		0.012	0.0016	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-193	0.54	C180	0.025	0.0016	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-194	0.15		0.012	0.0039	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-195	0.069		0.012	0.0043	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-196	0.055		0.012	0.0014	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S159

Lab Sample ID: 580-77431-2

Date Collected: 05/18/18 15:04

Matrix: Solid

Date Received: 05/21/18 12:00

Percent Solids: 39.8

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	0.0050	J q	0.012	0.0011	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-198	0.16	C	0.025	0.0015	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-199	0.16	C198	0.025	0.0015	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-200	0.014	q	0.012	0.00097	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-201	0.015		0.012	0.0010	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-202	0.031		0.012	0.0011	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-203	0.097		0.012	0.0013	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-204	ND		0.012	0.0011	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-205	0.0081	J q	0.012	0.0033	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-206	0.099	q	0.012	0.0033	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-207	0.011	J	0.012	0.0021	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-208	0.034		0.012	0.0020	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1
PCB-209	0.15		0.012	0.00093	ng/g	☼	06/01/18 11:00	06/15/18 06:58	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	65		30 - 140	06/01/18 11:00	06/15/18 06:58	1
PCB-3L	72		30 - 140	06/01/18 11:00	06/15/18 06:58	1
PCB-4L	64		30 - 140	06/01/18 11:00	06/15/18 06:58	1
PCB-15L	73		30 - 140	06/01/18 11:00	06/15/18 06:58	1
PCB-19L	97		30 - 140	06/01/18 11:00	06/15/18 06:58	1
PCB-37L	84		30 - 140	06/01/18 11:00	06/15/18 06:58	1
PCB-54L	83		30 - 140	06/01/18 11:00	06/15/18 06:58	1
PCB-77L	85		30 - 140	06/01/18 11:00	06/15/18 06:58	1
PCB-81L	86		30 - 140	06/01/18 11:00	06/15/18 06:58	1
PCB-104L	80		30 - 140	06/01/18 11:00	06/15/18 06:58	1
PCB-105L	88		30 - 140	06/01/18 11:00	06/15/18 06:58	1
PCB-114L	88		30 - 140	06/01/18 11:00	06/15/18 06:58	1
PCB-118L	86		30 - 140	06/01/18 11:00	06/15/18 06:58	1
PCB-123L	86		30 - 140	06/01/18 11:00	06/15/18 06:58	1
PCB-126L	84		30 - 140	06/01/18 11:00	06/15/18 06:58	1
PCB-155L	91		30 - 140	06/01/18 11:00	06/15/18 06:58	1
PCB-156L	82	C	30 - 140	06/01/18 11:00	06/15/18 06:58	1
PCB-157L	82	C156	30 - 140	06/01/18 11:00	06/15/18 06:58	1
PCB-167L	87		30 - 140	06/01/18 11:00	06/15/18 06:58	1
PCB-169L	85		30 - 140	06/01/18 11:00	06/15/18 06:58	1
PCB-170L	80		30 - 140	06/01/18 11:00	06/15/18 06:58	1
PCB-188L	93		30 - 140	06/01/18 11:00	06/15/18 06:58	1
PCB-189L	100		30 - 140	06/01/18 11:00	06/15/18 06:58	1
PCB-202L	97		30 - 140	06/01/18 11:00	06/15/18 06:58	1
PCB-205L	76		30 - 140	06/01/18 11:00	06/15/18 06:58	1
PCB-206L	72		30 - 140	06/01/18 11:00	06/15/18 06:58	1
PCB-208L	73		30 - 140	06/01/18 11:00	06/15/18 06:58	1
PCB-209L	71		30 - 140	06/01/18 11:00	06/15/18 06:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	84		40 - 125	06/01/18 11:00	06/15/18 06:58	1
PCB-111L	86		40 - 125	06/01/18 11:00	06/15/18 06:58	1
PCB-178L	87		40 - 125	06/01/18 11:00	06/15/18 06:58	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S162

Lab Sample ID: 580-77431-3

Date Collected: 05/18/18 14:10

Matrix: Solid

Date Received: 05/21/18 12:00

Percent Solids: 39.2

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.0029	J q	0.013	0.00051	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-2	0.0072	J	0.013	0.00059	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-3	0.0044	J	0.013	0.00067	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-4	0.017	J q	0.025	0.0071	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-5	ND		0.013	0.0055	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-6	0.011	J	0.013	0.0048	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-7	ND		0.013	0.0049	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-8	0.043	q	0.025	0.0045	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-9	ND		0.013	0.0051	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-10	ND		0.013	0.0054	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-11	0.076		0.025	0.0047	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-12	0.0051	J q C	0.025	0.0049	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-13	0.0051	J q C12	0.025	0.0049	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-14	ND		0.013	0.0041	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-15	0.032		0.013	0.0049	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-16	0.033	q	0.013	0.0012	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-17	0.057		0.013	0.0011	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-18	0.11	C	0.025	0.00095	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-19	0.020		0.013	0.0013	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-20	0.20	C	0.025	0.0014	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-21	0.083	C	0.025	0.0014	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-22	0.055		0.013	0.0015	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-23	ND		0.013	0.0015	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-24	ND		0.013	0.00091	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-25	0.011	J	0.013	0.0013	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-26	0.024	J q C	0.025	0.0014	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-27	0.0086	J	0.013	0.00079	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-28	0.20	C20	0.025	0.0014	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-29	0.024	J q C26	0.025	0.0014	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-30	0.11	C18	0.025	0.00095	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-31	0.15		0.025	0.0014	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-32	0.030	q	0.013	0.00075	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-33	0.083	C21	0.025	0.0014	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-34	ND		0.013	0.0015	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-35	ND		0.013	0.0015	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-36	ND		0.013	0.0014	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-37	0.050		0.013	0.0015	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-38	ND		0.013	0.0015	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-39	ND		0.013	0.0014	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-40	0.12	C	0.038	0.0023	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-41	0.12	C40	0.038	0.0023	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-42	0.057		0.013	0.0023	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-43	0.0066	J q C	0.025	0.0022	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-44	0.25	C B	0.038	0.0020	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-45	0.040	q C	0.025	0.0024	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-46	0.013		0.013	0.0029	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-47	0.25	C44 B	0.038	0.0020	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-48	0.045		0.013	0.0023	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-49	0.17	C	0.025	0.0019	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S162

Lab Sample ID: 580-77431-3

Date Collected: 05/18/18 14:10

Matrix: Solid

Date Received: 05/21/18 12:00

Percent Solids: 39.2

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	0.033	C	0.025	0.0022	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-51	0.040	q C45	0.025	0.0024	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-52	0.31		0.013	0.0023	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-53	0.033	C50	0.025	0.0022	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-54	0.0036	J	0.013	0.00015	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-55	0.0035	J q	0.013	0.0017	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-56	0.10		0.013	0.0017	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-57	ND		0.013	0.0017	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-58	ND		0.013	0.0017	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-59	0.016	J q C	0.038	0.0016	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-60	0.032		0.013	0.0017	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-61	0.43	C	0.050	0.0016	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-62	0.016	J q C59	0.038	0.0016	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-63	0.0091	J	0.013	0.0016	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-64	0.094		0.013	0.0015	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-65	0.25	C44 B	0.038	0.0020	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-66	0.25		0.013	0.0016	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-67	0.0058	J	0.013	0.0015	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-68	0.0028	J q	0.013	0.0015	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-69	0.17	C49	0.025	0.0019	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-70	0.43	C61	0.050	0.0016	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-71	0.12	C40	0.038	0.0023	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-72	0.0044	J	0.013	0.0017	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-73	0.0066	J q C43	0.025	0.0022	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-74	0.43	C61	0.050	0.0016	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-75	0.016	J q C59	0.038	0.0016	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-76	0.43	C61	0.050	0.0016	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-77	0.022	B	0.013	0.0016	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-78	ND		0.013	0.0017	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-79	0.0026	J q	0.013	0.0015	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-80	ND		0.013	0.0015	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-81	ND		0.013	0.0016	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-82	0.044	q	0.013	0.00094	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-83	0.30	C	0.025	0.00086	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-84	0.10		0.013	0.00095	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-85	0.086	C	0.038	0.00070	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-86	0.29	C	0.075	0.00070	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-87	0.29	C86	0.075	0.00070	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-88	0.068	C	0.025	0.00085	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-89	0.0050	J	0.013	0.00092	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-90	0.47	C	0.038	0.00071	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-91	0.068	C88	0.025	0.00085	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-92	0.089		0.013	0.00081	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-93	0.0086	J C	0.025	0.00082	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-94	ND		0.013	0.00092	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-95	0.37		0.013	0.00089	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-96	ND		0.013	0.00070	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-97	0.29	C86	0.075	0.00070	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-98	0.010	J q C	0.025	0.00079	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S162

Lab Sample ID: 580-77431-3

Date Collected: 05/18/18 14:10

Matrix: Solid

Date Received: 05/21/18 12:00

Percent Solids: 39.2

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	0.30	C83	0.025	0.00086	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-100	0.0086	J C93	0.025	0.00082	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-101	0.47	C90	0.038	0.00071	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-102	0.010	J q C98	0.025	0.00079	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-103	0.0080	J	0.013	0.00081	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-104	ND		0.013	0.00062	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-105	0.15		0.013	0.0021	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-106	ND		0.013	0.0022	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-107	0.037	B	0.013	0.0023	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-108	0.012	J q C	0.025	0.0022	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-109	0.29	C86	0.075	0.00070	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-110	0.54	C	0.025	0.00059	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-111	ND		0.013	0.00057	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-112	ND		0.013	0.00060	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-113	0.47	C90	0.038	0.00071	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-114	0.0074	J q	0.013	0.0021	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-115	0.54	C110	0.025	0.00059	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-116	0.086	C85	0.038	0.00070	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-117	0.086	C85	0.038	0.00070	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-118	0.41		0.013	0.0020	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-119	0.29	C86	0.075	0.00070	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-120	ND		0.013	0.00058	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-121	ND		0.013	0.00060	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-122	0.0065	J q	0.013	0.0025	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-123	0.0071	J q	0.013	0.0022	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-124	0.012	J q C108	0.025	0.0022	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-125	0.29	C86	0.075	0.00070	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-126	ND		0.013	0.0022	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-127	ND		0.013	0.0022	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-128	0.10	C B	0.025	0.0037	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-129	0.74	C B	0.050	0.0039	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-130	0.037	q	0.013	0.0051	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-131	ND		0.013	0.0053	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-132	0.22		0.013	0.0050	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-133	0.011	J	0.013	0.0048	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-134	0.031	C	0.025	0.0050	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-135	0.22	C	0.025	0.00061	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-136	0.071		0.013	0.00044	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-137	0.027	q	0.013	0.0043	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-138	0.74	C129 B	0.050	0.0039	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-139	0.0077	J q C	0.025	0.0043	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-140	0.0077	J q C139	0.025	0.0043	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-141	0.12		0.013	0.0045	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-142	ND		0.013	0.0048	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-143	0.031	C134	0.025	0.0050	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-144	0.019		0.013	0.00055	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-145	ND		0.013	0.00042	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-146	0.13		0.013	0.0042	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-147	0.62	C	0.025	0.0048	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S162

Lab Sample ID: 580-77431-3

Date Collected: 05/18/18 14:10

Matrix: Solid

Date Received: 05/21/18 12:00

Percent Solids: 39.2

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	ND		0.013	0.00059	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-149	0.62	C147	0.025	0.0048	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-150	0.0016	J q	0.013	0.00040	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-151	0.22	C135	0.025	0.00061	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-152	ND		0.013	0.00043	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-153	0.60	C	0.025	0.0034	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-154	0.013	q	0.013	0.00048	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-155	ND		0.013	0.00040	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-156	0.071	C	0.025	0.0041	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-157	0.071	C156	0.025	0.0041	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-158	0.062		0.013	0.0030	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-159	ND		0.013	0.0032	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-160	0.74	C129 B	0.050	0.0039	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-161	ND		0.013	0.0032	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-162	ND		0.013	0.0031	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-163	0.74	C129 B	0.050	0.0039	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-164	0.048		0.013	0.0034	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-165	ND		0.013	0.0036	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-166	0.10	C128 B	0.025	0.0037	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-167	0.023		0.013	0.0023	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-168	0.60	C153	0.025	0.0034	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-169	ND		0.013	0.0027	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-170	0.18	B	0.013	0.0023	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-171	0.053	C	0.025	0.0021	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-172	0.032		0.013	0.0020	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-173	0.053	C171	0.025	0.0021	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-174	0.19		0.013	0.0019	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-175	0.0076	J	0.013	0.0019	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-176	0.020	q	0.013	0.0014	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-177	0.12		0.013	0.0020	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-178	0.047	q	0.013	0.0020	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-179	0.090		0.013	0.0015	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-180	0.37	C	0.025	0.0015	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-181	ND		0.013	0.0018	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-182	ND		0.013	0.0018	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-183	0.12	C	0.025	0.0018	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-184	ND		0.013	0.0015	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-185	0.12	C183	0.025	0.0018	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-186	ND		0.013	0.0015	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-187	0.25		0.013	0.0017	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-188	ND		0.013	0.0012	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-189	ND		0.013	0.0030	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-190	0.028	q	0.013	0.0013	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-191	0.0067	J q	0.013	0.0014	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-192	ND		0.013	0.0016	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-193	0.37	C180	0.025	0.0015	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-194	0.10		0.013	0.0047	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-195	0.047		0.013	0.0052	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-196	0.041		0.013	0.0019	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S162

Lab Sample ID: 580-77431-3

Date Collected: 05/18/18 14:10

Matrix: Solid

Date Received: 05/21/18 12:00

Percent Solids: 39.2

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	0.0037	J	0.013	0.0014	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-198	0.12	C	0.025	0.0019	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-199	0.12	C198	0.025	0.0019	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-200	0.011	J	0.013	0.0013	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-201	0.011	J q	0.013	0.0013	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-202	0.023	q	0.013	0.0015	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-203	0.060		0.013	0.0017	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-204	ND		0.013	0.0014	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-205	ND		0.013	0.0040	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-206	0.071		0.013	0.0054	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-207	0.0055	J q	0.013	0.0033	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-208	0.021		0.013	0.0031	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
PCB-209	0.090		0.013	0.0015	ng/g	☼	06/01/18 11:00	06/15/18 08:00	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-1L	68		30 - 140				06/01/18 11:00	06/15/18 08:00	1
PCB-3L	70		30 - 140				06/01/18 11:00	06/15/18 08:00	1
PCB-4L	69		30 - 140				06/01/18 11:00	06/15/18 08:00	1
PCB-15L	73		30 - 140				06/01/18 11:00	06/15/18 08:00	1
PCB-19L	84		30 - 140				06/01/18 11:00	06/15/18 08:00	1
PCB-37L	87		30 - 140				06/01/18 11:00	06/15/18 08:00	1
PCB-54L	71		30 - 140				06/01/18 11:00	06/15/18 08:00	1
PCB-77L	84		30 - 140				06/01/18 11:00	06/15/18 08:00	1
PCB-81L	84		30 - 140				06/01/18 11:00	06/15/18 08:00	1
PCB-104L	79		30 - 140				06/01/18 11:00	06/15/18 08:00	1
PCB-105L	89		30 - 140				06/01/18 11:00	06/15/18 08:00	1
PCB-114L	90		30 - 140				06/01/18 11:00	06/15/18 08:00	1
PCB-118L	89		30 - 140				06/01/18 11:00	06/15/18 08:00	1
PCB-123L	88		30 - 140				06/01/18 11:00	06/15/18 08:00	1
PCB-126L	92		30 - 140				06/01/18 11:00	06/15/18 08:00	1
PCB-155L	87		30 - 140				06/01/18 11:00	06/15/18 08:00	1
PCB-156L	83	C	30 - 140				06/01/18 11:00	06/15/18 08:00	1
PCB-157L	83	C156	30 - 140				06/01/18 11:00	06/15/18 08:00	1
PCB-167L	86		30 - 140				06/01/18 11:00	06/15/18 08:00	1
PCB-169L	80		30 - 140				06/01/18 11:00	06/15/18 08:00	1
PCB-170L	82		30 - 140				06/01/18 11:00	06/15/18 08:00	1
PCB-188L	95		30 - 140				06/01/18 11:00	06/15/18 08:00	1
PCB-189L	89		30 - 140				06/01/18 11:00	06/15/18 08:00	1
PCB-202L	98		30 - 140				06/01/18 11:00	06/15/18 08:00	1
PCB-205L	74		30 - 140				06/01/18 11:00	06/15/18 08:00	1
PCB-206L	70		30 - 140				06/01/18 11:00	06/15/18 08:00	1
PCB-208L	79		30 - 140				06/01/18 11:00	06/15/18 08:00	1
PCB-209L	65		30 - 140				06/01/18 11:00	06/15/18 08:00	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-28L	89		40 - 125				06/01/18 11:00	06/15/18 08:00	1
PCB-111L	87		40 - 125				06/01/18 11:00	06/15/18 08:00	1
PCB-178L	92		40 - 125				06/01/18 11:00	06/15/18 08:00	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S163

Date Collected: 05/18/18 13:26

Date Received: 05/21/18 12:00

Lab Sample ID: 580-77431-4

Matrix: Solid

Percent Solids: 40.2

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.0032	J q	0.012	0.00038	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-2	0.0075	J q	0.012	0.00044	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-3	0.0051	J q	0.012	0.00050	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-4	0.020	J q	0.024	0.0058	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-5	ND		0.012	0.0044	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-6	0.012	q	0.012	0.0039	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-7	ND		0.012	0.0040	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-8	0.067		0.024	0.0036	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-9	0.0048	J q	0.012	0.0041	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-10	ND		0.012	0.0043	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-11	0.048	q B	0.024	0.0038	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-12	0.0074	J q C	0.024	0.0039	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-13	0.0074	J q C12	0.024	0.0039	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-14	ND		0.012	0.0033	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-15	0.049		0.012	0.0039	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-16	0.064		0.012	0.00067	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-17	0.099		0.012	0.00060	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-18	0.18	C	0.024	0.00053	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-19	0.024		0.012	0.00074	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-20	0.35	C	0.024	0.0012	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-21	0.16	C	0.024	0.0012	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-22	0.093		0.012	0.0013	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-23	ND		0.012	0.0012	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-24	0.0018	J q	0.012	0.00051	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-25	0.022		0.012	0.0011	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-26	0.044	C	0.024	0.0012	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-27	0.012	q	0.012	0.00044	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-28	0.35	C20	0.024	0.0012	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-29	0.044	C26	0.024	0.0012	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-30	0.18	C18	0.024	0.00053	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-31	0.28	B	0.024	0.0012	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-32	0.052		0.012	0.00042	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-33	0.16	C21	0.024	0.0012	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-34	ND		0.012	0.0013	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-35	0.0047	J	0.012	0.0013	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-36	ND		0.012	0.0012	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-37	0.086		0.012	0.0013	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-38	ND		0.012	0.0013	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-39	0.0023	J	0.012	0.0012	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-40	0.20	C	0.037	0.0028	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-41	0.20	C40	0.037	0.0028	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-42	0.094		0.012	0.0028	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-43	0.010	J C	0.024	0.0026	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-44	0.38	C B	0.037	0.0025	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-45	0.064	C	0.024	0.0030	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-46	0.017		0.012	0.0036	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-47	0.38	C44 B	0.037	0.0025	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-48	0.070	B	0.012	0.0028	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-49	0.26	C	0.024	0.0023	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S163

Lab Sample ID: 580-77431-4

Date Collected: 05/18/18 13:26

Matrix: Solid

Date Received: 05/21/18 12:00

Percent Solids: 40.2

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	0.052	C	0.024	0.0027	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-51	0.064	C45	0.024	0.0030	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-52	0.47		0.012	0.0028	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-53	0.052	C50	0.024	0.0027	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-54	0.0025	J q	0.012	0.000051	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-55	0.0090	J q	0.012	0.0021	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-56	0.17		0.012	0.0021	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-57	ND		0.012	0.0021	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-58	ND		0.012	0.0021	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-59	0.030	J C	0.037	0.0020	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-60	0.056		0.012	0.0021	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-61	0.72	C B	0.049	0.0020	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-62	0.030	J C59	0.037	0.0020	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-63	0.015		0.012	0.0019	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-64	0.15		0.012	0.0019	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-65	0.38	C44 B	0.037	0.0025	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-66	0.43		0.012	0.0020	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-67	0.0097	J	0.012	0.0018	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-68	0.0043	J B	0.012	0.0018	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-69	0.26	C49	0.024	0.0023	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-70	0.72	C61 B	0.049	0.0020	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-71	0.20	C40	0.037	0.0028	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-72	0.0051	J	0.012	0.0020	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-73	0.010	J C43	0.024	0.0026	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-74	0.72	C61 B	0.049	0.0020	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-75	0.030	J C59	0.037	0.0020	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-76	0.72	C61 B	0.049	0.0020	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-77	0.036		0.012	0.0020	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-78	ND		0.012	0.0021	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-79	0.0041	J	0.012	0.0018	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-80	ND		0.012	0.0018	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-81	ND		0.012	0.0019	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-82	0.066	q	0.012	0.00045	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-83	0.40	C	0.024	0.00041	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-84	0.14		0.012	0.00045	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-85	0.11	C	0.037	0.00033	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-86	0.36	C B	0.073	0.00033	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-87	0.36	C86 B	0.073	0.00033	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-88	0.091	C	0.024	0.00040	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-89	0.0070	J q	0.012	0.00044	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-90	0.62	C B	0.037	0.00034	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-91	0.091	C88	0.024	0.00040	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-92	0.11		0.012	0.00038	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-93	0.014	J C	0.024	0.00039	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-94	ND		0.012	0.00044	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-95	0.46		0.012	0.00042	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-96	0.0056	J	0.012	0.00033	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-97	0.36	C86 B	0.073	0.00033	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-98	0.017	J q C	0.024	0.00037	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S163

Lab Sample ID: 580-77431-4

Date Collected: 05/18/18 13:26

Matrix: Solid

Date Received: 05/21/18 12:00

Percent Solids: 40.2

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	0.40	C83	0.024	0.00041	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-100	0.014	J C93	0.024	0.00039	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-101	0.62	C90 B	0.037	0.00034	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-102	0.017	J q C98	0.024	0.00037	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-103	0.010	J	0.012	0.00039	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-104	ND		0.012	0.00029	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-105	0.19		0.012	0.0015	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-106	ND		0.012	0.0016	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-107	0.045		0.012	0.0017	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-108	0.012	J q C B	0.024	0.0016	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-109	0.36	C86 B	0.073	0.00033	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-110	0.68	C B	0.024	0.00028	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-111	ND		0.012	0.00027	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-112	ND		0.012	0.00029	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-113	0.62	C90 B	0.037	0.00034	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-114	0.0091	J q B	0.012	0.0015	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-115	0.68	C110 B	0.024	0.00028	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-116	0.11	C85	0.037	0.00033	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-117	0.11	C85	0.037	0.00033	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-118	0.51	B	0.012	0.0015	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-119	0.36	C86 B	0.073	0.00033	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-120	0.0040	J	0.012	0.00028	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-121	ND		0.012	0.00028	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-122	0.0058	J q	0.012	0.0018	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-123	0.0094	J q	0.012	0.0016	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-124	0.012	J q C108 E	0.024	0.0016	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-125	0.36	C86 B	0.073	0.00033	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-126	0.0028	J q	0.012	0.0018	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-127	ND		0.012	0.0016	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-128	0.11	C	0.024	0.0023	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-129	0.85	C	0.049	0.0024	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-130	0.051		0.012	0.0031	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-131	0.0086	J	0.012	0.0032	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-132	0.26		0.012	0.0030	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-133	0.015	q	0.012	0.0029	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-134	0.046	C	0.024	0.0031	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-135	0.27	C	0.024	0.00033	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-136	0.088		0.012	0.00024	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-137	0.029		0.012	0.0026	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-138	0.85	C129	0.049	0.0024	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-139	0.011	J q C	0.024	0.0026	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-140	0.011	J q C139	0.024	0.0026	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-141	0.14		0.012	0.0027	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-142	ND		0.012	0.0029	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-143	0.046	C134	0.024	0.0031	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-144	0.029	B	0.012	0.00030	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-145	ND		0.012	0.00023	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-146	0.16		0.012	0.0026	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-147	0.78	C	0.024	0.0030	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S163

Lab Sample ID: 580-77431-4

Date Collected: 05/18/18 13:26

Matrix: Solid

Date Received: 05/21/18 12:00

Percent Solids: 40.2

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	0.0028	J	0.012	0.00032	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-149	0.78	C147	0.024	0.0030	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-150	0.0019	J q	0.012	0.00022	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-151	0.27	C135	0.024	0.00033	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-152	0.0013	J	0.012	0.00023	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-153	0.72	C	0.024	0.0021	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-154	0.013		0.012	0.00026	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-155	ND		0.012	0.00022	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-156	0.076	C	0.024	0.0025	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-157	0.076	C156	0.024	0.0025	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-158	0.062	q	0.012	0.0018	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-159	0.0048	J q B	0.012	0.0020	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-160	0.85	C129	0.049	0.0024	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-161	ND		0.012	0.0019	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-162	0.0025	J q	0.012	0.0019	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-163	0.85	C129	0.049	0.0024	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-164	0.060		0.012	0.0021	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-165	ND		0.012	0.0022	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-166	0.11	C128	0.024	0.0023	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-167	0.026		0.012	0.0015	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-168	0.72	C153	0.024	0.0021	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-169	0.0035	J q	0.012	0.0015	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-170	0.24	B	0.012	0.00046	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-171	0.069	C	0.024	0.00038	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-172	0.040		0.012	0.00038	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-173	0.069	C171	0.024	0.00038	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-174	0.23		0.012	0.00036	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-175	0.0079	J	0.012	0.00035	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-176	0.029		0.012	0.00026	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-177	0.14		0.012	0.00037	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-178	0.051		0.012	0.00037	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-179	0.12		0.012	0.00028	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-180	0.49	C B	0.024	0.00029	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-181	ND		0.012	0.00034	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-182	0.0041	J	0.012	0.00033	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-183	0.16	C B	0.024	0.00034	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-184	ND		0.012	0.00028	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-185	0.16	C183 B	0.024	0.00034	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-186	ND		0.012	0.00027	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-187	0.31		0.012	0.00032	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-188	ND		0.012	0.00023	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-189	0.0064	J q	0.012	0.0017	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-190	0.038		0.012	0.00025	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-191	0.0076	J B	0.012	0.00026	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-192	ND		0.012	0.00029	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-193	0.49	C180 B	0.024	0.00029	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-194	0.12	B	0.012	0.0013	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-195	0.055		0.012	0.0014	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-196	0.055		0.012	0.00030	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S163

Lab Sample ID: 580-77431-4

Date Collected: 05/18/18 13:26

Matrix: Solid

Date Received: 05/21/18 12:00

Percent Solids: 40.2

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	0.0029	J q B	0.012	0.00023	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-198	0.13	C	0.024	0.00031	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-199	0.13	C198	0.024	0.00031	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-200	0.012		0.012	0.00021	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-201	0.013		0.012	0.00021	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-202	0.027		0.012	0.00024	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-203	0.074		0.012	0.00027	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-204	ND		0.012	0.00023	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-205	0.0059	J	0.012	0.0011	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-206	0.083		0.012	0.0016	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-207	0.0064	J q	0.012	0.0011	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-208	0.026		0.012	0.0011	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1
PCB-209	0.097	B	0.012	0.00021	ng/g	☼	06/04/18 07:43	06/13/18 04:02	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	65		30 - 140	06/04/18 07:43	06/13/18 04:02	1
PCB-3L	67		30 - 140	06/04/18 07:43	06/13/18 04:02	1
PCB-4L	71		30 - 140	06/04/18 07:43	06/13/18 04:02	1
PCB-15L	73		30 - 140	06/04/18 07:43	06/13/18 04:02	1
PCB-19L	96		30 - 140	06/04/18 07:43	06/13/18 04:02	1
PCB-37L	82		30 - 140	06/04/18 07:43	06/13/18 04:02	1
PCB-54L	89		30 - 140	06/04/18 07:43	06/13/18 04:02	1
PCB-77L	85		30 - 140	06/04/18 07:43	06/13/18 04:02	1
PCB-81L	84		30 - 140	06/04/18 07:43	06/13/18 04:02	1
PCB-104L	78		30 - 140	06/04/18 07:43	06/13/18 04:02	1
PCB-105L	96		30 - 140	06/04/18 07:43	06/13/18 04:02	1
PCB-114L	98		30 - 140	06/04/18 07:43	06/13/18 04:02	1
PCB-118L	95		30 - 140	06/04/18 07:43	06/13/18 04:02	1
PCB-123L	93		30 - 140	06/04/18 07:43	06/13/18 04:02	1
PCB-126L	84		30 - 140	06/04/18 07:43	06/13/18 04:02	1
PCB-155L	83		30 - 140	06/04/18 07:43	06/13/18 04:02	1
PCB-156L	86	C	30 - 140	06/04/18 07:43	06/13/18 04:02	1
PCB-157L	86	C156	30 - 140	06/04/18 07:43	06/13/18 04:02	1
PCB-167L	85		30 - 140	06/04/18 07:43	06/13/18 04:02	1
PCB-169L	85		30 - 140	06/04/18 07:43	06/13/18 04:02	1
PCB-170L	82		30 - 140	06/04/18 07:43	06/13/18 04:02	1
PCB-188L	99		30 - 140	06/04/18 07:43	06/13/18 04:02	1
PCB-189L	88		30 - 140	06/04/18 07:43	06/13/18 04:02	1
PCB-202L	103		30 - 140	06/04/18 07:43	06/13/18 04:02	1
PCB-205L	72		30 - 140	06/04/18 07:43	06/13/18 04:02	1
PCB-206L	73		30 - 140	06/04/18 07:43	06/13/18 04:02	1
PCB-208L	89		30 - 140	06/04/18 07:43	06/13/18 04:02	1
PCB-209L	69		30 - 140	06/04/18 07:43	06/13/18 04:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	88		40 - 125	06/04/18 07:43	06/13/18 04:02	1
PCB-111L	85		40 - 125	06/04/18 07:43	06/13/18 04:02	1
PCB-178L	94		40 - 125	06/04/18 07:43	06/13/18 04:02	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S160

Date Collected: 05/18/18 12:10

Date Received: 05/21/18 12:00

Lab Sample ID: 580-77431-5

Matrix: Solid

Percent Solids: 39.0

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.0030	J q	0.012	0.00052	ng/g	✱	06/04/18 07:43	06/13/18 05:03	1
PCB-2	0.0064	J q	0.012	0.00059	ng/g	✱	06/04/18 07:43	06/13/18 05:03	1
PCB-3	0.0049	J q	0.012	0.00066	ng/g	✱	06/04/18 07:43	06/13/18 05:03	1
PCB-4	0.036		0.025	0.0068	ng/g	✱	06/04/18 07:43	06/13/18 05:03	1
PCB-5	ND		0.012	0.0053	ng/g	✱	06/04/18 07:43	06/13/18 05:03	1
PCB-6	0.018	q	0.012	0.0047	ng/g	✱	06/04/18 07:43	06/13/18 05:03	1
PCB-7	ND		0.012	0.0048	ng/g	✱	06/04/18 07:43	06/13/18 05:03	1
PCB-8	0.082		0.025	0.0043	ng/g	✱	06/04/18 07:43	06/13/18 05:03	1
PCB-9	0.0074	J q	0.012	0.0049	ng/g	✱	06/04/18 07:43	06/13/18 05:03	1
PCB-10	ND		0.012	0.0052	ng/g	✱	06/04/18 07:43	06/13/18 05:03	1
PCB-11	0.059	B	0.025	0.0046	ng/g	✱	06/04/18 07:43	06/13/18 05:03	1
PCB-12	0.0080	J C q	0.025	0.0047	ng/g	✱	06/04/18 07:43	06/13/18 05:03	1
PCB-13	0.0080	J C12 q	0.025	0.0047	ng/g	✱	06/04/18 07:43	06/13/18 05:03	1
PCB-14	ND		0.012	0.0040	ng/g	✱	06/04/18 07:43	06/13/18 05:03	1
PCB-15	0.056		0.012	0.0049	ng/g	✱	06/04/18 07:43	06/13/18 05:03	1
PCB-16	0.090		0.012	0.00075	ng/g	✱	06/04/18 07:43	06/13/18 05:03	1
PCB-17	0.12		0.012	0.00067	ng/g	✱	06/04/18 07:43	06/13/18 05:03	1
PCB-18	0.26	C	0.025	0.00059	ng/g	✱	06/04/18 07:43	06/13/18 05:03	1
PCB-19	0.034	q	0.012	0.00082	ng/g	✱	06/04/18 07:43	06/13/18 05:03	1
PCB-20	0.40	C	0.025	0.0016	ng/g	✱	06/04/18 07:43	06/13/18 05:03	1
PCB-21	0.19	C	0.025	0.0015	ng/g	✱	06/04/18 07:43	06/13/18 05:03	1
PCB-22	0.11		0.012	0.0016	ng/g	✱	06/04/18 07:43	06/13/18 05:03	1
PCB-23	ND		0.012	0.0016	ng/g	✱	06/04/18 07:43	06/13/18 05:03	1
PCB-24	0.0029	J q	0.012	0.00057	ng/g	✱	06/04/18 07:43	06/13/18 05:03	1
PCB-25	0.025		0.012	0.0014	ng/g	✱	06/04/18 07:43	06/13/18 05:03	1
PCB-26	0.055	C	0.025	0.0015	ng/g	✱	06/04/18 07:43	06/13/18 05:03	1
PCB-27	0.021		0.012	0.00049	ng/g	✱	06/04/18 07:43	06/13/18 05:03	1
PCB-28	0.40	C20	0.025	0.0016	ng/g	✱	06/04/18 07:43	06/13/18 05:03	1
PCB-29	0.055	C26	0.025	0.0015	ng/g	✱	06/04/18 07:43	06/13/18 05:03	1
PCB-30	0.26	C18	0.025	0.00059	ng/g	✱	06/04/18 07:43	06/13/18 05:03	1
PCB-31	0.33	B	0.025	0.0015	ng/g	✱	06/04/18 07:43	06/13/18 05:03	1
PCB-32	0.073		0.012	0.00047	ng/g	✱	06/04/18 07:43	06/13/18 05:03	1
PCB-33	0.19	C21	0.025	0.0015	ng/g	✱	06/04/18 07:43	06/13/18 05:03	1
PCB-34	ND		0.012	0.0017	ng/g	✱	06/04/18 07:43	06/13/18 05:03	1
PCB-35	0.0035	J	0.012	0.0016	ng/g	✱	06/04/18 07:43	06/13/18 05:03	1
PCB-36	ND		0.012	0.0015	ng/g	✱	06/04/18 07:43	06/13/18 05:03	1
PCB-37	0.098		0.012	0.0016	ng/g	✱	06/04/18 07:43	06/13/18 05:03	1
PCB-38	ND		0.012	0.0017	ng/g	✱	06/04/18 07:43	06/13/18 05:03	1
PCB-39	0.0038	J	0.012	0.0015	ng/g	✱	06/04/18 07:43	06/13/18 05:03	1
PCB-40	0.25	C	0.037	0.0034	ng/g	✱	06/04/18 07:43	06/13/18 05:03	1
PCB-41	0.25	C40	0.037	0.0034	ng/g	✱	06/04/18 07:43	06/13/18 05:03	1
PCB-42	0.12		0.012	0.0034	ng/g	✱	06/04/18 07:43	06/13/18 05:03	1
PCB-43	0.017	J C	0.025	0.0032	ng/g	✱	06/04/18 07:43	06/13/18 05:03	1
PCB-44	0.50	C B	0.037	0.0030	ng/g	✱	06/04/18 07:43	06/13/18 05:03	1
PCB-45	0.086	C	0.025	0.0036	ng/g	✱	06/04/18 07:43	06/13/18 05:03	1
PCB-46	0.028		0.012	0.0044	ng/g	✱	06/04/18 07:43	06/13/18 05:03	1
PCB-47	0.50	B C44	0.037	0.0030	ng/g	✱	06/04/18 07:43	06/13/18 05:03	1
PCB-48	0.093	B	0.012	0.0034	ng/g	✱	06/04/18 07:43	06/13/18 05:03	1
PCB-49	0.31	C	0.025	0.0028	ng/g	✱	06/04/18 07:43	06/13/18 05:03	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S160

Lab Sample ID: 580-77431-5

Date Collected: 05/18/18 12:10

Matrix: Solid

Date Received: 05/21/18 12:00

Percent Solids: 39.0

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	0.066	C	0.025	0.0033	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-51	0.086	C45	0.025	0.0036	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-52	0.62		0.012	0.0034	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-53	0.066	C50	0.025	0.0033	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-54	0.0026	J q	0.012	0.00012	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-55	0.011	J	0.012	0.0025	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-56	0.20		0.012	0.0025	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-57	ND		0.012	0.0025	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-58	0.0028	J q	0.012	0.0026	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-59	0.036	J C	0.037	0.0024	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-60	0.075		0.012	0.0026	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-61	0.84	C B	0.050	0.0024	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-62	0.036	J C59	0.037	0.0024	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-63	0.016		0.012	0.0023	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-64	0.19		0.012	0.0023	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-65	0.50	B C44	0.037	0.0030	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-66	0.46		0.012	0.0024	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-67	0.0078	J q	0.012	0.0022	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-68	0.0041	J B q	0.012	0.0022	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-69	0.31	C49	0.025	0.0028	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-70	0.84	C61 B	0.050	0.0024	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-71	0.25	C40	0.037	0.0034	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-72	0.0071	J	0.012	0.0025	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-73	0.017	J C43	0.025	0.0032	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-74	0.84	C61 B	0.050	0.0024	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-75	0.036	J C59	0.037	0.0024	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-76	0.84	C61 B	0.050	0.0024	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-77	0.034		0.012	0.0024	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-78	ND		0.012	0.0026	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-79	0.0040	J	0.012	0.0022	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-80	ND		0.012	0.0022	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-81	ND		0.012	0.0024	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-82	0.097		0.012	0.00055	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-83	0.46	C	0.025	0.00050	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-84	0.19		0.012	0.00055	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-85	0.14	C	0.037	0.00041	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-86	0.49	C B	0.075	0.00041	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-87	0.49	B C86	0.075	0.00041	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-88	0.12	C	0.025	0.00050	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-89	0.0087	J q	0.012	0.00054	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-90	0.78	C B	0.037	0.00042	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-91	0.12	C88	0.025	0.00050	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-92	0.14		0.012	0.00047	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-93	0.019	J C	0.025	0.00048	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-94	ND		0.012	0.00054	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-95	0.63		0.012	0.00052	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-96	0.0076	J q	0.012	0.00041	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-97	0.49	B C86	0.075	0.00041	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-98	0.019	J C q	0.025	0.00046	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S160

