

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

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

TestAmerica Job ID: 580-76685-3

Client Project/Site: Portland Harbor Pre-Remedial Design
Revision: 2

For:

AECOM
1111 Third Ave
Suite 1600
Seattle, Washington 98101

Attn: Karen Mixon



Authorized for release by:

7/17/2018 1:42:13 PM

Kristine Allen, Manager of Project Management
(253)248-4970

kristine.allen@testamericainc.com

Designee for

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

elaine.walker@testamericainc.com

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.



LINKS

Review your project
results through

TotalAccess

Have a Question?



Visit us at:

www.testamericainc.com

Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Definitions	5
Client Sample Results	7
QC Sample Results	112
Chronicle	145
Certification Summary	150
Sample Summary	151
Chain of Custody	152
Receipt Checklists	160
Field Data Sheets	161
Isotope Dilution Summary	163



Case Narrative

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

TestAmerica Job ID: 580-76685-3

Job ID: 580-76685-3

Laboratory: TestAmerica Seattle

Narrative

CASE NARRATIVE

Client: AECOM

Project: Portland Harbor Pre-Remedial Design

Report Number: 580-76685-3

REVISION 1: JUNE 4, 2018

This revision was required to remove the Total PCBs from the report as the client determined that they are not required.

REVISION 2: JULY 17, 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

Twenty-one samples were received on 4/18/2018 1:45 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 5 coolers at receipt time were 2.8° C, 3.9° C, 4.0° C, 4.4° C and 5.7° 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-B133-BL1 (580-76685-1), PDI-SG-B135-BL1 (580-76685-2), PDI-SG-B112-BL1 (580-76685-3), PDI-SG-B115-BL1 (580-76685-4), PDI-SG-B156-BL1 (580-76685-5), PDI-SG-B159-BL1 (580-76685-6), PDI-SG-B163-BL1 (580-76685-7), PDI-SG-B164-BL1 (580-76685-8), PDI-SG-B164-BL1-D (580-76685-9), PDI-SG-B167-BL1 (580-76685-10), PDI-SG-B169-BL1 (580-76685-11), PDI-SG-B114-BL1 (580-76685-12), PDI-SG-B171-BL1 (580-76685-13), PDI-SG-B173-BL1 (580-76685-14), PDI-SG-B175-BL1 (580-76685-15), PDI-SG-B108-BL1 (580-76685-16), PDI-SG-B160-BL1 (580-76685-17), PDI-SG-B168-BL1 (580-76685-18) and PDI-SG-B202-BL1 (580-76685-19) were analyzed for polychlorinated biphenyls congeners (PCBs) in accordance with EPA Method 1668A. The samples were prepared on 04/24/2018, 04/25/2018 and 04/27/2018 and analyzed on 05/02/2018, 05/03/2018, 05/08/2018 and 05/10/2018.

Several analytes were detected in method blank MB 140-19793/17-B at levels that were above the method detection limit but below the

Case Narrative

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

TestAmerica Job ID: 580-76685-3

Job ID: 580-76685-3 (Continued)

Laboratory: TestAmerica Seattle (Continued)

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 140-19817/16-B at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Several analytes were detected in method blank MB 140-19878/14-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 failed the recovery criteria low for the MS of sample PDI-SG-B202-BL1MS (580-76685-19) in batch 140-20158. Several analytes failed the recovery criteria low for the MSD of sample PDI-SG-B202-BL1MSD (580-76685-19) in batch 140-20158. The associated LCS/LCSD recoveries met acceptance limits.

The presence of the '4' qualifier indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount.

The following sample exhibited elevated noise or matrix interferences for one or more analytes causing elevation of the detection limit (EDL): PDI-SG-B167-BL1 (580-76685-10). The reporting limit (RL) for the affected analytes has been raised to be equal to the EDL, and a "G" qualifier applied.

One or more ion abundance ratios are outside criteria for the Isotope Dilution Analytes (IDA) associated with the following sample: PDI-SG-B202-BL1 (580-76685-19).

Sample PDI-SG-B202-BL1 (580-76685-19)[10X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

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

PCB CONGENERES - Rinse Blank

Samples PDI-RB-VVSS-180416-1735 (580-76685-20) and PDI-RB-VVSS-180416-1800 (580-76685-21) were analyzed for PCB Congeners in accordance with 1668A. The samples were prepared on 04/23/2018 and analyzed on 04/30/2018.

Several analytes were detected in method blank MB 140-19763/12-A 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. Refer to the QC report for details.

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

Definitions/Glossary

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

TestAmerica Job ID: 580-76685-3

Qualifiers

Dioxin

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
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.
C93	The compound co-eluted with PCB-93
C90	The compound co-eluted with PCB-90
C98	The compound co-eluted with PCB-98
C	The compound co-eluted with other compounds
C86	The compound co-eluted with PCB-86
C110	The compound co-eluted with PCB-110
C85	The compound co-eluted with PCB-85
C108	The compound co-eluted with PCB-108
C12	The compound co-eluted with PCB-12
C129	The compound co-eluted with PCB-129
C139	The compound co-eluted with PCB-139
C134	The compound co-eluted with PCB-134
C147	The compound co-eluted with PCB-147
C135	The compound co-eluted with PCB-135
C156	The compound co-eluted with PCB-156
C128	The compound co-eluted with PCB-128
C153	The compound co-eluted with PCB-153
C171	The compound co-eluted with PCB-171
C183	The compound co-eluted with PCB-183
C180	The compound co-eluted with PCB-180
C198	The compound co-eluted with PCB-198
C20	The compound co-eluted with PCB-20
C26	The compound co-eluted with PCB-26
C18	The compound co-eluted with PCB-18
C21	The compound co-eluted with PCB-21
C40	The compound co-eluted with PCB-40
C44	The compound co-eluted with PCB-44
C45	The compound co-eluted with PCB-45
C50	The compound co-eluted with PCB-50
C59	The compound co-eluted with PCB-59
C49	The compound co-eluted with PCB-49
C61	The compound co-eluted with PCB-61
C43	The compound co-eluted with PCB-43
C88	The compound co-eluted with PCB-88
C83	The compound co-eluted with PCB-83
G	The reported quantitation limit has been raised due to an exhibited elevated noise or matrix interference
I	Value is EMPC (estimated maximum possible concentration).
F1	MS and/or MSD Recovery is outside acceptance limits.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
S	Ion suppression

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid

TestAmerica Seattle

Definitions/Glossary

Client: AECOM

Project/Site: Portland Harbor Pre-Remedial Design

TestAmerica Job ID: 580-76685-3

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B133-BL1

Date Collected: 04/16/18 12:20

Date Received: 04/18/18 13:45

Lab Sample ID: 580-76685-1

Matrix: Solid

Percent Solids: 48.7

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.0016	J B q	0.0098	0.00012	ng/g	☆	04/24/18 10:13	05/02/18 05:37	1
PCB-2	0.0025	J q	0.0098	0.00013	ng/g	☆	04/24/18 10:13	05/02/18 05:37	1
PCB-3	0.0023	J q	0.0098	0.00016	ng/g	☆	04/24/18 10:13	05/02/18 05:37	1
PCB-4	0.0080	J q	0.020	0.00049	ng/g	☆	04/24/18 10:13	05/02/18 05:37	1
PCB-5	ND		0.0098	0.00034	ng/g	☆	04/24/18 10:13	05/02/18 05:37	1
PCB-6	0.0042	J	0.0098	0.00034	ng/g	☆	04/24/18 10:13	05/02/18 05:37	1
PCB-7	ND		0.0098	0.00032	ng/g	☆	04/24/18 10:13	05/02/18 05:37	1
PCB-8	0.011	J	0.020	0.00033	ng/g	☆	04/24/18 10:13	05/02/18 05:37	1
PCB-9	0.0014	J q	0.0098	0.00038	ng/g	☆	04/24/18 10:13	05/02/18 05:37	1
PCB-10	ND		0.0098	0.00037	ng/g	☆	04/24/18 10:13	05/02/18 05:37	1
PCB-11	0.026	B	0.020	0.00031	ng/g	☆	04/24/18 10:13	05/02/18 05:37	1
PCB-12	0.0014	J C q	0.020	0.00031	ng/g	☆	04/24/18 10:13	05/02/18 05:37	1
PCB-13	0.0014	J C12 q	0.020	0.00031	ng/g	☆	04/24/18 10:13	05/02/18 05:37	1
PCB-14	ND		0.0098	0.00028	ng/g	☆	04/24/18 10:13	05/02/18 05:37	1
PCB-15	0.0088	J	0.0098	0.00034	ng/g	☆	04/24/18 10:13	05/02/18 05:37	1
PCB-16	0.010	q	0.0098	0.00011	ng/g	☆	04/24/18 10:13	05/02/18 05:37	1
PCB-17	0.012		0.0098	0.000087	ng/g	☆	04/24/18 10:13	05/02/18 05:37	1
PCB-18	0.020	C	0.020	0.000076	ng/g	☆	04/24/18 10:13	05/02/18 05:37	1
PCB-19	0.0062	J q	0.0098	0.00011	ng/g	☆	04/24/18 10:13	05/02/18 05:37	1
PCB-20	0.054	C B	0.020	0.00072	ng/g	☆	04/24/18 10:13	05/02/18 05:37	1
PCB-21	0.024	C B	0.020	0.00067	ng/g	☆	04/24/18 10:13	05/02/18 05:37	1
PCB-22	0.016		0.0098	0.00074	ng/g	☆	04/24/18 10:13	05/02/18 05:37	1
PCB-23	ND		0.0098	0.00072	ng/g	☆	04/24/18 10:13	05/02/18 05:37	1
PCB-24	ND		0.0098	0.000066	ng/g	☆	04/24/18 10:13	05/02/18 05:37	1
PCB-25	0.0058	J B	0.0098	0.00069	ng/g	☆	04/24/18 10:13	05/02/18 05:37	1
PCB-26	0.0098	J C B	0.020	0.00072	ng/g	☆	04/24/18 10:13	05/02/18 05:37	1
PCB-27	0.0018	J q	0.0098	0.000065	ng/g	☆	04/24/18 10:13	05/02/18 05:37	1
PCB-28	0.054	B C20	0.020	0.00072	ng/g	☆	04/24/18 10:13	05/02/18 05:37	1
PCB-29	0.0098	J C26 B	0.020	0.00072	ng/g	☆	04/24/18 10:13	05/02/18 05:37	1
PCB-30	0.020	C18	0.020	0.000076	ng/g	☆	04/24/18 10:13	05/02/18 05:37	1
PCB-31	0.041	B	0.020	0.00067	ng/g	☆	04/24/18 10:13	05/02/18 05:37	1
PCB-32	0.0071	J q	0.0098	0.000060	ng/g	☆	04/24/18 10:13	05/02/18 05:37	1
PCB-33	0.024	B C21	0.020	0.00067	ng/g	☆	04/24/18 10:13	05/02/18 05:37	1
PCB-34	ND		0.0098	0.00075	ng/g	☆	04/24/18 10:13	05/02/18 05:37	1
PCB-35	0.0015	J	0.0098	0.00071	ng/g	☆	04/24/18 10:13	05/02/18 05:37	1
PCB-36	ND		0.0098	0.00065	ng/g	☆	04/24/18 10:13	05/02/18 05:37	1
PCB-37	0.014	B	0.0098	0.00067	ng/g	☆	04/24/18 10:13	05/02/18 05:37	1
PCB-38	ND		0.0098	0.00070	ng/g	☆	04/24/18 10:13	05/02/18 05:37	1
PCB-39	ND		0.0098	0.00064	ng/g	☆	04/24/18 10:13	05/02/18 05:37	1
PCB-40	0.036	C B	0.029	0.00087	ng/g	☆	04/24/18 10:13	05/02/18 05:37	1
PCB-41	0.036	B C40	0.029	0.00087	ng/g	☆	04/24/18 10:13	05/02/18 05:37	1
PCB-42	0.018		0.0098	0.00088	ng/g	☆	04/24/18 10:13	05/02/18 05:37	1
PCB-43	ND	C	0.020	0.00079	ng/g	☆	04/24/18 10:13	05/02/18 05:37	1
PCB-44	0.076	C B	0.029	0.00078	ng/g	☆	04/24/18 10:13	05/02/18 05:37	1
PCB-45	0.014	J C B	0.020	0.00092	ng/g	☆	04/24/18 10:13	05/02/18 05:37	1
PCB-46	0.0033	J q	0.0098	0.0011	ng/g	☆	04/24/18 10:13	05/02/18 05:37	1
PCB-47	0.076	B C44	0.029	0.00078	ng/g	☆	04/24/18 10:13	05/02/18 05:37	1
PCB-48	0.011	q	0.0098	0.00084	ng/g	☆	04/24/18 10:13	05/02/18 05:37	1
PCB-49	0.047	C	0.020	0.00070	ng/g	☆	04/24/18 10:13	05/02/18 05:37	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B133-BL1

Lab Sample ID: 580-76685-1

Date Collected: 04/16/18 12:20

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 48.7

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	0.011	J C B	0.020	0.00088	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-51	0.014	J C45 B	0.020	0.00092	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-52	0.10	B	0.0098	0.00092	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-53	0.011	J C50 B	0.020	0.00088	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-54	ND		0.0098	0.00011	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-55	ND		0.0098	0.00060	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-56	0.029	B	0.0098	0.00061	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-57	ND		0.0098	0.00061	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-58	0.0015	J	0.0098	0.00059	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-59	0.0062	J C B	0.029	0.00059	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-60	0.013		0.0098	0.00059	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-61	0.12	C B	0.039	0.00058	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-62	0.0062	J B C59	0.029	0.00059	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-63	0.0015	J q	0.0098	0.00053	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-64	0.026		0.0098	0.00056	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-65	0.076	B C44	0.029	0.00078	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-66	0.068	B	0.0098	0.00058	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-67	0.0024	J q	0.0098	0.00056	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-68	0.0018	J	0.0098	0.00053	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-69	0.047	C49	0.020	0.00070	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-70	0.12	C61 B	0.039	0.00058	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-71	0.036	B C40	0.029	0.00087	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-72	0.0016	J	0.0098	0.00060	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-73	ND	C43	0.020	0.00079	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-74	0.12	C61 B	0.039	0.00058	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-75	0.0062	J B C59	0.029	0.00059	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-76	0.12	C61 B	0.039	0.00058	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-77	0.0070	J q	0.0098	0.00055	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-78	ND		0.0098	0.00059	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-79	0.0017	J	0.0098	0.00050	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-80	ND		0.0098	0.00052	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-81	ND		0.0098	0.00055	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-82	0.010	q	0.0098	0.00055	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-83	0.078	C q	0.020	0.00053	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-84	0.031		0.0098	0.00058	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-85	0.026	J C	0.029	0.00040	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-86	0.080	C	0.059	0.00042	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-87	0.080	C86	0.059	0.00042	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-88	0.023	C	0.020	0.00050	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-89	0.0020	J q	0.0098	0.00054	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-90	0.13	C	0.029	0.00043	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-91	0.023	C88	0.020	0.00050	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-92	0.030		0.0098	0.00052	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-93	0.0053	J C q	0.020	0.00051	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-94	ND		0.0098	0.00055	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-95	0.095		0.0098	0.00053	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-96	ND		0.0098	0.00041	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-97	0.080	C86	0.059	0.00042	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-98	0.0032	J C q	0.020	0.00051	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B133-BL1

Lab Sample ID: 580-76685-1

Date Collected: 04/16/18 12:20

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 48.7

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	0.078	C83 q	0.020	0.00053	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-100	0.0053	J C93 q	0.020	0.00051	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-101	0.13	C90	0.029	0.00043	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-102	0.0032	J C98 q	0.020	0.00051	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-103	0.00093	J q	0.0098	0.00047	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-104	ND		0.0098	0.00037	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-105	0.048		0.0098	0.00092	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-106	ND		0.0098	0.00097	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-107	0.011	q	0.0098	0.00094	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-108	0.0057	J C	0.020	0.00098	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-109	0.080	C86	0.059	0.00042	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-110	0.15	C	0.020	0.00035	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-111	ND		0.0098	0.00033	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-112	0.0013	J	0.0098	0.00036	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-113	0.13	C90	0.029	0.00043	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-114	ND		0.0098	0.00089	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-115	0.15	C110	0.020	0.00035	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-116	0.026	J C85	0.029	0.00040	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-117	0.026	J C85	0.029	0.00040	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-118	0.11		0.0098	0.00088	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-119	0.080	C86	0.059	0.00042	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-120	ND		0.0098	0.00032	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-121	ND		0.0098	0.00035	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-122	0.0019	J q	0.0098	0.0011	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-123	0.0014	J q	0.0098	0.00085	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-124	0.0057	J C108	0.020	0.00098	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-125	0.080	C86	0.059	0.00042	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-126	ND		0.0098	0.00097	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-127	ND		0.0098	0.00093	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-128	0.033	C B	0.020	0.00078	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-129	0.22	C B	0.039	0.00080	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-130	0.015		0.0098	0.0011	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-131	ND		0.0098	0.0011	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-132	0.057		0.0098	0.0010	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-133	0.0035	J q	0.0098	0.0010	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-134	0.011	J C	0.020	0.0010	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-135	0.055	C	0.020	0.000077	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-136	0.021		0.0098	0.000056	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-137	0.0086	J	0.0098	0.00087	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-138	0.22	B C129	0.039	0.00080	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-139	0.0039	J C q	0.020	0.00089	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-140	0.0039	J C139 q	0.020	0.00089	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-141	0.040		0.0098	0.00093	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-142	ND		0.0098	0.0010	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-143	0.011	J C134	0.020	0.0010	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-144	0.0057	J q	0.0098	0.000072	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-145	0.00017	J	0.0098	0.000055	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-146	0.036		0.0098	0.00084	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-147	0.16	C	0.020	0.00090	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B133-BL1

Lab Sample ID: 580-76685-1

Date Collected: 04/16/18 12:20

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 48.7

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	0.00057	J q	0.0098	0.000074	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-149	0.16	C147	0.020	0.00090	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-150	0.00042	J q	0.0098	0.000050	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-151	0.055	C135	0.020	0.000077	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-152	ND		0.0098	0.000053	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-153	0.18	C B	0.020	0.00070	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-154	0.0018	J q	0.0098	0.000064	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-155	ND		0.0098	0.000051	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-156	0.026	C B	0.020	0.00082	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-157	0.026	C156 B	0.020	0.00082	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-158	0.020	B	0.0098	0.00062	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-159	0.0025	J	0.0098	0.00064	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-160	0.22	B C129	0.039	0.00080	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-161	ND		0.0098	0.00066	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-162	0.00083	J B q	0.0098	0.00063	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-163	0.22	B C129	0.039	0.00080	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-164	0.016	B	0.0098	0.00068	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-165	ND		0.0098	0.00076	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-166	0.033	C128 B	0.020	0.00078	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-167	0.0073	J q	0.0098	0.00046	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-168	0.18	B C153	0.020	0.00070	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-169	ND		0.0098	0.00052	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-170	0.053		0.0098	0.000071	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-171	0.020	C	0.020	0.000066	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-172	0.010	q	0.0098	0.000064	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-173	0.020	C171	0.020	0.000066	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-174	0.060	q	0.0098	0.000067	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-175	0.0025	J	0.0098	0.000060	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-176	0.0067	J	0.0098	0.000042	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-177	0.041		0.0098	0.000067	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-178	0.012	B	0.0098	0.000063	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-179	0.027		0.0098	0.000046	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-180	0.12	C	0.020	0.000050	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-181	ND		0.0098	0.000058	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-182	ND		0.0098	0.000055	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-183	0.042	C B	0.020	0.000056	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-184	0.00054	J	0.0098	0.000047	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-185	0.042	B C183	0.020	0.000056	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-186	ND		0.0098	0.000045	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-187	0.079		0.0098	0.000057	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-188	ND		0.0098	0.000040	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-189	0.0023	J q	0.0098	0.00043	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-190	0.010	q	0.0098	0.000043	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-191	0.0017	J q	0.0098	0.000043	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-192	ND		0.0098	0.000046	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-193	0.12	C180	0.020	0.000050	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-194	0.029	B	0.0098	0.00039	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-195	0.014		0.0098	0.00044	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-196	0.011		0.0098	0.000072	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B133-BL1

Lab Sample ID: 580-76685-1

Date Collected: 04/16/18 12:20

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 48.7

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	0.00044	J q	0.0098	0.000050	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-198	0.029	C	0.020	0.000076	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-199	0.029	C198	0.020	0.000076	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-200	0.0042	J	0.0098	0.000054	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-201	0.0042	J	0.0098	0.000053	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-202	0.0062	J q	0.0098	0.000059	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-203	0.016	q	0.0098	0.000067	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-204	ND		0.0098	0.000054	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-205	0.0029	J	0.0098	0.000029	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-206	0.035		0.0098	0.0014	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-207	0.0016	J	0.0098	0.000093	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-208	0.0092	J	0.0098	0.000099	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
PCB-209	0.037		0.0098	0.000061	ng/g	☼	04/24/18 10:13	05/02/18 05:37	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-1L	136		30 - 140				04/24/18 10:13	05/02/18 05:37	1
PCB-3L	122		30 - 140				04/24/18 10:13	05/02/18 05:37	1
PCB-4L	114		30 - 140				04/24/18 10:13	05/02/18 05:37	1
PCB-15L	109		30 - 140				04/24/18 10:13	05/02/18 05:37	1
PCB-19L	113		30 - 140				04/24/18 10:13	05/02/18 05:37	1
PCB-37L	113		30 - 140				04/24/18 10:13	05/02/18 05:37	1
PCB-54L	138		30 - 140				04/24/18 10:13	05/02/18 05:37	1
PCB-77L	113		30 - 140				04/24/18 10:13	05/02/18 05:37	1
PCB-81L	113		30 - 140				04/24/18 10:13	05/02/18 05:37	1
PCB-104L	129		30 - 140				04/24/18 10:13	05/02/18 05:37	1
PCB-105L	112		30 - 140				04/24/18 10:13	05/02/18 05:37	1
PCB-114L	113		30 - 140				04/24/18 10:13	05/02/18 05:37	1
PCB-118L	119		30 - 140				04/24/18 10:13	05/02/18 05:37	1
PCB-123L	118		30 - 140				04/24/18 10:13	05/02/18 05:37	1
PCB-126L	113		30 - 140				04/24/18 10:13	05/02/18 05:37	1
PCB-155L	138		30 - 140				04/24/18 10:13	05/02/18 05:37	1
PCB-156L	117	C	30 - 140				04/24/18 10:13	05/02/18 05:37	1
PCB-157L	117	C156	30 - 140				04/24/18 10:13	05/02/18 05:37	1
PCB-167L	119		30 - 140				04/24/18 10:13	05/02/18 05:37	1
PCB-169L	108		30 - 140				04/24/18 10:13	05/02/18 05:37	1
PCB-170L	108		30 - 140				04/24/18 10:13	05/02/18 05:37	1
PCB-188L	127		30 - 140				04/24/18 10:13	05/02/18 05:37	1
PCB-189L	135		30 - 140				04/24/18 10:13	05/02/18 05:37	1
PCB-202L	131		30 - 140				04/24/18 10:13	05/02/18 05:37	1
PCB-205L	108		30 - 140				04/24/18 10:13	05/02/18 05:37	1
PCB-206L	82		30 - 140				04/24/18 10:13	05/02/18 05:37	1
PCB-208L	85		30 - 140				04/24/18 10:13	05/02/18 05:37	1
PCB-209L	67		30 - 140				04/24/18 10:13	05/02/18 05:37	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-28L	80		40 - 125				04/24/18 10:13	05/02/18 05:37	1
PCB-111L	91		40 - 125				04/24/18 10:13	05/02/18 05:37	1
PCB-178L	88		40 - 125				04/24/18 10:13	05/02/18 05:37	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B135-BL1

Date Collected: 04/16/18 15:55

Date Received: 04/18/18 13:45

Lab Sample ID: 580-76685-2

Matrix: Solid

Percent Solids: 35.0

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.0040	J B	0.014	0.00024	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-2	0.0052	J	0.014	0.00026	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-3	0.0031	J q	0.014	0.00030	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-4	0.017	J	0.028	0.00088	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-5	ND		0.014	0.00059	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-6	0.0065	J	0.014	0.00059	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-7	0.0020	J	0.014	0.00056	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-8	0.020	J q	0.028	0.00057	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-9	0.0024	J q	0.014	0.00065	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-10	0.0012	J q	0.014	0.00063	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-11	0.050	q B	0.028	0.00054	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-12	0.0048	J C	0.028	0.00054	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-13	0.0048	J C12	0.028	0.00054	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-14	ND		0.014	0.00049	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-15	0.015	q	0.014	0.00057	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-16	0.014		0.014	0.00034	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-17	0.015	q	0.014	0.00026	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-18	0.029	C	0.028	0.00023	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-19	0.010	J	0.014	0.00032	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-20	0.087	C B	0.028	0.00090	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-21	0.034	C B	0.028	0.00084	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-22	0.025		0.014	0.00092	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-23	ND		0.014	0.00090	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-24	ND		0.014	0.00020	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-25	0.0085	J B	0.014	0.00086	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-26	0.016	J C B	0.028	0.00090	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-27	0.0032	J q	0.014	0.00020	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-28	0.087	C20 B	0.028	0.00090	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-29	0.016	J C26 B	0.028	0.00090	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-30	0.029	C18	0.028	0.00023	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-31	0.064	B	0.028	0.00083	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-32	0.012	J	0.014	0.00018	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-33	0.034	C21 B	0.028	0.00084	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-34	ND		0.014	0.00093	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-35	0.0028	J	0.014	0.00089	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-36	ND		0.014	0.00081	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-37	0.029	B	0.014	0.00084	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-38	ND		0.014	0.00088	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-39	ND		0.014	0.00080	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-40	0.058	q C B	0.042	0.0022	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-41	0.058	q C40 B	0.042	0.0022	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-42	0.027	q	0.014	0.0023	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-43	ND	C	0.028	0.0020	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-44	0.15	C B	0.042	0.0020	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-45	0.025	J C B	0.028	0.0024	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-46	0.0050	J q	0.014	0.0028	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-47	0.15	C44 B	0.042	0.0020	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-48	0.018	q	0.014	0.0021	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-49	0.090	C	0.028	0.0018	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B135-BL1

Lab Sample ID: 580-76685-2

Date Collected: 04/16/18 15:55

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 35.0

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	0.024	J C B	0.028	0.0022	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-51	0.025	J C45 B	0.028	0.0024	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-52	0.19	B	0.014	0.0024	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-53	0.024	J C50 B	0.028	0.0022	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-54	0.0023	J q	0.014	0.00013	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-55	0.0025	J	0.014	0.0015	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-56	0.054	B	0.014	0.0016	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-57	ND		0.014	0.0016	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-58	ND		0.014	0.0015	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-59	0.013	J C B	0.042	0.0015	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-60	0.023		0.014	0.0015	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-61	0.21	C B	0.056	0.0015	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-62	0.013	J C59 B	0.042	0.0015	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-63	0.0041	J	0.014	0.0014	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-64	0.050		0.014	0.0014	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-65	0.15	C44 B	0.042	0.0020	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-66	0.13	B	0.014	0.0015	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-67	ND		0.014	0.0014	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-68	ND		0.014	0.0014	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-69	0.090	C49	0.028	0.0018	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-70	0.21	C61 B	0.056	0.0015	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-71	0.058	q C40 B	0.042	0.0022	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-72	ND		0.014	0.0015	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-73	ND	C43	0.028	0.0020	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-74	0.21	C61 B	0.056	0.0015	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-75	0.013	J C59 B	0.042	0.0015	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-76	0.21	C61 B	0.056	0.0015	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-77	0.017		0.014	0.0014	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-78	ND		0.014	0.0015	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-79	ND		0.014	0.0013	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-80	ND		0.014	0.0013	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-81	ND		0.014	0.0015	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-82	0.021	q	0.014	0.0010	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-83	0.15	C	0.028	0.00097	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-84	0.060		0.014	0.0011	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-85	0.043	C	0.042	0.00073	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-86	0.15	C	0.084	0.00077	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-87	0.15	C86	0.084	0.00077	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-88	0.038	C	0.028	0.00092	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-89	0.0025	J	0.014	0.00099	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-90	0.23	C	0.042	0.00079	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-91	0.038	C88	0.028	0.00092	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-92	0.047		0.014	0.00095	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-93	0.0091	J C	0.028	0.00094	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-94	ND		0.014	0.0010	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-95	0.18		0.014	0.00097	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-96	ND		0.014	0.00075	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-97	0.15	C86	0.084	0.00077	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-98	0.0036	J q C	0.028	0.00093	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B135-BL1

Lab Sample ID: 580-76685-2

Date Collected: 04/16/18 15:55

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 35.0

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	0.15	C83	0.028	0.00097	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-100	0.0091	J C93	0.028	0.00094	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-101	0.23	C90	0.042	0.00079	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-102	0.0036	J q C98	0.028	0.00093	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-103	0.0034	J q	0.014	0.00086	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-104	ND		0.014	0.00067	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-105	0.087		0.014	0.0017	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-106	ND		0.014	0.0017	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-107	0.022		0.014	0.0017	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-108	0.0077	J q C	0.028	0.0018	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-109	0.15	C86	0.084	0.00077	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-110	0.26	C	0.028	0.00064	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-111	ND		0.014	0.00060	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-112	0.0015	J	0.014	0.00065	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-113	0.23	C90	0.042	0.00079	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-114	0.0057	J	0.014	0.0016	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-115	0.26	C110	0.028	0.00064	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-116	0.043	C85	0.042	0.00073	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-117	0.043	C85	0.042	0.00073	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-118	0.21		0.014	0.0016	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-119	0.15	C86	0.084	0.00077	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-120	ND		0.014	0.00059	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-121	ND		0.014	0.00064	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-122	0.0027	J q	0.014	0.0019	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-123	0.0031	J q	0.014	0.0015	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-124	0.0077	J q C108	0.028	0.0018	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-125	0.15	C86	0.084	0.00077	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-126	ND		0.014	0.0017	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-127	ND		0.014	0.0017	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-128	0.070	C B	0.028	0.0015	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-129	0.46	C B	0.056	0.0015	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-130	0.029	q	0.014	0.0020	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-131	0.0043	J	0.014	0.0020	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-132	0.13		0.014	0.0019	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-133	0.0068	J q	0.014	0.0019	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-134	0.027	J C	0.028	0.0020	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-135	0.11	C	0.028	0.00023	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-136	0.038		0.014	0.00017	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-137	0.018		0.014	0.0016	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-138	0.46	C129 B	0.056	0.0015	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-139	0.0078	J C	0.028	0.0017	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-140	0.0078	J C139	0.028	0.0017	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-141	0.081		0.014	0.0017	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-142	ND		0.014	0.0019	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-143	0.027	J C134	0.028	0.0020	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-144	0.0096	J q	0.014	0.00022	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-145	ND		0.014	0.00017	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-146	0.072		0.014	0.0016	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-147	0.34	C	0.028	0.0017	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B135-BL1

Lab Sample ID: 580-76685-2

Date Collected: 04/16/18 15:55

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 35.0

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	ND		0.014	0.00022	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-149	0.34	C147	0.028	0.0017	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-150	0.00038	J q	0.014	0.00015	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-151	0.11	C135	0.028	0.00023	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-152	ND		0.014	0.00016	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-153	0.37	C B	0.028	0.0013	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-154	0.0047	J q	0.014	0.00019	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-155	ND		0.014	0.00015	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-156	0.044	C B	0.028	0.0016	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-157	0.044	C156 B	0.028	0.0016	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-158	0.037	q B	0.014	0.0012	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-159	0.0043	J	0.014	0.0012	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-160	0.46	C129 B	0.056	0.0015	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-161	ND		0.014	0.0012	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-162	ND		0.014	0.0012	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-163	0.46	C129 B	0.056	0.0015	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-164	0.032	B	0.014	0.0013	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-165	ND		0.014	0.0014	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-166	0.070	C128 B	0.028	0.0015	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-167	0.014		0.014	0.00088	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-168	0.37	C153 B	0.028	0.0013	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-169	ND		0.014	0.00091	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-170	0.12		0.014	0.000047	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-171	0.038	C	0.028	0.000043	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-172	0.019		0.014	0.000042	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-173	0.038	C171	0.028	0.000043	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-174	0.13		0.014	0.000044	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-175	0.0028	J q	0.014	0.000040	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-176	0.012	J q	0.014	0.000028	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-177	0.076		0.014	0.000044	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-178	0.025	B	0.014	0.000041	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-179	0.054		0.014	0.000031	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-180	0.25	C	0.028	0.000033	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-181	0.0013	J q	0.014	0.000038	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-182	ND		0.014	0.000036	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-183	0.073	C B	0.028	0.000037	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-184	ND		0.014	0.000031	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-185	0.073	C183 B	0.028	0.000037	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-186	ND		0.014	0.000030	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-187	0.15		0.014	0.000038	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-188	ND		0.014	0.000026	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-189	0.0042	J q	0.014	0.000075	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-190	0.026		0.014	0.000028	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-191	0.0049	J	0.014	0.000029	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-192	ND		0.014	0.000030	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-193	0.25	C180	0.028	0.000033	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-194	0.061	B	0.014	0.000087	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-195	0.025		0.014	0.000098	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-196	0.021	q	0.014	0.000037	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B135-BL1

Lab Sample ID: 580-76685-2

Date Collected: 04/16/18 15:55

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 35.0

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	0.0017	J q	0.014	0.00026	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-198	0.071	C	0.028	0.00039	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-199	0.071	C198	0.028	0.00039	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-200	0.0073	J	0.014	0.00028	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-201	0.0062	J q	0.014	0.00027	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-202	0.016	q	0.014	0.00031	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-203	0.042		0.014	0.00035	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-204	ND		0.014	0.00028	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-205	0.0033	J	0.014	0.00065	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-206	0.057		0.014	0.0018	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-207	0.0063	J	0.014	0.0012	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-208	0.018		0.014	0.0012	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
PCB-209	0.061		0.014	0.00017	ng/g	☼	04/24/18 10:13	05/02/18 15:06	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-1L	87		30 - 140				04/24/18 10:13	05/02/18 15:06	1
PCB-3L	86		30 - 140				04/24/18 10:13	05/02/18 15:06	1
PCB-4L	78		30 - 140				04/24/18 10:13	05/02/18 15:06	1
PCB-15L	83		30 - 140				04/24/18 10:13	05/02/18 15:06	1
PCB-19L	93		30 - 140				04/24/18 10:13	05/02/18 15:06	1
PCB-37L	88		30 - 140				04/24/18 10:13	05/02/18 15:06	1
PCB-54L	111		30 - 140				04/24/18 10:13	05/02/18 15:06	1
PCB-77L	86		30 - 140				04/24/18 10:13	05/02/18 15:06	1
PCB-81L	85		30 - 140				04/24/18 10:13	05/02/18 15:06	1
PCB-104L	97		30 - 140				04/24/18 10:13	05/02/18 15:06	1
PCB-105L	87		30 - 140				04/24/18 10:13	05/02/18 15:06	1
PCB-114L	87		30 - 140				04/24/18 10:13	05/02/18 15:06	1
PCB-118L	90		30 - 140				04/24/18 10:13	05/02/18 15:06	1
PCB-123L	91		30 - 140				04/24/18 10:13	05/02/18 15:06	1
PCB-126L	88		30 - 140				04/24/18 10:13	05/02/18 15:06	1
PCB-155L	106		30 - 140				04/24/18 10:13	05/02/18 15:06	1
PCB-156L	85	C	30 - 140				04/24/18 10:13	05/02/18 15:06	1
PCB-157L	85	C156	30 - 140				04/24/18 10:13	05/02/18 15:06	1
PCB-167L	86		30 - 140				04/24/18 10:13	05/02/18 15:06	1
PCB-169L	84		30 - 140				04/24/18 10:13	05/02/18 15:06	1
PCB-170L	81		30 - 140				04/24/18 10:13	05/02/18 15:06	1
PCB-188L	93		30 - 140				04/24/18 10:13	05/02/18 15:06	1
PCB-189L	94		30 - 140				04/24/18 10:13	05/02/18 15:06	1
PCB-202L	94		30 - 140				04/24/18 10:13	05/02/18 15:06	1
PCB-205L	80		30 - 140				04/24/18 10:13	05/02/18 15:06	1
PCB-206L	62		30 - 140				04/24/18 10:13	05/02/18 15:06	1
PCB-208L	68		30 - 140				04/24/18 10:13	05/02/18 15:06	1
PCB-209L	56		30 - 140				04/24/18 10:13	05/02/18 15:06	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-28L	81		40 - 125				04/24/18 10:13	05/02/18 15:06	1
PCB-111L	89		40 - 125				04/24/18 10:13	05/02/18 15:06	1
PCB-178L	89		40 - 125				04/24/18 10:13	05/02/18 15:06	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B112-BL1

Date Collected: 04/16/18 10:25

Date Received: 04/18/18 13:45

Lab Sample ID: 580-76685-3

Matrix: Solid

Percent Solids: 40.7

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.0045	J B	0.012	0.00038	ng/g	☆	04/24/18 10:13	05/02/18 16:10	1
PCB-2	0.0077	J q	0.012	0.00041	ng/g	☆	04/24/18 10:13	05/02/18 16:10	1
PCB-3	0.0060	J	0.012	0.00047	ng/g	☆	04/24/18 10:13	05/02/18 16:10	1
PCB-4	0.023	J	0.024	0.00099	ng/g	☆	04/24/18 10:13	05/02/18 16:10	1
PCB-5	0.00082	J q	0.012	0.00068	ng/g	☆	04/24/18 10:13	05/02/18 16:10	1
PCB-6	0.0090	J q	0.012	0.00068	ng/g	☆	04/24/18 10:13	05/02/18 16:10	1
PCB-7	0.0031	J	0.012	0.00065	ng/g	☆	04/24/18 10:13	05/02/18 16:10	1
PCB-8	0.044		0.024	0.00066	ng/g	☆	04/24/18 10:13	05/02/18 16:10	1
PCB-9	0.0035	J q	0.012	0.00075	ng/g	☆	04/24/18 10:13	05/02/18 16:10	1
PCB-10	ND		0.012	0.00073	ng/g	☆	04/24/18 10:13	05/02/18 16:10	1
PCB-11	0.044	B	0.024	0.00062	ng/g	☆	04/24/18 10:13	05/02/18 16:10	1
PCB-12	0.0080	J C	0.024	0.00062	ng/g	☆	04/24/18 10:13	05/02/18 16:10	1
PCB-13	0.0080	J C12	0.024	0.00062	ng/g	☆	04/24/18 10:13	05/02/18 16:10	1
PCB-14	ND		0.012	0.00057	ng/g	☆	04/24/18 10:13	05/02/18 16:10	1
PCB-15	0.032		0.012	0.00068	ng/g	☆	04/24/18 10:13	05/02/18 16:10	1
PCB-16	0.043		0.012	0.00079	ng/g	☆	04/24/18 10:13	05/02/18 16:10	1
PCB-17	0.040		0.012	0.00060	ng/g	☆	04/24/18 10:13	05/02/18 16:10	1
PCB-18	0.081	C	0.024	0.00053	ng/g	☆	04/24/18 10:13	05/02/18 16:10	1
PCB-19	0.025		0.012	0.00074	ng/g	☆	04/24/18 10:13	05/02/18 16:10	1
PCB-20	0.18	C B	0.024	0.0019	ng/g	☆	04/24/18 10:13	05/02/18 16:10	1
PCB-21	0.081	C B	0.024	0.0018	ng/g	☆	04/24/18 10:13	05/02/18 16:10	1
PCB-22	0.059		0.012	0.0019	ng/g	☆	04/24/18 10:13	05/02/18 16:10	1
PCB-23	ND		0.012	0.0019	ng/g	☆	04/24/18 10:13	05/02/18 16:10	1
PCB-24	0.00075	J q	0.012	0.00045	ng/g	☆	04/24/18 10:13	05/02/18 16:10	1
PCB-25	0.016	B	0.012	0.0018	ng/g	☆	04/24/18 10:13	05/02/18 16:10	1
PCB-26	0.031	C B	0.024	0.0019	ng/g	☆	04/24/18 10:13	05/02/18 16:10	1
PCB-27	0.010	J	0.012	0.00045	ng/g	☆	04/24/18 10:13	05/02/18 16:10	1
PCB-28	0.18	C20 B	0.024	0.0019	ng/g	☆	04/24/18 10:13	05/02/18 16:10	1
PCB-29	0.031	C26 B	0.024	0.0019	ng/g	☆	04/24/18 10:13	05/02/18 16:10	1
PCB-30	0.081	C18	0.024	0.00053	ng/g	☆	04/24/18 10:13	05/02/18 16:10	1
PCB-31	0.15	B	0.024	0.0017	ng/g	☆	04/24/18 10:13	05/02/18 16:10	1
PCB-32	0.027		0.012	0.00041	ng/g	☆	04/24/18 10:13	05/02/18 16:10	1
PCB-33	0.081	C21 B	0.024	0.0018	ng/g	☆	04/24/18 10:13	05/02/18 16:10	1
PCB-34	ND		0.012	0.0019	ng/g	☆	04/24/18 10:13	05/02/18 16:10	1
PCB-35	0.0046	J	0.012	0.0019	ng/g	☆	04/24/18 10:13	05/02/18 16:10	1
PCB-36	ND		0.012	0.0017	ng/g	☆	04/24/18 10:13	05/02/18 16:10	1
PCB-37	0.059	B	0.012	0.0017	ng/g	☆	04/24/18 10:13	05/02/18 16:10	1
PCB-38	ND		0.012	0.0018	ng/g	☆	04/24/18 10:13	05/02/18 16:10	1
PCB-39	ND		0.012	0.0017	ng/g	☆	04/24/18 10:13	05/02/18 16:10	1
PCB-40	0.14	C B	0.036	0.0025	ng/g	☆	04/24/18 10:13	05/02/18 16:10	1
PCB-41	0.14	C40 B	0.036	0.0025	ng/g	☆	04/24/18 10:13	05/02/18 16:10	1
PCB-42	0.070		0.012	0.0025	ng/g	☆	04/24/18 10:13	05/02/18 16:10	1
PCB-43	0.010	J q C	0.024	0.0022	ng/g	☆	04/24/18 10:13	05/02/18 16:10	1
PCB-44	0.39	C B	0.036	0.0022	ng/g	☆	04/24/18 10:13	05/02/18 16:10	1
PCB-45	0.046	C B	0.024	0.0026	ng/g	☆	04/24/18 10:13	05/02/18 16:10	1
PCB-46	0.014		0.012	0.0030	ng/g	☆	04/24/18 10:13	05/02/18 16:10	1
PCB-47	0.39	C44 B	0.036	0.0022	ng/g	☆	04/24/18 10:13	05/02/18 16:10	1
PCB-48	0.038	q	0.012	0.0024	ng/g	☆	04/24/18 10:13	05/02/18 16:10	1
PCB-49	0.22	C	0.024	0.0020	ng/g	☆	04/24/18 10:13	05/02/18 16:10	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B112-BL1

Lab Sample ID: 580-76685-3

Date Collected: 04/16/18 10:25

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 40.7

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	0.051	C B	0.024	0.0025	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-51	0.046	C45 B	0.024	0.0026	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-52	0.82	B	0.012	0.0026	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-53	0.051	C50 B	0.024	0.0025	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-54	0.0033	J	0.012	0.00012	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-55	0.0052	J q	0.012	0.0017	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-56	0.11	B	0.012	0.0017	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-57	ND		0.012	0.0017	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-58	ND		0.012	0.0017	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-59	0.025	J C B	0.036	0.0017	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-60	0.053		0.012	0.0017	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-61	0.66	C B	0.048	0.0016	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-62	0.025	J C59 B	0.036	0.0017	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-63	0.0093	J	0.012	0.0015	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-64	0.13		0.012	0.0016	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-65	0.39	C44 B	0.036	0.0022	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-66	0.28	B	0.012	0.0016	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-67	0.0058	J	0.012	0.0016	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-68	ND		0.012	0.0015	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-69	0.22	C49	0.024	0.0020	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-70	0.66	C61 B	0.048	0.0016	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-71	0.14	C40 B	0.036	0.0025	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-72	ND		0.012	0.0017	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-73	0.010	J q C43	0.024	0.0022	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-74	0.66	C61 B	0.048	0.0016	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-75	0.025	J C59 B	0.036	0.0017	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-76	0.66	C61 B	0.048	0.0016	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-77	0.023		0.012	0.0016	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-78	ND		0.012	0.0017	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-79	0.0078	J	0.012	0.0014	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-80	ND		0.012	0.0015	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-81	ND		0.012	0.0016	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-82	0.096		0.012	0.0011	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-83	0.47	C	0.024	0.0010	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-84	0.23		0.012	0.0011	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-85	0.14	C	0.036	0.00078	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-86	0.58	C	0.072	0.00082	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-87	0.58	C86	0.072	0.00082	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-88	0.11	C	0.024	0.00098	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-89	ND		0.012	0.0011	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-90	0.86	C	0.036	0.00084	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-91	0.11	C88	0.024	0.00098	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-92	0.16		0.012	0.0010	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-93	0.017	J C	0.024	0.0010	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-94	ND		0.012	0.0011	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-95	0.74		0.012	0.0010	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-96	0.0062	J	0.012	0.00080	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-97	0.58	C86	0.072	0.00082	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-98	0.032	C	0.024	0.00099	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B112-BL1

Lab Sample ID: 580-76685-3

Date Collected: 04/16/18 10:25

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 40.7

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	0.47	C83	0.024	0.0010	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-100	0.017	J C93	0.024	0.0010	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-101	0.86	C90	0.036	0.00084	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-102	0.032	C98	0.024	0.00099	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-103	0.0084	J	0.012	0.00092	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-104	ND		0.012	0.00071	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-105	0.30		0.012	0.0022	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-106	ND		0.012	0.0023	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-107	0.053		0.012	0.0022	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-108	0.033	C	0.024	0.0023	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-109	0.58	C86	0.072	0.00082	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-110	0.96	C	0.024	0.00068	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-111	ND		0.012	0.00064	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-112	ND		0.012	0.00070	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-113	0.86	C90	0.036	0.00084	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-114	0.016	q	0.012	0.0021	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-115	0.96	C110	0.024	0.00068	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-116	0.14	C85	0.036	0.00078	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-117	0.14	C85	0.036	0.00078	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-118	0.71		0.012	0.0020	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-119	0.58	C86	0.072	0.00082	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-120	ND		0.012	0.00063	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-121	ND		0.012	0.00068	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-122	0.012		0.012	0.0025	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-123	0.013	q	0.012	0.0020	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-124	0.033	C108	0.024	0.0023	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-125	0.58	C86	0.072	0.00082	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-126	ND		0.012	0.0022	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-127	ND		0.012	0.0022	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-128	0.18	C B	0.024	0.0017	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-129	1.0	C B	0.048	0.0018	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-130	0.074		0.012	0.0024	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-131	0.020		0.012	0.0024	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-132	0.36		0.012	0.0023	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-133	0.016		0.012	0.0022	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-134	0.067	C	0.024	0.0023	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-135	0.22	C	0.024	0.00042	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-136	0.093		0.012	0.00030	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-137	0.055		0.012	0.0019	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-138	1.0	C129 B	0.048	0.0018	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-139	0.019	J C	0.024	0.0020	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-140	0.019	J C139	0.024	0.0020	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-141	0.17		0.012	0.0021	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-142	ND		0.012	0.0022	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-143	0.067	C134	0.024	0.0023	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-144	0.031		0.012	0.00039	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-145	ND		0.012	0.00030	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-146	0.14		0.012	0.0019	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-147	0.73	C	0.024	0.0020	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B112-BL1

Lab Sample ID: 580-76685-3

Date Collected: 04/16/18 10:25

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 40.7

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	0.00097	J q	0.012	0.00040	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-149	0.73	C147	0.024	0.0020	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-150	ND		0.012	0.00027	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-151	0.22	C135	0.024	0.00042	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-152	ND		0.012	0.00029	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-153	0.71	C B	0.024	0.0015	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-154	0.0069	J q	0.012	0.00035	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-155	0.00047	J q	0.012	0.00027	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-156	0.13	C B	0.024	0.0018	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-157	0.13	C156 B	0.024	0.0018	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-158	0.11	B	0.012	0.0014	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-159	0.0065	J	0.012	0.0014	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-160	1.0	C129 B	0.048	0.0018	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-161	ND		0.012	0.0015	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-162	ND		0.012	0.0014	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-163	1.0	C129 B	0.048	0.0018	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-164	0.069	B	0.012	0.0015	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-165	ND		0.012	0.0017	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-166	0.18	C128 B	0.024	0.0017	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-167	0.037	q	0.012	0.0011	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-168	0.71	C153 B	0.024	0.0015	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-169	ND		0.012	0.0011	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-170	0.17		0.012	0.0011	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-171	0.052	C	0.024	0.0010	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-172	0.022	q	0.012	0.0010	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-173	0.052	C171	0.024	0.0010	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-174	0.16		0.012	0.0010	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-175	0.0052	J	0.012	0.00094	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-176	0.018		0.012	0.00066	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-177	0.099		0.012	0.0010	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-178	0.035	B	0.012	0.00098	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-179	0.068		0.012	0.00072	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-180	0.32	C	0.024	0.00077	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-181	0.0024	J q	0.012	0.00090	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-182	ND		0.012	0.00085	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-183	0.098	C B	0.024	0.00087	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-184	ND		0.012	0.00073	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-185	0.098	C183 B	0.024	0.00087	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-186	ND		0.012	0.00070	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-187	0.19		0.012	0.00089	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-188	ND		0.012	0.00063	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-189	0.0044	J q	0.012	0.00083	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-190	0.032		0.012	0.00067	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-191	0.0084	J	0.012	0.00068	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-192	ND		0.012	0.00071	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-193	0.32	C180	0.024	0.00077	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-194	0.069	B	0.012	0.0011	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-195	0.026	q	0.012	0.0013	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-196	0.026		0.012	0.00020	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B112-BL1