Lab Sample ID: 580-77431-5

Date Collected: 05/18/18 12:10

Matrix: Solid

Date Received: 05/21/18 12:00

Percent Solids: 39.0

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	0.46	C83	0.025	0.00050	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-100	0.019	J C93	0.025	0.00048	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-101	0.78	B C90	0.037	0.00042	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-102	0.019	J C98 q	0.025	0.00046	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-103	0.010	J q	0.012	0.00047	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-104	ND		0.012	0.00036	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-105	0.24		0.012	0.0021	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-106	ND		0.012	0.0021	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-107	0.056		0.012	0.0022	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-108	0.022	J C B	0.025	0.0021	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-109	0.49	B C86	0.075	0.00041	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-110	0.87	C B	0.025	0.00035	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-111	ND		0.012	0.00033	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-112	ND		0.012	0.00035	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-113	0.78	B C90	0.037	0.00042	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-114	0.013	B	0.012	0.0019	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-115	0.87	B C110	0.025	0.00035	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-116	0.14	C85	0.037	0.00041	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-117	0.14	C85	0.037	0.00041	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-118	0.61	B	0.012	0.0019	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-119	0.49	B C86	0.075	0.00041	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-120	ND		0.012	0.00034	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-121	ND		0.012	0.00035	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-122	0.0091	J	0.012	0.0024	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-123	0.011	J	0.012	0.0021	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-124	0.022	J B C108	0.025	0.0021	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-125	0.49	B C86	0.075	0.00041	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-126	0.0026	J q	0.012	0.0022	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-127	ND		0.012	0.0021	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-128	0.13	C	0.025	0.0032	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-129	0.96	C	0.050	0.0033	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-130	0.061		0.012	0.0044	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-131	0.0081	J q	0.012	0.0046	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-132	0.31		0.012	0.0043	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-133	0.018		0.012	0.0042	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-134	0.050	C	0.025	0.0043	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-135	0.32	C	0.025	0.00045	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-136	0.12		0.012	0.00032	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-137	0.029	q	0.012	0.0038	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-138	0.96	C129	0.050	0.0033	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-139	0.012	J C q	0.025	0.0037	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-140	0.012	J C139 q	0.025	0.0037	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-141	0.17		0.012	0.0039	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-142	ND		0.012	0.0041	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-143	0.050	C134	0.025	0.0043	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-144	0.033	B q	0.012	0.00040	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-145	ND		0.012	0.00031	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-146	0.19		0.012	0.0037	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-147	0.90	C	0.025	0.0042	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S160

Lab Sample ID: 580-77431-5

Date Collected: 05/18/18 12:10

Matrix: Solid

Date Received: 05/21/18 12:00

Percent Solids: 39.0

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	0.0035	J q	0.012	0.00043	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-149	0.90	C147	0.025	0.0042	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-150	0.0025	J q	0.012	0.00029	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-151	0.32	C135	0.025	0.00045	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-152	ND		0.012	0.00031	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-153	0.83	C	0.025	0.0029	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-154	0.020		0.012	0.00035	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-155	ND		0.012	0.00029	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-156	0.096	C	0.025	0.0037	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-157	0.096	C156	0.025	0.0037	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-158	0.084		0.012	0.0026	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-159	0.0074	J B	0.012	0.0028	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-160	0.96	C129	0.050	0.0033	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-161	ND		0.012	0.0028	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-162	ND		0.012	0.0027	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-163	0.96	C129	0.050	0.0033	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-164	0.054	q	0.012	0.0029	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-165	ND		0.012	0.0031	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-166	0.13	C128	0.025	0.0032	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-167	0.031		0.012	0.0020	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-168	0.83	C153	0.025	0.0029	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-169	ND		0.012	0.0021	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-170	0.28	B	0.012	0.00087	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-171	0.086	C	0.025	0.00078	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-172	0.042		0.012	0.00078	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-173	0.086	C171	0.025	0.00078	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-174	0.30		0.012	0.00073	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-175	0.012		0.012	0.00071	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-176	0.038		0.012	0.00053	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-177	0.18		0.012	0.00075	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-178	0.068		0.012	0.00076	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-179	0.14		0.012	0.00056	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-180	0.59	C B	0.025	0.00059	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-181	ND		0.012	0.00070	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-182	0.0034	J q	0.012	0.00068	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-183	0.19	C B	0.025	0.00069	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-184	ND		0.012	0.00058	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-185	0.19	B C183	0.025	0.00069	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-186	ND		0.012	0.00056	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-187	0.39		0.012	0.00066	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-188	ND		0.012	0.00048	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-189	0.0072	J q	0.012	0.0021	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-190	0.053		0.012	0.00051	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-191	0.012	B	0.012	0.00053	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-192	ND		0.012	0.00059	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-193	0.59	C180 B	0.025	0.00059	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-194	0.15	B	0.012	0.0017	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-195	0.056	q	0.012	0.0019	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-196	0.064		0.012	0.00058	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S160

Lab Sample ID: 580-77431-5

Date Collected: 05/18/18 12:10

Matrix: Solid

Date Received: 05/21/18 12:00

Percent Solids: 39.0

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	0.0049	J B	0.012	0.00044	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-198	0.17	C	0.025	0.00058	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-199	0.17	C198	0.025	0.00058	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-200	0.014	q	0.012	0.00039	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-201	0.016		0.012	0.00040	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-202	0.032		0.012	0.00045	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-203	0.096		0.012	0.00052	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-204	ND		0.012	0.00044	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-205	0.0073	J q	0.012	0.0014	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-206	0.091	q	0.012	0.0025	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-207	0.0081	J q	0.012	0.0018	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-208	0.028	q	0.012	0.0018	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1
PCB-209	0.10	B	0.012	0.00017	ng/g	☼	06/04/18 07:43	06/13/18 05:03	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	64		30 - 140	06/04/18 07:43	06/13/18 05:03	1
PCB-3L	65		30 - 140	06/04/18 07:43	06/13/18 05:03	1
PCB-4L	70		30 - 140	06/04/18 07:43	06/13/18 05:03	1
PCB-15L	73		30 - 140	06/04/18 07:43	06/13/18 05:03	1
PCB-19L	110		30 - 140	06/04/18 07:43	06/13/18 05:03	1
PCB-37L	87		30 - 140	06/04/18 07:43	06/13/18 05:03	1
PCB-54L	100		30 - 140	06/04/18 07:43	06/13/18 05:03	1
PCB-77L	83		30 - 140	06/04/18 07:43	06/13/18 05:03	1
PCB-81L	81		30 - 140	06/04/18 07:43	06/13/18 05:03	1
PCB-104L	77		30 - 140	06/04/18 07:43	06/13/18 05:03	1
PCB-105L	88		30 - 140	06/04/18 07:43	06/13/18 05:03	1
PCB-114L	91		30 - 140	06/04/18 07:43	06/13/18 05:03	1
PCB-118L	87		30 - 140	06/04/18 07:43	06/13/18 05:03	1
PCB-123L	87		30 - 140	06/04/18 07:43	06/13/18 05:03	1
PCB-126L	85		30 - 140	06/04/18 07:43	06/13/18 05:03	1
PCB-155L	82		30 - 140	06/04/18 07:43	06/13/18 05:03	1
PCB-156L	87	C	30 - 140	06/04/18 07:43	06/13/18 05:03	1
PCB-157L	87	C156	30 - 140	06/04/18 07:43	06/13/18 05:03	1
PCB-167L	90		30 - 140	06/04/18 07:43	06/13/18 05:03	1
PCB-169L	90		30 - 140	06/04/18 07:43	06/13/18 05:03	1
PCB-170L	83		30 - 140	06/04/18 07:43	06/13/18 05:03	1
PCB-188L	92		30 - 140	06/04/18 07:43	06/13/18 05:03	1
PCB-189L	85		30 - 140	06/04/18 07:43	06/13/18 05:03	1
PCB-202L	100		30 - 140	06/04/18 07:43	06/13/18 05:03	1
PCB-205L	73		30 - 140	06/04/18 07:43	06/13/18 05:03	1
PCB-206L	76		30 - 140	06/04/18 07:43	06/13/18 05:03	1
PCB-208L	81		30 - 140	06/04/18 07:43	06/13/18 05:03	1
PCB-209L	71		30 - 140	06/04/18 07:43	06/13/18 05:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	89		40 - 125	06/04/18 07:43	06/13/18 05:03	1
PCB-111L	88		40 - 125	06/04/18 07:43	06/13/18 05:03	1
PCB-178L	89		40 - 125	06/04/18 07:43	06/13/18 05:03	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S142

Date Collected: 05/18/18 10:53

Date Received: 05/21/18 12:00

Lab Sample ID: 580-77431-6

Matrix: Solid

Percent Solids: 61.9

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.015	J	0.047	0.0013	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-2	0.017	J	0.047	0.0014	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-3	0.027	J q	0.047	0.0016	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-4	0.062	J	0.093	0.024	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-5	ND		0.047	0.019	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-6	0.024	J q	0.047	0.017	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-7	ND		0.047	0.017	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-8	0.11		0.093	0.016	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-9	ND		0.047	0.018	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-10	ND		0.047	0.019	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-11	0.065	J B	0.093	0.017	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-12	0.033	J q C	0.093	0.017	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-13	0.033	J q C12	0.093	0.017	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-14	ND		0.047	0.015	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-15	0.15	q	0.047	0.018	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-16	0.41		0.047	0.0031	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-17	0.55		0.047	0.0028	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-18	1.3	C	0.093	0.0025	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-19	0.11		0.047	0.0034	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-20	2.7	C	0.093	0.0063	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-21	0.61	C	0.093	0.0062	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-22	0.84		0.047	0.0065	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-23	ND		0.047	0.0064	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-24	ND		0.047	0.0024	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-25	0.16		0.047	0.0059	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-26	0.26	C	0.093	0.0062	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-27	0.084	q	0.047	0.0020	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-28	2.7	C20	0.093	0.0063	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-29	0.26	C26	0.093	0.0062	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-30	1.3	C18	0.093	0.0025	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-31	2.0	B	0.093	0.0062	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-32	0.54		0.047	0.0020	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-33	0.61	C21	0.093	0.0062	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-34	ND		0.047	0.0067	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-35	0.026	J	0.047	0.0065	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-36	ND		0.047	0.0063	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-37	0.74		0.047	0.0065	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-38	ND		0.047	0.0067	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-39	0.015	J q	0.047	0.0060	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-40	1.9	C	0.14	0.012	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-41	1.9	C40	0.14	0.012	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-42	0.87		0.047	0.012	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-43	0.10	q C	0.093	0.011	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-44	3.4	C B	0.14	0.011	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-45	0.59	C	0.093	0.012	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-46	0.15	q	0.047	0.015	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-47	3.4	C44 B	0.14	0.011	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-48	0.66	B	0.047	0.012	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-49	1.9	C	0.093	0.0097	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S142

Lab Sample ID: 580-77431-6

Date Collected: 05/18/18 10:53

Matrix: Solid

Date Received: 05/21/18 12:00

Percent Solids: 61.9

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	0.43	C	0.093	0.012	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-51	0.59	C45	0.093	0.012	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-52	3.6		0.047	0.012	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-53	0.43	C50	0.093	0.012	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-54	0.0060	J q	0.047	0.00054	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-55	0.16		0.047	0.0086	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-56	1.8		0.047	0.0086	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-57	0.014	J	0.047	0.0088	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-58	ND		0.047	0.0089	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-59	0.27	C	0.14	0.0084	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-60	0.95		0.047	0.0088	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-61	5.8	C B	0.19	0.0083	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-62	0.27	C59	0.14	0.0084	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-63	0.13		0.047	0.0080	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-64	1.5		0.047	0.0079	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-65	3.4	C44 B	0.14	0.011	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-66	3.5		0.047	0.0082	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-67	0.062	q	0.047	0.0076	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-68	ND		0.047	0.0078	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-69	1.9	C49	0.093	0.0097	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-70	5.8	C61 B	0.19	0.0083	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-71	1.9	C40	0.14	0.012	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-72	ND		0.047	0.0086	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-73	0.10	q C43	0.093	0.011	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-74	5.8	C61 B	0.19	0.0083	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-75	0.27	C59	0.14	0.0084	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-76	5.8	C61 B	0.19	0.0083	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-77	0.33		0.047	0.0084	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-78	ND		0.047	0.0089	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-79	0.022	J q	0.047	0.0077	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-80	ND		0.047	0.0076	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-81	ND		0.047	0.0081	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-82	0.62		0.047	0.0025	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-83	2.1	C	0.093	0.0023	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-84	0.90		0.047	0.0025	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-85	0.78	C	0.14	0.0019	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-86	2.5	C B	0.28	0.0019	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-87	2.5	C86 B	0.28	0.0019	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-88	0.54	C	0.093	0.0023	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-89	0.077		0.047	0.0025	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-90	3.8	C B	0.14	0.0019	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-91	0.54	C88	0.093	0.0023	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-92	0.73		0.047	0.0022	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-93	0.075	J q C	0.093	0.0022	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-94	ND		0.047	0.0025	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-95	2.9		0.047	0.0024	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-96	0.038	J	0.047	0.0019	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-97	2.5	C86 B	0.28	0.0019	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-98	0.15	C	0.093	0.0021	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S142

Lab Sample ID: 580-77431-6

Date Collected: 05/18/18 10:53

Matrix: Solid

Date Received: 05/21/18 12:00

Percent Solids: 61.9

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	2.1	C83	0.093	0.0023	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-100	0.075	J q C93	0.093	0.0022	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-101	3.8	C90 B	0.14	0.0019	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-102	0.15	C98	0.093	0.0021	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-103	ND		0.047	0.0022	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-104	ND		0.047	0.0017	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-105	1.3		0.047	0.010	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-106	ND		0.047	0.010	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-107	0.25		0.047	0.011	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-108	0.080	J q C B	0.093	0.011	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-109	2.5	C86 B	0.28	0.0019	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-110	4.0	C B	0.093	0.0016	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-111	ND		0.047	0.0015	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-112	ND		0.047	0.0016	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-113	3.8	C90 B	0.14	0.0019	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-114	0.071	B	0.047	0.0095	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-115	4.0	C110 B	0.093	0.0016	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-116	0.78	C85	0.14	0.0019	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-117	0.78	C85	0.14	0.0019	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-118	2.5	B	0.047	0.0099	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-119	2.5	C86 B	0.28	0.0019	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-120	0.027	J q	0.047	0.0016	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-121	ND		0.047	0.0016	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-122	0.045	J q	0.047	0.012	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-123	0.046	J q	0.047	0.010	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-124	0.080	J q C108 E	0.093	0.011	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-125	2.5	C86 B	0.28	0.0019	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-126	ND		0.047	0.011	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-127	ND		0.047	0.010	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-128	0.47	C	0.093	0.023	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-129	4.9	C	0.19	0.024	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-130	0.28		0.047	0.032	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-131	ND		0.047	0.033	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-132	1.5		0.047	0.031	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-133	0.086		0.047	0.030	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-134	0.22	C	0.093	0.031	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-135	2.1	C	0.093	0.0017	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-136	0.62		0.047	0.0013	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-137	0.13		0.047	0.027	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-138	4.9	C129	0.19	0.024	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-139	0.079	J C	0.093	0.027	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-140	0.079	J C139	0.093	0.027	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-141	1.1		0.047	0.028	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-142	ND		0.047	0.030	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-143	0.22	C134	0.093	0.031	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-144	0.26	B	0.047	0.0016	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-145	ND		0.047	0.0012	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-146	1.0		0.047	0.026	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-147	4.5	C	0.093	0.030	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S142

Lab Sample ID: 580-77431-6

Date Collected: 05/18/18 10:53

Matrix: Solid

Date Received: 05/21/18 12:00

Percent Solids: 61.9

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	0.027	J	0.047	0.0017	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-149	4.5	C147	0.093	0.030	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-150	ND		0.047	0.0011	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-151	2.1	C135	0.093	0.0017	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-152	ND		0.047	0.0012	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-153	4.4	C	0.093	0.021	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-154	0.093		0.047	0.0014	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-155	ND		0.047	0.0011	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-156	0.38	C	0.093	0.026	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-157	0.38	C156	0.093	0.026	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-158	0.44		0.047	0.019	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-159	0.050	B	0.047	0.020	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-160	4.9	C129	0.19	0.024	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-161	ND		0.047	0.020	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-162	ND		0.047	0.020	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-163	4.9	C129	0.19	0.024	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-164	0.35		0.047	0.021	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-165	ND		0.047	0.023	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-166	0.47	C128	0.093	0.023	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-167	0.13		0.047	0.015	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-168	4.4	C153	0.093	0.021	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-169	0.031	J q	0.047	0.015	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-170	2.2	B	0.047	0.0068	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-171	0.71	C	0.093	0.0067	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-172	0.37		0.047	0.0066	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-173	0.71	C171	0.093	0.0067	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-174	1.9		0.047	0.0062	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-175	0.10		0.047	0.0060	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-176	0.26		0.047	0.0045	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-177	1.2		0.047	0.0064	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-178	0.39		0.047	0.0065	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-179	0.81		0.047	0.0048	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-180	4.2	C B	0.093	0.0050	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-181	0.22	q	0.047	0.0060	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-182	0.029	J	0.047	0.0058	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-183	1.4	C B	0.093	0.0059	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-184	ND		0.047	0.0049	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-185	1.4	C183 B	0.093	0.0059	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-186	ND		0.047	0.0048	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-187	2.2		0.047	0.0056	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-188	ND		0.047	0.0043	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-189	0.11		0.047	0.023	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-190	0.47		0.047	0.0043	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-191	0.15	q B	0.047	0.0045	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-192	ND		0.047	0.0050	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-193	4.2	C180 B	0.093	0.0050	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-194	1.1	B	0.047	0.036	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-195	0.76		0.047	0.040	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-196	0.61		0.047	0.0069	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S142

Lab Sample ID: 580-77431-6

Date Collected: 05/18/18 10:53

Matrix: Solid

Date Received: 05/21/18 12:00

Percent Solids: 61.9

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	0.080	B	0.047	0.0053	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-198	1.2	C	0.093	0.0070	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-199	1.2	C198	0.093	0.0070	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-200	0.17		0.047	0.0047	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-201	0.20		0.047	0.0048	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-202	0.20		0.047	0.0054	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-203	0.80		0.047	0.0062	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-204	0.032	J q	0.047	0.0053	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-205	0.24	q	0.047	0.031	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-206	1.9		0.047	0.042	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-207	0.48		0.047	0.028	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-208	0.55		0.047	0.027	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1
PCB-209	2.4	B	0.047	0.016	ng/g	☼	06/04/18 07:43	06/13/18 09:10	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	60		30 - 140	06/04/18 07:43	06/13/18 09:10	1
PCB-3L	59		30 - 140	06/04/18 07:43	06/13/18 09:10	1
PCB-4L	67		30 - 140	06/04/18 07:43	06/13/18 09:10	1
PCB-15L	64		30 - 140	06/04/18 07:43	06/13/18 09:10	1
PCB-19L	76		30 - 140	06/04/18 07:43	06/13/18 09:10	1
PCB-37L	87		30 - 140	06/04/18 07:43	06/13/18 09:10	1
PCB-54L	78		30 - 140	06/04/18 07:43	06/13/18 09:10	1
PCB-77L	89		30 - 140	06/04/18 07:43	06/13/18 09:10	1
PCB-81L	91		30 - 140	06/04/18 07:43	06/13/18 09:10	1
PCB-104L	73		30 - 140	06/04/18 07:43	06/13/18 09:10	1
PCB-105L	86		30 - 140	06/04/18 07:43	06/13/18 09:10	1
PCB-114L	87		30 - 140	06/04/18 07:43	06/13/18 09:10	1
PCB-118L	85		30 - 140	06/04/18 07:43	06/13/18 09:10	1
PCB-123L	84		30 - 140	06/04/18 07:43	06/13/18 09:10	1
PCB-126L	82		30 - 140	06/04/18 07:43	06/13/18 09:10	1
PCB-155L	84		30 - 140	06/04/18 07:43	06/13/18 09:10	1
PCB-156L	88	C	30 - 140	06/04/18 07:43	06/13/18 09:10	1
PCB-157L	88	C156	30 - 140	06/04/18 07:43	06/13/18 09:10	1
PCB-167L	89		30 - 140	06/04/18 07:43	06/13/18 09:10	1
PCB-169L	91		30 - 140	06/04/18 07:43	06/13/18 09:10	1
PCB-170L	83		30 - 140	06/04/18 07:43	06/13/18 09:10	1
PCB-188L	88		30 - 140	06/04/18 07:43	06/13/18 09:10	1
PCB-189L	91		30 - 140	06/04/18 07:43	06/13/18 09:10	1
PCB-202L	101		30 - 140	06/04/18 07:43	06/13/18 09:10	1
PCB-205L	74		30 - 140	06/04/18 07:43	06/13/18 09:10	1
PCB-206L	76		30 - 140	06/04/18 07:43	06/13/18 09:10	1
PCB-208L	89		30 - 140	06/04/18 07:43	06/13/18 09:10	1
PCB-209L	74		30 - 140	06/04/18 07:43	06/13/18 09:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	86		40 - 125	06/04/18 07:43	06/13/18 09:10	1
PCB-111L	87		40 - 125	06/04/18 07:43	06/13/18 09:10	1
PCB-178L	83		40 - 125	06/04/18 07:43	06/13/18 09:10	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S150

Date Collected: 05/18/18 09:50

Date Received: 05/21/18 12:00

Lab Sample ID: 580-77431-7

Matrix: Solid

Percent Solids: 39.3

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.0039	J q	0.012	0.00040	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-2	0.0044	J q	0.012	0.00047	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-3	0.0043	J	0.012	0.00053	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-4	0.027	q	0.025	0.0081	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-5	ND		0.012	0.0066	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-6	0.023	q	0.012	0.0058	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-7	ND		0.012	0.0059	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-8	0.052		0.025	0.0054	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-9	ND		0.012	0.0061	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-10	ND		0.012	0.0065	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-11	0.049	B	0.025	0.0057	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-12	0.014	J q C	0.025	0.0059	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-13	0.014	J q C12	0.025	0.0059	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-14	ND		0.012	0.0050	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-15	0.047	q	0.012	0.0062	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-16	0.047	q	0.012	0.00089	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-17	0.075	q	0.012	0.00080	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-18	0.17	C	0.025	0.00070	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-19	0.021	q	0.012	0.00098	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-20	0.32	C	0.025	0.0017	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-21	0.10	C	0.025	0.0017	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-22	0.082		0.012	0.0018	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-23	ND		0.012	0.0018	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-24	0.0027	J	0.012	0.00067	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-25	0.054		0.012	0.0016	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-26	0.078	C	0.025	0.0017	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-27	0.011	J	0.012	0.00058	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-28	0.32	C20	0.025	0.0017	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-29	0.078	C26	0.025	0.0017	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-30	0.17	C18	0.025	0.00070	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-31	0.27	B	0.025	0.0017	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-32	0.062		0.012	0.00056	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-33	0.10	C21	0.025	0.0017	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-34	ND		0.012	0.0018	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-35	0.0034	J q	0.012	0.0018	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-36	ND		0.012	0.0017	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-37	0.059		0.012	0.0018	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-38	ND		0.012	0.0019	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-39	0.0026	J	0.012	0.0017	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-40	0.29	C	0.037	0.0031	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-41	0.29	C40	0.037	0.0031	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-42	0.14		0.012	0.0031	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-43	0.020	J C	0.025	0.0029	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-44	0.57	C B	0.037	0.0027	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-45	0.097	C	0.025	0.0032	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-46	0.031		0.012	0.0039	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-47	0.57	C44 B	0.037	0.0027	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-48	0.092	B	0.012	0.0031	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-49	0.37	C	0.025	0.0025	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S150

Lab Sample ID: 580-77431-7

Date Collected: 05/18/18 09:50

Matrix: Solid

Date Received: 05/21/18 12:00

Percent Solids: 39.3

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	0.075	C	0.025	0.0030	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-51	0.097	C45	0.025	0.0032	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-52	0.66		0.012	0.0030	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-53	0.075	C50	0.025	0.0030	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-54	0.0049	J	0.012	0.00016	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-55	0.012	q	0.012	0.0022	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-56	0.26		0.012	0.0022	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-57	ND		0.012	0.0023	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-58	0.0027	J q	0.012	0.0023	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-59	0.043	C	0.037	0.0022	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-60	0.12		0.012	0.0023	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-61	0.81	C B	0.050	0.0021	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-62	0.043	C59	0.037	0.0022	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-63	0.021		0.012	0.0021	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-64	0.23		0.012	0.0020	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-65	0.57	C44 B	0.037	0.0027	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-66	0.53		0.012	0.0021	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-67	0.012	q	0.012	0.0020	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-68	ND		0.012	0.0020	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-69	0.37	C49	0.025	0.0025	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-70	0.81	C61 B	0.050	0.0021	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-71	0.29	C40	0.037	0.0031	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-72	ND		0.012	0.0022	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-73	0.020	J C43	0.025	0.0029	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-74	0.81	C61 B	0.050	0.0021	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-75	0.043	C59	0.037	0.0022	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-76	0.81	C61 B	0.050	0.0021	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-77	0.046		0.012	0.0021	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-78	ND		0.012	0.0023	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-79	0.0053	J	0.012	0.0020	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-80	ND		0.012	0.0019	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-81	ND		0.012	0.0021	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-82	0.099		0.012	0.00052	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-83	0.44	C	0.025	0.00047	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-84	0.17		0.012	0.00053	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-85	0.15	C	0.037	0.00038	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-86	0.44	C B	0.074	0.00039	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-87	0.44	C86 B	0.074	0.00039	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-88	0.11	C	0.025	0.00047	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-89	0.011	J q	0.012	0.00051	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-90	0.60	C B	0.037	0.00039	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-91	0.11	C88	0.025	0.00047	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-92	0.10		0.012	0.00045	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-93	0.022	J C	0.025	0.00045	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-94	ND		0.012	0.00051	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-95	0.45		0.012	0.00049	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-96	0.0078	J q	0.012	0.00038	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-97	0.44	C86 B	0.074	0.00039	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-98	0.031	C	0.025	0.00044	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S150

Lab Sample ID: 580-77431-7

Date Collected: 05/18/18 09:50

Matrix: Solid

Date Received: 05/21/18 12:00

Percent Solids: 39.3

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	0.44	C83	0.025	0.00047	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-100	0.022	J C93	0.025	0.00045	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-101	0.60	C90 B	0.037	0.00039	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-102	0.031	C98	0.025	0.00044	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-103	0.0079	J q	0.012	0.00045	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-104	ND		0.012	0.00034	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-105	0.23		0.012	0.0028	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-106	ND		0.012	0.0029	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-107	0.050		0.012	0.0031	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-108	0.018	J C B	0.025	0.0029	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-109	0.44	C86 B	0.074	0.00039	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-110	0.71	C B	0.025	0.00033	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-111	ND		0.012	0.00032	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-112	0.0039	J q	0.012	0.00033	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-113	0.60	C90 B	0.037	0.00039	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-114	0.012	q B	0.012	0.0028	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-115	0.71	C110 B	0.025	0.00033	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-116	0.15	C85	0.037	0.00038	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-117	0.15	C85	0.037	0.00038	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-118	0.50	B	0.012	0.0027	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-119	0.44	C86 B	0.074	0.00039	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-120	ND		0.012	0.00032	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-121	ND		0.012	0.00033	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-122	0.010	J	0.012	0.0033	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-123	0.010	J q	0.012	0.0027	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-124	0.018	J C108 B	0.025	0.0029	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-125	0.44	C86 B	0.074	0.00039	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-126	0.0041	J q	0.012	0.0031	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-127	ND		0.012	0.0029	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-128	0.12	C	0.025	0.0059	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-129	0.75	C	0.050	0.0061	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-130	0.045		0.012	0.0081	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-131	0.011	J q	0.012	0.0084	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-132	0.23		0.012	0.0079	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-133	0.0097	J q	0.012	0.0076	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-134	0.038	C	0.025	0.0080	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-135	0.20	C	0.025	0.00043	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-136	0.071		0.012	0.00031	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-137	0.054		0.012	0.0069	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-138	0.75	C129	0.050	0.0061	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-139	0.024	J C	0.025	0.0068	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-140	0.024	J C139	0.025	0.0068	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-141	0.14		0.012	0.0071	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-142	0.048		0.012	0.0076	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-143	0.038	C134	0.025	0.0080	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-144	0.029	B	0.012	0.00039	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-145	ND		0.012	0.00030	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-146	0.14		0.012	0.0067	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-147	0.67	C	0.025	0.0077	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S150

Lab Sample ID: 580-77431-7

Date Collected: 05/18/18 09:50

Matrix: Solid

Date Received: 05/21/18 12:00

Percent Solids: 39.3

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	ND		0.012	0.00042	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-149	0.67	C147	0.025	0.0077	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-150	0.0017	J q	0.012	0.00028	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-151	0.20	C135	0.025	0.00043	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-152	0.00058	J q	0.012	0.00031	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-153	0.63	C	0.025	0.0053	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-154	0.0076	J q	0.012	0.00034	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-155	ND		0.012	0.00028	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-156	0.070	C	0.025	0.0065	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-157	0.070	C156	0.025	0.0065	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-158	0.067		0.012	0.0048	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-159	0.0055	J q B	0.012	0.0051	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-160	0.75	C129	0.050	0.0061	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-161	ND		0.012	0.0050	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-162	ND		0.012	0.0050	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-163	0.75	C129	0.050	0.0061	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-164	0.047		0.012	0.0054	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-165	ND		0.012	0.0057	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-166	0.12	C128	0.025	0.0059	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-167	0.025	q	0.012	0.0036	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-168	0.63	C153	0.025	0.0053	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-169	ND		0.012	0.0042	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-170	0.21	B	0.012	0.0020	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-171	0.092	q C	0.025	0.0016	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-172	0.038		0.012	0.0016	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-173	0.092	q C171	0.025	0.0016	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-174	0.21		0.012	0.0015	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-175	0.012	q	0.012	0.0014	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-176	0.039		0.012	0.0011	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-177	0.11		0.012	0.0015	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-178	0.050		0.012	0.0015	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-179	0.093		0.012	0.0011	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-180	0.39	C B	0.025	0.0012	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-181	0.20		0.012	0.0014	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-182	0.0082	J	0.012	0.0014	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-183	0.20	C B	0.025	0.0014	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-184	ND		0.012	0.0012	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-185	0.20	C183 B	0.025	0.0014	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-186	0.0098	J	0.012	0.0011	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-187	0.25		0.012	0.0013	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-188	ND		0.012	0.00091	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-189	ND		0.012	0.0047	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-190	0.049		0.012	0.0010	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-191	0.0089	J q B	0.012	0.0011	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-192	ND		0.012	0.0012	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-193	0.39	C180 B	0.025	0.0012	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-194	0.12	B	0.012	0.0074	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-195	0.17		0.012	0.0081	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-196	0.056	q	0.012	0.0016	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S150

Lab Sample ID: 580-77431-7

Date Collected: 05/18/18 09:50

Matrix: Solid

Date Received: 05/21/18 12:00

Percent Solids: 39.3

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	0.020	q B	0.012	0.0012	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-198	0.14	C	0.025	0.0017	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-199	0.14	C198	0.025	0.0017	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-200	0.044		0.012	0.0011	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-201	0.028		0.012	0.0011	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-202	0.032		0.012	0.0013	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-203	0.14		0.012	0.0015	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-204	0.0068	J	0.012	0.0012	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-205	0.024		0.012	0.0063	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-206	0.28		0.012	0.0094	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-207	0.12		0.012	0.0058	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-208	0.090		0.012	0.0055	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1
PCB-209	0.82	B	0.012	0.0039	ng/g	☼	06/04/18 07:43	06/13/18 06:05	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	59		30 - 140	06/04/18 07:43	06/13/18 06:05	1
PCB-3L	60		30 - 140	06/04/18 07:43	06/13/18 06:05	1
PCB-4L	68		30 - 140	06/04/18 07:43	06/13/18 06:05	1
PCB-15L	72		30 - 140	06/04/18 07:43	06/13/18 06:05	1
PCB-19L	79		30 - 140	06/04/18 07:43	06/13/18 06:05	1
PCB-37L	83		30 - 140	06/04/18 07:43	06/13/18 06:05	1
PCB-54L	77		30 - 140	06/04/18 07:43	06/13/18 06:05	1
PCB-77L	84		30 - 140	06/04/18 07:43	06/13/18 06:05	1
PCB-81L	83		30 - 140	06/04/18 07:43	06/13/18 06:05	1
PCB-104L	75		30 - 140	06/04/18 07:43	06/13/18 06:05	1
PCB-105L	89		30 - 140	06/04/18 07:43	06/13/18 06:05	1
PCB-114L	90		30 - 140	06/04/18 07:43	06/13/18 06:05	1
PCB-118L	90		30 - 140	06/04/18 07:43	06/13/18 06:05	1
PCB-123L	91		30 - 140	06/04/18 07:43	06/13/18 06:05	1
PCB-126L	89		30 - 140	06/04/18 07:43	06/13/18 06:05	1
PCB-155L	83		30 - 140	06/04/18 07:43	06/13/18 06:05	1
PCB-156L	78	C	30 - 140	06/04/18 07:43	06/13/18 06:05	1
PCB-157L	78	C156	30 - 140	06/04/18 07:43	06/13/18 06:05	1
PCB-167L	80		30 - 140	06/04/18 07:43	06/13/18 06:05	1
PCB-169L	71		30 - 140	06/04/18 07:43	06/13/18 06:05	1
PCB-170L	79		30 - 140	06/04/18 07:43	06/13/18 06:05	1
PCB-188L	105		30 - 140	06/04/18 07:43	06/13/18 06:05	1
PCB-189L	91		30 - 140	06/04/18 07:43	06/13/18 06:05	1
PCB-202L	107		30 - 140	06/04/18 07:43	06/13/18 06:05	1
PCB-205L	73		30 - 140	06/04/18 07:43	06/13/18 06:05	1
PCB-206L	73		30 - 140	06/04/18 07:43	06/13/18 06:05	1
PCB-208L	92		30 - 140	06/04/18 07:43	06/13/18 06:05	1
PCB-209L	67		30 - 140	06/04/18 07:43	06/13/18 06:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	89		40 - 125	06/04/18 07:43	06/13/18 06:05	1
PCB-111L	87		40 - 125	06/04/18 07:43	06/13/18 06:05	1
PCB-178L	103		40 - 125	06/04/18 07:43	06/13/18 06:05	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S210

Date Collected: 05/19/18 16:22

Date Received: 05/21/18 12:00

Lab Sample ID: 580-77431-8

Matrix: Solid

Percent Solids: 45.3

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.012		0.011	0.00033	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-2	0.022		0.011	0.00036	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-3	0.013		0.011	0.00039	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-4	0.046		0.021	0.0049	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-5	ND		0.011	0.0038	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-6	0.023		0.011	0.0033	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-7	0.0034	J q	0.011	0.0034	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-8	0.11		0.021	0.0031	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-9	0.0038	J q	0.011	0.0035	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-10	0.0038	J q	0.011	0.0037	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-11	0.055	B	0.021	0.0033	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-12	0.015	J C q	0.021	0.0034	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-13	0.015	J C12 q	0.021	0.0034	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-14	ND		0.011	0.0029	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-15	0.10		0.011	0.0035	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-16	0.093		0.011	0.00049	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-17	0.13		0.011	0.00044	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-18	0.23	C	0.021	0.00039	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-19	0.034	q	0.011	0.00054	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-20	0.52	C	0.021	0.0014	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-21	0.22	C	0.021	0.0013	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-22	0.14		0.011	0.0014	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-23	ND		0.011	0.0014	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-24	0.0044	J q	0.011	0.00037	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-25	0.032		0.011	0.0013	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-26	0.061	C	0.021	0.0014	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-27	0.021		0.011	0.00032	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-28	0.52	C20	0.021	0.0014	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-29	0.061	C26	0.021	0.0014	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-30	0.23	C18	0.021	0.00039	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-31	0.36	B	0.021	0.0013	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-32	0.085		0.011	0.00031	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-33	0.22	C21	0.021	0.0013	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-34	ND		0.011	0.0014	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-35	0.0065	J	0.011	0.0014	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-36	ND		0.011	0.0014	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-37	0.17		0.011	0.0014	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-38	ND		0.011	0.0015	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-39	0.0029	J q	0.011	0.0013	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-40	0.25	C	0.032	0.0028	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-41	0.25	C40	0.032	0.0028	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-42	0.13		0.011	0.0028	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-43	0.013	J C	0.021	0.0026	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-44	0.50	C B	0.032	0.0025	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-45	0.088	C	0.021	0.0029	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-46	0.026		0.011	0.0035	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-47	0.50	B C44	0.032	0.0025	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-48	0.087	B	0.011	0.0028	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-49	0.33	C	0.021	0.0023	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S210

Lab Sample ID: 580-77431-8

Date Collected: 05/19/18 16:22

Matrix: Solid

Date Received: 05/21/18 12:00

Percent Solids: 45.3

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	0.069	C	0.021	0.0027	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-51	0.088	C45	0.021	0.0029	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-52	0.59		0.011	0.0028	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-53	0.069	C50	0.021	0.0027	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-54	0.0036	J q	0.011	0.000062	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-55	0.014	q	0.011	0.0020	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-56	0.24		0.011	0.0020	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-57	0.0021	J	0.011	0.0021	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-58	0.0036	J q	0.011	0.0021	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-59	0.042	C	0.032	0.0020	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-60	0.088		0.011	0.0021	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-61	0.90	C B	0.043	0.0019	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-62	0.042	C59	0.032	0.0020	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-63	0.020		0.011	0.0019	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-64	0.20		0.011	0.0019	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-65	0.50	B C44	0.032	0.0025	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-66	0.58		0.011	0.0019	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-67	0.012	q	0.011	0.0018	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-68	0.0050	J B	0.011	0.0018	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-69	0.33	C49	0.021	0.0023	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-70	0.90	C61 B	0.043	0.0019	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-71	0.25	C40	0.032	0.0028	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-72	0.0080	J	0.011	0.0020	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-73	0.013	J C43	0.021	0.0026	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-74	0.90	C61 B	0.043	0.0019	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-75	0.042	C59	0.032	0.0020	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-76	0.90	C61 B	0.043	0.0019	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-77	0.059		0.011	0.0020	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-78	ND		0.011	0.0021	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-79	0.0059	J q	0.011	0.0018	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-80	ND		0.011	0.0018	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-81	ND		0.011	0.0019	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-82	0.12		0.011	0.00038	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-83	0.62	C	0.021	0.00034	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-84	0.25		0.011	0.00038	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-85	0.18	C	0.032	0.00028	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-86	0.62	C B	0.064	0.00028	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-87	0.62	B C86	0.064	0.00028	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-88	0.16	C	0.021	0.00034	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-89	0.013		0.011	0.00037	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-90	1.0	C B	0.032	0.00029	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-91	0.16	C88	0.021	0.00034	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-92	0.18		0.011	0.00032	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-93	0.025	C q	0.021	0.00033	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-94	ND		0.011	0.00037	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-95	0.77		0.011	0.00036	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-96	0.0088	J	0.011	0.00028	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-97	0.62	B C86	0.064	0.00028	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-98	0.033	C	0.021	0.00032	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S210

Lab Sample ID: 580-77431-8

Date Collected: 05/19/18 16:22

Matrix: Solid

Date Received: 05/21/18 12:00

Percent Solids: 45.3

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	0.62	C83	0.021	0.00034	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-100	0.025	C93 q	0.021	0.00033	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-101	1.0	B C90	0.032	0.00029	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-102	0.033	C98	0.021	0.00032	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-103	0.016		0.011	0.00033	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-104	ND		0.011	0.00025	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-105	0.31		0.011	0.0019	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-106	ND		0.011	0.0019	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-107	0.065		0.011	0.0020	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-108	0.028	C B	0.021	0.0019	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-109	0.62	B C86	0.064	0.00028	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-110	1.2	C B	0.021	0.00024	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-111	ND		0.011	0.00023	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-112	0.0071	J q	0.011	0.00024	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-113	1.0	B C90	0.032	0.00029	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-114	0.015	B q	0.011	0.0017	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-115	1.2	B C110	0.021	0.00024	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-116	0.18	C85	0.032	0.00028	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-117	0.18	C85	0.032	0.00028	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-118	0.83	B	0.011	0.0017	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-119	0.62	B C86	0.064	0.00028	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-120	0.0057	J q	0.011	0.00023	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-121	ND		0.011	0.00024	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-122	0.015		0.011	0.0021	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-123	0.015	q	0.011	0.0018	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-124	0.028	B C108	0.021	0.0019	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-125	0.62	B C86	0.064	0.00028	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-126	ND		0.011	0.0019	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-127	ND		0.011	0.0018	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-128	0.22	C	0.021	0.0036	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-129	1.5	C	0.043	0.0037	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-130	0.094		0.011	0.0049	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-131	0.013	q	0.011	0.0051	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-132	0.46		0.011	0.0047	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-133	0.024	q	0.011	0.0046	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-134	0.077	C	0.021	0.0048	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-135	0.47	C	0.021	0.00034	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-136	0.16		0.011	0.00024	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-137	0.058		0.011	0.0041	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-138	1.5	C129	0.043	0.0037	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-139	0.021	C	0.021	0.0041	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-140	0.021	C139	0.021	0.0041	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-141	0.26		0.011	0.0043	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-142	ND		0.011	0.0046	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-143	0.077	C134	0.021	0.0048	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-144	0.053	B	0.011	0.00030	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-145	ND		0.011	0.00023	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-146	0.25		0.011	0.0040	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-147	1.3	C	0.021	0.0046	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S210

Lab Sample ID: 580-77431-8

Date Collected: 05/19/18 16:22

Matrix: Solid

Date Received: 05/21/18 12:00

Percent Solids: 45.3

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	0.0050	J	0.011	0.00033	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-149	1.3	C147	0.021	0.0046	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-150	0.0038	J	0.011	0.00022	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-151	0.47	C135	0.021	0.00034	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-152	0.0018	J	0.011	0.00024	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-153	1.2	C	0.021	0.0032	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-154	0.023		0.011	0.00026	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-155	ND		0.011	0.00022	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-156	0.15	C	0.021	0.0040	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-157	0.15	C156	0.021	0.0040	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-158	0.13		0.011	0.0029	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-159	0.012	B	0.011	0.0031	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-160	1.5	C129	0.043	0.0037	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-161	ND		0.011	0.0030	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-162	0.0034	J q	0.011	0.0030	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-163	1.5	C129	0.043	0.0037	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-164	0.10		0.011	0.0032	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-165	ND		0.011	0.0034	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-166	0.22	C128	0.021	0.0036	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-167	0.050		0.011	0.0022	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-168	1.2	C153	0.021	0.0032	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-169	ND		0.011	0.0023	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-170	0.44	B	0.011	0.00062	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-171	0.13	C	0.021	0.00056	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-172	0.074		0.011	0.00055	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-173	0.13	C171	0.021	0.00056	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-174	0.46		0.011	0.00052	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-175	0.016	q	0.011	0.00050	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-176	0.055		0.011	0.00038	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-177	0.25		0.011	0.00053	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-178	0.11		0.011	0.00054	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-179	0.21		0.011	0.00040	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-180	0.99	C B	0.021	0.00042	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-181	ND		0.011	0.00050	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-182	0.0064	J q	0.011	0.00048	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-183	0.32	C B	0.021	0.00049	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-184	ND		0.011	0.00041	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-185	0.32	B C183	0.021	0.00049	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-186	ND		0.011	0.00040	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-187	0.61		0.011	0.00047	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-188	ND		0.011	0.00034	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-189	0.012	q	0.011	0.0019	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-190	0.075		0.011	0.00036	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-191	0.019	B	0.011	0.00038	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-192	ND		0.011	0.00042	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-193	0.99	C180 B	0.021	0.00042	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-194	0.30	B	0.011	0.0017	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-195	0.11		0.011	0.0019	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-196	0.13		0.011	0.00085	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S210

Date Collected: 05/19/18 16:22

Date Received: 05/21/18 12:00

Lab Sample ID: 580-77431-8

Matrix: Solid

Percent Solids: 45.3

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	0.010	J B	0.011	0.00065	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-198	0.36	C	0.021	0.00087	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-199	0.36	C198	0.021	0.00087	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-200	0.032		0.011	0.00058	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-201	0.035		0.011	0.00059	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-202	0.078		0.011	0.00067	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-203	0.22		0.011	0.00077	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-204	ND		0.011	0.00065	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-205	0.013	q	0.011	0.0015	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-206	0.49		0.011	0.0025	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-207	0.033	q	0.011	0.0018	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-208	0.17		0.011	0.0018	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1
PCB-209	0.54	B	0.011	0.00042	ng/g	☼	06/04/18 07:43	06/13/18 07:06	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	57		30 - 140	06/04/18 07:43	06/13/18 07:06	1
PCB-3L	60		30 - 140	06/04/18 07:43	06/13/18 07:06	1
PCB-4L	66		30 - 140	06/04/18 07:43	06/13/18 07:06	1
PCB-15L	75		30 - 140	06/04/18 07:43	06/13/18 07:06	1
PCB-19L	82		30 - 140	06/04/18 07:43	06/13/18 07:06	1
PCB-37L	86		30 - 140	06/04/18 07:43	06/13/18 07:06	1
PCB-54L	83		30 - 140	06/04/18 07:43	06/13/18 07:06	1
PCB-77L	86		30 - 140	06/04/18 07:43	06/13/18 07:06	1
PCB-81L	87		30 - 140	06/04/18 07:43	06/13/18 07:06	1
PCB-104L	75		30 - 140	06/04/18 07:43	06/13/18 07:06	1
PCB-105L	87		30 - 140	06/04/18 07:43	06/13/18 07:06	1
PCB-114L	90		30 - 140	06/04/18 07:43	06/13/18 07:06	1
PCB-118L	89		30 - 140	06/04/18 07:43	06/13/18 07:06	1
PCB-123L	89		30 - 140	06/04/18 07:43	06/13/18 07:06	1
PCB-126L	93		30 - 140	06/04/18 07:43	06/13/18 07:06	1
PCB-155L	82		30 - 140	06/04/18 07:43	06/13/18 07:06	1
PCB-156L	87	C	30 - 140	06/04/18 07:43	06/13/18 07:06	1
PCB-157L	87	C156	30 - 140	06/04/18 07:43	06/13/18 07:06	1
PCB-167L	87		30 - 140	06/04/18 07:43	06/13/18 07:06	1
PCB-169L	88		30 - 140	06/04/18 07:43	06/13/18 07:06	1
PCB-170L	85		30 - 140	06/04/18 07:43	06/13/18 07:06	1
PCB-188L	95		30 - 140	06/04/18 07:43	06/13/18 07:06	1
PCB-189L	90		30 - 140	06/04/18 07:43	06/13/18 07:06	1
PCB-202L	103		30 - 140	06/04/18 07:43	06/13/18 07:06	1
PCB-205L	76		30 - 140	06/04/18 07:43	06/13/18 07:06	1
PCB-206L	79		30 - 140	06/04/18 07:43	06/13/18 07:06	1
PCB-208L	84		30 - 140	06/04/18 07:43	06/13/18 07:06	1
PCB-209L	74		30 - 140	06/04/18 07:43	06/13/18 07:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	90		40 - 125	06/04/18 07:43	06/13/18 07:06	1
PCB-111L	89		40 - 125	06/04/18 07:43	06/13/18 07:06	1
PCB-178L	92		40 - 125	06/04/18 07:43	06/13/18 07:06	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S217

Date Collected: 05/19/18 17:00

Date Received: 05/21/18 12:00

Lab Sample ID: 580-77431-9

Matrix: Solid

Percent Solids: 38.7

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.0038	J	0.013	0.00030	ng/g	☆	06/04/18 07:43	06/13/18 08:08	1
PCB-2	0.0070	J	0.013	0.00035	ng/g	☆	06/04/18 07:43	06/13/18 08:08	1
PCB-3	0.0060	J q	0.013	0.00040	ng/g	☆	06/04/18 07:43	06/13/18 08:08	1
PCB-4	0.028		0.026	0.0056	ng/g	☆	06/04/18 07:43	06/13/18 08:08	1
PCB-5	ND		0.013	0.0045	ng/g	☆	06/04/18 07:43	06/13/18 08:08	1
PCB-6	0.013	q	0.013	0.0040	ng/g	☆	06/04/18 07:43	06/13/18 08:08	1
PCB-7	ND		0.013	0.0041	ng/g	☆	06/04/18 07:43	06/13/18 08:08	1
PCB-8	0.068		0.026	0.0037	ng/g	☆	06/04/18 07:43	06/13/18 08:08	1
PCB-9	ND		0.013	0.0042	ng/g	☆	06/04/18 07:43	06/13/18 08:08	1
PCB-10	ND		0.013	0.0045	ng/g	☆	06/04/18 07:43	06/13/18 08:08	1
PCB-11	0.063	B	0.026	0.0039	ng/g	☆	06/04/18 07:43	06/13/18 08:08	1
PCB-12	0.0088	J q C	0.026	0.0040	ng/g	☆	06/04/18 07:43	06/13/18 08:08	1
PCB-13	0.0088	J q C12	0.026	0.0040	ng/g	☆	06/04/18 07:43	06/13/18 08:08	1
PCB-14	ND		0.013	0.0034	ng/g	☆	06/04/18 07:43	06/13/18 08:08	1
PCB-15	0.058	q	0.013	0.0043	ng/g	☆	06/04/18 07:43	06/13/18 08:08	1
PCB-16	0.054		0.013	0.00058	ng/g	☆	06/04/18 07:43	06/13/18 08:08	1
PCB-17	0.084		0.013	0.00052	ng/g	☆	06/04/18 07:43	06/13/18 08:08	1
PCB-18	0.16	C	0.026	0.00045	ng/g	☆	06/04/18 07:43	06/13/18 08:08	1
PCB-19	0.023		0.013	0.00063	ng/g	☆	06/04/18 07:43	06/13/18 08:08	1
PCB-20	0.31	C	0.026	0.0013	ng/g	☆	06/04/18 07:43	06/13/18 08:08	1
PCB-21	0.13	C	0.026	0.0013	ng/g	☆	06/04/18 07:43	06/13/18 08:08	1
PCB-22	0.083		0.013	0.0013	ng/g	☆	06/04/18 07:43	06/13/18 08:08	1
PCB-23	ND		0.013	0.0013	ng/g	☆	06/04/18 07:43	06/13/18 08:08	1
PCB-24	0.0029	J q	0.013	0.00043	ng/g	☆	06/04/18 07:43	06/13/18 08:08	1
PCB-25	0.023		0.013	0.0012	ng/g	☆	06/04/18 07:43	06/13/18 08:08	1
PCB-26	0.045	C	0.026	0.0013	ng/g	☆	06/04/18 07:43	06/13/18 08:08	1
PCB-27	0.013		0.013	0.00038	ng/g	☆	06/04/18 07:43	06/13/18 08:08	1
PCB-28	0.31	C20	0.026	0.0013	ng/g	☆	06/04/18 07:43	06/13/18 08:08	1
PCB-29	0.045	C26	0.026	0.0013	ng/g	☆	06/04/18 07:43	06/13/18 08:08	1
PCB-30	0.16	C18	0.026	0.00045	ng/g	☆	06/04/18 07:43	06/13/18 08:08	1
PCB-31	0.24	B	0.026	0.0013	ng/g	☆	06/04/18 07:43	06/13/18 08:08	1
PCB-32	0.054		0.013	0.00036	ng/g	☆	06/04/18 07:43	06/13/18 08:08	1
PCB-33	0.13	C21	0.026	0.0013	ng/g	☆	06/04/18 07:43	06/13/18 08:08	1
PCB-34	ND		0.013	0.0014	ng/g	☆	06/04/18 07:43	06/13/18 08:08	1
PCB-35	0.0049	J	0.013	0.0013	ng/g	☆	06/04/18 07:43	06/13/18 08:08	1
PCB-36	ND		0.013	0.0013	ng/g	☆	06/04/18 07:43	06/13/18 08:08	1
PCB-37	0.091		0.013	0.0013	ng/g	☆	06/04/18 07:43	06/13/18 08:08	1
PCB-38	ND		0.013	0.0014	ng/g	☆	06/04/18 07:43	06/13/18 08:08	1
PCB-39	0.0016	J q	0.013	0.0012	ng/g	☆	06/04/18 07:43	06/13/18 08:08	1
PCB-40	0.14	C	0.038	0.0024	ng/g	☆	06/04/18 07:43	06/13/18 08:08	1
PCB-41	0.14	C40	0.038	0.0024	ng/g	☆	06/04/18 07:43	06/13/18 08:08	1
PCB-42	0.072		0.013	0.0024	ng/g	☆	06/04/18 07:43	06/13/18 08:08	1
PCB-43	0.0091	J q C	0.026	0.0022	ng/g	☆	06/04/18 07:43	06/13/18 08:08	1
PCB-44	0.29	C B	0.038	0.0021	ng/g	☆	06/04/18 07:43	06/13/18 08:08	1
PCB-45	0.045	q C	0.026	0.0025	ng/g	☆	06/04/18 07:43	06/13/18 08:08	1
PCB-46	0.015		0.013	0.0030	ng/g	☆	06/04/18 07:43	06/13/18 08:08	1
PCB-47	0.29	C44 B	0.038	0.0021	ng/g	☆	06/04/18 07:43	06/13/18 08:08	1
PCB-48	0.052	B	0.013	0.0024	ng/g	☆	06/04/18 07:43	06/13/18 08:08	1
PCB-49	0.18	C	0.026	0.0019	ng/g	☆	06/04/18 07:43	06/13/18 08:08	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S217

Lab Sample ID: 580-77431-9

Date Collected: 05/19/18 17:00

Matrix: Solid

Date Received: 05/21/18 12:00

Percent Solids: 38.7

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	0.043	C	0.026	0.0023	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-51	0.045	q C45	0.026	0.0025	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-52	0.33		0.013	0.0024	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-53	0.043	C50	0.026	0.0023	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-54	0.0023	J q	0.013	0.00011	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-55	0.0039	J q	0.013	0.0017	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-56	0.13		0.013	0.0017	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-57	ND		0.013	0.0018	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-58	ND		0.013	0.0018	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-59	0.023	J C	0.038	0.0017	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-60	0.052		0.013	0.0018	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-61	0.51	C B	0.051	0.0017	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-62	0.023	J C59	0.038	0.0017	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-63	0.011	J	0.013	0.0016	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-64	0.11		0.013	0.0016	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-65	0.29	C44 B	0.038	0.0021	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-66	0.31		0.013	0.0017	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-67	0.0056	J q	0.013	0.0015	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-68	0.0035	J q B	0.013	0.0016	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-69	0.18	C49	0.026	0.0019	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-70	0.51	C61 B	0.051	0.0017	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-71	0.14	C40	0.038	0.0024	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-72	0.0044	J	0.013	0.0017	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-73	0.0091	J q C43	0.026	0.0022	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-74	0.51	C61 B	0.051	0.0017	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-75	0.023	J C59	0.038	0.0017	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-76	0.51	C61 B	0.051	0.0017	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-77	0.035		0.013	0.0017	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-78	ND		0.013	0.0018	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-79	0.0034	J q	0.013	0.0015	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-80	ND		0.013	0.0015	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-81	ND		0.013	0.0016	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-82	0.066		0.013	0.00040	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-83	0.33	C	0.026	0.00036	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-84	0.12		0.013	0.00040	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-85	0.092	q C	0.038	0.00029	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-86	0.35	C B	0.077	0.00030	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-87	0.35	C86 B	0.077	0.00030	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-88	0.087	C	0.026	0.00036	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-89	0.0060	J q	0.013	0.00039	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-90	0.55	C B	0.038	0.00030	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-91	0.087	C88	0.026	0.00036	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-92	0.096		0.013	0.00034	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-93	0.017	J q C	0.026	0.00034	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-94	ND		0.013	0.00039	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-95	0.40		0.013	0.00038	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-96	0.0050	J q	0.013	0.00029	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-97	0.35	C86 B	0.077	0.00030	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-98	0.017	J q C	0.026	0.00033	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S217

Lab Sample ID: 580-77431-9

Date Collected: 05/19/18 17:00

Matrix: Solid

Date Received: 05/21/18 12:00

Percent Solids: 38.7

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	0.33	C83	0.026	0.00036	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-100	0.017	J q C93	0.026	0.00034	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-101	0.55	C90 B	0.038	0.00030	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-102	0.017	J q C98	0.026	0.00033	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-103	0.0074	J	0.013	0.00034	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-104	ND		0.013	0.00026	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-105	0.16		0.013	0.0017	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-106	ND		0.013	0.0019	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-107	0.038		0.013	0.0020	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-108	0.016	J C B	0.026	0.0019	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-109	0.35	C86 B	0.077	0.00030	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-110	0.65	C B	0.026	0.00025	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-111	ND		0.013	0.00024	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-112	ND		0.013	0.00025	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-113	0.55	C90 B	0.038	0.00030	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-114	0.0070	J B	0.013	0.0018	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-115	0.65	C110 B	0.026	0.00025	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-116	0.092	q C85	0.038	0.00029	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-117	0.092	q C85	0.038	0.00029	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-118	0.44	B	0.013	0.0018	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-119	0.35	C86 B	0.077	0.00030	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-120	0.0048	J	0.013	0.00025	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-121	ND		0.013	0.00025	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-122	0.0038	J q	0.013	0.0022	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-123	0.0057	J q	0.013	0.0019	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-124	0.016	J C108 B	0.026	0.0019	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-125	0.35	C86 B	0.077	0.00030	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-126	0.0023	J	0.013	0.0020	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-127	ND		0.013	0.0019	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-128	0.10	C	0.026	0.0029	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-129	0.80	C	0.051	0.0030	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-130	0.044		0.013	0.0040	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-131	0.0071	J q	0.013	0.0042	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-132	0.23		0.013	0.0039	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-133	0.010	J q	0.013	0.0038	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-134	0.037	C	0.026	0.0040	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-135	0.25	C	0.026	0.00046	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-136	0.088		0.013	0.00033	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-137	0.031		0.013	0.0034	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-138	0.80	C129	0.051	0.0030	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-139	0.011	J C	0.026	0.0034	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-140	0.011	J C139	0.026	0.0034	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-141	0.14		0.013	0.0035	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-142	ND		0.013	0.0038	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-143	0.037	C134	0.026	0.0040	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-144	0.025	B	0.013	0.00041	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-145	ND		0.013	0.00031	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-146	0.13		0.013	0.0033	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-147	0.66	C	0.026	0.0038	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S217

Lab Sample ID: 580-77431-9

Date Collected: 05/19/18 17:00

Matrix: Solid

Date Received: 05/21/18 12:00

Percent Solids: 38.7

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	0.0026	J	0.013	0.00044	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-149	0.66	C147	0.026	0.0038	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-150	0.0018	J q	0.013	0.00030	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-151	0.25	C135	0.026	0.00046	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-152	ND		0.013	0.00032	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-153	0.65	C	0.026	0.0026	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-154	0.013		0.013	0.00036	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-155	ND		0.013	0.00030	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-156	0.074	C	0.026	0.0034	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-157	0.074	C156	0.026	0.0034	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-158	0.066		0.013	0.0024	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-159	0.0052	J q B	0.013	0.0025	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-160	0.80	C129	0.051	0.0030	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-161	ND		0.013	0.0025	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-162	0.0033	J	0.013	0.0025	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-163	0.80	C129	0.051	0.0030	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-164	0.047	q	0.013	0.0027	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-165	ND		0.013	0.0028	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-166	0.10	C128	0.026	0.0029	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-167	0.022	q	0.013	0.0018	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-168	0.65	C153	0.026	0.0026	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-169	0.0056	J q	0.013	0.0019	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-170	0.24	B	0.013	0.0011	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-171	0.074	C	0.026	0.0010	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-172	0.038	q	0.013	0.0010	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-173	0.074	C171	0.026	0.0010	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-174	0.24		0.013	0.00095	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-175	0.0092	J	0.013	0.00092	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-176	0.028		0.013	0.00069	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-177	0.15		0.013	0.00097	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-178	0.056		0.013	0.00099	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-179	0.12		0.013	0.00073	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-180	0.54	C B	0.026	0.00077	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-181	0.0030	J q	0.013	0.00091	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-182	0.0048	J	0.013	0.00088	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-183	0.17	C B	0.026	0.00090	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-184	ND		0.013	0.00075	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-185	0.17	C183 B	0.026	0.00090	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-186	ND		0.013	0.00073	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-187	0.32		0.013	0.00085	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-188	ND		0.013	0.00063	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-189	0.0054	J q	0.013	0.0019	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-190	0.042		0.013	0.00066	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-191	0.0080	J q B	0.013	0.00069	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-192	ND		0.013	0.00077	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-193	0.54	C180 B	0.026	0.00077	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-194	0.15	B	0.013	0.0027	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-195	0.062		0.013	0.0030	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-196	0.058		0.013	0.00072	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S217

Lab Sample ID: 580-77431-9

Date Collected: 05/19/18 17:00

Matrix: Solid

Date Received: 05/21/18 12:00

Percent Solids: 38.7

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	0.0039	J q B	0.013	0.00055	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-198	0.16	C	0.026	0.00074	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-199	0.16	C198	0.026	0.00074	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-200	0.014		0.013	0.00049	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-201	0.017	q	0.013	0.00050	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-202	0.039		0.013	0.00057	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-203	0.097		0.013	0.00065	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-204	ND		0.013	0.00055	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-205	0.0066	J	0.013	0.0023	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-206	0.13		0.013	0.0025	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-207	0.014		0.013	0.0018	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-208	0.041		0.013	0.0018	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1
PCB-209	0.13	B	0.013	0.00050	ng/g	☼	06/04/18 07:43	06/13/18 08:08	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	63		30 - 140	06/04/18 07:43	06/13/18 08:08	1
PCB-3L	64		30 - 140	06/04/18 07:43	06/13/18 08:08	1
PCB-4L	72		30 - 140	06/04/18 07:43	06/13/18 08:08	1
PCB-15L	73		30 - 140	06/04/18 07:43	06/13/18 08:08	1
PCB-19L	78		30 - 140	06/04/18 07:43	06/13/18 08:08	1
PCB-37L	82		30 - 140	06/04/18 07:43	06/13/18 08:08	1
PCB-54L	81		30 - 140	06/04/18 07:43	06/13/18 08:08	1
PCB-77L	87		30 - 140	06/04/18 07:43	06/13/18 08:08	1
PCB-81L	89		30 - 140	06/04/18 07:43	06/13/18 08:08	1
PCB-104L	73		30 - 140	06/04/18 07:43	06/13/18 08:08	1
PCB-105L	87		30 - 140	06/04/18 07:43	06/13/18 08:08	1
PCB-114L	86		30 - 140	06/04/18 07:43	06/13/18 08:08	1
PCB-118L	82		30 - 140	06/04/18 07:43	06/13/18 08:08	1
PCB-123L	83		30 - 140	06/04/18 07:43	06/13/18 08:08	1
PCB-126L	82		30 - 140	06/04/18 07:43	06/13/18 08:08	1
PCB-155L	85		30 - 140	06/04/18 07:43	06/13/18 08:08	1
PCB-156L	84	C	30 - 140	06/04/18 07:43	06/13/18 08:08	1
PCB-157L	84	C156	30 - 140	06/04/18 07:43	06/13/18 08:08	1
PCB-167L	94		30 - 140	06/04/18 07:43	06/13/18 08:08	1
PCB-169L	90		30 - 140	06/04/18 07:43	06/13/18 08:08	1
PCB-170L	82		30 - 140	06/04/18 07:43	06/13/18 08:08	1
PCB-188L	89		30 - 140	06/04/18 07:43	06/13/18 08:08	1
PCB-189L	87		30 - 140	06/04/18 07:43	06/13/18 08:08	1
PCB-202L	102		30 - 140	06/04/18 07:43	06/13/18 08:08	1
PCB-205L	72		30 - 140	06/04/18 07:43	06/13/18 08:08	1
PCB-206L	77		30 - 140	06/04/18 07:43	06/13/18 08:08	1
PCB-208L	79		30 - 140	06/04/18 07:43	06/13/18 08:08	1
PCB-209L	69		30 - 140	06/04/18 07:43	06/13/18 08:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	87		40 - 125	06/04/18 07:43	06/13/18 08:08	1
PCB-111L	89		40 - 125	06/04/18 07:43	06/13/18 08:08	1
PCB-178L	87		40 - 125	06/04/18 07:43	06/13/18 08:08	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S212

Date Collected: 05/19/18 15:42

Date Received: 05/21/18 12:00

Lab Sample ID: 580-77431-10

Matrix: Solid

Percent Solids: 39.6

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	ND		0.012	0.00049	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-2	0.0071	J	0.012	0.00052	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-3	0.0037	J q	0.012	0.00055	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-4	0.017	J q	0.025	0.0054	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-5	ND		0.012	0.0043	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-6	0.0095	J q	0.012	0.0038	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-7	ND		0.012	0.0039	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-8	0.034		0.025	0.0035	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-9	ND		0.012	0.0039	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-10	ND		0.012	0.0042	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-11	0.053	B	0.025	0.0037	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-12	ND	C	0.025	0.0038	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-13	ND	C12	0.025	0.0038	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-14	ND		0.012	0.0032	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-15	0.029		0.012	0.0039	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-16	0.025		0.012	0.00089	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-17	0.038	q	0.012	0.00080	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-18	0.070	C	0.025	0.00070	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-19	0.014	q	0.012	0.00097	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-20	0.13	C	0.025	0.0011	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-21	0.053	C	0.025	0.0011	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-22	0.040		0.012	0.0012	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-23	ND		0.012	0.0011	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-24	0.0021	J	0.012	0.00067	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-25	0.012		0.012	0.0010	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-26	0.021	J C	0.025	0.0011	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-27	0.0055	J q	0.012	0.00058	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-28	0.13	C20	0.025	0.0011	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-29	0.021	J C26	0.025	0.0011	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-30	0.070	C18	0.025	0.00070	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-31	0.10	B	0.025	0.0011	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-32	0.023	q	0.012	0.00055	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-33	0.053	C21	0.025	0.0011	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-34	ND		0.012	0.0012	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-35	0.0016	J q	0.012	0.0012	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-36	ND		0.012	0.0011	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-37	0.043		0.012	0.0011	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-38	ND		0.012	0.0012	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-39	ND		0.012	0.0011	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-40	0.066	C	0.037	0.0017	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-41	0.066	C40	0.037	0.0017	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-42	0.027	q	0.012	0.0017	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-43	0.0056	J C q	0.025	0.0016	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-44	0.16	C B	0.037	0.0015	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-45	0.027	C q	0.025	0.0018	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-46	0.0073	J	0.012	0.0021	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-47	0.16	B C44	0.037	0.0015	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-48	0.024	B	0.012	0.0017	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-49	0.10	C	0.025	0.0014	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S212

Lab Sample ID: 580-77431-10

Date Collected: 05/19/18 15:42

Matrix: Solid

Date Received: 05/21/18 12:00

Percent Solids: 39.6

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	0.023	J C	0.025	0.0016	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-51	0.027	C45 q	0.025	0.0018	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-52	0.20		0.012	0.0017	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-53	0.023	J C50	0.025	0.0016	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-54	0.0025	J q	0.012	0.000069	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-55	0.0037	J	0.012	0.0012	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-56	0.067		0.012	0.0012	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-57	ND		0.012	0.0012	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-58	0.0014	J q	0.012	0.0013	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-59	0.010	J C q	0.037	0.0012	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-60	0.026		0.012	0.0012	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-61	0.26	C B	0.049	0.0012	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-62	0.010	J C59 q	0.037	0.0012	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-63	0.0053	J	0.012	0.0011	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-64	0.053		0.012	0.0011	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-65	0.16	B C44	0.037	0.0015	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-66	0.15		0.012	0.0012	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-67	0.0025	J q	0.012	0.0011	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-68	0.0023	J B q	0.012	0.0011	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-69	0.10	C49	0.025	0.0014	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-70	0.26	C61 B	0.049	0.0012	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-71	0.066	C40	0.037	0.0017	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-72	ND		0.012	0.0012	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-73	0.0056	J C43 q	0.025	0.0016	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-74	0.26	C61 B	0.049	0.0012	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-75	0.010	J C59 q	0.037	0.0012	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-76	0.26	C61 B	0.049	0.0012	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-77	0.018		0.012	0.0012	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-78	ND		0.012	0.0013	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-79	0.0024	J	0.012	0.0011	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-80	ND		0.012	0.0011	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-81	ND		0.012	0.0011	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-82	0.041		0.012	0.00061	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-83	0.27	C	0.025	0.00056	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-84	0.087		0.012	0.00062	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-85	0.074	C	0.037	0.00045	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-86	0.26	C B	0.074	0.00045	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-87	0.26	B C86	0.074	0.00045	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-88	0.057	C q	0.025	0.00055	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-89	ND		0.012	0.00060	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-90	0.46	C B	0.037	0.00046	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-91	0.057	C88 q	0.025	0.00055	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-92	0.081		0.012	0.00052	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-93	0.0097	J C q	0.025	0.00053	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-94	ND		0.012	0.00060	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-95	0.31		0.012	0.00058	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-96	ND		0.012	0.00045	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-97	0.26	B C86	0.074	0.00045	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-98	0.012	J C q	0.025	0.00051	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S212

Lab Sample ID: 580-77431-10

Date Collected: 05/19/18 15:42

Matrix: Solid

Date Received: 05/21/18 12:00

Percent Solids: 39.6

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	0.27	C83	0.025	0.00056	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-100	0.0097	J C93 q	0.025	0.00053	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-101	0.46	B C90	0.037	0.00046	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-102	0.012	J C98 q	0.025	0.00051	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-103	0.0060	J q	0.012	0.00053	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-104	ND		0.012	0.00040	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-105	0.12		0.012	0.0016	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-106	ND		0.012	0.0016	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-107	0.027		0.012	0.0017	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-108	0.011	J C B	0.025	0.0017	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-109	0.26	B C86	0.074	0.00045	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-110	0.51	C B	0.025	0.00038	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-111	ND		0.012	0.00037	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-112	ND		0.012	0.00039	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-113	0.46	B C90	0.037	0.00046	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-114	0.0056	J B q	0.012	0.0015	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-115	0.51	B C110	0.025	0.00038	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-116	0.074	C85	0.037	0.00045	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-117	0.074	C85	0.037	0.00045	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-118	0.35	B	0.012	0.0016	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-119	0.26	B C86	0.074	0.00045	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-120	ND		0.012	0.00038	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-121	ND		0.012	0.00039	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-122	0.0045	J	0.012	0.0019	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-123	0.0074	J	0.012	0.0016	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-124	0.011	J B C108	0.025	0.0017	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-125	0.26	B C86	0.074	0.00045	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-126	0.0026	J	0.012	0.0016	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-127	ND		0.012	0.0016	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-128	0.095	C	0.025	0.0026	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-129	0.71	C	0.049	0.0027	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-130	0.036		0.012	0.0035	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-131	ND		0.012	0.0037	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-132	0.20		0.012	0.0034	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-133	0.017	q	0.012	0.0033	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-134	0.026	C q	0.025	0.0035	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-135	0.21	C	0.025	0.00035	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-136	0.069		0.012	0.00025	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-137	0.019	q	0.012	0.0030	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-138	0.71	C129	0.049	0.0027	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-139	0.010	J C q	0.025	0.0030	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-140	0.010	J C139 q	0.025	0.0030	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-141	0.10	q	0.012	0.0031	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-142	ND		0.012	0.0033	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-143	0.026	C134 q	0.025	0.0035	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-144	0.019	B	0.012	0.00031	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-145	ND		0.012	0.00024	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-146	0.14		0.012	0.0029	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-147	0.58	C	0.025	0.0034	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S212

Lab Sample ID: 580-77431-10

Date Collected: 05/19/18 15:42

Matrix: Solid

Date Received: 05/21/18 12:00

Percent Solids: 39.6

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	0.0017	J q	0.012	0.00034	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-149	0.58	C147	0.025	0.0034	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-150	0.0019	J q	0.012	0.00023	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-151	0.21	C135	0.025	0.00035	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-152	0.00074	J q	0.012	0.00024	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-153	0.57	C	0.025	0.0023	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-154	0.015		0.012	0.00027	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-155	ND		0.012	0.00023	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-156	0.061	C	0.025	0.0029	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-157	0.061	C156	0.025	0.0029	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-158	0.053	q	0.012	0.0021	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-159	0.0055	J B	0.012	0.0022	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-160	0.71	C129	0.049	0.0027	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-161	ND		0.012	0.0022	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-162	ND		0.012	0.0022	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-163	0.71	C129	0.049	0.0027	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-164	0.049		0.012	0.0023	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-165	ND		0.012	0.0025	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-166	0.095	C128	0.025	0.0026	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-167	0.019	q	0.012	0.0016	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-168	0.57	C153	0.025	0.0023	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-169	ND		0.012	0.0017	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-170	0.20	B	0.012	0.00059	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-171	0.046	C q	0.025	0.00052	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-172	0.033		0.012	0.00051	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-173	0.046	C171 q	0.025	0.00052	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-174	0.21		0.012	0.00048	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-175	0.0076	J	0.012	0.00047	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-176	0.019	q	0.012	0.00035	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-177	0.12		0.012	0.00050	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-178	0.051		0.012	0.00051	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-179	0.11		0.012	0.00037	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-180	0.42	C B	0.025	0.00039	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-181	ND		0.012	0.00047	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-182	0.0038	J	0.012	0.00045	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-183	0.13	C B	0.025	0.00046	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-184	ND		0.012	0.00038	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-185	0.13	B C183	0.025	0.00046	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-186	ND		0.012	0.00037	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-187	0.30		0.012	0.00043	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-188	ND		0.012	0.00031	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-189	0.0074	J	0.012	0.0022	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-190	0.032		0.012	0.00034	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-191	0.0064	J B q	0.012	0.00035	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-192	ND		0.012	0.00039	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-193	0.42	C180 B	0.025	0.00039	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-194	0.13	B	0.012	0.0013	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-195	0.045	q	0.012	0.0014	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-196	0.049		0.012	0.00040	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S212