Lab Sample ID: 580-76685-3

Date Collected: 04/16/18 10:25

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 40.7

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	0.0030	J q	0.012	0.00014	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-198	0.074	C	0.024	0.00021	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-199	0.074	C198	0.024	0.00021	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-200	0.0073	J q	0.012	0.00015	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-201	0.0091	J	0.012	0.00014	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-202	0.015	q	0.012	0.00016	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-203	0.043		0.012	0.00018	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-204	ND		0.012	0.00015	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-205	0.0046	J q	0.012	0.00084	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-206	0.094	q	0.012	0.0026	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-207	0.0072	J	0.012	0.0016	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-208	0.028		0.012	0.0017	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
PCB-209	0.072	q	0.012	0.00014	ng/g	☼	04/24/18 10:13	05/02/18 16:10	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-1L	91		30 - 140				04/24/18 10:13	05/02/18 16:10	1
PCB-3L	90		30 - 140				04/24/18 10:13	05/02/18 16:10	1
PCB-4L	83		30 - 140				04/24/18 10:13	05/02/18 16:10	1
PCB-15L	84		30 - 140				04/24/18 10:13	05/02/18 16:10	1
PCB-19L	97		30 - 140				04/24/18 10:13	05/02/18 16:10	1
PCB-37L	88		30 - 140				04/24/18 10:13	05/02/18 16:10	1
PCB-54L	113		30 - 140				04/24/18 10:13	05/02/18 16:10	1
PCB-77L	85		30 - 140				04/24/18 10:13	05/02/18 16:10	1
PCB-81L	85		30 - 140				04/24/18 10:13	05/02/18 16:10	1
PCB-104L	107		30 - 140				04/24/18 10:13	05/02/18 16:10	1
PCB-105L	87		30 - 140				04/24/18 10:13	05/02/18 16:10	1
PCB-114L	87		30 - 140				04/24/18 10:13	05/02/18 16:10	1
PCB-118L	90		30 - 140				04/24/18 10:13	05/02/18 16:10	1
PCB-123L	90		30 - 140				04/24/18 10:13	05/02/18 16:10	1
PCB-126L	89		30 - 140				04/24/18 10:13	05/02/18 16:10	1
PCB-155L	108		30 - 140				04/24/18 10:13	05/02/18 16:10	1
PCB-156L	90	C	30 - 140				04/24/18 10:13	05/02/18 16:10	1
PCB-157L	90	C156	30 - 140				04/24/18 10:13	05/02/18 16:10	1
PCB-167L	88		30 - 140				04/24/18 10:13	05/02/18 16:10	1
PCB-169L	87		30 - 140				04/24/18 10:13	05/02/18 16:10	1
PCB-170L	83		30 - 140				04/24/18 10:13	05/02/18 16:10	1
PCB-188L	90		30 - 140				04/24/18 10:13	05/02/18 16:10	1
PCB-189L	94		30 - 140				04/24/18 10:13	05/02/18 16:10	1
PCB-202L	96		30 - 140				04/24/18 10:13	05/02/18 16:10	1
PCB-205L	80		30 - 140				04/24/18 10:13	05/02/18 16:10	1
PCB-206L	61		30 - 140				04/24/18 10:13	05/02/18 16:10	1
PCB-208L	64		30 - 140				04/24/18 10:13	05/02/18 16:10	1
PCB-209L	52		30 - 140				04/24/18 10:13	05/02/18 16:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-28L	82		40 - 125				04/24/18 10:13	05/02/18 16:10	1
PCB-111L	96		40 - 125				04/24/18 10:13	05/02/18 16:10	1
PCB-178L	87		40 - 125				04/24/18 10:13	05/02/18 16:10	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B115-BL1

Date Collected: 04/16/18 11:15

Date Received: 04/18/18 13:45

Lab Sample ID: 580-76685-4

Matrix: Solid

Percent Solids: 39.5

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.0038	J B	0.013	0.00024	ng/g	✱	04/24/18 10:13	05/02/18 17:13	1
PCB-2	0.0099	J	0.013	0.00026	ng/g	✱	04/24/18 10:13	05/02/18 17:13	1
PCB-3	0.0034	J q	0.013	0.00030	ng/g	✱	04/24/18 10:13	05/02/18 17:13	1
PCB-4	0.021	J	0.025	0.0012	ng/g	✱	04/24/18 10:13	05/02/18 17:13	1
PCB-5	ND		0.013	0.00085	ng/g	✱	04/24/18 10:13	05/02/18 17:13	1
PCB-6	0.0098	J	0.013	0.00084	ng/g	✱	04/24/18 10:13	05/02/18 17:13	1
PCB-7	0.0036	J q	0.013	0.00080	ng/g	✱	04/24/18 10:13	05/02/18 17:13	1
PCB-8	0.036	q	0.025	0.00082	ng/g	✱	04/24/18 10:13	05/02/18 17:13	1
PCB-9	0.0032	J	0.013	0.00093	ng/g	✱	04/24/18 10:13	05/02/18 17:13	1
PCB-10	ND		0.013	0.00091	ng/g	✱	04/24/18 10:13	05/02/18 17:13	1
PCB-11	0.041	q B	0.025	0.00077	ng/g	✱	04/24/18 10:13	05/02/18 17:13	1
PCB-12	0.0055	J q C	0.025	0.00077	ng/g	✱	04/24/18 10:13	05/02/18 17:13	1
PCB-13	0.0055	J q C12	0.025	0.00077	ng/g	✱	04/24/18 10:13	05/02/18 17:13	1
PCB-14	ND		0.013	0.00071	ng/g	✱	04/24/18 10:13	05/02/18 17:13	1
PCB-15	0.038		0.013	0.00086	ng/g	✱	04/24/18 10:13	05/02/18 17:13	1
PCB-16	0.038		0.013	0.00050	ng/g	✱	04/24/18 10:13	05/02/18 17:13	1
PCB-17	0.042		0.013	0.00038	ng/g	✱	04/24/18 10:13	05/02/18 17:13	1
PCB-18	0.085	C	0.025	0.00034	ng/g	✱	04/24/18 10:13	05/02/18 17:13	1
PCB-19	0.016	q	0.013	0.00047	ng/g	✱	04/24/18 10:13	05/02/18 17:13	1
PCB-20	0.21	C B	0.025	0.0019	ng/g	✱	04/24/18 10:13	05/02/18 17:13	1
PCB-21	0.10	C B	0.025	0.0018	ng/g	✱	04/24/18 10:13	05/02/18 17:13	1
PCB-22	0.075		0.013	0.0019	ng/g	✱	04/24/18 10:13	05/02/18 17:13	1
PCB-23	ND		0.013	0.0019	ng/g	✱	04/24/18 10:13	05/02/18 17:13	1
PCB-24	ND		0.013	0.00029	ng/g	✱	04/24/18 10:13	05/02/18 17:13	1
PCB-25	0.020	B	0.013	0.0018	ng/g	✱	04/24/18 10:13	05/02/18 17:13	1
PCB-26	0.035	C B	0.025	0.0019	ng/g	✱	04/24/18 10:13	05/02/18 17:13	1
PCB-27	0.0097	J	0.013	0.00029	ng/g	✱	04/24/18 10:13	05/02/18 17:13	1
PCB-28	0.21	C20 B	0.025	0.0019	ng/g	✱	04/24/18 10:13	05/02/18 17:13	1
PCB-29	0.035	C26 B	0.025	0.0019	ng/g	✱	04/24/18 10:13	05/02/18 17:13	1
PCB-30	0.085	C18	0.025	0.00034	ng/g	✱	04/24/18 10:13	05/02/18 17:13	1
PCB-31	0.16	B	0.025	0.0017	ng/g	✱	04/24/18 10:13	05/02/18 17:13	1
PCB-32	0.028		0.013	0.00026	ng/g	✱	04/24/18 10:13	05/02/18 17:13	1
PCB-33	0.10	C21 B	0.025	0.0018	ng/g	✱	04/24/18 10:13	05/02/18 17:13	1
PCB-34	ND		0.013	0.0020	ng/g	✱	04/24/18 10:13	05/02/18 17:13	1
PCB-35	0.0046	J	0.013	0.0019	ng/g	✱	04/24/18 10:13	05/02/18 17:13	1
PCB-36	ND		0.013	0.0017	ng/g	✱	04/24/18 10:13	05/02/18 17:13	1
PCB-37	0.076	B	0.013	0.0018	ng/g	✱	04/24/18 10:13	05/02/18 17:13	1
PCB-38	ND		0.013	0.0018	ng/g	✱	04/24/18 10:13	05/02/18 17:13	1
PCB-39	ND		0.013	0.0017	ng/g	✱	04/24/18 10:13	05/02/18 17:13	1
PCB-40	0.13	C B	0.038	0.0020	ng/g	✱	04/24/18 10:13	05/02/18 17:13	1
PCB-41	0.13	C40 B	0.038	0.0020	ng/g	✱	04/24/18 10:13	05/02/18 17:13	1
PCB-42	0.059		0.013	0.0021	ng/g	✱	04/24/18 10:13	05/02/18 17:13	1
PCB-43	0.0062	J q C	0.025	0.0019	ng/g	✱	04/24/18 10:13	05/02/18 17:13	1
PCB-44	0.28	C B	0.038	0.0018	ng/g	✱	04/24/18 10:13	05/02/18 17:13	1
PCB-45	0.045	C B	0.025	0.0022	ng/g	✱	04/24/18 10:13	05/02/18 17:13	1
PCB-46	0.013		0.013	0.0025	ng/g	✱	04/24/18 10:13	05/02/18 17:13	1
PCB-47	0.28	C44 B	0.038	0.0018	ng/g	✱	04/24/18 10:13	05/02/18 17:13	1
PCB-48	0.043		0.013	0.0020	ng/g	✱	04/24/18 10:13	05/02/18 17:13	1
PCB-49	0.17	C	0.025	0.0016	ng/g	✱	04/24/18 10:13	05/02/18 17:13	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B115-BL1

Lab Sample ID: 580-76685-4

Date Collected: 04/16/18 11:15

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 39.5

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	0.035	q C B	0.025	0.0021	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-51	0.045	C45 B	0.025	0.0022	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-52	0.48	B	0.013	0.0022	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-53	0.035	q C50 B	0.025	0.0021	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-54	0.0022	J q	0.013	0.00015	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-55	0.0068	J	0.013	0.0014	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-56	0.11	B	0.013	0.0014	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-57	ND		0.013	0.0014	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-58	ND		0.013	0.0014	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-59	0.020	J C B	0.038	0.0014	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-60	0.058		0.013	0.0014	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-61	0.50	C B	0.050	0.0013	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-62	0.020	J C59 B	0.038	0.0014	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-63	0.0082	J	0.013	0.0012	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-64	0.10		0.013	0.0013	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-65	0.28	C44 B	0.038	0.0018	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-66	0.25	B	0.013	0.0014	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-67	0.0071	J q	0.013	0.0013	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-68	ND		0.013	0.0012	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-69	0.17	C49	0.025	0.0016	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-70	0.50	C61 B	0.050	0.0013	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-71	0.13	C40 B	0.038	0.0020	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-72	0.0042	J	0.013	0.0014	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-73	0.0062	J q C43	0.025	0.0019	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-74	0.50	C61 B	0.050	0.0013	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-75	0.020	J C59 B	0.038	0.0014	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-76	0.50	C61 B	0.050	0.0013	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-77	0.026		0.013	0.0013	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-78	ND		0.013	0.0014	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-79	0.0035	J q	0.013	0.0012	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-80	ND		0.013	0.0012	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-81	ND		0.013	0.0013	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-82	0.064		0.013	0.00067	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-83	0.34	C	0.025	0.00064	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-84	0.15		0.013	0.00070	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-85	0.093	C	0.038	0.00048	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-86	0.38	C	0.075	0.00051	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-87	0.38	C86	0.075	0.00051	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-88	0.078	C	0.025	0.00061	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-89	ND		0.013	0.00065	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-90	0.54	C	0.038	0.00052	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-91	0.078	C88	0.025	0.00061	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-92	0.11		0.013	0.00063	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-93	0.011	J C	0.025	0.00062	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-94	ND		0.013	0.00066	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-95	0.47		0.013	0.00064	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-96	ND		0.013	0.00049	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-97	0.38	C86	0.075	0.00051	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-98	0.018	J q C	0.025	0.00061	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B115-BL1

Lab Sample ID: 580-76685-4

Date Collected: 04/16/18 11:15

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 39.5

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	0.34	C83	0.025	0.00064	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-100	0.011	J C93	0.025	0.00062	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-101	0.54	C90	0.038	0.00052	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-102	0.018	J q C98	0.025	0.00061	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-103	0.0068	J	0.013	0.00057	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-104	ND		0.013	0.00044	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-105	0.19		0.013	0.0023	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-106	ND		0.013	0.0025	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-107	0.046		0.013	0.0024	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-108	0.020	J C	0.025	0.0025	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-109	0.38	C86	0.075	0.00051	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-110	0.62	C	0.025	0.00042	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-111	ND		0.013	0.00039	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-112	ND		0.013	0.00043	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-113	0.54	C90	0.038	0.00052	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-114	0.011	J q	0.013	0.0022	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-115	0.62	C110	0.025	0.00042	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-116	0.093	C85	0.038	0.00048	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-117	0.093	C85	0.038	0.00048	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-118	0.45		0.013	0.0023	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-119	0.38	C86	0.075	0.00051	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-120	ND		0.013	0.00039	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-121	ND		0.013	0.00042	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-122	0.0088	J q	0.013	0.0027	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-123	0.0085	J q	0.013	0.0022	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-124	0.020	J C108	0.025	0.0025	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-125	0.38	C86	0.075	0.00051	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-126	ND		0.013	0.0024	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-127	ND		0.013	0.0024	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-128	0.13	C B	0.025	0.0022	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-129	0.75	C B	0.050	0.0022	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-130	0.053		0.013	0.0029	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-131	0.0095	J q	0.013	0.0030	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-132	0.23		0.013	0.0028	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-133	0.011	J	0.013	0.0028	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-134	0.035	q C	0.025	0.0029	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-135	0.16	C	0.025	0.00025	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-136	0.066		0.013	0.00018	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-137	0.027	q	0.013	0.0024	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-138	0.75	C129 B	0.050	0.0022	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-139	0.013	J q C	0.025	0.0025	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-140	0.013	J q C139	0.025	0.0025	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-141	0.12		0.013	0.0025	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-142	ND		0.013	0.0028	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-143	0.035	q C134	0.025	0.0029	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-144	0.017	q	0.013	0.00023	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-145	ND		0.013	0.00018	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-146	0.10		0.013	0.0023	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-147	0.51	C	0.025	0.0025	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B115-BL1

Lab Sample ID: 580-76685-4

Date Collected: 04/16/18 11:15

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 39.5

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	0.0010	J q	0.013	0.00024	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-149	0.51	C147	0.025	0.0025	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-150	ND		0.013	0.00016	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-151	0.16	C135	0.025	0.00025	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-152	0.00038	J q	0.013	0.00017	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-153	0.54	C B	0.025	0.0019	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-154	0.012	J	0.013	0.00021	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-155	ND		0.013	0.00016	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-156	0.093	C B	0.025	0.0023	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-157	0.093	C156 B	0.025	0.0023	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-158	0.080	B	0.013	0.0017	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-159	0.0050	J q	0.013	0.0018	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-160	0.75	C129 B	0.050	0.0022	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-161	ND		0.013	0.0018	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-162	ND		0.013	0.0017	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-163	0.75	C129 B	0.050	0.0022	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-164	0.048	B	0.013	0.0019	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-165	ND		0.013	0.0021	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-166	0.13	C128 B	0.025	0.0022	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-167	0.029		0.013	0.0013	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-168	0.54	C153 B	0.025	0.0019	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-169	ND		0.013	0.0014	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-170	0.16		0.013	0.00061	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-171	0.051	C	0.025	0.00060	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-172	0.029	q	0.013	0.00059	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-173	0.051	C171	0.025	0.00060	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-174	0.19		0.013	0.00062	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-175	0.0040	J q	0.013	0.00056	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-176	0.017		0.013	0.00039	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-177	0.11		0.013	0.00062	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-178	0.040	B	0.013	0.00058	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-179	0.073		0.013	0.00043	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-180	0.37	C	0.025	0.00046	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-181	0.0021	J q	0.013	0.00053	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-182	ND		0.013	0.00050	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-183	0.12	C B	0.025	0.00051	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-184	ND		0.013	0.00043	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-185	0.12	C183 B	0.025	0.00051	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-186	ND		0.013	0.00041	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-187	0.24		0.013	0.00052	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-188	ND		0.013	0.00039	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-189	0.0052	J q	0.013	0.0010	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-190	0.029		0.013	0.00040	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-191	0.011	J q	0.013	0.00040	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-192	ND		0.013	0.00042	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-193	0.37	C180	0.025	0.00046	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-194	0.13	B	0.013	0.0024	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-195	0.049		0.013	0.0027	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-196	0.055		0.013	0.00073	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B115-BL1

Lab Sample ID: 580-76685-4

Date Collected: 04/16/18 11:15

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 39.5

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	0.0050	J	0.013	0.00051	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-198	0.13	q C	0.025	0.00078	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-199	0.13	q C198	0.025	0.00078	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-200	0.020		0.013	0.00055	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-201	0.016	q	0.013	0.00054	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-202	0.037		0.013	0.00060	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-203	0.084		0.013	0.00069	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-204	ND		0.013	0.00055	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-205	0.0068	J	0.013	0.0018	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-206	0.18	q	0.013	0.0061	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-207	0.011	J	0.013	0.0039	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-208	0.034		0.013	0.0041	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1
PCB-209	0.066		0.013	0.00011	ng/g	☼	04/24/18 10:13	05/02/18 17:13	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	97		30 - 140	04/24/18 10:13	05/02/18 17:13	1
PCB-3L	94		30 - 140	04/24/18 10:13	05/02/18 17:13	1
PCB-4L	84		30 - 140	04/24/18 10:13	05/02/18 17:13	1
PCB-15L	81		30 - 140	04/24/18 10:13	05/02/18 17:13	1
PCB-19L	83		30 - 140	04/24/18 10:13	05/02/18 17:13	1
PCB-37L	84		30 - 140	04/24/18 10:13	05/02/18 17:13	1
PCB-54L	95		30 - 140	04/24/18 10:13	05/02/18 17:13	1
PCB-77L	82		30 - 140	04/24/18 10:13	05/02/18 17:13	1
PCB-81L	82		30 - 140	04/24/18 10:13	05/02/18 17:13	1
PCB-104L	91		30 - 140	04/24/18 10:13	05/02/18 17:13	1
PCB-105L	84		30 - 140	04/24/18 10:13	05/02/18 17:13	1
PCB-114L	83		30 - 140	04/24/18 10:13	05/02/18 17:13	1
PCB-118L	86		30 - 140	04/24/18 10:13	05/02/18 17:13	1
PCB-123L	87		30 - 140	04/24/18 10:13	05/02/18 17:13	1
PCB-126L	86		30 - 140	04/24/18 10:13	05/02/18 17:13	1
PCB-155L	104		30 - 140	04/24/18 10:13	05/02/18 17:13	1
PCB-156L	85	C	30 - 140	04/24/18 10:13	05/02/18 17:13	1
PCB-157L	85	C156	30 - 140	04/24/18 10:13	05/02/18 17:13	1
PCB-167L	84		30 - 140	04/24/18 10:13	05/02/18 17:13	1
PCB-169L	81		30 - 140	04/24/18 10:13	05/02/18 17:13	1
PCB-170L	84		30 - 140	04/24/18 10:13	05/02/18 17:13	1
PCB-188L	89		30 - 140	04/24/18 10:13	05/02/18 17:13	1
PCB-189L	92		30 - 140	04/24/18 10:13	05/02/18 17:13	1
PCB-202L	98		30 - 140	04/24/18 10:13	05/02/18 17:13	1
PCB-205L	80		30 - 140	04/24/18 10:13	05/02/18 17:13	1
PCB-206L	60		30 - 140	04/24/18 10:13	05/02/18 17:13	1
PCB-208L	65		30 - 140	04/24/18 10:13	05/02/18 17:13	1
PCB-209L	53		30 - 140	04/24/18 10:13	05/02/18 17:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	81		40 - 125	04/24/18 10:13	05/02/18 17:13	1
PCB-111L	87		40 - 125	04/24/18 10:13	05/02/18 17:13	1
PCB-178L	91		40 - 125	04/24/18 10:13	05/02/18 17:13	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B156-BL1

Date Collected: 04/16/18 12:17

Date Received: 04/18/18 13:45

Lab Sample ID: 580-76685-5

Matrix: Solid

Percent Solids: 78.7

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.00089	J B	0.0062	0.000056	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-2	0.00041	J q	0.0062	0.000062	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-3	0.00024	J q	0.0062	0.000072	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-4	0.00063	J q	0.012	0.00029	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-5	ND		0.0062	0.00021	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-6	ND		0.0062	0.00021	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-7	ND		0.0062	0.00020	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-8	0.00098	J q	0.012	0.00021	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-9	ND		0.0062	0.00024	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-10	ND		0.0062	0.00023	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-11	0.0024	J B q	0.012	0.00019	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-12	ND	C	0.012	0.00019	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-13	ND	C12	0.012	0.00019	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-14	ND		0.0062	0.00018	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-15	0.0010	J q	0.0062	0.00022	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-16	ND		0.0062	0.000056	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-17	0.00078	J q	0.0062	0.000042	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-18	0.00054	J C q	0.012	0.000037	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-19	0.00018	J q	0.0062	0.000052	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-20	0.0035	J C B	0.012	0.000094	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-21	0.0014	J C B	0.012	0.000088	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-22	0.00059	J q	0.0062	0.000096	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-23	ND		0.0062	0.000094	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-24	ND		0.0062	0.000032	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-25	0.00041	J B	0.0062	0.000090	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-26	0.00049	J C B q	0.012	0.000094	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-27	ND		0.0062	0.000032	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-28	0.0035	J B C20	0.012	0.000094	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-29	0.00049	J C26 B q	0.012	0.000094	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-30	0.00054	J C18 q	0.012	0.000037	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-31	0.0021	J B q	0.012	0.000087	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-32	0.00037	J q	0.0062	0.000029	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-33	0.0014	J B C21	0.012	0.000088	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-34	ND		0.0062	0.000097	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-35	0.00020	J q	0.0062	0.000092	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-36	ND		0.0062	0.000084	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-37	0.0012	J B	0.0062	0.000087	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-38	ND		0.0062	0.000091	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-39	ND		0.0062	0.000083	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-40	0.0022	J C B q	0.018	0.00013	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-41	0.0022	J B q C40	0.018	0.00013	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-42	0.00075	J q	0.0062	0.00014	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-43	ND	C	0.012	0.00012	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-44	0.0076	J C B	0.018	0.00012	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-45	0.00085	J C B	0.012	0.00014	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-46	ND		0.0062	0.00016	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-47	0.0076	J B C44	0.018	0.00012	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-48	ND		0.0062	0.00013	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-49	0.0042	J C	0.012	0.00011	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B156-BL1

Lab Sample ID: 580-76685-5

Date Collected: 04/16/18 12:17

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 78.7

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	0.0013	J C B q	0.012	0.00013	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-51	0.00085	J C45 B	0.012	0.00014	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-52	0.0084	B	0.0062	0.00014	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-53	0.0013	J C50 B q	0.012	0.00013	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-54	ND		0.0062	0.00022	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-55	ND		0.0062	0.000091	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-56	0.0012	J B q	0.0062	0.000093	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-57	ND		0.0062	0.000093	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-58	ND		0.0062	0.000090	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-59	0.00028	J C B q	0.018	0.000091	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-60	0.00079	J q	0.0062	0.000091	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-61	0.0077	J C B	0.025	0.000088	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-62	0.00028	J B C59 q	0.018	0.000091	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-63	0.00019	J q	0.0062	0.000081	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-64	0.0018	J	0.0062	0.000085	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-65	0.0076	J B C44	0.018	0.00012	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-66	0.0050	J B	0.0062	0.000089	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-67	0.00014	J q	0.0062	0.000086	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-68	0.00030	J q	0.0062	0.000081	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-69	0.0042	J C49	0.012	0.00011	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-70	0.0077	J C61 B	0.025	0.000088	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-71	0.0022	J B q C40	0.018	0.00013	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-72	ND		0.0062	0.000091	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-73	ND	C43	0.012	0.00012	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-74	0.0077	J C61 B	0.025	0.000088	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-75	0.00028	J B C59 q	0.018	0.000091	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-76	0.0077	J C61 B	0.025	0.000088	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-77	0.00059	J	0.0062	0.000083	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-78	ND		0.0062	0.000090	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-79	0.00022	J q	0.0062	0.000077	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-80	ND		0.0062	0.000080	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-81	ND		0.0062	0.000086	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-82	0.0014	J	0.0062	0.00019	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-83	0.0068	J C	0.012	0.00018	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-84	0.0036	J	0.0062	0.00020	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-85	0.00082	J C q	0.018	0.00014	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-86	0.0051	J C	0.037	0.00014	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-87	0.0051	J C86	0.037	0.00014	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-88	0.0018	J C q	0.012	0.00017	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-89	ND		0.0062	0.00018	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-90	0.011	J C	0.018	0.00014	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-91	0.0018	J C88 q	0.012	0.00017	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-92	0.0021	J q	0.0062	0.00018	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-93	0.00088	J C q	0.012	0.00017	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-94	ND		0.0062	0.00018	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-95	0.0096		0.0062	0.00018	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-96	ND		0.0062	0.00014	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-97	0.0051	J C86	0.037	0.00014	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-98	ND	C	0.012	0.00017	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B156-BL1

Lab Sample ID: 580-76685-5

Date Collected: 04/16/18 12:17

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 78.7

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	0.0068	J C83	0.012	0.00018	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-100	0.00088	J C93 q	0.012	0.00017	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-101	0.011	J C90	0.018	0.00014	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-102	ND	C98	0.012	0.00017	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-103	ND		0.0062	0.00016	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-104	ND		0.0062	0.00012	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-105	0.0029	J q	0.0062	0.00018	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-106	ND		0.0062	0.00019	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-107	0.00065	J	0.0062	0.00018	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-108	ND	C	0.012	0.00019	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-109	0.0051	J C86	0.037	0.00014	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-110	0.014	C	0.012	0.00012	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-111	ND		0.0062	0.00011	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-112	ND		0.0062	0.00012	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-113	0.011	J C90	0.018	0.00014	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-114	ND		0.0062	0.00017	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-115	0.014	C110	0.012	0.00012	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-116	0.00082	J C85 q	0.018	0.00014	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-117	0.00082	J C85 q	0.018	0.00014	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-118	0.0096		0.0062	0.00018	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-119	0.0051	J C86	0.037	0.00014	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-120	ND		0.0062	0.00011	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-121	ND		0.0062	0.00012	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-122	ND		0.0062	0.00021	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-123	0.00019	J q	0.0062	0.00017	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-124	ND	C108	0.012	0.00019	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-125	0.0051	J C86	0.037	0.00014	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-126	ND		0.0062	0.00018	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-127	ND		0.0062	0.00018	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-128	0.0031	J C B	0.012	0.00019	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-129	0.020	J C B	0.025	0.00019	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-130	0.0011	J	0.0062	0.00026	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-131	ND		0.0062	0.00026	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-132	0.0067		0.0062	0.00025	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-133	ND		0.0062	0.00024	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-134	0.0012	J C q	0.012	0.00025	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-135	0.0039	J C q	0.012	0.000043	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-136	0.0019	J q	0.0062	0.000031	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-137	ND		0.0062	0.00021	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-138	0.020	J B C129	0.025	0.00019	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-139	ND	C	0.012	0.00022	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-140	ND	C139	0.012	0.00022	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-141	0.0042	J	0.0062	0.00022	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-142	ND		0.0062	0.00024	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-143	0.0012	J C134 q	0.012	0.00025	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-144	0.00017	J q	0.0062	0.000040	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-145	ND		0.0062	0.000031	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-146	0.0043	J	0.0062	0.00020	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-147	0.020	C	0.012	0.00022	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B156-BL1

Lab Sample ID: 580-76685-5

Date Collected: 04/16/18 12:17

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 78.7

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	ND		0.0062	0.000042	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-149	0.020	C147	0.012	0.00022	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-150	ND		0.0062	0.000028	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-151	0.0039	J C135 q	0.012	0.000043	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-152	ND		0.0062	0.000030	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-153	0.020	C B	0.012	0.00017	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-154	ND		0.0062	0.000036	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-155	ND		0.0062	0.000028	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-156	0.0015	J C B q	0.012	0.00021	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-157	0.0015	J C156 B q	0.012	0.00021	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-158	0.0016	J B q	0.0062	0.00015	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-159	ND		0.0062	0.00015	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-160	0.020	J B C129	0.025	0.00019	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-161	ND		0.0062	0.00016	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-162	ND		0.0062	0.00015	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-163	0.020	J B C129	0.025	0.00019	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-164	0.0016	J B	0.0062	0.00016	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-165	ND		0.0062	0.00018	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-166	0.0031	J C128 B	0.012	0.00019	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-167	0.00078	J q	0.0062	0.00011	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-168	0.020	B C153	0.012	0.00017	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-169	ND		0.0062	0.00012	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-170	0.0071		0.0062	0.000026	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-171	0.0015	J C q	0.012	0.000025	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-172	0.00083	J q	0.0062	0.000024	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-173	0.0015	J C171 q	0.012	0.000025	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-174	0.0070	q	0.0062	0.000025	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-175	ND		0.0062	0.000023	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-176	0.00068	J	0.0062	0.000016	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-177	0.0047	J q	0.0062	0.000025	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-178	0.00069	J B q	0.0062	0.000023	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-179	0.0024	J q	0.0062	0.000017	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-180	0.016	C	0.012	0.000019	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-181	ND		0.0062	0.000022	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-182	ND		0.0062	0.000020	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-183	0.0037	J C B q	0.012	0.000021	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-184	ND		0.0062	0.000018	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-185	0.0037	J B C183 q	0.012	0.000021	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-186	ND		0.0062	0.000017	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-187	0.0093		0.0062	0.000021	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-188	ND		0.0062	0.000015	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-189	0.00026	J q	0.0062	0.000076	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-190	0.0016	J	0.0062	0.000016	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-191	ND		0.0062	0.000016	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-192	ND		0.0062	0.000017	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-193	0.016	C180	0.012	0.000019	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-194	0.0026	J B	0.0062	0.00028	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-195	0.0017	J	0.0062	0.00032	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-196	0.0019	J	0.0062	0.000067	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B156-BL1

Lab Sample ID: 580-76685-5

Date Collected: 04/16/18 12:17

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 78.7

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	ND		0.0062	0.000046	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-198	0.0032	J C q	0.012	0.000071	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-199	0.0032	J C198 q	0.012	0.000071	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-200	0.00056	J q	0.0062	0.000050	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-201	ND		0.0062	0.000049	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-202	0.00048	J q	0.0062	0.000055	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-203	0.0022	J	0.0062	0.000063	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-204	ND		0.0062	0.000050	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-205	0.00029	J	0.0062	0.00021	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-206	ND		0.0062	0.0018	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-207	ND		0.0062	0.0011	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-208	ND		0.0062	0.0012	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1
PCB-209	0.0020	J q	0.0062	0.000057	ng/g	☼	04/24/18 10:13	05/02/18 18:17	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	107		30 - 140	04/24/18 10:13	05/02/18 18:17	1
PCB-3L	95		30 - 140	04/24/18 10:13	05/02/18 18:17	1
PCB-4L	87		30 - 140	04/24/18 10:13	05/02/18 18:17	1
PCB-15L	87		30 - 140	04/24/18 10:13	05/02/18 18:17	1
PCB-19L	82		30 - 140	04/24/18 10:13	05/02/18 18:17	1
PCB-37L	87		30 - 140	04/24/18 10:13	05/02/18 18:17	1
PCB-54L	100		30 - 140	04/24/18 10:13	05/02/18 18:17	1
PCB-77L	88		30 - 140	04/24/18 10:13	05/02/18 18:17	1
PCB-81L	86		30 - 140	04/24/18 10:13	05/02/18 18:17	1
PCB-104L	92		30 - 140	04/24/18 10:13	05/02/18 18:17	1
PCB-105L	85		30 - 140	04/24/18 10:13	05/02/18 18:17	1
PCB-114L	84		30 - 140	04/24/18 10:13	05/02/18 18:17	1
PCB-118L	87		30 - 140	04/24/18 10:13	05/02/18 18:17	1
PCB-123L	87		30 - 140	04/24/18 10:13	05/02/18 18:17	1
PCB-126L	87		30 - 140	04/24/18 10:13	05/02/18 18:17	1
PCB-155L	103		30 - 140	04/24/18 10:13	05/02/18 18:17	1
PCB-156L	87	C	30 - 140	04/24/18 10:13	05/02/18 18:17	1
PCB-157L	87	C156	30 - 140	04/24/18 10:13	05/02/18 18:17	1
PCB-167L	88		30 - 140	04/24/18 10:13	05/02/18 18:17	1
PCB-169L	87		30 - 140	04/24/18 10:13	05/02/18 18:17	1
PCB-170L	85		30 - 140	04/24/18 10:13	05/02/18 18:17	1
PCB-188L	89		30 - 140	04/24/18 10:13	05/02/18 18:17	1
PCB-189L	92		30 - 140	04/24/18 10:13	05/02/18 18:17	1
PCB-202L	96		30 - 140	04/24/18 10:13	05/02/18 18:17	1
PCB-205L	81		30 - 140	04/24/18 10:13	05/02/18 18:17	1
PCB-206L	65		30 - 140	04/24/18 10:13	05/02/18 18:17	1
PCB-208L	70		30 - 140	04/24/18 10:13	05/02/18 18:17	1
PCB-209L	58		30 - 140	04/24/18 10:13	05/02/18 18:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	82		40 - 125	04/24/18 10:13	05/02/18 18:17	1
PCB-111L	92		40 - 125	04/24/18 10:13	05/02/18 18:17	1
PCB-178L	90		40 - 125	04/24/18 10:13	05/02/18 18:17	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B159-BL1

Date Collected: 04/16/18 11:05

Date Received: 04/18/18 13:45

Lab Sample ID: 580-76685-6

Matrix: Solid

Percent Solids: 57.8

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.072	B	0.0084	0.00070	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-2	0.032		0.0084	0.00073	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-3	0.020		0.0084	0.00079	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-4	1.4		0.017	0.0012	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-5	0.0064	J q	0.0084	0.00083	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-6	0.098		0.0084	0.00082	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-7	0.033		0.0084	0.00078	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-8	0.56		0.017	0.00081	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-9	0.031		0.0084	0.00092	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-10	0.11		0.0084	0.00089	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-11	0.24	B	0.017	0.00076	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-12	0.026	C	0.017	0.00076	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-13	0.026	C12	0.017	0.00076	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-14	ND		0.0084	0.00069	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-15	0.12		0.0084	0.00080	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-16	0.49		0.0084	0.00055	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-17	1.0		0.0084	0.00042	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-18	1.1	C	0.017	0.00037	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-19	0.81		0.0084	0.00052	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-20	1.2	C B	0.017	0.0033	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-21	0.60	C B	0.017	0.0031	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-22	0.36		0.0084	0.0033	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-23	ND		0.0084	0.0033	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-24	0.026	q	0.0084	0.00032	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-25	0.11	B	0.0084	0.0031	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-26	0.22	C B	0.017	0.0033	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-27	0.30		0.0084	0.00032	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-28	1.2	B C20	0.017	0.0033	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-29	0.22	C26 B	0.017	0.0033	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-30	1.1	C18	0.017	0.00037	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-31	0.99	B	0.017	0.0030	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-32	0.29	S	0.0084	0.00029	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-33	0.60	B C21	0.017	0.0031	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-34	0.0069	J B q	0.0084	0.0034	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-35	0.022	q	0.0084	0.0032	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-36	ND		0.0084	0.0029	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-37	0.24	B	0.0084	0.0030	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-38	ND		0.0084	0.0032	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-39	0.013		0.0084	0.0029	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-40	1.1	C B	0.025	0.0030	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-41	1.1	B C40	0.025	0.0030	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-42	0.47		0.0084	0.0030	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-43	0.078	C	0.017	0.0027	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-44	2.2	C B	0.025	0.0027	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-45	0.61	C B	0.017	0.0032	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-46	0.15		0.0084	0.0037	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-47	2.2	B C44	0.025	0.0027	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-48	0.45		0.0084	0.0029	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-49	1.2	C	0.017	0.0024	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B159-BL1

Lab Sample ID: 580-76685-6

Date Collected: 04/16/18 11:05

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 57.8

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	0.42	C B	0.017	0.0030	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-51	0.61	C45 B	0.017	0.0032	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-52	2.2	B	0.0084	0.0031	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-53	0.42	C50 B	0.017	0.0030	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-54	0.054		0.0084	0.000097	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-55	0.033	q	0.0084	0.0020	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-56	0.58	B	0.0084	0.0021	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-57	ND		0.0084	0.0021	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-58	ND		0.0084	0.0020	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-59	0.20	C B	0.025	0.0020	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-60	0.34		0.0084	0.0020	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-61	2.2	C B	0.034	0.0020	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-62	0.20	B C59	0.025	0.0020	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-63	0.059		0.0084	0.0018	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-64	0.69		0.0084	0.0019	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-65	2.2	B C44	0.025	0.0027	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-66	1.2	B	0.0084	0.0020	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-67	0.051		0.0084	0.0019	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-68	0.027		0.0084	0.0018	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-69	1.2	C49	0.017	0.0024	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-70	2.2	C61 B	0.034	0.0020	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-71	1.1	B C40	0.025	0.0030	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-72	0.024		0.0084	0.0020	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-73	0.078	C43	0.017	0.0027	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-74	2.2	C61 B	0.034	0.0020	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-75	0.20	B C59	0.025	0.0020	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-76	2.2	C61 B	0.034	0.0020	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-77	0.097		0.0084	0.0019	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-78	ND		0.0084	0.0020	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-79	0.012	q	0.0084	0.0017	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-80	ND		0.0084	0.0018	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-81	ND		0.0084	0.0019	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-82	0.13		0.0084	0.0015	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-83	0.73	C	0.017	0.0015	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-84	0.30		0.0084	0.0016	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-85	0.18	C	0.025	0.0011	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-86	0.64	C	0.051	0.0012	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-87	0.64	C86	0.051	0.0012	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-88	0.21	C	0.017	0.0014	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-89	0.019	S	0.0084	0.0015	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-90	1.0	C	0.025	0.0012	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-91	0.21	C88	0.017	0.0014	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-92	0.20		0.0084	0.0014	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-93	0.066	C	0.017	0.0014	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-94	0.013	q	0.0084	0.0015	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-95	0.90		0.0084	0.0015	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-96	0.015	q	0.0084	0.0011	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-97	0.64	C86	0.051	0.0012	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-98	0.070	C q	0.017	0.0014	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B159-BL1

Lab Sample ID: 580-76685-6

Date Collected: 04/16/18 11:05

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 57.8

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	0.73	C83	0.017	0.0015	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-100	0.066	C93	0.017	0.0014	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-101	1.0	C90	0.025	0.0012	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-102	0.070	C98 q	0.017	0.0014	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-103	0.025	q	0.0084	0.0013	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-104	ND		0.0084	0.0010	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-105	0.32		0.0084	0.0028	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-106	ND		0.0084	0.0030	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-107	0.11		0.0084	0.0029	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-108	0.033	C	0.017	0.0030	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-109	0.64	C86	0.051	0.0012	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-110	1.0	C	0.017	0.00097	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-111	ND		0.0084	0.00091	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-112	ND		0.0084	0.0010	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-113	1.0	C90	0.025	0.0012	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-114	0.025		0.0084	0.0027	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-115	1.0	C110	0.017	0.00097	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-116	0.18	C85	0.025	0.0011	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-117	0.18	C85	0.025	0.0011	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-118	0.83		0.0084	0.0027	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-119	0.64	C86	0.051	0.0012	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-120	0.017		0.0084	0.00090	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-121	ND		0.0084	0.00097	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-122	0.017		0.0084	0.0033	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-123	0.017		0.0084	0.0027	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-124	0.033	C108	0.017	0.0030	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-125	0.64	C86	0.051	0.0012	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-126	ND		0.0084	0.0030	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-127	ND		0.0084	0.0029	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-128	0.24	C B	0.017	0.0043	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-129	1.7	C B	0.034	0.0044	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-130	0.12		0.0084	0.0058	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-131	ND		0.0084	0.0059	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-132	0.56		0.0084	0.0057	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-133	0.13		0.0084	0.0055	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-134	0.096	C	0.017	0.0057	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-135	0.62	C	0.017	0.000070	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-136	0.16		0.0084	0.000050	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-137	0.049		0.0084	0.0047	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-138	1.7	B C129	0.034	0.0044	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-139	0.054	C	0.017	0.0049	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-140	0.054	C139	0.017	0.0049	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-141	0.30		0.0084	0.0051	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-142	ND		0.0084	0.0055	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-143	0.096	C134	0.017	0.0057	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-144	0.047	S q	0.0084	0.000065	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-145	0.0011	J	0.0084	0.000050	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-146	0.83		0.0084	0.0046	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-147	1.6	C	0.017	0.0049	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B159-BL1

Lab Sample ID: 580-76685-6

Date Collected: 04/16/18 11:05

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 57.8

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	0.027		0.0084	0.000067	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-149	1.6	C147	0.017	0.0049	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-150	0.0054	J q	0.0084	0.000045	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-151	0.62	C135	0.017	0.000070	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-152	0.00097	J q	0.0084	0.000049	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-153	2.0	C B	0.017	0.0038	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-154	0.12		0.0084	0.000058	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-155	0.0017	J q	0.0084	0.000046	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-156	0.15	C B	0.017	0.0046	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-157	0.15	C156 B	0.017	0.0046	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-158	0.15	B	0.0084	0.0034	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-159	0.031		0.0084	0.0035	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-160	1.7	B C129	0.034	0.0044	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-161	ND		0.0084	0.0036	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-162	ND		0.0084	0.0034	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-163	1.7	B C129	0.034	0.0044	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-164	0.14	B	0.0084	0.0037	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-165	ND		0.0084	0.0041	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-166	0.24	C128 B	0.017	0.0043	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-167	0.054		0.0084	0.0026	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-168	2.0	B C153	0.017	0.0038	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-169	ND		0.0084	0.0027	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-170	0.70		0.0084	0.000044	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-171	0.21	C	0.017	0.000043	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-172	0.15		0.0084	0.000042	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-173	0.21	C171	0.017	0.000043	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-174	0.92		0.0084	0.000044	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-175	0.029	q	0.0084	0.000040	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-176	0.12		0.0084	0.000028	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-177	0.69		0.0084	0.000044	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-178	0.31	B	0.0084	0.000041	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-179	0.47		0.0084	0.000031	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-180	2.1	C	0.017	0.000033	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-181	ND		0.0084	0.000038	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-182	0.027	q	0.0084	0.000036	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-183	0.55	C B	0.017	0.000037	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-184	ND		0.0084	0.000031	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-185	0.55	B C183	0.017	0.000037	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-186	ND		0.0084	0.000030	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-187	1.7		0.0084	0.000037	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-188	ND		0.0084	0.000027	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-189	0.024		0.0084	0.0010	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-190	0.15		0.0084	0.000028	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-191	0.032		0.0084	0.000029	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-192	ND		0.0084	0.000030	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-193	2.1	C180	0.017	0.000033	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-194	1.2	B	0.0084	0.0022	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-195	0.38		0.0084	0.0025	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-196	0.56		0.0084	0.00065	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B159-BL1

Lab Sample ID: 580-76685-6

Date Collected: 04/16/18 11:05

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 57.8

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	0.038		0.0084	0.00045	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-198	1.6	C	0.017	0.00069	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-199	1.6	C198	0.017	0.00069	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-200	0.14		0.0084	0.00049	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-201	0.16		0.0084	0.00048	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-202	0.34		0.0084	0.00054	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-203	0.91		0.0084	0.00061	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-204	ND		0.0084	0.00049	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-205	0.047	q	0.0084	0.0017	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-206	2.1		0.0084	0.0029	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-207	0.15		0.0084	0.0018	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-208	0.68		0.0084	0.0018	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1
PCB-209	0.97		0.0084	0.00068	ng/g	☼	04/24/18 10:13	05/02/18 19:20	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	91		30 - 140	04/24/18 10:13	05/02/18 19:20	1
PCB-3L	91		30 - 140	04/24/18 10:13	05/02/18 19:20	1
PCB-4L	74		30 - 140	04/24/18 10:13	05/02/18 19:20	1
PCB-15L	75		30 - 140	04/24/18 10:13	05/02/18 19:20	1
PCB-19L	114		30 - 140	04/24/18 10:13	05/02/18 19:20	1
PCB-37L	89		30 - 140	04/24/18 10:13	05/02/18 19:20	1
PCB-54L	130		30 - 140	04/24/18 10:13	05/02/18 19:20	1
PCB-77L	81		30 - 140	04/24/18 10:13	05/02/18 19:20	1
PCB-81L	79		30 - 140	04/24/18 10:13	05/02/18 19:20	1
PCB-104L	104		30 - 140	04/24/18 10:13	05/02/18 19:20	1
PCB-105L	91		30 - 140	04/24/18 10:13	05/02/18 19:20	1
PCB-114L	88		30 - 140	04/24/18 10:13	05/02/18 19:20	1
PCB-118L	92		30 - 140	04/24/18 10:13	05/02/18 19:20	1
PCB-123L	92		30 - 140	04/24/18 10:13	05/02/18 19:20	1
PCB-126L	86		30 - 140	04/24/18 10:13	05/02/18 19:20	1
PCB-155L	100		30 - 140	04/24/18 10:13	05/02/18 19:20	1
PCB-156L	87	C	30 - 140	04/24/18 10:13	05/02/18 19:20	1
PCB-157L	87	C156	30 - 140	04/24/18 10:13	05/02/18 19:20	1
PCB-167L	89		30 - 140	04/24/18 10:13	05/02/18 19:20	1
PCB-169L	89		30 - 140	04/24/18 10:13	05/02/18 19:20	1
PCB-170L	84		30 - 140	04/24/18 10:13	05/02/18 19:20	1
PCB-188L	88		30 - 140	04/24/18 10:13	05/02/18 19:20	1
PCB-189L	99		30 - 140	04/24/18 10:13	05/02/18 19:20	1
PCB-202L	89		30 - 140	04/24/18 10:13	05/02/18 19:20	1
PCB-205L	80		30 - 140	04/24/18 10:13	05/02/18 19:20	1
PCB-206L	59		30 - 140	04/24/18 10:13	05/02/18 19:20	1
PCB-208L	64		30 - 140	04/24/18 10:13	05/02/18 19:20	1
PCB-209L	52		30 - 140	04/24/18 10:13	05/02/18 19:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	81		40 - 125	04/24/18 10:13	05/02/18 19:20	1
PCB-111L	82		40 - 125	04/24/18 10:13	05/02/18 19:20	1
PCB-178L	84		40 - 125	04/24/18 10:13	05/02/18 19:20	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B163-BL1

Date Collected: 04/16/18 13:38

Date Received: 04/18/18 13:45

Lab Sample ID: 580-76685-7

Matrix: Solid

Percent Solids: 59.0

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.022	J B q	0.041	0.0016	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-2	0.023	J q	0.041	0.0017	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-3	0.023	J	0.041	0.0019	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-4	0.12	q	0.083	0.0071	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-5	0.0075	J q	0.041	0.0047	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-6	0.065		0.041	0.0047	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-7	0.0085	J q	0.041	0.0045	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-8	0.34		0.083	0.0046	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-9	0.018	J q	0.041	0.0052	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-10	ND		0.041	0.0051	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-11	0.10	B q	0.083	0.0043	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-12	0.013	J C q	0.083	0.0043	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-13	0.013	J C12 q	0.083	0.0043	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-14	ND		0.041	0.0039	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-15	0.17		0.041	0.0045	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-16	0.23	q	0.041	0.0040	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-17	0.30	q	0.041	0.0031	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-18	0.52	C	0.083	0.0027	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-19	0.087	q	0.041	0.0038	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-20	1.2	C B	0.083	0.0071	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-21	0.59	C B	0.083	0.0066	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-22	0.42		0.041	0.0072	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-23	ND		0.041	0.0071	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-24	0.013	J q	0.041	0.0023	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-25	0.096	B	0.041	0.0068	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-26	0.18	C B	0.083	0.0071	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-27	0.054		0.041	0.0023	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-28	1.2	B C20	0.083	0.0071	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-29	0.18	C26 B	0.083	0.0071	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-30	0.52	C18	0.083	0.0027	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-31	0.89	B	0.083	0.0065	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-32	0.29		0.041	0.0021	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-33	0.59	B C21	0.083	0.0066	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-34	ND		0.041	0.0073	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-35	0.020	J	0.041	0.0070	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-36	ND		0.041	0.0064	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-37	0.30	B	0.041	0.0066	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-38	ND		0.041	0.0069	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-39	ND		0.041	0.0063	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-40	0.69	C B	0.12	0.0089	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-41	0.69	B C40	0.12	0.0089	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-42	0.29		0.041	0.0091	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-43	0.046	J C	0.083	0.0081	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-44	1.5	C B	0.12	0.0080	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-45	0.48	C B	0.083	0.0094	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-46	0.10		0.041	0.011	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-47	1.5	B C44	0.12	0.0080	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-48	0.21		0.041	0.0086	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-49	0.80	C	0.083	0.0072	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B163-BL1

Lab Sample ID: 580-76685-7

Date Collected: 04/16/18 13:38

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 59.0

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	0.32	C B	0.083	0.0090	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-51	0.48	C45 B	0.083	0.0094	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-52	1.3	B	0.041	0.0094	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-53	0.32	C50 B	0.083	0.0090	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-54	0.039	J	0.041	0.00076	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-55	0.018	J	0.041	0.0061	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-56	0.22	B	0.041	0.0062	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-57	ND		0.041	0.0062	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-58	ND		0.041	0.0060	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-59	0.12	C B	0.12	0.0061	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-60	0.12		0.041	0.0061	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-61	1.1	C B	0.17	0.0059	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-62	0.12	B C59	0.12	0.0061	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-63	0.029	J	0.041	0.0054	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-64	0.40		0.041	0.0057	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-65	1.5	B C44	0.12	0.0080	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-66	0.56	B	0.041	0.0059	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-67	0.022	J	0.041	0.0058	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-68	0.017	J	0.041	0.0054	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-69	0.80	C49	0.083	0.0072	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-70	1.1	C61 B	0.17	0.0059	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-71	0.69	B C40	0.12	0.0089	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-72	0.012	J	0.041	0.0061	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-73	0.046	J C43	0.083	0.0081	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-74	1.1	C61 B	0.17	0.0059	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-75	0.12	B C59	0.12	0.0061	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-76	1.1	C61 B	0.17	0.0059	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-77	0.076		0.041	0.0055	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-78	ND		0.041	0.0060	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-79	0.017	J	0.041	0.0051	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-80	ND		0.041	0.0053	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-81	ND		0.041	0.0058	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-82	0.18		0.041	0.0059	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-83	0.91	C	0.083	0.0056	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-84	0.37		0.041	0.0062	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-85	0.22	C q	0.12	0.0042	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-86	1.1	C	0.25	0.0045	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-87	1.1	C86	0.25	0.0045	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-88	0.25	C	0.083	0.0053	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-89	ND		0.041	0.0058	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-90	2.1	C	0.12	0.0046	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-91	0.25	C88	0.083	0.0053	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-92	0.41		0.041	0.0055	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-93	0.10	C	0.083	0.0054	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-94	0.030	J	0.041	0.0058	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-95	1.5		0.041	0.0056	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-96	0.021	J	0.041	0.0043	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-97	1.1	C86	0.25	0.0045	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-98	0.085	C	0.083	0.0054	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B163-BL1

Lab Sample ID: 580-76685-7

Date Collected: 04/16/18 13:38

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 59.0

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	0.91	C83	0.083	0.0056	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-100	0.10	C93	0.083	0.0054	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-101	2.1	C90	0.12	0.0046	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-102	0.085	C98	0.083	0.0054	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-103	0.029	J q	0.041	0.0050	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-104	ND		0.041	0.0039	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-105	0.61		0.041	0.0067	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-106	ND		0.041	0.0070	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-107	0.12		0.041	0.0068	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-108	0.064	J C	0.083	0.0071	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-109	1.1	C86	0.25	0.0045	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-110	2.2	C	0.083	0.0037	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-111	ND		0.041	0.0035	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-112	ND		0.041	0.0038	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-113	2.1	C90	0.12	0.0046	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-114	0.035	J	0.041	0.0063	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-115	2.2	C110	0.083	0.0037	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-116	0.22	C85 q	0.12	0.0042	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-117	0.22	C85 q	0.12	0.0042	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-118	1.5		0.041	0.0065	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-119	1.1	C86	0.25	0.0045	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-120	0.0088	J q	0.041	0.0034	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-121	ND		0.041	0.0037	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-122	0.025	J q	0.041	0.0078	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-123	0.020	J q	0.041	0.0063	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-124	0.064	J C108	0.083	0.0071	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-125	1.1	C86	0.25	0.0045	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-126	0.018	J q	0.041	0.0068	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-127	ND		0.041	0.0067	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-128	0.71	C B	0.083	0.0084	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-129	6.4	C B	0.17	0.0086	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-130	0.34		0.041	0.011	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-131	0.058		0.041	0.012	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-132	1.8		0.041	0.011	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-133	0.077		0.041	0.011	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-134	0.30	C	0.083	0.011	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-135	2.0	C	0.083	0.00091	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-136	0.59		0.041	0.00066	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-137	0.13		0.041	0.0093	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-138	6.4	B C129	0.17	0.0086	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-139	0.044	J C q	0.083	0.0096	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-140	0.044	J C139 q	0.083	0.0096	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-141	1.5		0.041	0.010	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-142	ND		0.041	0.011	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-143	0.30	C134	0.083	0.011	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-144	0.28		0.041	0.00085	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-145	ND		0.041	0.00066	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-146	0.81		0.041	0.0091	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-147	4.8	C	0.083	0.0097	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B163-BL1