Lab Sample ID: 580-77431-10

Date Collected: 05/19/18 15:42

Matrix: Solid

Date Received: 05/21/18 12:00

Percent Solids: 39.6

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	0.0037	J B	0.012	0.00030	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-198	0.14	C	0.025	0.00040	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-199	0.14	C198	0.025	0.00040	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-200	0.0090	J q	0.012	0.00027	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-201	0.017		0.012	0.00028	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-202	0.028	q	0.012	0.00031	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-203	0.077		0.012	0.00036	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-204	ND		0.012	0.00031	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-205	0.0059	J	0.012	0.0011	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-206	0.11		0.012	0.0037	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-207	0.010	J q	0.012	0.0024	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-208	0.034		0.012	0.0023	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1
PCB-209	0.12	B	0.012	0.00068	ng/g	☼	06/04/18 07:43	06/13/18 13:54	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	66		30 - 140	06/04/18 07:43	06/13/18 13:54	1
PCB-3L	67		30 - 140	06/04/18 07:43	06/13/18 13:54	1
PCB-4L	74		30 - 140	06/04/18 07:43	06/13/18 13:54	1
PCB-15L	78		30 - 140	06/04/18 07:43	06/13/18 13:54	1
PCB-19L	73		30 - 140	06/04/18 07:43	06/13/18 13:54	1
PCB-37L	84		30 - 140	06/04/18 07:43	06/13/18 13:54	1
PCB-54L	82		30 - 140	06/04/18 07:43	06/13/18 13:54	1
PCB-77L	89		30 - 140	06/04/18 07:43	06/13/18 13:54	1
PCB-81L	91		30 - 140	06/04/18 07:43	06/13/18 13:54	1
PCB-104L	72		30 - 140	06/04/18 07:43	06/13/18 13:54	1
PCB-105L	89		30 - 140	06/04/18 07:43	06/13/18 13:54	1
PCB-114L	88		30 - 140	06/04/18 07:43	06/13/18 13:54	1
PCB-118L	83		30 - 140	06/04/18 07:43	06/13/18 13:54	1
PCB-123L	85		30 - 140	06/04/18 07:43	06/13/18 13:54	1
PCB-126L	85		30 - 140	06/04/18 07:43	06/13/18 13:54	1
PCB-155L	88		30 - 140	06/04/18 07:43	06/13/18 13:54	1
PCB-156L	83	C	30 - 140	06/04/18 07:43	06/13/18 13:54	1
PCB-157L	83	C156	30 - 140	06/04/18 07:43	06/13/18 13:54	1
PCB-167L	81		30 - 140	06/04/18 07:43	06/13/18 13:54	1
PCB-169L	81		30 - 140	06/04/18 07:43	06/13/18 13:54	1
PCB-170L	82		30 - 140	06/04/18 07:43	06/13/18 13:54	1
PCB-188L	98		30 - 140	06/04/18 07:43	06/13/18 13:54	1
PCB-189L	86		30 - 140	06/04/18 07:43	06/13/18 13:54	1
PCB-202L	106		30 - 140	06/04/18 07:43	06/13/18 13:54	1
PCB-205L	72		30 - 140	06/04/18 07:43	06/13/18 13:54	1
PCB-206L	72		30 - 140	06/04/18 07:43	06/13/18 13:54	1
PCB-208L	86		30 - 140	06/04/18 07:43	06/13/18 13:54	1
PCB-209L	66		30 - 140	06/04/18 07:43	06/13/18 13:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	87		40 - 125	06/04/18 07:43	06/13/18 13:54	1
PCB-111L	90		40 - 125	06/04/18 07:43	06/13/18 13:54	1
PCB-178L	100		40 - 125	06/04/18 07:43	06/13/18 13:54	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S209

Lab Sample ID: 580-77431-11

Date Collected: 05/19/18 15:01

Matrix: Solid

Date Received: 05/21/18 12:00

Percent Solids: 39.7

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.0049	J	0.012	0.00047	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-2	0.0054	J q	0.012	0.00051	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-3	0.0042	J q	0.012	0.00054	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-4	0.014	J	0.025	0.0071	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-5	ND		0.012	0.0055	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-6	0.010	J q	0.012	0.0048	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-7	ND		0.012	0.0049	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-8	0.022	J q	0.025	0.0044	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-9	ND		0.012	0.0051	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-10	ND		0.012	0.0054	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-11	0.051	B	0.025	0.0047	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-12	ND	C	0.025	0.0049	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-13	ND	C12	0.025	0.0049	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-14	ND		0.012	0.0041	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-15	0.025	q	0.012	0.0050	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-16	0.019	q	0.012	0.00078	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-17	0.033		0.012	0.00070	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-18	0.056	C	0.025	0.00062	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-19	0.013		0.012	0.00086	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-20	0.11	C	0.025	0.00098	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-21	0.038	C	0.025	0.00096	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-22	0.028		0.012	0.0010	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-23	ND		0.012	0.0010	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-24	0.0013	J q	0.012	0.00059	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-25	0.010	J	0.012	0.00091	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-26	0.017	J C	0.025	0.00097	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-27	0.0045	J q	0.012	0.00051	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-28	0.11	C20	0.025	0.00098	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-29	0.017	J C26	0.025	0.00097	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-30	0.056	C18	0.025	0.00062	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-31	0.075	B	0.025	0.00096	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-32	0.022		0.012	0.00049	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-33	0.038	C21	0.025	0.00096	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-34	ND		0.012	0.0010	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-35	ND		0.012	0.0010	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-36	ND		0.012	0.00097	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-37	0.034		0.012	0.0010	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-38	ND		0.012	0.0010	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-39	ND		0.012	0.00094	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-40	0.055	C	0.037	0.0022	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-41	0.055	C40	0.037	0.0022	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-42	0.027		0.012	0.0022	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-43	0.0038	J C	0.025	0.0021	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-44	0.14	C B	0.037	0.0020	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-45	0.023	J C	0.025	0.0024	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-46	ND		0.012	0.0029	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-47	0.14	B C44	0.037	0.0020	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-48	0.016	B	0.012	0.0022	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-49	0.098	C	0.025	0.0018	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S209

Lab Sample ID: 580-77431-11

Date Collected: 05/19/18 15:01

Matrix: Solid

Date Received: 05/21/18 12:00

Percent Solids: 39.7

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	0.019	J C q	0.025	0.0022	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-51	0.023	J C45	0.025	0.0024	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-52	0.18		0.012	0.0022	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-53	0.019	J C50 q	0.025	0.0022	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-54	0.0047	J q	0.012	0.000060	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-55	0.0036	J	0.012	0.0016	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-56	0.057		0.012	0.0016	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-57	ND		0.012	0.0017	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-58	ND		0.012	0.0017	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-59	0.0097	J C	0.037	0.0016	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-60	0.020		0.012	0.0017	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-61	0.24	C B	0.049	0.0016	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-62	0.0097	J C59	0.037	0.0016	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-63	0.0056	J	0.012	0.0015	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-64	0.048		0.012	0.0015	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-65	0.14	B C44	0.037	0.0020	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-66	0.14		0.012	0.0016	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-67	0.0025	J q	0.012	0.0014	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-68	0.0025	J B q	0.012	0.0015	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-69	0.098	C49	0.025	0.0018	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-70	0.24	C61 B	0.049	0.0016	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-71	0.055	C40	0.037	0.0022	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-72	0.0022	J q	0.012	0.0016	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-73	0.0038	J C43	0.025	0.0021	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-74	0.24	C61 B	0.049	0.0016	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-75	0.0097	J C59	0.037	0.0016	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-76	0.24	C61 B	0.049	0.0016	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-77	0.014		0.012	0.0016	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-78	ND		0.012	0.0017	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-79	0.0021	J	0.012	0.0015	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-80	ND		0.012	0.0014	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-81	ND		0.012	0.0016	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-82	0.047		0.012	0.00050	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-83	0.26	C	0.025	0.00046	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-84	0.088		0.012	0.00051	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-85	0.078	C	0.037	0.00037	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-86	0.25	C B	0.074	0.00038	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-87	0.25	B C86	0.074	0.00038	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-88	0.062	C	0.025	0.00045	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-89	0.0035	J q	0.012	0.00049	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-90	0.43	C B	0.037	0.00038	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-91	0.062	C88	0.025	0.00045	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-92	0.081		0.012	0.00043	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-93	0.013	J C	0.025	0.00044	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-94	ND		0.012	0.00049	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-95	0.27		0.012	0.00048	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-96	ND		0.012	0.00037	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-97	0.25	B C86	0.074	0.00038	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-98	0.0082	J C q	0.025	0.00042	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S209

Lab Sample ID: 580-77431-11

Date Collected: 05/19/18 15:01

Matrix: Solid

Date Received: 05/21/18 12:00

Percent Solids: 39.7

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	0.26	C83	0.025	0.00046	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-100	0.013	J C93	0.025	0.00044	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-101	0.43	B C90	0.037	0.00038	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-102	0.0082	J C98 q	0.025	0.00042	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-103	0.0062	J	0.012	0.00044	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-104	ND		0.012	0.00033	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-105	0.12		0.012	0.0016	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-106	ND		0.012	0.0017	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-107	0.028		0.012	0.0018	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-108	0.011	J C B	0.025	0.0018	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-109	0.25	B C86	0.074	0.00038	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-110	0.49	C B	0.025	0.00032	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-111	ND		0.012	0.00031	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-112	ND		0.012	0.00032	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-113	0.43	B C90	0.037	0.00038	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-114	0.0043	J B q	0.012	0.0016	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-115	0.49	B C110	0.025	0.00032	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-116	0.078	C85	0.037	0.00037	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-117	0.078	C85	0.037	0.00037	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-118	0.31	B	0.012	0.0017	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-119	0.25	B C86	0.074	0.00038	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-120	0.0033	J	0.012	0.00031	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-121	ND		0.012	0.00032	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-122	0.0049	J q	0.012	0.0020	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-123	0.0047	J q	0.012	0.0017	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-124	0.011	J B C108	0.025	0.0018	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-125	0.25	B C86	0.074	0.00038	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-126	ND		0.012	0.0017	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-127	ND		0.012	0.0017	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-128	0.087	C	0.025	0.0024	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-129	0.70	C	0.049	0.0024	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-130	0.042		0.012	0.0032	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-131	ND		0.012	0.0034	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-132	0.19		0.012	0.0032	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-133	0.013		0.012	0.0031	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-134	0.025	C	0.025	0.0032	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-135	0.23	C	0.025	0.00029	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-136	0.069		0.012	0.00021	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-137	0.025		0.012	0.0028	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-138	0.70	C129	0.049	0.0024	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-139	0.0091	J C	0.025	0.0027	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-140	0.0091	J C139	0.025	0.0027	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-141	0.12		0.012	0.0029	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-142	ND		0.012	0.0030	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-143	0.025	C134	0.025	0.0032	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-144	0.021	B q	0.012	0.00027	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-145	ND		0.012	0.00020	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-146	0.13		0.012	0.0027	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-147	0.57	C	0.025	0.0031	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S209

Lab Sample ID: 580-77431-11

Date Collected: 05/19/18 15:01

Matrix: Solid

Date Received: 05/21/18 12:00

Percent Solids: 39.7

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	0.0028	J	0.012	0.00028	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-149	0.57	C147	0.025	0.0031	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-150	0.0020	J q	0.012	0.00019	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-151	0.23	C135	0.025	0.00029	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-152	ND		0.012	0.00021	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-153	0.59	C	0.025	0.0021	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-154	0.0098	J q	0.012	0.00023	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-155	ND		0.012	0.00019	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-156	0.056	C	0.025	0.0028	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-157	0.056	C156	0.025	0.0028	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-158	0.053		0.012	0.0019	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-159	0.0056	J B	0.012	0.0020	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-160	0.70	C129	0.049	0.0024	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-161	ND		0.012	0.0020	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-162	0.0022	J q	0.012	0.0020	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-163	0.70	C129	0.049	0.0024	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-164	0.039	q	0.012	0.0021	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-165	ND		0.012	0.0023	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-166	0.087	C128	0.025	0.0024	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-167	0.020		0.012	0.0015	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-168	0.59	C153	0.025	0.0021	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-169	ND		0.012	0.0015	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-170	0.21	B	0.012	0.00083	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-171	0.064	C	0.025	0.00076	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-172	0.031		0.012	0.00076	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-173	0.064	C171	0.025	0.00076	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-174	0.22		0.012	0.00071	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-175	0.0080	J q	0.012	0.00069	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-176	0.023		0.012	0.00052	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-177	0.13		0.012	0.00073	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-178	0.045		0.012	0.00074	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-179	0.099		0.012	0.00055	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-180	0.44	C B	0.025	0.00058	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-181	ND		0.012	0.00069	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-182	ND		0.012	0.00066	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-183	0.15	C B	0.025	0.00067	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-184	ND		0.012	0.00056	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-185	0.15	B C183	0.025	0.00067	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-186	ND		0.012	0.00055	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-187	0.28		0.012	0.00064	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-188	ND		0.012	0.00047	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-189	0.0053	J	0.012	0.0020	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-190	0.036		0.012	0.00050	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-191	0.0081	J B	0.012	0.00052	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-192	ND		0.012	0.00058	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-193	0.44	C180 B	0.025	0.00058	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-194	0.11	B	0.012	0.0017	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-195	0.040	q	0.012	0.0019	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-196	0.048		0.012	0.00038	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S209

Lab Sample ID: 580-77431-11

Date Collected: 05/19/18 15:01

Matrix: Solid

Date Received: 05/21/18 12:00

Percent Solids: 39.7

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	0.0032	J B q	0.012	0.00029	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-198	0.13	C	0.025	0.00039	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-199	0.13	C198	0.025	0.00039	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-200	0.011	J q	0.012	0.00026	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-201	0.014		0.012	0.00027	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-202	0.025		0.012	0.00030	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-203	0.076		0.012	0.00034	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-204	ND		0.012	0.00029	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-205	0.0047	J	0.012	0.0014	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-206	0.076		0.012	0.0023	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-207	0.0083	J q	0.012	0.0015	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-208	0.026		0.012	0.0014	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1
PCB-209	0.072	B	0.012	0.00057	ng/g	☼	06/04/18 07:43	06/13/18 14:56	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	60		30 - 140	06/04/18 07:43	06/13/18 14:56	1
PCB-3L	65		30 - 140	06/04/18 07:43	06/13/18 14:56	1
PCB-4L	71		30 - 140	06/04/18 07:43	06/13/18 14:56	1
PCB-15L	73		30 - 140	06/04/18 07:43	06/13/18 14:56	1
PCB-19L	76		30 - 140	06/04/18 07:43	06/13/18 14:56	1
PCB-37L	90		30 - 140	06/04/18 07:43	06/13/18 14:56	1
PCB-54L	84		30 - 140	06/04/18 07:43	06/13/18 14:56	1
PCB-77L	100		30 - 140	06/04/18 07:43	06/13/18 14:56	1
PCB-81L	99		30 - 140	06/04/18 07:43	06/13/18 14:56	1
PCB-104L	70		30 - 140	06/04/18 07:43	06/13/18 14:56	1
PCB-105L	92		30 - 140	06/04/18 07:43	06/13/18 14:56	1
PCB-114L	91		30 - 140	06/04/18 07:43	06/13/18 14:56	1
PCB-118L	86		30 - 140	06/04/18 07:43	06/13/18 14:56	1
PCB-123L	87		30 - 140	06/04/18 07:43	06/13/18 14:56	1
PCB-126L	86		30 - 140	06/04/18 07:43	06/13/18 14:56	1
PCB-155L	83		30 - 140	06/04/18 07:43	06/13/18 14:56	1
PCB-156L	81	C	30 - 140	06/04/18 07:43	06/13/18 14:56	1
PCB-157L	81	C156	30 - 140	06/04/18 07:43	06/13/18 14:56	1
PCB-167L	88		30 - 140	06/04/18 07:43	06/13/18 14:56	1
PCB-169L	85		30 - 140	06/04/18 07:43	06/13/18 14:56	1
PCB-170L	82		30 - 140	06/04/18 07:43	06/13/18 14:56	1
PCB-188L	96		30 - 140	06/04/18 07:43	06/13/18 14:56	1
PCB-189L	90		30 - 140	06/04/18 07:43	06/13/18 14:56	1
PCB-202L	104		30 - 140	06/04/18 07:43	06/13/18 14:56	1
PCB-205L	72		30 - 140	06/04/18 07:43	06/13/18 14:56	1
PCB-206L	73		30 - 140	06/04/18 07:43	06/13/18 14:56	1
PCB-208L	88		30 - 140	06/04/18 07:43	06/13/18 14:56	1
PCB-209L	69		30 - 140	06/04/18 07:43	06/13/18 14:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	90		40 - 125	06/04/18 07:43	06/13/18 14:56	1
PCB-111L	89		40 - 125	06/04/18 07:43	06/13/18 14:56	1
PCB-178L	94		40 - 125	06/04/18 07:43	06/13/18 14:56	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S207

Date Collected: 05/19/18 14:16

Date Received: 05/21/18 12:00

Lab Sample ID: 580-77431-12

Matrix: Solid

Percent Solids: 41.2

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.0047	J	0.012	0.00047	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-2	0.0081	J	0.012	0.00055	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-3	0.0033	J q	0.012	0.00062	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-4	0.016	J q	0.024	0.0072	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-5	ND		0.012	0.0055	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-6	0.0058	J q	0.012	0.0048	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-7	ND		0.012	0.0050	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-8	0.024	q	0.024	0.0045	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-9	ND		0.012	0.0051	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-10	ND		0.012	0.0054	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-11	0.051	B	0.024	0.0047	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-12	ND	C	0.024	0.0049	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-13	ND	C12	0.024	0.0049	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-14	ND		0.012	0.0042	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-15	0.022		0.012	0.0049	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-16	0.013	q	0.012	0.00087	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-17	0.027		0.012	0.00078	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-18	0.040	C q	0.024	0.00068	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-19	0.012		0.012	0.00095	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-20	0.12	C	0.024	0.0010	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-21	0.044	C	0.024	0.0010	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-22	0.033		0.012	0.0011	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-23	ND		0.012	0.0011	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-24	ND		0.012	0.00065	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-25	0.0092	J	0.012	0.00096	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-26	0.016	J C	0.024	0.0010	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-27	0.0051	J	0.012	0.00057	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-28	0.12	C20	0.024	0.0010	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-29	0.016	J C26	0.024	0.0010	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-30	0.040	C18 q	0.024	0.00068	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-31	0.083	B	0.024	0.0010	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-32	0.018	q	0.012	0.00054	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-33	0.044	C21	0.024	0.0010	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-34	ND		0.012	0.0011	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-35	0.0017	J q	0.012	0.0011	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-36	ND		0.012	0.0010	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-37	0.030	q	0.012	0.0011	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-38	ND		0.012	0.0011	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-39	ND		0.012	0.00099	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-40	0.053	C	0.036	0.0022	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-41	0.053	C40	0.036	0.0022	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-42	0.030		0.012	0.0022	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-43	0.0043	J C q	0.024	0.0021	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-44	0.14	C B	0.036	0.0020	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-45	0.023	J C	0.024	0.0023	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-46	0.0059	J q	0.012	0.0028	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-47	0.14	B C44	0.036	0.0020	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-48	0.016	B q	0.012	0.0022	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-49	0.098	C	0.024	0.0018	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S207

Lab Sample ID: 580-77431-12

Date Collected: 05/19/18 14:16

Matrix: Solid

Date Received: 05/21/18 12:00

Percent Solids: 41.2

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	0.021	J C	0.024	0.0022	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-51	0.023	J C45	0.024	0.0023	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-52	0.17		0.012	0.0022	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-53	0.021	J C50	0.024	0.0022	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-54	0.0043	J	0.012	0.000043	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-55	ND		0.012	0.0016	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-56	0.057		0.012	0.0016	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-57	ND		0.012	0.0016	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-58	ND		0.012	0.0017	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-59	0.0081	J C q	0.036	0.0016	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-60	0.021		0.012	0.0017	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-61	0.23	C B	0.048	0.0016	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-62	0.0081	J C59 q	0.036	0.0016	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-63	0.0034	J q	0.012	0.0015	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-64	0.043		0.012	0.0015	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-65	0.14	B C44	0.036	0.0020	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-66	0.13		0.012	0.0015	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-67	0.0020	J q	0.012	0.0014	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-68	0.0021	J B q	0.012	0.0015	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-69	0.098	C49	0.024	0.0018	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-70	0.23	C61 B	0.048	0.0016	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-71	0.053	C40	0.036	0.0022	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-72	0.0036	J	0.012	0.0016	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-73	0.0043	J C43 q	0.024	0.0021	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-74	0.23	C61 B	0.048	0.0016	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-75	0.0081	J C59 q	0.036	0.0016	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-76	0.23	C61 B	0.048	0.0016	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-77	0.010	J q	0.012	0.0015	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-78	ND		0.012	0.0017	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-79	0.0023	J q	0.012	0.0014	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-80	ND		0.012	0.0014	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-81	ND		0.012	0.0016	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-82	0.039		0.012	0.00062	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-83	0.24	C	0.024	0.00057	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-84	0.069		0.012	0.00063	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-85	0.065	C	0.036	0.00046	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-86	0.23	C B	0.073	0.00046	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-87	0.23	B C86	0.073	0.00046	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-88	0.053	C q	0.024	0.00056	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-89	ND		0.012	0.00061	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-90	0.41	C B	0.036	0.00047	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-91	0.053	C88 q	0.024	0.00056	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-92	0.081		0.012	0.00053	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-93	0.013	J C q	0.024	0.00054	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-94	ND		0.012	0.00061	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-95	0.28		0.012	0.00059	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-96	ND		0.012	0.00046	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-97	0.23	B C86	0.073	0.00046	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-98	0.012	J C	0.024	0.00052	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S207

Lab Sample ID: 580-77431-12

Date Collected: 05/19/18 14:16

Matrix: Solid

Date Received: 05/21/18 12:00

Percent Solids: 41.2

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	0.24	C83	0.024	0.00057	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-100	0.013	J C93 q	0.024	0.00054	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-101	0.41	B C90	0.036	0.00047	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-102	0.012	J C98	0.024	0.00052	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-103	0.0086	J	0.012	0.00054	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-104	ND		0.012	0.00041	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-105	0.11		0.012	0.0018	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-106	ND		0.012	0.0018	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-107	0.024		0.012	0.0019	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-108	0.011	J C B	0.024	0.0019	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-109	0.23	B C86	0.073	0.00046	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-110	0.46	C B	0.024	0.00039	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-111	ND		0.012	0.00038	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-112	0.0018	J q	0.012	0.00040	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-113	0.41	B C90	0.036	0.00047	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-114	0.0067	J B	0.012	0.0018	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-115	0.46	B C110	0.024	0.00039	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-116	0.065	C85	0.036	0.00046	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-117	0.065	C85	0.036	0.00046	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-118	0.32	B	0.012	0.0016	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-119	0.23	B C86	0.073	0.00046	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-120	0.0026	J q	0.012	0.00038	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-121	ND		0.012	0.00040	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-122	0.0037	J q	0.012	0.0021	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-123	0.0052	J	0.012	0.0019	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-124	0.011	J B C108	0.024	0.0019	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-125	0.23	B C86	0.073	0.00046	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-126	ND		0.012	0.0018	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-127	ND		0.012	0.0018	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-128	0.084	C	0.024	0.0029	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-129	0.65	C	0.048	0.0030	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-130	0.046		0.012	0.0039	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-131	ND		0.012	0.0041	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-132	0.19		0.012	0.0038	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-133	0.012		0.012	0.0037	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-134	0.025	C q	0.024	0.0039	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-135	0.22	C	0.024	0.00031	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-136	0.078		0.012	0.00022	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-137	0.022		0.012	0.0033	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-138	0.65	C129	0.048	0.0030	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-139	0.0097	J C q	0.024	0.0033	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-140	0.0097	J C139 q	0.024	0.0033	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-141	0.11		0.012	0.0035	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-142	ND		0.012	0.0037	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-143	0.025	C134 q	0.024	0.0039	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-144	0.018	B q	0.012	0.00028	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-145	ND		0.012	0.00021	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-146	0.13		0.012	0.0033	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-147	0.60	C	0.024	0.0037	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S207

Lab Sample ID: 580-77431-12

Date Collected: 05/19/18 14:16

Matrix: Solid

Date Received: 05/21/18 12:00

Percent Solids: 41.2

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	0.0020	J q	0.012	0.00030	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-149	0.60	C147	0.024	0.0037	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-150	0.0031	J	0.012	0.00020	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-151	0.22	C135	0.024	0.00031	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-152	0.00091	J q	0.012	0.00022	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-153	0.57	C	0.024	0.0026	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-154	0.015		0.012	0.00024	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-155	ND		0.012	0.00021	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-156	0.058	C	0.024	0.0033	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-157	0.058	C156	0.024	0.0033	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-158	0.051		0.012	0.0023	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-159	0.0043	J B q	0.012	0.0025	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-160	0.65	C129	0.048	0.0030	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-161	ND		0.012	0.0025	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-162	ND		0.012	0.0024	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-163	0.65	C129	0.048	0.0030	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-164	0.043		0.012	0.0026	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-165	ND		0.012	0.0028	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-166	0.084	C128	0.024	0.0029	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-167	0.020		0.012	0.0018	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-168	0.57	C153	0.024	0.0026	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-169	ND		0.012	0.0018	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-170	0.16	B	0.012	0.00083	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-171	0.054	C	0.024	0.00076	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-172	0.033		0.012	0.00075	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-173	0.054	C171	0.024	0.00076	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-174	0.20		0.012	0.00071	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-175	0.0059	J q	0.012	0.00068	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-176	0.020		0.012	0.00052	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-177	0.12		0.012	0.00073	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-178	0.046		0.012	0.00074	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-179	0.082	q	0.012	0.00055	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-180	0.36	C B	0.024	0.00057	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-181	ND		0.012	0.00068	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-182	0.0033	J q	0.012	0.00066	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-183	0.13	C B	0.024	0.00067	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-184	ND		0.012	0.00056	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-185	0.13	B C183	0.024	0.00067	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-186	ND		0.012	0.00054	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-187	0.24		0.012	0.00063	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-188	ND		0.012	0.00047	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-189	0.0048	J	0.012	0.0020	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-190	0.031		0.012	0.00049	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-191	0.0047	J B q	0.012	0.00051	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-192	ND		0.012	0.00057	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-193	0.36	C180 B	0.024	0.00057	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-194	0.10	B q	0.012	0.0019	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-195	0.044		0.012	0.0021	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-196	0.041	q	0.012	0.00050	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S207

Lab Sample ID: 580-77431-12

Date Collected: 05/19/18 14:16

Matrix: Solid

Date Received: 05/21/18 12:00

Percent Solids: 41.2

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	0.0027	J B q	0.012	0.00038	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-198	0.10	C	0.024	0.00051	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-199	0.10	C198	0.024	0.00051	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-200	0.012		0.012	0.00034	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-201	0.011	J	0.012	0.00035	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-202	0.021		0.012	0.00039	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-203	0.056	q	0.012	0.00045	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-204	ND		0.012	0.00038	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-205	0.0042	J q	0.012	0.0016	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-206	0.069		0.012	0.0026	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-207	0.0073	J q	0.012	0.0017	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-208	0.018	q	0.012	0.0016	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1
PCB-209	0.076	B	0.012	0.00043	ng/g	☼	06/04/18 07:43	06/13/18 15:57	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	64		30 - 140	06/04/18 07:43	06/13/18 15:57	1
PCB-3L	65		30 - 140	06/04/18 07:43	06/13/18 15:57	1
PCB-4L	76		30 - 140	06/04/18 07:43	06/13/18 15:57	1
PCB-15L	81		30 - 140	06/04/18 07:43	06/13/18 15:57	1
PCB-19L	84		30 - 140	06/04/18 07:43	06/13/18 15:57	1
PCB-37L	84		30 - 140	06/04/18 07:43	06/13/18 15:57	1
PCB-54L	87		30 - 140	06/04/18 07:43	06/13/18 15:57	1
PCB-77L	93		30 - 140	06/04/18 07:43	06/13/18 15:57	1
PCB-81L	88		30 - 140	06/04/18 07:43	06/13/18 15:57	1
PCB-104L	75		30 - 140	06/04/18 07:43	06/13/18 15:57	1
PCB-105L	87		30 - 140	06/04/18 07:43	06/13/18 15:57	1
PCB-114L	87		30 - 140	06/04/18 07:43	06/13/18 15:57	1
PCB-118L	88		30 - 140	06/04/18 07:43	06/13/18 15:57	1
PCB-123L	83		30 - 140	06/04/18 07:43	06/13/18 15:57	1
PCB-126L	84		30 - 140	06/04/18 07:43	06/13/18 15:57	1
PCB-155L	87		30 - 140	06/04/18 07:43	06/13/18 15:57	1
PCB-156L	84	C	30 - 140	06/04/18 07:43	06/13/18 15:57	1
PCB-157L	84	C156	30 - 140	06/04/18 07:43	06/13/18 15:57	1
PCB-167L	88		30 - 140	06/04/18 07:43	06/13/18 15:57	1
PCB-169L	88		30 - 140	06/04/18 07:43	06/13/18 15:57	1
PCB-170L	84		30 - 140	06/04/18 07:43	06/13/18 15:57	1
PCB-188L	99		30 - 140	06/04/18 07:43	06/13/18 15:57	1
PCB-189L	86		30 - 140	06/04/18 07:43	06/13/18 15:57	1
PCB-202L	108		30 - 140	06/04/18 07:43	06/13/18 15:57	1
PCB-205L	71		30 - 140	06/04/18 07:43	06/13/18 15:57	1
PCB-206L	80		30 - 140	06/04/18 07:43	06/13/18 15:57	1
PCB-208L	92		30 - 140	06/04/18 07:43	06/13/18 15:57	1
PCB-209L	73		30 - 140	06/04/18 07:43	06/13/18 15:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	92		40 - 125	06/04/18 07:43	06/13/18 15:57	1
PCB-111L	91		40 - 125	06/04/18 07:43	06/13/18 15:57	1
PCB-178L	93		40 - 125	06/04/18 07:43	06/13/18 15:57	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S206

Date Collected: 05/19/18 13:41

Date Received: 05/21/18 12:00

Lab Sample ID: 580-77431-13

Matrix: Solid

Percent Solids: 38.4

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.0091	J	0.013	0.00057	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-2	0.021		0.013	0.00061	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-3	0.0086	J q	0.013	0.00062	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-4	0.036	q	0.026	0.0073	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-5	ND		0.013	0.0055	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-6	0.018	q	0.013	0.0048	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-7	ND		0.013	0.0049	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-8	0.065		0.026	0.0045	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-9	0.0055	J q	0.013	0.0051	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-10	ND		0.013	0.0054	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-11	0.085	B	0.026	0.0047	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-12	0.010	J C q	0.026	0.0049	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-13	0.010	J C12 q	0.026	0.0049	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-14	ND		0.013	0.0042	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-15	0.069		0.013	0.0049	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-16	0.059		0.013	0.0012	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-17	0.090		0.013	0.0011	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-18	0.16	C	0.026	0.00095	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-19	0.034		0.013	0.0013	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-20	0.31	C	0.026	0.0019	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-21	0.12	C	0.026	0.0018	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-22	0.080		0.013	0.0019	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-23	ND		0.013	0.0019	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-24	0.0026	J q	0.013	0.00090	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-25	0.022		0.013	0.0017	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-26	0.044	C	0.026	0.0018	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-27	0.018		0.013	0.00078	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-28	0.31	C20	0.026	0.0019	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-29	0.044	C26	0.026	0.0018	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-30	0.16	C18	0.026	0.00095	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-31	0.23	B	0.026	0.0018	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-32	0.065		0.013	0.00075	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-33	0.12	C21	0.026	0.0018	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-34	ND		0.013	0.0020	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-35	0.0048	J q	0.013	0.0019	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-36	ND		0.013	0.0018	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-37	0.10		0.013	0.0019	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-38	ND		0.013	0.0020	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-39	ND		0.013	0.0018	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-40	0.23	C	0.038	0.0050	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-41	0.23	C40	0.038	0.0050	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-42	0.11		0.013	0.0050	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-43	0.011	J C q	0.026	0.0047	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-44	0.54	C B	0.038	0.0044	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-45	0.079	C q	0.026	0.0053	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-46	0.026		0.013	0.0064	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-47	0.54	B C44	0.038	0.0044	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-48	0.064	B	0.013	0.0050	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-49	0.34	C	0.026	0.0041	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S206

Lab Sample ID: 580-77431-13

Date Collected: 05/19/18 13:41

Matrix: Solid

Date Received: 05/21/18 12:00

Percent Solids: 38.4

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	0.072	C	0.026	0.0049	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-51	0.079	C45 q	0.026	0.0053	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-52	0.66		0.013	0.0050	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-53	0.072	C50	0.026	0.0049	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-54	0.0051	J	0.013	0.00020	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-55	ND		0.013	0.0036	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-56	0.19		0.013	0.0036	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-57	ND		0.013	0.0037	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-58	ND		0.013	0.0038	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-59	0.037	J C	0.038	0.0035	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-60	0.064		0.013	0.0037	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-61	0.81	C B	0.051	0.0035	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-62	0.037	J C59	0.038	0.0035	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-63	0.015		0.013	0.0034	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-64	0.18		0.013	0.0033	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-65	0.54	B C44	0.038	0.0044	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-66	0.53		0.013	0.0035	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-67	0.0087	J q	0.013	0.0032	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-68	0.0084	J B	0.013	0.0033	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-69	0.34	C49	0.026	0.0041	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-70	0.81	C61 B	0.051	0.0035	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-71	0.23	C40	0.038	0.0050	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-72	0.0093	J	0.013	0.0036	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-73	0.011	J C43 q	0.026	0.0047	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-74	0.81	C61 B	0.051	0.0035	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-75	0.037	J C59	0.038	0.0035	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-76	0.81	C61 B	0.051	0.0035	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-77	0.054		0.013	0.0035	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-78	ND		0.013	0.0037	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-79	0.0096	J q	0.013	0.0032	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-80	ND		0.013	0.0032	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-81	ND		0.013	0.0034	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-82	0.18		0.013	0.00072	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-83	0.92	C	0.026	0.00065	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-84	0.31		0.013	0.00072	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-85	0.25	C	0.038	0.00053	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-86	0.88	C B	0.077	0.00053	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-87	0.88	B C86	0.077	0.00053	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-88	0.24	C	0.026	0.00065	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-89	ND		0.013	0.00070	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-90	1.5	C B	0.038	0.00054	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-91	0.24	C88	0.026	0.00065	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-92	0.29		0.013	0.00061	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-93	0.032	C q	0.026	0.00062	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-94	ND		0.013	0.00070	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-95	1.2		0.013	0.00068	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-96	ND		0.013	0.00053	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-97	0.88	B C86	0.077	0.00053	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-98	0.042	C	0.026	0.00060	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S206

Lab Sample ID: 580-77431-13

Date Collected: 05/19/18 13:41

Matrix: Solid

Date Received: 05/21/18 12:00

Percent Solids: 38.4

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	0.92	C83	0.026	0.00065	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-100	0.032	C93 q	0.026	0.00062	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-101	1.5	B C90	0.038	0.00054	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-102	0.042	C98	0.026	0.00060	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-103	0.024		0.013	0.00062	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-104	ND		0.013	0.00047	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-105	0.45		0.013	0.0031	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-106	ND		0.013	0.0032	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-107	0.11		0.013	0.0035	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-108	0.042	C B q	0.026	0.0033	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-109	0.88	B C86	0.077	0.00053	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-110	1.8	C B	0.026	0.00045	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-111	ND		0.013	0.00044	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-112	ND		0.013	0.00046	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-113	1.5	B C90	0.038	0.00054	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-114	0.016	B q	0.013	0.0029	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-115	1.8	B C110	0.026	0.00045	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-116	0.25	C85	0.038	0.00053	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-117	0.25	C85	0.038	0.00053	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-118	1.2	B	0.013	0.0030	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-119	0.88	B C86	0.077	0.00053	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-120	0.011	J	0.013	0.00044	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-121	ND		0.013	0.00046	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-122	0.020		0.013	0.0037	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-123	0.021		0.013	0.0033	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-124	0.042	B q C108	0.026	0.0033	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-125	0.88	B C86	0.077	0.00053	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-126	ND		0.013	0.0035	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-127	ND		0.013	0.0032	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-128	0.35	C	0.026	0.0048	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-129	2.7	C	0.051	0.0050	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-130	0.15		0.013	0.0065	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-131	0.026	q	0.013	0.0068	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-132	0.81		0.013	0.0064	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-133	0.042		0.013	0.0062	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-134	0.14	C	0.026	0.0064	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-135	0.90	C	0.026	0.00063	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-136	0.31		0.013	0.00045	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-137	0.088		0.013	0.0056	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-138	2.7	C129	0.051	0.0050	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-139	0.032	C q	0.026	0.0055	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-140	0.032	C139 q	0.026	0.0055	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-141	0.50		0.013	0.0058	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-142	ND		0.013	0.0062	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-143	0.14	C134	0.026	0.0064	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-144	0.10	B	0.013	0.00057	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-145	0.0017	J q	0.013	0.00043	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-146	0.45		0.013	0.0054	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-147	2.4	C	0.026	0.0062	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S206

Lab Sample ID: 580-77431-13

Date Collected: 05/19/18 13:41

Matrix: Solid

Date Received: 05/21/18 12:00

Percent Solids: 38.4

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	0.0061	J q	0.013	0.00060	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-149	2.4	C147	0.026	0.0062	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-150	0.0037	J q	0.013	0.00041	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-151	0.90	C135	0.026	0.00063	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-152	0.0015	J q	0.013	0.00044	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-153	2.3	C	0.026	0.0043	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-154	0.044		0.013	0.00049	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-155	ND		0.013	0.00041	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-156	0.24	C	0.026	0.0055	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-157	0.24	C156	0.026	0.0055	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-158	0.23		0.013	0.0039	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-159	0.022	B	0.013	0.0041	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-160	2.7	C129	0.051	0.0050	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-161	ND		0.013	0.0041	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-162	0.0046	J q	0.013	0.0040	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-163	2.7	C129	0.051	0.0050	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-164	0.19		0.013	0.0043	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-165	ND		0.013	0.0046	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-166	0.35	C128	0.026	0.0048	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-167	0.081		0.013	0.0030	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-168	2.3	C153	0.026	0.0043	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-169	0.014	q	0.013	0.0031	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-170	0.80	B	0.013	0.00087	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-171	0.24	C	0.026	0.00079	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-172	0.13		0.013	0.00078	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-173	0.24	C171	0.026	0.00079	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-174	0.80		0.013	0.00073	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-175	0.030		0.013	0.00071	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-176	0.099		0.013	0.00054	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-177	0.46		0.013	0.00076	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-178	0.18		0.013	0.00077	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-179	0.38		0.013	0.00057	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-180	1.7	C B	0.026	0.00060	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-181	ND		0.013	0.00071	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-182	0.012	J	0.013	0.00068	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-183	0.55	C B	0.026	0.00070	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-184	ND		0.013	0.00058	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-185	0.55	B C183	0.026	0.00070	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-186	ND		0.013	0.00057	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-187	1.0		0.013	0.00066	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-188	ND		0.013	0.00048	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-189	0.019	q	0.013	0.0037	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-190	0.15		0.013	0.00051	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-191	0.026	B q	0.013	0.00054	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-192	ND		0.013	0.00060	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-193	1.7	C180 B	0.026	0.00060	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-194	0.45	B	0.013	0.0041	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-195	0.18		0.013	0.0045	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-196	0.18		0.013	0.00066	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S206

Lab Sample ID: 580-77431-13

Date Collected: 05/19/18 13:41

Matrix: Solid

Date Received: 05/21/18 12:00

Percent Solids: 38.4

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	0.014	B	0.013	0.00051	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-198	0.43	C	0.026	0.00067	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-199	0.43	C198	0.026	0.00067	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-200	0.043		0.013	0.00045	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-201	0.047		0.013	0.00046	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-202	0.086		0.013	0.00052	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-203	0.26		0.013	0.00060	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-204	ND		0.013	0.00051	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-205	0.021	q	0.013	0.0035	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-206	0.27		0.013	0.0033	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-207	0.028		0.013	0.0023	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-208	0.082		0.013	0.0024	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
PCB-209	0.23	B	0.013	0.00053	ng/g	☼	06/04/18 07:43	06/15/18 04:55	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-1L	59		30 - 140				06/04/18 07:43	06/15/18 04:55	1
PCB-3L	59		30 - 140				06/04/18 07:43	06/15/18 04:55	1
PCB-4L	70		30 - 140				06/04/18 07:43	06/15/18 04:55	1
PCB-15L	75		30 - 140				06/04/18 07:43	06/15/18 04:55	1
PCB-19L	82		30 - 140				06/04/18 07:43	06/15/18 04:55	1
PCB-37L	87		30 - 140				06/04/18 07:43	06/15/18 04:55	1
PCB-54L	71		30 - 140				06/04/18 07:43	06/15/18 04:55	1
PCB-77L	85		30 - 140				06/04/18 07:43	06/15/18 04:55	1
PCB-81L	85		30 - 140				06/04/18 07:43	06/15/18 04:55	1
PCB-104L	79		30 - 140				06/04/18 07:43	06/15/18 04:55	1
PCB-105L	90		30 - 140				06/04/18 07:43	06/15/18 04:55	1
PCB-114L	94		30 - 140				06/04/18 07:43	06/15/18 04:55	1
PCB-118L	91		30 - 140				06/04/18 07:43	06/15/18 04:55	1
PCB-123L	87		30 - 140				06/04/18 07:43	06/15/18 04:55	1
PCB-126L	83		30 - 140				06/04/18 07:43	06/15/18 04:55	1
PCB-155L	85		30 - 140				06/04/18 07:43	06/15/18 04:55	1
PCB-156L	87	C	30 - 140				06/04/18 07:43	06/15/18 04:55	1
PCB-157L	87	C156	30 - 140				06/04/18 07:43	06/15/18 04:55	1
PCB-167L	90		30 - 140				06/04/18 07:43	06/15/18 04:55	1
PCB-169L	88		30 - 140				06/04/18 07:43	06/15/18 04:55	1
PCB-170L	86		30 - 140				06/04/18 07:43	06/15/18 04:55	1
PCB-188L	97		30 - 140				06/04/18 07:43	06/15/18 04:55	1
PCB-189L	91		30 - 140				06/04/18 07:43	06/15/18 04:55	1
PCB-202L	112		30 - 140				06/04/18 07:43	06/15/18 04:55	1
PCB-205L	74		30 - 140				06/04/18 07:43	06/15/18 04:55	1
PCB-206L	84		30 - 140				06/04/18 07:43	06/15/18 04:55	1
PCB-208L	91		30 - 140				06/04/18 07:43	06/15/18 04:55	1
PCB-209L	88		30 - 140				06/04/18 07:43	06/15/18 04:55	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-28L	89		40 - 125				06/04/18 07:43	06/15/18 04:55	1
PCB-111L	89		40 - 125				06/04/18 07:43	06/15/18 04:55	1
PCB-178L	96		40 - 125				06/04/18 07:43	06/15/18 04:55	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S205

Lab Sample ID: 580-77431-14

Date Collected: 05/19/18 11:50

Matrix: Solid

Date Received: 05/21/18 12:00

Percent Solids: 44.6

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.0043	J	0.011	0.00042	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-2	0.012		0.011	0.00048	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-3	0.0058	J	0.011	0.00055	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-4	0.014	J q	0.022	0.0061	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-5	ND		0.011	0.0046	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-6	0.011	q	0.011	0.0041	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-7	ND		0.011	0.0042	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-8	0.035		0.022	0.0038	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-9	ND		0.011	0.0043	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-10	ND		0.011	0.0046	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-11	0.055	B	0.022	0.0040	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-12	ND	C	0.022	0.0041	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-13	ND	C12	0.022	0.0041	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-14	ND		0.011	0.0035	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-15	0.024	q	0.011	0.0042	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-16	0.022	q	0.011	0.00040	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-17	0.043		0.011	0.00036	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-18	0.079	C	0.022	0.00032	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-19	0.019		0.011	0.00044	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-20	0.17	C	0.022	0.00085	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-21	0.068	C	0.022	0.00083	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-22	0.042		0.011	0.00087	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-23	ND		0.011	0.00086	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-24	0.00073	J q	0.011	0.00030	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-25	0.012		0.011	0.00078	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-26	0.023	C	0.022	0.00083	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-27	0.0060	J q	0.011	0.00026	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-28	0.17	C20	0.022	0.00085	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-29	0.023	C26	0.022	0.00083	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-30	0.079	C18	0.022	0.00032	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-31	0.12	B	0.022	0.00082	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-32	0.028	q	0.011	0.00025	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-33	0.068	C21	0.022	0.00083	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-34	ND		0.011	0.00089	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-35	ND		0.011	0.00087	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-36	ND		0.011	0.00083	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-37	0.047		0.011	0.00086	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-38	ND		0.011	0.00090	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-39	ND		0.011	0.00080	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-40	0.088	C	0.033	0.0017	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-41	0.088	C40	0.033	0.0017	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-42	0.043		0.011	0.0017	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-43	0.0061	J C	0.022	0.0016	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-44	0.21	C B	0.033	0.0015	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-45	0.029	q C	0.022	0.0018	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-46	ND		0.011	0.0022	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-47	0.21	B C44	0.033	0.0015	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-48	0.026	B	0.011	0.0017	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-49	0.14	C	0.022	0.0014	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S205

Lab Sample ID: 580-77431-14

Date Collected: 05/19/18 11:50

Matrix: Solid

Date Received: 05/21/18 12:00

Percent Solids: 44.6

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	0.029	C	0.022	0.0017	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-51	0.029	q C45	0.022	0.0018	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-52	0.25		0.011	0.0017	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-53	0.029	C50	0.022	0.0017	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-54	0.0018	J q	0.011	0.000085	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-55	0.0031	J q	0.011	0.0012	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-56	0.077		0.011	0.0012	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-57	ND		0.011	0.0013	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-58	ND		0.011	0.0013	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-59	0.015	J q C	0.033	0.0012	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-60	0.020		0.011	0.0013	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-61	0.34	C B	0.044	0.0012	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-62	0.015	J q C59	0.033	0.0012	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-63	0.0070	J	0.011	0.0012	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-64	0.064		0.011	0.0011	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-65	0.21	B C44	0.033	0.0015	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-66	0.19		0.011	0.0012	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-67	0.0049	J	0.011	0.0011	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-68	0.0062	J B	0.011	0.0011	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-69	0.14	C49	0.022	0.0014	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-70	0.34	C61 B	0.044	0.0012	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-71	0.088	C40	0.033	0.0017	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-72	0.0050	J	0.011	0.0012	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-73	0.0061	J C43	0.022	0.0016	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-74	0.34	C61 B	0.044	0.0012	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-75	0.015	J q C59	0.033	0.0012	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-76	0.34	C61 B	0.044	0.0012	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-77	0.018		0.011	0.0012	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-78	ND		0.011	0.0013	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-79	ND		0.011	0.0011	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-80	ND		0.011	0.0011	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-81	ND		0.011	0.0012	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-82	0.045		0.011	0.00081	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-83	0.33	C	0.022	0.00074	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-84	0.10		0.011	0.00082	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-85	0.075	C	0.033	0.00060	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-86	0.27	C B	0.066	0.00061	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-87	0.27	B C86	0.066	0.00061	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-88	0.080	C	0.022	0.00073	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-89	ND		0.011	0.00079	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-90	0.53	C B	0.033	0.00061	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-91	0.080	C88	0.022	0.00073	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-92	0.11		0.011	0.00069	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-93	0.016	J C	0.022	0.00070	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-94	ND		0.011	0.00079	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-95	0.38		0.011	0.00077	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-96	0.0043	J q	0.011	0.00060	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-97	0.27	B C86	0.066	0.00061	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-98	0.0072	J q C	0.022	0.00068	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S205

Lab Sample ID: 580-77431-14

Date Collected: 05/19/18 11:50

Matrix: Solid

Date Received: 05/21/18 12:00

Percent Solids: 44.6

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	0.33	C83	0.022	0.00074	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-100	0.016	J C93	0.022	0.00070	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-101	0.53	B C90	0.033	0.00061	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-102	0.0072	J q C98	0.022	0.00068	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-103	0.0081	J q	0.011	0.00070	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-104	ND		0.011	0.00053	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-105	0.14		0.011	0.0014	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-106	ND		0.011	0.0015	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-107	0.043	q	0.011	0.0016	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-108	0.011	J C B q	0.022	0.0015	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-109	0.27	B C86	0.066	0.00061	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-110	0.57	C B	0.022	0.00051	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-111	ND		0.011	0.00049	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-112	ND		0.011	0.00052	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-113	0.53	B C90	0.033	0.00061	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-114	0.0069	J B q	0.011	0.0014	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-115	0.57	B C110	0.022	0.00051	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-116	0.075	C85	0.033	0.00060	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-117	0.075	C85	0.033	0.00060	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-118	0.41	B	0.011	0.0014	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-119	0.27	B C86	0.066	0.00061	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-120	0.0037	J q	0.011	0.00050	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-121	ND		0.011	0.00052	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-122	0.0048	J q	0.011	0.0017	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-123	0.0030	J q	0.011	0.0015	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-124	0.011	J B q C108	0.022	0.0015	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-125	0.27	B C86	0.066	0.00061	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-126	ND		0.011	0.0016	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-127	ND		0.011	0.0015	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-128	0.10	C	0.022	0.0030	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-129	0.80	C	0.044	0.0031	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-130	0.056		0.011	0.0041	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-131	ND		0.011	0.0042	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-132	0.22		0.011	0.0040	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-133	0.018		0.011	0.0038	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-134	0.032	C	0.022	0.0040	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-135	0.26	C	0.022	0.00036	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-136	0.088		0.011	0.00026	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-137	0.026		0.011	0.0035	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-138	0.80	C129	0.044	0.0031	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-139	0.014	J C	0.022	0.0034	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-140	0.014	J C139	0.022	0.0034	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-141	0.13		0.011	0.0036	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-142	ND		0.011	0.0038	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-143	0.032	C134	0.022	0.0040	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-144	0.026	B	0.011	0.00032	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-145	ND		0.011	0.00024	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-146	0.17		0.011	0.0034	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-147	0.73	C	0.022	0.0039	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S205

Lab Sample ID: 580-77431-14

Date Collected: 05/19/18 11:50

Matrix: Solid

Date Received: 05/21/18 12:00

Percent Solids: 44.6

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	ND		0.011	0.00034	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-149	0.73	C147	0.022	0.0039	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-150	0.0026	J q	0.011	0.00023	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-151	0.26	C135	0.022	0.00036	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-152	ND		0.011	0.00025	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-153	0.72	C	0.022	0.0027	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-154	0.019	q	0.011	0.00028	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-155	ND		0.011	0.00023	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-156	0.066	C	0.022	0.0035	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-157	0.066	C156	0.022	0.0035	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-158	0.061		0.011	0.0024	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-159	ND		0.011	0.0026	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-160	0.80	C129	0.044	0.0031	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-161	ND		0.011	0.0025	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-162	ND		0.011	0.0025	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-163	0.80	C129	0.044	0.0031	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-164	0.055		0.011	0.0027	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-165	ND		0.011	0.0029	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-166	0.10	C128	0.022	0.0030	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-167	0.024		0.011	0.0018	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-168	0.72	C153	0.022	0.0027	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-169	ND		0.011	0.0020	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-170	0.21	B	0.011	0.00074	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-171	0.060	C	0.022	0.00070	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-172	0.041		0.011	0.00070	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-173	0.060	C171	0.022	0.00070	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-174	0.23		0.011	0.00066	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-175	0.0070	J q	0.011	0.00063	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-176	0.032		0.011	0.00048	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-177	0.15		0.011	0.00067	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-178	0.057		0.011	0.00069	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-179	0.11		0.011	0.00051	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-180	0.48	C B	0.022	0.00053	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-181	ND		0.011	0.00063	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-182	ND		0.011	0.00061	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-183	0.15	C B	0.022	0.00062	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-184	ND		0.011	0.00052	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-185	0.15	B C183	0.022	0.00062	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-186	ND		0.011	0.00050	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-187	0.31		0.011	0.00059	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-188	ND		0.011	0.00044	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-189	0.0067	J q	0.011	0.0016	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-190	0.034	q	0.011	0.00046	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-191	0.0055	J B	0.011	0.00048	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-192	ND		0.011	0.00053	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-193	0.48	C180 B	0.022	0.00053	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-194	0.13	B	0.011	0.0019	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-195	0.048		0.011	0.0021	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-196	0.052	q	0.011	0.00069	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S205

Lab Sample ID: 580-77431-14

Date Collected: 05/19/18 11:50

Matrix: Solid

Date Received: 05/21/18 12:00

Percent Solids: 44.6

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	ND		0.011	0.00052	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-198	0.13	C	0.022	0.00069	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-199	0.13	C198	0.022	0.00069	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-200	0.0099	J q	0.011	0.00047	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-201	0.011		0.011	0.00048	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-202	0.027		0.011	0.00053	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-203	0.074		0.011	0.00062	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-204	ND		0.011	0.00052	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-205	0.0075	J q	0.011	0.0016	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-206	0.084		0.011	0.0020	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-207	0.0090	J	0.011	0.0013	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-208	0.025		0.011	0.0012	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
PCB-209	0.092	B	0.011	0.00039	ng/g	☼	06/04/18 07:43	06/13/18 18:01	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-1L	85		30 - 140				06/04/18 07:43	06/13/18 18:01	1
PCB-3L	90		30 - 140				06/04/18 07:43	06/13/18 18:01	1
PCB-4L	68		30 - 140				06/04/18 07:43	06/13/18 18:01	1
PCB-15L	75		30 - 140				06/04/18 07:43	06/13/18 18:01	1
PCB-19L	82		30 - 140				06/04/18 07:43	06/13/18 18:01	1
PCB-37L	85		30 - 140				06/04/18 07:43	06/13/18 18:01	1
PCB-54L	65		30 - 140				06/04/18 07:43	06/13/18 18:01	1
PCB-77L	86		30 - 140				06/04/18 07:43	06/13/18 18:01	1
PCB-81L	86		30 - 140				06/04/18 07:43	06/13/18 18:01	1
PCB-104L	79		30 - 140				06/04/18 07:43	06/13/18 18:01	1
PCB-105L	91		30 - 140				06/04/18 07:43	06/13/18 18:01	1
PCB-114L	90		30 - 140				06/04/18 07:43	06/13/18 18:01	1
PCB-118L	90		30 - 140				06/04/18 07:43	06/13/18 18:01	1
PCB-123L	89		30 - 140				06/04/18 07:43	06/13/18 18:01	1
PCB-126L	84		30 - 140				06/04/18 07:43	06/13/18 18:01	1
PCB-155L	73		30 - 140				06/04/18 07:43	06/13/18 18:01	1
PCB-156L	85	C	30 - 140				06/04/18 07:43	06/13/18 18:01	1
PCB-157L	85	C156	30 - 140				06/04/18 07:43	06/13/18 18:01	1
PCB-167L	88		30 - 140				06/04/18 07:43	06/13/18 18:01	1
PCB-169L	87		30 - 140				06/04/18 07:43	06/13/18 18:01	1
PCB-170L	84		30 - 140				06/04/18 07:43	06/13/18 18:01	1
PCB-188L	92		30 - 140				06/04/18 07:43	06/13/18 18:01	1
PCB-189L	108		30 - 140				06/04/18 07:43	06/13/18 18:01	1
PCB-202L	85		30 - 140				06/04/18 07:43	06/13/18 18:01	1
PCB-205L	76		30 - 140				06/04/18 07:43	06/13/18 18:01	1
PCB-206L	67		30 - 140				06/04/18 07:43	06/13/18 18:01	1
PCB-208L	76		30 - 140				06/04/18 07:43	06/13/18 18:01	1
PCB-209L	57		30 - 140				06/04/18 07:43	06/13/18 18:01	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-28L	84		40 - 125				06/04/18 07:43	06/13/18 18:01	1
PCB-111L	87		40 - 125				06/04/18 07:43	06/13/18 18:01	1
PCB-178L	86		40 - 125				06/04/18 07:43	06/13/18 18:01	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S202

Date Collected: 05/19/18 10:43

Date Received: 05/21/18 12:00

Lab Sample ID: 580-77431-15

Matrix: Solid

Percent Solids: 45.5

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.016	q	0.011	0.00061	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-2	0.0098	J	0.011	0.00069	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-3	0.018		0.011	0.00075	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-4	0.048		0.022	0.0081	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-5	ND		0.011	0.0060	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-6	0.034		0.011	0.0053	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-7	0.0086	J	0.011	0.0054	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-8	0.13		0.022	0.0049	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-9	0.012	q	0.011	0.0055	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-10	ND		0.011	0.0059	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-11	0.048	B	0.022	0.0051	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-12	0.024	C	0.022	0.0053	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-13	0.024	C12	0.022	0.0053	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-14	ND		0.011	0.0045	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-15	0.12		0.011	0.0053	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-16	0.16		0.011	0.0010	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-17	0.30		0.011	0.00091	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-18	0.44	C	0.022	0.00080	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-19	0.037		0.011	0.0011	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-20	1.0	C	0.022	0.0020	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-21	0.36	C	0.022	0.0020	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-22	0.21		0.011	0.0021	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-23	ND		0.011	0.0021	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-24	0.0052	J q	0.011	0.00077	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-25	0.065	q	0.011	0.0019	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-26	0.12	C	0.022	0.0020	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-27	0.029	q	0.011	0.00066	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-28	1.0	C20	0.022	0.0020	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-29	0.12	C26	0.022	0.0020	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-30	0.44	C18	0.022	0.00080	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-31	0.72	B	0.022	0.0020	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-32	0.14		0.011	0.00063	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-33	0.36	C21	0.022	0.0020	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-34	0.012		0.011	0.0021	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-35	0.013		0.011	0.0021	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-36	ND		0.011	0.0020	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-37	0.24		0.011	0.0021	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-38	ND		0.011	0.0021	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-39	0.015		0.011	0.0019	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-40	0.63	C	0.033	0.0041	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-41	0.63	C40	0.033	0.0041	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-42	0.40		0.011	0.0041	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-43	0.037	C	0.022	0.0038	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-44	1.5	C B	0.033	0.0036	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-45	0.19	C	0.022	0.0043	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-46	0.069		0.011	0.0052	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-47	1.5	B C44	0.033	0.0036	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-48	0.21	B	0.011	0.0041	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-49	1.2	C	0.022	0.0033	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S202

Lab Sample ID: 580-77431-15

Date Collected: 05/19/18 10:43

Matrix: Solid

Date Received: 05/21/18 12:00

Percent Solids: 45.5

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	0.16	C	0.022	0.0039	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-51	0.19	C45	0.022	0.0043	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-52	1.8		0.011	0.0040	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-53	0.16	C50	0.022	0.0039	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-54	0.0023	J q	0.011	0.00016	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-55	0.019		0.011	0.0030	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-56	0.56		0.011	0.0030	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-57	ND		0.011	0.0030	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-58	0.024		0.011	0.0030	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-59	0.12	C	0.033	0.0029	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-60	0.11	q	0.011	0.0030	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-61	2.5	C B	0.044	0.0028	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-62	0.12	C59	0.033	0.0029	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-63	0.050		0.011	0.0028	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-64	0.48		0.011	0.0027	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-65	1.5	B C44	0.033	0.0036	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-66	1.6		0.011	0.0028	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-67	0.029	q	0.011	0.0026	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-68	0.035	B	0.011	0.0027	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-69	1.2	C49	0.022	0.0033	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-70	2.5	C61 B	0.044	0.0028	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-71	0.63	C40	0.033	0.0041	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-72	0.060		0.011	0.0029	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-73	0.037	C43	0.022	0.0038	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-74	2.5	C61 B	0.044	0.0028	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-75	0.12	C59	0.033	0.0029	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-76	2.5	C61 B	0.044	0.0028	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-77	0.11		0.011	0.0028	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-78	ND		0.011	0.0030	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-79	0.025	q	0.011	0.0026	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-80	ND		0.011	0.0026	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-81	ND		0.011	0.0028	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-82	0.26		0.011	0.00063	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-83	2.4	C	0.022	0.00058	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-84	0.73		0.011	0.00064	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-85	0.43	C	0.033	0.00047	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-86	1.6	C B	0.065	0.00047	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-87	1.6	B C86	0.065	0.00047	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-88	0.65	C	0.022	0.00057	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-89	ND		0.011	0.00062	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-90	3.4	C B	0.033	0.00048	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-91	0.65	C88	0.022	0.00057	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-92	0.77		0.011	0.00054	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-93	0.081	C	0.022	0.00055	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-94	ND		0.011	0.00062	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-95	2.7		0.011	0.00060	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-96	0.025		0.011	0.00047	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-97	1.6	B C86	0.065	0.00047	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-98	0.098	C	0.022	0.00053	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S202

Lab Sample ID: 580-77431-15

Date Collected: 05/19/18 10:43

Matrix: Solid

Date Received: 05/21/18 12:00

Percent Solids: 45.5

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	2.4	C83	0.022	0.00058	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-100	0.081	C93	0.022	0.00055	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-101	3.4	B C90	0.033	0.00048	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-102	0.098	C98	0.022	0.00053	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-103	0.11		0.011	0.00055	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-104	ND		0.011	0.00042	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-105	0.60		0.011	0.0022	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-106	ND		0.011	0.0024	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-107	0.31		0.011	0.0025	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-108	0.067	C B	0.022	0.0024	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-109	1.6	B C86	0.065	0.00047	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-110	3.4	C B	0.022	0.00040	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-111	ND		0.011	0.00038	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-112	ND		0.011	0.00040	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-113	3.4	B C90	0.033	0.00048	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-114	0.033	B	0.011	0.0022	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-115	3.4	B C110	0.022	0.00040	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-116	0.43	C85	0.033	0.00047	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-117	0.43	C85	0.033	0.00047	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-118	2.2	B	0.011	0.0022	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-119	1.6	B C86	0.065	0.00047	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-120	0.040		0.011	0.00039	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-121	ND		0.011	0.00040	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-122	0.027		0.011	0.0027	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-123	0.030		0.011	0.0024	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-124	0.067	B C108	0.022	0.0024	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-125	1.6	B C86	0.065	0.00047	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-126	0.0071	J	0.011	0.0025	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-127	ND		0.011	0.0023	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-128	0.44	C	0.022	0.0042	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-129	3.6	C	0.044	0.0043	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-130	0.29		0.011	0.0057	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-131	ND		0.011	0.0059	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-132	1.2		0.011	0.0056	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-133	0.12		0.011	0.0054	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-134	0.19	C	0.022	0.0056	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-135	1.5	C	0.022	0.00063	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-136	0.59		0.011	0.00046	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-137	0.11		0.011	0.0049	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-138	3.6	C129	0.044	0.0043	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-139	0.074	C	0.022	0.0048	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-140	0.074	C139	0.022	0.0048	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-141	0.60		0.011	0.0050	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-142	ND		0.011	0.0054	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-143	0.19	C134	0.022	0.0056	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-144	0.11	cn B	0.011	0.00057	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-145	ND		0.011	0.00043	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-146	1.0		0.011	0.0047	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-147	4.4	C	0.022	0.0054	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S202

Lab Sample ID: 580-77431-15

Date Collected: 05/19/18 10:43

Matrix: Solid

Date Received: 05/21/18 12:00

Percent Solids: 45.5

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	0.029		0.011	0.00061	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-149	4.4	C147	0.022	0.0054	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-150	0.024		0.011	0.00042	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-151	1.5	C135	0.022	0.00063	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-152	ND		0.011	0.00045	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-153	3.8	C	0.022	0.0038	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-154	0.17		0.011	0.00049	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-155	ND		0.011	0.00042	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-156	0.28	C	0.022	0.0049	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-157	0.28	C156	0.022	0.0049	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-158	0.24		0.011	0.0034	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-159	0.033	B	0.011	0.0036	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-160	3.6	C129	0.044	0.0043	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-161	ND		0.011	0.0036	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-162	ND		0.011	0.0035	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-163	3.6	C129	0.044	0.0043	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-164	0.26		0.011	0.0038	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-165	ND		0.011	0.0040	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-166	0.44	C128	0.022	0.0042	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-167	0.087	q	0.011	0.0026	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-168	3.8	C153	0.022	0.0038	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-169	ND		0.011	0.0027	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-170	1.1	B	0.011	0.0013	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-171	0.36	C	0.022	0.0013	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-172	0.21		0.011	0.0013	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-173	0.36	C171	0.022	0.0013	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-174	1.2		0.011	0.0012	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-175	0.050		0.011	0.0012	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-176	0.17		0.011	0.00087	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-177	0.76		0.011	0.0012	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-178	0.30		0.011	0.0013	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-179	0.62		0.011	0.00092	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-180	2.6	C B	0.022	0.00097	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-181	ND		0.011	0.0012	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-182	ND		0.011	0.0011	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-183	0.86	C B	0.022	0.0011	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-184	ND		0.011	0.00094	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-185	0.86	B C183	0.022	0.0011	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-186	ND		0.011	0.00092	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-187	1.8		0.011	0.0011	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-188	ND		0.011	0.00083	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-189	0.032		0.011	0.0024	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-190	0.19		0.011	0.00083	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-191	0.039	B	0.011	0.00087	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-192	ND		0.011	0.00097	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-193	2.6	C180 B	0.022	0.00097	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-194	0.70	B	0.011	0.0038	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-195	0.27		0.011	0.0041	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-196	0.34		0.011	0.0010	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S202

Lab Sample ID: 580-77431-15

Date Collected: 05/19/18 10:43

Matrix: Solid

Date Received: 05/21/18 12:00

Percent Solids: 45.5

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	0.025	B	0.011	0.00077	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-198	0.74	C	0.022	0.0010	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-199	0.74	C198	0.022	0.0010	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-200	0.070		0.011	0.00069	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-201	0.074		0.011	0.00070	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-202	0.14	q	0.011	0.00079	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-203	0.43		0.011	0.00091	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-204	ND		0.011	0.00077	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-205	0.031		0.011	0.0032	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-206	0.34		0.011	0.0027	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-207	0.042		0.011	0.0019	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-208	0.097		0.011	0.0019	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1
PCB-209	0.33	B	0.011	0.00068	ng/g	☼	06/04/18 07:43	06/13/18 19:02	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	87		30 - 140	06/04/18 07:43	06/13/18 19:02	1
PCB-3L	92		30 - 140	06/04/18 07:43	06/13/18 19:02	1
PCB-4L	70		30 - 140	06/04/18 07:43	06/13/18 19:02	1
PCB-15L	76		30 - 140	06/04/18 07:43	06/13/18 19:02	1
PCB-19L	118		30 - 140	06/04/18 07:43	06/13/18 19:02	1
PCB-37L	85		30 - 140	06/04/18 07:43	06/13/18 19:02	1
PCB-54L	87		30 - 140	06/04/18 07:43	06/13/18 19:02	1
PCB-77L	86		30 - 140	06/04/18 07:43	06/13/18 19:02	1
PCB-81L	84		30 - 140	06/04/18 07:43	06/13/18 19:02	1
PCB-104L	74		30 - 140	06/04/18 07:43	06/13/18 19:02	1
PCB-105L	88		30 - 140	06/04/18 07:43	06/13/18 19:02	1
PCB-114L	88		30 - 140	06/04/18 07:43	06/13/18 19:02	1
PCB-118L	85		30 - 140	06/04/18 07:43	06/13/18 19:02	1
PCB-123L	86		30 - 140	06/04/18 07:43	06/13/18 19:02	1
PCB-126L	83		30 - 140	06/04/18 07:43	06/13/18 19:02	1
PCB-155L	68		30 - 140	06/04/18 07:43	06/13/18 19:02	1
PCB-156L	86	C	30 - 140	06/04/18 07:43	06/13/18 19:02	1
PCB-157L	86	C156	30 - 140	06/04/18 07:43	06/13/18 19:02	1
PCB-167L	88		30 - 140	06/04/18 07:43	06/13/18 19:02	1
PCB-169L	91		30 - 140	06/04/18 07:43	06/13/18 19:02	1
PCB-170L	90		30 - 140	06/04/18 07:43	06/13/18 19:02	1
PCB-188L	91		30 - 140	06/04/18 07:43	06/13/18 19:02	1
PCB-189L	106		30 - 140	06/04/18 07:43	06/13/18 19:02	1
PCB-202L	83		30 - 140	06/04/18 07:43	06/13/18 19:02	1
PCB-205L	73		30 - 140	06/04/18 07:43	06/13/18 19:02	1
PCB-206L	67		30 - 140	06/04/18 07:43	06/13/18 19:02	1
PCB-208L	70		30 - 140	06/04/18 07:43	06/13/18 19:02	1
PCB-209L	60		30 - 140	06/04/18 07:43	06/13/18 19:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	88		40 - 125	06/04/18 07:43	06/13/18 19:02	1
PCB-111L	89		40 - 125	06/04/18 07:43	06/13/18 19:02	1
PCB-178L	90		40 - 125	06/04/18 07:43	06/13/18 19:02	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S197

Date Collected: 05/19/18 09:50

Date Received: 05/21/18 12:00

Lab Sample ID: 580-77431-16

Matrix: Solid

Percent Solids: 47.9

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.013	q	0.010	0.00091	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-2	ND		0.010	0.0010	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-3	0.013		0.010	0.0012	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-4	0.076		0.020	0.0078	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-5	ND		0.010	0.0062	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-6	0.057	q	0.010	0.0054	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-7	0.011	q	0.010	0.0056	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-8	0.26		0.020	0.0050	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-9	0.015	q	0.010	0.0057	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-10	ND		0.010	0.0061	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-11	0.018	J B	0.020	0.0053	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-12	0.019	J q C	0.020	0.0055	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-13	0.019	J q C12	0.020	0.0055	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-14	ND		0.010	0.0047	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-15	0.098		0.010	0.0057	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-16	0.30		0.010	0.00068	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-17	0.45		0.010	0.00061	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-18	0.84	C	0.020	0.00054	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-19	0.059	q	0.010	0.00075	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-20	1.2	C	0.020	0.0032	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-21	0.62	C	0.020	0.0031	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-22	0.30		0.010	0.0033	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-23	ND		0.010	0.0033	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-24	0.0078	J q	0.010	0.00051	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-25	0.080		0.010	0.0030	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-26	0.14	C	0.020	0.0032	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-27	0.052		0.010	0.00045	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-28	1.2	C20	0.020	0.0032	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-29	0.14	C26	0.020	0.0032	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-30	0.84	C18	0.020	0.00054	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-31	0.94	B	0.020	0.0031	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-32	0.16		0.010	0.00043	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-33	0.62	C21	0.020	0.0031	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-34	0.015		0.010	0.0034	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-35	0.0074	J q	0.010	0.0033	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-36	ND		0.010	0.0032	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-37	0.21		0.010	0.0033	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-38	ND		0.010	0.0034	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-39	0.0096	J	0.010	0.0031	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-40	0.67	C	0.031	0.0061	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-41	0.67	C40	0.031	0.0061	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-42	0.37		0.010	0.0061	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-43	0.038	C	0.020	0.0057	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-44	1.4	C B	0.031	0.0054	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-45	0.22	C	0.020	0.0064	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-46	0.074		0.010	0.0078	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-47	1.4	C44 B	0.031	0.0054	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-48	0.26	B	0.010	0.0061	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-49	0.99	C	0.020	0.0050	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S197

Lab Sample ID: 580-77431-16

Date Collected: 05/19/18 09:50

Matrix: Solid

Date Received: 05/21/18 12:00

Percent Solids: 47.9

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	0.17	C	0.020	0.0059	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-51	0.22	C45	0.020	0.0064	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-52	1.7		0.010	0.0061	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-53	0.17	C50	0.020	0.0059	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-54	0.0026	J q	0.010	0.000056	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-55	0.011		0.010	0.0044	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-56	0.57		0.010	0.0044	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-57	ND		0.010	0.0045	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-58	0.013	q	0.010	0.0046	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-59	0.11	C	0.031	0.0043	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-60	0.13		0.010	0.0045	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-61	2.3	C B	0.041	0.0043	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-62	0.11	C59	0.031	0.0043	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-63	0.049		0.010	0.0041	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-64	0.52		0.010	0.0041	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-65	1.4	C44 B	0.031	0.0054	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-66	1.3		0.010	0.0042	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-67	0.026		0.010	0.0039	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-68	ND		0.010	0.0040	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-69	0.99	C49	0.020	0.0050	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-70	2.3	C61 B	0.041	0.0043	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-71	0.67	C40	0.031	0.0061	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-72	0.036		0.010	0.0044	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-73	0.038	C43	0.020	0.0057	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-74	2.3	C61 B	0.041	0.0043	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-75	0.11	C59	0.031	0.0043	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-76	2.3	C61 B	0.041	0.0043	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-77	0.061	q	0.010	0.0043	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-78	ND		0.010	0.0046	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-79	0.022	q	0.010	0.0040	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-80	ND		0.010	0.0039	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-81	ND		0.010	0.0042	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-82	0.18		0.010	0.00028	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-83	1.4	C	0.020	0.00026	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-84	0.50		0.010	0.00029	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-85	0.27	C	0.031	0.00021	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-86	1.1	C B	0.061	0.00021	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-87	1.1	C86 B	0.061	0.00021	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-88	0.35	C	0.020	0.00026	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-89	ND		0.010	0.00028	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-90	2.2	C B	0.031	0.00021	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-91	0.35	C88	0.020	0.00026	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-92	0.46		0.010	0.00024	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-93	0.024	q C	0.020	0.00024	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-94	ND		0.010	0.00028	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-95	1.8		0.010	0.00027	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-96	0.018		0.010	0.00021	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-97	1.1	C86 B	0.061	0.00021	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-98	0.061	C	0.020	0.00024	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S197

Lab Sample ID: 580-77431-16

Date Collected: 05/19/18 09:50

Matrix: Solid

Date Received: 05/21/18 12:00

Percent Solids: 47.9

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	1.4	C83	0.020	0.00026	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-100	0.024	q C93	0.020	0.00024	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-101	2.2	C90 B	0.031	0.00021	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-102	0.061	C98	0.020	0.00024	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-103	0.050		0.010	0.00024	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-104	ND		0.010	0.00019	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-105	0.35		0.010	0.0038	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-106	ND		0.010	0.0040	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-107	0.15		0.010	0.0043	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-108	0.032	C B	0.020	0.0041	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-109	1.1	C86 B	0.061	0.00021	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-110	2.1	C B	0.020	0.00018	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-111	ND		0.010	0.00017	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-112	ND		0.010	0.00018	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-113	2.2	C90 B	0.031	0.00021	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-114	0.015	q B	0.010	0.0037	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-115	2.1	C110 B	0.020	0.00018	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-116	0.27	C85	0.031	0.00021	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-117	0.27	C85	0.031	0.00021	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-118	1.2	B	0.010	0.0037	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-119	1.1	C86 B	0.061	0.00021	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-120	0.022		0.010	0.00017	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-121	ND		0.010	0.00018	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-122	0.017		0.010	0.0047	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-123	0.013	q	0.010	0.0041	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-124	0.032	C108 B	0.020	0.0041	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-125	1.1	C86 B	0.061	0.00021	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-126	ND		0.010	0.0043	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-127	ND		0.010	0.0040	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-128	0.28	C	0.020	0.012	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-129	2.5	C	0.041	0.012	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-130	0.18	G	0.016	0.016	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-131	0.024	G	0.017	0.017	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-132	0.83	G	0.016	0.016	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-133	0.048	G	0.015	0.015	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-134	0.11	C	0.020	0.016	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-135	1.0	C	0.020	0.00043	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-136	0.39		0.010	0.00031	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-137	0.063	G	0.014	0.014	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-138	2.5	C129	0.041	0.012	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-139	0.041	C	0.020	0.013	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-140	0.041	C139	0.020	0.013	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-141	0.42	G	0.014	0.014	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-142	ND	G	0.015	0.015	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-143	0.11	C134	0.020	0.016	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-144	0.11	B	0.010	0.00039	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-145	ND		0.010	0.00029	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-146	0.61	G	0.013	0.013	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-147	2.9	C	0.020	0.015	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S197