Lab Sample ID: 580-76685-7

Date Collected: 04/16/18 13:38

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 59.0

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	0.0054	J q	0.041	0.00088	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-149	4.8	C147	0.083	0.0097	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-150	0.0073	J q	0.041	0.00059	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-151	2.0	C135	0.083	0.00091	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-152	0.0026	J q	0.041	0.00063	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-153	5.5	C B	0.083	0.0075	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-154	0.065	q	0.041	0.00076	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-155	ND		0.041	0.00060	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-156	0.56	C B	0.083	0.0090	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-157	0.56	C156 B	0.083	0.0090	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-158	0.63	B	0.041	0.0067	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-159	0.099		0.041	0.0069	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-160	6.4	B C129	0.17	0.0086	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-161	ND		0.041	0.0071	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-162	ND		0.041	0.0068	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-163	6.4	B C129	0.17	0.0086	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-164	0.47	B	0.041	0.0073	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-165	ND		0.041	0.0081	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-166	0.71	C128 B	0.083	0.0084	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-167	0.24		0.041	0.0053	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-168	5.5	B C153	0.083	0.0075	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-169	ND		0.041	0.0050	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-170	2.8		0.041	0.00027	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-171	0.85	C	0.083	0.00026	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-172	0.43		0.041	0.00025	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-173	0.85	C171	0.083	0.00026	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-174	2.7		0.041	0.00026	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-175	0.099		0.041	0.00024	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-176	0.27		0.041	0.00016	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-177	1.5		0.041	0.00026	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-178	0.46	B	0.041	0.00024	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-179	0.92		0.041	0.00018	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-180	6.0	C	0.083	0.00019	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-181	ND		0.041	0.00022	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-182	ND		0.041	0.00021	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-183	1.7	C B	0.083	0.00022	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-184	ND		0.041	0.00018	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-185	1.7	B C183	0.083	0.00022	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-186	ND		0.041	0.00018	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-187	2.8		0.041	0.00022	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-188	ND		0.041	0.00016	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-189	0.10		0.041	0.0024	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-190	0.56		0.041	0.00017	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-191	0.13		0.041	0.00017	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-192	ND		0.041	0.00018	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-193	6.0	C180	0.083	0.00019	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-194	1.3	B	0.041	0.0048	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-195	0.52		0.041	0.0054	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-196	0.58		0.041	0.00088	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B163-BL1

Lab Sample ID: 580-76685-7

Date Collected: 04/16/18 13:38

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 59.0

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	0.031	J q	0.041	0.00061	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-198	1.1	C	0.083	0.00093	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-199	1.1	C198	0.083	0.00093	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-200	0.14		0.041	0.00067	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-201	0.11	q	0.041	0.00064	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-202	0.17		0.041	0.00072	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-203	0.73		0.041	0.00083	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-204	ND		0.041	0.00066	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-205	0.068		0.041	0.0036	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-206	0.30		0.041	0.0078	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-207	0.031	J	0.041	0.0051	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-208	0.062		0.041	0.0055	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1
PCB-209	0.053		0.041	0.00034	ng/g	☼	04/24/18 10:13	05/03/18 07:12	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	86		30 - 140	04/24/18 10:13	05/03/18 07:12	1
PCB-3L	86		30 - 140	04/24/18 10:13	05/03/18 07:12	1
PCB-4L	76		30 - 140	04/24/18 10:13	05/03/18 07:12	1
PCB-15L	77		30 - 140	04/24/18 10:13	05/03/18 07:12	1
PCB-19L	83		30 - 140	04/24/18 10:13	05/03/18 07:12	1
PCB-37L	89		30 - 140	04/24/18 10:13	05/03/18 07:12	1
PCB-54L	87		30 - 140	04/24/18 10:13	05/03/18 07:12	1
PCB-77L	91		30 - 140	04/24/18 10:13	05/03/18 07:12	1
PCB-81L	88		30 - 140	04/24/18 10:13	05/03/18 07:12	1
PCB-104L	94		30 - 140	04/24/18 10:13	05/03/18 07:12	1
PCB-105L	86		30 - 140	04/24/18 10:13	05/03/18 07:12	1
PCB-114L	86		30 - 140	04/24/18 10:13	05/03/18 07:12	1
PCB-118L	89		30 - 140	04/24/18 10:13	05/03/18 07:12	1
PCB-123L	88		30 - 140	04/24/18 10:13	05/03/18 07:12	1
PCB-126L	89		30 - 140	04/24/18 10:13	05/03/18 07:12	1
PCB-155L	95		30 - 140	04/24/18 10:13	05/03/18 07:12	1
PCB-156L	92	C	30 - 140	04/24/18 10:13	05/03/18 07:12	1
PCB-157L	92	C156	30 - 140	04/24/18 10:13	05/03/18 07:12	1
PCB-167L	88		30 - 140	04/24/18 10:13	05/03/18 07:12	1
PCB-169L	93		30 - 140	04/24/18 10:13	05/03/18 07:12	1
PCB-170L	83		30 - 140	04/24/18 10:13	05/03/18 07:12	1
PCB-188L	88		30 - 140	04/24/18 10:13	05/03/18 07:12	1
PCB-189L	97		30 - 140	04/24/18 10:13	05/03/18 07:12	1
PCB-202L	88		30 - 140	04/24/18 10:13	05/03/18 07:12	1
PCB-205L	81		30 - 140	04/24/18 10:13	05/03/18 07:12	1
PCB-206L	66		30 - 140	04/24/18 10:13	05/03/18 07:12	1
PCB-208L	68		30 - 140	04/24/18 10:13	05/03/18 07:12	1
PCB-209L	57		30 - 140	04/24/18 10:13	05/03/18 07:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	79		40 - 125	04/24/18 10:13	05/03/18 07:12	1
PCB-111L	93		40 - 125	04/24/18 10:13	05/03/18 07:12	1
PCB-178L	82		40 - 125	04/24/18 10:13	05/03/18 07:12	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B164-BL1

Date Collected: 04/16/18 14:40

Date Received: 04/18/18 13:45

Lab Sample ID: 580-76685-8

Matrix: Solid

Percent Solids: 65.4

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.0019	J B	0.0076	0.00038	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-2	0.0075	J q	0.0076	0.00040	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-3	0.0042	J q	0.0076	0.00043	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-4	0.0086	J	0.015	0.0012	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-5	ND		0.0076	0.00079	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-6	0.0043	J	0.0076	0.00079	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-7	ND		0.0076	0.00075	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-8	0.018		0.015	0.00077	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-9	ND		0.0076	0.00087	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-10	ND		0.0076	0.00085	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-11	0.16	B	0.015	0.00072	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-12	0.0036	J q C	0.015	0.00072	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-13	0.0036	J q C12	0.015	0.00072	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-14	ND		0.0076	0.00066	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-15	0.025		0.0076	0.00075	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-16	0.014		0.0076	0.00061	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-17	0.015	q	0.0076	0.00047	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-18	0.031	C	0.015	0.00041	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-19	0.012	q	0.0076	0.00058	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-20	0.094	C B	0.015	0.00071	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-21	0.041	C B	0.015	0.00066	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-22	0.033		0.0076	0.00072	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-23	ND		0.0076	0.00070	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-24	ND		0.0076	0.00035	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-25	0.0056	J q B	0.0076	0.00067	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-26	0.010	J C B	0.015	0.00070	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-27	0.0021	J q	0.0076	0.00035	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-28	0.094	C20 B	0.015	0.00071	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-29	0.010	J C26 B	0.015	0.00070	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-30	0.031	C18	0.015	0.00041	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-31	0.066	B	0.015	0.00065	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-32	0.014		0.0076	0.00032	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-33	0.041	C21 B	0.015	0.00066	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-34	ND		0.0076	0.00073	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-35	0.0057	J q	0.0076	0.00070	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-36	ND		0.0076	0.00063	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-37	0.040	B	0.0076	0.00065	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-38	ND		0.0076	0.00069	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-39	ND		0.0076	0.00063	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-40	0.060	C B	0.023	0.0014	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-41	0.060	C40 B	0.023	0.0014	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-42	0.029		0.0076	0.0014	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-43	0.0047	J C	0.015	0.0013	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-44	0.14	C B	0.023	0.0012	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-45	0.034	C B	0.015	0.0015	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-46	0.0071	J	0.0076	0.0017	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-47	0.14	C44 B	0.023	0.0012	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-48	0.021		0.0076	0.0013	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-49	0.071	C	0.015	0.0011	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B164-BL1

Lab Sample ID: 580-76685-8

Date Collected: 04/16/18 14:40

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 65.4

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	0.023	C B	0.015	0.0014	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-51	0.034	C45 B	0.015	0.0015	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-52	0.14	B	0.0076	0.0015	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-53	0.023	C50 B	0.015	0.0014	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-54	0.0031	J q	0.0076	0.00011	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-55	0.0044	J	0.0076	0.00095	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-56	0.056	B	0.0076	0.00097	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-57	ND		0.0076	0.00097	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-58	ND		0.0076	0.00093	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-59	0.012	J q C B	0.023	0.00094	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-60	0.038		0.0076	0.00095	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-61	0.19	C B	0.030	0.00092	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-62	0.012	J q C59 B	0.023	0.00094	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-63	0.0034	J q	0.0076	0.00084	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-64	0.052		0.0076	0.00088	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-65	0.14	C44 B	0.023	0.0012	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-66	0.12	B	0.0076	0.00092	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-67	0.0027	J q	0.0076	0.00090	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-68	0.0025	J	0.0076	0.00084	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-69	0.071	C49	0.015	0.0011	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-70	0.19	C61 B	0.030	0.00092	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-71	0.060	C40 B	0.023	0.0014	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-72	0.0017	J	0.0076	0.00095	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-73	0.0047	J C43	0.015	0.0013	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-74	0.19	C61 B	0.030	0.00092	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-75	0.012	J q C59 B	0.023	0.00094	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-76	0.19	C61 B	0.030	0.00092	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-77	0.013	q	0.0076	0.00089	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-78	ND		0.0076	0.00094	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-79	0.0013	J	0.0076	0.00080	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-80	ND		0.0076	0.00083	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-81	ND		0.0076	0.00088	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-82	0.016	q	0.0076	0.00095	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-83	0.10	C	0.015	0.00091	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-84	0.039		0.0076	0.0010	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-85	0.028	C	0.023	0.00069	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-86	0.097	C	0.045	0.00073	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-87	0.097	C86	0.045	0.00073	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-88	0.029	C	0.015	0.00086	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-89	0.0019	J q	0.0076	0.00093	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-90	0.16	C	0.023	0.00074	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-91	0.029	C88	0.015	0.00086	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-92	0.027	q	0.0076	0.00089	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-93	0.0080	J q C	0.015	0.00088	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-94	ND		0.0076	0.00094	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-95	0.12		0.0076	0.00091	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-96	0.0011	J q	0.0076	0.00070	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-97	0.097	C86	0.045	0.00073	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-98	0.0058	J q C	0.015	0.00087	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B164-BL1

Lab Sample ID: 580-76685-8

Date Collected: 04/16/18 14:40

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 65.4

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	0.10	C83	0.015	0.00091	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-100	0.0080	J q C93	0.015	0.00088	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-101	0.16	C90	0.023	0.00074	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-102	0.0058	J q C98	0.015	0.00087	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-103	0.0044	J	0.0076	0.00081	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-104	0.0011	J q B	0.0076	0.00063	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-105	0.050		0.0076	0.0012	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-106	ND		0.0076	0.0013	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-107	0.0086	q	0.0076	0.0013	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-108	0.0040	J q C	0.015	0.0013	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-109	0.097	C86	0.045	0.00073	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-110	0.17	C	0.015	0.00060	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-111	ND		0.0076	0.00056	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-112	ND		0.0076	0.00061	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-113	0.16	C90	0.023	0.00074	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-114	0.0025	J q	0.0076	0.0011	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-115	0.17	C110	0.015	0.00060	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-116	0.028	C85	0.023	0.00069	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-117	0.028	C85	0.023	0.00069	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-118	0.11		0.0076	0.0012	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-119	0.097	C86	0.045	0.00073	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-120	ND		0.0076	0.00055	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-121	ND		0.0076	0.00060	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-122	0.0017	J	0.0076	0.0014	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-123	ND		0.0076	0.0012	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-124	0.0040	J q C108	0.015	0.0013	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-125	0.097	C86	0.045	0.00073	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-126	ND		0.0076	0.0013	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-127	ND		0.0076	0.0012	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-128	0.13	C B	0.015	0.0029	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-129	1.0	C B	0.030	0.0030	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-130	0.038		0.0076	0.0039	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-131	ND		0.0076	0.0040	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-132	0.14		0.0076	0.0038	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-133	0.011		0.0076	0.0037	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-134	0.020	q C	0.015	0.0039	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-135	0.19	C	0.015	0.00020	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-136	0.036		0.0076	0.00015	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-137	0.014	q	0.0076	0.0032	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-138	1.0	C129 B	0.030	0.0030	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-139	ND	C	0.015	0.0033	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-140	ND	C139	0.015	0.0033	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-141	0.26		0.0076	0.0034	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-142	ND		0.0076	0.0038	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-143	0.020	q C134	0.015	0.0039	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-144	0.027		0.0076	0.00019	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-145	ND		0.0076	0.00015	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-146	0.16		0.0076	0.0031	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-147	0.49	C	0.015	0.0033	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B164-BL1

Lab Sample ID: 580-76685-8

Date Collected: 04/16/18 14:40

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 65.4

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	0.0016	J	0.0076	0.00020	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-149	0.49	C147	0.015	0.0033	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-150	0.00083	J q	0.0076	0.00013	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-151	0.19	C135	0.015	0.00020	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-152	ND		0.0076	0.00014	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-153	1.2	C B	0.015	0.0026	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-154	0.011		0.0076	0.00017	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-155	0.0015	J	0.0076	0.00013	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-156	0.12	C B	0.015	0.0030	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-157	0.12	C156 B	0.015	0.0030	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-158	0.11	B	0.0076	0.0023	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-159	0.047		0.0076	0.0024	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-160	1.0	C129 B	0.030	0.0030	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-161	ND		0.0076	0.0025	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-162	ND		0.0076	0.0023	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-163	1.0	C129 B	0.030	0.0030	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-164	0.063	B	0.0076	0.0025	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-165	ND		0.0076	0.0028	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-166	0.13	C128 B	0.015	0.0029	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-167	0.051		0.0076	0.0018	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-168	1.2	C153 B	0.015	0.0026	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-169	ND		0.0076	0.0018	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-170	1.5		0.0076	0.00037	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-171	0.42	C	0.015	0.00037	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-172	0.26		0.0076	0.00036	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-173	0.42	C171	0.015	0.00037	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-174	1.3		0.0076	0.00037	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-175	0.051		0.0076	0.00034	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-176	0.13		0.0076	0.00024	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-177	0.77		0.0076	0.00038	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-178	0.22	B	0.0076	0.00035	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-179	0.39		0.0076	0.00026	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-180	3.5	C	0.015	0.00028	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-181	ND		0.0076	0.00032	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-182	ND		0.0076	0.00031	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-183	0.96	C B	0.015	0.00031	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-184	ND		0.0076	0.00026	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-185	0.96	C183 B	0.015	0.00031	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-186	ND		0.0076	0.00025	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-187	1.5		0.0076	0.00032	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-188	ND		0.0076	0.00023	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-189	0.057		0.0076	0.00084	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-190	0.31		0.0076	0.00024	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-191	0.071		0.0076	0.00024	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-192	ND		0.0076	0.00026	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-193	3.5	C180	0.015	0.00028	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-194	0.92	B	0.0076	0.0029	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-195	0.39		0.0076	0.0033	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-196	0.42		0.0076	0.00079	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B164-BL1

Lab Sample ID: 580-76685-8

Date Collected: 04/16/18 14:40

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 65.4

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	0.026	q	0.0076	0.00055	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-198	0.71	C	0.015	0.00084	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-199	0.71	C198	0.015	0.00084	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-200	0.087		0.0076	0.00060	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-201	0.086		0.0076	0.00058	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-202	0.11		0.0076	0.00065	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-203	0.48		0.0076	0.00075	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-204	ND		0.0076	0.00060	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-205	0.045		0.0076	0.0022	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-206	0.19		0.0076	0.0019	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-207	0.022		0.0076	0.0012	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-208	0.030		0.0076	0.0013	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1
PCB-209	0.026	q	0.0076	0.00011	ng/g	☼	04/24/18 10:13	05/03/18 08:15	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	94		30 - 140	04/24/18 10:13	05/03/18 08:15	1
PCB-3L	93		30 - 140	04/24/18 10:13	05/03/18 08:15	1
PCB-4L	77		30 - 140	04/24/18 10:13	05/03/18 08:15	1
PCB-15L	83		30 - 140	04/24/18 10:13	05/03/18 08:15	1
PCB-19L	77		30 - 140	04/24/18 10:13	05/03/18 08:15	1
PCB-37L	82		30 - 140	04/24/18 10:13	05/03/18 08:15	1
PCB-54L	86		30 - 140	04/24/18 10:13	05/03/18 08:15	1
PCB-77L	82		30 - 140	04/24/18 10:13	05/03/18 08:15	1
PCB-81L	82		30 - 140	04/24/18 10:13	05/03/18 08:15	1
PCB-104L	86		30 - 140	04/24/18 10:13	05/03/18 08:15	1
PCB-105L	81		30 - 140	04/24/18 10:13	05/03/18 08:15	1
PCB-114L	81		30 - 140	04/24/18 10:13	05/03/18 08:15	1
PCB-118L	83		30 - 140	04/24/18 10:13	05/03/18 08:15	1
PCB-123L	84		30 - 140	04/24/18 10:13	05/03/18 08:15	1
PCB-126L	78		30 - 140	04/24/18 10:13	05/03/18 08:15	1
PCB-155L	92		30 - 140	04/24/18 10:13	05/03/18 08:15	1
PCB-156L	84	C	30 - 140	04/24/18 10:13	05/03/18 08:15	1
PCB-157L	84	C156	30 - 140	04/24/18 10:13	05/03/18 08:15	1
PCB-167L	83		30 - 140	04/24/18 10:13	05/03/18 08:15	1
PCB-169L	83		30 - 140	04/24/18 10:13	05/03/18 08:15	1
PCB-170L	77		30 - 140	04/24/18 10:13	05/03/18 08:15	1
PCB-188L	83		30 - 140	04/24/18 10:13	05/03/18 08:15	1
PCB-189L	90		30 - 140	04/24/18 10:13	05/03/18 08:15	1
PCB-202L	89		30 - 140	04/24/18 10:13	05/03/18 08:15	1
PCB-205L	77		30 - 140	04/24/18 10:13	05/03/18 08:15	1
PCB-206L	62		30 - 140	04/24/18 10:13	05/03/18 08:15	1
PCB-208L	64		30 - 140	04/24/18 10:13	05/03/18 08:15	1
PCB-209L	54		30 - 140	04/24/18 10:13	05/03/18 08:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	76		40 - 125	04/24/18 10:13	05/03/18 08:15	1
PCB-111L	81		40 - 125	04/24/18 10:13	05/03/18 08:15	1
PCB-178L	82		40 - 125	04/24/18 10:13	05/03/18 08:15	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B164-BL1-D

Date Collected: 04/16/18 14:40

Date Received: 04/18/18 13:45

Lab Sample ID: 580-76685-9

Matrix: Solid

Percent Solids: 68.0

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	ND		0.0072	0.00024	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-2	0.0081		0.0072	0.00026	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-3	0.0049	J q	0.0072	0.00029	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-4	0.0091	J	0.014	0.0012	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-5	ND		0.0072	0.00077	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-6	0.0020	J q	0.0072	0.00076	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-7	ND		0.0072	0.00072	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-8	0.017		0.014	0.00074	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-9	ND		0.0072	0.00084	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-10	ND		0.0072	0.00082	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-11	0.16	B	0.014	0.00070	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-12	0.0062	J C	0.014	0.00070	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-13	0.0062	J C12	0.014	0.00070	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-14	ND		0.0072	0.00064	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-15	0.020		0.0072	0.00073	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-16	0.015		0.0072	0.00066	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-17	0.015	q	0.0072	0.00050	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-18	0.026	C	0.014	0.00044	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-19	0.011		0.0072	0.00062	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-20	0.079	C B	0.014	0.00073	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-21	0.038	C B	0.014	0.00068	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-22	0.029		0.0072	0.00074	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-23	ND		0.0072	0.00073	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-24	ND		0.0072	0.00038	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-25	0.0050	J B q	0.0072	0.00069	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-26	0.0095	J C B	0.014	0.00073	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-27	0.0019	J q	0.0072	0.00038	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-28	0.079	B C20	0.014	0.00073	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-29	0.0095	J C26 B	0.014	0.00073	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-30	0.026	C18	0.014	0.00044	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-31	0.057	B	0.014	0.00067	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-32	0.011	q	0.0072	0.00035	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-33	0.038	B C21	0.014	0.00068	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-34	ND		0.0072	0.00075	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-35	0.0057	J	0.0072	0.00072	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-36	0.00078	J q	0.0072	0.00065	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-37	0.030	B	0.0072	0.00067	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-38	ND		0.0072	0.00071	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-39	ND		0.0072	0.00065	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-40	0.052	C B	0.022	0.00093	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-41	0.052	B C40	0.022	0.00093	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-42	0.026		0.0072	0.00094	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-43	0.0033	J C	0.014	0.00084	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-44	0.12	C B	0.022	0.00084	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-45	0.029	C B	0.014	0.00099	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-46	0.0062	J	0.0072	0.0011	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-47	0.12	B C44	0.022	0.00084	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-48	0.015		0.0072	0.00089	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-49	0.060	C	0.014	0.00075	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B164-BL1-D

Lab Sample ID: 580-76685-9

Date Collected: 04/16/18 14:40

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 68.0

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	0.017	C B	0.014	0.00094	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-51	0.029	C45 B	0.014	0.00099	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-52	0.12	B	0.0072	0.00098	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-53	0.017	C50 B	0.014	0.00094	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-54	0.0017	J q	0.0072	0.00010	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-55	ND		0.0072	0.00064	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-56	0.042	B	0.0072	0.00065	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-57	ND		0.0072	0.00065	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-58	ND		0.0072	0.00063	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-59	0.0094	J C B	0.022	0.00063	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-60	0.022		0.0072	0.00064	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-61	0.15	C B	0.029	0.00062	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-62	0.0094	J B C59	0.022	0.00063	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-63	0.0039	J	0.0072	0.00056	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-64	0.039		0.0072	0.00059	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-65	0.12	B C44	0.022	0.00084	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-66	0.099	B	0.0072	0.00062	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-67	0.0018	J q	0.0072	0.00060	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-68	0.0034	J	0.0072	0.00057	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-69	0.060	C49	0.014	0.00075	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-70	0.15	C61 B	0.029	0.00062	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-71	0.052	B C40	0.022	0.00093	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-72	ND		0.0072	0.00064	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-73	0.0033	J C43	0.014	0.00084	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-74	0.15	C61 B	0.029	0.00062	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-75	0.0094	J B C59	0.022	0.00063	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-76	0.15	C61 B	0.029	0.00062	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-77	0.0085		0.0072	0.00059	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-78	ND		0.0072	0.00063	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-79	0.0015	J	0.0072	0.00054	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-80	ND		0.0072	0.00056	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-81	ND		0.0072	0.00060	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-82	0.011	q	0.0072	0.00098	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-83	0.075	C q	0.014	0.00094	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-84	0.030	q	0.0072	0.0010	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-85	0.022	C	0.022	0.00071	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-86	0.074	C	0.043	0.00075	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-87	0.074	C86	0.043	0.00075	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-88	0.024	C	0.014	0.00089	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-89	ND		0.0072	0.00096	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-90	0.13	C	0.022	0.00076	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-91	0.024	C88	0.014	0.00089	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-92	0.027		0.0072	0.00092	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-93	0.010	J C	0.014	0.00091	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-94	ND		0.0072	0.00097	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-95	0.11		0.0072	0.00094	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-96	ND		0.0072	0.00072	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-97	0.074	C86	0.043	0.00075	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-98	0.0062	J C	0.014	0.00090	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B164-BL1-D

Lab Sample ID: 580-76685-9

Date Collected: 04/16/18 14:40

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 68.0

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	0.075	C83 q	0.014	0.00094	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-100	0.010	J C93	0.014	0.00091	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-101	0.13	C90	0.022	0.00076	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-102	0.0062	J C98	0.014	0.00090	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-103	0.0044	J q	0.0072	0.00084	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-104	ND		0.0072	0.00065	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-105	0.033		0.0072	0.00058	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-106	ND		0.0072	0.00062	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-107	0.0082		0.0072	0.00061	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-108	0.0040	J C	0.014	0.00063	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-109	0.074	C86	0.043	0.00075	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-110	0.13	C	0.014	0.00062	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-111	ND		0.0072	0.00058	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-112	ND		0.0072	0.00063	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-113	0.13	C90	0.022	0.00076	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-114	0.0022	J q	0.0072	0.00056	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-115	0.13	C110	0.014	0.00062	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-116	0.022	C85	0.022	0.00071	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-117	0.022	C85	0.022	0.00071	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-118	0.091		0.0072	0.00058	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-119	0.074	C86	0.043	0.00075	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-120	0.0010	J q	0.0072	0.00057	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-121	ND		0.0072	0.00062	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-122	ND		0.0072	0.00069	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-123	0.0015	J	0.0072	0.00056	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-124	0.0040	J C108	0.014	0.00063	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-125	0.074	C86	0.043	0.00075	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-126	ND		0.0072	0.00062	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-127	ND		0.0072	0.00060	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-128	0.024	C B	0.014	0.00099	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-129	0.20	C B	0.029	0.0010	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-130	0.014		0.0072	0.0014	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-131	ND		0.0072	0.0014	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-132	0.068		0.0072	0.0013	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-133	0.0034	J q	0.0072	0.0013	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-134	0.0091	J C q	0.014	0.0013	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-135	0.065	C	0.014	0.000084	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-136	0.019		0.0072	0.000061	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-137	0.0059	J q	0.0072	0.0011	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-138	0.20	B C129	0.029	0.0010	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-139	0.0037	J C q	0.014	0.0011	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-140	0.0037	J C139 q	0.014	0.0011	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-141	0.034	q	0.0072	0.0012	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-142	ND		0.0072	0.0013	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-143	0.0091	J C134 q	0.014	0.0013	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-144	0.0075	q	0.0072	0.000079	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-145	ND		0.0072	0.000061	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-146	0.035		0.0072	0.0011	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-147	0.17	C	0.014	0.0011	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B164-BL1-D

Lab Sample ID: 580-76685-9

Date Collected: 04/16/18 14:40

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 68.0

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	0.00051	J	0.0072	0.000081	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-149	0.17	C147	0.014	0.0011	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-150	0.00023	J q	0.0072	0.000055	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-151	0.065	C135	0.014	0.000084	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-152	ND		0.0072	0.000059	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-153	0.18	C B	0.014	0.000088	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-154	0.0050	J q	0.0072	0.000071	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-155	0.00049	J q	0.0072	0.000056	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-156	0.018	C B	0.014	0.0011	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-157	0.018	C156 B	0.014	0.0011	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-158	0.018	B	0.0072	0.000078	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-159	0.0024	J	0.0072	0.000081	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-160	0.20	B C129	0.029	0.0010	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-161	ND		0.0072	0.000084	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-162	ND		0.0072	0.000080	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-163	0.20	B C129	0.029	0.0010	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-164	0.013	B	0.0072	0.000086	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-165	ND		0.0072	0.000096	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-166	0.024	C128 B	0.014	0.00099	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-167	0.0064	J	0.0072	0.00059	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-168	0.18	B C153	0.014	0.00088	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-169	ND		0.0072	0.00061	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-170	0.062		0.0072	0.00069	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-171	0.019	C	0.014	0.00067	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-172	0.0076	q	0.0072	0.00066	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-173	0.019	C171	0.014	0.00067	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-174	0.065		0.0072	0.00069	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-175	0.0018	J q	0.0072	0.00062	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-176	0.0077		0.0072	0.00043	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-177	0.037		0.0072	0.00069	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-178	0.016	B	0.0072	0.00064	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-179	0.030		0.0072	0.00048	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-180	0.13	C	0.014	0.00051	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-181	ND		0.0072	0.00059	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-182	ND		0.0072	0.00056	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-183	0.039	C B	0.014	0.00057	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-184	ND		0.0072	0.00048	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-185	0.039	B C183	0.014	0.00057	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-186	ND		0.0072	0.00046	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-187	0.078		0.0072	0.00058	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-188	ND		0.0072	0.00042	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-189	0.0020	J	0.0072	0.00050	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-190	0.012		0.0072	0.00044	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-191	0.0026	J	0.0072	0.00044	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-192	ND		0.0072	0.00047	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-193	0.13	C180	0.014	0.00051	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-194	0.033	B	0.0072	0.00063	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-195	0.012		0.0072	0.00070	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-196	0.016		0.0072	0.00018	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B164-BL1-D

Lab Sample ID: 580-76685-9

Date Collected: 04/16/18 14:40

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 68.0

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	0.00073	J q	0.0072	0.00012	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-198	0.034	C	0.014	0.00019	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-199	0.034	C198	0.014	0.00019	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-200	0.0037	J	0.0072	0.00014	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-201	0.0019	J q	0.0072	0.00013	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-202	0.0071	J	0.0072	0.00015	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-203	0.020		0.0072	0.00017	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-204	ND		0.0072	0.00014	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-205	0.0013	J q	0.0072	0.00047	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-206	0.038		0.0072	0.0011	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-207	0.0037	J	0.0072	0.00071	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-208	0.013		0.0072	0.00075	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1
PCB-209	0.050		0.0072	0.000069	ng/g	☼	04/24/18 10:13	05/03/18 09:19	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	86		30 - 140	04/24/18 10:13	05/03/18 09:19	1
PCB-3L	87		30 - 140	04/24/18 10:13	05/03/18 09:19	1
PCB-4L	76		30 - 140	04/24/18 10:13	05/03/18 09:19	1
PCB-15L	85		30 - 140	04/24/18 10:13	05/03/18 09:19	1
PCB-19L	82		30 - 140	04/24/18 10:13	05/03/18 09:19	1
PCB-37L	86		30 - 140	04/24/18 10:13	05/03/18 09:19	1
PCB-54L	93		30 - 140	04/24/18 10:13	05/03/18 09:19	1
PCB-77L	89		30 - 140	04/24/18 10:13	05/03/18 09:19	1
PCB-81L	88		30 - 140	04/24/18 10:13	05/03/18 09:19	1
PCB-104L	88		30 - 140	04/24/18 10:13	05/03/18 09:19	1
PCB-105L	84		30 - 140	04/24/18 10:13	05/03/18 09:19	1
PCB-114L	83		30 - 140	04/24/18 10:13	05/03/18 09:19	1
PCB-118L	86		30 - 140	04/24/18 10:13	05/03/18 09:19	1
PCB-123L	86		30 - 140	04/24/18 10:13	05/03/18 09:19	1
PCB-126L	83		30 - 140	04/24/18 10:13	05/03/18 09:19	1
PCB-155L	97		30 - 140	04/24/18 10:13	05/03/18 09:19	1
PCB-156L	83	C	30 - 140	04/24/18 10:13	05/03/18 09:19	1
PCB-157L	83	C156	30 - 140	04/24/18 10:13	05/03/18 09:19	1
PCB-167L	84		30 - 140	04/24/18 10:13	05/03/18 09:19	1
PCB-169L	84		30 - 140	04/24/18 10:13	05/03/18 09:19	1
PCB-170L	85		30 - 140	04/24/18 10:13	05/03/18 09:19	1
PCB-188L	93		30 - 140	04/24/18 10:13	05/03/18 09:19	1
PCB-189L	95		30 - 140	04/24/18 10:13	05/03/18 09:19	1
PCB-202L	91		30 - 140	04/24/18 10:13	05/03/18 09:19	1
PCB-205L	79		30 - 140	04/24/18 10:13	05/03/18 09:19	1
PCB-206L	66		30 - 140	04/24/18 10:13	05/03/18 09:19	1
PCB-208L	69		30 - 140	04/24/18 10:13	05/03/18 09:19	1
PCB-209L	57		30 - 140	04/24/18 10:13	05/03/18 09:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	78		40 - 125	04/24/18 10:13	05/03/18 09:19	1
PCB-111L	85		40 - 125	04/24/18 10:13	05/03/18 09:19	1
PCB-178L	88		40 - 125	04/24/18 10:13	05/03/18 09:19	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B167-BL1

Lab Sample ID: 580-76685-10

Date Collected: 04/16/18 15:45

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 45.0

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.019	B	0.011	0.00081	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-2	0.059		0.011	0.00086	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-3	0.030		0.011	0.00095	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-4	0.11		0.022	0.0013	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-5	0.0031	J q	0.011	0.00087	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-6	0.027	q	0.011	0.00086	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-7	0.0078	J	0.011	0.00082	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-8	0.14		0.022	0.00084	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-9	0.012		0.011	0.00095	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-10	0.0065	J q	0.011	0.00093	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-11	0.39	B	0.022	0.00079	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-12	0.033	C	0.022	0.00079	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-13	0.033	C12	0.022	0.00079	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-14	ND		0.011	0.00072	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-15	0.11		0.011	0.00085	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-16	0.097		0.011	0.0012	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-17	0.12		0.011	0.00092	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-18	0.20	C	0.022	0.00081	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-19	0.091		0.011	0.0011	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-20	0.44	C B	0.022	0.0029	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-21	0.20	C B	0.022	0.0027	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-22	0.15		0.011	0.0029	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-23	ND		0.011	0.0029	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-24	0.0020	J q	0.011	0.00070	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-25	0.042	B	0.011	0.0028	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-26	0.077	C B	0.022	0.0029	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-27	0.028		0.011	0.00069	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-28	0.44	B C20	0.022	0.0029	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-29	0.077	C26 B	0.022	0.0029	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-30	0.20	C18	0.022	0.00081	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-31	0.34	B	0.022	0.0027	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-32	0.058		0.011	0.00063	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-33	0.20	B C21	0.022	0.0027	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-34	ND		0.011	0.0030	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-35	0.023		0.011	0.0028	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-36	ND		0.011	0.0026	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-37	0.16	B	0.011	0.0027	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-38	ND		0.011	0.0028	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-39	ND		0.011	0.0026	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-40	0.32	C B	0.033	0.0042	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-41	0.32	B C40	0.033	0.0042	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-42	0.14		0.011	0.0043	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-43	0.015	J C q	0.022	0.0038	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-44	0.74	C B	0.033	0.0038	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-45	0.16	C B	0.022	0.0045	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-46	0.032		0.011	0.0052	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-47	0.74	B C44	0.033	0.0038	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-48	0.099		0.011	0.0041	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-49	0.40	C	0.022	0.0034	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B167-BL1

Lab Sample ID: 580-76685-10

Date Collected: 04/16/18 15:45

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 45.0

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	0.13	C B	0.022	0.0042	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-51	0.16	C45 B	0.022	0.0045	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-52	0.92	B	0.011	0.0045	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-53	0.13	C50 B	0.022	0.0042	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-54	0.016		0.011	0.00022	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-55	0.0078	J q	0.011	0.0029	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-56	0.24	B	0.011	0.0029	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-57	ND		0.011	0.0030	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-58	ND		0.011	0.0028	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-59	0.050	C B	0.033	0.0029	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-60	0.13		0.011	0.0029	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-61	0.93	C B	0.044	0.0028	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-62	0.050	B C59	0.033	0.0029	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-63	0.021		0.011	0.0026	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-64	0.22		0.011	0.0027	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-65	0.74	B C44	0.033	0.0038	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-66	0.53	B	0.011	0.0028	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-67	0.014	q	0.011	0.0027	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-68	0.0083	J	0.011	0.0026	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-69	0.40	C49	0.022	0.0034	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-70	0.93	C61 B	0.044	0.0028	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-71	0.32	B C40	0.033	0.0042	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-72	0.0078	J	0.011	0.0029	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-73	0.015	J C43 q	0.022	0.0038	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-74	0.93	C61 B	0.044	0.0028	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-75	0.050	B C59	0.033	0.0029	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-76	0.93	C61 B	0.044	0.0028	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-77	0.061		0.011	0.0026	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-78	ND		0.011	0.0028	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-79	0.0086	J	0.011	0.0024	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-80	ND		0.011	0.0025	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-81	ND		0.011	0.0028	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-82	0.12		0.011	0.0019	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-83	0.62	C	0.022	0.0019	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-84	0.27		0.011	0.0020	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-85	0.16	C	0.033	0.0014	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-86	0.66	C	0.066	0.0015	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-87	0.66	C86	0.066	0.0015	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-88	0.15	C	0.022	0.0018	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-89	ND		0.011	0.0019	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-90	2.4	C	0.033	0.0015	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-91	0.15	C88	0.022	0.0018	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-92	0.33		0.011	0.0018	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-93	0.057	C	0.022	0.0018	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-94	ND		0.011	0.0019	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-95	2.1		0.011	0.0019	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-96	0.012		0.011	0.0014	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-97	0.66	C86	0.066	0.0015	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-98	0.043	C	0.022	0.0018	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B167-BL1

Lab Sample ID: 580-76685-10

Date Collected: 04/16/18 15:45

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 45.0

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	0.62	C83	0.022	0.0019	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-100	0.057	C93	0.022	0.0018	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-101	2.4	C90	0.033	0.0015	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-102	0.043	C98	0.022	0.0018	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-103	0.026		0.011	0.0017	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-104	ND		0.011	0.0013	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-105	0.39		0.011	0.0048	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-106	ND		0.011	0.0052	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-107	0.080		0.011	0.0051	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-108	0.042	C	0.022	0.0053	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-109	0.66	C86	0.066	0.0015	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-110	1.6	C	0.022	0.0012	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-111	ND		0.011	0.0011	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-112	ND		0.011	0.0013	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-113	2.4	C90	0.033	0.0015	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-114	0.024		0.011	0.0047	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-115	1.6	C110	0.022	0.0012	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-116	0.16	C85	0.033	0.0014	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-117	0.16	C85	0.033	0.0014	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-118	1.0		0.011	0.0046	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-119	0.66	C86	0.066	0.0015	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-120	0.012		0.011	0.0011	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-121	ND		0.011	0.0012	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-122	0.015		0.011	0.0058	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-123	0.015	q	0.011	0.0047	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-124	0.042	C108	0.022	0.0053	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-125	0.66	C86	0.066	0.0015	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-126	0.0057	J	0.011	0.0055	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-127	ND		0.011	0.0050	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-128	0.78	C B	0.022	0.0084	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-129	8.3	C B	0.044	0.0085	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-130	0.29		0.011	0.011	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-131	ND	G	0.012	0.012	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-132	2.4		0.011	0.011	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-133	0.099		0.011	0.011	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-134	0.38	C	0.022	0.011	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-135	4.1	C	0.022	0.00017	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-136	1.2		0.011	0.00012	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-137	0.079	q	0.011	0.0092	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-138	8.3	B C129	0.044	0.0085	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-139	ND	C	0.022	0.0095	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-140	ND	C139	0.022	0.0095	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-141	2.6		0.011	0.0099	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-142	ND		0.011	0.011	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-143	0.38	C134	0.022	0.011	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-144	0.53		0.011	0.00016	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-145	ND		0.011	0.00012	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-146	1.2		0.011	0.0090	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-147	9.1	C	0.022	0.0096	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B167-BL1

Lab Sample ID: 580-76685-10

Date Collected: 04/16/18 15:45

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 45.0

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	0.0065	J q	0.011	0.00017	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-149	9.1	C147	0.022	0.0096	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-150	ND		0.011	0.00011	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-151	4.1	C135	0.022	0.00017	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-152	ND		0.011	0.00012	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-153	9.3	C B	0.022	0.0074	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-154	0.046	q	0.011	0.00014	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-155	ND		0.011	0.00011	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-156	0.52	C B	0.022	0.0089	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-157	0.52	C156 B	0.022	0.0089	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-158	0.76	B	0.011	0.0066	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-159	0.23		0.011	0.0068	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-160	8.3	B C129	0.044	0.0085	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-161	ND		0.011	0.0071	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-162	ND		0.011	0.0067	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-163	8.3	B C129	0.044	0.0085	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-164	0.62	B	0.011	0.0072	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-165	ND		0.011	0.0081	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-166	0.78	C128 B	0.022	0.0084	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-167	0.17		0.011	0.0051	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-168	9.3	B C153	0.022	0.0074	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-169	ND		0.011	0.0052	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-170	4.5		0.011	0.00010	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-171	1.4	C	0.022	0.000099	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-172	0.83		0.011	0.000097	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-173	1.4	C171	0.022	0.000099	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-174	6.0		0.011	0.00010	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-175	0.24		0.011	0.000091	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-176	0.69		0.011	0.000064	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-177	3.1		0.011	0.00010	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-178	1.1	B	0.011	0.000095	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-179	2.6		0.011	0.000070	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-180	12	C	0.022	0.000075	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-181	ND		0.011	0.000087	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-182	ND		0.011	0.000083	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-183	3.7	C B	0.022	0.000084	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-184	ND		0.011	0.000071	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-185	3.7	B C183	0.022	0.000084	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-186	ND		0.011	0.000068	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-187	6.5		0.011	0.000086	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-188	ND		0.011	0.000062	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-189	0.13		0.011	0.0022	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-190	0.97		0.011	0.000065	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-191	0.21		0.011	0.000066	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-192	ND		0.011	0.000069	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-193	12	C180	0.022	0.000075	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-194	2.5	B	0.011	0.0087	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-195	1.2		0.011	0.0097	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-196	1.3		0.011	0.00032	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B167-BL1

Lab Sample ID: 580-76685-10

Date Collected: 04/16/18 15:45

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 45.0

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	0.097		0.011	0.00022	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-198	2.6	C	0.022	0.00034	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-199	2.6	C198	0.022	0.00034	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-200	0.36		0.011	0.00024	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-201	0.33		0.011	0.00024	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-202	0.51		0.011	0.00027	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-203	1.6		0.011	0.00030	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-204	ND		0.011	0.00024	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-205	0.13		0.011	0.0065	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-206	0.76		0.011	0.0063	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-207	0.087		0.011	0.0039	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-208	0.20		0.011	0.0040	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1
PCB-209	0.25		0.011	0.00073	ng/g	☼	04/24/18 10:13	05/03/18 10:22	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	108		30 - 140	04/24/18 10:13	05/03/18 10:22	1
PCB-3L	105		30 - 140	04/24/18 10:13	05/03/18 10:22	1
PCB-4L	91		30 - 140	04/24/18 10:13	05/03/18 10:22	1
PCB-15L	95		30 - 140	04/24/18 10:13	05/03/18 10:22	1
PCB-19L	133		30 - 140	04/24/18 10:13	05/03/18 10:22	1
PCB-37L	103		30 - 140	04/24/18 10:13	05/03/18 10:22	1
PCB-54L	137		30 - 140	04/24/18 10:13	05/03/18 10:22	1
PCB-77L	98		30 - 140	04/24/18 10:13	05/03/18 10:22	1
PCB-81L	95		30 - 140	04/24/18 10:13	05/03/18 10:22	1
PCB-104L	120		30 - 140	04/24/18 10:13	05/03/18 10:22	1
PCB-105L	102		30 - 140	04/24/18 10:13	05/03/18 10:22	1
PCB-114L	101		30 - 140	04/24/18 10:13	05/03/18 10:22	1
PCB-118L	107		30 - 140	04/24/18 10:13	05/03/18 10:22	1
PCB-123L	106		30 - 140	04/24/18 10:13	05/03/18 10:22	1
PCB-126L	93		30 - 140	04/24/18 10:13	05/03/18 10:22	1
PCB-155L	116		30 - 140	04/24/18 10:13	05/03/18 10:22	1
PCB-156L	95	C	30 - 140	04/24/18 10:13	05/03/18 10:22	1
PCB-157L	95	C156	30 - 140	04/24/18 10:13	05/03/18 10:22	1
PCB-167L	102		30 - 140	04/24/18 10:13	05/03/18 10:22	1
PCB-169L	99		30 - 140	04/24/18 10:13	05/03/18 10:22	1
PCB-170L	95		30 - 140	04/24/18 10:13	05/03/18 10:22	1
PCB-188L	103		30 - 140	04/24/18 10:13	05/03/18 10:22	1
PCB-189L	121		30 - 140	04/24/18 10:13	05/03/18 10:22	1
PCB-202L	104		30 - 140	04/24/18 10:13	05/03/18 10:22	1
PCB-205L	92		30 - 140	04/24/18 10:13	05/03/18 10:22	1
PCB-206L	79		30 - 140	04/24/18 10:13	05/03/18 10:22	1
PCB-208L	84		30 - 140	04/24/18 10:13	05/03/18 10:22	1
PCB-209L	69		30 - 140	04/24/18 10:13	05/03/18 10:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	79		40 - 125	04/24/18 10:13	05/03/18 10:22	1
PCB-111L	86		40 - 125	04/24/18 10:13	05/03/18 10:22	1
PCB-178L	80		40 - 125	04/24/18 10:13	05/03/18 10:22	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B169-BL1

Lab Sample ID: 580-76685-11

Date Collected: 04/17/18 09:40

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 70.8

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.015	B	0.0070	0.00030	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-2	0.0079		0.0070	0.00032	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-3	0.0096		0.0070	0.00036	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-4	0.011	J	0.014	0.00077	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-5	ND		0.0070	0.00052	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-6	0.0071	q	0.0070	0.00051	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-7	0.0017	J q	0.0070	0.00049	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-8	0.032		0.014	0.00050	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-9	0.0018	J q	0.0070	0.00057	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-10	0.0012	J	0.0070	0.00056	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-11	0.17	B	0.014	0.00047	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-12	0.0059	J C q	0.014	0.00047	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-13	0.0059	J C12 q	0.014	0.00047	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-14	ND		0.0070	0.00043	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-15	0.024		0.0070	0.00050	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-16	0.019		0.0070	0.00040	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-17	0.021		0.0070	0.00031	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-18	0.036	C	0.014	0.00027	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-19	0.0099	q	0.0070	0.00038	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-20	0.10	C B	0.014	0.00087	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-21	0.045	C B	0.014	0.00081	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-22	0.034		0.0070	0.00088	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-23	ND		0.0070	0.00087	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-24	ND		0.0070	0.00023	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-25	0.012	B	0.0070	0.00083	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-26	0.021	C B	0.014	0.00087	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-27	0.0041	J q	0.0070	0.00023	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-28	0.10	B C20	0.014	0.00087	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-29	0.021	C26 B	0.014	0.00087	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-30	0.036	C18	0.014	0.00027	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-31	0.073	B	0.014	0.00080	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-32	0.017		0.0070	0.00021	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-33	0.045	B C21	0.014	0.00081	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-34	ND		0.0070	0.00090	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-35	0.0058	J q	0.0070	0.00085	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-36	ND		0.0070	0.00078	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-37	0.039	B	0.0070	0.00080	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-38	ND		0.0070	0.00084	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-39	ND		0.0070	0.00077	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-40	0.064	C B	0.021	0.00087	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-41	0.064	B C40	0.021	0.00087	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-42	0.028		0.0070	0.00088	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-43	0.0046	J C	0.014	0.00079	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-44	0.15	C B	0.021	0.00078	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-45	0.036	C B	0.014	0.00092	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-46	0.0062	J q	0.0070	0.0011	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-47	0.15	B C44	0.021	0.00078	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-48	0.020		0.0070	0.00084	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-49	0.074	C	0.014	0.00070	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1

TestAmerica Seattle

Client Sample Results

Client: AECOM

TestAmerica Job ID: 580-76685-3

Project/Site: Portland Harbor Pre-Remedial Design

Client Sample ID: PDI-SG-B169-BL1

Lab Sample ID: 580-76685-11

Date Collected: 04/17/18 09:40

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 70.8

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	0.024	C B	0.014	0.00088	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-51	0.036	C45 B	0.014	0.00092	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-52	0.14	B	0.0070	0.00092	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-53	0.024	C50 B	0.014	0.00088	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-54	0.0013	J q	0.0070	0.000084	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-55	ND		0.0070	0.00060	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-56	0.050	B	0.0070	0.00061	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-57	ND		0.0070	0.00061	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-58	ND		0.0070	0.00059	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-59	0.011	J C B	0.021	0.00059	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-60	0.032		0.0070	0.00059	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-61	0.17	C B	0.028	0.00058	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-62	0.011	J B C59	0.021	0.00059	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-63	0.0029	J q	0.0070	0.00053	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-64	0.043		0.0070	0.00056	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-65	0.15	B C44	0.021	0.00078	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-66	0.11	B	0.0070	0.00058	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-67	0.0031	J q	0.0070	0.00056	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-68	ND		0.0070	0.00053	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-69	0.074	C49	0.014	0.00070	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-70	0.17	C61 B	0.028	0.00058	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-71	0.064	B C40	0.021	0.00087	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-72	0.0013	J	0.0070	0.00060	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-73	0.0046	J C43	0.014	0.00079	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-74	0.17	C61 B	0.028	0.00058	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-75	0.011	J B C59	0.021	0.00059	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-76	0.17	C61 B	0.028	0.00058	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-77	0.011	q	0.0070	0.00055	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-78	ND		0.0070	0.00059	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-79	0.0011	J q	0.0070	0.00050	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-80	ND		0.0070	0.00052	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-81	ND		0.0070	0.00056	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-82	0.015		0.0070	0.00081	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-83	0.11	C	0.014	0.00077	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-84	0.040		0.0070	0.00085	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-85	0.025	C	0.021	0.00058	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-86	0.094	C	0.042	0.00062	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-87	0.094	C86	0.042	0.00062	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-88	0.038	C	0.014	0.00073	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-89	0.0023	J	0.0070	0.00079	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-90	0.19	C	0.021	0.00063	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-91	0.038	C88	0.014	0.00073	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-92	0.040		0.0070	0.00076	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-93	0.018	C q	0.014	0.00075	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-94	0.0026	J q	0.0070	0.00080	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-95	0.16		0.0070	0.00078	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-96	ND		0.0070	0.00060	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-97	0.094	C86	0.042	0.00062	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-98	0.0087	J C	0.014	0.00074	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B169-BL1