Lab Sample ID: 580-77431-16

Date Collected: 05/19/18 09:50

Matrix: Solid

Date Received: 05/21/18 12:00

Percent Solids: 47.9

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	0.0080	J q	0.010	0.00041	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-149	2.9	C147	0.020	0.015	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-150	0.0097	J	0.010	0.00028	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-151	1.0	C135	0.020	0.00043	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-152	ND		0.010	0.00030	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-153	2.6	C	0.020	0.011	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-154	0.064	q	0.010	0.00033	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-155	ND		0.010	0.00028	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-156	0.17	C	0.020	0.014	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-157	0.17	C156	0.020	0.014	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-158	0.15		0.010	0.0095	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-159	0.026	B	0.010	0.010	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-160	2.5	C129	0.041	0.012	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-161	ND		0.010	0.010	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-162	ND		0.010	0.0099	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-163	2.5	C129	0.041	0.012	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-164	0.18	G	0.011	0.011	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-165	ND	G	0.011	0.011	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-166	0.28	C128	0.020	0.012	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-167	0.057		0.010	0.0076	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-168	2.6	C153	0.020	0.011	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-169	0.029	q	0.010	0.0073	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-170	0.85	B	0.010	0.00084	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-171	0.27	C	0.020	0.00076	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-172	0.16		0.010	0.00076	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-173	0.27	C171	0.020	0.00076	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-174	0.94		0.010	0.00071	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-175	0.013	q	0.010	0.00069	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-176	0.12		0.010	0.00052	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-177	0.54		0.010	0.00073	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-178	0.21		0.010	0.00075	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-179	0.47		0.010	0.00055	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-180	2.1	C B	0.020	0.00058	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-181	ND		0.010	0.00069	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-182	ND		0.010	0.00066	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-183	0.68	C B	0.020	0.00067	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-184	ND		0.010	0.00056	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-185	0.68	C183 B	0.020	0.00067	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-186	ND		0.010	0.00055	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-187	1.3		0.010	0.00064	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-188	ND		0.010	0.00047	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-189	0.028		0.010	0.0036	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-190	0.14		0.010	0.00050	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-191	0.026	q B	0.010	0.00052	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-192	ND		0.010	0.00058	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-193	2.1	C180 B	0.020	0.00058	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-194	0.58	B	0.010	0.0034	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-195	0.18		0.010	0.0037	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-196	0.28		0.010	0.00034	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S197

Lab Sample ID: 580-77431-16

Date Collected: 05/19/18 09:50

Matrix: Solid

Date Received: 05/21/18 12:00

Percent Solids: 47.9

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	0.017	B	0.010	0.00026	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-198	0.68	C	0.020	0.00035	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-199	0.68	C198	0.020	0.00035	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-200	0.067		0.010	0.00023	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-201	0.062		0.010	0.00024	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-202	0.15		0.010	0.00027	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-203	0.38		0.010	0.00031	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-204	ND		0.010	0.00026	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-205	0.024	q	0.010	0.0028	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-206	0.84		0.010	0.0042	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-207	0.073		0.010	0.0028	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-208	0.29		0.010	0.0028	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1
PCB-209	1.4	B	0.010	0.0011	ng/g	☼	06/04/18 07:43	06/14/18 06:14	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	58		30 - 140	06/04/18 07:43	06/14/18 06:14	1
PCB-3L	59		30 - 140	06/04/18 07:43	06/14/18 06:14	1
PCB-4L	75		30 - 140	06/04/18 07:43	06/14/18 06:14	1
PCB-15L	78		30 - 140	06/04/18 07:43	06/14/18 06:14	1
PCB-19L	157	*	30 - 140	06/04/18 07:43	06/14/18 06:14	1
PCB-37L	89		30 - 140	06/04/18 07:43	06/14/18 06:14	1
PCB-54L	136		30 - 140	06/04/18 07:43	06/14/18 06:14	1
PCB-77L	85		30 - 140	06/04/18 07:43	06/14/18 06:14	1
PCB-81L	84		30 - 140	06/04/18 07:43	06/14/18 06:14	1
PCB-104L	79		30 - 140	06/04/18 07:43	06/14/18 06:14	1
PCB-105L	95		30 - 140	06/04/18 07:43	06/14/18 06:14	1
PCB-114L	98		30 - 140	06/04/18 07:43	06/14/18 06:14	1
PCB-118L	93		30 - 140	06/04/18 07:43	06/14/18 06:14	1
PCB-123L	91		30 - 140	06/04/18 07:43	06/14/18 06:14	1
PCB-126L	85		30 - 140	06/04/18 07:43	06/14/18 06:14	1
PCB-155L	95		30 - 140	06/04/18 07:43	06/14/18 06:14	1
PCB-156L	86	C	30 - 140	06/04/18 07:43	06/14/18 06:14	1
PCB-157L	86	C156	30 - 140	06/04/18 07:43	06/14/18 06:14	1
PCB-167L	89		30 - 140	06/04/18 07:43	06/14/18 06:14	1
PCB-169L	88		30 - 140	06/04/18 07:43	06/14/18 06:14	1
PCB-170L	84		30 - 140	06/04/18 07:43	06/14/18 06:14	1
PCB-188L	93		30 - 140	06/04/18 07:43	06/14/18 06:14	1
PCB-189L	82		30 - 140	06/04/18 07:43	06/14/18 06:14	1
PCB-202L	111		30 - 140	06/04/18 07:43	06/14/18 06:14	1
PCB-205L	73		30 - 140	06/04/18 07:43	06/14/18 06:14	1
PCB-206L	74		30 - 140	06/04/18 07:43	06/14/18 06:14	1
PCB-208L	76		30 - 140	06/04/18 07:43	06/14/18 06:14	1
PCB-209L	77		30 - 140	06/04/18 07:43	06/14/18 06:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	89		40 - 125	06/04/18 07:43	06/14/18 06:14	1
PCB-111L	87		40 - 125	06/04/18 07:43	06/14/18 06:14	1
PCB-178L	91		40 - 125	06/04/18 07:43	06/14/18 06:14	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S197-D

Lab Sample ID: 580-77431-17

Date Collected: 05/19/18 09:50

Matrix: Solid

Date Received: 05/21/18 12:00

Percent Solids: 48.5

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.0096	J q	0.0098	0.00089	ng/g	☆	06/04/18 07:43	06/14/18 07:16	1
PCB-2	0.0062	J q	0.0098	0.0010	ng/g	☆	06/04/18 07:43	06/14/18 07:16	1
PCB-3	0.014		0.0098	0.0012	ng/g	☆	06/04/18 07:43	06/14/18 07:16	1
PCB-4	0.055		0.020	0.0055	ng/g	☆	06/04/18 07:43	06/14/18 07:16	1
PCB-5	0.0052	J q	0.0098	0.0044	ng/g	☆	06/04/18 07:43	06/14/18 07:16	1
PCB-6	0.046	q	0.0098	0.0039	ng/g	☆	06/04/18 07:43	06/14/18 07:16	1
PCB-7	0.0080	J q	0.0098	0.0040	ng/g	☆	06/04/18 07:43	06/14/18 07:16	1
PCB-8	0.23		0.020	0.0036	ng/g	☆	06/04/18 07:43	06/14/18 07:16	1
PCB-9	0.0096	J q	0.0098	0.0041	ng/g	☆	06/04/18 07:43	06/14/18 07:16	1
PCB-10	ND		0.0098	0.0044	ng/g	☆	06/04/18 07:43	06/14/18 07:16	1
PCB-11	0.013	J q B	0.020	0.0038	ng/g	☆	06/04/18 07:43	06/14/18 07:16	1
PCB-12	0.018	J q C	0.020	0.0040	ng/g	☆	06/04/18 07:43	06/14/18 07:16	1
PCB-13	0.018	J q C12	0.020	0.0040	ng/g	☆	06/04/18 07:43	06/14/18 07:16	1
PCB-14	ND		0.0098	0.0034	ng/g	☆	06/04/18 07:43	06/14/18 07:16	1
PCB-15	0.084		0.0098	0.0041	ng/g	☆	06/04/18 07:43	06/14/18 07:16	1
PCB-16	0.30		0.0098	0.0012	ng/g	☆	06/04/18 07:43	06/14/18 07:16	1
PCB-17	0.45		0.0098	0.0010	ng/g	☆	06/04/18 07:43	06/14/18 07:16	1
PCB-18	0.85	C	0.020	0.00092	ng/g	☆	06/04/18 07:43	06/14/18 07:16	1
PCB-19	0.065		0.0098	0.0013	ng/g	☆	06/04/18 07:43	06/14/18 07:16	1
PCB-20	1.1	C	0.020	0.0028	ng/g	☆	06/04/18 07:43	06/14/18 07:16	1
PCB-21	0.58	C	0.020	0.0027	ng/g	☆	06/04/18 07:43	06/14/18 07:16	1
PCB-22	0.29		0.0098	0.0028	ng/g	☆	06/04/18 07:43	06/14/18 07:16	1
PCB-23	ND		0.0098	0.0028	ng/g	☆	06/04/18 07:43	06/14/18 07:16	1
PCB-24	0.0083	J	0.0098	0.00088	ng/g	☆	06/04/18 07:43	06/14/18 07:16	1
PCB-25	0.075		0.0098	0.0026	ng/g	☆	06/04/18 07:43	06/14/18 07:16	1
PCB-26	0.14	C	0.020	0.0027	ng/g	☆	06/04/18 07:43	06/14/18 07:16	1
PCB-27	0.050		0.0098	0.00076	ng/g	☆	06/04/18 07:43	06/14/18 07:16	1
PCB-28	1.1	C20	0.020	0.0028	ng/g	☆	06/04/18 07:43	06/14/18 07:16	1
PCB-29	0.14	C26	0.020	0.0027	ng/g	☆	06/04/18 07:43	06/14/18 07:16	1
PCB-30	0.85	C18	0.020	0.00092	ng/g	☆	06/04/18 07:43	06/14/18 07:16	1
PCB-31	0.90	B	0.020	0.0027	ng/g	☆	06/04/18 07:43	06/14/18 07:16	1
PCB-32	0.15		0.0098	0.00073	ng/g	☆	06/04/18 07:43	06/14/18 07:16	1
PCB-33	0.58	C21	0.020	0.0027	ng/g	☆	06/04/18 07:43	06/14/18 07:16	1
PCB-34	0.015		0.0098	0.0029	ng/g	☆	06/04/18 07:43	06/14/18 07:16	1
PCB-35	0.0089	J q	0.0098	0.0029	ng/g	☆	06/04/18 07:43	06/14/18 07:16	1
PCB-36	ND		0.0098	0.0027	ng/g	☆	06/04/18 07:43	06/14/18 07:16	1
PCB-37	0.20		0.0098	0.0028	ng/g	☆	06/04/18 07:43	06/14/18 07:16	1
PCB-38	ND		0.0098	0.0030	ng/g	☆	06/04/18 07:43	06/14/18 07:16	1
PCB-39	0.0097	J q	0.0098	0.0026	ng/g	☆	06/04/18 07:43	06/14/18 07:16	1
PCB-40	0.70	C	0.030	0.0058	ng/g	☆	06/04/18 07:43	06/14/18 07:16	1
PCB-41	0.70	C40	0.030	0.0058	ng/g	☆	06/04/18 07:43	06/14/18 07:16	1
PCB-42	0.39		0.0098	0.0059	ng/g	☆	06/04/18 07:43	06/14/18 07:16	1
PCB-43	0.032	q C	0.020	0.0055	ng/g	☆	06/04/18 07:43	06/14/18 07:16	1
PCB-44	1.4	C B	0.030	0.0052	ng/g	☆	06/04/18 07:43	06/14/18 07:16	1
PCB-45	0.23	C	0.020	0.0061	ng/g	☆	06/04/18 07:43	06/14/18 07:16	1
PCB-46	0.076	q	0.0098	0.0074	ng/g	☆	06/04/18 07:43	06/14/18 07:16	1
PCB-47	1.4	C44 B	0.030	0.0052	ng/g	☆	06/04/18 07:43	06/14/18 07:16	1
PCB-48	0.28	B	0.0098	0.0058	ng/g	☆	06/04/18 07:43	06/14/18 07:16	1
PCB-49	1.1	C	0.020	0.0048	ng/g	☆	06/04/18 07:43	06/14/18 07:16	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S197-D

Lab Sample ID: 580-77431-17

Date Collected: 05/19/18 09:50

Matrix: Solid

Date Received: 05/21/18 12:00

Percent Solids: 48.5

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	0.17	C	0.020	0.0057	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-51	0.23	C45	0.020	0.0061	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-52	1.7		0.0098	0.0058	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-53	0.17	C50	0.020	0.0057	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-54	0.0027	J q	0.0098	0.000080	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-55	0.014		0.0098	0.0043	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-56	0.60		0.0098	0.0043	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-57	0.0044	J	0.0098	0.0043	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-58	0.0094	J q	0.0098	0.0044	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-59	0.11	C	0.030	0.0041	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-60	0.13		0.0098	0.0043	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-61	2.3	C B	0.039	0.0041	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-62	0.11	C59	0.030	0.0041	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-63	0.050		0.0098	0.0040	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-64	0.56		0.0098	0.0039	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-65	1.4	C44 B	0.030	0.0052	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-66	1.4		0.0098	0.0041	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-67	0.030		0.0098	0.0037	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-68	0.021	B	0.0098	0.0038	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-69	1.1	C49	0.020	0.0048	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-70	2.3	C61 B	0.039	0.0041	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-71	0.70	C40	0.030	0.0058	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-72	0.039		0.0098	0.0042	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-73	0.032	q C43	0.020	0.0055	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-74	2.3	C61 B	0.039	0.0041	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-75	0.11	C59	0.030	0.0041	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-76	2.3	C61 B	0.039	0.0041	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-77	0.084		0.0098	0.0042	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-78	ND		0.0098	0.0044	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-79	0.017		0.0098	0.0038	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-80	ND		0.0098	0.0037	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-81	ND		0.0098	0.0040	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-82	0.17		0.0098	0.00048	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-83	1.2	C	0.020	0.00043	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-84	0.47		0.0098	0.00048	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-85	0.26	C	0.030	0.00035	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-86	1.0	C B	0.059	0.00036	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-87	1.0	C86 B	0.059	0.00036	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-88	0.34	C	0.020	0.00043	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-89	0.020		0.0098	0.00047	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-90	2.0	C B	0.030	0.00036	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-91	0.34	C88	0.020	0.00043	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-92	0.43		0.0098	0.00041	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-93	0.030	C	0.020	0.00041	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-94	ND		0.0098	0.00047	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-95	1.6		0.0098	0.00045	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-96	0.018		0.0098	0.00035	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-97	1.0	C86 B	0.059	0.00036	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-98	0.065	C	0.020	0.00040	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S197-D

Lab Sample ID: 580-77431-17

Date Collected: 05/19/18 09:50

Matrix: Solid

Date Received: 05/21/18 12:00

Percent Solids: 48.5

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	1.2	C83	0.020	0.00043	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-100	0.030	C93	0.020	0.00041	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-101	2.0	C90 B	0.030	0.00036	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-102	0.065	C98	0.020	0.00040	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-103	0.047		0.0098	0.00041	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-104	ND		0.0098	0.00031	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-105	0.38		0.0098	0.0029	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-106	ND		0.0098	0.0030	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-107	0.16		0.0098	0.0032	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-108	0.034	C B	0.020	0.0031	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-109	1.0	C86 B	0.059	0.00036	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-110	2.0	C B	0.020	0.00030	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-111	ND		0.0098	0.00029	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-112	0.0045	J q	0.0098	0.00030	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-113	2.0	C90 B	0.030	0.00036	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-114	0.016	q B	0.0098	0.0028	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-115	2.0	C110 B	0.020	0.00030	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-116	0.26	C85	0.030	0.00035	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-117	0.26	C85	0.030	0.00035	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-118	1.3	B	0.0098	0.0027	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-119	1.0	C86 B	0.059	0.00036	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-120	0.018	q	0.0098	0.00029	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-121	ND		0.0098	0.00030	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-122	0.015	q	0.0098	0.0035	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-123	0.018		0.0098	0.0032	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-124	0.034	C108 B	0.020	0.0031	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-125	1.0	C86 B	0.059	0.00036	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-126	ND		0.0098	0.0030	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-127	ND		0.0098	0.0030	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-128	0.31	C	0.020	0.010	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-129	2.7	C	0.039	0.011	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-130	0.19	G	0.014	0.014	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-131	0.018	G q	0.015	0.015	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-132	0.81	G	0.014	0.014	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-133	0.068	G	0.013	0.013	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-134	0.12	C	0.020	0.014	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-135	1.0	C	0.020	0.0011	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-136	0.37		0.0098	0.00076	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-137	0.067	G	0.012	0.012	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-138	2.7	C129	0.039	0.011	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-139	0.037	C	0.020	0.012	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-140	0.037	C139	0.020	0.012	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-141	0.44	G	0.012	0.012	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-142	ND	G	0.013	0.013	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-143	0.12	C134	0.020	0.014	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-144	0.098	B	0.0098	0.00095	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-145	ND		0.0098	0.00072	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-146	0.65	G	0.012	0.012	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-147	3.0	C	0.020	0.013	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S197-D

Lab Sample ID: 580-77431-17

Date Collected: 05/19/18 09:50

Matrix: Solid

Date Received: 05/21/18 12:00

Percent Solids: 48.5

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	0.010		0.0098	0.0010	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-149	3.0	C147	0.020	0.013	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-150	0.011		0.0098	0.00069	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-151	1.0	C135	0.020	0.0011	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-152	ND		0.0098	0.00074	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-153	2.7	C	0.020	0.0093	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-154	0.071		0.0098	0.00082	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-155	ND		0.0098	0.00069	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-156	0.18	C	0.020	0.012	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-157	0.18	C156	0.020	0.012	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-158	0.17		0.0098	0.0084	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-159	0.027	B	0.0098	0.0089	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-160	2.7	C129	0.039	0.011	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-161	ND		0.0098	0.0088	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-162	ND		0.0098	0.0087	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-163	2.7	C129	0.039	0.011	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-164	0.18		0.0098	0.0094	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-165	ND	G	0.010	0.010	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-166	0.31	C128	0.020	0.010	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-167	0.067		0.0098	0.0066	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-168	2.7	C153	0.020	0.0093	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-169	0.028	q	0.0098	0.0066	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-170	0.89	B	0.0098	0.0019	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-171	0.26	C	0.020	0.0018	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-172	0.16		0.0098	0.0018	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-173	0.26	C171	0.020	0.0018	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-174	0.99		0.0098	0.0017	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-175	0.043	q	0.0098	0.0016	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-176	0.13		0.0098	0.0012	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-177	0.57		0.0098	0.0017	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-178	0.23		0.0098	0.0018	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-179	0.49		0.0098	0.0013	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-180	2.1	C B	0.020	0.0014	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-181	ND		0.0098	0.0016	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-182	ND		0.0098	0.0016	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-183	0.69	C B	0.020	0.0016	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-184	ND		0.0098	0.0013	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-185	0.69	C183 B	0.020	0.0016	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-186	ND		0.0098	0.0013	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-187	1.4		0.0098	0.0015	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-188	ND		0.0098	0.0011	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-189	0.026		0.0098	0.0038	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-190	0.15		0.0098	0.0012	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-191	0.018	q B	0.0098	0.0012	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-192	ND		0.0098	0.0014	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-193	2.1	C180 B	0.020	0.0014	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-194	0.58	B	0.0098	0.0051	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-195	0.21		0.0098	0.0056	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-196	0.28		0.0098	0.0020	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S197-D

Lab Sample ID: 580-77431-17

Date Collected: 05/19/18 09:50

Matrix: Solid

Date Received: 05/21/18 12:00

Percent Solids: 48.5

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	0.017	q B	0.0098	0.0015	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-198	0.73	C	0.020	0.0021	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-199	0.73	C198	0.020	0.0021	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-200	0.066		0.0098	0.0014	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-201	0.062	q	0.0098	0.0014	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-202	0.17		0.0098	0.0016	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-203	0.41		0.0098	0.0018	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-204	ND		0.0098	0.0016	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-205	0.028		0.0098	0.0043	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-206	0.94		0.0098	0.0049	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-207	0.081		0.0098	0.0033	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-208	0.38		0.0098	0.0032	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1
PCB-209	1.9	B	0.0098	0.0012	ng/g	☼	06/04/18 07:43	06/14/18 07:16	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	65		30 - 140	06/04/18 07:43	06/14/18 07:16	1
PCB-3L	66		30 - 140	06/04/18 07:43	06/14/18 07:16	1
PCB-4L	67		30 - 140	06/04/18 07:43	06/14/18 07:16	1
PCB-15L	69		30 - 140	06/04/18 07:43	06/14/18 07:16	1
PCB-19L	143	*	30 - 140	06/04/18 07:43	06/14/18 07:16	1
PCB-37L	84		30 - 140	06/04/18 07:43	06/14/18 07:16	1
PCB-54L	128		30 - 140	06/04/18 07:43	06/14/18 07:16	1
PCB-77L	77		30 - 140	06/04/18 07:43	06/14/18 07:16	1
PCB-81L	77		30 - 140	06/04/18 07:43	06/14/18 07:16	1
PCB-104L	80		30 - 140	06/04/18 07:43	06/14/18 07:16	1
PCB-105L	86		30 - 140	06/04/18 07:43	06/14/18 07:16	1
PCB-114L	89		30 - 140	06/04/18 07:43	06/14/18 07:16	1
PCB-118L	84		30 - 140	06/04/18 07:43	06/14/18 07:16	1
PCB-123L	84		30 - 140	06/04/18 07:43	06/14/18 07:16	1
PCB-126L	80		30 - 140	06/04/18 07:43	06/14/18 07:16	1
PCB-155L	82		30 - 140	06/04/18 07:43	06/14/18 07:16	1
PCB-156L	80	C	30 - 140	06/04/18 07:43	06/14/18 07:16	1
PCB-157L	80	C156	30 - 140	06/04/18 07:43	06/14/18 07:16	1
PCB-167L	81		30 - 140	06/04/18 07:43	06/14/18 07:16	1
PCB-169L	83		30 - 140	06/04/18 07:43	06/14/18 07:16	1
PCB-170L	77		30 - 140	06/04/18 07:43	06/14/18 07:16	1
PCB-188L	85		30 - 140	06/04/18 07:43	06/14/18 07:16	1
PCB-189L	88		30 - 140	06/04/18 07:43	06/14/18 07:16	1
PCB-202L	91		30 - 140	06/04/18 07:43	06/14/18 07:16	1
PCB-205L	70		30 - 140	06/04/18 07:43	06/14/18 07:16	1
PCB-206L	76		30 - 140	06/04/18 07:43	06/14/18 07:16	1
PCB-208L	77		30 - 140	06/04/18 07:43	06/14/18 07:16	1
PCB-209L	72		30 - 140	06/04/18 07:43	06/14/18 07:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	84		40 - 125	06/04/18 07:43	06/14/18 07:16	1
PCB-111L	87		40 - 125	06/04/18 07:43	06/14/18 07:16	1
PCB-178L	84		40 - 125	06/04/18 07:43	06/14/18 07:16	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S132

Date Collected: 05/20/18 12:25

Date Received: 05/21/18 12:00

Lab Sample ID: 580-77431-18

Matrix: Solid

Percent Solids: 73.2

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	ND		0.0098	0.00042	ng/g	✱	06/04/18 07:43	06/13/18 22:07	1
PCB-2	ND		0.0098	0.00048	ng/g	✱	06/04/18 07:43	06/13/18 22:07	1
PCB-3	ND		0.0098	0.00053	ng/g	✱	06/04/18 07:43	06/13/18 22:07	1
PCB-4	ND		0.020	0.0080	ng/g	✱	06/04/18 07:43	06/13/18 22:07	1
PCB-5	ND		0.0098	0.0062	ng/g	✱	06/04/18 07:43	06/13/18 22:07	1
PCB-6	ND		0.0098	0.0055	ng/g	✱	06/04/18 07:43	06/13/18 22:07	1
PCB-7	ND		0.0098	0.0056	ng/g	✱	06/04/18 07:43	06/13/18 22:07	1
PCB-8	0.0076	J q	0.020	0.0051	ng/g	✱	06/04/18 07:43	06/13/18 22:07	1
PCB-9	ND		0.0098	0.0058	ng/g	✱	06/04/18 07:43	06/13/18 22:07	1
PCB-10	ND		0.0098	0.0061	ng/g	✱	06/04/18 07:43	06/13/18 22:07	1
PCB-11	0.0091	J B q	0.020	0.0054	ng/g	✱	06/04/18 07:43	06/13/18 22:07	1
PCB-12	ND	C	0.020	0.0056	ng/g	✱	06/04/18 07:43	06/13/18 22:07	1
PCB-13	ND	C12	0.020	0.0056	ng/g	✱	06/04/18 07:43	06/13/18 22:07	1
PCB-14	ND		0.0098	0.0047	ng/g	✱	06/04/18 07:43	06/13/18 22:07	1
PCB-15	0.0062	J q	0.0098	0.0057	ng/g	✱	06/04/18 07:43	06/13/18 22:07	1
PCB-16	0.0057	J	0.0098	0.00063	ng/g	✱	06/04/18 07:43	06/13/18 22:07	1
PCB-17	0.012		0.0098	0.00057	ng/g	✱	06/04/18 07:43	06/13/18 22:07	1
PCB-18	0.018	J q C	0.020	0.00050	ng/g	✱	06/04/18 07:43	06/13/18 22:07	1
PCB-19	0.0016	J q	0.0098	0.00070	ng/g	✱	06/04/18 07:43	06/13/18 22:07	1
PCB-20	0.042	C	0.020	0.00085	ng/g	✱	06/04/18 07:43	06/13/18 22:07	1
PCB-21	0.017	J C	0.020	0.00083	ng/g	✱	06/04/18 07:43	06/13/18 22:07	1
PCB-22	0.010		0.0098	0.00087	ng/g	✱	06/04/18 07:43	06/13/18 22:07	1
PCB-23	ND		0.0098	0.00086	ng/g	✱	06/04/18 07:43	06/13/18 22:07	1
PCB-24	ND		0.0098	0.00048	ng/g	✱	06/04/18 07:43	06/13/18 22:07	1
PCB-25	0.0030	J q	0.0098	0.00078	ng/g	✱	06/04/18 07:43	06/13/18 22:07	1
PCB-26	0.0048	J q C	0.020	0.00083	ng/g	✱	06/04/18 07:43	06/13/18 22:07	1
PCB-27	ND		0.0098	0.00041	ng/g	✱	06/04/18 07:43	06/13/18 22:07	1
PCB-28	0.042	C20	0.020	0.00085	ng/g	✱	06/04/18 07:43	06/13/18 22:07	1
PCB-29	0.0048	J q C26	0.020	0.00083	ng/g	✱	06/04/18 07:43	06/13/18 22:07	1
PCB-30	0.018	J q C18	0.020	0.00050	ng/g	✱	06/04/18 07:43	06/13/18 22:07	1
PCB-31	0.027	B	0.020	0.00083	ng/g	✱	06/04/18 07:43	06/13/18 22:07	1
PCB-32	0.0056	J q	0.0098	0.00040	ng/g	✱	06/04/18 07:43	06/13/18 22:07	1
PCB-33	0.017	J C21	0.020	0.00083	ng/g	✱	06/04/18 07:43	06/13/18 22:07	1
PCB-34	ND		0.0098	0.00089	ng/g	✱	06/04/18 07:43	06/13/18 22:07	1
PCB-35	ND		0.0098	0.00087	ng/g	✱	06/04/18 07:43	06/13/18 22:07	1
PCB-36	ND		0.0098	0.00084	ng/g	✱	06/04/18 07:43	06/13/18 22:07	1
PCB-37	0.010		0.0098	0.00086	ng/g	✱	06/04/18 07:43	06/13/18 22:07	1
PCB-38	ND		0.0098	0.00090	ng/g	✱	06/04/18 07:43	06/13/18 22:07	1
PCB-39	ND		0.0098	0.00081	ng/g	✱	06/04/18 07:43	06/13/18 22:07	1
PCB-40	0.021	J C	0.029	0.0012	ng/g	✱	06/04/18 07:43	06/13/18 22:07	1
PCB-41	0.021	J C40	0.029	0.0012	ng/g	✱	06/04/18 07:43	06/13/18 22:07	1
PCB-42	0.010	q	0.0098	0.0012	ng/g	✱	06/04/18 07:43	06/13/18 22:07	1
PCB-43	ND	C	0.020	0.0011	ng/g	✱	06/04/18 07:43	06/13/18 22:07	1
PCB-44	0.046	C B	0.029	0.0011	ng/g	✱	06/04/18 07:43	06/13/18 22:07	1
PCB-45	0.0070	J q C	0.020	0.0013	ng/g	✱	06/04/18 07:43	06/13/18 22:07	1
PCB-46	ND		0.0098	0.0015	ng/g	✱	06/04/18 07:43	06/13/18 22:07	1
PCB-47	0.046	B C44	0.029	0.0011	ng/g	✱	06/04/18 07:43	06/13/18 22:07	1
PCB-48	0.0047	J B q	0.0098	0.0012	ng/g	✱	06/04/18 07:43	06/13/18 22:07	1
PCB-49	0.030	q C	0.020	0.00099	ng/g	✱	06/04/18 07:43	06/13/18 22:07	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S132

Lab Sample ID: 580-77431-18

Date Collected: 05/20/18 12:25

Matrix: Solid

Date Received: 05/21/18 12:00

Percent Solids: 73.2

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	0.0047	J q C	0.020	0.0012	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-51	0.0070	J q C45	0.020	0.0013	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-52	0.057		0.0098	0.0012	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-53	0.0047	J q C50	0.020	0.0012	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-54	ND		0.0098	0.000092	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-55	ND		0.0098	0.00089	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-56	0.018		0.0098	0.00089	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-57	ND		0.0098	0.00090	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-58	ND		0.0098	0.00091	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-59	0.0056	J C	0.029	0.00086	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-60	0.0032	J q	0.0098	0.00090	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-61	0.084	C B	0.039	0.00085	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-62	0.0056	J C59	0.029	0.00086	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-63	ND		0.0098	0.00082	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-64	0.017		0.0098	0.00081	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-65	0.046	B C44	0.029	0.0011	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-66	0.054		0.0098	0.00084	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-67	ND		0.0098	0.00078	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-68	ND		0.0098	0.00080	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-69	0.030	q C49	0.020	0.00099	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-70	0.084	C61 B	0.039	0.00085	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-71	0.021	J C40	0.029	0.0012	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-72	ND		0.0098	0.00088	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-73	ND	C43	0.020	0.0011	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-74	0.084	C61 B	0.039	0.00085	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-75	0.0056	J C59	0.029	0.00086	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-76	0.084	C61 B	0.039	0.00085	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-77	0.0049	J	0.0098	0.00088	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-78	ND		0.0098	0.00091	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-79	ND		0.0098	0.00079	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-80	ND		0.0098	0.00078	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-81	ND		0.0098	0.00082	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-82	0.0083	J q	0.0098	0.00045	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-83	0.057	q C	0.020	0.00041	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-84	0.020		0.0098	0.00045	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-85	0.014	J q C	0.029	0.00033	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-86	0.051	J C B q	0.059	0.00033	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-87	0.051	J B C86 q	0.059	0.00033	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-88	0.0098	J q C	0.020	0.00041	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-89	ND		0.0098	0.00044	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-90	0.10	C B	0.029	0.00034	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-91	0.0098	J q C88	0.020	0.00041	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-92	0.023		0.0098	0.00038	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-93	0.0028	J q C	0.020	0.00039	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-94	ND		0.0098	0.00044	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-95	0.090		0.0098	0.00042	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-96	ND		0.0098	0.00033	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-97	0.051	J B C86 q	0.059	0.00033	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-98	0.0029	J q C	0.020	0.00038	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S132

Lab Sample ID: 580-77431-18

Date Collected: 05/20/18 12:25

Matrix: Solid

Date Received: 05/21/18 12:00

Percent Solids: 73.2

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	0.057	q C83	0.020	0.00041	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-100	0.0028	J q C93	0.020	0.00039	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-101	0.10	B C90	0.029	0.00034	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-102	0.0029	J q C98	0.020	0.00038	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-103	ND		0.0098	0.00039	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-104	ND		0.0098	0.00029	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-105	0.019		0.0098	0.0012	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-106	ND		0.0098	0.0012	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-107	0.0064	J q	0.0098	0.0013	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-108	ND	C	0.020	0.0012	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-109	0.051	J B C86 q	0.059	0.00033	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-110	0.11	C B	0.020	0.00028	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-111	ND		0.0098	0.00027	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-112	ND		0.0098	0.00029	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-113	0.10	B C90	0.029	0.00034	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-114	ND		0.0098	0.0011	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-115	0.11	B C110	0.020	0.00028	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-116	0.014	J q C85	0.029	0.00033	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-117	0.014	J q C85	0.029	0.00033	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-118	0.065	B q	0.0098	0.0011	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-119	0.051	J B C86 q	0.059	0.00033	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-120	ND		0.0098	0.00028	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-121	ND		0.0098	0.00029	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-122	ND		0.0098	0.0013	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-123	ND		0.0098	0.0012	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-124	ND	C108	0.020	0.0012	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-125	0.051	J B C86 q	0.059	0.00033	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-126	ND		0.0098	0.0012	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-127	ND		0.0098	0.0012	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-128	0.017	J C	0.020	0.0028	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-129	0.14	C	0.039	0.0029	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-130	0.0091	J q	0.0098	0.0038	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-131	ND		0.0098	0.0040	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-132	0.042		0.0098	0.0037	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-133	ND		0.0098	0.0036	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-134	ND	C	0.020	0.0038	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-135	0.041	q C	0.020	0.00033	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-136	0.021		0.0098	0.00023	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-137	ND		0.0098	0.0033	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-138	0.14	C129	0.039	0.0029	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-139	ND	C	0.020	0.0032	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-140	ND	C139	0.020	0.0032	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-141	0.022		0.0098	0.0034	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-142	ND		0.0098	0.0036	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-143	ND	C134	0.020	0.0038	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-144	0.0047	J B q	0.0098	0.00030	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-145	ND		0.0098	0.00022	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-146	0.029		0.0098	0.0032	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-147	0.13	C	0.020	0.0037	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S132

Lab Sample ID: 580-77431-18

Date Collected: 05/20/18 12:25

Matrix: Solid

Date Received: 05/21/18 12:00

Percent Solids: 73.2

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	ND		0.0098	0.00031	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-149	0.13	C147	0.020	0.0037	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-150	ND		0.0098	0.00021	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-151	0.041	q C135	0.020	0.00033	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-152	ND		0.0098	0.00023	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-153	0.13	C	0.020	0.0025	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-154	0.0023	J q	0.0098	0.00025	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-155	ND		0.0098	0.00021	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-156	0.0069	J q C	0.020	0.0032	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-157	0.0069	J q C156	0.020	0.0032	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-158	0.011		0.0098	0.0023	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-159	ND		0.0098	0.0024	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-160	0.14	C129	0.039	0.0029	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-161	ND		0.0098	0.0024	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-162	ND		0.0098	0.0024	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-163	0.14	C129	0.039	0.0029	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-164	0.011		0.0098	0.0025	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-165	ND		0.0098	0.0027	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-166	0.017	J C128	0.020	0.0028	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-167	ND		0.0098	0.0018	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-168	0.13	C153	0.020	0.0025	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-169	ND		0.0098	0.0018	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-170	0.057	B	0.0098	0.0022	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-171	0.017	J q C	0.020	0.0022	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-172	0.0082	J	0.0098	0.0022	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-173	0.017	J q C171	0.020	0.0022	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-174	0.047	q	0.0098	0.0020	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-175	ND		0.0098	0.0020	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-176	0.0046	J q	0.0098	0.0015	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-177	0.030		0.0098	0.0021	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-178	0.0088	J q	0.0098	0.0021	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-179	0.020	q	0.0098	0.0016	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-180	0.12	C B	0.020	0.0016	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-181	ND		0.0098	0.0020	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-182	ND		0.0098	0.0019	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-183	0.042	C B	0.020	0.0019	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-184	ND		0.0098	0.0016	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-185	0.042	B C183	0.020	0.0019	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-186	ND		0.0098	0.0016	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-187	0.071	q	0.0098	0.0018	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-188	ND		0.0098	0.0014	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-189	ND		0.0098	0.0018	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-190	0.011	q	0.0098	0.0014	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-191	ND		0.0098	0.0015	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-192	ND		0.0098	0.0016	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-193	0.12	C180 B	0.020	0.0016	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-194	0.026	B	0.0098	0.0039	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-195	0.012	q	0.0098	0.0043	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-196	0.010	q	0.0098	0.0020	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S132

Lab Sample ID: 580-77431-18

Date Collected: 05/20/18 12:25

Matrix: Solid

Date Received: 05/21/18 12:00

Percent Solids: 73.2

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	ND		0.0098	0.0015	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-198	0.029	C	0.020	0.0020	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-199	0.029	C198	0.020	0.0020	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-200	ND		0.0098	0.0013	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-201	ND		0.0098	0.0014	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-202	0.0042	J	0.0098	0.0015	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-203	0.016	q	0.0098	0.0018	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-204	ND		0.0098	0.0015	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-205	ND		0.0098	0.0033	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-206	ND		0.0098	0.0056	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-207	ND		0.0098	0.0040	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-208	ND		0.0098	0.0041	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1
PCB-209	0.011	B q	0.0098	0.00099	ng/g	☼	06/04/18 07:43	06/13/18 22:07	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	85		30 - 140	06/04/18 07:43	06/13/18 22:07	1
PCB-3L	85		30 - 140	06/04/18 07:43	06/13/18 22:07	1
PCB-4L	66		30 - 140	06/04/18 07:43	06/13/18 22:07	1
PCB-15L	72		30 - 140	06/04/18 07:43	06/13/18 22:07	1
PCB-19L	70		30 - 140	06/04/18 07:43	06/13/18 22:07	1
PCB-37L	83		30 - 140	06/04/18 07:43	06/13/18 22:07	1
PCB-54L	61		30 - 140	06/04/18 07:43	06/13/18 22:07	1
PCB-77L	89		30 - 140	06/04/18 07:43	06/13/18 22:07	1
PCB-81L	87		30 - 140	06/04/18 07:43	06/13/18 22:07	1
PCB-104L	72		30 - 140	06/04/18 07:43	06/13/18 22:07	1
PCB-105L	86		30 - 140	06/04/18 07:43	06/13/18 22:07	1
PCB-114L	86		30 - 140	06/04/18 07:43	06/13/18 22:07	1
PCB-118L	83		30 - 140	06/04/18 07:43	06/13/18 22:07	1
PCB-123L	83		30 - 140	06/04/18 07:43	06/13/18 22:07	1
PCB-126L	83		30 - 140	06/04/18 07:43	06/13/18 22:07	1
PCB-155L	66		30 - 140	06/04/18 07:43	06/13/18 22:07	1
PCB-156L	86	C	30 - 140	06/04/18 07:43	06/13/18 22:07	1
PCB-157L	86	C156	30 - 140	06/04/18 07:43	06/13/18 22:07	1
PCB-167L	85		30 - 140	06/04/18 07:43	06/13/18 22:07	1
PCB-169L	89		30 - 140	06/04/18 07:43	06/13/18 22:07	1
PCB-170L	82		30 - 140	06/04/18 07:43	06/13/18 22:07	1
PCB-188L	86		30 - 140	06/04/18 07:43	06/13/18 22:07	1
PCB-189L	99		30 - 140	06/04/18 07:43	06/13/18 22:07	1
PCB-202L	82		30 - 140	06/04/18 07:43	06/13/18 22:07	1
PCB-205L	72		30 - 140	06/04/18 07:43	06/13/18 22:07	1
PCB-206L	65		30 - 140	06/04/18 07:43	06/13/18 22:07	1
PCB-208L	70		30 - 140	06/04/18 07:43	06/13/18 22:07	1
PCB-209L	54		30 - 140	06/04/18 07:43	06/13/18 22:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	87		40 - 125	06/04/18 07:43	06/13/18 22:07	1
PCB-111L	89		40 - 125	06/04/18 07:43	06/13/18 22:07	1
PCB-178L	86		40 - 125	06/04/18 07:43	06/13/18 22:07	1