Lab Sample ID: 580-76685-11

Date Collected: 04/17/18 09:40

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 70.8

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	0.11	C83	0.014	0.00077	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-100	0.018	C93 q	0.014	0.00075	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-101	0.19	C90	0.021	0.00063	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-102	0.0087	J C98	0.014	0.00074	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-103	0.0061	J	0.0070	0.00069	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-104	0.0014	J B	0.0070	0.00054	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-105	0.039		0.0070	0.00076	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-106	ND		0.0070	0.00080	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-107	0.011		0.0070	0.00078	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-108	0.0038	J C q	0.014	0.00081	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-109	0.094	C86	0.042	0.00062	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-110	0.17	C	0.014	0.00051	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-111	ND		0.0070	0.00048	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-112	ND		0.0070	0.00052	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-113	0.19	C90	0.021	0.00063	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-114	0.0017	J q	0.0070	0.00071	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-115	0.17	C110	0.014	0.00051	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-116	0.025	C85	0.021	0.00058	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-117	0.025	C85	0.021	0.00058	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-118	0.11		0.0070	0.00073	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-119	0.094	C86	0.042	0.00062	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-120	0.0015	J q	0.0070	0.00047	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-121	ND		0.0070	0.00051	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-122	ND		0.0070	0.00088	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-123	0.0018	J q	0.0070	0.00071	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-124	0.0038	J q C108	0.014	0.00081	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-125	0.094	C86	0.042	0.00062	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-126	ND		0.0070	0.00080	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-127	ND		0.0070	0.00076	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-128	0.040	C B	0.014	0.0011	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-129	0.37	C B	0.028	0.0011	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-130	0.020		0.0070	0.0015	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-131	ND		0.0070	0.0015	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-132	0.12		0.0070	0.0014	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-133	0.0057	J q	0.0070	0.0014	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-134	0.019	C q	0.014	0.0014	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-135	0.15	C	0.014	0.00049	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-136	0.053		0.0070	0.00035	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-137	0.0092		0.0070	0.0012	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-138	0.37	B C129	0.028	0.0011	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-139	0.0045	J C q	0.014	0.0012	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-140	0.0045	J C139 q	0.014	0.0012	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-141	0.081		0.0070	0.0013	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-142	ND		0.0070	0.0014	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-143	0.019	C134 q	0.014	0.0014	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-144	0.014	q	0.0070	0.00046	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-145	ND		0.0070	0.00035	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-146	0.066		0.0070	0.0012	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-147	0.35	C	0.014	0.0012	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B169-BL1

Lab Sample ID: 580-76685-11

Date Collected: 04/17/18 09:40

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 70.8

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	0.0018	J q	0.0070	0.00047	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-149	0.35	C147	0.014	0.0012	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-150	0.0026	J q	0.0070	0.00032	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-151	0.15	C135	0.014	0.00049	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-152	ND		0.0070	0.00034	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-153	0.37	C B	0.014	0.00096	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-154	0.012		0.0070	0.00041	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-155	0.00061	J q	0.0070	0.00032	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-156	0.024	C B	0.014	0.0012	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-157	0.024	C156 B	0.014	0.0012	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-158	0.036	B	0.0070	0.00085	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-159	0.0046	J q	0.0070	0.00088	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-160	0.37	B C129	0.028	0.0011	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-161	ND		0.0070	0.00091	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-162	ND		0.0070	0.00086	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-163	0.37	B C129	0.028	0.0011	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-164	0.027	B	0.0070	0.00093	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-165	ND		0.0070	0.0010	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-166	0.040	C128 B	0.014	0.0011	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-167	0.010		0.0070	0.00064	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-168	0.37	B C153	0.014	0.00096	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-169	ND		0.0070	0.00067	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-170	0.10		0.0070	0.00082	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-171	0.037	C	0.014	0.00082	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-172	0.018		0.0070	0.00080	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-173	0.037	C171	0.014	0.00082	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-174	0.13		0.0070	0.00084	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-175	0.0056	J	0.0070	0.00075	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-176	0.017		0.0070	0.00053	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-177	0.076		0.0070	0.00084	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-178	0.026	B	0.0070	0.00078	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-179	0.058		0.0070	0.00058	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-180	0.24	C	0.014	0.00062	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-181	ND		0.0070	0.00072	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-182	ND		0.0070	0.00068	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-183	0.088	C B	0.014	0.00069	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-184	0.0012	J q	0.0070	0.00059	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-185	0.088	B C183	0.014	0.00069	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-186	ND		0.0070	0.00056	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-187	0.15		0.0070	0.00071	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-188	ND		0.0070	0.00052	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-189	0.0034	J	0.0070	0.00029	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-190	0.021		0.0070	0.00054	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-191	0.0042	J	0.0070	0.00054	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-192	ND		0.0070	0.00057	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-193	0.24	C180	0.014	0.00062	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-194	0.040	B	0.0070	0.00084	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-195	0.019		0.0070	0.00095	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-196	0.023		0.0070	0.00038	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B169-BL1

Lab Sample ID: 580-76685-11

Date Collected: 04/17/18 09:40

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 70.8

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	0.0015	J q	0.0070	0.00026	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-198	0.043	C	0.014	0.00040	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-199	0.043	C198	0.014	0.00040	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-200	0.0068	J	0.0070	0.00028	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-201	0.0069	J q	0.0070	0.00028	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-202	0.011		0.0070	0.00031	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-203	0.027		0.0070	0.00035	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-204	ND		0.0070	0.00028	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-205	0.0024	J	0.0070	0.00063	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-206	0.18	q	0.0070	0.0019	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-207	ND		0.0070	0.0012	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-208	0.0058	J	0.0070	0.0013	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1
PCB-209	0.012		0.0070	0.000044	ng/g	☼	04/24/18 10:13	05/03/18 11:26	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	97		30 - 140	04/24/18 10:13	05/03/18 11:26	1
PCB-3L	95		30 - 140	04/24/18 10:13	05/03/18 11:26	1
PCB-4L	80		30 - 140	04/24/18 10:13	05/03/18 11:26	1
PCB-15L	85		30 - 140	04/24/18 10:13	05/03/18 11:26	1
PCB-19L	97		30 - 140	04/24/18 10:13	05/03/18 11:26	1
PCB-37L	85		30 - 140	04/24/18 10:13	05/03/18 11:26	1
PCB-54L	106		30 - 140	04/24/18 10:13	05/03/18 11:26	1
PCB-77L	85		30 - 140	04/24/18 10:13	05/03/18 11:26	1
PCB-81L	84		30 - 140	04/24/18 10:13	05/03/18 11:26	1
PCB-104L	92		30 - 140	04/24/18 10:13	05/03/18 11:26	1
PCB-105L	84		30 - 140	04/24/18 10:13	05/03/18 11:26	1
PCB-114L	83		30 - 140	04/24/18 10:13	05/03/18 11:26	1
PCB-118L	87		30 - 140	04/24/18 10:13	05/03/18 11:26	1
PCB-123L	86		30 - 140	04/24/18 10:13	05/03/18 11:26	1
PCB-126L	82		30 - 140	04/24/18 10:13	05/03/18 11:26	1
PCB-155L	95		30 - 140	04/24/18 10:13	05/03/18 11:26	1
PCB-156L	87	C	30 - 140	04/24/18 10:13	05/03/18 11:26	1
PCB-157L	87	C156	30 - 140	04/24/18 10:13	05/03/18 11:26	1
PCB-167L	88		30 - 140	04/24/18 10:13	05/03/18 11:26	1
PCB-169L	85		30 - 140	04/24/18 10:13	05/03/18 11:26	1
PCB-170L	82		30 - 140	04/24/18 10:13	05/03/18 11:26	1
PCB-188L	85		30 - 140	04/24/18 10:13	05/03/18 11:26	1
PCB-189L	93		30 - 140	04/24/18 10:13	05/03/18 11:26	1
PCB-202L	93		30 - 140	04/24/18 10:13	05/03/18 11:26	1
PCB-205L	80		30 - 140	04/24/18 10:13	05/03/18 11:26	1
PCB-206L	63		30 - 140	04/24/18 10:13	05/03/18 11:26	1
PCB-208L	66		30 - 140	04/24/18 10:13	05/03/18 11:26	1
PCB-209L	58		30 - 140	04/24/18 10:13	05/03/18 11:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	79		40 - 125	04/24/18 10:13	05/03/18 11:26	1
PCB-111L	86		40 - 125	04/24/18 10:13	05/03/18 11:26	1
PCB-178L	86		40 - 125	04/24/18 10:13	05/03/18 11:26	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B114-BL1

Lab Sample ID: 580-76685-12

Date Collected: 04/17/18 11:40

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 53.0

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.013	B	0.0094	0.00042	ng/g	☆	04/24/18 10:13	05/03/18 12:29	1
PCB-2	0.0099	q	0.0094	0.00046	ng/g	☆	04/24/18 10:13	05/03/18 12:29	1
PCB-3	0.015		0.0094	0.00053	ng/g	☆	04/24/18 10:13	05/03/18 12:29	1
PCB-4	0.022	q	0.019	0.0016	ng/g	☆	04/24/18 10:13	05/03/18 12:29	1
PCB-5	ND		0.0094	0.00099	ng/g	☆	04/24/18 10:13	05/03/18 12:29	1
PCB-6	0.016	q	0.0094	0.00098	ng/g	☆	04/24/18 10:13	05/03/18 12:29	1
PCB-7	0.0033	J q	0.0094	0.00093	ng/g	☆	04/24/18 10:13	05/03/18 12:29	1
PCB-8	0.068		0.019	0.00096	ng/g	☆	04/24/18 10:13	05/03/18 12:29	1
PCB-9	0.0037	J q	0.0094	0.0011	ng/g	☆	04/24/18 10:13	05/03/18 12:29	1
PCB-10	0.0017	J q	0.0094	0.0011	ng/g	☆	04/24/18 10:13	05/03/18 12:29	1
PCB-11	0.24	B	0.019	0.00090	ng/g	☆	04/24/18 10:13	05/03/18 12:29	1
PCB-12	0.014	J C	0.019	0.00090	ng/g	☆	04/24/18 10:13	05/03/18 12:29	1
PCB-13	0.014	J C12	0.019	0.00090	ng/g	☆	04/24/18 10:13	05/03/18 12:29	1
PCB-14	ND		0.0094	0.00082	ng/g	☆	04/24/18 10:13	05/03/18 12:29	1
PCB-15	0.039	q	0.0094	0.00091	ng/g	☆	04/24/18 10:13	05/03/18 12:29	1
PCB-16	0.052		0.0094	0.00095	ng/g	☆	04/24/18 10:13	05/03/18 12:29	1
PCB-17	0.069		0.0094	0.00072	ng/g	☆	04/24/18 10:13	05/03/18 12:29	1
PCB-18	0.11	C	0.019	0.00063	ng/g	☆	04/24/18 10:13	05/03/18 12:29	1
PCB-19	0.014	q	0.0094	0.00089	ng/g	☆	04/24/18 10:13	05/03/18 12:29	1
PCB-20	0.28	C B	0.019	0.0019	ng/g	☆	04/24/18 10:13	05/03/18 12:29	1
PCB-21	0.13	C B	0.019	0.0018	ng/g	☆	04/24/18 10:13	05/03/18 12:29	1
PCB-22	0.079		0.0094	0.0019	ng/g	☆	04/24/18 10:13	05/03/18 12:29	1
PCB-23	ND		0.0094	0.0019	ng/g	☆	04/24/18 10:13	05/03/18 12:29	1
PCB-24	0.0020	J q	0.0094	0.00055	ng/g	☆	04/24/18 10:13	05/03/18 12:29	1
PCB-25	0.027	B	0.0094	0.0018	ng/g	☆	04/24/18 10:13	05/03/18 12:29	1
PCB-26	0.039	C B	0.019	0.0019	ng/g	☆	04/24/18 10:13	05/03/18 12:29	1
PCB-27	0.0075	J q	0.0094	0.00054	ng/g	☆	04/24/18 10:13	05/03/18 12:29	1
PCB-28	0.28	C20 B	0.019	0.0019	ng/g	☆	04/24/18 10:13	05/03/18 12:29	1
PCB-29	0.039	C26 B	0.019	0.0019	ng/g	☆	04/24/18 10:13	05/03/18 12:29	1
PCB-30	0.11	C18	0.019	0.00063	ng/g	☆	04/24/18 10:13	05/03/18 12:29	1
PCB-31	0.20	B	0.019	0.0017	ng/g	☆	04/24/18 10:13	05/03/18 12:29	1
PCB-32	0.042		0.0094	0.00050	ng/g	☆	04/24/18 10:13	05/03/18 12:29	1
PCB-33	0.13	C21 B	0.019	0.0018	ng/g	☆	04/24/18 10:13	05/03/18 12:29	1
PCB-34	ND		0.0094	0.0019	ng/g	☆	04/24/18 10:13	05/03/18 12:29	1
PCB-35	0.012		0.0094	0.0018	ng/g	☆	04/24/18 10:13	05/03/18 12:29	1
PCB-36	ND		0.0094	0.0017	ng/g	☆	04/24/18 10:13	05/03/18 12:29	1
PCB-37	0.070	B	0.0094	0.0017	ng/g	☆	04/24/18 10:13	05/03/18 12:29	1
PCB-38	ND		0.0094	0.0018	ng/g	☆	04/24/18 10:13	05/03/18 12:29	1
PCB-39	0.0040	J q	0.0094	0.0017	ng/g	☆	04/24/18 10:13	05/03/18 12:29	1
PCB-40	0.19	C B	0.028	0.0018	ng/g	☆	04/24/18 10:13	05/03/18 12:29	1
PCB-41	0.19	C40 B	0.028	0.0018	ng/g	☆	04/24/18 10:13	05/03/18 12:29	1
PCB-42	0.10		0.0094	0.0018	ng/g	☆	04/24/18 10:13	05/03/18 12:29	1
PCB-43	0.0071	J q C	0.019	0.0016	ng/g	☆	04/24/18 10:13	05/03/18 12:29	1
PCB-44	0.46	C B	0.028	0.0016	ng/g	☆	04/24/18 10:13	05/03/18 12:29	1
PCB-45	0.082	C B	0.019	0.0019	ng/g	☆	04/24/18 10:13	05/03/18 12:29	1
PCB-46	0.022		0.0094	0.0022	ng/g	☆	04/24/18 10:13	05/03/18 12:29	1
PCB-47	0.46	C44 B	0.028	0.0016	ng/g	☆	04/24/18 10:13	05/03/18 12:29	1
PCB-48	0.054		0.0094	0.0017	ng/g	☆	04/24/18 10:13	05/03/18 12:29	1
PCB-49	0.34	C	0.019	0.0014	ng/g	☆	04/24/18 10:13	05/03/18 12:29	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B114-BL1

Lab Sample ID: 580-76685-12

Date Collected: 04/17/18 11:40

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 53.0

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	0.067	C B	0.019	0.0018	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-51	0.082	C45 B	0.019	0.0019	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-52	0.53	B	0.0094	0.0019	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-53	0.067	C50 B	0.019	0.0018	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-54	0.0032	J	0.0094	0.000084	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-55	ND		0.0094	0.0012	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-56	0.14	B	0.0094	0.0013	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-57	ND		0.0094	0.0013	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-58	0.0040	J	0.0094	0.0012	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-59	0.030	C B	0.028	0.0012	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-60	0.042		0.0094	0.0012	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-61	0.56	C B	0.038	0.0012	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-62	0.030	C59 B	0.028	0.0012	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-63	0.012		0.0094	0.0011	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-64	0.13		0.0094	0.0011	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-65	0.46	C44 B	0.028	0.0016	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-66	0.38	B	0.0094	0.0012	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-67	0.0097	q	0.0094	0.0012	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-68	0.027		0.0094	0.0011	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-69	0.34	C49	0.019	0.0014	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-70	0.56	C61 B	0.038	0.0012	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-71	0.19	C40 B	0.028	0.0018	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-72	0.026		0.0094	0.0012	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-73	0.0071	J q C43	0.019	0.0016	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-74	0.56	C61 B	0.038	0.0012	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-75	0.030	C59 B	0.028	0.0012	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-76	0.56	C61 B	0.038	0.0012	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-77	0.026		0.0094	0.0011	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-78	ND		0.0094	0.0012	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-79	0.012		0.0094	0.0010	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-80	ND		0.0094	0.0011	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-81	ND		0.0094	0.0011	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-82	0.043	q	0.0094	0.0011	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-83	0.51	C	0.019	0.0010	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-84	0.13	q	0.0094	0.0011	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-85	0.068	C	0.028	0.00079	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-86	0.29	C	0.057	0.00084	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-87	0.29	C86	0.057	0.00084	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-88	0.13	C	0.019	0.00099	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-89	0.0041	J q	0.0094	0.0011	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-90	0.68	C	0.028	0.00085	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-91	0.13	C88	0.019	0.00099	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-92	0.19		0.0094	0.0010	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-93	0.027	q C	0.019	0.0010	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-94	0.0044	J q	0.0094	0.0011	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-95	0.52		0.0094	0.0011	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-96	0.0070	J	0.0094	0.00081	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-97	0.29	C86	0.057	0.00084	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-98	0.021	q C	0.019	0.0010	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B114-BL1

Lab Sample ID: 580-76685-12

Date Collected: 04/17/18 11:40

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 53.0

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	0.51	C83	0.019	0.0010	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-100	0.027	q C93	0.019	0.0010	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-101	0.68	C90	0.028	0.00085	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-102	0.021	q C98	0.019	0.0010	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-103	0.034		0.0094	0.00093	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-104	ND		0.0094	0.00072	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-105	0.10		0.0094	0.0025	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-106	ND		0.0094	0.0026	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-107	0.049		0.0094	0.0025	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-108	0.012	J C	0.019	0.0026	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-109	0.29	C86	0.057	0.00084	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-110	0.56	C	0.019	0.00069	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-111	0.0031	J	0.0094	0.00065	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-112	ND		0.0094	0.00071	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-113	0.68	C90	0.028	0.00085	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-114	ND		0.0094	0.0023	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-115	0.56	C110	0.019	0.00069	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-116	0.068	C85	0.028	0.00079	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-117	0.068	C85	0.028	0.00079	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-118	0.33		0.0094	0.0023	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-119	0.29	C86	0.057	0.00084	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-120	ND		0.0094	0.00064	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-121	ND		0.0094	0.00069	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-122	ND		0.0094	0.0028	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-123	0.0045	J q	0.0094	0.0023	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-124	0.012	J C108	0.019	0.0026	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-125	0.29	C86	0.057	0.00084	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-126	ND		0.0094	0.0025	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-127	ND		0.0094	0.0024	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-128	0.10	C B	0.019	0.0015	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-129	0.79	C B	0.038	0.0015	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-130	0.071		0.0094	0.0020	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-131	ND		0.0094	0.0020	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-132	0.27		0.0094	0.0020	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-133	0.053		0.0094	0.0019	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-134	0.043	C	0.019	0.0020	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-135	0.38	C	0.019	0.00029	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-136	0.15		0.0094	0.00021	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-137	0.022		0.0094	0.0016	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-138	0.79	C129 B	0.038	0.0015	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-139	0.024	C	0.019	0.0017	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-140	0.024	C139	0.019	0.0017	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-141	0.14		0.0094	0.0018	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-142	ND		0.0094	0.0019	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-143	0.043	C134	0.019	0.0020	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-144	0.028	q	0.0094	0.00027	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-145	0.00061	J q	0.0094	0.00021	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-146	0.36		0.0094	0.0016	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-147	0.93	C	0.019	0.0017	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B114-BL1

Lab Sample ID: 580-76685-12

Date Collected: 04/17/18 11:40

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 53.0

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	0.017		0.0094	0.00028	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-149	0.93	C147	0.019	0.0017	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-150	0.011		0.0094	0.00019	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-151	0.38	C135	0.019	0.00029	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-152	0.00044	J q	0.0094	0.00020	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-153	0.92	C B	0.019	0.0013	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-154	0.073		0.0094	0.00024	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-155	0.0020	J	0.0094	0.00019	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-156	0.055	C B	0.019	0.0016	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-157	0.055	C156 B	0.019	0.0016	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-158	0.058	B	0.0094	0.0012	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-159	0.011	q	0.0094	0.0012	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-160	0.79	C129 B	0.038	0.0015	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-161	ND		0.0094	0.0013	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-162	ND		0.0094	0.0012	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-163	0.79	C129 B	0.038	0.0015	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-164	0.062	B	0.0094	0.0013	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-165	ND		0.0094	0.0014	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-166	0.10	C128 B	0.019	0.0015	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-167	0.019		0.0094	0.00089	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-168	0.92	C153 B	0.019	0.0013	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-169	ND		0.0094	0.00092	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-170	0.23		0.0094	0.00021	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-171	0.076	C	0.019	0.00020	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-172	0.047		0.0094	0.00020	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-173	0.076	C171	0.019	0.00020	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-174	0.30		0.0094	0.00021	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-175	0.012		0.0094	0.00019	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-176	0.040		0.0094	0.00013	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-177	0.21		0.0094	0.00021	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-178	0.088	B	0.0094	0.00019	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-179	0.17		0.0094	0.00014	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-180	0.53	C	0.019	0.00015	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-181	ND		0.0094	0.00018	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-182	0.0036	J q	0.0094	0.00017	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-183	0.18	C B	0.019	0.00017	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-184	0.0027	J	0.0094	0.00015	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-185	0.18	C183 B	0.019	0.00017	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-186	ND		0.0094	0.00014	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-187	0.44		0.0094	0.00018	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-188	0.0025	J	0.0094	0.00013	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-189	0.0080	J	0.0094	0.00053	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-190	0.043		0.0094	0.00013	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-191	0.0091	J	0.0094	0.00013	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-192	ND		0.0094	0.00014	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-193	0.53	C180	0.019	0.00015	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-194	0.13	B	0.0094	0.00093	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-195	0.057		0.0094	0.0010	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-196	0.066		0.0094	0.00081	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B114-BL1

Lab Sample ID: 580-76685-12

Date Collected: 04/17/18 11:40

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 53.0

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	0.0045	J q	0.0094	0.00056	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-198	0.16	C	0.019	0.00086	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-199	0.16	C198	0.019	0.00086	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-200	0.019		0.0094	0.00061	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-201	0.0094	q	0.0094	0.00060	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-202	0.036		0.0094	0.00067	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-203	0.084		0.0094	0.00076	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-204	ND		0.0094	0.00061	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-205	0.0069	J	0.0094	0.00070	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-206	0.11		0.0094	0.0019	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-207	0.011		0.0094	0.0013	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-208	0.039		0.0094	0.0013	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
PCB-209	0.095		0.0094	0.00040	ng/g	☼	04/24/18 10:13	05/03/18 12:29	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-1L	108		30 - 140				04/24/18 10:13	05/03/18 12:29	1
PCB-3L	103		30 - 140				04/24/18 10:13	05/03/18 12:29	1
PCB-4L	93		30 - 140				04/24/18 10:13	05/03/18 12:29	1
PCB-15L	104		30 - 140				04/24/18 10:13	05/03/18 12:29	1
PCB-19L	108		30 - 140				04/24/18 10:13	05/03/18 12:29	1
PCB-37L	98		30 - 140				04/24/18 10:13	05/03/18 12:29	1
PCB-54L	117		30 - 140				04/24/18 10:13	05/03/18 12:29	1
PCB-77L	97		30 - 140				04/24/18 10:13	05/03/18 12:29	1
PCB-81L	98		30 - 140				04/24/18 10:13	05/03/18 12:29	1
PCB-104L	106		30 - 140				04/24/18 10:13	05/03/18 12:29	1
PCB-105L	97		30 - 140				04/24/18 10:13	05/03/18 12:29	1
PCB-114L	96		30 - 140				04/24/18 10:13	05/03/18 12:29	1
PCB-118L	100		30 - 140				04/24/18 10:13	05/03/18 12:29	1
PCB-123L	98		30 - 140				04/24/18 10:13	05/03/18 12:29	1
PCB-126L	96		30 - 140				04/24/18 10:13	05/03/18 12:29	1
PCB-155L	113		30 - 140				04/24/18 10:13	05/03/18 12:29	1
PCB-156L	97	C	30 - 140				04/24/18 10:13	05/03/18 12:29	1
PCB-157L	97	C156	30 - 140				04/24/18 10:13	05/03/18 12:29	1
PCB-167L	98		30 - 140				04/24/18 10:13	05/03/18 12:29	1
PCB-169L	97		30 - 140				04/24/18 10:13	05/03/18 12:29	1
PCB-170L	94		30 - 140				04/24/18 10:13	05/03/18 12:29	1
PCB-188L	100		30 - 140				04/24/18 10:13	05/03/18 12:29	1
PCB-189L	114		30 - 140				04/24/18 10:13	05/03/18 12:29	1
PCB-202L	104		30 - 140				04/24/18 10:13	05/03/18 12:29	1
PCB-205L	93		30 - 140				04/24/18 10:13	05/03/18 12:29	1
PCB-206L	75		30 - 140				04/24/18 10:13	05/03/18 12:29	1
PCB-208L	81		30 - 140				04/24/18 10:13	05/03/18 12:29	1
PCB-209L	68		30 - 140				04/24/18 10:13	05/03/18 12:29	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-28L	79		40 - 125				04/24/18 10:13	05/03/18 12:29	1
PCB-111L	87		40 - 125				04/24/18 10:13	05/03/18 12:29	1
PCB-178L	91		40 - 125				04/24/18 10:13	05/03/18 12:29	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B171-BL1

Lab Sample ID: 580-76685-13

Date Collected: 04/17/18 13:00

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 77.2

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.0026	J	0.0098	0.00023	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-2	0.0037	J q B	0.0098	0.00027	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-3	0.0042	J B	0.0098	0.00031	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-4	0.0034	J q	0.020	0.0023	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-5	ND		0.0098	0.0018	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-6	0.0026	J q	0.0098	0.0016	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-7	0.0020	J q	0.0098	0.0016	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-8	0.016	J	0.020	0.0014	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-9	ND		0.0098	0.0016	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-10	ND		0.0098	0.0017	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-11	0.23		0.020	0.0015	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-12	0.0054	J q C	0.020	0.0016	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-13	0.0054	J q C12	0.020	0.0016	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-14	ND		0.0098	0.0013	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-15	0.019	q	0.0098	0.0016	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-16	0.015		0.0098	0.00046	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-17	0.016		0.0098	0.00041	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-18	0.033	C	0.020	0.00036	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-19	0.0048	J q	0.0098	0.00050	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-20	0.10	C	0.020	0.00051	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-21	0.048	C	0.020	0.00050	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-22	0.036		0.0098	0.00053	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-23	ND		0.0098	0.00052	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-24	0.00059	J q	0.0098	0.00035	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-25	0.0050	J	0.0098	0.00047	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-26	0.0098	J C	0.020	0.00050	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-27	0.0026	J q	0.0098	0.00030	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-28	0.10	C20	0.020	0.00051	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-29	0.0098	J C26	0.020	0.00050	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-30	0.033	C18	0.020	0.00036	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-31	0.080		0.020	0.00050	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-32	0.019		0.0098	0.00029	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-33	0.048	C21	0.020	0.00050	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-34	ND		0.0098	0.00054	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-35	0.0076	J	0.0098	0.00053	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-36	0.0014	J	0.0098	0.00051	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-37	0.035		0.0098	0.00052	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-38	ND		0.0098	0.00055	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-39	ND		0.0098	0.00049	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-40	0.051	C	0.030	0.0012	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-41	0.051	C40	0.030	0.0012	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-42	0.021		0.0098	0.0012	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-43	0.0033	J C	0.020	0.0011	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-44	0.099	C	0.030	0.0011	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-45	0.019	J C	0.020	0.0013	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-46	0.0059	J	0.0098	0.0015	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-47	0.099	C44	0.030	0.0011	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-48	0.017		0.0098	0.0012	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-49	0.053	C	0.020	0.00098	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B171-BL1

Lab Sample ID: 580-76685-13

Date Collected: 04/17/18 13:00

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 77.2

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	0.012	J C	0.020	0.0012	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-51	0.019	J C45	0.020	0.0013	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-52	0.099		0.0098	0.0012	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-53	0.012	J C50	0.020	0.0012	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-54	ND		0.0098	0.000051	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-55	0.0014	J q	0.0098	0.00087	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-56	0.042		0.0098	0.00087	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-57	0.00094	J	0.0098	0.00088	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-58	ND	I	0.0098	0.00090	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-59	0.0064	J C	0.030	0.00085	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-60	0.032		0.0098	0.00089	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-61	0.15	C	0.039	0.00083	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-62	0.0064	J C59	0.030	0.00085	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-63	0.0036	J	0.0098	0.00081	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-64	0.044		0.0098	0.00080	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-65	0.099	C44	0.030	0.0011	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-66	0.086		0.0098	0.00083	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-67	0.0021	J	0.0098	0.00076	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-68	0.0024	J q	0.0098	0.00078	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-69	0.053	C49	0.020	0.00098	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-70	0.15	C61	0.039	0.00083	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-71	0.051	C40	0.030	0.0012	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-72	ND		0.0098	0.00087	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-73	0.0033	J C43	0.020	0.0011	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-74	0.15	C61	0.039	0.00083	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-75	0.0064	J C59	0.030	0.00085	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-76	0.15	C61	0.039	0.00083	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-77	0.0068	J	0.0098	0.00075	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-78	ND		0.0098	0.00090	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-79	0.00078	J q	0.0098	0.00078	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-80	ND		0.0098	0.00076	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-81	ND		0.0098	0.00093	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-82	0.0094	J	0.0098	0.00024	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-83	0.048	C	0.020	0.00022	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-84	0.022		0.0098	0.00024	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-85	0.015	J q C	0.030	0.00018	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-86	0.052	J C	0.059	0.00018	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-87	0.052	J C86	0.059	0.00018	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-88	0.016	J C	0.020	0.00022	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-89	0.0013	J	0.0098	0.00023	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-90	0.078	C	0.030	0.00018	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-91	0.016	J C88	0.020	0.00022	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-92	0.014		0.0098	0.00020	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-93	0.0031	J C	0.020	0.00021	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-94	ND		0.0098	0.00023	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-95	0.069		0.0098	0.00023	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-96	ND		0.0098	0.00018	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-97	0.052	J C86	0.059	0.00018	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-98	0.0035	J C	0.020	0.00020	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B171-BL1

Lab Sample ID: 580-76685-13

Date Collected: 04/17/18 13:00

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 77.2

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	0.048	C83	0.020	0.00022	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-100	0.0031	J C93	0.020	0.00021	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-101	0.078	C90	0.030	0.00018	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-102	0.0035	J C98	0.020	0.00020	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-103	ND		0.0098	0.00021	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-104	ND		0.0098	0.00016	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-105	0.021		0.0098	0.00045	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-106	ND		0.0098	0.00052	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-107	0.0046	J	0.0098	0.00056	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-108	0.0017	J q C	0.020	0.00053	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-109	0.052	J C86	0.059	0.00018	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-110	0.081	C	0.020	0.00015	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-111	ND		0.0098	0.00015	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-112	ND		0.0098	0.00015	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-113	0.078	C90	0.030	0.00018	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-114	0.0015	J q	0.0098	0.00048	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-115	0.081	C110	0.020	0.00015	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-116	0.015	J q C85	0.030	0.00018	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-117	0.015	J q C85	0.030	0.00018	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-118	0.055		0.0098	0.00046	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-119	0.052	J C86	0.059	0.00018	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-120	ND		0.0098	0.00015	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-121	ND		0.0098	0.00015	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-122	0.00093	J q	0.0098	0.00060	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-123	0.0014	J	0.0098	0.00052	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-124	0.0017	J q C108	0.020	0.00053	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-125	0.052	J C86	0.059	0.00018	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-126	ND		0.0098	0.00067	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-127	ND		0.0098	0.00052	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-128	0.013	J C	0.020	0.00093	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-129	0.10	C B	0.039	0.00096	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-130	0.0046	J q	0.0098	0.0013	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-131	ND		0.0098	0.0013	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-132	0.032		0.0098	0.0012	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-133	0.0026	J	0.0098	0.0012	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-134	0.0050	J q C	0.020	0.0012	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-135	0.036	C	0.020	0.00016	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-136	0.013		0.0098	0.00012	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-137	0.0041	J	0.0098	0.0011	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-138	0.10	C129 B	0.039	0.00096	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-139	0.0012	J q C	0.020	0.0011	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-140	0.0012	J q C139	0.020	0.0011	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-141	0.015	q	0.0098	0.0011	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-142	ND		0.0098	0.0012	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-143	0.0050	J q C134	0.020	0.0012	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-144	0.0040	J	0.0098	0.00015	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-145	ND		0.0098	0.00011	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-146	0.016		0.0098	0.0011	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-147	0.10	C	0.020	0.0012	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B171-BL1

Lab Sample ID: 580-76685-13

Date Collected: 04/17/18 13:00

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 77.2

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	ND		0.0098	0.00016	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-149	0.10	C147	0.020	0.0012	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-150	ND		0.0098	0.00011	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-151	0.036	C135	0.020	0.00016	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-152	ND		0.0098	0.00011	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-153	0.089	C B	0.020	0.00084	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-154	0.0018	J q	0.0098	0.00013	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-155	0.00089	J q	0.0098	0.00011	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-156	0.0057	J q C B	0.020	0.00096	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-157	0.0057	J q C156 E	0.020	0.00096	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-158	0.0078	J	0.0098	0.00075	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-159	ND		0.0098	0.00080	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-160	0.10	C129 B	0.039	0.00096	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-161	ND		0.0098	0.00079	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-162	ND		0.0098	0.00078	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-163	0.10	C129 B	0.039	0.00096	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-164	0.0054	J q	0.0098	0.00084	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-165	ND		0.0098	0.00090	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-166	0.013	J C128	0.020	0.00093	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-167	0.0022	J B	0.0098	0.00059	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-168	0.089	C153 B	0.020	0.00084	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-169	ND		0.0098	0.00068	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-170	0.023		0.0098	0.00047	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-171	0.0081	J C	0.020	0.00042	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-172	0.0047	J	0.0098	0.00042	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-173	0.0081	J C171	0.020	0.00042	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-174	0.023		0.0098	0.00039	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-175	0.0010	J q	0.0098	0.00038	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-176	0.0030	J	0.0098	0.00029	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-177	0.015		0.0098	0.00040	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-178	0.0054	J	0.0098	0.00041	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-179	0.013		0.0098	0.00030	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-180	0.043	C	0.020	0.00032	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-181	ND		0.0098	0.00038	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-182	ND		0.0098	0.00036	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-183	0.018	J C	0.020	0.00037	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-184	0.0016	J	0.0098	0.00031	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-185	0.018	J C183	0.020	0.00037	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-186	ND		0.0098	0.00030	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-187	0.039		0.0098	0.00035	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-188	ND		0.0098	0.00026	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-189	ND		0.0098	0.00079	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-190	0.0035	J q	0.0098	0.00027	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-191	0.00069	J q	0.0098	0.00028	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-192	ND		0.0098	0.00032	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-193	0.043	C180	0.020	0.00032	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-194	0.0089	J	0.0098	0.00068	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-195	0.0048	J	0.0098	0.00075	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-196	0.0059	J	0.0098	0.00022	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B171-BL1

Lab Sample ID: 580-76685-13

Date Collected: 04/17/18 13:00

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 77.2

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	0.00043	J q	0.0098	0.00017	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-198	0.015	J C	0.020	0.00022	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-199	0.015	J C198	0.020	0.00022	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-200	0.00072	J	0.0098	0.00015	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-201	0.0015	J	0.0098	0.00015	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-202	0.0019	J q	0.0098	0.00017	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-203	0.0069	J	0.0098	0.00020	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-204	ND		0.0098	0.00017	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-205	ND		0.0098	0.00058	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-206	0.016	q	0.0098	0.0012	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-207	ND		0.0098	0.00085	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-208	0.0072	J	0.0098	0.00086	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
PCB-209	0.026		0.0098	0.00010	ng/g	☼	04/25/18 09:24	05/03/18 07:48	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-1L	68		30 - 140				04/25/18 09:24	05/03/18 07:48	1
PCB-3L	67		30 - 140				04/25/18 09:24	05/03/18 07:48	1
PCB-4L	70		30 - 140				04/25/18 09:24	05/03/18 07:48	1
PCB-15L	75		30 - 140				04/25/18 09:24	05/03/18 07:48	1
PCB-19L	70		30 - 140				04/25/18 09:24	05/03/18 07:48	1
PCB-37L	77		30 - 140				04/25/18 09:24	05/03/18 07:48	1
PCB-54L	74		30 - 140				04/25/18 09:24	05/03/18 07:48	1
PCB-77L	72		30 - 140				04/25/18 09:24	05/03/18 07:48	1
PCB-81L	61		30 - 140				04/25/18 09:24	05/03/18 07:48	1
PCB-104L	74		30 - 140				04/25/18 09:24	05/03/18 07:48	1
PCB-105L	87		30 - 140				04/25/18 09:24	05/03/18 07:48	1
PCB-114L	81		30 - 140				04/25/18 09:24	05/03/18 07:48	1
PCB-118L	81		30 - 140				04/25/18 09:24	05/03/18 07:48	1
PCB-123L	80		30 - 140				04/25/18 09:24	05/03/18 07:48	1
PCB-126L	62		30 - 140				04/25/18 09:24	05/03/18 07:48	1
PCB-155L	76		30 - 140				04/25/18 09:24	05/03/18 07:48	1
PCB-156L	73	C	30 - 140				04/25/18 09:24	05/03/18 07:48	1
PCB-157L	73	C156	30 - 140				04/25/18 09:24	05/03/18 07:48	1
PCB-167L	75		30 - 140				04/25/18 09:24	05/03/18 07:48	1
PCB-169L	64		30 - 140				04/25/18 09:24	05/03/18 07:48	1
PCB-170L	78		30 - 140				04/25/18 09:24	05/03/18 07:48	1
PCB-188L	91		30 - 140				04/25/18 09:24	05/03/18 07:48	1
PCB-189L	67		30 - 140				04/25/18 09:24	05/03/18 07:48	1
PCB-202L	93		30 - 140				04/25/18 09:24	05/03/18 07:48	1
PCB-205L	68		30 - 140				04/25/18 09:24	05/03/18 07:48	1
PCB-206L	70		30 - 140				04/25/18 09:24	05/03/18 07:48	1
PCB-208L	74		30 - 140				04/25/18 09:24	05/03/18 07:48	1
PCB-209L	65		30 - 140				04/25/18 09:24	05/03/18 07:48	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-28L	88		40 - 125				04/25/18 09:24	05/03/18 07:48	1
PCB-111L	92		40 - 125				04/25/18 09:24	05/03/18 07:48	1
PCB-178L	91		40 - 125				04/25/18 09:24	05/03/18 07:48	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B173-BL1

Lab Sample ID: 580-76685-14

Date Collected: 04/17/18 14:36

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 73.6

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.0012	J q	0.0097	0.00017	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-2	0.0045	J B	0.0097	0.00019	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-3	0.0046	J B	0.0097	0.00021	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-4	0.0066	J q	0.019	0.0015	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-5	ND		0.0097	0.0012	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-6	0.0032	J q	0.0097	0.0010	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-7	0.0017	J q	0.0097	0.0011	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-8	0.019		0.019	0.00096	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-9	0.0013	J q	0.0097	0.0011	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-10	ND		0.0097	0.0012	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-11	0.25		0.019	0.0010	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-12	0.0057	J q C	0.019	0.0011	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-13	0.0057	J q C12	0.019	0.0011	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-14	ND		0.0097	0.00089	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-15	0.026		0.0097	0.0011	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-16	0.020		0.0097	0.00036	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-17	0.020		0.0097	0.00032	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-18	0.042	C	0.019	0.00028	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-19	0.0087	J	0.0097	0.00039	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-20	0.11	C	0.019	0.00038	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-21	0.054	C	0.019	0.00037	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-22	0.040		0.0097	0.00038	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-23	ND		0.0097	0.00038	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-24	ND		0.0097	0.00027	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-25	0.0052	J	0.0097	0.00035	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-26	0.011	J C	0.019	0.00037	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-27	0.0038	J	0.0097	0.00023	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-28	0.11	C20	0.019	0.00038	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-29	0.011	J C26	0.019	0.00037	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-30	0.042	C18	0.019	0.00028	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-31	0.090		0.019	0.00037	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-32	0.022		0.0097	0.00022	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-33	0.054	C21	0.019	0.00037	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-34	ND		0.0097	0.00040	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-35	0.0089	J	0.0097	0.00039	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-36	0.0010	J q	0.0097	0.00037	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-37	0.048		0.0097	0.00038	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-38	0.00067	J	0.0097	0.00040	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-39	0.00045	J q	0.0097	0.00036	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-40	0.052	C	0.029	0.00090	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-41	0.052	C40	0.029	0.00090	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-42	0.025		0.0097	0.00090	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-43	0.0019	J q C	0.019	0.00084	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-44	0.10	C	0.029	0.00079	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-45	0.021	C	0.019	0.00094	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-46	0.0058	J	0.0097	0.0011	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-47	0.10	C44	0.029	0.00079	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-48	0.017		0.0097	0.00089	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-49	0.056	C	0.019	0.00073	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B173-BL1

Lab Sample ID: 580-76685-14

Date Collected: 04/17/18 14:36

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 73.6

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	0.013	J C	0.019	0.00087	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-51	0.021	C45	0.019	0.00094	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-52	0.097		0.0097	0.00089	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-53	0.013	J C50	0.019	0.00087	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-54	0.00079	J q	0.0097	0.000035	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-55	0.0021	J q	0.0097	0.00065	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-56	0.046		0.0097	0.00065	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-57	ND		0.0097	0.00066	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-58	ND		0.0097	0.00067	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-59	0.0061	J q C	0.029	0.00063	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-60	0.033		0.0097	0.00067	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-61	0.16	C	0.039	0.00062	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-62	0.0061	J q C59	0.029	0.00063	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-63	0.0039	J	0.0097	0.00061	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-64	0.046		0.0097	0.00060	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-65	0.10	C44	0.029	0.00079	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-66	0.098		0.0097	0.00062	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-67	0.0013	J q	0.0097	0.00057	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-68	0.0016	J q	0.0097	0.00059	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-69	0.056	C49	0.019	0.00073	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-70	0.16	C61	0.039	0.00062	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-71	0.052	C40	0.029	0.00090	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-72	ND		0.0097	0.00065	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-73	0.0019	J q C43	0.019	0.00084	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-74	0.16	C61	0.039	0.00062	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-75	0.0061	J q C59	0.029	0.00063	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-76	0.16	C61	0.039	0.00062	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-77	0.0092	J q	0.0097	0.00062	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-78	ND		0.0097	0.00067	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-79	ND		0.0097	0.00058	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-80	ND		0.0097	0.00057	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-81	ND		0.0097	0.00063	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-82	0.015		0.0097	0.00013	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-83	0.066	C	0.019	0.00012	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-84	0.028	q	0.0097	0.00014	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-85	0.023	J C	0.029	0.000099	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-86	0.072	C	0.058	0.00010	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-87	0.072	C86	0.058	0.00010	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-88	0.020	C	0.019	0.00012	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-89	0.0015	J	0.0097	0.00013	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-90	0.11	C	0.029	0.00010	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-91	0.020	C88	0.019	0.00012	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-92	0.018		0.0097	0.00011	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-93	0.0031	J C	0.019	0.00012	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-94	ND		0.0097	0.00013	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-95	0.095		0.0097	0.00013	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-96	ND		0.0097	0.000099	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-97	0.072	C86	0.058	0.00010	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-98	0.0036	J q C	0.019	0.00011	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B173-BL1

Lab Sample ID: 580-76685-14

Date Collected: 04/17/18 14:36

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 73.6

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	0.066	C83	0.019	0.00012	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-100	0.0031	J C93	0.019	0.00012	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-101	0.11	C90	0.029	0.00010	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-102	0.0036	J q C98	0.019	0.00011	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-103	0.0015	J	0.0097	0.00012	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-104	ND		0.0097	0.000088	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-105	0.033		0.0097	0.00064	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-106	ND		0.0097	0.00054	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-107	0.0059	J	0.0097	0.00058	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-108	0.0031	J C	0.019	0.00056	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-109	0.072	C86	0.058	0.00010	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-110	0.12	C	0.019	0.000085	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-111	ND		0.0097	0.000082	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-112	ND		0.0097	0.000086	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-113	0.11	C90	0.029	0.00010	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-114	0.0020	J q	0.0097	0.00049	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-115	0.12	C110	0.019	0.000085	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-116	0.023	J C85	0.029	0.000099	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-117	0.023	J C85	0.029	0.000099	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-118	0.078		0.0097	0.00049	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-119	0.072	C86	0.058	0.00010	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-120	0.00080	J	0.0097	0.000083	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-121	ND		0.0097	0.000085	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-122	0.0013	J	0.0097	0.00063	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-123	0.0015	J q	0.0097	0.00053	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-124	0.0031	J C108	0.019	0.00056	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-125	0.072	C86	0.058	0.00010	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-126	ND		0.0097	0.00053	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-127	ND		0.0097	0.00054	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-128	0.012	J C	0.019	0.00064	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-129	0.11	C B	0.039	0.00066	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-130	0.0067	J	0.0097	0.00088	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-131	0.0012	J q	0.0097	0.00091	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-132	0.038		0.0097	0.00086	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-133	0.0021	J	0.0097	0.00083	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-134	0.0052	J C	0.019	0.00087	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-135	0.039	C	0.019	0.00010	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-136	0.015		0.0097	0.000075	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-137	0.0036	J q	0.0097	0.00075	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-138	0.11	C129 B	0.039	0.00066	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-139	0.0017	J q C	0.019	0.00074	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-140	0.0017	J q C139	0.019	0.00074	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-141	0.017	q	0.0097	0.00077	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-142	ND		0.0097	0.00083	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-143	0.0052	J C134	0.019	0.00087	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-144	0.0047	J	0.0097	0.000094	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-145	ND		0.0097	0.000071	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-146	0.017		0.0097	0.00073	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-147	0.11	C	0.019	0.00084	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B173-BL1

Lab Sample ID: 580-76685-14

Date Collected: 04/17/18 14:36

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 73.6

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	0.00050	J	0.0097	0.00010	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-149	0.11	C147	0.019	0.00084	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-150	0.00045	J	0.0097	0.000068	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-151	0.039	C135	0.019	0.00010	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-152	ND		0.0097	0.000073	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-153	0.095	C B	0.019	0.00058	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-154	0.0019	J	0.0097	0.000081	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-155	0.0016	J q	0.0097	0.000068	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-156	0.0076	J C B	0.019	0.00070	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-157	0.0076	J C156 B	0.019	0.00070	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-158	0.010		0.0097	0.00052	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-159	ND		0.0097	0.00055	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-160	0.11	C129 B	0.039	0.00066	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-161	ND		0.0097	0.00055	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-162	ND		0.0097	0.00054	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-163	0.11	C129 B	0.039	0.00066	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-164	0.0074	J	0.0097	0.00058	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-165	ND		0.0097	0.00062	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-166	0.012	J C128	0.019	0.00064	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-167	0.0024	J B	0.0097	0.00044	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-168	0.095	C153 B	0.019	0.00058	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-169	ND		0.0097	0.00041	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-170	0.022		0.0097	0.00037	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-171	0.0079	J C	0.019	0.00035	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-172	0.0033	J q	0.0097	0.00034	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-173	0.0079	J C171	0.019	0.00035	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-174	0.025		0.0097	0.00032	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-175	0.00084	J q	0.0097	0.00031	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-176	0.0039	J	0.0097	0.00024	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-177	0.014		0.0097	0.00033	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-178	0.0068	J	0.0097	0.00034	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-179	0.014		0.0097	0.00025	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-180	0.048	C	0.019	0.00026	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-181	ND		0.0097	0.00031	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-182	ND		0.0097	0.00030	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-183	0.019	C	0.019	0.00031	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-184	0.0018	J q	0.0097	0.00026	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-185	0.019	C183	0.019	0.00031	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-186	ND		0.0097	0.00025	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-187	0.033		0.0097	0.00029	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-188	ND		0.0097	0.00022	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-189	0.0011	J q	0.0097	0.00054	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-190	0.0035	J q	0.0097	0.00023	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-191	0.00075	J q	0.0097	0.00024	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-192	ND		0.0097	0.00026	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-193	0.048	C180	0.019	0.00026	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-194	0.019		0.0097	0.00047	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-195	0.0047	J	0.0097	0.00052	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-196	0.0061	J	0.0097	0.00019	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B173-BL1

Lab Sample ID: 580-76685-14

Date Collected: 04/17/18 14:36

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 73.6

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	0.00049	J q	0.0097	0.00014	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-198	0.015	J q C	0.019	0.00019	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-199	0.015	J q C198	0.019	0.00019	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-200	0.0018	J	0.0097	0.00013	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-201	0.0013	J	0.0097	0.00013	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-202	0.0036	J	0.0097	0.00015	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-203	0.0083	J q	0.0097	0.00017	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-204	ND		0.0097	0.00014	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-205	ND		0.0097	0.00040	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-206	0.036		0.0097	0.00089	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-207	0.0020	J	0.0097	0.00065	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-208	0.0040	J	0.0097	0.00068	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
PCB-209	0.0098		0.0097	0.000050	ng/g	☼	04/25/18 09:24	05/03/18 08:50	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-1L	78		30 - 140				04/25/18 09:24	05/03/18 08:50	1
PCB-3L	78		30 - 140				04/25/18 09:24	05/03/18 08:50	1
PCB-4L	75		30 - 140				04/25/18 09:24	05/03/18 08:50	1
PCB-15L	83		30 - 140				04/25/18 09:24	05/03/18 08:50	1
PCB-19L	73		30 - 140				04/25/18 09:24	05/03/18 08:50	1
PCB-37L	91		30 - 140				04/25/18 09:24	05/03/18 08:50	1
PCB-54L	81		30 - 140				04/25/18 09:24	05/03/18 08:50	1
PCB-77L	88		30 - 140				04/25/18 09:24	05/03/18 08:50	1
PCB-81L	88		30 - 140				04/25/18 09:24	05/03/18 08:50	1
PCB-104L	76		30 - 140				04/25/18 09:24	05/03/18 08:50	1
PCB-105L	75		30 - 140				04/25/18 09:24	05/03/18 08:50	1
PCB-114L	85		30 - 140				04/25/18 09:24	05/03/18 08:50	1
PCB-118L	85		30 - 140				04/25/18 09:24	05/03/18 08:50	1
PCB-123L	85		30 - 140				04/25/18 09:24	05/03/18 08:50	1
PCB-126L	84		30 - 140				04/25/18 09:24	05/03/18 08:50	1
PCB-155L	82		30 - 140				04/25/18 09:24	05/03/18 08:50	1
PCB-156L	84	C	30 - 140				04/25/18 09:24	05/03/18 08:50	1
PCB-157L	84	C156	30 - 140				04/25/18 09:24	05/03/18 08:50	1
PCB-167L	85		30 - 140				04/25/18 09:24	05/03/18 08:50	1
PCB-169L	87		30 - 140				04/25/18 09:24	05/03/18 08:50	1
PCB-170L	82		30 - 140				04/25/18 09:24	05/03/18 08:50	1
PCB-188L	91		30 - 140				04/25/18 09:24	05/03/18 08:50	1
PCB-189L	91		30 - 140				04/25/18 09:24	05/03/18 08:50	1
PCB-202L	91		30 - 140				04/25/18 09:24	05/03/18 08:50	1
PCB-205L	72		30 - 140				04/25/18 09:24	05/03/18 08:50	1
PCB-206L	74		30 - 140				04/25/18 09:24	05/03/18 08:50	1
PCB-208L	74		30 - 140				04/25/18 09:24	05/03/18 08:50	1
PCB-209L	65		30 - 140				04/25/18 09:24	05/03/18 08:50	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-28L	93		40 - 125				04/25/18 09:24	05/03/18 08:50	1
PCB-111L	89		40 - 125				04/25/18 09:24	05/03/18 08:50	1
PCB-178L	91		40 - 125				04/25/18 09:24	05/03/18 08:50	1

TestAmerica Seattle

Client Sample Results

Client: AECOM

TestAmerica Job ID: 580-76685-3

Project/Site: Portland Harbor Pre-Remedial Design

Client Sample ID: PDI-SG-B175-BL1

Lab Sample ID: 580-76685-15

Date Collected: 04/17/18 16:33

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 71.8

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.0016	J	0.010	0.00018	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-2	0.0043	J B	0.010	0.00022	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-3	0.0039	J B q	0.010	0.00025	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-4	0.0059	J q	0.020	0.0020	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-5	ND		0.010	0.0015	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-6	0.0030	J q	0.010	0.0013	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-7	ND		0.010	0.0014	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-8	0.017	J	0.020	0.0012	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-9	ND		0.010	0.0014	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-10	ND		0.010	0.0015	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-11	0.21		0.020	0.0013	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-12	0.0057	J C q	0.020	0.0014	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-13	0.0057	J C12 q	0.020	0.0014	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-14	ND		0.010	0.0012	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-15	0.026		0.010	0.0014	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-16	0.018		0.010	0.00040	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-17	0.015	q	0.010	0.00036	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-18	0.033	C	0.020	0.00032	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-19	0.0061	J	0.010	0.00044	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-20	0.10	C	0.020	0.00040	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-21	0.048	C	0.020	0.00039	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-22	0.038		0.010	0.00040	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-23	ND		0.010	0.00040	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-24	0.00087	J q	0.010	0.00030	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-25	0.0039	J	0.010	0.00037	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-26	0.0094	J C	0.020	0.00039	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-27	0.0024	J q	0.010	0.00026	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-28	0.10	C20	0.020	0.00040	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-29	0.0094	J C26	0.020	0.00039	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-30	0.033	C18	0.020	0.00032	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-31	0.080		0.020	0.00039	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-32	0.017		0.010	0.00025	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-33	0.048	C21	0.020	0.00039	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-34	ND		0.010	0.00042	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-35	0.0087	J	0.010	0.00041	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-36	0.0010	J q	0.010	0.00039	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-37	0.046		0.010	0.00040	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-38	0.00068	J q	0.010	0.00042	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-39	0.00050	J q	0.010	0.00038	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-40	0.052	C	0.030	0.0010	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-41	0.052	C40	0.030	0.0010	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-42	0.024		0.010	0.0010	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-43	0.0026	J C	0.020	0.00096	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-44	0.095	C	0.030	0.00090	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-45	0.018	J C	0.020	0.0011	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-46	0.0042	J	0.010	0.0013	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-47	0.095	C44	0.030	0.00090	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-48	0.018		0.010	0.0010	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-49	0.049	C	0.020	0.00083	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B175-BL1

Lab Sample ID: 580-76685-15

Date Collected: 04/17/18 16:33

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 71.8

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	0.012	J C	0.020	0.00099	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-51	0.018	J C45	0.020	0.0011	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-52	0.092		0.010	0.0010	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-53	0.012	J C50	0.020	0.00099	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-54	0.0012	J	0.010	0.000091	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-55	0.0013	J q	0.010	0.00074	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-56	0.044		0.010	0.00074	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-57	ND		0.010	0.00076	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-58	ND		0.010	0.00077	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-59	0.0077	J C	0.030	0.00072	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-60	0.031		0.010	0.00076	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-61	0.15	C	0.040	0.00071	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-62	0.0077	J C59	0.030	0.00072	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-63	0.0033	J q	0.010	0.00069	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-64	0.043		0.010	0.00068	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-65	0.095	C44	0.030	0.00090	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-66	0.090		0.010	0.00071	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-67	0.0017	J q	0.010	0.00065	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-68	0.0020	J q	0.010	0.00067	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-69	0.049	C49	0.020	0.00083	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-70	0.15	C61	0.040	0.00071	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-71	0.052	C40	0.030	0.0010	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-72	ND		0.010	0.00074	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-73	0.0026	J C43	0.020	0.00096	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-74	0.15	C61	0.040	0.00071	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-75	0.0077	J C59	0.030	0.00072	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-76	0.15	C61	0.040	0.00071	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-77	0.011		0.010	0.00074	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-78	ND		0.010	0.00077	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-79	0.00092	J q	0.010	0.00066	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-80	ND		0.010	0.00065	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-81	ND		0.010	0.00068	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-82	0.014		0.010	0.00022	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-83	0.058	C	0.020	0.00020	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-84	0.025	q	0.010	0.00022	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-85	0.022	J C	0.030	0.00016	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-86	0.071	C	0.060	0.00016	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-87	0.071	C86	0.060	0.00016	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-88	0.018	J C	0.020	0.00019	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-89	0.0016	J	0.010	0.00021	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-90	0.099	C	0.030	0.00016	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-91	0.018	J C88	0.020	0.00019	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-92	0.017		0.010	0.00018	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-93	0.0030	J C	0.020	0.00019	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-94	ND		0.010	0.00021	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-95	0.084		0.010	0.00020	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-96	0.0012	J	0.010	0.00016	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-97	0.071	C86	0.060	0.00016	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-98	0.0038	J C	0.020	0.00018	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B175-BL1

Lab Sample ID: 580-76685-15

Date Collected: 04/17/18 16:33

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 71.8

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	0.058	C83	0.020	0.00020	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-100	0.0030	J C93	0.020	0.00019	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-101	0.099	C90	0.030	0.00016	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-102	0.0038	J C98	0.020	0.00018	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-103	0.0018	J q	0.010	0.00019	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-104	ND		0.010	0.00014	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-105	0.035		0.010	0.00049	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-106	ND		0.010	0.00048	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-107	0.0051	J q	0.010	0.00052	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-108	0.0023	J C q	0.020	0.00050	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-109	0.071	C86	0.060	0.00016	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-110	0.11	C	0.020	0.00014	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-111	ND		0.010	0.00013	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-112	ND		0.010	0.00014	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-113	0.099	C90	0.030	0.00016	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-114	0.0022	J	0.010	0.00045	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-115	0.11	C110	0.020	0.00014	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-116	0.022	J C85	0.030	0.00016	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-117	0.022	J C85	0.030	0.00016	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-118	0.077		0.010	0.00044	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-119	0.071	C86	0.060	0.00016	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-120	ND		0.010	0.00013	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-121	ND		0.010	0.00014	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-122	0.0012	J q	0.010	0.00056	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-123	0.0011	J q	0.010	0.00049	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-124	0.0023	J q C108	0.020	0.00050	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-125	0.071	C86	0.060	0.00016	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-126	ND		0.010	0.00051	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-127	ND		0.010	0.00048	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-128	0.015	J C	0.020	0.00067	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-129	0.12	C B	0.040	0.00069	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-130	0.0062	J	0.010	0.00091	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-131	0.0014	J	0.010	0.00095	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-132	0.038		0.010	0.00089	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-133	0.0020	J	0.010	0.00086	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-134	0.0062	J C	0.020	0.00090	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-135	0.040	C	0.020	0.00011	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-136	0.014		0.010	0.000082	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-137	0.0034	J q	0.010	0.00078	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-138	0.12	B C129	0.040	0.00069	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-139	0.0021	J C	0.020	0.00077	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-140	0.0021	J C139	0.020	0.00077	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-141	0.021		0.010	0.00081	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-142	ND		0.010	0.00086	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-143	0.0062	J C134	0.020	0.00090	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-144	0.0042	J q	0.010	0.00010	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-145	ND		0.010	0.000078	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-146	0.019		0.010	0.00076	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-147	0.11	C	0.020	0.00087	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B175-BL1

Lab Sample ID: 580-76685-15

Date Collected: 04/17/18 16:33

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 71.8

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	0.00031	J q	0.010	0.00011	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-149	0.11	C147	0.020	0.00087	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-150	ND		0.010	0.000075	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-151	0.040	C135	0.020	0.00011	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-152	ND		0.010	0.000081	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-153	0.098	C B	0.020	0.00060	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-154	0.0018	J q	0.010	0.000089	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-155	0.0012	J q	0.010	0.000075	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-156	0.0095	J C B	0.020	0.00072	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-157	0.0095	J C156 B	0.020	0.00072	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-158	0.010		0.010	0.00054	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-159	0.0013	J	0.010	0.00058	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-160	0.12	B C129	0.040	0.00069	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-161	ND		0.010	0.00057	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-162	ND		0.010	0.00057	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-163	0.12	B C129	0.040	0.00069	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-164	0.0060	J q	0.010	0.00061	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-165	ND		0.010	0.00065	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-166	0.015	J C128	0.020	0.00067	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-167	0.0035	J B	0.010	0.00045	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-168	0.098	B C153	0.020	0.00060	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-169	ND		0.010	0.00044	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-170	0.027		0.010	0.00038	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-171	0.0089	J C	0.020	0.00035	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-172	0.0047	J	0.010	0.00035	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-173	0.0089	J C171	0.020	0.00035	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-174	0.030		0.010	0.00033	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-175	0.0015	J	0.010	0.00032	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-176	0.0039	J	0.010	0.00024	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-177	0.017		0.010	0.00034	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-178	0.0059	J q	0.010	0.00034	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-179	0.015		0.010	0.00025	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-180	0.058	C	0.020	0.00026	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-181	ND		0.010	0.00032	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-182	ND		0.010	0.00030	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-183	0.019	J C	0.020	0.00031	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-184	0.0017	J	0.010	0.00026	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-185	0.019	J C183	0.020	0.00031	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-186	ND		0.010	0.00025	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-187	0.043		0.010	0.00029	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-188	ND		0.010	0.00022	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-189	0.0014	J	0.010	0.00055	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-190	0.0048	J	0.010	0.00023	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-191	0.00084	J q	0.010	0.00024	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-192	ND		0.010	0.00027	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-193	0.058	C180	0.020	0.00026	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-194	0.013		0.010	0.00037	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-195	0.0055	J q	0.010	0.00041	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-196	0.0055	J	0.010	0.00015	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B175-BL1

Lab Sample ID: 580-76685-15

Date Collected: 04/17/18 16:33

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 71.8

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	0.00048	J	0.010	0.00011	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-198	0.016	J C	0.020	0.00015	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-199	0.016	J C198	0.020	0.00015	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-200	0.0019	J	0.010	0.000099	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-201	0.0018	J q	0.010	0.00010	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-202	0.0033	J	0.010	0.00011	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-203	0.0079	J	0.010	0.00013	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-204	ND		0.010	0.00011	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-205	0.00088	J q	0.010	0.00032	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-206	0.0098	J	0.010	0.0011	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-207	ND		0.010	0.00074	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-208	0.0027	J q	0.010	0.00075	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
PCB-209	0.0083	J q	0.010	0.000074	ng/g	☼	04/25/18 09:24	05/03/18 13:19	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-1L	75		30 - 140				04/25/18 09:24	05/03/18 13:19	1
PCB-3L	74		30 - 140				04/25/18 09:24	05/03/18 13:19	1
PCB-4L	76		30 - 140				04/25/18 09:24	05/03/18 13:19	1
PCB-15L	83		30 - 140				04/25/18 09:24	05/03/18 13:19	1
PCB-19L	81		30 - 140				04/25/18 09:24	05/03/18 13:19	1
PCB-37L	89		30 - 140				04/25/18 09:24	05/03/18 13:19	1
PCB-54L	85		30 - 140				04/25/18 09:24	05/03/18 13:19	1
PCB-77L	89		30 - 140				04/25/18 09:24	05/03/18 13:19	1
PCB-81L	89		30 - 140				04/25/18 09:24	05/03/18 13:19	1
PCB-104L	78		30 - 140				04/25/18 09:24	05/03/18 13:19	1
PCB-105L	85		30 - 140				04/25/18 09:24	05/03/18 13:19	1
PCB-114L	87		30 - 140				04/25/18 09:24	05/03/18 13:19	1
PCB-118L	86		30 - 140				04/25/18 09:24	05/03/18 13:19	1
PCB-123L	85		30 - 140				04/25/18 09:24	05/03/18 13:19	1
PCB-126L	84		30 - 140				04/25/18 09:24	05/03/18 13:19	1
PCB-155L	82		30 - 140				04/25/18 09:24	05/03/18 13:19	1
PCB-156L	86	C	30 - 140				04/25/18 09:24	05/03/18 13:19	1
PCB-157L	86	C156	30 - 140				04/25/18 09:24	05/03/18 13:19	1
PCB-167L	88		30 - 140				04/25/18 09:24	05/03/18 13:19	1
PCB-169L	88		30 - 140				04/25/18 09:24	05/03/18 13:19	1
PCB-170L	84		30 - 140				04/25/18 09:24	05/03/18 13:19	1
PCB-188L	98		30 - 140				04/25/18 09:24	05/03/18 13:19	1
PCB-189L	96		30 - 140				04/25/18 09:24	05/03/18 13:19	1
PCB-202L	96		30 - 140				04/25/18 09:24	05/03/18 13:19	1
PCB-205L	74		30 - 140				04/25/18 09:24	05/03/18 13:19	1
PCB-206L	74		30 - 140				04/25/18 09:24	05/03/18 13:19	1
PCB-208L	79		30 - 140				04/25/18 09:24	05/03/18 13:19	1
PCB-209L	65		30 - 140				04/25/18 09:24	05/03/18 13:19	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-28L	90		40 - 125				04/25/18 09:24	05/03/18 13:19	1
PCB-111L	87		40 - 125				04/25/18 09:24	05/03/18 13:19	1
PCB-178L	94		40 - 125				04/25/18 09:24	05/03/18 13:19	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B108-BL1

Lab Sample ID: 580-76685-16

Date Collected: 04/17/18 10:00

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 43.0

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.0077	J	0.011	0.00031	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-2	0.020	B	0.011	0.00037	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-3	0.014	B	0.011	0.00044	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-4	0.13		0.023	0.0026	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-5	ND		0.011	0.0020	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-6	0.014	q	0.011	0.0017	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-7	0.0031	J q	0.011	0.0018	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-8	0.065		0.023	0.0016	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-9	0.0032	J q	0.011	0.0018	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-10	0.018		0.011	0.0019	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-11	0.30		0.023	0.0017	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-12	0.032	C	0.023	0.0017	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-13	0.032	C12	0.023	0.0017	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-14	ND		0.011	0.0015	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-15	0.18		0.011	0.0018	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-16	0.032		0.011	0.00051	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-17	0.093		0.011	0.00046	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-18	0.083	C	0.023	0.00040	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-19	0.39		0.011	0.00056	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-20	0.21	C	0.023	0.00068	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-21	0.089	C	0.023	0.00066	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-22	0.063		0.011	0.00069	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-23	ND		0.011	0.00069	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-24	0.0012	J q	0.011	0.00038	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-25	0.021		0.011	0.00062	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-26	0.036	C	0.023	0.00066	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-27	0.082		0.011	0.00033	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-28	0.21	C20	0.023	0.00068	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-29	0.036	C26	0.023	0.00066	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-30	0.083	C18	0.023	0.00040	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-31	0.17		0.023	0.00066	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-32	0.093		0.011	0.00032	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-33	0.089	C21	0.023	0.00066	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-34	ND		0.011	0.00071	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-35	0.011		0.011	0.00069	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-36	0.0017	J	0.011	0.00067	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-37	0.076		0.011	0.00069	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-38	ND		0.011	0.00072	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-39	0.0013	J	0.011	0.00064	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-40	0.10	C	0.034	0.0017	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-41	0.10	C40	0.034	0.0017	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-42	0.047		0.011	0.0017	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-43	0.011	J C	0.023	0.0016	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-44	0.30	C	0.034	0.0015	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-45	0.052	C	0.023	0.0018	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-46	0.010	J q	0.011	0.0021	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-47	0.30	C44	0.034	0.0015	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-48	0.033		0.011	0.0017	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-49	0.16	C	0.023	0.0014	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B108-BL1

Lab Sample ID: 580-76685-16

Date Collected: 04/17/18 10:00

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 43.0

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	0.044	C	0.023	0.0016	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-51	0.052	C45	0.023	0.0018	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-52	0.34		0.011	0.0017	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-53	0.044	C50	0.023	0.0016	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-54	0.019		0.011	0.00013	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-55	0.0033	J q	0.011	0.0012	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-56	0.088		0.011	0.0012	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-57	ND		0.011	0.0012	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-58	ND		0.011	0.0013	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-59	0.017	J C	0.034	0.0012	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-60	0.042	q	0.011	0.0013	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-61	0.41	C	0.046	0.0012	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-62	0.017	J C59	0.034	0.0012	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-63	0.0071	J q	0.011	0.0011	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-64	0.090		0.011	0.0011	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-65	0.30	C44	0.034	0.0015	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-66	0.23		0.011	0.0012	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-67	0.0042	J q	0.011	0.0011	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-68	0.0054	J	0.011	0.0011	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-69	0.16	C49	0.023	0.0014	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-70	0.41	C61	0.046	0.0012	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-71	0.10	C40	0.034	0.0017	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-72	0.0035	J q	0.011	0.0012	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-73	0.011	J C43	0.023	0.0016	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-74	0.41	C61	0.046	0.0012	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-75	0.017	J C59	0.034	0.0012	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-76	0.41	C61	0.046	0.0012	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-77	0.022		0.011	0.0012	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-78	ND		0.011	0.0013	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-79	0.0037	J	0.011	0.0011	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-80	ND		0.011	0.0011	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-81	ND		0.011	0.0012	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-82	0.064		0.011	0.00038	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-83	0.39	C	0.023	0.00035	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-84	0.14		0.011	0.00038	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-85	0.10	C	0.034	0.00028	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-86	0.44	C	0.069	0.00028	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-87	0.44	C86	0.069	0.00028	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-88	0.097	C	0.023	0.00034	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-89	ND		0.011	0.00037	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-90	1.2	C	0.034	0.00029	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-91	0.097	C88	0.023	0.00034	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-92	0.16		0.011	0.00033	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-93	0.021	J C	0.023	0.00033	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-94	ND		0.011	0.00037	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-95	0.63		0.011	0.00036	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-96	ND		0.011	0.00028	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-97	0.44	C86	0.069	0.00028	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-98	0.016	J C	0.023	0.00032	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B108-BL1

Lab Sample ID: 580-76685-16

Date Collected: 04/17/18 10:00

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 43.0

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	0.39	C83	0.023	0.00035	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-100	0.021	J C93	0.023	0.00033	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-101	1.2	C90	0.034	0.00029	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-102	0.016	J C98	0.023	0.00032	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-103	0.013		0.011	0.00033	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-104	ND		0.011	0.00025	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-105	0.22		0.011	0.0013	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-106	ND		0.011	0.0013	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-107	0.044		0.011	0.0014	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-108	0.022	J C	0.023	0.0013	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-109	0.44	C86	0.069	0.00028	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-110	0.88	C	0.023	0.00024	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-111	ND		0.011	0.00023	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-112	0.0021	J q	0.011	0.00024	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-113	1.2	C90	0.034	0.00029	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-114	0.0076	J q	0.011	0.0012	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-115	0.88	C110	0.023	0.00024	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-116	0.10	C85	0.034	0.00028	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-117	0.10	C85	0.034	0.00028	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-118	0.69		0.011	0.0012	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-119	0.44	C86	0.069	0.00028	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-120	0.0046	J	0.011	0.00024	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-121	ND		0.011	0.00024	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-122	0.0040	J q	0.011	0.0015	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-123	0.0086	J q	0.011	0.0013	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-124	0.022	J C108	0.023	0.0013	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-125	0.44	C86	0.069	0.00028	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-126	0.0028	J q	0.011	0.0013	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-127	ND		0.011	0.0013	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-128	0.40	C	0.023	0.0057	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-129	5.4	C B	0.046	0.0059	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-130	0.17		0.011	0.0078	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-131	0.026	q	0.011	0.0081	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-132	1.4		0.011	0.0076	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-133	0.049	q	0.011	0.0074	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-134	0.19	C	0.023	0.0077	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-135	2.1	C	0.023	0.00019	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-136	0.53		0.011	0.00014	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-137	0.041		0.011	0.0067	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-138	5.4	B C129	0.046	0.0059	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-139	0.017	J C	0.023	0.0066	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-140	0.017	J C139	0.023	0.0066	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-141	1.6		0.011	0.0069	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-142	ND		0.011	0.0074	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-143	0.19	C134	0.023	0.0077	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-144	0.29		0.011	0.00017	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-145	ND		0.011	0.00013	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-146	0.78		0.011	0.0065	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-147	5.2	C	0.023	0.0075	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B108-BL1

Lab Sample ID: 580-76685-16

Date Collected: 04/17/18 10:00

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 43.0

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	ND		0.011	0.00018	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-149	5.2	C147	0.023	0.0075	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-150	ND		0.011	0.00013	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-151	2.1	C135	0.023	0.00019	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-152	ND		0.011	0.00013	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-153	5.9	C B	0.023	0.0052	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-154	0.019	q	0.011	0.00015	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-155	ND		0.011	0.00013	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-156	0.38	C B	0.023	0.0061	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-157	0.38	C156 B	0.023	0.0061	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-158	0.49		0.011	0.0047	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-159	0.074		0.011	0.0049	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-160	5.4	B C129	0.046	0.0059	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-161	ND		0.011	0.0049	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-162	0.0069	J	0.011	0.0048	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-163	5.4	B C129	0.046	0.0059	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-164	0.37		0.011	0.0052	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-165	ND		0.011	0.0056	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-166	0.40	C128	0.023	0.0057	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-167	0.13	B	0.011	0.0039	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-168	5.9	B C153	0.023	0.0052	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-169	ND		0.011	0.0038	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-170	3.3		0.011	0.00048	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-171	0.98	C	0.023	0.00044	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-172	0.53		0.011	0.00044	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-173	0.98	C171	0.023	0.00044	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-174	3.3		0.011	0.00041	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-175	0.13		0.011	0.00040	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-176	0.42		0.011	0.00030	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-177	1.8		0.011	0.00042	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-178	0.63		0.011	0.00043	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-179	1.4		0.011	0.00032	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-180	7.2	C	0.023	0.00033	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-181	0.014	q	0.011	0.00040	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-182	0.014		0.011	0.00038	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-183	2.5	C	0.023	0.00039	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-184	ND		0.011	0.00032	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-185	2.5	C183	0.023	0.00039	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-186	ND		0.011	0.00032	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-187	3.8		0.011	0.00037	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-188	ND		0.011	0.00027	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-189	0.10		0.011	0.0016	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-190	0.59		0.011	0.00029	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-191	0.13		0.011	0.00030	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-192	ND		0.011	0.00033	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-193	7.2	C180	0.023	0.00033	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-194	1.7		0.011	0.0017	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-195	0.76		0.011	0.0019	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-196	0.76		0.011	0.00031	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B108-BL1

Lab Sample ID: 580-76685-16

Date Collected: 04/17/18 10:00

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 43.0

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	0.060		0.011	0.00024	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-198	1.4	C	0.023	0.00032	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-199	1.4	C198	0.023	0.00032	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-200	0.17		0.011	0.00021	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-201	0.17		0.011	0.00022	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-202	0.23		0.011	0.00025	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-203	0.87		0.011	0.00028	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-204	ND		0.011	0.00024	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-205	0.090		0.011	0.0015	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-206	0.34		0.011	0.0017	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-207	0.044		0.011	0.0011	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-208	0.071		0.011	0.0011	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1
PCB-209	0.10		0.011	0.00036	ng/g	☼	04/25/18 09:24	05/03/18 14:20	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	73		30 - 140	04/25/18 09:24	05/03/18 14:20	1
PCB-3L	73		30 - 140	04/25/18 09:24	05/03/18 14:20	1
PCB-4L	73		30 - 140	04/25/18 09:24	05/03/18 14:20	1
PCB-15L	83		30 - 140	04/25/18 09:24	05/03/18 14:20	1
PCB-19L	79		30 - 140	04/25/18 09:24	05/03/18 14:20	1
PCB-37L	87		30 - 140	04/25/18 09:24	05/03/18 14:20	1
PCB-54L	80		30 - 140	04/25/18 09:24	05/03/18 14:20	1
PCB-77L	88		30 - 140	04/25/18 09:24	05/03/18 14:20	1
PCB-81L	89		30 - 140	04/25/18 09:24	05/03/18 14:20	1
PCB-104L	74		30 - 140	04/25/18 09:24	05/03/18 14:20	1
PCB-105L	80		30 - 140	04/25/18 09:24	05/03/18 14:20	1
PCB-114L	87		30 - 140	04/25/18 09:24	05/03/18 14:20	1
PCB-118L	84		30 - 140	04/25/18 09:24	05/03/18 14:20	1
PCB-123L	85		30 - 140	04/25/18 09:24	05/03/18 14:20	1
PCB-126L	83		30 - 140	04/25/18 09:24	05/03/18 14:20	1
PCB-155L	80		30 - 140	04/25/18 09:24	05/03/18 14:20	1
PCB-156L	83	C	30 - 140	04/25/18 09:24	05/03/18 14:20	1
PCB-157L	83	C156	30 - 140	04/25/18 09:24	05/03/18 14:20	1
PCB-167L	84		30 - 140	04/25/18 09:24	05/03/18 14:20	1
PCB-169L	85		30 - 140	04/25/18 09:24	05/03/18 14:20	1
PCB-170L	82		30 - 140	04/25/18 09:24	05/03/18 14:20	1
PCB-188L	95		30 - 140	04/25/18 09:24	05/03/18 14:20	1
PCB-189L	94		30 - 140	04/25/18 09:24	05/03/18 14:20	1
PCB-202L	95		30 - 140	04/25/18 09:24	05/03/18 14:20	1
PCB-205L	72		30 - 140	04/25/18 09:24	05/03/18 14:20	1
PCB-206L	68		30 - 140	04/25/18 09:24	05/03/18 14:20	1
PCB-208L	76		30 - 140	04/25/18 09:24	05/03/18 14:20	1
PCB-209L	59		30 - 140	04/25/18 09:24	05/03/18 14:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	89		40 - 125	04/25/18 09:24	05/03/18 14:20	1
PCB-111L	88		40 - 125	04/25/18 09:24	05/03/18 14:20	1
PCB-178L	93		40 - 125	04/25/18 09:24	05/03/18 14:20	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B160-BL1

Lab Sample ID: 580-76685-17

Date Collected: 04/17/18 11:40

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 46.6

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.0070	J	0.011	0.00035	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-2	0.015		0.011	0.00038	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-3	0.0052	J	0.011	0.00040	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-4	0.075		0.021	0.0045	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-5	ND		0.011	0.0034	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-6	0.013	q	0.011	0.0030	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-7	ND	q	0.011	0.0030	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-8	0.046		0.021	0.0027	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-9	ND		0.011	0.0031	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-10	ND		0.011	0.0033	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-11	0.12		0.021	0.0029	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-12	0.0079	J q C	0.021	0.0030	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-13	0.0079	J q C12	0.021	0.0030	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-14	ND		0.011	0.0025	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-15	0.038		0.011	0.0029	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-16	0.019	q	0.011	0.00065	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-17	0.062		0.011	0.00058	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-18	0.069	C	0.021	0.00051	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-19	0.033	q	0.011	0.00071	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-20	0.14	C B	0.021	0.00076	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-21	0.055	C	0.021	0.00074	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-22	0.039		0.011	0.00078	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-23	ND		0.011	0.00077	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-24	0.0016	J q	0.011	0.00049	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-25	0.014		0.011	0.00070	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-26	0.021	q C	0.021	0.00075	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-27	0.014		0.011	0.00043	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-28	0.14	C20 B	0.021	0.00076	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-29	0.021	q C26	0.021	0.00075	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-30	0.069	C18	0.021	0.00051	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-31	0.11		0.021	0.00074	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-32	0.040		0.011	0.00041	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-33	0.055	C21	0.021	0.00074	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-34	ND		0.011	0.00080	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-35	0.0019	J q	0.011	0.00078	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-36	ND		0.011	0.00075	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-37	0.040		0.011	0.00078	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-38	ND		0.011	0.00081	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-39	ND		0.011	0.00072	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-40	0.084	C	0.032	0.0016	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-41	0.084	C40	0.032	0.0016	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-42	0.041		0.011	0.0016	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-43	0.0034	J q C	0.021	0.0015	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-44	0.20	C B	0.032	0.0014	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-45	0.035	C	0.021	0.0016	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-46	0.0078	J	0.011	0.0020	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-47	0.20	C44 B	0.032	0.0014	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-48	0.024		0.011	0.0016	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-49	0.13	C	0.021	0.0013	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B160-BL1

Lab Sample ID: 580-76685-17

Date Collected: 04/17/18 11:40

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 46.6

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	0.036	C	0.021	0.0015	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-51	0.035	C45	0.021	0.0016	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-52	0.22		0.011	0.0016	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-53	0.036	C50	0.021	0.0015	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-54	0.0035	J	0.011	0.000058	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-55	0.0018	J q	0.011	0.0011	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-56	0.063		0.011	0.0011	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-57	ND		0.011	0.0012	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-58	0.0012	J q	0.011	0.0012	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-59	0.014	J C	0.032	0.0011	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-60	0.026		0.011	0.0012	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-61	0.27	C	0.043	0.0011	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-62	0.014	J C59	0.032	0.0011	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-63	0.0050	J q	0.011	0.0011	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-64	0.061		0.011	0.0010	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-65	0.20	C44 B	0.032	0.0014	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-66	0.17		0.011	0.0011	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-67	0.0038	J	0.011	0.0010	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-68	0.0053	J	0.011	0.0010	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-69	0.13	C49	0.021	0.0013	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-70	0.27	C61	0.043	0.0011	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-71	0.084	C40	0.032	0.0016	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-72	0.0038	J	0.011	0.0011	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-73	0.0034	J q C43	0.021	0.0015	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-74	0.27	C61	0.043	0.0011	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-75	0.014	J C59	0.032	0.0011	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-76	0.27	C61	0.043	0.0011	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-77	0.015	q	0.011	0.0011	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-78	ND		0.011	0.0012	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-79	0.0018	J q	0.011	0.0010	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-80	ND		0.011	0.0010	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-81	ND		0.011	0.0011	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-82	0.036		0.011	0.00036	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-83	0.23	C B	0.021	0.00033	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-84	0.078		0.011	0.00037	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-85	0.061	C	0.032	0.00027	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-86	0.20	C	0.064	0.00027	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-87	0.20	C86	0.064	0.00027	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-88	0.055	C	0.021	0.00033	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-89	ND		0.011	0.00036	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-90	0.36	C	0.032	0.00028	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-91	0.055	C88	0.021	0.00033	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-92	0.059	q	0.011	0.00031	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-93	0.0081	J q C	0.021	0.00032	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-94	ND		0.011	0.00036	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-95	0.29		0.011	0.00034	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-96	0.0034	J q	0.011	0.00027	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-97	0.20	C86	0.064	0.00027	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-98	0.011	J C	0.021	0.00031	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B160-BL1

Lab Sample ID: 580-76685-17

Date Collected: 04/17/18 11:40

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 46.6

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	0.23	C83 B	0.021	0.00033	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-100	0.0081	J q C93	0.021	0.00032	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-101	0.36	C90	0.032	0.00028	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-102	0.011	J C98	0.021	0.00031	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-103	0.0074	J	0.011	0.00032	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-104	ND		0.011	0.00024	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-105	0.12		0.011	0.0013	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-106	ND		0.011	0.0013	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-107	0.029		0.011	0.0014	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-108	0.010	J C	0.021	0.0013	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-109	0.20	C86	0.064	0.00027	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-110	0.40	C B	0.021	0.00023	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-111	ND		0.011	0.00022	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-112	ND		0.011	0.00023	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-113	0.36	C90	0.032	0.00028	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-114	0.0054	J	0.011	0.0012	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-115	0.40	C110 B	0.021	0.00023	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-116	0.061	C85	0.032	0.00027	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-117	0.061	C85	0.032	0.00027	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-118	0.32		0.011	0.0012	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-119	0.20	C86	0.064	0.00027	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-120	0.0028	J	0.011	0.00023	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-121	ND		0.011	0.00023	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-122	0.0037	J	0.011	0.0015	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-123	0.0036	J q	0.011	0.0013	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-124	0.010	J C108	0.021	0.0013	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-125	0.20	C86	0.064	0.00027	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-126	0.0024	J	0.011	0.0013	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-127	ND		0.011	0.0013	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-128	0.077	C	0.021	0.0021	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-129	0.57	C B	0.043	0.0022	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-130	0.035		0.011	0.0029	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-131	ND		0.011	0.0030	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-132	0.16		0.011	0.0028	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-133	0.011		0.011	0.0027	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-134	0.025	C	0.021	0.0029	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-135	0.20	C	0.021	0.00024	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-136	0.064		0.011	0.00017	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-137	0.017		0.011	0.0025	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-138	0.57	C129 B	0.043	0.0022	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-139	0.0061	J q C	0.021	0.0024	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-140	0.0061	J q C139	0.021	0.0024	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-141	0.092		0.011	0.0026	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-142	ND		0.011	0.0027	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-143	0.025	C134	0.021	0.0029	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-144	0.019		0.011	0.00022	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-145	ND		0.011	0.00017	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-146	0.10		0.011	0.0024	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-147	0.51	C	0.021	0.0028	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B160-BL1

Lab Sample ID: 580-76685-17

Date Collected: 04/17/18 11:40

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 46.6

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	0.011	0.00023	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-149	0.51	C147	0.021	0.0028	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-150	0.00044	J q	0.011	0.00016	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-151	0.20	C135	0.021	0.00024	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-152	ND		0.011	0.00017	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-153	0.48	C	0.021	0.0019	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-154	0.0093	J q	0.011	0.00019	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-155	ND		0.011	0.00016	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-156	0.049	C B	0.021	0.0023	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-157	0.049	C156 B	0.021	0.0023	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-158	0.046		0.011	0.0017	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-159	ND		0.011	0.0018	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-160	0.57	C129 B	0.043	0.0022	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-161	ND		0.011	0.0018	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-162	ND		0.011	0.0018	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-163	0.57	C129 B	0.043	0.0022	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-164	0.038		0.011	0.0019	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-165	ND		0.011	0.0021	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-166	0.077	C128	0.021	0.0021	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-167	0.018		0.011	0.0014	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-168	0.48	C153	0.021	0.0019	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-169	ND		0.011	0.0014	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-170	0.16		0.011	0.00056	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-171	0.050	C B	0.021	0.00053	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-172	0.025		0.011	0.00053	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-173	0.050	C171 B	0.021	0.00053	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-174	0.17		0.011	0.00050	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-175	0.0044	J q	0.011	0.00048	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-176	0.016	q	0.011	0.00036	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-177	0.10		0.011	0.00051	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-178	0.041		0.011	0.00052	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-179	0.076		0.011	0.00038	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-180	0.35	C	0.021	0.00040	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-181	0.0033	J B	0.011	0.00048	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-182	0.0024	J q	0.011	0.00046	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-183	0.11	C	0.021	0.00047	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-184	ND		0.011	0.00039	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-185	0.11	C183	0.021	0.00047	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-186	ND		0.011	0.00038	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-187	0.23		0.011	0.00045	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-188	ND		0.011	0.00034	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-189	0.0060	J	0.011	0.0014	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-190	0.026		0.011	0.00035	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-191	0.0041	J q	0.011	0.00036	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-192	ND		0.011	0.00040	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-193	0.35	C180	0.021	0.00040	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-194	0.090		0.011	0.0015	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-195	0.039		0.011	0.0016	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-196	0.038		0.011	0.00040	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B160-BL1

Lab Sample ID: 580-76685-17

Date Collected: 04/17/18 11:40

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 46.6

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	0.0027	J q	0.011	0.00030	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-198	0.10	C	0.021	0.00040	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-199	0.10	C198	0.021	0.00040	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-200	0.011	B	0.011	0.00027	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-201	0.011		0.011	0.00028	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-202	0.022		0.011	0.00031	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-203	0.057		0.011	0.00036	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-204	ND		0.011	0.00030	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-205	0.0047	J	0.011	0.0012	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-206	0.067		0.011	0.0026	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-207	0.0074	J	0.011	0.0018	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-208	0.020		0.011	0.0017	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1
PCB-209	0.089		0.011	0.00027	ng/g	☼	04/27/18 12:10	05/08/18 07:17	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	73		30 - 140	04/27/18 12:10	05/08/18 07:17	1
PCB-3L	78		30 - 140	04/27/18 12:10	05/08/18 07:17	1
PCB-4L	72		30 - 140	04/27/18 12:10	05/08/18 07:17	1
PCB-15L	81		30 - 140	04/27/18 12:10	05/08/18 07:17	1
PCB-19L	76		30 - 140	04/27/18 12:10	05/08/18 07:17	1
PCB-37L	86		30 - 140	04/27/18 12:10	05/08/18 07:17	1
PCB-54L	82		30 - 140	04/27/18 12:10	05/08/18 07:17	1
PCB-77L	89		30 - 140	04/27/18 12:10	05/08/18 07:17	1
PCB-81L	86		30 - 140	04/27/18 12:10	05/08/18 07:17	1
PCB-104L	80		30 - 140	04/27/18 12:10	05/08/18 07:17	1
PCB-105L	82		30 - 140	04/27/18 12:10	05/08/18 07:17	1
PCB-114L	89		30 - 140	04/27/18 12:10	05/08/18 07:17	1
PCB-118L	85		30 - 140	04/27/18 12:10	05/08/18 07:17	1
PCB-123L	83		30 - 140	04/27/18 12:10	05/08/18 07:17	1
PCB-126L	85		30 - 140	04/27/18 12:10	05/08/18 07:17	1
PCB-155L	84		30 - 140	04/27/18 12:10	05/08/18 07:17	1
PCB-156L	86	C	30 - 140	04/27/18 12:10	05/08/18 07:17	1
PCB-157L	86	C156	30 - 140	04/27/18 12:10	05/08/18 07:17	1
PCB-167L	85		30 - 140	04/27/18 12:10	05/08/18 07:17	1
PCB-169L	84		30 - 140	04/27/18 12:10	05/08/18 07:17	1
PCB-170L	82		30 - 140	04/27/18 12:10	05/08/18 07:17	1
PCB-188L	90		30 - 140	04/27/18 12:10	05/08/18 07:17	1
PCB-189L	94		30 - 140	04/27/18 12:10	05/08/18 07:17	1
PCB-202L	94		30 - 140	04/27/18 12:10	05/08/18 07:17	1
PCB-205L	73		30 - 140	04/27/18 12:10	05/08/18 07:17	1
PCB-206L	71		30 - 140	04/27/18 12:10	05/08/18 07:17	1
PCB-208L	78		30 - 140	04/27/18 12:10	05/08/18 07:17	1
PCB-209L	61		30 - 140	04/27/18 12:10	05/08/18 07:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	93		40 - 125	04/27/18 12:10	05/08/18 07:17	1
PCB-111L	98		40 - 125	04/27/18 12:10	05/08/18 07:17	1
PCB-178L	97		40 - 125	04/27/18 12:10	05/08/18 07:17	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B168-BL1

Lab Sample ID: 580-76685-18

Date Collected: 04/17/18 13:45

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 69.9

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	ND		0.0095	0.00082	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-2	ND		0.0095	0.00089	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-3	ND		0.0095	0.00093	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-4	0.0061	J q	0.019	0.0034	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-5	ND		0.0095	0.0028	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-6	ND		0.0095	0.0025	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-7	ND		0.0095	0.0025	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-8	0.0049	J q	0.019	0.0023	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-9	ND		0.0095	0.0026	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-10	ND		0.0095	0.0027	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-11	0.016	J q	0.019	0.0024	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-12	ND	C	0.019	0.0025	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-13	ND	C12	0.019	0.0025	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-14	ND		0.0095	0.0021	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-15	0.0051	J q	0.0095	0.0027	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-16	0.0043	J	0.0095	0.00047	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-17	0.0073	J	0.0095	0.00042	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-18	0.015	J C	0.019	0.00037	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-19	0.0060	J	0.0095	0.00051	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-20	0.025	C B	0.019	0.00075	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-21	0.0091	J C	0.019	0.00073	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-22	0.0070	J	0.0095	0.00076	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-23	ND		0.0095	0.00076	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-24	ND		0.0095	0.00035	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-25	0.0021	J	0.0095	0.00069	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-26	0.0032	J C q	0.019	0.00073	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-27	0.0020	J	0.0095	0.00031	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-28	0.025	B C20	0.019	0.00075	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-29	0.0032	J C26 q	0.019	0.00073	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-30	0.015	J C18	0.019	0.00037	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-31	0.019		0.019	0.00073	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-32	0.0042	J	0.0095	0.00029	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-33	0.0091	J C21	0.019	0.00073	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-34	ND		0.0095	0.00079	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-35	ND		0.0095	0.00077	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-36	ND		0.0095	0.00074	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-37	0.0068	J	0.0095	0.00076	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-38	ND		0.0095	0.00079	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-39	ND		0.0095	0.00071	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-40	0.016	J C	0.029	0.00094	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-41	0.016	J C40	0.029	0.00094	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-42	0.0081	J	0.0095	0.00094	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-43	0.00093	J C q	0.019	0.00088	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-44	0.047	C B	0.029	0.00083	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-45	0.0049	J C q	0.019	0.00099	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-46	0.0021	J q	0.0095	0.0012	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-47	0.047	B C44	0.029	0.00083	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-48	0.0062	J	0.0095	0.00094	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-49	0.030	C	0.019	0.00077	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B168-BL1

Lab Sample ID: 580-76685-18

Date Collected: 04/17/18 13:45

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 69.9

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	0.0069	J C	0.019	0.00091	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-51	0.0049	J C45 q	0.019	0.00099	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-52	0.086		0.0095	0.00093	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-53	0.0069	J C50	0.019	0.00091	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-54	ND		0.0095	0.00012	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-55	ND		0.0095	0.00069	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-56	0.014		0.0095	0.00069	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-57	ND		0.0095	0.00070	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-58	ND		0.0095	0.00071	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-59	0.0026	J C q	0.029	0.00067	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-60	0.0061	J	0.0095	0.00070	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-61	0.086	C	0.038	0.00066	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-62	0.0026	J C59 q	0.029	0.00067	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-63	ND		0.0095	0.00064	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-64	0.016		0.0095	0.00063	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-65	0.047	B C44	0.029	0.00083	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-66	0.035		0.0095	0.00065	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-67	ND		0.0095	0.00060	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-68	ND		0.0095	0.00062	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-69	0.030	C49	0.019	0.00077	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-70	0.086	C61	0.038	0.00066	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-71	0.016	J C40	0.029	0.00094	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-72	ND		0.0095	0.00068	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-73	0.00093	J C43 q	0.019	0.00088	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-74	0.086	C61	0.038	0.00066	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-75	0.0026	J C59 q	0.029	0.00067	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-76	0.086	C61	0.038	0.00066	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-77	0.0029	J	0.0095	0.00068	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-78	ND		0.0095	0.00071	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-79	ND		0.0095	0.00061	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-80	ND		0.0095	0.00060	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-81	ND		0.0095	0.00063	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-82	0.012		0.0095	0.00023	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-83	0.070	C B	0.019	0.00021	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-84	0.030		0.0095	0.00023	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-85	0.019	J C	0.029	0.00017	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-86	0.082	C	0.057	0.00017	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-87	0.082	C86	0.057	0.00017	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-88	0.013	J C q	0.019	0.00021	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-89	ND		0.0095	0.00022	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-90	0.17	C	0.029	0.00017	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-91	0.013	J C88 q	0.019	0.00021	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-92	0.027		0.0095	0.00020	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-93	0.0011	J C q	0.019	0.00020	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-94	ND		0.0095	0.00022	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-95	0.14		0.0095	0.00022	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-96	ND		0.0095	0.00017	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-97	0.082	C86	0.057	0.00017	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-98	0.0028	J C q	0.019	0.00019	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B168-BL1

Lab Sample ID: 580-76685-18

Date Collected: 04/17/18 13:45

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 69.9

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	0.070	C83 B	0.019	0.00021	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-100	0.0011	J C93 q	0.019	0.00020	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-101	0.17	C90	0.029	0.00017	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-102	0.0028	J C98 q	0.019	0.00019	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-103	ND		0.0095	0.00020	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-104	ND		0.0095	0.00015	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-105	0.045		0.0095	0.00069	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-106	ND		0.0095	0.00069	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-107	0.0077	J q	0.0095	0.00074	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-108	0.0044	J C q	0.019	0.00071	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-109	0.082	C86	0.057	0.00017	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-110	0.16	C B	0.019	0.00014	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-111	ND		0.0095	0.00014	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-112	ND		0.0095	0.00015	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-113	0.17	C90	0.029	0.00017	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-114	0.0029	J	0.0095	0.00066	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-115	0.16	B C110	0.019	0.00014	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-116	0.019	J C85	0.029	0.00017	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-117	0.019	J C85	0.029	0.00017	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-118	0.12		0.0095	0.00061	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-119	0.082	C86	0.057	0.00017	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-120	ND		0.0095	0.00014	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-121	ND		0.0095	0.00015	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-122	0.0015	J q	0.0095	0.00080	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-123	0.0012	J q	0.0095	0.00070	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-124	0.0044	J q C108	0.019	0.00071	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-125	0.082	C86	0.057	0.00017	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-126	0.0012	J q	0.0095	0.00071	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-127	ND		0.0095	0.00069	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-128	0.029	C	0.019	0.0012	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-129	0.28	C B	0.038	0.0012	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-130	0.011	q	0.0095	0.0016	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-131	ND		0.0095	0.0016	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-132	0.089		0.0095	0.0015	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-133	0.0034	J	0.0095	0.0015	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-134	0.012	J C	0.019	0.0016	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-135	0.10	C	0.019	0.00021	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-136	0.037		0.0095	0.00015	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-137	0.0074	J	0.0095	0.0013	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-138	0.28	B C129	0.038	0.0012	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-139	0.0026	J C q	0.019	0.0013	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-140	0.0026	J C139 q	0.019	0.0013	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-141	0.059		0.0095	0.0014	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-142	ND		0.0095	0.0015	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-143	0.012	J C134	0.019	0.0016	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-144	0.012		0.0095	0.00019	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-145	ND		0.0095	0.00015	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-146	0.041		0.0095	0.0013	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-147	0.28	C	0.019	0.0015	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B168-BL1

Lab Sample ID: 580-76685-18

Date Collected: 04/17/18 13:45

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 69.9

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	ND		0.0095	0.00021	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-149	0.28	C147	0.019	0.0015	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-150	ND		0.0095	0.00014	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-151	0.10	C135	0.019	0.00021	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-152	ND		0.0095	0.00015	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-153	0.25	C	0.019	0.0010	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-154	0.0023	J q	0.0095	0.00017	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-155	ND		0.0095	0.00014	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-156	0.020	C B	0.019	0.0013	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-157	0.020	C156 B	0.019	0.0013	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-158	0.023		0.0095	0.00094	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-159	0.0017	J q	0.0095	0.00099	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-160	0.28	B C129	0.038	0.0012	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-161	ND		0.0095	0.00098	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-162	ND		0.0095	0.00097	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-163	0.28	B C129	0.038	0.0012	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-164	0.018		0.0095	0.0010	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-165	ND		0.0095	0.0011	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-166	0.029	C128	0.019	0.0012	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-167	0.0063	J	0.0095	0.00074	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-168	0.25	C153	0.019	0.0010	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-169	ND		0.0095	0.00079	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-170	0.094		0.0095	0.00062	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-171	0.028	C B	0.019	0.00056	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-172	0.015		0.0095	0.00056	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-173	0.028	C171 B	0.019	0.00056	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-174	0.10		0.0095	0.00052	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-175	0.0025	J q	0.0095	0.00050	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-176	0.013		0.0095	0.00038	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-177	0.050		0.0095	0.00054	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-178	0.019		0.0095	0.00055	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-179	0.046		0.0095	0.00040	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-180	0.20	C	0.019	0.00042	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-181	ND		0.0095	0.00050	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-182	ND		0.0095	0.00048	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-183	0.075	C	0.019	0.00049	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-184	ND		0.0095	0.00041	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-185	0.075	C183	0.019	0.00049	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-186	ND		0.0095	0.00040	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-187	0.12		0.0095	0.00047	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-188	ND		0.0095	0.00034	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-189	0.0022	J q	0.0095	0.00062	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-190	0.015		0.0095	0.00036	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-191	0.0043	J	0.0095	0.00038	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-192	ND		0.0095	0.00042	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-193	0.20	C180	0.019	0.00042	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-194	0.047		0.0095	0.0010	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-195	0.020		0.0095	0.0011	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-196	0.018	q	0.0095	0.00039	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B168-BL1

Lab Sample ID: 580-76685-18

Date Collected: 04/17/18 13:45

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 69.9

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	0.0010	J q	0.0095	0.00030	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-198	0.043	C	0.019	0.00040	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-199	0.043	C198	0.019	0.00040	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-200	0.0032	J B q	0.0095	0.00027	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-201	0.0034	J	0.0095	0.00027	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-202	0.0069	J	0.0095	0.00031	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-203	0.022	q	0.0095	0.00035	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-204	ND		0.0095	0.00030	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-205	ND		0.0095	0.00085	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-206	0.013		0.0095	0.0018	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-207	ND		0.0095	0.0012	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-208	0.0040	J q	0.0095	0.0012	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
PCB-209	0.010	q	0.0095	0.000069	ng/g	☼	04/27/18 12:10	05/08/18 08:19	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-1L	71		30 - 140				04/27/18 12:10	05/08/18 08:19	1
PCB-3L	79		30 - 140				04/27/18 12:10	05/08/18 08:19	1
PCB-4L	74		30 - 140				04/27/18 12:10	05/08/18 08:19	1
PCB-15L	82		30 - 140				04/27/18 12:10	05/08/18 08:19	1
PCB-19L	102		30 - 140				04/27/18 12:10	05/08/18 08:19	1
PCB-37L	93		30 - 140				04/27/18 12:10	05/08/18 08:19	1
PCB-54L	108		30 - 140				04/27/18 12:10	05/08/18 08:19	1
PCB-77L	82		30 - 140				04/27/18 12:10	05/08/18 08:19	1
PCB-81L	86		30 - 140				04/27/18 12:10	05/08/18 08:19	1
PCB-104L	83		30 - 140				04/27/18 12:10	05/08/18 08:19	1
PCB-105L	85		30 - 140				04/27/18 12:10	05/08/18 08:19	1
PCB-114L	89		30 - 140				04/27/18 12:10	05/08/18 08:19	1
PCB-118L	88		30 - 140				04/27/18 12:10	05/08/18 08:19	1
PCB-123L	86		30 - 140				04/27/18 12:10	05/08/18 08:19	1
PCB-126L	86		30 - 140				04/27/18 12:10	05/08/18 08:19	1
PCB-155L	88		30 - 140				04/27/18 12:10	05/08/18 08:19	1
PCB-156L	84	C	30 - 140				04/27/18 12:10	05/08/18 08:19	1
PCB-157L	84	C156	30 - 140				04/27/18 12:10	05/08/18 08:19	1
PCB-167L	89		30 - 140				04/27/18 12:10	05/08/18 08:19	1
PCB-169L	85		30 - 140				04/27/18 12:10	05/08/18 08:19	1
PCB-170L	81		30 - 140				04/27/18 12:10	05/08/18 08:19	1
PCB-188L	97		30 - 140				04/27/18 12:10	05/08/18 08:19	1
PCB-189L	95		30 - 140				04/27/18 12:10	05/08/18 08:19	1
PCB-202L	94		30 - 140				04/27/18 12:10	05/08/18 08:19	1
PCB-205L	73		30 - 140				04/27/18 12:10	05/08/18 08:19	1
PCB-206L	71		30 - 140				04/27/18 12:10	05/08/18 08:19	1
PCB-208L	79		30 - 140				04/27/18 12:10	05/08/18 08:19	1
PCB-209L	62		30 - 140				04/27/18 12:10	05/08/18 08:19	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-28L	93		40 - 125				04/27/18 12:10	05/08/18 08:19	1
PCB-111L	92		40 - 125				04/27/18 12:10	05/08/18 08:19	1
PCB-178L	97		40 - 125				04/27/18 12:10	05/08/18 08:19	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B202-BL1