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-77431-3

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

Lab Sample ID: MB 140-20796/14-B

Matrix: Solid

Analysis Batch: 21201

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 20796

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	ND		0.010	0.00049	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-2	ND		0.010	0.00056	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-3	ND		0.010	0.00063	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-4	ND		0.020	0.0099	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-5	ND		0.010	0.0079	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-6	ND		0.010	0.0069	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-7	ND		0.010	0.0071	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-8	ND		0.020	0.0064	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-9	ND		0.010	0.0073	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-10	ND		0.010	0.0078	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-11	ND		0.020	0.0068	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-12	ND	C	0.020	0.0070	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-13	ND	C12	0.020	0.0070	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-14	ND		0.010	0.0060	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-15	ND		0.010	0.0073	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-16	ND		0.010	0.00047	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-17	ND		0.010	0.00043	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-18	ND	C	0.020	0.00037	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-19	ND		0.010	0.00052	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-20	ND	C	0.020	0.00098	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-21	ND	C	0.020	0.00095	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-22	ND		0.010	0.0010	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-23	ND		0.010	0.00099	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-24	ND		0.010	0.00036	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-25	ND		0.010	0.00090	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-26	ND	C	0.020	0.00096	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-27	ND		0.010	0.00031	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-28	ND	C20	0.020	0.00098	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-29	ND	C26	0.020	0.00096	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-30	ND	C18	0.020	0.00037	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-31	ND		0.020	0.00095	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-32	ND		0.010	0.00030	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-33	ND	C21	0.020	0.00095	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-34	ND		0.010	0.0010	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-35	ND		0.010	0.0010	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-36	ND		0.010	0.00096	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-37	ND		0.010	0.0010	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-38	ND		0.010	0.0010	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-39	ND		0.010	0.00093	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-40	ND	C	0.030	0.00015	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-41	ND	C40	0.030	0.00015	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-42	ND		0.010	0.00015	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-43	ND	C	0.020	0.00014	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-44	0.00191	J q C	0.030	0.00013	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-45	ND	C	0.020	0.00016	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-46	ND		0.010	0.00019	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-47	0.00191	J q C44	0.030	0.00013	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-48	ND		0.010	0.00015	ng/g		06/01/18 11:00	06/14/18 05:13	1

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-77431-3

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

Lab Sample ID: MB 140-20796/14-B

Matrix: Solid

Analysis Batch: 21201

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 20796

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-49	ND	C	0.020	0.00012	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-50	ND	C	0.020	0.00015	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-51	ND	C45	0.020	0.00016	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-52	ND		0.010	0.00015	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-53	ND	C50	0.020	0.00015	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-54	ND		0.010	0.000075	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-55	ND		0.010	0.00011	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-56	ND		0.010	0.00011	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-57	ND		0.010	0.00011	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-58	ND		0.010	0.00011	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-59	ND	C	0.030	0.00011	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-60	ND		0.010	0.00011	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-61	ND	C	0.040	0.00010	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-62	ND	C59	0.030	0.00011	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-63	ND		0.010	0.00010	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-64	ND		0.010	0.00010	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-65	0.00191	J q C44	0.030	0.00013	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-66	ND		0.010	0.00010	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-67	ND		0.010	0.000096	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-68	ND		0.010	0.000098	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-69	ND	C49	0.020	0.00012	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-70	ND	C61	0.040	0.00010	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-71	ND	C40	0.030	0.00015	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-72	ND		0.010	0.00011	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-73	ND	C43	0.020	0.00014	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-74	ND	C61	0.040	0.00010	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-75	ND	C59	0.030	0.00011	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-76	ND	C61	0.040	0.00010	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-77	0.00103	J	0.010	0.00011	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-78	ND		0.010	0.00011	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-79	ND		0.010	0.000097	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-80	ND		0.010	0.000096	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-81	ND		0.010	0.00010	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-82	ND		0.010	0.00014	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-83	ND	C	0.020	0.00013	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-84	ND		0.010	0.00014	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-85	ND	C	0.030	0.00010	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-86	ND	C	0.060	0.00011	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-87	ND	C86	0.060	0.00011	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-88	ND	C	0.020	0.00013	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-89	ND		0.010	0.00014	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-90	ND	C	0.030	0.00011	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-91	ND	C88	0.020	0.00013	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-92	ND		0.010	0.00012	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-93	ND	C	0.020	0.00012	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-94	ND		0.010	0.00014	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-95	ND		0.010	0.00013	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-96	ND		0.010	0.00010	ng/g		06/01/18 11:00	06/14/18 05:13	1

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-77431-3

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

Lab Sample ID: MB 140-20796/14-B

Matrix: Solid

Analysis Batch: 21201

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 20796

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-97	ND	C86	0.060	0.00011	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-98	ND	C	0.020	0.00012	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-99	ND	C83	0.020	0.00013	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-100	ND	C93	0.020	0.00012	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-101	ND	C90	0.030	0.00011	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-102	ND	C98	0.020	0.00012	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-103	ND		0.010	0.00012	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-104	ND		0.010	0.000093	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-105	ND		0.010	0.00021	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-106	ND		0.010	0.00023	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-107	0.00106	J	0.010	0.00024	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-108	ND	C	0.020	0.00023	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-109	ND	C86	0.060	0.00011	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-110	ND	C	0.020	0.000089	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-111	ND		0.010	0.000086	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-112	ND		0.010	0.000091	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-113	ND	C90	0.030	0.00011	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-114	ND		0.010	0.00022	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-115	ND	C110	0.020	0.000089	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-116	ND	C85	0.030	0.00010	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-117	ND	C85	0.030	0.00010	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-118	ND		0.010	0.00020	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-119	ND	C86	0.060	0.00011	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-120	ND		0.010	0.000088	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-121	ND		0.010	0.000090	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-122	ND		0.010	0.00026	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-123	ND		0.010	0.00024	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-124	ND	C108	0.020	0.00023	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-125	ND	C86	0.060	0.00011	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-126	ND		0.010	0.00024	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-127	ND		0.010	0.00023	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-128	0.000351	J q C	0.020	0.000042	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-129	0.00148	J q C	0.040	0.000044	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-130	ND		0.010	0.000058	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-131	ND		0.010	0.000060	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-132	ND		0.010	0.000056	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-133	ND		0.010	0.000055	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-134	ND	C	0.020	0.000057	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-135	ND	C	0.020	0.00016	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-136	ND		0.010	0.00012	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-137	ND		0.010	0.000049	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-138	0.00148	J q C129	0.040	0.000044	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-139	ND	C	0.020	0.000049	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-140	ND	C139	0.020	0.000049	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-141	ND		0.010	0.000051	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-142	ND		0.010	0.000054	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-143	ND	C134	0.020	0.000057	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-144	ND		0.010	0.00015	ng/g		06/01/18 11:00	06/14/18 05:13	1

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-77431-3

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

Lab Sample ID: MB 140-20796/14-B

Matrix: Solid

Analysis Batch: 21201

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 20796

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-145	ND		0.010	0.00011	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-146	ND		0.010	0.000048	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-147	ND	C	0.020	0.000055	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-148	ND		0.010	0.00016	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-149	ND	C147	0.020	0.000055	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-150	ND		0.010	0.00011	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-151	ND	C135	0.020	0.00016	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-152	ND		0.010	0.00011	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-153	ND	C	0.020	0.000038	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-154	ND		0.010	0.00013	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-155	ND		0.010	0.00011	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-156	ND	C	0.020	0.000049	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-157	ND	C156	0.020	0.000049	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-158	ND		0.010	0.000034	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-159	ND		0.010	0.000036	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-160	0.00148	J q C129	0.040	0.000044	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-161	ND		0.010	0.000036	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-162	ND		0.010	0.000036	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-163	0.00148	J q C129	0.040	0.000044	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-164	ND		0.010	0.000038	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-165	ND		0.010	0.000041	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-166	0.000351	J q C128	0.020	0.000042	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-167	ND		0.010	0.000027	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-168	ND	C153	0.020	0.000038	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-169	ND		0.010	0.000027	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-170	0.000837	J q	0.010	0.000045	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-171	ND	C	0.020	0.000046	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-172	ND		0.010	0.000045	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-173	ND	C171	0.020	0.000046	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-174	ND		0.010	0.000043	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-175	ND		0.010	0.000041	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-176	ND		0.010	0.000031	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-177	ND		0.010	0.000044	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-178	ND		0.010	0.000045	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-179	ND		0.010	0.000033	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-180	ND	C	0.020	0.000035	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-181	ND		0.010	0.000041	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-182	ND		0.010	0.000040	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-183	ND	C	0.020	0.000040	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-184	ND		0.010	0.000034	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-185	ND	C183	0.020	0.000040	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-186	ND		0.010	0.000033	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-187	ND		0.010	0.000038	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-188	ND		0.010	0.000030	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-189	ND		0.010	0.00018	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-190	ND		0.010	0.000030	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-191	ND		0.010	0.000031	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-192	ND		0.010	0.000035	ng/g		06/01/18 11:00	06/14/18 05:13	1

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-77431-3

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

Lab Sample ID: MB 140-20796/14-B

Matrix: Solid

Analysis Batch: 21201

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 20796

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-193	ND	C180	0.020	0.000035	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-194	ND		0.010	0.00013	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-195	ND		0.010	0.00015	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-196	ND		0.010	0.000059	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-197	ND		0.010	0.000045	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-198	ND	C	0.020	0.000060	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-199	ND	C198	0.020	0.000060	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-200	ND		0.010	0.000040	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-201	ND		0.010	0.000041	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-202	ND		0.010	0.000046	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-203	ND		0.010	0.000053	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-204	ND		0.010	0.000045	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-205	ND		0.010	0.00011	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-206	ND		0.010	0.00064	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-207	ND		0.010	0.00049	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-208	ND		0.010	0.00052	ng/g		06/01/18 11:00	06/14/18 05:13	1
PCB-209	ND		0.010	0.00023	ng/g		06/01/18 11:00	06/14/18 05:13	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	47		30 - 140	06/01/18 11:00	06/14/18 05:13	1
PCB-3L	44		30 - 140	06/01/18 11:00	06/14/18 05:13	1
PCB-4L	52		30 - 140	06/01/18 11:00	06/14/18 05:13	1
PCB-15L	50		30 - 140	06/01/18 11:00	06/14/18 05:13	1
PCB-19L	67		30 - 140	06/01/18 11:00	06/14/18 05:13	1
PCB-37L	61		30 - 140	06/01/18 11:00	06/14/18 05:13	1
PCB-54L	64		30 - 140	06/01/18 11:00	06/14/18 05:13	1
PCB-77L	69		30 - 140	06/01/18 11:00	06/14/18 05:13	1
PCB-81L	68		30 - 140	06/01/18 11:00	06/14/18 05:13	1
PCB-104L	60		30 - 140	06/01/18 11:00	06/14/18 05:13	1
PCB-105L	81		30 - 140	06/01/18 11:00	06/14/18 05:13	1
PCB-114L	82		30 - 140	06/01/18 11:00	06/14/18 05:13	1
PCB-118L	80		30 - 140	06/01/18 11:00	06/14/18 05:13	1
PCB-123L	77		30 - 140	06/01/18 11:00	06/14/18 05:13	1
PCB-126L	76		30 - 140	06/01/18 11:00	06/14/18 05:13	1
PCB-155L	77		30 - 140	06/01/18 11:00	06/14/18 05:13	1
PCB-156L	79	C	30 - 140	06/01/18 11:00	06/14/18 05:13	1
PCB-157L	79	C156	30 - 140	06/01/18 11:00	06/14/18 05:13	1
PCB-167L	81		30 - 140	06/01/18 11:00	06/14/18 05:13	1
PCB-169L	80		30 - 140	06/01/18 11:00	06/14/18 05:13	1
PCB-170L	81		30 - 140	06/01/18 11:00	06/14/18 05:13	1
PCB-188L	79		30 - 140	06/01/18 11:00	06/14/18 05:13	1
PCB-189L	68		30 - 140	06/01/18 11:00	06/14/18 05:13	1
PCB-202L	106		30 - 140	06/01/18 11:00	06/14/18 05:13	1
PCB-205L	72		30 - 140	06/01/18 11:00	06/14/18 05:13	1
PCB-206L	93		30 - 140	06/01/18 11:00	06/14/18 05:13	1
PCB-208L	87		30 - 140	06/01/18 11:00	06/14/18 05:13	1
PCB-209L	107		30 - 140	06/01/18 11:00	06/14/18 05:13	1

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-77431-3

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

Lab Sample ID: MB 140-20796/14-B

Matrix: Solid

Analysis Batch: 21201

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 20796

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	72		40 - 125	06/01/18 11:00	06/14/18 05:13	1
PCB-111L	81		40 - 125	06/01/18 11:00	06/14/18 05:13	1
PCB-178L	83		40 - 125	06/01/18 11:00	06/14/18 05:13	1

Lab Sample ID: LCS 140-20796/15-B

Matrix: Solid

Analysis Batch: 21201

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 20796

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1	0.500	0.351		ng/g		70	50 - 150
PCB-3	0.500	0.398		ng/g		80	50 - 150
PCB-4	0.500	0.466		ng/g		93	50 - 150
PCB-15	0.500	0.492		ng/g		98	50 - 150
PCB-19	0.500	0.532		ng/g		106	50 - 150
PCB-37	0.500	0.448		ng/g		90	50 - 150
PCB-54	0.500	0.489		ng/g		98	50 - 150
PCB-77	0.500	0.469		ng/g		94	50 - 150
PCB-81	0.500	0.472		ng/g		94	50 - 150
PCB-104	0.500	0.539		ng/g		108	50 - 150
PCB-105	0.500	0.517		ng/g		103	50 - 150
PCB-114	0.500	0.491		ng/g		98	50 - 150
PCB-118	0.500	0.477		ng/g		95	50 - 150
PCB-123	0.500	0.499		ng/g		100	50 - 150
PCB-126	0.500	0.495		ng/g		99	50 - 150
PCB-155	0.500	0.473		ng/g		95	50 - 150
PCB-156	1.00	1.05	C	ng/g		105	50 - 150
PCB-157	1.00	1.05	C156	ng/g		105	50 - 150
PCB-167	0.500	0.506		ng/g		101	50 - 150
PCB-169	0.500	0.495		ng/g		99	50 - 150
PCB-188	0.500	0.500		ng/g		100	50 - 150
PCB-189	0.500	0.508		ng/g		102	50 - 150
PCB-202	0.500	0.448		ng/g		90	50 - 150
PCB-205	0.500	0.579		ng/g		116	50 - 150
PCB-206	0.500	0.480		ng/g		96	50 - 150
PCB-208	0.500	0.526		ng/g		105	50 - 150
PCB-209	0.500	0.518		ng/g		104	50 - 150

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
PCB-1L	53		30 - 140
PCB-3L	48		30 - 140
PCB-4L	58		30 - 140
PCB-15L	58		30 - 140
PCB-19L	73		30 - 140
PCB-37L	69		30 - 140
PCB-54L	69		30 - 140
PCB-77L	72		30 - 140
PCB-81L	69		30 - 140
PCB-104L	66		30 - 140

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-77431-3

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

Lab Sample ID: LCS 140-20796/15-B

Matrix: Solid

Analysis Batch: 21201

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 20796

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
PCB-105L	79		30 - 140
PCB-114L	85		30 - 140
PCB-118L	82		30 - 140
PCB-123L	81		30 - 140
PCB-126L	74		30 - 140
PCB-155L	87		30 - 140
PCB-156L	79	C	30 - 140
PCB-157L	79	C156	30 - 140
PCB-167L	78		30 - 140
PCB-169L	85		30 - 140
PCB-170L	85		30 - 140
PCB-188L	83		30 - 140
PCB-189L	72		30 - 140
PCB-202L	111		30 - 140
PCB-205L	76		30 - 140
PCB-206L	96		30 - 140
PCB-208L	85		30 - 140
PCB-209L	107		30 - 140

Surrogate	LCS %Recovery	LCS Qualifier	Limits
PCB-28L	80		40 - 125
PCB-111L	82		40 - 125
PCB-178L	85		40 - 125

Lab Sample ID: LCSD 140-20796/16-B

Matrix: Solid

Analysis Batch: 21201

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 20796

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-1	0.500	0.389		ng/g		78	50 - 150	10	50
PCB-3	0.500	0.425		ng/g		85	50 - 150	7	50
PCB-4	0.500	0.460		ng/g		92	50 - 150	1	50
PCB-15	0.500	0.491		ng/g		98	50 - 150	0	50
PCB-19	0.500	0.538		ng/g		108	50 - 150	1	50
PCB-37	0.500	0.438		ng/g		88	50 - 150	2	50
PCB-54	0.500	0.508		ng/g		102	50 - 150	4	50
PCB-77	0.500	0.446		ng/g		89	50 - 150	5	50
PCB-81	0.500	0.446		ng/g		89	50 - 150	6	50
PCB-104	0.500	0.512		ng/g		102	50 - 150	5	50
PCB-105	0.500	0.494		ng/g		99	50 - 150	4	50
PCB-114	0.500	0.517		ng/g		103	50 - 150	5	50
PCB-118	0.500	0.490		ng/g		98	50 - 150	3	50
PCB-123	0.500	0.508		ng/g		102	50 - 150	2	50
PCB-126	0.500	0.529		ng/g		106	50 - 150	7	50
PCB-155	0.500	0.502		ng/g		100	50 - 150	6	50
PCB-156	1.00	1.03	C	ng/g		103	50 - 150	2	50
PCB-157	1.00	1.03	C156	ng/g		103	50 - 150	2	50
PCB-167	0.500	0.523		ng/g		105	50 - 150	3	50

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-77431-3

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

Lab Sample ID: LCSD 140-20796/16-B

Matrix: Solid

Analysis Batch: 21201

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 20796

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-169	0.500	0.506		ng/g		101	50 - 150	2	50
PCB-188	0.500	0.512		ng/g		102	50 - 150	2	50
PCB-189	0.500	0.540		ng/g		108	50 - 150	6	50
PCB-202	0.500	0.445		ng/g		89	50 - 150	1	50
PCB-205	0.500	0.558		ng/g		112	50 - 150	4	50
PCB-206	0.500	0.486		ng/g		97	50 - 150	1	50
PCB-208	0.500	0.524		ng/g		105	50 - 150	0	50
PCB-209	0.500	0.523		ng/g		105	50 - 150	1	50

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	Limits
PCB-1L	50		30 - 140
PCB-3L	45		30 - 140
PCB-4L	57		30 - 140
PCB-15L	56		30 - 140
PCB-19L	73		30 - 140
PCB-37L	71		30 - 140
PCB-54L	71		30 - 140
PCB-77L	75		30 - 140
PCB-81L	73		30 - 140
PCB-104L	68		30 - 140
PCB-105L	85		30 - 140
PCB-114L	84		30 - 140
PCB-118L	87		30 - 140
PCB-123L	82		30 - 140
PCB-126L	81		30 - 140
PCB-155L	81		30 - 140
PCB-156L	84	C	30 - 140
PCB-157L	84	C156	30 - 140
PCB-167L	84		30 - 140
PCB-169L	88		30 - 140
PCB-170L	81		30 - 140
PCB-188L	81		30 - 140
PCB-189L	72		30 - 140
PCB-202L	106		30 - 140
PCB-205L	79		30 - 140
PCB-206L	96		30 - 140
PCB-208L	92		30 - 140
PCB-209L	108		30 - 140

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
PCB-28L	73		40 - 125
PCB-111L	82		40 - 125
PCB-178L	85		40 - 125

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-77431-3

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

Lab Sample ID: MB 140-20844/16-B

Matrix: Solid

Analysis Batch: 21153

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 20844

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	ND		0.010	0.000099	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-2	ND		0.010	0.00012	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-3	ND		0.010	0.00014	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-4	ND		0.020	0.0035	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-5	ND		0.010	0.0033	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-6	ND		0.010	0.0029	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-7	ND		0.010	0.0030	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-8	ND		0.020	0.0027	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-9	ND		0.010	0.0031	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-10	ND		0.010	0.0033	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-11	0.00365	J q	0.020	0.0029	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-12	ND	C	0.020	0.0030	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-13	ND	C12	0.020	0.0030	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-14	ND		0.010	0.0025	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-15	ND		0.010	0.0036	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-16	ND		0.010	0.00046	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-17	ND		0.010	0.00041	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-18	ND	C	0.020	0.00036	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-19	ND		0.010	0.00050	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-20	ND	C	0.020	0.00052	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-21	ND	C	0.020	0.00051	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-22	ND		0.010	0.00054	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-23	ND		0.010	0.00053	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-24	ND		0.010	0.00035	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-25	ND		0.010	0.00048	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-26	ND	C	0.020	0.00051	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-27	ND		0.010	0.00030	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-28	ND	C20	0.020	0.00052	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-29	ND	C26	0.020	0.00051	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-30	ND	C18	0.020	0.00036	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-31	0.000522	J q	0.020	0.00051	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-32	ND		0.010	0.00029	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-33	ND	C21	0.020	0.00051	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-34	ND		0.010	0.00055	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-35	ND		0.010	0.00054	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-36	ND		0.010	0.00052	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-37	ND		0.010	0.00053	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-38	ND		0.010	0.00056	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-39	ND		0.010	0.00050	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-40	ND	C	0.030	0.00030	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-41	ND	C40	0.030	0.00030	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-42	ND		0.010	0.00030	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-43	ND	C	0.020	0.00028	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-44	0.00162	J q C	0.030	0.00026	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-45	ND	C	0.020	0.00031	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-46	ND		0.010	0.00038	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-47	0.00162	J q C44	0.030	0.00026	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-48	0.000497	J q	0.010	0.00030	ng/g		06/04/18 07:43	06/13/18 02:59	1

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-77431-3

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

Lab Sample ID: MB 140-20844/16-B

Matrix: Solid

Analysis Batch: 21153

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 20844

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-49	ND	C	0.020	0.00024	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-50	ND	C	0.020	0.00029	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-51	ND	C45	0.020	0.00031	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-52	ND		0.010	0.00029	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-53	ND	C50	0.020	0.00029	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-54	ND		0.010	0.000048	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-55	ND		0.010	0.00022	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-56	ND		0.010	0.00022	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-57	ND		0.010	0.00022	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-58	ND		0.010	0.00022	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-59	ND	C	0.030	0.00021	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-60	ND		0.010	0.00022	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-61	0.000759	J q C	0.040	0.00021	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-62	ND	C59	0.030	0.00021	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-63	ND		0.010	0.00020	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-64	ND		0.010	0.00020	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-65	0.00162	J q C44	0.030	0.00026	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-66	ND		0.010	0.00021	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-67	ND		0.010	0.00019	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-68	0.000967	J q	0.010	0.00019	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-69	ND	C49	0.020	0.00024	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-70	0.000759	J q C61	0.040	0.00021	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-71	ND	C40	0.030	0.00030	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-72	ND		0.010	0.00021	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-73	ND	C43	0.020	0.00028	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-74	0.000759	J q C61	0.040	0.00021	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-75	ND	C59	0.030	0.00021	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-76	0.000759	J q C61	0.040	0.00021	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-77	ND		0.010	0.00021	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-78	ND		0.010	0.00022	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-79	ND		0.010	0.00019	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-80	ND		0.010	0.00019	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-81	ND		0.010	0.00020	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-82	ND		0.010	0.00015	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-83	ND	C	0.020	0.00014	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-84	ND		0.010	0.00015	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-85	ND	C	0.030	0.00011	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-86	0.00161	J C	0.060	0.00011	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-87	0.00161	J C86	0.060	0.00011	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-88	ND	C	0.020	0.00014	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-89	ND		0.010	0.00015	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-90	0.000729	J q C	0.030	0.00012	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-91	ND	C88	0.020	0.00014	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-92	ND		0.010	0.00013	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-93	ND	C	0.020	0.00013	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-94	ND		0.010	0.00015	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-95	ND		0.010	0.00014	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-96	ND		0.010	0.00011	ng/g		06/04/18 07:43	06/13/18 02:59	1

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-77431-3

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

Lab Sample ID: MB 140-20844/16-B

Matrix: Solid

Analysis Batch: 21153

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 20844

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-97	0.00161	J C86	0.060	0.00011	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-98	ND	C	0.020	0.00013	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-99	ND	C83	0.020	0.00014	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-100	ND	C93	0.020	0.00013	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-101	0.000729	J q C90	0.030	0.00012	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-102	ND	C98	0.020	0.00013	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-103	ND		0.010	0.00013	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-104	ND		0.010	0.00010	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-105	ND		0.010	0.00013	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-106	ND		0.010	0.00014	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-107	ND		0.010	0.00015	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-108	0.000378	J C	0.020	0.00015	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-109	0.00161	J C86	0.060	0.00011	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-110	0.000464	J q C	0.020	0.000096	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-111	ND		0.010	0.000093	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-112	ND		0.010	0.000098	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-113	0.000729	J q C90	0.030	0.00012	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-114	0.000391	J q	0.010	0.00013	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-115	0.000464	J q C110	0.020	0.000096	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-116	ND	C85	0.030	0.00011	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-117	ND	C85	0.030	0.00011	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-118	0.000372	J q	0.010	0.00013	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-119	0.00161	J C86	0.060	0.00011	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-120	ND		0.010	0.000094	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-121	ND		0.010	0.000097	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-122	ND		0.010	0.00016	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-123	ND		0.010	0.00015	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-124	0.000378	J C108	0.020	0.00015	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-125	0.00161	J C86	0.060	0.00011	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-126	ND		0.010	0.00017	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-127	ND		0.010	0.00014	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-128	ND	C	0.020	0.00043	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-129	ND	C	0.040	0.00044	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-130	ND		0.010	0.00059	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-131	ND		0.010	0.00061	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-132	ND		0.010	0.00057	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-133	ND		0.010	0.00055	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-134	ND	C	0.020	0.00058	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-135	ND	C	0.020	0.000086	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-136	ND		0.010	0.000062	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-137	ND		0.010	0.00050	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-138	ND	C129	0.040	0.00044	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-139	ND	C	0.020	0.00049	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-140	ND	C139	0.020	0.00049	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-141	ND		0.010	0.00052	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-142	ND		0.010	0.00055	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-143	ND	C134	0.020	0.00058	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-144	0.000544	J q	0.010	0.000078	ng/g		06/04/18 07:43	06/13/18 02:59	1

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-77431-3

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

Lab Sample ID: MB 140-20844/16-B

Matrix: Solid

Analysis Batch: 21153

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 20844

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-145	ND		0.010	0.000059	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-146	ND		0.010	0.00049	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-147	ND	C	0.020	0.00056	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-148	ND		0.010	0.000083	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-149	ND	C147	0.020	0.00056	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-150	ND		0.010	0.000057	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-151	ND	C135	0.020	0.000086	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-152	ND		0.010	0.000061	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-153	ND	C	0.020	0.00039	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-154	ND		0.010	0.000067	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-155	0.000557	J q	0.010	0.000057	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-156	ND	C	0.020	0.00047	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-157	ND	C156	0.020	0.00047	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-158	ND		0.010	0.00035	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-159	0.000431	J q	0.010	0.00037	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-160	ND	C129	0.040	0.00044	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-161	ND		0.010	0.00037	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-162	ND		0.010	0.00036	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-163	ND	C129	0.040	0.00044	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-164	ND		0.010	0.00039	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-165	ND		0.010	0.00042	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-166	ND	C128	0.020	0.00043	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-167	ND		0.010	0.00027	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-168	ND	C153	0.020	0.00039	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-169	ND		0.010	0.00029	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-170	0.000484	J q	0.010	0.00010	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-171	ND	C	0.020	0.000090	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-172	ND		0.010	0.000090	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-173	ND	C171	0.020	0.000090	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-174	ND		0.010	0.000084	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-175	ND		0.010	0.000082	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-176	ND		0.010	0.000062	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-177	ND		0.010	0.000087	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-178	ND		0.010	0.000088	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-179	ND		0.010	0.000065	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-180	0.000542	J q C	0.020	0.000068	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-181	ND		0.010	0.000081	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-182	ND		0.010	0.000078	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-183	0.000697	J q C	0.020	0.000080	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-184	ND		0.010	0.000067	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-185	0.000697	J q C183	0.020	0.000080	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-186	ND		0.010	0.000065	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-187	ND		0.010	0.000076	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-188	ND		0.010	0.000055	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-189	ND		0.010	0.00013	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-190	ND		0.010	0.000059	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-191	0.000469	J q	0.010	0.000061	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-192	ND		0.010	0.000069	ng/g		06/04/18 07:43	06/13/18 02:59	1

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-77431-3

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

Lab Sample ID: MB 140-20844/16-B

Matrix: Solid

Analysis Batch: 21153

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 20844

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-193	0.000542	J q C180	0.020	0.000068	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-194	0.000846	J q	0.010	0.00011	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-195	ND		0.010	0.00012	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-196	ND		0.010	0.000082	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-197	0.000341	J	0.010	0.000062	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-198	ND	C	0.020	0.000083	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-199	ND	C198	0.020	0.000083	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-200	ND		0.010	0.000056	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-201	ND		0.010	0.000057	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-202	ND		0.010	0.000064	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-203	ND		0.010	0.000074	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-204	ND		0.010	0.000063	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-205	ND		0.010	0.000092	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-206	ND		0.010	0.000035	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-207	ND		0.010	0.000026	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-208	ND		0.010	0.000028	ng/g		06/04/18 07:43	06/13/18 02:59	1
PCB-209	0.000186	J q	0.010	0.000021	ng/g		06/04/18 07:43	06/13/18 02:59	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	71		30 - 140	06/04/18 07:43	06/13/18 02:59	1
PCB-3L	67		30 - 140	06/04/18 07:43	06/13/18 02:59	1
PCB-4L	81		30 - 140	06/04/18 07:43	06/13/18 02:59	1
PCB-15L	69		30 - 140	06/04/18 07:43	06/13/18 02:59	1
PCB-19L	87		30 - 140	06/04/18 07:43	06/13/18 02:59	1
PCB-37L	75		30 - 140	06/04/18 07:43	06/13/18 02:59	1
PCB-54L	90		30 - 140	06/04/18 07:43	06/13/18 02:59	1
PCB-77L	76		30 - 140	06/04/18 07:43	06/13/18 02:59	1
PCB-81L	78		30 - 140	06/04/18 07:43	06/13/18 02:59	1
PCB-104L	84		30 - 140	06/04/18 07:43	06/13/18 02:59	1
PCB-105L	91		30 - 140	06/04/18 07:43	06/13/18 02:59	1
PCB-114L	89		30 - 140	06/04/18 07:43	06/13/18 02:59	1
PCB-118L	90		30 - 140	06/04/18 07:43	06/13/18 02:59	1
PCB-123L	81		30 - 140	06/04/18 07:43	06/13/18 02:59	1
PCB-126L	80		30 - 140	06/04/18 07:43	06/13/18 02:59	1
PCB-155L	90		30 - 140	06/04/18 07:43	06/13/18 02:59	1
PCB-156L	86	C	30 - 140	06/04/18 07:43	06/13/18 02:59	1
PCB-157L	86	C156	30 - 140	06/04/18 07:43	06/13/18 02:59	1
PCB-167L	86		30 - 140	06/04/18 07:43	06/13/18 02:59	1
PCB-169L	85		30 - 140	06/04/18 07:43	06/13/18 02:59	1
PCB-170L	79		30 - 140	06/04/18 07:43	06/13/18 02:59	1
PCB-188L	93		30 - 140	06/04/18 07:43	06/13/18 02:59	1
PCB-189L	86		30 - 140	06/04/18 07:43	06/13/18 02:59	1
PCB-202L	107		30 - 140	06/04/18 07:43	06/13/18 02:59	1
PCB-205L	73		30 - 140	06/04/18 07:43	06/13/18 02:59	1
PCB-206L	83		30 - 140	06/04/18 07:43	06/13/18 02:59	1
PCB-208L	80		30 - 140	06/04/18 07:43	06/13/18 02:59	1
PCB-209L	83		30 - 140	06/04/18 07:43	06/13/18 02:59	1

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-77431-3

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

Lab Sample ID: MB 140-20844/16-B
Matrix: Solid
Analysis Batch: 21153

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 20844

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	88		40 - 125	06/04/18 07:43	06/13/18 02:59	1
PCB-111L	85		40 - 125	06/04/18 07:43	06/13/18 02:59	1
PCB-178L	87		40 - 125	06/04/18 07:43	06/13/18 02:59	1

Lab Sample ID: LCS 140-20844/17-B
Matrix: Solid
Analysis Batch: 21153

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 20844

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1	0.500	0.425		ng/g		85	50 - 150
PCB-3	0.500	0.440		ng/g		88	50 - 150
PCB-4	0.500	0.481		ng/g		96	50 - 150
PCB-15	0.500	0.592		ng/g		118	50 - 150
PCB-19	0.500	0.554		ng/g		111	50 - 150
PCB-37	0.500	0.477		ng/g		95	50 - 150
PCB-54	0.500	0.477		ng/g		95	50 - 150
PCB-77	0.500	0.506	G	ng/g		101	50 - 150
PCB-81	0.500	0.438	G	ng/g		88	50 - 150
PCB-104	0.500	0.530		ng/g		106	50 - 150
PCB-105	0.500	0.499		ng/g		100	50 - 150
PCB-114	0.500	0.545		ng/g		109	50 - 150
PCB-118	0.500	0.517		ng/g		103	50 - 150
PCB-123	0.500	0.566		ng/g		113	50 - 150
PCB-126	0.500	0.504		ng/g		101	50 - 150
PCB-155	0.500	0.518		ng/g		104	50 - 150
PCB-156	1.00	1.08	C	ng/g		108	50 - 150
PCB-157	1.00	1.08	C156	ng/g		108	50 - 150
PCB-167	0.500	0.521		ng/g		104	50 - 150
PCB-169	0.500	0.498		ng/g		100	50 - 150
PCB-188	0.500	0.520		ng/g		104	50 - 150
PCB-189	0.500	0.520		ng/g		104	50 - 150
PCB-202	0.500	0.462		ng/g		92	50 - 150
PCB-205	0.500	0.575		ng/g		115	50 - 150
PCB-206	0.500	0.500		ng/g		100	50 - 150
PCB-208	0.500	0.531		ng/g		106	50 - 150
PCB-209	0.500	0.557		ng/g		111	50 - 150

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
PCB-1L	75		30 - 140
PCB-3L	65		30 - 140
PCB-4L	77		30 - 140
PCB-15L	65		30 - 140
PCB-19L	81		30 - 140
PCB-37L	74		30 - 140
PCB-54L	86		30 - 140
PCB-77L	76		30 - 140
PCB-81L	77		30 - 140
PCB-104L	77		30 - 140

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-77431-3

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

Lab Sample ID: LCS 140-20844/17-B

Matrix: Solid

Analysis Batch: 21153

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 20844

Isotope Dilution	LCS		Limits
	%Recovery	Qualifier	
PCB-105L	81		30 - 140
PCB-114L	83		30 - 140
PCB-118L	80		30 - 140
PCB-123L	81		30 - 140
PCB-126L	84		30 - 140
PCB-155L	90		30 - 140
PCB-156L	82	C	30 - 140
PCB-157L	82	C156	30 - 140
PCB-167L	87		30 - 140
PCB-169L	91		30 - 140
PCB-170L	87		30 - 140
PCB-188L	90		30 - 140
PCB-189L	75		30 - 140
PCB-202L	112		30 - 140
PCB-205L	76		30 - 140
PCB-206L	83		30 - 140
PCB-208L	84		30 - 140
PCB-209L	85		30 - 140

Surrogate	LCS		Limits
	%Recovery	Qualifier	
PCB-28L	89		40 - 125
PCB-111L	90		40 - 125
PCB-178L	87		40 - 125