Lab Sample ID: 580-76685-19

Date Collected: 04/17/18 16:15

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 68.2

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	ND		0.099	0.0087	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-2	ND		0.099	0.0094	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-3	ND		0.099	0.0099	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-4	ND		0.20	0.099	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-5	ND		0.099	0.076	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-6	ND		0.099	0.066	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-7	ND		0.099	0.068	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-8	0.064	J q	0.20	0.061	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-9	ND		0.099	0.070	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-10	ND		0.099	0.074	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-11	ND		0.20	0.065	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-12	ND	C	0.20	0.067	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-13	ND	C12	0.20	0.067	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-14	ND		0.099	0.057	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-15	ND		0.099	0.068	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-16	0.055	J q	0.099	0.010	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-17	0.064	J q	0.099	0.0092	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-18	0.16	J C q	0.20	0.0081	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-19	ND		0.099	0.011	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-20	0.47	C B	0.20	0.018	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-21	0.15	J C q	0.20	0.018	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-22	0.12		0.099	0.019	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-23	ND		0.099	0.019	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-24	ND		0.099	0.0077	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-25	ND		0.099	0.017	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-26	0.066	J C	0.20	0.018	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-27	0.011	J q	0.099	0.0067	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-28	0.47	B C20	0.20	0.018	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-29	0.066	J C26	0.20	0.018	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-30	0.16	J C18 q	0.20	0.0081	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-31	0.36		0.20	0.018	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-32	0.045	J	0.099	0.0064	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-33	0.15	J C21 q	0.20	0.018	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-34	ND		0.099	0.019	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-35	ND		0.099	0.019	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-36	ND		0.099	0.018	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-37	0.086	J q	0.099	0.019	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-38	ND		0.099	0.019	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-39	ND		0.099	0.017	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-40	0.33	C	0.30	0.039	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-41	0.33	C40	0.30	0.039	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-42	0.15		0.099	0.039	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-43	ND	C	0.20	0.036	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-44	0.89	C B	0.30	0.034	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-45	0.12	J C	0.20	0.041	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-46	ND		0.099	0.049	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-47	0.89	B C44	0.30	0.034	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-48	0.12	q	0.099	0.039	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-49	0.57	C	0.20	0.032	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B202-BL1

Lab Sample ID: 580-76685-19

Date Collected: 04/17/18 16:15

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 68.2

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	0.078	J C q	0.20	0.038	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-51	0.12	J C45	0.20	0.041	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-52	1.3		0.099	0.039	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-53	0.078	J C50 q	0.20	0.038	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-54	ND		0.099	0.0045	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-55	ND		0.099	0.028	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-56	0.44		0.099	0.028	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-57	ND		0.099	0.029	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-58	ND		0.099	0.029	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-59	0.049	J C q	0.30	0.027	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-60	0.13		0.099	0.029	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-61	1.8	C	0.40	0.027	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-62	0.049	J C59 q	0.30	0.027	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-63	ND		0.099	0.026	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-64	0.28		0.099	0.026	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-65	0.89	B C44	0.30	0.034	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-66	0.87		0.099	0.027	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-67	ND		0.099	0.025	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-68	ND		0.099	0.025	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-69	0.57	C49	0.20	0.032	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-70	1.8	C61	0.40	0.027	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-71	0.33	C40	0.30	0.039	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-72	ND		0.099	0.028	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-73	ND	C43	0.20	0.036	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-74	1.8	C61	0.40	0.027	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-75	0.049	J C59 q	0.30	0.027	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-76	1.8	C61	0.40	0.027	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-77	0.097	J q	0.099	0.026	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-78	ND		0.099	0.029	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-79	ND		0.099	0.025	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-80	ND		0.099	0.025	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-81	ND		0.099	0.028	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-82	0.26	q	0.099	0.0099	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-83	1.7	C B	0.20	0.0090	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-84	0.61		0.099	0.010	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-85	0.44	C	0.30	0.0073	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-86	1.9	C	0.60	0.0074	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-87	1.9	C86	0.60	0.0074	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-88	0.36	C	0.20	0.0089	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-89	ND		0.099	0.0097	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-90	3.5	C	0.30	0.0075	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-91	0.36	C88	0.20	0.0089	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-92	0.60		0.099	0.0085	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-93	ND	C	0.20	0.0086	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-94	ND		0.099	0.0097	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-95	2.6		0.099	0.0094	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-96	ND		0.099	0.0073	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-97	1.9	C86	0.60	0.0074	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-98	ND	C	0.20	0.0083	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B202-BL1

Lab Sample ID: 580-76685-19

Date Collected: 04/17/18 16:15

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 68.2

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	1.7	C83 B	0.20	0.0090	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-100	ND	C93	0.20	0.0086	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-101	3.5	C90	0.30	0.0075	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-102	ND	C98	0.20	0.0083	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-103	0.050	J q	0.099	0.0086	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-104	ND		0.099	0.0065	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-105	0.76		0.099	0.021	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-106	ND		0.099	0.022	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-107	0.22		0.099	0.024	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-108	0.10	J C	0.20	0.023	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-109	1.9	C86	0.60	0.0074	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-110	3.5	C B	0.20	0.0062	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-111	ND		0.099	0.0060	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-112	ND		0.099	0.0063	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-113	3.5	C90	0.30	0.0075	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-114	0.048	J q	0.099	0.021	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-115	3.5	B C110	0.20	0.0062	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-116	0.44	C85	0.30	0.0073	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-117	0.44	C85	0.30	0.0073	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-118	2.4		0.099	0.021	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-119	1.9	C86	0.60	0.0074	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-120	ND		0.099	0.0061	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-121	ND		0.099	0.0063	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-122	0.042	J q	0.099	0.026	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-123	0.028	J q	0.099	0.025	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-124	0.10	J C108	0.20	0.023	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-125	1.9	C86	0.60	0.0074	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-126	ND		0.099	0.022	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-127	ND		0.099	0.022	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-128	0.46	C	0.20	0.038	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-129	4.1	C B	0.40	0.039	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-130	0.17	q	0.099	0.051	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-131	ND		0.099	0.054	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-132	1.2		0.099	0.050	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-133	ND		0.099	0.049	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-134	0.14	J C q	0.20	0.051	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-135	1.8	C	0.20	0.013	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-136	0.67		0.099	0.0091	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-137	0.12		0.099	0.044	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-138	4.1	B C129	0.40	0.039	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-139	ND	C	0.20	0.043	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-140	ND	C139	0.20	0.043	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-141	0.85		0.099	0.045	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-142	ND		0.099	0.048	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-143	0.14	J C134 q	0.20	0.051	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-144	0.19		0.099	0.011	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-145	ND		0.099	0.0087	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-146	0.93		0.099	0.043	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-147	4.2	C	0.20	0.049	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B202-BL1

Lab Sample ID: 580-76685-19

Date Collected: 04/17/18 16:15

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 68.2

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	ND		0.099	0.012	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-149	4.2	C147	0.20	0.049	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-150	ND		0.099	0.0083	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-151	1.8	C135	0.20	0.013	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-152	ND		0.099	0.0089	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-153	3.9	C	0.20	0.034	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-154	0.060	J q	0.099	0.0099	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-155	ND		0.099	0.0083	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-156	0.44	C B	0.20	0.042	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-157	0.44	C156 B	0.20	0.042	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-158	0.27		0.099	0.031	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-159	ND		0.099	0.032	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-160	4.1	B C129	0.40	0.039	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-161	ND		0.099	0.032	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-162	ND		0.099	0.032	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-163	4.1	B C129	0.40	0.039	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-164	0.32		0.099	0.034	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-165	ND		0.099	0.037	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-166	0.46	C128	0.20	0.038	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-167	0.13		0.099	0.029	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-168	3.9	C153	0.20	0.034	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-169	ND		0.099	0.021	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-170	1.8		0.099	0.049	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-171	0.46	C B	0.20	0.051	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-172	0.27		0.099	0.050	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-173	0.46	C171 B	0.20	0.051	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-174	1.9		0.099	0.047	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-175	ND		0.099	0.046	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-176	0.17	q	0.099	0.034	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-177	0.98		0.099	0.048	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-178	0.36		0.099	0.049	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-179	0.80		0.099	0.036	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-180	3.9	C	0.20	0.038	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-181	0.12	B q	0.099	0.045	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-182	ND		0.099	0.044	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-183	1.3	C	0.20	0.045	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-184	ND		0.099	0.037	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-185	1.3	C183	0.20	0.045	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-186	ND		0.099	0.036	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-187	2.3		0.099	0.042	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-188	ND		0.099	0.034	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-189	0.061	J	0.099	0.024	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-190	0.27	q	0.099	0.033	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-191	ND		0.099	0.034	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-192	ND		0.099	0.038	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-193	3.9	C180	0.20	0.038	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-194	1.1		0.099	0.056	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-195	0.31	q	0.099	0.061	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-196	0.48		0.099	0.034	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B202-BL1

Lab Sample ID: 580-76685-19

Date Collected: 04/17/18 16:15

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 68.2

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	0.031	J q	0.099	0.026	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-198	1.2	C q	0.20	0.034	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-199	1.2	C198 q	0.20	0.034	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-200	0.098	J B q	0.099	0.023	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-201	0.11		0.099	0.024	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-202	0.34	q	0.099	0.026	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-203	0.68	q	0.099	0.031	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-204	ND		0.099	0.026	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-205	ND		0.099	0.047	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-206	2.4		0.099	0.051	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-207	0.058	J q	0.099	0.035	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-208	0.39		0.099	0.034	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
PCB-209	5.3		0.099	0.014	ng/g	☼	04/27/18 12:10	05/10/18 09:42	10
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-1L	80		30 - 140				04/27/18 12:10	05/10/18 09:42	10
PCB-3L	86	q	30 - 140				04/27/18 12:10	05/10/18 09:42	10
PCB-4L	73		30 - 140				04/27/18 12:10	05/10/18 09:42	10
PCB-15L	77		30 - 140				04/27/18 12:10	05/10/18 09:42	10
PCB-19L	102		30 - 140				04/27/18 12:10	05/10/18 09:42	10
PCB-37L	77		30 - 140				04/27/18 12:10	05/10/18 09:42	10
PCB-54L	78		30 - 140				04/27/18 12:10	05/10/18 09:42	10
PCB-77L	74		30 - 140				04/27/18 12:10	05/10/18 09:42	10
PCB-81L	74		30 - 140				04/27/18 12:10	05/10/18 09:42	10
PCB-104L	65		30 - 140				04/27/18 12:10	05/10/18 09:42	10
PCB-105L	81		30 - 140				04/27/18 12:10	05/10/18 09:42	10
PCB-114L	77		30 - 140				04/27/18 12:10	05/10/18 09:42	10
PCB-118L	83		30 - 140				04/27/18 12:10	05/10/18 09:42	10
PCB-123L	79		30 - 140				04/27/18 12:10	05/10/18 09:42	10
PCB-126L	78		30 - 140				04/27/18 12:10	05/10/18 09:42	10
PCB-155L	75		30 - 140				04/27/18 12:10	05/10/18 09:42	10
PCB-156L	82	C	30 - 140				04/27/18 12:10	05/10/18 09:42	10
PCB-157L	82	C156	30 - 140				04/27/18 12:10	05/10/18 09:42	10
PCB-167L	85		30 - 140				04/27/18 12:10	05/10/18 09:42	10
PCB-169L	133	q	30 - 140				04/27/18 12:10	05/10/18 09:42	10
PCB-170L	67		30 - 140				04/27/18 12:10	05/10/18 09:42	10
PCB-188L	72		30 - 140				04/27/18 12:10	05/10/18 09:42	10
PCB-189L	89		30 - 140				04/27/18 12:10	05/10/18 09:42	10
PCB-202L	69		30 - 140				04/27/18 12:10	05/10/18 09:42	10
PCB-205L	62		30 - 140				04/27/18 12:10	05/10/18 09:42	10
PCB-206L	62		30 - 140				04/27/18 12:10	05/10/18 09:42	10
PCB-208L	62		30 - 140				04/27/18 12:10	05/10/18 09:42	10
PCB-209L	54		30 - 140				04/27/18 12:10	05/10/18 09:42	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-28L	81		40 - 125				04/27/18 12:10	05/10/18 09:42	10
PCB-111L	87		40 - 125				04/27/18 12:10	05/10/18 09:42	10
PCB-178L	74		40 - 125				04/27/18 12:10	05/10/18 09:42	10

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-RB-VVSS-180416-1735

Lab Sample ID: 580-76685-20

Date Collected: 04/16/18 17:35

Matrix: Water

Date Received: 04/18/18 13:45

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.0015	J	0.038	0.00029	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-2	0.0018	J	0.038	0.00036	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-3	0.0025	J B	0.038	0.00043	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-4	ND		0.057	0.0084	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-5	ND		0.038	0.0062	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-6	ND		0.038	0.0055	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-7	ND		0.038	0.0056	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-8	ND		0.057	0.0050	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-9	ND		0.038	0.0057	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-10	ND		0.038	0.0061	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-11	0.0020	J q B	0.057	0.0053	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-12	ND	C	0.076	0.0055	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-13	ND	C12	0.076	0.0055	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-14	ND		0.038	0.0047	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-15	ND		0.038	0.0055	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-16	ND		0.038	0.00098	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-17	0.0012	J q	0.038	0.00088	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-18	ND	C	0.076	0.00077	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-19	ND		0.038	0.0011	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-20	0.0020	J q C B	0.076	0.00050	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-21	0.0018	J C	0.076	0.00048	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-22	0.00088	J q	0.038	0.00051	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-23	ND		0.038	0.00050	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-24	ND		0.038	0.00074	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-25	ND		0.038	0.00046	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-26	ND	C	0.076	0.00049	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-27	ND		0.038	0.00064	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-28	0.0020	J q C20 B	0.076	0.00050	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-29	ND	C26	0.076	0.00049	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-30	ND	C18	0.076	0.00077	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-31	0.0012	J q B	0.038	0.00048	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-32	0.0014	J	0.038	0.00061	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-33	0.0018	J C21	0.076	0.00048	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-34	ND		0.038	0.00052	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-35	0.00080	J q	0.038	0.00051	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-36	ND		0.038	0.00049	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-37	0.00058	J q	0.038	0.00051	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-38	ND		0.038	0.00053	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-39	ND		0.038	0.00047	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-40	ND	C	0.11	0.0013	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-41	ND	C40	0.11	0.0013	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-42	ND		0.038	0.0013	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-43	ND	C	0.076	0.0012	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-44	0.0063	J C B	0.11	0.0011	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-45	ND	C	0.076	0.0013	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-46	ND		0.038	0.0016	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-47	0.0063	J C44 B	0.11	0.0011	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-48	ND		0.038	0.0013	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-49	0.0012	J q C	0.076	0.0010	ng/L		04/23/18 12:26	04/30/18 03:53	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-RB-VVSS-180416-1735

Lab Sample ID: 580-76685-20

Date Collected: 04/16/18 17:35

Matrix: Water

Date Received: 04/18/18 13:45

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	ND	C	0.076	0.0012	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-51	ND	C45	0.076	0.0013	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-52	0.0023	J q	0.038	0.0013	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-53	ND	C50	0.076	0.0012	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-54	ND		0.038	0.000076	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-55	ND		0.038	0.00093	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-56	ND		0.038	0.00093	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-57	ND		0.038	0.00094	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-58	ND		0.038	0.00095	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-59	ND	C	0.11	0.00090	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-60	ND		0.038	0.00094	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-61	0.0029	J C B	0.15	0.00089	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-62	ND	C59	0.11	0.00090	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-63	ND		0.038	0.00086	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-64	ND		0.038	0.00085	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-65	0.0063	J C44 B	0.11	0.0011	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-66	ND		0.038	0.00088	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-67	ND		0.038	0.00081	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-68	0.0021	J	0.038	0.00083	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-69	0.0012	J q C49	0.076	0.0010	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-70	0.0029	J C61 B	0.15	0.00089	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-71	ND	C40	0.11	0.0013	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-72	ND		0.038	0.00092	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-73	ND	C43	0.076	0.0012	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-74	0.0029	J C61 B	0.15	0.00089	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-75	ND	C59	0.11	0.00090	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-76	0.0029	J C61 B	0.15	0.00089	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-77	ND		0.038	0.00087	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-78	ND		0.038	0.00095	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-79	ND		0.038	0.00082	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-80	ND		0.038	0.00081	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-81	ND		0.038	0.00090	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-82	ND		0.038	0.000067	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-83	0.0017	J q C	0.076	0.000061	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-84	ND		0.038	0.000067	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-85	ND	C	0.11	0.000049	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-86	0.0027	J C B	0.23	0.000050	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-87	0.0027	J C86 B	0.23	0.000050	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-88	ND	C	0.076	0.000060	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-89	ND		0.038	0.000065	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-90	0.0027	J q C B	0.11	0.000051	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-91	ND	C88	0.076	0.000060	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-92	ND		0.038	0.000057	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-93	ND	C	0.076	0.000058	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-94	ND		0.038	0.000065	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-95	0.0033	J q	0.038	0.000063	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-96	ND		0.038	0.000049	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-97	0.0027	J C86 B	0.23	0.000050	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-98	ND	C	0.076	0.000056	ng/L		04/23/18 12:26	04/30/18 03:53	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-RB-VVSS-180416-1735

Lab Sample ID: 580-76685-20

Date Collected: 04/16/18 17:35

Matrix: Water

Date Received: 04/18/18 13:45

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	0.0017	J q C83	0.076	0.000061	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-100	ND	C93	0.076	0.000058	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-101	0.0027	J q C90 B	0.11	0.000051	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-102	ND	C98	0.076	0.000056	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-103	ND		0.038	0.000058	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-104	ND		0.038	0.000044	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-105	0.0017	J q B	0.038	0.00035	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-106	ND		0.038	0.00038	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-107	ND		0.038	0.00041	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-108	ND	C	0.076	0.00039	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-109	0.0027	J C86 B	0.23	0.000050	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-110	0.0050	J C B	0.076	0.000042	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-111	ND		0.038	0.000041	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-112	ND		0.038	0.000043	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-113	0.0027	J q C90 B	0.11	0.000051	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-114	ND		0.038	0.00036	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-115	0.0050	J C110 B	0.076	0.000042	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-116	ND	C85	0.11	0.000049	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-117	ND	C85	0.11	0.000049	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-118	0.0032	J B	0.038	0.00038	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-119	0.0027	J C86 B	0.23	0.000050	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-120	ND		0.038	0.000041	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-121	ND		0.038	0.000043	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-122	ND		0.038	0.00044	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-123	ND		0.038	0.00039	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-124	ND	C108	0.076	0.00039	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-125	0.0027	J C86 B	0.23	0.000050	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-126	ND		0.038	0.00040	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-127	ND		0.038	0.00038	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-128	ND	C	0.076	0.00027	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-129	0.0040	J q C B	0.15	0.00028	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-130	ND		0.038	0.00037	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-131	ND		0.038	0.00039	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-132	0.0010	J q	0.038	0.00037	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-133	ND		0.038	0.00035	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-134	ND	C	0.076	0.00037	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-135	ND	C	0.076	0.000090	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-136	ND		0.038	0.000064	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-137	ND		0.038	0.00032	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-138	0.0040	J q C129 E	0.15	0.00028	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-139	ND	C	0.076	0.00032	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-140	ND	C139	0.076	0.00032	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-141	ND		0.038	0.00033	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-142	ND		0.038	0.00035	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-143	ND	C134	0.076	0.00037	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-144	ND		0.038	0.000081	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-145	ND		0.038	0.000061	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-146	0.00093	J q	0.038	0.00031	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-147	0.0027	J C B	0.076	0.00036	ng/L		04/23/18 12:26	04/30/18 03:53	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-RB-VVSS-180416-1735

Lab Sample ID: 580-76685-20

Date Collected: 04/16/18 17:35

Matrix: Water

Date Received: 04/18/18 13:45

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	ND		0.038	0.000087	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-149	0.0027	J C147 B	0.076	0.00036	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-150	ND		0.038	0.000059	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-151	ND	C135	0.076	0.000090	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-152	ND		0.038	0.000063	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-153	0.0028	J C	0.076	0.00025	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-154	ND		0.038	0.000070	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-155	ND		0.038	0.000059	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-156	0.00096	J C B	0.076	0.00030	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-157	0.00096	J C156 B	0.076	0.00030	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-158	0.00061	J q B	0.038	0.00022	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-159	ND		0.038	0.00024	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-160	0.0040	J q C129 E	0.15	0.00028	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-161	ND		0.038	0.00023	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-162	ND		0.038	0.00023	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-163	0.0040	J q C129 E	0.15	0.00028	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-164	ND		0.038	0.00025	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-165	ND		0.038	0.00027	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-166	ND	C128	0.076	0.00027	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-167	ND		0.038	0.00018	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-168	0.0028	J C153	0.076	0.00025	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-169	ND		0.038	0.00018	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-170	ND		0.038	0.00038	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-171	ND	C	0.076	0.00037	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-172	ND		0.038	0.00037	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-173	ND	C171	0.076	0.00037	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-174	0.0011	J q	0.038	0.00035	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-175	ND		0.038	0.00034	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-176	ND		0.038	0.00025	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-177	ND		0.038	0.00036	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-178	ND		0.038	0.00036	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-179	ND		0.038	0.00027	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-180	0.0017	J C B	0.076	0.00028	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-181	ND		0.038	0.00034	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-182	ND		0.038	0.00032	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-183	0.0018	J q C B	0.076	0.00033	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-184	ND		0.038	0.00027	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-185	0.0018	J q C183 E	0.076	0.00033	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-186	ND		0.038	0.00027	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-187	ND		0.038	0.00031	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-188	ND		0.038	0.00024	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-189	ND		0.038	0.00026	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-190	0.00097	J q B	0.038	0.00024	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-191	ND		0.038	0.00025	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-192	ND		0.038	0.00028	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-193	0.0017	J C180 B	0.076	0.00028	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-194	ND		0.038	0.00039	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-195	ND		0.038	0.00043	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-196	ND		0.038	0.000072	ng/L		04/23/18 12:26	04/30/18 03:53	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-RB-VVSS-180416-1735

Lab Sample ID: 580-76685-20

Date Collected: 04/16/18 17:35

Matrix: Water

Date Received: 04/18/18 13:45

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	ND		0.038	0.000055	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-198	ND	C	0.076	0.000073	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-199	ND	C198	0.076	0.000073	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-200	ND		0.038	0.000049	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-201	ND		0.038	0.000050	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-202	ND		0.038	0.000056	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-203	ND		0.038	0.000065	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-204	ND		0.038	0.000055	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-205	ND		0.038	0.000033	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-206	ND		0.038	0.0019	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-207	ND		0.038	0.0014	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-208	ND		0.038	0.0015	ng/L		04/23/18 12:26	04/30/18 03:53	1
PCB-209	0.0024	J q B	0.038	0.000089	ng/L		04/23/18 12:26	04/30/18 03:53	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-1L	84		30 - 140				04/23/18 12:26	04/30/18 03:53	1
PCB-3L	78		30 - 140				04/23/18 12:26	04/30/18 03:53	1
PCB-4L	74		30 - 140				04/23/18 12:26	04/30/18 03:53	1
PCB-15L	84		30 - 140				04/23/18 12:26	04/30/18 03:53	1
PCB-19L	71		30 - 140				04/23/18 12:26	04/30/18 03:53	1
PCB-37L	94		30 - 140				04/23/18 12:26	04/30/18 03:53	1
PCB-54L	82		30 - 140				04/23/18 12:26	04/30/18 03:53	1
PCB-77L	90		30 - 140				04/23/18 12:26	04/30/18 03:53	1
PCB-81L	84		30 - 140				04/23/18 12:26	04/30/18 03:53	1
PCB-104L	77		30 - 140				04/23/18 12:26	04/30/18 03:53	1
PCB-105L	89		30 - 140				04/23/18 12:26	04/30/18 03:53	1
PCB-114L	84		30 - 140				04/23/18 12:26	04/30/18 03:53	1
PCB-118L	82		30 - 140				04/23/18 12:26	04/30/18 03:53	1
PCB-123L	81		30 - 140				04/23/18 12:26	04/30/18 03:53	1
PCB-126L	84		30 - 140				04/23/18 12:26	04/30/18 03:53	1
PCB-155L	78		30 - 140				04/23/18 12:26	04/30/18 03:53	1
PCB-156L	85	C	30 - 140				04/23/18 12:26	04/30/18 03:53	1
PCB-157L	85	C156	30 - 140				04/23/18 12:26	04/30/18 03:53	1
PCB-167L	84		30 - 140				04/23/18 12:26	04/30/18 03:53	1
PCB-169L	90		30 - 140				04/23/18 12:26	04/30/18 03:53	1
PCB-170L	84		30 - 140				04/23/18 12:26	04/30/18 03:53	1
PCB-188L	86		30 - 140				04/23/18 12:26	04/30/18 03:53	1
PCB-189L	87		30 - 140				04/23/18 12:26	04/30/18 03:53	1
PCB-202L	93		30 - 140				04/23/18 12:26	04/30/18 03:53	1
PCB-205L	70		30 - 140				04/23/18 12:26	04/30/18 03:53	1
PCB-206L	71		30 - 140				04/23/18 12:26	04/30/18 03:53	1
PCB-208L	72		30 - 140				04/23/18 12:26	04/30/18 03:53	1
PCB-209L	66		30 - 140				04/23/18 12:26	04/30/18 03:53	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
PCB-28L	94		40 - 125				04/23/18 12:26	04/30/18 03:53	1
PCB-111L	107		40 - 125				04/23/18 12:26	04/30/18 03:53	1
PCB-178L	100		40 - 125				04/23/18 12:26	04/30/18 03:53	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-RB-VVSS-180416-1800

Lab Sample ID: 580-76685-21

Date Collected: 04/16/18 18:00

Matrix: Water

Date Received: 04/18/18 13:45

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	ND		0.040	0.00035	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-2	0.0025	J	0.040	0.00040	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-3	0.0028	J B	0.040	0.00044	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-4	ND		0.060	0.0082	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-5	ND		0.040	0.0066	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-6	ND		0.040	0.0058	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-7	ND		0.040	0.0060	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-8	ND		0.060	0.0054	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-9	ND		0.040	0.0061	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-10	ND		0.040	0.0065	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-11	0.024	J B	0.060	0.0057	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-12	ND	C	0.080	0.0059	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-13	ND	C12	0.080	0.0059	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-14	ND		0.040	0.0050	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-15	ND		0.040	0.0062	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-16	0.0014	J q	0.040	0.00057	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-17	ND		0.040	0.00051	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-18	0.0031	J C q	0.080	0.00045	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-19	ND		0.040	0.00063	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-20	0.0034	J C B q	0.080	0.00050	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-21	0.0028	J C	0.080	0.00049	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-22	0.0012	J q	0.040	0.00051	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-23	ND		0.040	0.00051	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-24	ND		0.040	0.00043	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-25	ND		0.040	0.00046	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-26	ND	C	0.080	0.00049	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-27	ND		0.040	0.00037	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-28	0.0034	J B C20 q	0.080	0.00050	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-29	ND	C26	0.080	0.00049	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-30	0.0031	J C18 q	0.080	0.00045	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-31	0.0030	J B	0.040	0.00049	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-32	ND		0.040	0.00036	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-33	0.0028	J C21	0.080	0.00049	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-34	ND		0.040	0.00053	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-35	ND		0.040	0.00052	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-36	ND		0.040	0.00050	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-37	0.00078	J q	0.040	0.00051	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-38	ND		0.040	0.00053	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-39	ND		0.040	0.00048	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-40	ND	C	0.12	0.00069	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-41	ND	C40	0.12	0.00069	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-42	ND		0.040	0.00069	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-43	ND	C	0.080	0.00065	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-44	0.0067	J C B	0.12	0.00061	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-45	0.0025	J C	0.080	0.00073	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-46	ND		0.040	0.00088	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-47	0.0067	J B C44	0.12	0.00061	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-48	ND		0.040	0.00069	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-49	ND	C	0.080	0.00056	ng/L		04/23/18 12:26	04/30/18 04:55	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-RB-VVSS-180416-1800

Lab Sample ID: 580-76685-21

Date Collected: 04/16/18 18:00

Matrix: Water

Date Received: 04/18/18 13:45

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-50	ND	C	0.080	0.00067	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-51	0.0025	J C45	0.080	0.00073	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-52	0.0040	J q	0.040	0.00069	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-53	ND	C50	0.080	0.00067	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-54	ND		0.040	0.000073	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-55	ND		0.040	0.00050	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-56	ND		0.040	0.00050	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-57	ND		0.040	0.00051	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-58	ND		0.040	0.00052	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-59	ND	C	0.12	0.00049	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-60	ND		0.040	0.00051	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-61	0.0028	J C B q	0.16	0.00048	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-62	ND	C59	0.12	0.00049	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-63	ND		0.040	0.00047	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-64	0.00095	J q	0.040	0.00046	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-65	0.0067	J B C44	0.12	0.00061	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-66	0.0018	J	0.040	0.00048	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-67	ND		0.040	0.00044	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-68	0.0028	J q	0.040	0.00045	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-69	ND	C49	0.080	0.00056	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-70	0.0028	J C61 B q	0.16	0.00048	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-71	ND	C40	0.12	0.00069	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-72	ND		0.040	0.00050	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-73	ND	C43	0.080	0.00065	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-74	0.0028	J C61 B q	0.16	0.00048	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-75	ND	C59	0.12	0.00049	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-76	0.0028	J C61 B q	0.16	0.00048	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-77	ND		0.040	0.00050	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-78	ND		0.040	0.00052	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-79	ND		0.040	0.00045	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-80	ND		0.040	0.00044	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-81	ND		0.040	0.00046	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-82	ND		0.040	0.000081	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-83	ND	C	0.080	0.000074	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-84	ND		0.040	0.000082	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-85	ND	C	0.12	0.000060	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-86	ND	C	0.24	0.000060	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-87	ND	C86	0.24	0.000060	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-88	ND	C	0.080	0.000073	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-89	ND		0.040	0.000079	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-90	ND	C	0.12	0.000061	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-91	ND	C88	0.080	0.000073	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-92	ND		0.040	0.000069	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-93	ND	C	0.080	0.000070	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-94	ND		0.040	0.000079	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-95	ND		0.040	0.000076	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-96	ND		0.040	0.000060	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-97	ND	C86	0.24	0.000060	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-98	ND	C	0.080	0.000068	ng/L		04/23/18 12:26	04/30/18 04:55	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-RB-VVSS-180416-1800

Lab Sample ID: 580-76685-21

Date Collected: 04/16/18 18:00

Matrix: Water

Date Received: 04/18/18 13:45

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	ND	C83	0.080	0.000074	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-100	ND	C93	0.080	0.000070	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-101	ND	C90	0.12	0.000061	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-102	ND	C98	0.080	0.000068	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-103	ND		0.040	0.000070	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-104	ND		0.040	0.000053	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-105	ND		0.040	0.000029	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-106	ND		0.040	0.000030	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-107	ND		0.040	0.000033	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-108	ND	C	0.080	0.000031	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-109	ND	C86	0.24	0.000060	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-110	0.0014	J C B q	0.080	0.000051	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-111	ND		0.040	0.000049	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-112	ND		0.040	0.000052	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-113	ND	C90	0.12	0.000061	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-114	ND		0.040	0.000027	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-115	0.0014	J B C110 q	0.080	0.000051	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-116	ND	C85	0.12	0.000060	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-117	ND	C85	0.12	0.000060	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-118	0.0020	J B	0.040	0.000030	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-119	ND	C86	0.24	0.000060	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-120	ND		0.040	0.000050	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-121	ND		0.040	0.000051	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-122	ND		0.040	0.000035	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-123	ND		0.040	0.000032	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-124	ND	C108	0.080	0.000031	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-125	ND	C86	0.24	0.000060	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-126	ND		0.040	0.000032	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-127	ND		0.040	0.000030	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-128	ND	C	0.080	0.000020	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-129	0.0020	J C B q	0.16	0.000021	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-130	ND		0.040	0.000027	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-131	ND		0.040	0.000028	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-132	ND		0.040	0.000027	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-133	ND		0.040	0.000026	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-134	ND	C	0.080	0.000027	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-135	ND	C	0.080	0.000010	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-136	ND		0.040	0.000075	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-137	ND		0.040	0.000023	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-138	0.0020	J B C129 q	0.16	0.000021	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-139	ND	C	0.080	0.000023	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-140	ND	C139	0.080	0.000023	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-141	ND		0.040	0.000024	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-142	ND		0.040	0.000026	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-143	ND	C134	0.080	0.000027	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-144	ND		0.040	0.000094	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-145	ND		0.040	0.000071	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-146	ND		0.040	0.000023	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-147	ND	C	0.080	0.000026	ng/L		04/23/18 12:26	04/30/18 04:55	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-RB-VVSS-180416-1800

Lab Sample ID: 580-76685-21

Date Collected: 04/16/18 18:00

Matrix: Water

Date Received: 04/18/18 13:45

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	ND		0.040	0.00010	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-149	ND	C147	0.080	0.00026	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-150	ND		0.040	0.000068	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-151	ND	C135	0.080	0.00010	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-152	ND		0.040	0.000073	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-153	0.0018	J C q	0.080	0.00018	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-154	ND		0.040	0.000081	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-155	ND		0.040	0.000068	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-156	ND	C	0.080	0.00021	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-157	ND	C156	0.080	0.00021	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-158	ND		0.040	0.00016	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-159	ND		0.040	0.00017	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-160	0.0020	J B C129 q	0.16	0.00021	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-161	ND		0.040	0.00017	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-162	ND		0.040	0.00017	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-163	0.0020	J B C129 q	0.16	0.00021	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-164	ND		0.040	0.00018	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-165	ND		0.040	0.00019	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-166	ND	C128	0.080	0.00020	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-167	ND		0.040	0.00014	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-168	0.0018	J C153 q	0.080	0.00018	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-169	ND		0.040	0.00013	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-170	ND		0.040	0.000079	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-171	ND	C	0.080	0.000081	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-172	ND		0.040	0.000080	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-173	ND	C171	0.080	0.000081	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-174	ND		0.040	0.000075	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-175	ND		0.040	0.000073	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-176	ND		0.040	0.000055	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-177	ND		0.040	0.000077	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-178	ND		0.040	0.000079	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-179	ND		0.040	0.000058	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-180	ND	C	0.080	0.000061	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-181	ND		0.040	0.000072	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-182	ND		0.040	0.000070	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-183	0.0019	J C B q	0.080	0.000071	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-184	ND		0.040	0.000059	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-185	0.0019	J B C183 q	0.080	0.000071	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-186	ND		0.040	0.000058	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-187	ND		0.040	0.000067	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-188	ND		0.040	0.000053	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-189	ND		0.040	0.000027	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-190	ND		0.040	0.000052	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-191	ND		0.040	0.000055	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-192	ND		0.040	0.000061	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-193	ND	C180	0.080	0.000061	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-194	ND		0.040	0.00014	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-195	ND		0.040	0.00015	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-196	ND		0.040	0.00018	ng/L		04/23/18 12:26	04/30/18 04:55	1

TestAmerica Seattle

Client Sample Results

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-RB-VVSS-180416-1800

Lab Sample ID: 580-76685-21

Date Collected: 04/16/18 18:00

Matrix: Water

Date Received: 04/18/18 13:45

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-197	ND		0.040	0.00013	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-198	ND	C	0.080	0.00018	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-199	ND	C198	0.080	0.00018	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-200	ND		0.040	0.00012	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-201	ND		0.040	0.00012	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-202	ND		0.040	0.00014	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-203	ND		0.040	0.00016	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-204	ND		0.040	0.00013	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-205	ND		0.040	0.00012	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-206	ND		0.040	0.0026	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-207	ND		0.040	0.0019	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-208	ND		0.040	0.0019	ng/L		04/23/18 12:26	04/30/18 04:55	1
PCB-209	0.0010	J B q	0.040	0.000076	ng/L		04/23/18 12:26	04/30/18 04:55	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	79		30 - 140	04/23/18 12:26	04/30/18 04:55	1
PCB-3L	75		30 - 140	04/23/18 12:26	04/30/18 04:55	1
PCB-4L	74		30 - 140	04/23/18 12:26	04/30/18 04:55	1
PCB-15L	70		30 - 140	04/23/18 12:26	04/30/18 04:55	1
PCB-19L	78		30 - 140	04/23/18 12:26	04/30/18 04:55	1
PCB-37L	92		30 - 140	04/23/18 12:26	04/30/18 04:55	1
PCB-54L	87		30 - 140	04/23/18 12:26	04/30/18 04:55	1
PCB-77L	77		30 - 140	04/23/18 12:26	04/30/18 04:55	1
PCB-81L	77		30 - 140	04/23/18 12:26	04/30/18 04:55	1
PCB-104L	75		30 - 140	04/23/18 12:26	04/30/18 04:55	1
PCB-105L	79		30 - 140	04/23/18 12:26	04/30/18 04:55	1
PCB-114L	79		30 - 140	04/23/18 12:26	04/30/18 04:55	1
PCB-118L	73		30 - 140	04/23/18 12:26	04/30/18 04:55	1
PCB-123L	73		30 - 140	04/23/18 12:26	04/30/18 04:55	1
PCB-126L	76		30 - 140	04/23/18 12:26	04/30/18 04:55	1
PCB-155L	72		30 - 140	04/23/18 12:26	04/30/18 04:55	1
PCB-156L	80	C	30 - 140	04/23/18 12:26	04/30/18 04:55	1
PCB-157L	80	C156	30 - 140	04/23/18 12:26	04/30/18 04:55	1
PCB-167L	79		30 - 140	04/23/18 12:26	04/30/18 04:55	1
PCB-169L	86		30 - 140	04/23/18 12:26	04/30/18 04:55	1
PCB-170L	82		30 - 140	04/23/18 12:26	04/30/18 04:55	1
PCB-188L	79		30 - 140	04/23/18 12:26	04/30/18 04:55	1
PCB-189L	86		30 - 140	04/23/18 12:26	04/30/18 04:55	1
PCB-202L	91		30 - 140	04/23/18 12:26	04/30/18 04:55	1
PCB-205L	68		30 - 140	04/23/18 12:26	04/30/18 04:55	1
PCB-206L	73		30 - 140	04/23/18 12:26	04/30/18 04:55	1
PCB-208L	71		30 - 140	04/23/18 12:26	04/30/18 04:55	1
PCB-209L	69		30 - 140	04/23/18 12:26	04/30/18 04:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	103		40 - 125	04/23/18 12:26	04/30/18 04:55	1
PCB-111L	95		40 - 125	04/23/18 12:26	04/30/18 04:55	1
PCB-178L	104		40 - 125	04/23/18 12:26	04/30/18 04:55	1

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-76685-3

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

Lab Sample ID: MB 140-19763/12-A

Matrix: Water

Analysis Batch: 19928

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 19763

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	ND		0.040	0.00027	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-2	ND		0.040	0.00031	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-3	0.00197	J q	0.040	0.00036	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-4	ND		0.060	0.0068	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-5	ND		0.040	0.0053	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-6	ND		0.040	0.0047	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-7	ND		0.040	0.0048	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-8	ND		0.060	0.0043	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-9	ND		0.040	0.0049	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-10	ND		0.040	0.0053	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-11	0.0186	J q	0.060	0.0046	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-12	ND	C	0.080	0.0048	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-13	ND	C12	0.080	0.0048	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-14	ND		0.040	0.0040	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-15	ND		0.040	0.0049	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-16	ND		0.040	0.0010	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-17	ND		0.040	0.00090	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-18	ND	C	0.080	0.00079	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-19	ND		0.040	0.0011	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-20	0.00277	J C q	0.080	0.00060	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-21	ND	C	0.080	0.00058	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-22	ND		0.040	0.00061	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-23	ND		0.040	0.00061	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-24	ND		0.040	0.00076	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-25	ND		0.040	0.00055	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-26	ND	C	0.080	0.00059	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-27	ND		0.040	0.00066	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-28	0.00277	J C20 q	0.080	0.00060	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-29	ND	C26	0.080	0.00059	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-30	ND	C18	0.080	0.00079	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-31	0.00206	J	0.040	0.00058	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-32	ND		0.040	0.00063	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-33	ND	C21	0.080	0.00058	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-34	ND		0.040	0.00063	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-35	ND		0.040	0.00061	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-36	ND		0.040	0.00059	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-37	ND		0.040	0.00061	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-38	ND		0.040	0.00063	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-39	ND		0.040	0.00057	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-40	ND	C	0.12	0.00095	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-41	ND	C40	0.12	0.00095	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-42	ND		0.040	0.00095	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-43	ND	C	0.080	0.00089	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-44	0.00521	J C q	0.12	0.00084	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-45	ND	C	0.080	0.00099	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-46	ND		0.040	0.0012	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-47	0.00521	J C44 q	0.12	0.00084	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-48	ND		0.040	0.00094	ng/L		04/23/18 12:26	04/30/18 00:49	1

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-76685-3

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

Lab Sample ID: MB 140-19763/12-A

Matrix: Water

Analysis Batch: 19928

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 19763

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-49	ND	C	0.080	0.00077	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-50	ND	C	0.080	0.00092	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-51	ND	C45	0.080	0.00099	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-52	ND		0.040	0.00094	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-53	ND	C50	0.080	0.00092	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-54	ND		0.040	0.00013	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-55	ND		0.040	0.00069	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-56	ND		0.040	0.00069	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-57	ND		0.040	0.00070	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-58	ND		0.040	0.00071	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-59	ND	C	0.12	0.00067	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-60	ND		0.040	0.00070	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-61	0.00463	J C	0.16	0.00066	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-62	ND	C59	0.12	0.00067	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-63	ND		0.040	0.00064	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-64	ND		0.040	0.00063	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-65	0.00521	J C44 q	0.12	0.00084	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-66	ND		0.040	0.00065	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-67	ND		0.040	0.00060	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-68	ND		0.040	0.00062	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-69	ND	C49	0.080	0.00077	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-70	0.00463	J C61	0.16	0.00066	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-71	ND	C40	0.12	0.00095	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-72	ND		0.040	0.00068	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-73	ND	C43	0.080	0.00089	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-74	0.00463	J C61	0.16	0.00066	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-75	ND	C59	0.12	0.00067	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-76	0.00463	J C61	0.16	0.00066	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-77	ND		0.040	0.00064	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-78	0.00225	J	0.040	0.00071	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-79	ND		0.040	0.00061	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-80	ND		0.040	0.00060	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-81	ND		0.040	0.00067	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-82	0.00323	J	0.040	0.00055	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-83	ND	C	0.080	0.00050	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-84	ND		0.040	0.00056	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-85	0.00272	J C q	0.12	0.00041	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-86	0.00628	J C q	0.24	0.00041	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-87	0.00628	J C86 q	0.24	0.00041	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-88	ND	C	0.080	0.00050	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-89	ND		0.040	0.00054	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-90	0.00557	J C	0.12	0.00042	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-91	ND	C88	0.080	0.00050	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-92	ND		0.040	0.00047	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-93	ND	C	0.080	0.00048	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-94	ND		0.040	0.00054	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-95	ND		0.040	0.00052	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-96	ND		0.040	0.00041	ng/L		04/23/18 12:26	04/30/18 00:49	1

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-76685-3

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

Lab Sample ID: MB 140-19763/12-A

Matrix: Water

Analysis Batch: 19928

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 19763

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-97	0.00628	J C86 q	0.24	0.00041	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-98	ND	C	0.080	0.00046	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-99	ND	C83	0.080	0.00050	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-100	ND	C93	0.080	0.00048	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-101	0.00557	J C90	0.12	0.00042	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-102	ND	C98	0.080	0.00046	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-103	ND		0.040	0.00048	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-104	ND		0.040	0.00036	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-105	0.00226	J	0.040	0.00042	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-106	ND		0.040	0.00046	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-107	ND		0.040	0.00049	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-108	0.00181	J C q	0.080	0.00047	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-109	0.00628	J C86 q	0.24	0.00041	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-110	0.00403	J C q	0.080	0.00035	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-111	ND		0.040	0.00033	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-112	ND		0.040	0.00035	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-113	0.00557	J C90	0.12	0.00042	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-114	0.000860	J q	0.040	0.00045	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-115	0.00403	J C110 q	0.080	0.00035	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-116	0.00272	J C85 q	0.12	0.00041	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-117	0.00272	J C85 q	0.12	0.00041	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-118	0.00210	J q	0.040	0.00046	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-119	0.00628	J C86 q	0.24	0.00041	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-120	ND		0.040	0.00034	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-121	ND		0.040	0.00035	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-122	0.00133	J q	0.040	0.00053	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-123	ND		0.040	0.00048	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-124	0.00181	J q C108	0.080	0.00047	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-125	0.00628	J C86 q	0.24	0.00041	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-126	0.00209	J	0.040	0.00044	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-127	0.00249	J	0.040	0.00046	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-128	0.00242	J C	0.080	0.00040	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-129	0.0101	J C	0.16	0.00041	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-130	ND		0.040	0.00054	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-131	ND		0.040	0.00057	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-132	ND		0.040	0.00053	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-133	ND		0.040	0.00051	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-134	ND	C	0.080	0.00054	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-135	ND	C	0.080	0.00043	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-136	ND		0.040	0.00031	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-137	0.00115	J q	0.040	0.00046	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-138	0.0101	J C129	0.16	0.00041	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-139	ND	C	0.080	0.00046	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-140	ND	C139	0.080	0.00046	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-141	ND		0.040	0.00048	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-142	0.00192	J	0.040	0.00051	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-143	ND	C134	0.080	0.00054	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-144	ND		0.040	0.00039	ng/L		04/23/18 12:26	04/30/18 00:49	1

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-76685-3

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

Lab Sample ID: MB 140-19763/12-A

Matrix: Water

Analysis Batch: 19928

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 19763

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-145	ND		0.040	0.00029	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-146	ND		0.040	0.00045	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-147	0.00313	J C q	0.080	0.00052	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-148	ND		0.040	0.00041	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-149	0.00313	J C147 q	0.080	0.00052	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-150	ND		0.040	0.00028	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-151	ND	C135	0.080	0.00043	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-152	ND		0.040	0.00030	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-153	ND	C	0.080	0.00036	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-154	ND		0.040	0.00033	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-155	ND		0.040	0.00028	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-156	0.00232	J C q	0.080	0.00043	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-157	0.00232	J C156 q	0.080	0.00043	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-158	0.00140	J	0.040	0.00032	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-159	0.000747	J q	0.040	0.00034	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-160	0.0101	J C129	0.16	0.00041	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-161	ND		0.040	0.00034	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-162	ND		0.040	0.00034	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-163	0.0101	J C129	0.16	0.00041	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-164	0.00156	J	0.040	0.00036	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-165	ND		0.040	0.00039	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-166	0.00242	J C128	0.080	0.00040	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-167	0.00109	J	0.040	0.00028	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-168	ND	C153	0.080	0.00036	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-169	0.00206	J q	0.040	0.00025	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-170	ND		0.040	0.00056	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-171	ND	C	0.080	0.00065	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-172	ND		0.040	0.00064	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-173	ND	C171	0.080	0.00065	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-174	ND		0.040	0.00060	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-175	ND		0.040	0.00059	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-176	ND		0.040	0.00044	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-177	ND		0.040	0.00062	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-178	ND		0.040	0.00063	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-179	ND		0.040	0.00047	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-180	0.00173	J C q	0.080	0.00049	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-181	ND		0.040	0.00058	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-182	0.00114	J q	0.040	0.00056	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-183	0.00316	J C	0.080	0.00057	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-184	0.00254	J	0.040	0.00048	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-185	0.00316	J C183	0.080	0.00057	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-186	ND		0.040	0.00047	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-187	0.00148	J q	0.040	0.00054	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-188	ND		0.040	0.00047	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-189	ND		0.040	0.00049	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-190	0.000731	J q	0.040	0.00042	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-191	ND		0.040	0.00044	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-192	0.00153	J q	0.040	0.00049	ng/L		04/23/18 12:26	04/30/18 00:49	1

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-76685-3

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

Lab Sample ID: MB 140-19763/12-A

Matrix: Water

Analysis Batch: 19928

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 19763

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-193	0.00173	J C180 q	0.080	0.00049	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-194	0.00184	J q	0.040	0.00042	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-195	0.00168	J	0.040	0.00046	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-196	0.00174	J q	0.040	0.00012	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-197	ND		0.040	0.000091	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-198	0.00165	J C q	0.080	0.00012	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-199	0.00165	J C198 q	0.080	0.00012	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-200	0.00158	J	0.040	0.000081	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-201	ND		0.040	0.000083	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-202	0.000979	J	0.040	0.000093	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-203	ND		0.040	0.00011	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-204	ND		0.040	0.000091	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-205	0.00200	J q	0.040	0.00035	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-206	ND		0.040	0.0028	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-207	ND		0.040	0.0021	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-208	ND		0.040	0.0022	ng/L		04/23/18 12:26	04/30/18 00:49	1
PCB-209	0.00380	J q	0.040	0.00014	ng/L		04/23/18 12:26	04/30/18 00:49	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	84		30 - 140	04/23/18 12:26	04/30/18 00:49	1
PCB-3L	75		30 - 140	04/23/18 12:26	04/30/18 00:49	1
PCB-4L	71		30 - 140	04/23/18 12:26	04/30/18 00:49	1
PCB-15L	72		30 - 140	04/23/18 12:26	04/30/18 00:49	1
PCB-19L	75		30 - 140	04/23/18 12:26	04/30/18 00:49	1
PCB-37L	83		30 - 140	04/23/18 12:26	04/30/18 00:49	1
PCB-54L	80		30 - 140	04/23/18 12:26	04/30/18 00:49	1
PCB-77L	89		30 - 140	04/23/18 12:26	04/30/18 00:49	1
PCB-81L	83		30 - 140	04/23/18 12:26	04/30/18 00:49	1
PCB-104L	64		30 - 140	04/23/18 12:26	04/30/18 00:49	1
PCB-105L	87		30 - 140	04/23/18 12:26	04/30/18 00:49	1
PCB-114L	78		30 - 140	04/23/18 12:26	04/30/18 00:49	1
PCB-118L	76		30 - 140	04/23/18 12:26	04/30/18 00:49	1
PCB-123L	76		30 - 140	04/23/18 12:26	04/30/18 00:49	1
PCB-126L	84		30 - 140	04/23/18 12:26	04/30/18 00:49	1
PCB-155L	64		30 - 140	04/23/18 12:26	04/30/18 00:49	1
PCB-156L	90	C	30 - 140	04/23/18 12:26	04/30/18 00:49	1
PCB-157L	90	C156	30 - 140	04/23/18 12:26	04/30/18 00:49	1
PCB-167L	86		30 - 140	04/23/18 12:26	04/30/18 00:49	1
PCB-169L	99		30 - 140	04/23/18 12:26	04/30/18 00:49	1
PCB-170L	85		30 - 140	04/23/18 12:26	04/30/18 00:49	1
PCB-188L	67		30 - 140	04/23/18 12:26	04/30/18 00:49	1
PCB-189L	96		30 - 140	04/23/18 12:26	04/30/18 00:49	1
PCB-202L	87		30 - 140	04/23/18 12:26	04/30/18 00:49	1
PCB-205L	78		30 - 140	04/23/18 12:26	04/30/18 00:49	1
PCB-206L	78		30 - 140	04/23/18 12:26	04/30/18 00:49	1
PCB-208L	75		30 - 140	04/23/18 12:26	04/30/18 00:49	1
PCB-209L	71		30 - 140	04/23/18 12:26	04/30/18 00:49	1

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-76685-3

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

Lab Sample ID: MB 140-19763/12-A

Matrix: Water

Analysis Batch: 19928

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 19763

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	94		40 - 125	04/23/18 12:26	04/30/18 00:49	1
PCB-111L	100		40 - 125	04/23/18 12:26	04/30/18 00:49	1
PCB-178L	92		40 - 125	04/23/18 12:26	04/30/18 00:49	1

Lab Sample ID: LCS 140-19763/13-A

Matrix: Water

Analysis Batch: 19928

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 19763

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1	1.00	1.04		ng/L		104	50 - 150
PCB-3	1.00	1.09		ng/L		109	50 - 150
PCB-4	1.00	1.08		ng/L		108	50 - 150
PCB-15	1.00	1.12		ng/L		112	50 - 150
PCB-19	1.00	1.23		ng/L		123	50 - 150
PCB-37	1.00	1.14		ng/L		114	50 - 150
PCB-54	1.00	1.05		ng/L		105	50 - 150
PCB-77	1.00	1.08		ng/L		108	50 - 150
PCB-81	1.00	1.04		ng/L		104	50 - 150
PCB-104	1.00	1.19		ng/L		119	50 - 150
PCB-105	1.00	1.17		ng/L		117	50 - 150
PCB-114	1.00	1.25		ng/L		125	50 - 150
PCB-118	1.00	1.15		ng/L		115	50 - 150
PCB-123	1.00	1.27		ng/L		127	50 - 150
PCB-126	1.00	1.25		ng/L		125	50 - 150
PCB-155	1.00	1.12		ng/L		112	50 - 150
PCB-156	2.00	2.33	C	ng/L		116	50 - 150
PCB-157	2.00	2.33	C156	ng/L		116	50 - 150
PCB-167	1.00	1.17		ng/L		117	50 - 150
PCB-169	1.00	1.09		ng/L		109	50 - 150
PCB-188	1.00	1.16		ng/L		116	50 - 150
PCB-189	1.00	1.15		ng/L		115	50 - 150
PCB-202	1.00	1.00		ng/L		100	50 - 150
PCB-205	1.00	1.24		ng/L		124	50 - 150
PCB-206	1.00	1.05		ng/L		105	50 - 150
PCB-208	1.00	1.09		ng/L		109	50 - 150
PCB-209	1.00	1.08		ng/L		108	50 - 150

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
PCB-1L	81		30 - 140
PCB-3L	71		30 - 140
PCB-4L	69		30 - 140
PCB-15L	71		30 - 140
PCB-19L	75		30 - 140
PCB-37L	89		30 - 140
PCB-54L	86		30 - 140
PCB-77L	89		30 - 140
PCB-81L	83		30 - 140
PCB-104L	71		30 - 140

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-76685-3

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

Lab Sample ID: LCS 140-19763/13-A

Matrix: Water

Analysis Batch: 19928

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 19763

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
PCB-105L	80		30 - 140
PCB-114L	74		30 - 140
PCB-118L	76		30 - 140
PCB-123L	74		30 - 140
PCB-126L	79		30 - 140
PCB-155L	74		30 - 140
PCB-156L	82	C	30 - 140
PCB-157L	82	C156	30 - 140
PCB-167L	82		30 - 140
PCB-169L	90		30 - 140
PCB-170L	80		30 - 140
PCB-188L	72		30 - 140
PCB-189L	88		30 - 140
PCB-202L	83		30 - 140
PCB-205L	71		30 - 140
PCB-206L	71		30 - 140
PCB-208L	70		30 - 140
PCB-209L	65		30 - 140

Surrogate	LCS %Recovery	LCS Qualifier	Limits
PCB-28L	97		40 - 125
PCB-111L	101		40 - 125
PCB-178L	90		40 - 125

Lab Sample ID: MB 140-19793/17-B

Matrix: Solid

Analysis Batch: 19992

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 19793

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.000577	J q	0.010	0.00019	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-2	ND		0.010	0.00021	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-3	ND		0.010	0.00025	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-4	ND		0.020	0.00010	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-5	ND		0.010	0.000076	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-6	ND		0.010	0.000075	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-7	ND		0.010	0.000071	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-8	ND		0.020	0.000073	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-9	ND		0.010	0.000083	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-10	ND		0.010	0.000081	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-11	0.00165	J q	0.020	0.000069	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-12	ND	C	0.020	0.000069	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-13	ND	C12	0.020	0.000069	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-14	ND		0.010	0.000063	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-15	ND		0.010	0.000078	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-16	ND		0.010	0.00020	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-17	ND		0.010	0.00015	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-18	ND	C	0.020	0.00013	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-19	ND		0.010	0.00019	ng/g		04/24/18 10:13	05/02/18 02:28	1

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-76685-3

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

Lab Sample ID: MB 140-19793/17-B

Matrix: Solid

Analysis Batch: 19992

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 19793

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-20	0.00128	J C q	0.020	0.000096	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-21	0.000942	J C q	0.020	0.000090	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-22	ND		0.010	0.000098	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-23	ND		0.010	0.000096	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-24	ND		0.010	0.00012	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-25	0.000297	J q	0.010	0.000091	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-26	0.000204	J C q	0.020	0.000096	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-27	ND		0.010	0.00011	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-28	0.00128	J C20 q	0.020	0.000096	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-29	0.000204	J C26 q	0.020	0.000096	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-30	ND	C18	0.020	0.00013	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-31	0.000608	J q	0.020	0.000088	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-32	ND		0.010	0.00011	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-33	0.000942	J C21 q	0.020	0.000090	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-34	0.000185	J q	0.010	0.000099	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-35	ND		0.010	0.000094	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-36	ND		0.010	0.000086	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-37	0.000297	J q	0.010	0.000089	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-38	ND		0.010	0.000093	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-39	ND		0.010	0.000085	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-40	0.000375	J C q	0.030	0.000099	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-41	0.000375	J q C40	0.030	0.000099	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-42	ND		0.010	0.00010	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-43	ND	C	0.020	0.000089	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-44	0.00148	J C q	0.030	0.000088	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-45	0.000258	J C	0.020	0.00010	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-46	ND		0.010	0.00012	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-47	0.00148	J C44 q	0.030	0.000088	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-48	ND		0.010	0.000094	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-49	ND	C	0.020	0.000079	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-50	0.000397	J C	0.020	0.000099	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-51	0.000258	J C45	0.020	0.00010	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-52	0.000515	J q	0.010	0.00010	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-53	0.000397	J C50	0.020	0.000099	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-54	ND		0.010	0.00011	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-55	ND		0.010	0.000067	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-56	0.000303	J q	0.010	0.000069	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-57	ND		0.010	0.000069	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-58	ND		0.010	0.000066	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-59	0.000379	J C q	0.030	0.000067	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-60	ND		0.010	0.000067	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-61	0.000794	J C	0.040	0.000065	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-62	0.000379	J C59 q	0.030	0.000067	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-63	ND		0.010	0.000060	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-64	ND		0.010	0.000063	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-65	0.00148	J C44 q	0.030	0.000088	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-66	0.000441	J q	0.010	0.000065	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-67	ND		0.010	0.000063	ng/g		04/24/18 10:13	05/02/18 02:28	1

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-76685-3

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

Lab Sample ID: MB 140-19793/17-B

Matrix: Solid

Analysis Batch: 19992

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 19793

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-68	ND		0.010	0.000060	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-69	ND	C49	0.020	0.000079	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-70	0.000794	J C61	0.040	0.000065	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-71	0.000375	J q C40	0.030	0.000099	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-72	ND		0.010	0.000067	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-73	ND	C43	0.020	0.000089	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-74	0.000794	J C61	0.040	0.000065	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-75	0.000379	J C59 q	0.030	0.000067	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-76	0.000794	J C61	0.040	0.000065	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-77	ND		0.010	0.000063	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-78	ND		0.010	0.000066	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-79	ND		0.010	0.000057	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-80	ND		0.010	0.000059	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-81	ND		0.010	0.000062	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-82	ND		0.010	0.00011	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-83	ND	C	0.020	0.00011	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-84	ND		0.010	0.00012	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-85	ND	C	0.030	0.000083	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-86	ND	C	0.060	0.000088	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-87	ND	C86	0.060	0.000088	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-88	ND	C	0.020	0.00010	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-89	ND		0.010	0.00011	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-90	ND	C	0.030	0.000089	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-91	ND	C88	0.020	0.00010	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-92	ND		0.010	0.00011	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-93	ND	C	0.020	0.00011	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-94	ND		0.010	0.00011	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-95	ND		0.010	0.00011	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-96	ND		0.010	0.000085	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-97	ND	C86	0.060	0.000088	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-98	ND	C	0.020	0.00011	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-99	ND	C83	0.020	0.00011	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-100	ND	C93	0.020	0.00011	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-101	ND	C90	0.030	0.000089	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-102	ND	C98	0.020	0.00011	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-103	ND		0.010	0.000098	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-104	0.000277	J q	0.010	0.000076	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-105	ND		0.010	0.00023	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-106	ND		0.010	0.00025	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-107	ND		0.010	0.00024	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-108	ND	C	0.020	0.00025	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-109	ND	C86	0.060	0.000088	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-110	ND	C	0.020	0.000072	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-111	ND		0.010	0.000068	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-112	ND		0.010	0.000074	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-113	ND	C90	0.030	0.000089	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-114	ND		0.010	0.00022	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-115	ND	C110	0.020	0.000072	ng/g		04/24/18 10:13	05/02/18 02:28	1

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-76685-3

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

Lab Sample ID: MB 140-19793/17-B

Matrix: Solid

Analysis Batch: 19992

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 19793

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-116	ND	C85	0.030	0.000083	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-117	ND	C85	0.030	0.000083	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-118	ND		0.010	0.00024	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-119	ND	C86	0.060	0.000088	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-120	ND		0.010	0.000067	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-121	ND		0.010	0.000072	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-122	ND		0.010	0.00028	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-123	ND		0.010	0.00022	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-124	ND	C108	0.020	0.00025	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-125	ND	C86	0.060	0.000088	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-126	ND		0.010	0.00025	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-127	ND		0.010	0.00024	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-128	0.000412	J C	0.020	0.000039	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-129	0.000391	J C q	0.040	0.000039	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-130	ND		0.010	0.000052	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-131	ND		0.010	0.000053	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-132	ND		0.010	0.000051	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-133	ND		0.010	0.000049	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-134	ND	C	0.020	0.000052	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-135	ND	C	0.020	0.00010	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-136	ND		0.010	0.000072	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-137	ND		0.010	0.000043	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-138	0.000391	J C129 q	0.040	0.000039	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-139	ND	C	0.020	0.000044	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-140	ND	C139	0.020	0.000044	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-141	ND		0.010	0.000046	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-142	ND		0.010	0.000050	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-143	ND	C134	0.020	0.000052	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-144	ND		0.010	0.000094	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-145	ND		0.010	0.000072	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-146	ND		0.010	0.000041	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-147	ND	C	0.020	0.000044	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-148	ND		0.010	0.000096	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-149	ND	C147	0.020	0.000044	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-150	ND		0.010	0.000065	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-151	ND	C135	0.020	0.00010	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-152	ND		0.010	0.000070	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-153	0.000368	J C q	0.020	0.000034	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-154	ND		0.010	0.000084	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-155	ND		0.010	0.000066	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-156	0.000257	J C q	0.020	0.000041	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-157	0.000257	J C156 q	0.020	0.000041	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-158	0.0000407	J q	0.010	0.000030	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-159	ND		0.010	0.000032	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-160	0.000391	J C129 q	0.040	0.000039	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-161	ND		0.010	0.000033	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-162	0.0000709	J q	0.010	0.000031	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-163	0.000391	J C129 q	0.040	0.000039	ng/g		04/24/18 10:13	05/02/18 02:28	1

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-76685-3

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

Lab Sample ID: MB 140-19793/17-B

Matrix: Solid

Analysis Batch: 19992

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 19793

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-164	0.000128	J q	0.010	0.000033	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-165	ND		0.010	0.000037	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-166	0.000412	J C128	0.020	0.000039	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-167	ND		0.010	0.000023	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-168	0.000368	J C153 q	0.020	0.000034	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-169	ND		0.010	0.000025	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-170	ND		0.010	0.000026	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-171	ND	C	0.020	0.000026	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-172	ND		0.010	0.000025	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-173	ND	C171	0.020	0.000026	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-174	ND		0.010	0.000026	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-175	ND		0.010	0.000024	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-176	ND		0.010	0.000017	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-177	ND		0.010	0.000026	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-178	0.0000385	J q	0.010	0.000025	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-179	ND		0.010	0.000018	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-180	ND	C	0.020	0.000020	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-181	ND		0.010	0.000023	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-182	ND		0.010	0.000022	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-183	0.000502	J C q	0.020	0.000022	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-184	ND		0.010	0.000018	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-185	0.000502	J C183 q	0.020	0.000022	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-186	ND		0.010	0.000018	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-187	ND		0.010	0.000022	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-188	ND		0.010	0.000016	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-189	ND		0.010	0.000055	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-190	ND		0.010	0.000017	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-191	ND		0.010	0.000017	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-192	ND		0.010	0.000018	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-193	ND	C180	0.020	0.000020	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-194	0.0000775	J q	0.010	0.000063	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-195	ND		0.010	0.000071	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-196	ND		0.010	0.000069	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-197	ND		0.010	0.000048	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-198	ND	C	0.020	0.000073	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-199	ND	C198	0.020	0.000073	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-200	ND		0.010	0.000052	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-201	ND		0.010	0.000051	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-202	ND		0.010	0.000057	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-203	ND		0.010	0.000065	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-204	ND		0.010	0.000052	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-205	ND		0.010	0.000047	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-206	ND		0.010	0.000066	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-207	ND		0.010	0.000043	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-208	ND		0.010	0.000046	ng/g		04/24/18 10:13	05/02/18 02:28	1
PCB-209	ND		0.010	0.000056	ng/g		04/24/18 10:13	05/02/18 02:28	1

TestAmerica Seattle

QC Sample Results

Client: AECOM

TestAmerica Job ID: 580-76685-3

Project/Site: Portland Harbor Pre-Remedial Design

Isotope Dilution	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
PCB-1L	105		30 - 140	04/24/18 10:13	05/02/18 02:28	1
PCB-3L	92		30 - 140	04/24/18 10:13	05/02/18 02:28	1
PCB-4L	86		30 - 140	04/24/18 10:13	05/02/18 02:28	1
PCB-15L	82		30 - 140	04/24/18 10:13	05/02/18 02:28	1
PCB-19L	78		30 - 140	04/24/18 10:13	05/02/18 02:28	1
PCB-37L	77		30 - 140	04/24/18 10:13	05/02/18 02:28	1
PCB-54L	96		30 - 140	04/24/18 10:13	05/02/18 02:28	1
PCB-77L	78		30 - 140	04/24/18 10:13	05/02/18 02:28	1
PCB-81L	78		30 - 140	04/24/18 10:13	05/02/18 02:28	1
PCB-104L	92		30 - 140	04/24/18 10:13	05/02/18 02:28	1
PCB-105L	85		30 - 140	04/24/18 10:13	05/02/18 02:28	1
PCB-114L	83		30 - 140	04/24/18 10:13	05/02/18 02:28	1
PCB-118L	85		30 - 140	04/24/18 10:13	05/02/18 02:28	1
PCB-123L	84		30 - 140	04/24/18 10:13	05/02/18 02:28	1
PCB-126L	85		30 - 140	04/24/18 10:13	05/02/18 02:28	1
PCB-155L	102		30 - 140	04/24/18 10:13	05/02/18 02:28	1
PCB-156L	84	C	30 - 140	04/24/18 10:13	05/02/18 02:28	1
PCB-157L	84	C156	30 - 140	04/24/18 10:13	05/02/18 02:28	1
PCB-167L	84		30 - 140	04/24/18 10:13	05/02/18 02:28	1
PCB-169L	84		30 - 140	04/24/18 10:13	05/02/18 02:28	1
PCB-170L	82		30 - 140	04/24/18 10:13	05/02/18 02:28	1
PCB-188L	84		30 - 140	04/24/18 10:13	05/02/18 02:28	1
PCB-189L	97		30 - 140	04/24/18 10:13	05/02/18 02:28	1
PCB-202L	100		30 - 140	04/24/18 10:13	05/02/18 02:28	1
PCB-205L	80		30 - 140	04/24/18 10:13	05/02/18 02:28	1
PCB-206L	69		30 - 140	04/24/18 10:13	05/02/18 02:28	1
PCB-208L	70		30 - 140	04/24/18 10:13	05/02/18 02:28	1
PCB-209L	60		30 - 140	04/24/18 10:13	05/02/18 02:28	1
Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
PCB-28L	78		40 - 125	04/24/18 10:13	05/02/18 02:28	1
PCB-111L	85		40 - 125	04/24/18 10:13	05/02/18 02:28	1
PCB-178L	90		40 - 125	04/24/18 10:13	05/02/18 02:28	1

Lab Sample ID: LCS 140-19793/18-B

Matrix: Solid

Analysis Batch: 19992

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 19793

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	
							50 - 150	50 - 150
PCB-1	0.500	0.578		ng/g		116		
PCB-3	0.500	0.617		ng/g		123		
PCB-4	0.500	0.506		ng/g		101		
PCB-15	0.500	0.494		ng/g		99		
PCB-19	0.500	0.477		ng/g		95		
PCB-37	0.500	0.550		ng/g		110		
PCB-54	0.500	0.433		ng/g		87		
PCB-77	0.500	0.526		ng/g		105		
PCB-81	0.500	0.506		ng/g		101		
PCB-104	0.500	0.522		ng/g		104		
PCB-105	0.500	0.496		ng/g		99		
PCB-114	0.500	0.530		ng/g		106		
PCB-118	0.500	0.516		ng/g		103		
PCB-123	0.500	0.489		ng/g		98		
PCB-126	0.500	0.505		ng/g		101		

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-76685-3

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

Lab Sample ID: LCS 140-19793/18-B

Matrix: Solid

Analysis Batch: 19992

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 19793

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-155	0.500	0.476		ng/g		95	50 - 150
PCB-156	1.00	0.991	C	ng/g		99	50 - 150
PCB-157	1.00	0.991	C156	ng/g		99	50 - 150
PCB-167	0.500	0.522		ng/g		104	50 - 150
PCB-169	0.500	0.492		ng/g		98	50 - 150
PCB-188	0.500	0.497		ng/g		99	50 - 150
PCB-189	0.500	0.516		ng/g		103	50 - 150
PCB-202	0.500	0.447		ng/g		89	50 - 150
PCB-205	0.500	0.509		ng/g		102	50 - 150
PCB-206	0.500	0.491		ng/g		98	50 - 150
PCB-208	0.500	0.485		ng/g		97	50 - 150
PCB-209	0.500	0.485		ng/g		97	50 - 150

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
PCB-1L	100		30 - 140
PCB-3L	91		30 - 140
PCB-4L	83		30 - 140
PCB-15L	83		30 - 140
PCB-19L	79		30 - 140
PCB-37L	82		30 - 140
PCB-54L	96		30 - 140
PCB-77L	81		30 - 140
PCB-81L	82		30 - 140
PCB-104L	91		30 - 140
PCB-105L	82		30 - 140
PCB-114L	79		30 - 140
PCB-118L	83		30 - 140
PCB-123L	81		30 - 140
PCB-126L	83		30 - 140
PCB-155L	100		30 - 140
PCB-156L	83	C	30 - 140
PCB-157L	83	C156	30 - 140
PCB-167L	82		30 - 140
PCB-169L	84		30 - 140
PCB-170L	84		30 - 140
PCB-188L	88		30 - 140
PCB-189L	93		30 - 140
PCB-202L	97		30 - 140
PCB-205L	78		30 - 140
PCB-206L	68		30 - 140
PCB-208L	71		30 - 140
PCB-209L	61		30 - 140

Surrogate	LCS %Recovery	LCS Qualifier	Limits
PCB-28L	79		40 - 125
PCB-111L	91		40 - 125
PCB-178L	88		40 - 125

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-76685-3

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

Lab Sample ID: LCSD 140-19793/19-B

Matrix: Solid

Analysis Batch: 19992

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 19793

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-1	0.500	0.583		ng/g		117	50 - 150	1	50
PCB-3	0.500	0.608		ng/g		122	50 - 150	1	50
PCB-4	0.500	0.494		ng/g		99	50 - 150	2	50
PCB-15	0.500	0.493		ng/g		99	50 - 150	0	50
PCB-19	0.500	0.479		ng/g		96	50 - 150	0	50
PCB-37	0.500	0.527		ng/g		105	50 - 150	4	50
PCB-54	0.500	0.459		ng/g		92	50 - 150	6	50
PCB-77	0.500	0.503		ng/g		101	50 - 150	5	50
PCB-81	0.500	0.522		ng/g		104	50 - 150	3	50
PCB-104	0.500	0.527		ng/g		105	50 - 150	1	50
PCB-105	0.500	0.496		ng/g		99	50 - 150	0	50
PCB-114	0.500	0.509		ng/g		102	50 - 150	4	50
PCB-118	0.500	0.502		ng/g		100	50 - 150	3	50
PCB-123	0.500	0.486		ng/g		97	50 - 150	1	50
PCB-126	0.500	0.508		ng/g		102	50 - 150	1	50
PCB-155	0.500	0.472		ng/g		94	50 - 150	1	50
PCB-156	1.00	0.992	C	ng/g		99	50 - 150	0	50
PCB-157	1.00	0.992	C156	ng/g		99	50 - 150	0	50
PCB-167	0.500	0.522		ng/g		104	50 - 150	0	50
PCB-169	0.500	0.495		ng/g		99	50 - 150	0	50
PCB-188	0.500	0.521		ng/g		104	50 - 150	5	50
PCB-189	0.500	0.510		ng/g		102	50 - 150	1	50
PCB-202	0.500	0.448		ng/g		90	50 - 150	0	50
PCB-205	0.500	0.490		ng/g		98	50 - 150	4	50
PCB-206	0.500	0.488		ng/g		98	50 - 150	1	50
PCB-208	0.500	0.480		ng/g		96	50 - 150	1	50
PCB-209	0.500	0.496		ng/g		99	50 - 150	2	50

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	Limits
PCB-1L	103		30 - 140
PCB-3L	95		30 - 140
PCB-4L	89		30 - 140
PCB-15L	77		30 - 140
PCB-19L	86		30 - 140
PCB-37L	81		30 - 140
PCB-54L	102		30 - 140
PCB-77L	83		30 - 140
PCB-81L	80		30 - 140
PCB-104L	94		30 - 140
PCB-105L	84		30 - 140
PCB-114L	86		30 - 140
PCB-118L	89		30 - 140
PCB-123L	87		30 - 140
PCB-126L	85		30 - 140
PCB-155L	98		30 - 140
PCB-156L	87	C	30 - 140
PCB-157L	87	C156	30 - 140
PCB-167L	85		30 - 140

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-76685-3

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

Lab Sample ID: LCSD 140-19793/19-B

Matrix: Solid

Analysis Batch: 19992

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 19793

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	Limits
PCB-169L	86		30 - 140
PCB-170L	80		30 - 140
PCB-188L	83		30 - 140
PCB-189L	93		30 - 140
PCB-202L	94		30 - 140
PCB-205L	79		30 - 140
PCB-206L	70		30 - 140
PCB-208L	70		30 - 140
PCB-209L	60		30 - 140

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
PCB-28L	81		40 - 125
PCB-111L	93		40 - 125
PCB-178L	82		40 - 125

Lab Sample ID: MB 140-19817/16-B

Matrix: Solid

Analysis Batch: 20046

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 19817

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	ND		0.010	0.00010	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-2	0.000782	J	0.010	0.00013	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-3	0.000638	J	0.010	0.00016	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-4	ND		0.020	0.0067	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-5	ND		0.010	0.0058	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-6	ND		0.010	0.0051	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-7	ND		0.010	0.0052	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-8	ND		0.020	0.0047	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-9	ND		0.010	0.0053	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-10	ND		0.010	0.0057	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-11	ND		0.020	0.0050	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-12	ND	C	0.020	0.0052	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-13	ND	C12	0.020	0.0052	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-14	ND		0.010	0.0044	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-15	ND		0.010	0.0057	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-16	ND		0.010	0.00073	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-17	ND		0.010	0.00065	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-18	ND	C	0.020	0.00058	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-19	ND		0.010	0.00080	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-20	ND	C	0.020	0.00056	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-21	ND	C	0.020	0.00055	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-22	ND		0.010	0.00057	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-23	ND		0.010	0.00057	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-24	ND		0.010	0.00055	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-25	ND		0.010	0.00052	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-26	ND	C	0.020	0.00055	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-27	ND		0.010	0.00048	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-28	ND	C20	0.020	0.00056	ng/g		04/25/18 09:24	05/03/18 03:42	1

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-76685-3

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

Lab Sample ID: MB 140-19817/16-B

Matrix: Solid

Analysis Batch: 20046

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 19817

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-29	ND	C26	0.020	0.00055	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-30	ND	C18	0.020	0.00058	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-31	ND		0.020	0.00055	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-32	ND		0.010	0.00046	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-33	ND	C21	0.020	0.00055	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-34	ND		0.010	0.00059	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-35	ND		0.010	0.00057	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-36	ND		0.010	0.00055	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-37	ND		0.010	0.00057	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-38	ND		0.010	0.00059	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-39	ND		0.010	0.00053	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-40	ND	C	0.030	0.00071	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-41	ND	C40	0.030	0.00071	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-42	ND		0.010	0.00071	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-43	ND	C	0.020	0.00066	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-44	ND	C	0.030	0.00063	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-45	ND	C	0.020	0.00074	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-46	ND		0.010	0.00090	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-47	ND	C44	0.030	0.00063	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-48	ND		0.010	0.00071	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-49	ND	C	0.020	0.00058	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-50	ND	C	0.020	0.00069	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-51	ND	C45	0.020	0.00074	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-52	ND		0.010	0.00070	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-53	ND	C50	0.020	0.00069	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-54	ND		0.010	0.000088	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-55	ND		0.010	0.00051	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-56	ND		0.010	0.00051	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-57	ND		0.010	0.00052	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-58	ND		0.010	0.00053	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-59	ND	C	0.030	0.00050	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-60	ND		0.010	0.00052	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-61	ND	C	0.040	0.00049	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-62	ND	C59	0.030	0.00050	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-63	ND		0.010	0.00048	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-64	ND		0.010	0.00047	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-65	ND	C44	0.030	0.00063	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-66	ND		0.010	0.00049	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-67	ND		0.010	0.00045	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-68	ND		0.010	0.00046	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-69	ND	C49	0.020	0.00058	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-70	ND	C61	0.040	0.00049	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-71	ND	C40	0.030	0.00071	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-72	ND		0.010	0.00051	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-73	ND	C43	0.020	0.00066	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-74	ND	C61	0.040	0.00049	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-75	ND	C59	0.030	0.00050	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-76	ND	C61	0.040	0.00049	ng/g		04/25/18 09:24	05/03/18 03:42	1

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-76685-3

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

Lab Sample ID: MB 140-19817/16-B

Matrix: Solid

Analysis Batch: 20046

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 19817

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-77	ND		0.010	0.00049	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-78	ND		0.010	0.00053	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-79	ND		0.010	0.00046	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-80	ND		0.010	0.00045	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-81	ND		0.010	0.00049	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-82	ND		0.010	0.000055	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-83	ND	C	0.020	0.000050	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-84	ND		0.010	0.000056	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-85	ND	C	0.030	0.000041	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-86	ND	C	0.060	0.000041	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-87	ND	C86	0.060	0.000041	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-88	ND	C	0.020	0.000050	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-89	ND		0.010	0.000054	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-90	ND	C	0.030	0.000042	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-91	ND	C88	0.020	0.000050	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-92	ND		0.010	0.000047	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-93	ND	C	0.020	0.000048	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-94	ND		0.010	0.000054	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-95	ND		0.010	0.000052	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-96	ND		0.010	0.000041	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-97	ND	C86	0.060	0.000041	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-98	ND	C	0.020	0.000046	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-99	ND	C83	0.020	0.000050	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-100	ND	C93	0.020	0.000048	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-101	ND	C90	0.030	0.000042	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-102	ND	C98	0.020	0.000046	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-103	ND		0.010	0.000048	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-104	ND		0.010	0.000036	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-105	ND		0.010	0.00017	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-106	ND		0.010	0.00018	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-107	ND		0.010	0.00019	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-108	ND	C	0.020	0.00018	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-109	ND	C86	0.060	0.000041	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-110	ND	C	0.020	0.000035	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-111	ND		0.010	0.000033	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-112	ND		0.010	0.000035	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-113	ND	C90	0.030	0.000042	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-114	ND		0.010	0.00016	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-115	ND	C110	0.020	0.000035	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-116	ND	C85	0.030	0.000041	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-117	ND	C85	0.030	0.000041	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-118	ND		0.010	0.00017	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-119	ND	C86	0.060	0.000041	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-120	ND		0.010	0.000034	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-121	ND		0.010	0.000035	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-122	ND		0.010	0.00020	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-123	ND		0.010	0.00017	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-124	ND	C108	0.020	0.00018	ng/g		04/25/18 09:24	05/03/18 03:42	1

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-76685-3

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

Lab Sample ID: MB 140-19817/16-B

Matrix: Solid

Analysis Batch: 20046

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 19817

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-125	ND	C86	0.060	0.000041	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-126	ND		0.010	0.00019	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-127	ND		0.010	0.00018	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-128	ND	C	0.020	0.000074	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-129	0.00131	J q C	0.040	0.000077	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-130	ND		0.010	0.00010	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-131	ND		0.010	0.00011	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-132	ND		0.010	0.000099	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-133	ND		0.010	0.000096	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-134	ND	C	0.020	0.00010	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-135	ND	C	0.020	0.000057	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-136	ND		0.010	0.000041	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-137	ND		0.010	0.000087	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-138	0.00131	J q C129	0.040	0.000077	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-139	ND	C	0.020	0.000085	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-140	ND	C139	0.020	0.000085	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-141	ND		0.010	0.000090	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-142	ND		0.010	0.000095	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-143	ND	C134	0.020	0.00010	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-144	ND		0.010	0.000052	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-145	ND		0.010	0.000039	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-146	ND		0.010	0.000085	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-147	ND	C	0.020	0.000097	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-148	ND		0.010	0.000055	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-149	ND	C147	0.020	0.000097	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-150	ND		0.010	0.000037	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-151	ND	C135	0.020	0.000057	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-152	ND		0.010	0.000040	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-153	0.00117	J C	0.020	0.000067	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-154	ND		0.010	0.000044	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-155	ND		0.010	0.000037	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-156	0.000453	J q C	0.020	0.000080	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-157	0.000453	J q C156	0.020	0.000080	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-158	ND		0.010	0.000060	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-159	ND		0.010	0.000064	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-160	0.00131	J q C129	0.040	0.000077	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-161	ND		0.010	0.000063	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-162	ND		0.010	0.000063	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-163	0.00131	J q C129	0.040	0.000077	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-164	ND		0.010	0.000067	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-165	ND		0.010	0.000072	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-166	ND	C128	0.020	0.000074	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-167	0.000670	J	0.010	0.000049	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-168	0.00117	J C153	0.020	0.000067	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-169	ND		0.010	0.000049	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-170	ND		0.010	0.000022	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-171	ND	C	0.020	0.000020	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-172	ND		0.010	0.000020	ng/g		04/25/18 09:24	05/03/18 03:42	1

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-76685-3

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

Lab Sample ID: MB 140-19817/16-B

Matrix: Solid

Analysis Batch: 20046

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 19817

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-173	ND	C171	0.020	0.00020	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-174	ND		0.010	0.00019	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-175	ND		0.010	0.00018	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-176	ND		0.010	0.00014	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-177	ND		0.010	0.00020	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-178	ND		0.010	0.00020	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-179	ND		0.010	0.00015	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-180	ND	C	0.020	0.00015	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-181	ND		0.010	0.00018	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-182	ND		0.010	0.00018	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-183	ND	C	0.020	0.00018	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-184	ND		0.010	0.00015	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-185	ND	C183	0.020	0.00018	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-186	ND		0.010	0.00015	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-187	ND		0.010	0.00017	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-188	ND		0.010	0.00013	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-189	ND		0.010	0.00042	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-190	ND		0.010	0.00013	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-191	ND		0.010	0.00014	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-192	ND		0.010	0.00015	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-193	ND	C180	0.020	0.00015	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-194	ND		0.010	0.000066	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-195	ND		0.010	0.000072	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-196	ND		0.010	0.000068	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-197	ND		0.010	0.000052	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-198	ND	C	0.020	0.000069	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-199	ND	C198	0.020	0.000069	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-200	ND		0.010	0.000046	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-201	ND		0.010	0.000047	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-202	ND		0.010	0.000053	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-203	ND		0.010	0.000061	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-204	ND		0.010	0.000052	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-205	ND		0.010	0.000056	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-206	ND		0.010	0.0014	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-207	ND		0.010	0.0010	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-208	ND		0.010	0.0011	ng/g		04/25/18 09:24	05/03/18 03:42	1
PCB-209	ND		0.010	0.000039	ng/g		04/25/18 09:24	05/03/18 03:42	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	92		30 - 140	04/25/18 09:24	05/03/18 03:42	1
PCB-3L	76		30 - 140	04/25/18 09:24	05/03/18 03:42	1
PCB-4L	79		30 - 140	04/25/18 09:24	05/03/18 03:42	1
PCB-15L	65		30 - 140	04/25/18 09:24	05/03/18 03:42	1
PCB-19L	91		30 - 140	04/25/18 09:24	05/03/18 03:42	1
PCB-37L	77		30 - 140	04/25/18 09:24	05/03/18 03:42	1
PCB-54L	89		30 - 140	04/25/18 09:24	05/03/18 03:42	1
PCB-77L	71		30 - 140	04/25/18 09:24	05/03/18 03:42	1
PCB-81L	71		30 - 140	04/25/18 09:24	05/03/18 03:42	1

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-76685-3

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

Lab Sample ID: MB 140-19817/16-B

Matrix: Solid

Analysis Batch: 20046

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 19817

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-104L	97		30 - 140	04/25/18 09:24	05/03/18 03:42	1
PCB-105L	86		30 - 140	04/25/18 09:24	05/03/18 03:42	1
PCB-114L	83		30 - 140	04/25/18 09:24	05/03/18 03:42	1
PCB-118L	82		30 - 140	04/25/18 09:24	05/03/18 03:42	1
PCB-123L	83		30 - 140	04/25/18 09:24	05/03/18 03:42	1
PCB-126L	77		30 - 140	04/25/18 09:24	05/03/18 03:42	1
PCB-155L	93		30 - 140	04/25/18 09:24	05/03/18 03:42	1
PCB-156L	83	C	30 - 140	04/25/18 09:24	05/03/18 03:42	1
PCB-157L	83	C156	30 - 140	04/25/18 09:24	05/03/18 03:42	1
PCB-167L	86		30 - 140	04/25/18 09:24	05/03/18 03:42	1
PCB-169L	90		30 - 140	04/25/18 09:24	05/03/18 03:42	1
PCB-170L	84		30 - 140	04/25/18 09:24	05/03/18 03:42	1
PCB-188L	93		30 - 140	04/25/18 09:24	05/03/18 03:42	1
PCB-189L	75		30 - 140	04/25/18 09:24	05/03/18 03:42	1
PCB-202L	101		30 - 140	04/25/18 09:24	05/03/18 03:42	1
PCB-205L	73		30 - 140	04/25/18 09:24	05/03/18 03:42	1
PCB-206L	83		30 - 140	04/25/18 09:24	05/03/18 03:42	1
PCB-208L	76		30 - 140	04/25/18 09:24	05/03/18 03:42	1
PCB-209L	84		30 - 140	04/25/18 09:24	05/03/18 03:42	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	89		40 - 125	04/25/18 09:24	05/03/18 03:42	1
PCB-111L	89		40 - 125	04/25/18 09:24	05/03/18 03:42	1
PCB-178L	88		40 - 125	04/25/18 09:24	05/03/18 03:42	1

Lab Sample ID: LCS 140-19817/17-B

Matrix: Solid

Analysis Batch: 20046

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 19817

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1	0.500	0.431		ng/g		86	50 - 150
PCB-3	0.500	0.479		ng/g		96	50 - 150
PCB-4	0.500	0.501		ng/g		100	50 - 150
PCB-15	0.500	0.558		ng/g		112	50 - 150
PCB-19	0.500	0.595		ng/g		119	50 - 150
PCB-37	0.500	0.514		ng/g		103	50 - 150
PCB-54	0.500	0.524		ng/g		105	50 - 150
PCB-77	0.500	0.520		ng/g		104	50 - 150
PCB-81	0.500	0.527		ng/g		105	50 - 150
PCB-104	0.500	0.571		ng/g		114	50 - 150
PCB-105	0.500	0.547		ng/g		109	50 - 150
PCB-114	0.500	0.576		ng/g		115	50 - 150
PCB-118	0.500	0.566		ng/g		113	50 - 150
PCB-123	0.500	0.596		ng/g		119	50 - 150
PCB-126	0.500	0.597		ng/g		119	50 - 150
PCB-155	0.500	0.563		ng/g		113	50 - 150
PCB-156	1.00	1.16	C	ng/g		116	50 - 150
PCB-157	1.00	1.16	C156	ng/g		116	50 - 150

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-76685-3

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

Lab Sample ID: LCS 140-19817/17-B

Matrix: Solid

Analysis Batch: 20046

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 19817

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-167	0.500	0.572		ng/g		114	50 - 150
PCB-169	0.500	0.521		ng/g		104	50 - 150
PCB-188	0.500	0.564		ng/g		113	50 - 150
PCB-189	0.500	0.539		ng/g		108	50 - 150
PCB-202	0.500	0.505		ng/g		101	50 - 150
PCB-205	0.500	0.619		ng/g		124	50 - 150
PCB-206	0.500	0.541		ng/g		108	50 - 150
PCB-208	0.500	0.554		ng/g		111	50 - 150
PCB-209	0.500	0.562		ng/g		112	50 - 150

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
PCB-1L	99		30 - 140
PCB-3L	77		30 - 140
PCB-4L	80		30 - 140
PCB-15L	67		30 - 140
PCB-19L	92		30 - 140
PCB-37L	77		30 - 140
PCB-54L	96		30 - 140
PCB-77L	74		30 - 140
PCB-81L	71		30 - 140
PCB-104L	96		30 - 140
PCB-105L	83		30 - 140
PCB-114L	82		30 - 140
PCB-118L	80		30 - 140
PCB-123L	83		30 - 140
PCB-126L	79		30 - 140
PCB-155L	95		30 - 140
PCB-156L	83	C	30 - 140
PCB-157L	83	C156	30 - 140
PCB-167L	85		30 - 140
PCB-169L	88		30 - 140
PCB-170L	85		30 - 140
PCB-188L	94		30 - 140
PCB-189L	76		30 - 140
PCB-202L	102		30 - 140
PCB-205L	70		30 - 140
PCB-206L	80		30 - 140
PCB-208L	74		30 - 140
PCB-209L	78		30 - 140

Surrogate	LCS %Recovery	LCS Qualifier	Limits
PCB-28L	85		40 - 125
PCB-111L	91		40 - 125
PCB-178L	92		40 - 125

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-76685-3

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

Lab Sample ID: LCSD 140-19817/18-B

Matrix: Solid

Analysis Batch: 20046

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 19817

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-1	0.500	0.434		ng/g		87	50 - 150	1	50
PCB-3	0.500	0.454		ng/g		91	50 - 150	5	50
PCB-4	0.500	0.525		ng/g		105	50 - 150	5	50
PCB-15	0.500	0.541		ng/g		108	50 - 150	3	50
PCB-19	0.500	0.587		ng/g		117	50 - 150	1	50
PCB-37	0.500	0.512		ng/g		102	50 - 150	0	50
PCB-54	0.500	0.517		ng/g		103	50 - 150	1	50
PCB-77	0.500	0.549		ng/g		110	50 - 150	5	50
PCB-81	0.500	0.502		ng/g		100	50 - 150	5	50
PCB-104	0.500	0.560		ng/g		112	50 - 150	2	50
PCB-105	0.500	0.534		ng/g		107	50 - 150	2	50
PCB-114	0.500	0.585		ng/g		117	50 - 150	2	50
PCB-118	0.500	0.552		ng/g		110	50 - 150	2	50
PCB-123	0.500	0.579		ng/g		116	50 - 150	3	50
PCB-126	0.500	0.560		ng/g		112	50 - 150	6	50
PCB-155	0.500	0.550		ng/g		110	50 - 150	2	50
PCB-156	1.00	1.11	C	ng/g		111	50 - 150	5	50
PCB-157	1.00	1.11	C156	ng/g		111	50 - 150	5	50
PCB-167	0.500	0.569		ng/g		114	50 - 150	0	50
PCB-169	0.500	0.527		ng/g		105	50 - 150	1	50
PCB-188	0.500	0.564		ng/g		113	50 - 150	0	50
PCB-189	0.500	0.563		ng/g		113	50 - 150	4	50
PCB-202	0.500	0.491		ng/g		98	50 - 150	3	50
PCB-205	0.500	0.617		ng/g		123	50 - 150	0	50
PCB-206	0.500	0.511		ng/g		102	50 - 150	6	50
PCB-208	0.500	0.550		ng/g		110	50 - 150	1	50
PCB-209	0.500	0.523		ng/g		105	50 - 150	7	50

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	Limits
PCB-1L	97		30 - 140
PCB-3L	80		30 - 140
PCB-4L	79		30 - 140
PCB-15L	66		30 - 140
PCB-19L	88		30 - 140
PCB-37L	79		30 - 140
PCB-54L	92		30 - 140
PCB-77L	75		30 - 140
PCB-81L	75		30 - 140
PCB-104L	95		30 - 140
PCB-105L	86		30 - 140
PCB-114L	83		30 - 140
PCB-118L	83		30 - 140
PCB-123L	83		30 - 140
PCB-126L	79		30 - 140
PCB-155L	92		30 - 140
PCB-156L	85	C	30 - 140
PCB-157L	85	C156	30 - 140
PCB-167L	84		30 - 140

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-76685-3

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

Lab Sample ID: LCSD 140-19817/18-B

Matrix: Solid

Analysis Batch: 20046

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 19817

Isotope Dilution	LCSD		Limits
	%Recovery	Qualifier	
PCB-169L	89		30 - 140
PCB-170L	85		30 - 140
PCB-188L	97		30 - 140
PCB-189L	77		30 - 140
PCB-202L	104		30 - 140
PCB-205L	74		30 - 140
PCB-206L	82		30 - 140
PCB-208L	78		30 - 140
PCB-209L	84		30 - 140

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
PCB-28L	85		40 - 125
PCB-111L	93		40 - 125
PCB-178L	88		40 - 125

Lab Sample ID: MB 140-19878/14-B

Matrix: Solid

Analysis Batch: 20151

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 19878

Analyte	MB		RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
PCB-1	ND		0.010	0.00016	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-2	ND		0.010	0.00020	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-3	ND		0.010	0.00024	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-4	ND		0.020	0.0062	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-5	ND		0.010	0.0058	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-6	ND		0.010	0.0051	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-7	ND		0.010	0.0053	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-8	ND		0.020	0.0048	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-9	ND		0.010	0.0054	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-10	ND		0.010	0.0058	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-11	ND		0.020	0.0050	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-12	ND	C	0.020	0.0052	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-13	ND	C12	0.020	0.0052	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-14	ND		0.010	0.0044	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-15	ND		0.010	0.0062	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-16	ND		0.010	0.00067	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-17	ND		0.010	0.00061	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-18	ND	C	0.020	0.00053	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-19	ND		0.010	0.00074	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-20	0.000901	J C q	0.020	0.00055	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-21	ND	C	0.020	0.00053	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-22	ND		0.010	0.00056	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-23	ND		0.010	0.00056	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-24	ND		0.010	0.00051	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-25	ND		0.010	0.00051	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-26	ND	C	0.020	0.00054	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-27	ND		0.010	0.00044	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-28	0.000901	J C20 q	0.020	0.00055	ng/g		04/27/18 12:10	05/08/18 04:13	1

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-76685-3

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

Lab Sample ID: MB 140-19878/14-B

Matrix: Solid

Analysis Batch: 20151

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 19878

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-29	ND	C26	0.020	0.00054	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-30	ND	C18	0.020	0.00053	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-31	ND		0.020	0.00053	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-32	ND		0.010	0.00042	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-33	ND	C21	0.020	0.00053	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-34	ND		0.010	0.00058	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-35	ND		0.010	0.00056	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-36	ND		0.010	0.00054	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-37	ND		0.010	0.00056	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-38	ND		0.010	0.00058	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-39	ND		0.010	0.00052	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-40	ND	C	0.030	0.00084	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-41	ND	C40	0.030	0.00084	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-42	ND		0.010	0.00084	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-43	ND	C	0.020	0.00079	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-44	0.00244	J C q	0.030	0.00074	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-45	ND	C	0.020	0.00088	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-46	ND		0.010	0.0011	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-47	0.00244	J C44 q	0.030	0.00074	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-48	ND		0.010	0.00084	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-49	ND	C	0.020	0.00069	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-50	ND	C	0.020	0.00082	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-51	ND	C45	0.020	0.00088	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-52	ND		0.010	0.00083	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-53	ND	C50	0.020	0.00082	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-54	ND		0.010	0.00013	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-55	ND		0.010	0.00061	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-56	ND		0.010	0.00061	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-57	ND		0.010	0.00062	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-58	ND		0.010	0.00063	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-59	ND	C	0.030	0.00059	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-60	ND		0.010	0.00062	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-61	ND	C	0.040	0.00059	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-62	ND	C59	0.030	0.00059	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-63	ND		0.010	0.00057	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-64	ND		0.010	0.00056	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-65	0.00244	J C44 q	0.030	0.00074	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-66	ND		0.010	0.00058	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-67	ND		0.010	0.00054	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-68	ND		0.010	0.00055	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-69	ND	C49	0.020	0.00069	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-70	ND	C61	0.040	0.00059	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-71	ND	C40	0.030	0.00084	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-72	ND		0.010	0.00061	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-73	ND	C43	0.020	0.00079	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-74	ND	C61	0.040	0.00059	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-75	ND	C59	0.030	0.00059	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-76	ND	C61	0.040	0.00059	ng/g		04/27/18 12:10	05/08/18 04:13	1

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-76685-3

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

Lab Sample ID: MB 140-19878/14-B

Matrix: Solid

Analysis Batch: 20151

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 19878

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-77	ND		0.010	0.00058	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-78	ND		0.010	0.00063	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-79	ND		0.010	0.00055	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-80	ND		0.010	0.00054	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-81	ND		0.010	0.00059	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-82	ND		0.010	0.00017	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-83	0.00120	J C q	0.020	0.00015	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-84	ND		0.010	0.00017	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-85	ND	C	0.030	0.00012	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-86	ND	C	0.060	0.00013	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-87	ND	C86	0.060	0.00013	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-88	ND	C	0.020	0.00015	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-89	ND		0.010	0.00016	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-90	ND	C	0.030	0.00013	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-91	ND	C88	0.020	0.00015	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-92	ND		0.010	0.00014	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-93	ND	C	0.020	0.00015	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-94	ND		0.010	0.00016	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-95	ND		0.010	0.00016	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-96	ND		0.010	0.00012	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-97	ND	C86	0.060	0.00013	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-98	ND	C	0.020	0.00014	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-99	0.00120	J C83 q	0.020	0.00015	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-100	ND	C93	0.020	0.00015	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-101	ND	C90	0.030	0.00013	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-102	ND	C98	0.020	0.00014	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-103	ND		0.010	0.00015	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-104	ND		0.010	0.00011	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-105	ND		0.010	0.00025	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-106	ND		0.010	0.00026	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-107	ND		0.010	0.00028	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-108	ND	C	0.020	0.00027	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-109	ND	C86	0.060	0.00013	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-110	0.000944	J C q	0.020	0.00011	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-111	ND		0.010	0.00010	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-112	ND		0.010	0.00011	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-113	ND	C90	0.030	0.00013	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-114	ND		0.010	0.00024	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-115	0.000944	J C110 q	0.020	0.00011	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-116	ND	C85	0.030	0.00012	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-117	ND	C85	0.030	0.00012	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-118	ND		0.010	0.00024	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-119	ND	C86	0.060	0.00013	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-120	ND		0.010	0.00010	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-121	ND		0.010	0.00011	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-122	ND		0.010	0.00030	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-123	ND		0.010	0.00025	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-124	ND	C108	0.020	0.00027	ng/g		04/27/18 12:10	05/08/18 04:13	1

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-76685-3

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

Lab Sample ID: MB 140-19878/14-B

Matrix: Solid

Analysis Batch: 20151

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 19878

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-125	ND	C86	0.060	0.00013	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-126	ND		0.010	0.00028	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-127	0.00104	J	0.010	0.00026	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-128	ND	C	0.020	0.00046	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-129	0.00177	J C q	0.040	0.00047	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-130	ND		0.010	0.00063	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-131	ND		0.010	0.00065	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-132	ND		0.010	0.00061	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-133	ND		0.010	0.00059	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-134	ND	C	0.020	0.00062	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-135	ND	C	0.020	0.00010	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-136	ND		0.010	0.000075	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-137	ND		0.010	0.00053	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-138	0.00177	J C129 q	0.040	0.00047	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-139	ND	C	0.020	0.00053	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-140	ND	C139	0.020	0.00053	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-141	ND		0.010	0.00055	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-142	ND		0.010	0.00059	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-143	ND	C134	0.020	0.00062	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-144	ND		0.010	0.000094	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-145	ND		0.010	0.000071	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-146	ND		0.010	0.00052	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-147	ND	C	0.020	0.00060	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-148	ND		0.010	0.00010	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-149	ND	C147	0.020	0.00060	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-150	ND		0.010	0.000068	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-151	ND	C135	0.020	0.00010	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-152	ND		0.010	0.000074	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-153	ND	C	0.020	0.00041	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-154	ND		0.010	0.000081	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-155	ND		0.010	0.000068	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-156	0.00120	J C	0.020	0.00049	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-157	0.00120	J C156	0.020	0.00049	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-158	ND		0.010	0.00037	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-159	ND		0.010	0.00039	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-160	0.00177	J C129 q	0.040	0.00047	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-161	0.000449	J q	0.010	0.00039	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-162	ND		0.010	0.00039	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-163	0.00177	J C129 q	0.040	0.00047	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-164	ND		0.010	0.00042	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-165	ND		0.010	0.00045	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-166	ND	C128	0.020	0.00046	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-167	ND		0.010	0.00033	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-168	ND	C153	0.020	0.00041	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-169	0.00139	J q	0.010	0.00029	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-170	ND		0.010	0.00035	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-171	0.00129	J C q	0.020	0.00033	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-172	ND		0.010	0.00033	ng/g		04/27/18 12:10	05/08/18 04:13	1