Lab Sample ID: LCSD 140-20844/18-B

Matrix: Solid

Analysis Batch: 21153

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 20844

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.		RPD	Limit
							Limits	RPD		
PCB-1	0.500	0.417		ng/g		83	50 - 150	2		50
PCB-3	0.500	0.456		ng/g		91	50 - 150	4		50
PCB-4	0.500	0.471		ng/g		94	50 - 150	2		50
PCB-15	0.500	0.524		ng/g		105	50 - 150	12		50
PCB-19	0.500	0.527		ng/g		105	50 - 150	5		50
PCB-37	0.500	0.485		ng/g		97	50 - 150	2		50
PCB-54	0.500	0.480		ng/g		96	50 - 150	1		50
PCB-77	0.500	0.499	G	ng/g		100	50 - 150	1		50
PCB-81	0.500	0.506	G	ng/g		101	50 - 150	14		50
PCB-104	0.500	0.521		ng/g		104	50 - 150	2		50
PCB-105	0.500	0.489		ng/g		98	50 - 150	2		50
PCB-114	0.500	0.540		ng/g		108	50 - 150	1		50
PCB-118	0.500	0.537		ng/g		107	50 - 150	4		50
PCB-123	0.500	0.572		ng/g		114	50 - 150	1		50
PCB-126	0.500	0.500		ng/g		100	50 - 150	1		50
PCB-155	0.500	0.497		ng/g		99	50 - 150	4		50
PCB-156	1.00	1.06	C	ng/g		106	50 - 150	2		50
PCB-157	1.00	1.06	C156	ng/g		106	50 - 150	2		50
PCB-167	0.500	0.517		ng/g		103	50 - 150	1		50

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-77431-3

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

Lab Sample ID: LCSD 140-20844/18-B

Matrix: Solid

Analysis Batch: 21153

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 20844

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-169	0.500	0.511		ng/g		102	50 - 150	3	50
PCB-188	0.500	0.512		ng/g		102	50 - 150	1	50
PCB-189	0.500	0.524		ng/g		105	50 - 150	1	50
PCB-202	0.500	0.470		ng/g		94	50 - 150	2	50
PCB-205	0.500	0.593		ng/g		119	50 - 150	3	50
PCB-206	0.500	0.494		ng/g		99	50 - 150	1	50
PCB-208	0.500	0.523		ng/g		105	50 - 150	2	50
PCB-209	0.500	0.544		ng/g		109	50 - 150	2	50

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	Limits
PCB-1L	67		30 - 140
PCB-3L	63		30 - 140
PCB-4L	75		30 - 140
PCB-15L	72		30 - 140
PCB-19L	83		30 - 140
PCB-37L	73		30 - 140
PCB-54L	84		30 - 140
PCB-77L	79		30 - 140
PCB-81L	80		30 - 140
PCB-104L	79		30 - 140
PCB-105L	81		30 - 140
PCB-114L	83		30 - 140
PCB-118L	82		30 - 140
PCB-123L	79		30 - 140
PCB-126L	79		30 - 140
PCB-155L	90		30 - 140
PCB-156L	85	C	30 - 140
PCB-157L	85	C156	30 - 140
PCB-167L	89		30 - 140
PCB-169L	92		30 - 140
PCB-170L	86		30 - 140
PCB-188L	87		30 - 140
PCB-189L	75		30 - 140
PCB-202L	102		30 - 140
PCB-205L	72		30 - 140
PCB-206L	84		30 - 140
PCB-208L	82		30 - 140
PCB-209L	83		30 - 140

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
PCB-28L	85		40 - 125
PCB-111L	87		40 - 125
PCB-178L	85		40 - 125

TestAmerica Seattle

Lab Chronicle

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S195

Date Collected: 05/18/18 16:32

Date Received: 05/21/18 12:00

Lab Sample ID: 580-77431-1

Matrix: Solid

Percent Solids: 56.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			20796	06/01/18 11:00	CLI	TAL KNX
Total/NA	Cleanup	Split			20884	06/04/18 19:55	SMM	TAL KNX
Total/NA	Analysis	1668A		1	21248	06/15/18 14:06	JMN	TAL KNX

Client Sample ID: PDI-SG-S159

Date Collected: 05/18/18 15:04

Date Received: 05/21/18 12:00

Lab Sample ID: 580-77431-2

Matrix: Solid

Percent Solids: 39.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			20796	06/01/18 11:00	CLI	TAL KNX
Total/NA	Cleanup	Split			20884	06/04/18 19:55	SMM	TAL KNX
Total/NA	Analysis	1668A		1	21229	06/15/18 06:58	PMP	TAL KNX

Client Sample ID: PDI-SG-S162

Date Collected: 05/18/18 14:10

Date Received: 05/21/18 12:00

Lab Sample ID: 580-77431-3

Matrix: Solid

Percent Solids: 39.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			20796	06/01/18 11:00	CLI	TAL KNX
Total/NA	Cleanup	Split			20884	06/04/18 19:55	SMM	TAL KNX
Total/NA	Analysis	1668A		1	21229	06/15/18 08:00	PMP	TAL KNX

Client Sample ID: PDI-SG-S163

Date Collected: 05/18/18 13:26

Date Received: 05/21/18 12:00

Lab Sample ID: 580-77431-4

Matrix: Solid

Percent Solids: 40.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			20844	06/04/18 07:43	BRS	TAL KNX
Total/NA	Cleanup	Split			20935	06/05/18 19:26	SMM	TAL KNX
Total/NA	Analysis	1668A		1	21153	06/13/18 04:02	PMP	TAL KNX

Client Sample ID: PDI-SG-S160

Date Collected: 05/18/18 12:10

Date Received: 05/21/18 12:00

Lab Sample ID: 580-77431-5

Matrix: Solid

Percent Solids: 39.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			20844	06/04/18 07:43	BRS	TAL KNX
Total/NA	Cleanup	Split			20935	06/05/18 19:26	SMM	TAL KNX
Total/NA	Analysis	1668A		1	21153	06/13/18 05:03	PMP	TAL KNX

TestAmerica Seattle

Lab Chronicle

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S142

Date Collected: 05/18/18 10:53

Date Received: 05/21/18 12:00

Lab Sample ID: 580-77431-6

Matrix: Solid

Percent Solids: 61.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			20844	06/04/18 07:43	BRS	TAL KNX
Total/NA	Cleanup	Split			20935	06/05/18 19:26	SMM	TAL KNX
Total/NA	Analysis	1668A		1	21153	06/13/18 09:10	PMP	TAL KNX

Client Sample ID: PDI-SG-S150

Date Collected: 05/18/18 09:50

Date Received: 05/21/18 12:00

Lab Sample ID: 580-77431-7

Matrix: Solid

Percent Solids: 39.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			20844	06/04/18 07:43	BRS	TAL KNX
Total/NA	Cleanup	Split			20935	06/05/18 19:26	SMM	TAL KNX
Total/NA	Analysis	1668A		1	21153	06/13/18 06:05	PMP	TAL KNX

Client Sample ID: PDI-SG-S210

Date Collected: 05/19/18 16:22

Date Received: 05/21/18 12:00

Lab Sample ID: 580-77431-8

Matrix: Solid

Percent Solids: 45.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			20844	06/04/18 07:43	BRS	TAL KNX
Total/NA	Cleanup	Split			20935	06/05/18 19:26	SMM	TAL KNX
Total/NA	Analysis	1668A		1	21153	06/13/18 07:06	PMP	TAL KNX

Client Sample ID: PDI-SG-S217

Date Collected: 05/19/18 17:00

Date Received: 05/21/18 12:00

Lab Sample ID: 580-77431-9

Matrix: Solid

Percent Solids: 38.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			20844	06/04/18 07:43	BRS	TAL KNX
Total/NA	Cleanup	Split			20935	06/05/18 19:26	SMM	TAL KNX
Total/NA	Analysis	1668A		1	21153	06/13/18 08:08	PMP	TAL KNX

Client Sample ID: PDI-SG-S212

Date Collected: 05/19/18 15:42

Date Received: 05/21/18 12:00

Lab Sample ID: 580-77431-10

Matrix: Solid

Percent Solids: 39.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			20844	06/04/18 07:43	BRS	TAL KNX
Total/NA	Cleanup	Split			20935	06/05/18 19:26	SMM	TAL KNX
Total/NA	Analysis	1668A		1	21171	06/13/18 13:54	JMN	TAL KNX

TestAmerica Seattle

Lab Chronicle

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S209

Lab Sample ID: 580-77431-11

Date Collected: 05/19/18 15:01

Matrix: Solid

Date Received: 05/21/18 12:00

Percent Solids: 39.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			20844	06/04/18 07:43	BRS	TAL KNX
Total/NA	Cleanup	Split			20935	06/05/18 19:26	SMM	TAL KNX
Total/NA	Analysis	1668A		1	21171	06/13/18 14:56	JMN	TAL KNX

Client Sample ID: PDI-SG-S207

Lab Sample ID: 580-77431-12

Date Collected: 05/19/18 14:16

Matrix: Solid

Date Received: 05/21/18 12:00

Percent Solids: 41.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			20844	06/04/18 07:43	BRS	TAL KNX
Total/NA	Cleanup	Split			20935	06/05/18 19:26	SMM	TAL KNX
Total/NA	Analysis	1668A		1	21171	06/13/18 15:57	JMN	TAL KNX

Client Sample ID: PDI-SG-S206

Lab Sample ID: 580-77431-13

Date Collected: 05/19/18 13:41

Matrix: Solid

Date Received: 05/21/18 12:00

Percent Solids: 38.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			20844	06/04/18 07:43	BRS	TAL KNX
Total/NA	Cleanup	Split			20935	06/05/18 19:26	SMM	TAL KNX
Total/NA	Analysis	1668A		1	21229	06/15/18 04:55	PMP	TAL KNX

Client Sample ID: PDI-SG-S205

Lab Sample ID: 580-77431-14

Date Collected: 05/19/18 11:50

Matrix: Solid

Date Received: 05/21/18 12:00

Percent Solids: 44.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			20844	06/04/18 07:43	BRS	TAL KNX
Total/NA	Cleanup	Split			20935	06/05/18 19:26	SMM	TAL KNX
Total/NA	Analysis	1668A		1	21171	06/13/18 18:01	JMN	TAL KNX

Client Sample ID: PDI-SG-S202

Lab Sample ID: 580-77431-15

Date Collected: 05/19/18 10:43

Matrix: Solid

Date Received: 05/21/18 12:00

Percent Solids: 45.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			20844	06/04/18 07:43	BRS	TAL KNX
Total/NA	Cleanup	Split			20935	06/05/18 19:26	SMM	TAL KNX
Total/NA	Analysis	1668A		1	21171	06/13/18 19:02	JMN	TAL KNX

TestAmerica Seattle

Lab Chronicle

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

TestAmerica Job ID: 580-77431-3

Client Sample ID: PDI-SG-S197

Lab Sample ID: 580-77431-16

Date Collected: 05/19/18 09:50

Matrix: Solid

Date Received: 05/21/18 12:00

Percent Solids: 47.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			20844	06/04/18 07:43	BRS	TAL KNX
Total/NA	Cleanup	Split			20935	06/05/18 19:26	SMM	TAL KNX
Total/NA	Analysis	1668A		1	21201	06/14/18 06:14	PMP	TAL KNX

Client Sample ID: PDI-SG-S197-D

Lab Sample ID: 580-77431-17

Date Collected: 05/19/18 09:50

Matrix: Solid

Date Received: 05/21/18 12:00

Percent Solids: 48.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			20844	06/04/18 07:43	BRS	TAL KNX
Total/NA	Cleanup	Split			20935	06/05/18 19:26	SMM	TAL KNX
Total/NA	Analysis	1668A		1	21201	06/14/18 07:16	PMP	TAL KNX

Client Sample ID: PDI-SG-S132

Lab Sample ID: 580-77431-18

Date Collected: 05/20/18 12:25

Matrix: Solid

Date Received: 05/21/18 12:00

Percent Solids: 73.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			20844	06/04/18 07:43	BRS	TAL KNX
Total/NA	Cleanup	Split			20935	06/05/18 19:26	SMM	TAL KNX
Total/NA	Analysis	1668A		1	21171	06/13/18 22:07	JMN	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: 580-77431-3

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

Project/Site: Portland Harbor Pre-Remedial Design

TestAmerica Job ID: 580-77431-3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-77431-1	PDI-SG-S195	Solid	05/18/18 16:32	05/21/18 12:00
580-77431-2	PDI-SG-S159	Solid	05/18/18 15:04	05/21/18 12:00
580-77431-3	PDI-SG-S162	Solid	05/18/18 14:10	05/21/18 12:00
580-77431-4	PDI-SG-S163	Solid	05/18/18 13:26	05/21/18 12:00
580-77431-5	PDI-SG-S160	Solid	05/18/18 12:10	05/21/18 12:00
580-77431-6	PDI-SG-S142	Solid	05/18/18 10:53	05/21/18 12:00
580-77431-7	PDI-SG-S150	Solid	05/18/18 09:50	05/21/18 12:00
580-77431-8	PDI-SG-S210	Solid	05/19/18 16:22	05/21/18 12:00
580-77431-9	PDI-SG-S217	Solid	05/19/18 17:00	05/21/18 12:00
580-77431-10	PDI-SG-S212	Solid	05/19/18 15:42	05/21/18 12:00
580-77431-11	PDI-SG-S209	Solid	05/19/18 15:01	05/21/18 12:00
580-77431-12	PDI-SG-S207	Solid	05/19/18 14:16	05/21/18 12:00
580-77431-13	PDI-SG-S206	Solid	05/19/18 13:41	05/21/18 12:00
580-77431-14	PDI-SG-S205	Solid	05/19/18 11:50	05/21/18 12:00
580-77431-15	PDI-SG-S202	Solid	05/19/18 10:43	05/21/18 12:00
580-77431-16	PDI-SG-S197	Solid	05/19/18 09:50	05/21/18 12:00
580-77431-17	PDI-SG-S197-D	Solid	05/19/18 09:50	05/21/18 12:00
580-77431-18	PDI-SG-S132	Solid	05/20/18 12:25	05/21/18 12:00

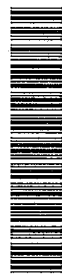
TestAmerica Seattle

SURFACE SEDIMENT CHAIN OF CUSTODY																	
Test/America-Seattle 5755-8th-Street-East Tacoma, WA 98424-1317 Ph: 253-922-2310 Fax: 253-922-5047			Project Contact: Amy Dahl / Chelsey Cook Tel: (206) 438-2261 / (206) 438-2010			Site Contact: Jennifer Ray Laboratory Contact: Elaine Walker			COC No: 1 1 of 2 pages								
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-SMA			Analysis Turnaround Time Calendar (C) or Work Days (W) ☒ 21 days ☐ Other _____			Carrier: Courier											
Sample Identification	Sample Date	Sample Time	Matrix	QC Sample	Sampler's Initials	Fraction	PCB Congeners 168A	PCDD/Fs 1613B	Grain size ASTM D7928/D9913	Total organic carbon, Total solids 9060	Archive -20 C	WQ - PCB Congeners 168A	WQ - PCDD/Fs 1613B	WQ - TPH Diesel NWTPH-DX	WQ - Metals, Mercury 6020B, 7470	WQ - Total Organic Carbon SMS310B	Sample Specific Notes:
PDI-SG-S195	5/18/2018	16:32	SS		NM	5	X	X	X	X	X	X	X	X	X	X	
PDI-SG-S159	5/18/2018	15:04	SS		NM	5	X	X	X	X	X	X	X	X	X	X	
PDI-SG-S162	5/18/2018	14:10	SS		NM	5	X	X	X	X	X	X	X	X	X	X	
PDI-SG-S163	5/18/2018	13:26	SS		NM	5	X	X	X	X	X	X	X	X	X	X	
PDI-SG-S160	5/18/2018	12:10	SS		NM	5	X	X	X	X	X	X	X	X	X	X	
PDI-SG-S142	5/18/2018	10:53	SS		NM	5	X	X	X	X	X	X	X	X	X	X	
PDI-SG-S150	5/18/2018	9:50	SS		NM	5	X	X	X	X	X	X	X	X	X	X	
PDI-SG-S210	5/19/2018	16:22	SS		BC	5	X	X	X	X	X	X	X	X	X	X	
PDI-SG-S217	5/19/2018	17:00	SS		BC	5	X	X	X	X	X	X	X	X	X	X	
PDI-SG-S212	5/19/2018	15:42	SS		BC	5	X	X	X	X	X	X	X	X	X	X	
PDI-SG-S209	5/19/2018	15:01	SS		BC	5	X	X	X	X	X	X	X	X	X	X	
PDI-SG-S207	5/19/2018	14:16	SS		BC	5	X	X	X	X	X	X	X	X	X	X	
Container Type: WMG=Wide Mouth Glass Jar, P=HDPE, PP=Polypropylene, AG=amber glass, G=glass, RC=Resin Column Preservative: HCl = Hydrochloric Acid, H3PO4 = Phosphoric Acid, HNO3 = Nitric Acid Fraction: D = Dissolved, PRT = Particulate, T = Total (unfiltered)																	
Special Instructions/QC Requirements & Comments: Separate reports for each lab SMA Study samples - Log in separately from SS Study samples																	
Relinquished by: <i>Michael M. Taylor</i> Date/Time: 5-21-18 11:30 Company: AECOM Relinquished by: <i>Heather A. Taylor</i> Date/Time: 5/21/18 12:00 Company: M.E. Relinquished by: <i>Heather A. Taylor</i> Date/Time: 5/21/18 12:00 Company: M.E.																	

TestAmerica-Seattle 5755-8th-Street-East Tacoma, WA 98424-1317 Ph: 253-922-2310 Fax: 253-922-5047		SURFACE SEDIMENT CHAIN OF CUSTODY										5/21/2018		COC No. 1						
Client Contact		Project Contact: Amy Dahl / Chelsey Cook Tel: (206) 438-2261 / (206) 438-2010		Site Contact: Jennifer Ray		Laboratory Contact: Elaine-Walker		Carrier: Courier		1 of 2 pages										
AECOM 1111 3rd Ave Suite 1600 Seattle, WA 98101 Phone: (206) 438-2700 Fax: 1+(866) 495-5288		Analysis Turnaround Time Calendar (C) or Work Days (W)																		
Project Name: Portland Harbor Pre-Remedial Design Investigation and Baseline Sampling		☒ 21 days																		
Portland, OR		☐ Other																		
Project #: 60566335 Study Surface Sediment-SMA																				
Sample Identification	Sample Date	Sample Time	Matrix	QC Sample	Sampler's Initials	Total No. of Cont.	Fraction	PCB Congeners 168A	PCDD/Fs 1613B	Grain size ASTM D7928/D6913	Total organic carbon, Total solids 9060	Archive Archive -20 C	WQ - PCB Congeners 1668A	WQ - PCDD/Fs 1613B	WQ - TPH Diesel NW/TPH-Dx	WQ - Metals, Mercury 6020B, 7470	WQ - Total Organic Carbon SMS310B	Sample Specific Notes:		
PDI-SG-S195	5/18/2018	16:32	SS		NM	5		X	X	X	X	X								
PDI-SG-S159	5/18/2018	15:04	SS		NM	5		X	X	X	X	X								
PDI-SG-S162	5/18/2018	14:10	SS		NM	5		X	X	X	X	X								
PDI-SG-S163	5/18/2018	13:26	SS		NM	5		X	X	X	X	X								
PDI-SG-S160	5/18/2018	12:10	SS		NM	5		X	X	X	X	X								
PDI-SG-S142	5/18/2018	10:53	SS		NM	5		X	X	X	X	X								
PDI-SG-S150	5/18/2018	9:50	SS		NM	5		X	X	X	X	X								
PDI-SG-S210	5/19/2018	16:22	SS		BC	5		X	X	X	X	X								
PDI-SG-S217	5/19/2018	17:00	SS		BC	5		X	X	X	X	X								
PDI-SG-S212	5/19/2018	15:42	SS		BC	5		X	X	X	X	X								
PDI-SG-S209	5/19/2018	15:01	SS		BC	5		X	X	X	X	X								
PDI-SG-S207	5/19/2018	14:16	SS		BC	5		X	X	X	X	X								
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: Separate reports for each lab SMA Study samples - Log in seperately from SS Study samples																				
3.1, 0.8, 1.2, 3.2, 4.5, 3.8																				
Relinquished by: <i>Michael M. Ray</i>	Company: AECOM	Date/Time: 5-21-18/1130	Received by: <i>Jessica M. Ray</i>		Company: M.E.	Date/Time: 5/21/18 1130	Relinquished by: <i>Jessica M. Ray</i>		Company: M.E.	Date/Time: 5/21/18 1200	Relinquished by: <i>Jessica M. Ray</i>		Company: TAPOR	Date/Time: 5/22/18 0915	Relinquished by: <i>Jessica M. Ray</i>		Company: TAPOR	Date/Time: 5/22/18 0915	Relinquished by: <i>Jessica M. Ray</i>	

125 = 1.7 / 1.4 w/c.s.

125 = 0.7 / 0.6 w/c.s.



Chain of Custody record

Client Information (Sub Contract Lab)		Lab P/N: Walker, Elaine M		Carrier Tracking No(s):		COC No: 580-55529.1	
Client Contact: Shipping/Receiving		Phone:		State of Origin: Oregon		Page: Page 1 of 2	
Company: TestAmerica Laboratories, Inc.		E-Mail: elaine.walker@testamericainc.com		Job #:		580-77431-1	
Address: 5815 Middlebrook Pike, Knoxville TN, 37921		Due Date Requested: 6/8/2018		Analysis Requested:		Preservation Codes:	
City: Knoxville		TAT Requested (days):		1668A/1668_P_Sox (MOD) 209 PCBs plus Totals		A - HCL	
State, Zip: TN, 37921		PO #:		1668A/1668_P_Split (MOD) 209 PCBs plus Totals		B - NaOH	
Phone: 865-291-3000(Tel) 865-584-4315(Fax)		WO #:		Perform MS/MSD (Yes or No)		C - Zn Acetate	
Email:		Project #:		Field Filled Sample (Yes or No)		D - Nitric Acid	
Project Name: Portland Harbor Pre-Remedial Design		SSOW#:		Matrix (W=Water, S=solid, O=overstuffed)		E - NaHSO4	
Site:		Sample Date		Sample Time		F - MeOH	
Sample Identification - Client ID (Lab ID)		Sample Date		Sample Time		G - Amchlor	
PDI-SG-S195 (580-77431-1)	5/18/18	16:32	Pacific	Solid	X	H - Ascorbic Acid	
PDI-SG-S159 (580-77431-2)	5/18/18	15:04	Pacific	Solid	X	I - Ice	
PDI-SG-S162 (580-77431-3)	5/18/18	14:10	Pacific	Solid	X	J - DI Water	
PDI-SG-S163 (580-77431-4)	5/18/18	13:26	Pacific	Solid	X	K - EDTA	
PDI-SG-S160 (580-77431-5)	5/18/18	12:10	Pacific	Solid	X	L - EDA	
PDI-SG-S142 (580-77431-6)	5/18/18	10:53	Pacific	Solid	X	Other:	
PDI-SG-S150 (580-77431-7)	5/18/18	09:50	Pacific	Solid	X	Special Instructions/Note:	
PDI-SG-S210 (580-77431-8)	5/19/18	16:22	Pacific	Solid	X	CUSTODY SEAL INTACT	
PDI-SG-S217 (580-77431-9)	5/19/18	17:00	Pacific	Solid	X	OBTAINED AT 170.4/170.4	
				DKO 5-23-18			
				1000A F501#			
				4423 MSD 3518 PD			
				580-77431 Chain of Custody			
Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample currently maintain accreditation in the State of Origin listed above for analysis/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided 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							
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months							
Deliverable Requested: I, II, III, IV, Other (specify) _____ Primary Deliverable Rank: 2							
Empty Kit Relinquished by: _____ Date: _____ Relinquished by: _____ Date/Time: 5/22/18 1600 Relinquished by: _____ Date/Time: _____ Relinquished by: _____ Date/Time: _____ Custody Seals Intact: _____ Custody Seal No.: _____ Δ Yes Δ No							

Chain of Custody record

Client Information (Sub Contract Lab)		Sampler:		Lab PM:		Carrier Tracking No(s):		COC No:	
Client Contact:		Walker, Elaine M		Walker, Elaine M				580-5529.2	
Shipping/Receiving		Phone:		E-Mail:		State of Origin:		Page:	
				elaine.walker@testamericainc.com		Oregon		Page 2 of 2	
Company:		TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #:		580-77431-1	
Address:		5815 Middlebrook Pike,		Due Date Requested:		TAT Requested (days):		Preservation Codes:	
City:		Knoxville		6/8/2018				A - HCL M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Ice V - MCAA W - pH 4-5 X - EDTA Y - EDA Z - other (specify) Other:	
State, Zip:		TN, 37921		FO #:					
Phone:		865-291-3000(Tel) 865-584-4315(Fax)		WO #:					
Email:				Project #:		58012120			
Project Name:		Portland Harbor Pre-Remedial Design		SSOW#:					
Site:									

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=soil, A=air)	Field Filtered Sample (Yes or No)	1668A/1668_P_Sox (MOD) 209 PCBs plus Totals	1668A/1668_P_Split (MOD) 209 PCBs plus Totals	Screen_1668/Screen_PCB_P_S	Analysis Requested	Total Number of Containers	Special Instructions/Note:
PDI-SG-S212 (580-77431-10)	5/19/18	15:42 Pacific		Solid		X	X	X		1	
PDI-SG-S209 (580-77431-11)	5/19/18	15:01 Pacific		Solid		X	X	X		1	
PDI-SG-S207 (580-77431-12)	5/19/18	14:16 Pacific		Solid		X	X	X		1	
PDI-SG-S206 (580-77431-13)	5/19/18	13:41 Pacific		Solid		X	X	X		1	
PDI-SG-S205 (580-77431-14)	5/19/18	11:50 Pacific		Solid		X	X	X		1	
PDI-SG-S202 (580-77431-15)	5/19/18	10:43 Pacific		Solid		X	X	X		1	
PDI-SG-S197 (580-77431-16)	5/19/18	09:50 Pacific		Solid		X	X	X		1	
PDI-SG-S197-D (580-77431-17)	5/19/18	09:50 Pacific		Solid		X	X	X		1	
PDI-SG-S132 (580-77431-18)	5/20/18	12:25 Pacific		Solid		X	X	X		1	

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

Possible Hazard Identification		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)	
Unconfirmed		Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months	
Deliverable Requested: I, II, III, IV, Other (specify)		Special Instructions/QC Requirements:	
Primary Deliverable Rank: 2		Method of Shipment	
Empty Kit Relinquished by:		Time:	
Relinquished by:		Date/Time: 5/27/18 10:15	
Relinquished by:		Date/Time:	
Relinquished by:		Date/Time:	
Custody Seals Intact: ☐ Yes ☐ No		Cooler Temperature(s) °C and Other Remarks:	

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?	/			☒ Containers, Broken	
2. Were ambient air containers received intact?			/	☐ Checked in lab	
3. The coolers/containers custody seal if present, is it intact?	/			☐ Yes ☐ NA	
4. Is the cooler temperature within limits? (> freezing temp. of water to 6°C, VOST: 10°C) Thermometer ID : <u>5668</u> Correction factor: <u>0.0°C</u>	/			☐ Cooler Out of Temp, Client Contacted, Proceed/Cancel ☐ Cooler Out of Temp, Same Day Receipt	
5. Were all of the sample containers received intact?	/			☐ Containers, Broken	
6. Were samples received in appropriate containers?	/			☐ Containers, Improper; Client Contacted; Proceed/Cancel	
7. Do sample container labels match COC? (IDs, Dates, Times)	/			☐ COC & Samples Do Not Match ☐ COC Incorrect/Incomplete ☐ COC Not Received	
8. Were all of the samples listed on the COC received?	/			☐ Sample Received, Not on COC ☐ Sample on COC, Not Received	
9. Is the date/time of sample collection noted?	/			☐ COC; No Date/Time; Client Contacted	Labeling Verified by: _____ Date: _____
10. Was the sampler identified on the COC?	/		/	☐ Sampler Not Listed on COC	
11. Is the client and project name/# identified?	/			☐ COC Incorrect/Incomplete	pH test strip lot number: _____
12. Are tests/parameters listed for each sample?	/			☐ COC No tests on COC	
13. Is the matrix of the samples noted?	/			☐ COC Incorrect/Incomplete	
14. Was COC relinquished? (Signed/Dated/Timed)	/			☐ COC Incorrect/Incomplete	Box 16A: pH Preservation Box 18A: Residual Chlorine
15. Were samples received within holding time?	/			☐ Holding Time - Receipt	Preservative: _____
16. Were samples received with correct chemical preservative (excluding Encore)?			/	☐ pH Adjusted, pH Included (See box 16A) ☐ Incorrect Preservative	Lot Number: _____ Exp Date: _____ Analyst: _____
17. Were VOA samples received without headspace?			/	☐ Headspace (VOA only)	Date: _____ Time: _____
18. Did you check for residual chlorine, if necessary? (e.g. 1613B, 1668) Chlorine test strip lot number: _____			/	☐ Residual Chlorine	
19. For 1613B water samples is pH<9?			/	☐ If no, lab will adjust	
20. For rad samples was sample activity info. Provided?			/	☐ Project missing info	
Project #: _____ PM Instructions: _____					

QA026R30.doc, 080916

Date: 8-23-18

Sample Receiving Associate: *[Signature]*



Login Sample Receipt Checklist

Client: AECOM

Job Number: 580-77431-3

Login Number: 77431

List Source: TestAmerica Seattle

List Number: 1

Creator: O'Connell, Jason I

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ 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 $<6\text{mm}$ (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: 580-77431-3

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 (30-140)	PCB3L (30-140)	PCB4L (30-140)	PCB15L (30-140)	PCB19L (30-140)	PCB37L (30-140)	PCB54L (30-140)	PCB77L (30-140)
580-77431-1	PDI-SG-S195	92	68	69	78	273 *	99	161 *	87
580-77431-2	PDI-SG-S159	65	72	64	73	97	84	83	85
580-77431-3	PDI-SG-S162	68	70	69	73	84	87	71	84
580-77431-4	PDI-SG-S163	65	67	71	73	96	82	89	85
580-77431-5	PDI-SG-S160	64	65	70	73	110	87	100	83
580-77431-6	PDI-SG-S142	60	59	67	64	76	87	78	89
580-77431-7	PDI-SG-S150	59	60	68	72	79	83	77	84
580-77431-8	PDI-SG-S210	57	60	66	75	82	86	83	86
580-77431-9	PDI-SG-S217	63	64	72	73	78	82	81	87
580-77431-10	PDI-SG-S212	66	67	74	78	73	84	82	89
580-77431-11	PDI-SG-S209	60	65	71	73	76	90	84	100
580-77431-12	PDI-SG-S207	64	65	76	81	84	84	87	93
580-77431-13	PDI-SG-S206	59	59	70	75	82	87	71	85
580-77431-14	PDI-SG-S205	85	90	68	75	82	85	65	86
580-77431-15	PDI-SG-S202	87	92	70	76	118	85	87	86
580-77431-16	PDI-SG-S197	58	59	75	78	157 *	89	136	85
580-77431-17	PDI-SG-S197-D	65	66	67	69	143 *	84	128	77
580-77431-18	PDI-SG-S132	85	85	66	72	70	83	61	89
LCS 140-20796/15-B	Lab Control Sample	53	48	58	58	73	69	69	72
LCS 140-20844/17-B	Lab Control Sample	75	65	77	65	81	74	86	76
LCSD 140-20796/16-B	Lab Control Sample Dup	50	45	57	56	73	71	71	75
LCSD 140-20844/18-B	Lab Control Sample Dup	67	63	75	72	83	73	84	79
MB 140-20796/14-B	Method Blank	47	44	52	50	67	61	64	69
MB 140-20844/16-B	Method Blank	71	67	81	69	87	75	90	76

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PCB81L (30-140)	PCB104L (30-140)	PCB105L (30-140)	P114L (30-140)	PCB118L (30-140)	PCB123L (30-140)	PCB126L (30-140)	PCB155L (30-140)
580-77431-1	PDI-SG-S195	84	86	91	94	90	91	84	70
580-77431-2	PDI-SG-S159	86	80	88	88	86	86	84	91
580-77431-3	PDI-SG-S162	84	79	89	90	89	88	92	87
580-77431-4	PDI-SG-S163	84	78	96	98	95	93	84	83
580-77431-5	PDI-SG-S160	81	77	88	91	87	87	85	82
580-77431-6	PDI-SG-S142	91	73	86	87	85	84	82	84
580-77431-7	PDI-SG-S150	83	75	89	90	90	91	89	83
580-77431-8	PDI-SG-S210	87	75	87	90	89	89	93	82
580-77431-9	PDI-SG-S217	89	73	87	86	82	83	82	85
580-77431-10	PDI-SG-S212	91	72	89	88	83	85	85	88
580-77431-11	PDI-SG-S209	99	70	92	91	86	87	86	83
580-77431-12	PDI-SG-S207	88	75	87	87	88	83	84	87
580-77431-13	PDI-SG-S206	85	79	90	94	91	87	83	85
580-77431-14	PDI-SG-S205	86	79	91	90	90	89	84	73
580-77431-15	PDI-SG-S202	84	74	88	88	85	86	83	68
580-77431-16	PDI-SG-S197	84	79	95	98	93	91	85	95
580-77431-17	PDI-SG-S197-D	77	80	86	89	84	84	80	82
580-77431-18	PDI-SG-S132	87	72	86	86	83	83	83	66
LCS 140-20796/15-B	Lab Control Sample	69	66	79	85	82	81	74	87
LCS 140-20844/17-B	Lab Control Sample	77	77	81	83	80	81	84	90
LCSD 140-20796/16-B	Lab Control Sample Dup	73	68	85	84	87	82	81	81
LCSD 140-20844/18-B	Lab Control Sample Dup	80	79	81	83	82	79	79	90

TestAmerica Seattle

Isotope Dilution Summary

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

TestAmerica Job ID: 580-77431-3

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	PCB81L (30-140)	PCB104L (30-140)	PCB105L (30-140)	P114L (30-140)	PCB118L (30-140)	PCB123L (30-140)	PCB126L (30-140)	PCB155L (30-140)
MB 140-20796/14-B	Method Blank	68	60	81	82	80	77	76	77
MB 140-20844/16-B	Method Blank	78	84	91	89	90	81	80	90
		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PCB156L (30-140)	PCB157L (30-140)	PCB167L (30-140)	PCB169L (30-140)	PCB170L (30-140)	PCB188L (30-140)	PCB189L (30-140)	PCB202L (30-140)
580-77431-1	PDI-SG-S195	84 C	84 C156	91	92	83	84	90	72
580-77431-2	PDI-SG-S159	82 C	82 C156	87	85	80	93	100	97
580-77431-3	PDI-SG-S162	83 C	83 C156	86	80	82	95	89	98
580-77431-4	PDI-SG-S163	86 C	86 C156	85	85	82	99	88	103
580-77431-5	PDI-SG-S160	87 C	87 C156	90	90	83	92	85	100
580-77431-6	PDI-SG-S142	88 C	88 C156	89	91	83	88	91	101
580-77431-7	PDI-SG-S150	78 C	78 C156	80	71	79	105	91	107
580-77431-8	PDI-SG-S210	87 C	87 C156	87	88	85	95	90	103
580-77431-9	PDI-SG-S217	84 C	84 C156	94	90	82	89	87	102
580-77431-10	PDI-SG-S212	83 C	83 C156	81	81	82	98	86	106
580-77431-11	PDI-SG-S209	81 C	81 C156	88	85	82	96	90	104
580-77431-12	PDI-SG-S207	84 C	84 C156	88	88	84	99	86	108
580-77431-13	PDI-SG-S206	87 C	87 C156	90	88	86	97	91	112
580-77431-14	PDI-SG-S205	85 C	85 C156	88	87	84	92	108	85
580-77431-15	PDI-SG-S202	86 C	86 C156	88	91	90	91	106	83
580-77431-16	PDI-SG-S197	86 C	86 C156	89	88	84	93	82	111
580-77431-17	PDI-SG-S197-D	80 C	80 C156	81	83	77	85	88	91
580-77431-18	PDI-SG-S132	86 C	86 C156	85	89	82	86	99	82
LCS 140-20796/15-B	Lab Control Sample	79 C	79 C156	78	85	85	83	72	111
LCS 140-20844/17-B	Lab Control Sample	82 C	82 C156	87	91	87	90	75	112
LCSD 140-20796/16-B	Lab Control Sample Dup	84 C	84 C156	84	88	81	81	72	106
LCSD 140-20844/18-B	Lab Control Sample Dup	85 C	85 C156	89	92	86	87	75	102
MB 140-20796/14-B	Method Blank	79 C	79 C156	81	80	81	79	68	106
MB 140-20844/16-B	Method Blank	86 C	86 C156	86	85	79	93	86	107
		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PCB205L (30-140)	PCB206L (30-140)	PCB208L (30-140)	PCB209L (30-140)				
580-77431-1	PDI-SG-S195	75	71	72	60				
580-77431-2	PDI-SG-S159	76	72	73	71				
580-77431-3	PDI-SG-S162	74	70	79	65				
580-77431-4	PDI-SG-S163	72	73	89	69				
580-77431-5	PDI-SG-S160	73	76	81	71				
580-77431-6	PDI-SG-S142	74	76	89	74				
580-77431-7	PDI-SG-S150	73	73	92	67				
580-77431-8	PDI-SG-S210	76	79	84	74				
580-77431-9	PDI-SG-S217	72	77	79	69				
580-77431-10	PDI-SG-S212	72	72	86	66				
580-77431-11	PDI-SG-S209	72	73	88	69				
580-77431-12	PDI-SG-S207	71	80	92	73				
580-77431-13	PDI-SG-S206	74	84	91	88				
580-77431-14	PDI-SG-S205	76	67	76	57				
580-77431-15	PDI-SG-S202	73	67	70	60				
580-77431-16	PDI-SG-S197	73	74	76	77				

TestAmerica Seattle

Isotope Dilution Summary

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

TestAmerica Job ID: 580-77431-3

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	PCB205L (30-140)	PCB206L (30-140)	PCB208L (30-140)	PCB209L (30-140)
580-77431-17	PDI-SG-S197-D	70	76	77	72
580-77431-18	PDI-SG-S132	72	65	70	54
LCS 140-20796/15-B	Lab Control Sample	76	96	85	107
LCS 140-20844/17-B	Lab Control Sample	76	83	84	85
LCSD 140-20796/16-B	Lab Control Sample Dup	79	96	92	108
LCSD 140-20844/18-B	Lab Control Sample Dup	72	84	82	83
MB 140-20796/14-B	Method Blank	72	93	87	107
MB 140-20844/16-B	Method Blank	73	83	80	83

Surrogate Legend

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