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-76685-3

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

Lab Sample ID: MB 140-19878/14-B

Matrix: Solid

Analysis Batch: 20151

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 19878

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-173	0.00129	J C171 q	0.020	0.00033	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-174	ND		0.010	0.00031	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-175	ND		0.010	0.00030	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-176	ND		0.010	0.00023	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-177	ND		0.010	0.00032	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-178	ND		0.010	0.00032	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-179	ND		0.010	0.00024	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-180	ND	C	0.020	0.00025	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-181	0.000352	J q	0.010	0.00030	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-182	ND		0.010	0.00029	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-183	ND	C	0.020	0.00029	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-184	ND		0.010	0.00024	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-185	ND	C183	0.020	0.00029	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-186	ND		0.010	0.00024	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-187	ND		0.010	0.00028	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-188	ND		0.010	0.00021	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-189	ND		0.010	0.00033	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-190	ND		0.010	0.00022	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-191	ND		0.010	0.00023	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-192	ND		0.010	0.00025	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-193	ND	C180	0.020	0.00025	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-194	ND		0.010	0.00025	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-195	ND		0.010	0.00028	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-196	ND		0.010	0.000064	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-197	ND		0.010	0.000049	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-198	ND	C	0.020	0.000065	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-199	ND	C198	0.020	0.000065	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-200	0.000722	J	0.010	0.000043	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-201	ND		0.010	0.000045	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-202	ND		0.010	0.000050	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-203	ND		0.010	0.000058	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-204	ND		0.010	0.000049	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-205	ND		0.010	0.00022	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-206	ND		0.010	0.00085	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-207	ND		0.010	0.00066	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-208	ND		0.010	0.00072	ng/g		04/27/18 12:10	05/08/18 04:13	1
PCB-209	ND		0.010	0.000036	ng/g		04/27/18 12:10	05/08/18 04:13	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	91		30 - 140	04/27/18 12:10	05/08/18 04:13	1
PCB-3L	72		30 - 140	04/27/18 12:10	05/08/18 04:13	1
PCB-4L	79		30 - 140	04/27/18 12:10	05/08/18 04:13	1
PCB-15L	64		30 - 140	04/27/18 12:10	05/08/18 04:13	1
PCB-19L	85		30 - 140	04/27/18 12:10	05/08/18 04:13	1
PCB-37L	76		30 - 140	04/27/18 12:10	05/08/18 04:13	1
PCB-54L	94		30 - 140	04/27/18 12:10	05/08/18 04:13	1
PCB-77L	79		30 - 140	04/27/18 12:10	05/08/18 04:13	1
PCB-81L	74		30 - 140	04/27/18 12:10	05/08/18 04:13	1

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-76685-3

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

Lab Sample ID: MB 140-19878/14-B

Matrix: Solid

Analysis Batch: 20151

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 19878

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-104L	89		30 - 140	04/27/18 12:10	05/08/18 04:13	1
PCB-105L	87		30 - 140	04/27/18 12:10	05/08/18 04:13	1
PCB-114L	87		30 - 140	04/27/18 12:10	05/08/18 04:13	1
PCB-118L	85		30 - 140	04/27/18 12:10	05/08/18 04:13	1
PCB-123L	84		30 - 140	04/27/18 12:10	05/08/18 04:13	1
PCB-126L	80		30 - 140	04/27/18 12:10	05/08/18 04:13	1
PCB-155L	95		30 - 140	04/27/18 12:10	05/08/18 04:13	1
PCB-156L	85	C	30 - 140	04/27/18 12:10	05/08/18 04:13	1
PCB-157L	85	C156	30 - 140	04/27/18 12:10	05/08/18 04:13	1
PCB-167L	83		30 - 140	04/27/18 12:10	05/08/18 04:13	1
PCB-169L	91		30 - 140	04/27/18 12:10	05/08/18 04:13	1
PCB-170L	81		30 - 140	04/27/18 12:10	05/08/18 04:13	1
PCB-188L	88		30 - 140	04/27/18 12:10	05/08/18 04:13	1
PCB-189L	80		30 - 140	04/27/18 12:10	05/08/18 04:13	1
PCB-202L	94		30 - 140	04/27/18 12:10	05/08/18 04:13	1
PCB-205L	73		30 - 140	04/27/18 12:10	05/08/18 04:13	1
PCB-206L	80		30 - 140	04/27/18 12:10	05/08/18 04:13	1
PCB-208L	72		30 - 140	04/27/18 12:10	05/08/18 04:13	1
PCB-209L	77		30 - 140	04/27/18 12:10	05/08/18 04:13	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	91		40 - 125	04/27/18 12:10	05/08/18 04:13	1
PCB-111L	93		40 - 125	04/27/18 12:10	05/08/18 04:13	1
PCB-178L	84		40 - 125	04/27/18 12:10	05/08/18 04:13	1

Lab Sample ID: LCS 140-19878/15-B

Matrix: Solid

Analysis Batch: 20126

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 19878

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1	0.500	0.469		ng/g		94	50 - 150
PCB-3	0.500	0.509		ng/g		102	50 - 150
PCB-4	0.500	0.531		ng/g		106	50 - 150
PCB-15	0.500	0.582		ng/g		116	50 - 150
PCB-19	0.500	0.513		ng/g		103	50 - 150
PCB-37	0.500	0.543		ng/g		109	50 - 150
PCB-54	0.500	0.495		ng/g		99	50 - 150
PCB-77	0.500	0.542		ng/g		108	50 - 150
PCB-81	0.500	0.472		ng/g		94	50 - 150
PCB-104	0.500	0.540		ng/g		108	50 - 150
PCB-105	0.500	0.566		ng/g		113	50 - 150
PCB-114	0.500	0.618		ng/g		124	50 - 150
PCB-118	0.500	0.593		ng/g		119	50 - 150
PCB-123	0.500	0.654		ng/g		131	50 - 150
PCB-126	0.500	0.639		ng/g		128	50 - 150
PCB-155	0.500	0.529		ng/g		106	50 - 150
PCB-156	1.00	1.13	C	ng/g		113	50 - 150
PCB-157	1.00	1.13	C156	ng/g		113	50 - 150

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-76685-3

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

Lab Sample ID: LCS 140-19878/15-B

Matrix: Solid

Analysis Batch: 20126

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 19878

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-167	0.500	0.552		ng/g		110	50 - 150
PCB-169	0.500	0.524		ng/g		105	50 - 150
PCB-188	0.500	0.547		ng/g		109	50 - 150
PCB-189	0.500	0.564		ng/g		113	50 - 150
PCB-202	0.500	0.478		ng/g		96	50 - 150
PCB-205	0.500	0.600		ng/g		120	50 - 150
PCB-206	0.500	0.524		ng/g		105	50 - 150
PCB-208	0.500	0.541		ng/g		108	50 - 150
PCB-209	0.500	0.572		ng/g		114	50 - 150

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
PCB-1L	99		30 - 140
PCB-3L	75		30 - 140
PCB-4L	75		30 - 140
PCB-15L	56		30 - 140
PCB-19L	88		30 - 140
PCB-37L	73		30 - 140
PCB-54L	92		30 - 140
PCB-77L	78		30 - 140
PCB-81L	75		30 - 140
PCB-104L	90		30 - 140
PCB-105L	82		30 - 140
PCB-114L	82		30 - 140
PCB-118L	77		30 - 140
PCB-123L	78		30 - 140
PCB-126L	73		30 - 140
PCB-155L	93		30 - 140
PCB-156L	82	C	30 - 140
PCB-157L	82	C156	30 - 140
PCB-167L	83		30 - 140
PCB-169L	87		30 - 140
PCB-170L	81		30 - 140
PCB-188L	91		30 - 140
PCB-189L	80		30 - 140
PCB-202L	95		30 - 140
PCB-205L	73		30 - 140
PCB-206L	81		30 - 140
PCB-208L	73		30 - 140
PCB-209L	81		30 - 140

Surrogate	LCS %Recovery	LCS Qualifier	Limits
PCB-28L	85		40 - 125
PCB-111L	95		40 - 125
PCB-178L	89		40 - 125

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-76685-3

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

Lab Sample ID: LCSD 140-19878/16-B

Matrix: Solid

Analysis Batch: 20126

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 19878

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-1	0.500	0.468		ng/g		94	50 - 150	0	50
PCB-3	0.500	0.502		ng/g		100	50 - 150	1	50
PCB-4	0.500	0.513		ng/g		103	50 - 150	3	50
PCB-15	0.500	0.574	G	ng/g		115	50 - 150	1	50
PCB-19	0.500	0.535		ng/g		107	50 - 150	4	50
PCB-37	0.500	0.527		ng/g		105	50 - 150	3	50
PCB-54	0.500	0.518		ng/g		104	50 - 150	5	50
PCB-77	0.500	0.527		ng/g		105	50 - 150	3	50
PCB-81	0.500	0.496		ng/g		99	50 - 150	5	50
PCB-104	0.500	0.560		ng/g		112	50 - 150	4	50
PCB-105	0.500	0.556		ng/g		111	50 - 150	2	50
PCB-114	0.500	0.607		ng/g		121	50 - 150	2	50
PCB-118	0.500	0.577		ng/g		115	50 - 150	3	50
PCB-123	0.500	0.633		ng/g		127	50 - 150	3	50
PCB-126	0.500	0.609		ng/g		122	50 - 150	5	50
PCB-155	0.500	0.515		ng/g		103	50 - 150	3	50
PCB-156	1.00	1.12	C	ng/g		112	50 - 150	0	50
PCB-157	1.00	1.12	C156	ng/g		112	50 - 150	0	50
PCB-167	0.500	0.568		ng/g		114	50 - 150	3	50
PCB-169	0.500	0.534		ng/g		107	50 - 150	2	50
PCB-188	0.500	0.544		ng/g		109	50 - 150	0	50
PCB-189	0.500	0.571		ng/g		114	50 - 150	1	50
PCB-202	0.500	0.527		ng/g		105	50 - 150	10	50
PCB-205	0.500	0.608		ng/g		122	50 - 150	1	50
PCB-206	0.500	0.525		ng/g		105	50 - 150	0	50
PCB-208	0.500	0.546		ng/g		109	50 - 150	1	50
PCB-209	0.500	0.572		ng/g		114	50 - 150	0	50

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	LCSD Limits
PCB-1L	92		30 - 140
PCB-3L	64		30 - 140
PCB-4L	67		30 - 140
PCB-15L	55		30 - 140
PCB-19L	74		30 - 140
PCB-37L	64		30 - 140
PCB-54L	79		30 - 140
PCB-77L	66		30 - 140
PCB-81L	65		30 - 140
PCB-104L	89		30 - 140
PCB-105L	85		30 - 140
PCB-114L	82		30 - 140
PCB-118L	81		30 - 140
PCB-123L	81		30 - 140
PCB-126L	75		30 - 140
PCB-155L	91		30 - 140
PCB-156L	79	C	30 - 140
PCB-157L	79	C156	30 - 140
PCB-167L	80		30 - 140

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-76685-3

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

Lab Sample ID: LCSD 140-19878/16-B

Matrix: Solid

Analysis Batch: 20126

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 19878

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	Limits
PCB-169L	83		30 - 140
PCB-170L	82		30 - 140
PCB-188L	88		30 - 140
PCB-189L	76		30 - 140
PCB-202L	87		30 - 140
PCB-205L	72		30 - 140
PCB-206L	79		30 - 140
PCB-208L	69		30 - 140
PCB-209L	78		30 - 140

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
PCB-28L	82		40 - 125
PCB-111L	91		40 - 125
PCB-178L	89		40 - 125

Lab Sample ID: 580-76685-19 MS

Matrix: Solid

Analysis Batch: 20158

Client Sample ID: PDI-SG-B202-BL1

Prep Type: Total/NA

Prep Batch: 19878

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1	ND		0.479	0.461		ng/g	☼	96	50 - 150
PCB-3	ND		0.479	0.486		ng/g	☼	101	50 - 150
PCB-4	ND		0.479	0.502		ng/g	☼	105	50 - 150
PCB-15	ND		0.479	0.527		ng/g	☼	110	50 - 150
PCB-19	ND		0.479	0.574		ng/g	☼	120	50 - 150
PCB-37	0.086	J q	0.479	0.556		ng/g	☼	98	50 - 150
PCB-54	ND		0.479	0.512		ng/g	☼	107	50 - 150
PCB-77	0.097	J q	0.479	0.515		ng/g	☼	87	50 - 150
PCB-81	ND		0.479	0.496		ng/g	☼	104	50 - 150
PCB-104	ND		0.479	0.527		ng/g	☼	110	50 - 150
PCB-105	0.76		0.479	0.599	F1	ng/g	☼	-33	50 - 150
PCB-114	0.048	J q	0.479	0.554		ng/g	☼	106	50 - 150
PCB-118	2.4		0.479	0.555	4	ng/g	☼	-385	50 - 150
PCB-123	0.028	J q	0.479	0.576		ng/g	☼	114	50 - 150
PCB-126	ND		0.479	0.607		ng/g	☼	127	50 - 150
PCB-155	ND		0.479	0.487		ng/g	☼	102	50 - 150
PCB-156	0.44	C B	0.958	1.11	C	ng/g	☼	70	50 - 150
PCB-157	0.44	C156 B	0.958	1.11	C156	ng/g	☼	70	50 - 150
PCB-167	0.13		0.479	0.555		ng/g	☼	88	50 - 150
PCB-169	ND		0.479	0.500		ng/g	☼	104	50 - 150
PCB-188	ND		0.479	0.532		ng/g	☼	111	50 - 150
PCB-189	0.061	J	0.479	0.581		ng/g	☼	108	50 - 150
PCB-202	0.34	q	0.479	0.550	q F1	ng/g	☼	45	50 - 150
PCB-205	ND		0.479	0.578		ng/g	☼	121	50 - 150
PCB-206	2.4		0.479	0.547	4	ng/g	☼	-379	50 - 150
PCB-208	0.39		0.479	0.535	F1	ng/g	☼	30	50 - 150
PCB-209	5.3		0.479	0.589	4	ng/g	☼	-989	50 - 150

TestAmerica Seattle

QC Sample Results

Client: AECOM

TestAmerica Job ID: 580-76685-3

Project/Site: Portland Harbor Pre-Remedial Design

<i>Isotope Dilution</i>	<i>MS</i> <i>%Recovery</i>	<i>MS</i> <i>Qualifier</i>	<i>Limits</i>
PCB-1L	67		30 - 140
PCB-3L	69		30 - 140
PCB-4L	63		30 - 140
PCB-15L	75		30 - 140
PCB-19L	74		30 - 140
PCB-37L	85		30 - 140
PCB-54L	74		30 - 140
PCB-77L	82		30 - 140
PCB-81L	81		30 - 140
PCB-104L	78		30 - 140
PCB-105L	83		30 - 140
PCB-114L	92		30 - 140
PCB-118L	98		30 - 140
PCB-123L	88		30 - 140
PCB-126L	79		30 - 140
PCB-155L	79		30 - 140
PCB-156L	86	C	30 - 140
PCB-157L	86	C156	30 - 140
PCB-167L	88		30 - 140
PCB-169L	86		30 - 140
PCB-170L	84		30 - 140
PCB-188L	90		30 - 140
PCB-189L	97		30 - 140
PCB-202L	89		30 - 140
PCB-205L	69		30 - 140
PCB-206L	69		30 - 140
PCB-208L	73		30 - 140
PCB-209L	61		30 - 140

<i>Surrogate</i>	<i>MS</i> <i>%Recovery</i>	<i>MS</i> <i>Qualifier</i>	<i>Limits</i>
PCB-28L	90		40 - 125
PCB-111L	91		40 - 125
PCB-178L	92		40 - 125

Lab Sample ID: 580-76685-19 MSD

Matrix: Solid

Analysis Batch: 20158

Client Sample ID: PDI-SG-B202-BL1

Prep Type: Total/NA

Prep Batch: 19878

<i>Analyte</i>	<i>Sample</i> <i>Result</i>	<i>Sample</i> <i>Qualifier</i>	<i>Spike</i> <i>Added</i>	<i>MSD</i> <i>Result</i>	<i>MSD</i> <i>Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec.</i> <i>Limits</i>	<i>RPD</i>	<i>RPD</i> <i>Limit</i>
PCB-1	ND		0.495	0.474		ng/g	⊛	96	50 - 150	3	50
PCB-3	ND		0.495	0.499		ng/g	⊛	101	50 - 150	3	50
PCB-4	ND		0.495	0.502		ng/g	⊛	101	50 - 150	0	50
PCB-15	ND		0.495	0.533		ng/g	⊛	108	50 - 150	1	50
PCB-19	ND		0.495	0.590		ng/g	⊛	119	50 - 150	3	50
PCB-37	0.086	J q	0.495	0.574		ng/g	⊛	99	50 - 150	3	50
PCB-54	ND		0.495	0.507		ng/g	⊛	102	50 - 150	1	50
PCB-77	0.097	J q	0.495	0.530		ng/g	⊛	88	50 - 150	3	50
PCB-81	ND		0.495	0.511		ng/g	⊛	103	50 - 150	3	50
PCB-104	ND		0.495	0.559		ng/g	⊛	113	50 - 150	6	50
PCB-105	0.76		0.495	0.573	F1	ng/g	⊛	-38	50 - 150	4	50
PCB-114	0.048	J q	0.495	0.590		ng/g	⊛	110	50 - 150	6	50
PCB-118	2.4		0.495	0.654	4	ng/g	⊛	-353	50 - 150	16	50
PCB-123	0.028	J q	0.495	0.629		ng/g	⊛	121	50 - 150	9	50
PCB-126	ND		0.495	0.619		ng/g	⊛	125	50 - 150	2	50

TestAmerica Seattle

QC Sample Results

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

TestAmerica Job ID: 580-76685-3

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

Lab Sample ID: 580-76685-19 MSD

Matrix: Solid

Analysis Batch: 20158

Client Sample ID: PDI-SG-B202-BL1

Prep Type: Total/NA

Prep Batch: 19878

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-155	ND		0.495	0.500		ng/g	✱	101	50 - 150	3	50
PCB-156	0.44	C B	0.989	1.15	C	ng/g	✱	72	50 - 150	4	50
PCB-157	0.44	C156 B	0.989	1.15	C156	ng/g	✱	72	50 - 150	4	50
PCB-167	0.13		0.495	0.578		ng/g	✱	90	50 - 150	4	50
PCB-169	ND		0.495	0.494		ng/g	✱	100	50 - 150	1	50
PCB-188	ND		0.495	0.525		ng/g	✱	106	50 - 150	1	50
PCB-189	0.061	J	0.495	0.571		ng/g	✱	103	50 - 150	2	50
PCB-202	0.34	q	0.495	0.499	F1	ng/g	✱	33	50 - 150	10	50
PCB-205	ND		0.495	0.630		ng/g	✱	127	50 - 150	9	50
PCB-206	2.4		0.495	0.527	4	ng/g	✱	-371	50 - 150	4	50
PCB-208	0.39		0.495	0.549	F1	ng/g	✱	32	50 - 150	3	50
PCB-209	5.3		0.495	0.584	4	ng/g	✱	-959	50 - 150	1	50

Isotope Dilution	MSD %Recovery	MSD Qualifier	Limits
PCB-1L	63		30 - 140
PCB-3L	68		30 - 140
PCB-4L	61		30 - 140
PCB-15L	73		30 - 140
PCB-19L	69		30 - 140
PCB-37L	81		30 - 140
PCB-54L	74		30 - 140
PCB-77L	81		30 - 140
PCB-81L	80		30 - 140
PCB-104L	77		30 - 140
PCB-105L	88		30 - 140
PCB-114L	88		30 - 140
PCB-118L	83		30 - 140
PCB-123L	84		30 - 140
PCB-126L	83		30 - 140
PCB-155L	79		30 - 140
PCB-156L	81	C	30 - 140
PCB-157L	81	C156	30 - 140
PCB-167L	81		30 - 140
PCB-169L	89		30 - 140
PCB-170L	85		30 - 140
PCB-188L	89		30 - 140
PCB-189L	95		30 - 140
PCB-202L	88		30 - 140
PCB-205L	72		30 - 140
PCB-206L	70		30 - 140
PCB-208L	69		30 - 140
PCB-209L	61		30 - 140

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

TestAmerica Seattle

Lab Chronicle

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B133-BL1

Date Collected: 04/16/18 12:20

Date Received: 04/18/18 13:45

Lab Sample ID: 580-76685-1

Matrix: Solid

Percent Solids: 48.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			19793	04/24/18 10:13	SSS	TAL KNX
Total/NA	Cleanup	Split			19838	04/25/18 13:36	SMM	TAL KNX
Total/NA	Analysis	1668A		1	19992	05/02/18 05:37	LKM	TAL KNX

Client Sample ID: PDI-SG-B135-BL1

Date Collected: 04/16/18 15:55

Date Received: 04/18/18 13:45

Lab Sample ID: 580-76685-2

Matrix: Solid

Percent Solids: 35.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			19793	04/24/18 10:13	SSS	TAL KNX
Total/NA	Cleanup	Split			19838	04/25/18 13:36	SMM	TAL KNX
Total/NA	Analysis	1668A		1	20012	05/02/18 15:06	MSD	TAL KNX

Client Sample ID: PDI-SG-B112-BL1

Date Collected: 04/16/18 10:25

Date Received: 04/18/18 13:45

Lab Sample ID: 580-76685-3

Matrix: Solid

Percent Solids: 40.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			19793	04/24/18 10:13	SSS	TAL KNX
Total/NA	Cleanup	Split			19838	04/25/18 13:36	SMM	TAL KNX
Total/NA	Analysis	1668A		1	20012	05/02/18 16:10	MSD	TAL KNX

Client Sample ID: PDI-SG-B115-BL1

Date Collected: 04/16/18 11:15

Date Received: 04/18/18 13:45

Lab Sample ID: 580-76685-4

Matrix: Solid

Percent Solids: 39.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			19793	04/24/18 10:13	SSS	TAL KNX
Total/NA	Cleanup	Split			19838	04/25/18 13:36	SMM	TAL KNX
Total/NA	Analysis	1668A		1	20012	05/02/18 17:13	MSD	TAL KNX

Client Sample ID: PDI-SG-B156-BL1

Date Collected: 04/16/18 12:17

Date Received: 04/18/18 13:45

Lab Sample ID: 580-76685-5

Matrix: Solid

Percent Solids: 78.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			19793	04/24/18 10:13	SSS	TAL KNX
Total/NA	Cleanup	Split			19838	04/25/18 13:36	SMM	TAL KNX
Total/NA	Analysis	1668A		1	20012	05/02/18 18:17	MSD	TAL KNX

TestAmerica Seattle

Lab Chronicle

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B159-BL1

Date Collected: 04/16/18 11:05

Date Received: 04/18/18 13:45

Lab Sample ID: 580-76685-6

Matrix: Solid

Percent Solids: 57.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			19793	04/24/18 10:13	SSS	TAL KNX
Total/NA	Cleanup	Split			19838	04/25/18 13:36	SMM	TAL KNX
Total/NA	Analysis	1668A		1	20012	05/02/18 19:20	MSD	TAL KNX

Client Sample ID: PDI-SG-B163-BL1

Date Collected: 04/16/18 13:38

Date Received: 04/18/18 13:45

Lab Sample ID: 580-76685-7

Matrix: Solid

Percent Solids: 59.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			19793	04/24/18 10:13	SSS	TAL KNX
Total/NA	Cleanup	Split			19838	04/25/18 13:36	SMM	TAL KNX
Total/NA	Analysis	1668A		1	20045	05/03/18 07:12	PMP	TAL KNX

Client Sample ID: PDI-SG-B164-BL1

Date Collected: 04/16/18 14:40

Date Received: 04/18/18 13:45

Lab Sample ID: 580-76685-8

Matrix: Solid

Percent Solids: 65.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			19793	04/24/18 10:13	SSS	TAL KNX
Total/NA	Cleanup	Split			19838	04/25/18 13:36	SMM	TAL KNX
Total/NA	Analysis	1668A		1	20045	05/03/18 08:15	PMP	TAL KNX

Client Sample ID: PDI-SG-B164-BL1-D

Date Collected: 04/16/18 14:40

Date Received: 04/18/18 13:45

Lab Sample ID: 580-76685-9

Matrix: Solid

Percent Solids: 68.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			19793	04/24/18 10:13	SSS	TAL KNX
Total/NA	Cleanup	Split			19838	04/25/18 13:36	SMM	TAL KNX
Total/NA	Analysis	1668A		1	20045	05/03/18 09:19	PMP	TAL KNX

Client Sample ID: PDI-SG-B167-BL1

Date Collected: 04/16/18 15:45

Date Received: 04/18/18 13:45

Lab Sample ID: 580-76685-10

Matrix: Solid

Percent Solids: 45.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			19793	04/24/18 10:13	SSS	TAL KNX
Total/NA	Cleanup	Split			19838	04/25/18 13:36	SMM	TAL KNX
Total/NA	Analysis	1668A		1	20045	05/03/18 10:22	PMP	TAL KNX

TestAmerica Seattle

Lab Chronicle

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B169-BL1

Lab Sample ID: 580-76685-11

Date Collected: 04/17/18 09:40

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 70.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			19793	04/24/18 10:13	SSS	TAL KNX
Total/NA	Cleanup	Split			19838	04/25/18 13:36	SMM	TAL KNX
Total/NA	Analysis	1668A		1	20045	05/03/18 11:26	PMP	TAL KNX

Client Sample ID: PDI-SG-B114-BL1

Lab Sample ID: 580-76685-12

Date Collected: 04/17/18 11:40

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 53.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			19793	04/24/18 10:13	SSS	TAL KNX
Total/NA	Cleanup	Split			19838	04/25/18 13:36	SMM	TAL KNX
Total/NA	Analysis	1668A		1	20045	05/03/18 12:29	PMP	TAL KNX

Client Sample ID: PDI-SG-B171-BL1

Lab Sample ID: 580-76685-13

Date Collected: 04/17/18 13:00

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 77.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			19817	04/25/18 09:24	BRS	TAL KNX
Total/NA	Cleanup	Split			19919	04/27/18 20:31	SMM	TAL KNX
Total/NA	Analysis	1668A		1	20046	05/03/18 07:48	PMP	TAL KNX

Client Sample ID: PDI-SG-B173-BL1

Lab Sample ID: 580-76685-14

Date Collected: 04/17/18 14:36

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 73.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			19817	04/25/18 09:24	BRS	TAL KNX
Total/NA	Cleanup	Split			19919	04/27/18 20:31	SMM	TAL KNX
Total/NA	Analysis	1668A		1	20046	05/03/18 08:50	PMP	TAL KNX

Client Sample ID: PDI-SG-B175-BL1

Lab Sample ID: 580-76685-15

Date Collected: 04/17/18 16:33

Matrix: Solid

Date Received: 04/18/18 13:45

Percent Solids: 71.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			19817	04/25/18 09:24	BRS	TAL KNX
Total/NA	Cleanup	Split			19919	04/27/18 20:31	SMM	TAL KNX
Total/NA	Analysis	1668A		1	20068	05/03/18 13:19	JMN	TAL KNX

TestAmerica Seattle

Lab Chronicle

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-SG-B108-BL1

Date Collected: 04/17/18 10:00

Date Received: 04/18/18 13:45

Lab Sample ID: 580-76685-16

Matrix: Solid

Percent Solids: 43.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			19817	04/25/18 09:24	BRS	TAL KNX
Total/NA	Cleanup	Split			19919	04/27/18 20:31	SMM	TAL KNX
Total/NA	Analysis	1668A		1	20068	05/03/18 14:20	JMN	TAL KNX

Client Sample ID: PDI-SG-B160-BL1

Date Collected: 04/17/18 11:40

Date Received: 04/18/18 13:45

Lab Sample ID: 580-76685-17

Matrix: Solid

Percent Solids: 46.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			19878	04/27/18 12:10	CLI	TAL KNX
Total/NA	Cleanup	Split			19993	05/01/18 14:14	SMM	TAL KNX
Total/NA	Analysis	1668A		1	20151	05/08/18 07:17	PMP	TAL KNX

Client Sample ID: PDI-SG-B168-BL1

Date Collected: 04/17/18 13:45

Date Received: 04/18/18 13:45

Lab Sample ID: 580-76685-18

Matrix: Solid

Percent Solids: 69.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			19878	04/27/18 12:10	CLI	TAL KNX
Total/NA	Cleanup	Split			19993	05/01/18 14:14	SMM	TAL KNX
Total/NA	Analysis	1668A		1	20151	05/08/18 08:19	PMP	TAL KNX

Client Sample ID: PDI-SG-B202-BL1

Date Collected: 04/17/18 16:15

Date Received: 04/18/18 13:45

Lab Sample ID: 580-76685-19

Matrix: Solid

Percent Solids: 68.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sox			19878	04/27/18 12:10	CLI	TAL KNX
Total/NA	Cleanup	Split			19993	05/01/18 14:14	SMM	TAL KNX
Total/NA	Analysis	1668A		10	20221	05/10/18 09:42	LKM	TAL KNX

Client Sample ID: PDI-RB-VVSS-180416-1735

Date Collected: 04/16/18 17:35

Date Received: 04/18/18 13:45

Lab Sample ID: 580-76685-20

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sepf			19763	04/23/18 12:26	SMA	TAL KNX
Total/NA	Analysis	1668A		1	19928	04/30/18 03:53	LKM	TAL KNX

TestAmerica Seattle

Lab Chronicle

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

TestAmerica Job ID: 580-76685-3

Client Sample ID: PDI-RB-VVSS-180416-1800

Lab Sample ID: 580-76685-21

Date Collected: 04/16/18 18:00

Matrix: Water

Date Received: 04/18/18 13:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	HRMS-Sepf			19763	04/23/18 12:26	SMA	TAL KNX
Total/NA	Analysis	1668A		1	19928	04/30/18 04:55	LKM	TAL KNX

Laboratory References:

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

Accreditation/Certification Summary

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

TestAmerica Job ID: 580-76685-3

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	07-31-18
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: 580-76685-3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-76685-1	PDI-SG-B133-BL1	Solid	04/16/18 12:20	04/18/18 13:45
580-76685-2	PDI-SG-B135-BL1	Solid	04/16/18 15:55	04/18/18 13:45
580-76685-3	PDI-SG-B112-BL1	Solid	04/16/18 10:25	04/18/18 13:45
580-76685-4	PDI-SG-B115-BL1	Solid	04/16/18 11:15	04/18/18 13:45
580-76685-5	PDI-SG-B156-BL1	Solid	04/16/18 12:17	04/18/18 13:45
580-76685-6	PDI-SG-B159-BL1	Solid	04/16/18 11:05	04/18/18 13:45
580-76685-7	PDI-SG-B163-BL1	Solid	04/16/18 13:38	04/18/18 13:45
580-76685-8	PDI-SG-B164-BL1	Solid	04/16/18 14:40	04/18/18 13:45
580-76685-9	PDI-SG-B164-BL1-D	Solid	04/16/18 14:40	04/18/18 13:45
580-76685-10	PDI-SG-B167-BL1	Solid	04/16/18 15:45	04/18/18 13:45
580-76685-11	PDI-SG-B169-BL1	Solid	04/17/18 09:40	04/18/18 13:45
580-76685-12	PDI-SG-B114-BL1	Solid	04/17/18 11:40	04/18/18 13:45
580-76685-13	PDI-SG-B171-BL1	Solid	04/17/18 13:00	04/18/18 13:45
580-76685-14	PDI-SG-B173-BL1	Solid	04/17/18 14:36	04/18/18 13:45
580-76685-15	PDI-SG-B175-BL1	Solid	04/17/18 16:33	04/18/18 13:45
580-76685-16	PDI-SG-B108-BL1	Solid	04/17/18 10:00	04/18/18 13:45
580-76685-17	PDI-SG-B160-BL1	Solid	04/17/18 11:40	04/18/18 13:45
580-76685-18	PDI-SG-B168-BL1	Solid	04/17/18 13:45	04/18/18 13:45
580-76685-19	PDI-SG-B202-BL1	Solid	04/17/18 16:15	04/18/18 13:45
580-76685-20	PDI-RB-VVSS-180416-1735	Water	04/16/18 17:35	04/18/18 13:45
580-76685-21	PDI-RB-VVSS-180416-1800	Water	04/16/18 18:00	04/18/18 13:45

TestAmerica Seattle



580-7685 Chain of Custody

SURFACE SEDIMENT

CHAIN OF CUSTODY

TestAmerica-Seattle 5755-8th-Street-East Tacoma, WA 98424-1317 Ph: 253-922-2310 Fax: 253-922-5047		Client Contact AECOM 1111 3rd Ave Suite 1600 Seattle, WA 98101 Phone: (206) 438-2700 Fax: 1+(866) 495-5288 Project Name: Portland Harbor Pre-Remedial Design Investigation and Baseline Sampling Portland, OR Project #: 60566335 Study: Surface Sediment		Project Contact: Amy Dahl / Chelsey Cook Tel: (206) 438-2261 / (206) 438-2010 Analysis Turnaround Time Calendar (C) or Work Days (W) ☒ 21 days ☐ Other _____		Site Contact: Jennifer Ray / Michaela McCoog Laboratory Contact: Elaine Walker Carrier: Courier		4/18/2018 COC No: 1 of 2 COCs											
Sample Identification	Sample Date	Sample Time	Matrix	QC Sample	Sampler's Initials	Total No. of Cont.	Fraction	PCB Congeners 168A	PCDD/Fs 1613B	TPH Diesel, Metals, Mercury NWTPH-Dx, 6020B, 7471A	Grain size ASTM D7928/D6913	Total organic carbon, Total solids 9060	Archive Archive -20 C	WQ - PCB Congeners 1668A	WQ - PCDD/Fs 1613B	WQ - TPH Diesel NWTPH-Dx	WQ - Metals, Mercury 6020B, 7470	WQ - Total Organic Carbon SM5310B	Sample Specific Notes:
PDI-SG-B133-BL1	4/16/2018	12:20	SE		AM	6		X	X	X	X	X	X						
PDI-SG-B135-BL1	4/16/2018	15:55	SE		AM	6		X	X	X	X	X	X						
PDI-SG-B112-BL1	4/16/2018	10:25	SE		AM	6		X	X	X	X	X	X						
PDI-SG-B115-BL1	4/16/2018	11:15	SE		AM	6		X	X	X	X	X	X						
PDI-SG-B156-BL1	4/16/2018	12:17	SE		MT	6		X	X	X	X	X	X						
PDI-SG-B159-BL1	4/16/2018	11:05	SE		MT	6		X	X	X	X	X	X						
PDI-SG-B163-BL1	4/16/2018	13:38	SE		MT	6		X	X	X	X	X	X						
PDI-SG-B164-BL1	4/16/2018	14:40	SE		MT	6		X	X	X	X	X	X						
PDI-SG-B164-BL1-D	4/16/2018	14:40	SE		MT	5		X	X	X	X	X	X						
PDI-SG-B167-BL1	4/16/2018	15:45	SE		MT	6		X	X	X	X	X	X						
PDI-SG-B169-BL1	4/17/2018	9:40	SE		MT	6		X	X	X	X	X	X						
PDI-SG-B114-BL1	4/17/2018	11:40	SE		LS	6		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																			
Relinquished by: Michaela McCoog Relinquished by: Jennifer Ray Relinquished by:		Company: AECOM Company: M.E. Company:		Date/Time: 4/18/18 1300 Date/Time: 4/18/18 1345 Date/Time:		Received by: Jennifer Ray Received by: M.E. Received by:		Company: M.E. Company: TAPOR Company:		Date/Time: 4/18/18 1300 Date/Time: 4/18/18 1345 Date/Time:									

CHAIN OF CUSTODY

[illegible]



580-76685 Chain of Custody

TestAmerica-Seattle		SURFACE SEDIMENT										CHAIN OF CUSTODY									
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 / Michaela McCoog Laboratory Contact: Elaine-Walker									
Client Contact		Analysis Turnaround Time										Carrier: Courier									
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		Calendar (C) or Work Days (W) ☒ 21 days ☐ Other _____										4/18/2018 COC No. 1 of 2 COCs									
Sample Identification	Sample Date	Sample Time	Matrix	QC Sample	Sampler's Initials	Total No. of Cont.	Fraction	PCB Congeners 1608A	PCDD/Fs 1613B	TPH Diesel, Metals, Mercury, NWTPH-Dx, 6020B, 7471A	Grain size ASTM D7928/D6913	Total organic carbon, Total solids 9060	Archive Archive -20 C	WQ - PCB Congeners 1608A	WQ - PCDD/Fs 1613B	WQ - TPH Diesel NWTPH-Dx	WQ - Metals, Mercury 6020B, 7470	WQ - Total Organic Carbon SM6310B	Sample Specific Notes:		
PDI-SG-B133-BL1	4/16/2018	12:20	SE		AM	6		X	X	X	X	X	X								
PDI-SG-B135-BL1	4/16/2018	15:55	SE		AM	6		X	X	X	X	X	X								
PDI-SG-B112-BL1	4/16/2018	10:25	SE		AM	6		X	X	X	X	X	X								
PDI-SG-B115-BL1	4/16/2018	11:15	SE		AM	6		X	X	X	X	X	X								
PDI-SG-B156-BL1	4/16/2018	12:17	SE		MT	6		X	X	X	X	X	X								
PDI-SG-B159-BL1	4/16/2018	11:05	SE		MT	6		X	X	X	X	X	X								
PDI-SG-B163-BL1	4/16/2018	13:38	SE		MT	6		X	X	X	X	X	X								
PDI-SG-B164-BL1	4/16/2018	14:40	SE		MT	6		X	X	X	X	X	X								
PDI-SG-B164-BL1-D	4/16/2018	14:40	SE		MT	5		X	X	X		X	X								
PDI-SG-B167-BL1	4/16/2018	15:45	SE		MT	6		X	X	X	X	X	X								
PDI-SG-B169-BL1	4/17/2018	9:40	SE		MT	6		X	X	X	X	X	X								
PDI-SG-B114-BL1	4/17/2018	11:40	SE		LS	6		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)																					
Sample Disposal ☐ Return To Client ☒ Disposal By Lab ☒ Archive For 12 Months																					
Special Instructions/QC Requirements & Comments: Separate reports for each lab																					
Relinquished by: Michaela McCoog		Company: AECOM		Date/Time: 4/18/18 1300		Received by: Jennifer Ray		Company: M.E.		Date/Time: 4/18/18 1300											
Relinquished by: Jennifer Ray		Company: M.E.		Date/Time: 4/18/18 1345		Received by: [Signature]		Company: TAPOR		Date/Time: 4/18/18 1345											
Relinquished by: [Signature]		Company: TAPOR		Date/Time: 4/18/18 1700		Received by: Tom Blum		Company: TA-Sea		Date/Time: 4/19/18 0910											

IR4 -1.0/-1.2

TestAmerica-Seattle 5755-8th-Street-East Tacoma, WA 98424-1317 Ph: 253-922-2310 Fax: 253-922-5047		SURFACE SEDIMENT CHAIN OF CUSTODY																				
Client Contact		Project Contact: Amy Dahl / Chelsey Cook Tel: (206) 438-2261 / (206) 438-2010			Site Contact: Jennifer Ray / Michaela McCoog			4/18/2018			COC No.											
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		Analysis Turnaround Time Calendar (C) or Work Days (W) ☒ 21 days ☐ Other _____			Laboratory Contact: Elaine Walker			Carrier: Courier			2 of 2 COCs											
Sample Identification	Sample Date	Sample Time	Matrix	QC Sample	Sampler's Initials	Total No. of Cont.	Fraction	PCB Congeners 166A	PCDD/Fs 1613B	TPH Dissol. Metals, Mercury, NWTPH-Dx 6020B, 7471A	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 Dissol NWTPH-Dx	WQ - Metals, Mercury 6020B, 7470	WQ - Total Organic Carbon SM5310B	Sample Specific Notes:			
PDI-SG-B171-BL1	4/17/2018	13:00	SE		LS	6		X	X	X	X	X	X									
PDI-SG-B173-BL1	4/17/2018	14:36	SE		LS	6		X	X	X	X	X	X									
PDI-SG-B175-BL1	4/17/2018	16:33	SE		LS	6		X	X	X	X	X	X									
PDI-SG-B108-BL1	4/17/2018	10:00	SE		AM	6		X	X	X	X	X	X									
PDI-SG-B160-BL1	4/17/2018	11:40	SE		AM	6		X	X	X	X	X	X									
PDI-SG-B168-BL1	4/17/2018	13:45	SE		AM	6		X	X	X	X	X	X									
PDI-SG-B202-BL1	4/17/2018	16:15	SE	MS/MSD	AM	11		X	X	X	X	X	X								Only 2 jars for TOC, TS	
PDI-RB-VVSS-180416-1735	4/16/2018	17:35	W		LS	8								X	X	X	X	X				
PDI-RB-VVSS-180416-1800	4/16/2018	18:00	W		AM	8								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 4.4, 4.0, 5.7, 3.9, 2-8																						
Relinquished by: Michaela McCoog	Company: AECOM	Date/Time: 4/18/18 1300	Received by: [Signature]			Company: M.E.	Date/Time: 4/18/18 1300															
Relinquished by: [Signature]	Company: M.E.	Date/Time: 4/18/18 1345	Received by: [Signature]			Company: TADOR	Date/Time: 4/18/18 1345															
Relinquished by: [Signature]	Company: TADOR	Date/Time: 4/18/18 1700	Received by: Tom [Signature]			Company: TA-Sea	Date/Time: 4/19/18 0910															

IR4 -1.7/-1.9

1
 2
 3
 4
 5
 6
 7
 8
 9
 10
 11
 12
 13
 14
 15
 16
 17
 18
 19
 20
 21
 22
 23
 24
 25
 26
 27
 28
 29
 30
 31
 32
 33
 34
 35
 36
 37
 38
 39
 40
 41
 42
 43
 44
 45
 46
 47
 48
 49
 50
 51
 52
 53
 54
 55
 56
 57
 58
 59
 60
 61
 62
 63
 64
 65
 66
 67
 68
 69
 70
 71
 72
 73
 74
 75
 76
 77
 78
 79
 80
 81
 82
 83
 84
 85
 86
 87
 88
 89
 90
 91
 92
 93
 94
 95
 96
 97
 98
 99
 100
 101
 102
 103
 104
 105
 106
 107
 108
 109
 110
 111
 112
 113
 114
 115
 116
 117
 118
 119
 120
 121
 122
 123
 124
 125
 126
 127
 128
 129
 130
 131
 132
 133
 134
 135
 136
 137
 138
 139
 140
 141
 142
 143
 144
 145
 146
 147
 148
 149
 150
 151
 152
 153
 154
 155
 156
 157
 158
 159
 160
 161
 162
 163
 164
 165
 166
 167
 168
 169
 170
 171
 172
 173
 174
 175
 176
 177
 178
 179
 180
 181
 182
 183
 184
 185
 186
 187
 188
 189
 190
 191
 192
 193
 194
 195
 196
 197
 198
 199
 200
 201
 202
 203
 204
 205
 206
 207
 208
 209
 210
 211
 212
 213
 214
 215
 216
 217
 218
 219
 220
 221
 222
 223
 224
 225
 226
 227
 228
 229
 230
 231
 232
 233
 234
 235
 236
 237
 238
 239
 240
 241
 242
 243
 244
 245
 246
 247
 248
 249
 250
 251
 252
 253
 254
 255
 256
 257
 258
 259
 260
 261
 262
 263
 264
 265
 266
 267
 268
 269
 270
 271
 272
 273
 274
 275
 276
 277
 278
 279
 280
 281
 282
 283
 284
 285
 286
 287
 288
 289
 290
 291
 292
 293
 294
 295
 296
 297
 298
 299
 300
 301
 302
 303
 304
 305
 306
 307
 308
 309
 310
 311
 312
 313
 314
 315
 316
 317
 318
 319
 320
 321
 322
 323
 324
 325
 326
 327
 328
 329
 330
 331
 332
 333
 334
 335
 336
 337
 338
 339
 340
 341
 342
 343
 344
 345
 346
 347
 348
 349
 350
 351
 352
 353
 354
 355
 356
 357
 358
 359
 360
 361
 362
 363
 364
 365
 366
 367
 368
 369
 370
 371
 372
 373
 374
 375
 376
 377
 378
 379
 380
 381
 382
 383
 384
 385
 386
 387
 388
 389
 390
 391
 392
 393
 394
 395
 396
 397
 398
 399
 400
 401
 402
 403
 404
 405
 406
 407
 408
 409
 410
 411
 412
 413
 414
 415
 416
 417
 418
 419
 420
 421
 422
 423
 424
 425
 426
 427
 428
 429
 430
 431
 432
 433
 434
 435
 436
 437
 438
 439
 440
 441
 442
 443
 444
 445
 446
 447
 448
 449
 450
 451
 452
 453
 454
 455
 456
 457
 458
 459
 460
 461
 462
 463
 464
 465
 466
 467
 468
 469
 470
 471
 472
 473
 474
 475
 476
 477
 478
 479
 480
 481
 482
 483
 484
 485
 486
 487
 488
 489
 490
 491
 492
 493
 494
 495
 496
 497
 498
 499
 500
 501
 502
 503
 504
 505
 506
 507
 508
 509
 510
 511
 512
 513
 514
 515
 516
 517
 518
 519
 520
 521
 522
 523
 524
 525

estAn rica

Client Information (Sub Contract Lab)				Lab PM: Walker, Elaine M		Vo: -54726.1	
Client Contact: Shipping/Receiving				E-Mail: elaine.walker@testamericainc.com		Page: Page 1 of 3	
Company: TestAmerica Laboratories, Inc.				Accreditations Required (See note):		Job #: 580-76685-1	
Address: 5815 Middlebrook Pike, City: Knoxville State, Zip: TN, 37921				Due Date Requested: 5/7/2018		State of Origin: Oregon	
Phone: 865-291-3000(Tel) 865-584-4315(Fax)				TAT Requested (days):		Preservation Codes:	
Email:				PO #:		A - HCL	
Project #:				WO #:		M - Hexane	
Project Name: Portland Harbor Pre-Remedial Design				SSOW#:		N - None	
Site:						O - AsNaO2	
						P - Na2O4S	
						Q - Na2SO3	
						R - Na2SO3	
						S - H2SO4	
						T - TSP Dodecaldehyde	
						U - Acetone	
						V - MCAA	
						W - pH 4-5	
						X - EDTA	
						Z - other (specify)	
						Other:	

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Viewwater, Solid, or On-water, BT-Tissue, A=Air)	Field Filtered Sample (Yes or No)	Performance/MSD (Yes or No)	1668A/1668_P_Sox 209 PCBs plus Totals	1668A/1668_Split 209 PCBs plus Totals	Screen_1668/Screen_PCB_P_S	1668A/1668_P_Sep 209 PCBs plus Totals	Total Number of Containers	Special Instructions/Note:
PDI-SG-B133-BL1 (580-76685-1)	4/16/18	12:20 Pacific	Solid	Solid	X	X	X	X	X	X	6	REC. @ 0.5c 0.4c
PDI-SG-B135-BL1 (580-76685-2)	4/16/18	15:55 Pacific	Solid	Solid	X	X	X	X	X	X	6	CUSTOMER SEAL IN TAC
PDI-SG-B1112-BL1 (580-76685-3)	4/16/18	10:25 Pacific	Solid	Solid	X	X	X	X	X	X	6	1 COOLER RH 4-20-1
PDI-SG-B115-BL1 (580-76685-4)	4/16/18	11:15 Pacific	Solid	Solid	X	X	X	X	X	X	6	FEDEX # 423659230122
PDI-SG-B156-BL1 (580-76685-5)	4/16/18	12:17 Pacific	Solid	Solid	X	X	X	X	X	X	6	
PDI-SG-B159-BL1 (580-76685-6)	4/16/18	11:05 Pacific	Solid	Solid	X	X	X	X	X	X	6	
PDI-SG-B163-BL1 (580-76685-7)	4/16/18	13:38 Pacific	Solid	Solid	X	X	X	X	X	X	6	
PDI-SG-B164-BL1 (580-76685-8)	4/16/18	14:40 Pacific	Solid	Solid	X	X	X	X	X	X	6	
PDI-SG-B164-BL1-D (580-76685-9)	4/16/18	14:40 Pacific	Solid	Solid	X	X	X	X	X	X	5	

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.

Possible Hazard Identification			
Unconfirmed			
Deliverable Requested: I, II, III, IV, Other (specify)			
Primary Deliverable Rank: 2			
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)			
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months			
Special Instructions/QC Requirements:			
Method of Shipment:			
Date:		Time:	
Date/Time: 4/19/18 11:25		Date/Time: 4/20/18 0930	
Relinquished by: [Signature]		Relinquished by: [Signature]	
Relinquished by:		Relinquished by:	
Relinquished by:		Relinquished by:	
Custody Seal Intact: A Yes A No		Custody Seal No.:	

Chain of Custody record

Client Information (Sub Contract Lab)		Sampler:		Lab P/N: Walker, Elaine M		Carrier Tracking No(s):		COC No: 580-54726.2	
Client Contact:		Phone:		E-Mail: elaine.walker@testamericainc.com		State of Origin: Oregon		Page: Page 2 of 3	
Shipping/Receiving								Job #: 580-76685-1	
Company: TestAmerica Laboratories, Inc.								Preservation Codes:	
Address: 5815 Middlebrook Pike,		Due Date Requested: 5/7/2018						A - HCL	
City: Knoxville		TAT Requested (days):						B - NaOH	
State, Zip: TN, 37921								C - Zn Acetate	
Phone: 865-291-3000(Tel) 865-584-4315(Fax)		PO #:						D - Nitric Acid	
Email:		WO #:						E - NaHSO4	
Project Name: Portland Harbor Pre-Remedial Design		Project #:						F - MeOH	
Site:		SSOW#:						G - Anchor	
								H - Ascorbic Acid	
								I - Ice	
								J - DI Water	
								K - EDTA	
								L - EDA	
								M - Hexane	
								N - None	
								O - AsNaO2	
								P - Na2OAS	
								Q - Na2SO3	
								R - Na2SO4	
								S - H2SO4	
								T - TSP Dodecahydrate	
								U - Acetone	
								V - MCAA	
								W - pH 4-5	
								Z - other (specify)	
								Other:	

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Viscous, Solid, Overweight)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1668A/1668_P_Sox 209 PCBs plus Totals	Screen_1668/Screen_PCB_P_S	1668A/1668_P_Sep 209 PCBs plus Totals	Total Number of Containers	Special Instructions/Note:
PDI-SG-B167-BL1 (580-76685-10)	4/16/18	15:45 Pacific	Solid	Solid	X	X	X	X	X	6	
PDI-SG-B169-BL1 (580-76685-11)	4/17/18	09:40 Pacific	Solid	Solid	X	X	X	X	X	6	
PDI-SG-B114-BL1 (580-76685-12)	4/17/18	11:40 Pacific	Solid	Solid	X	X	X	X	X	6	
PDI-SG-B171-BL1 (580-76685-13)	4/17/18	13:00 Pacific	Solid	Solid	X	X	X	X	X	6	
PDI-SG-B173-BL1 (580-76685-14)	4/17/18	14:36 Pacific	Solid	Solid	X	X	X	X	X	6	
PDI-SG-B175-BL1 (580-76685-15)	4/17/18	16:33 Pacific	Solid	Solid	X	X	X	X	X	6	
PDI-SG-B108-BL1 (580-76685-16)	4/17/18	10:00 Pacific	Solid	Solid	X	X	X	X	X	6	
PDI-SG-B160-BL1 (580-76685-17)	4/17/18	11:40 Pacific	Solid	Solid	X	X	X	X	X	6	
PDI-SG-B168-BL1 (580-76685-18)	4/17/18	13:45 Pacific	Solid	Solid	X	X	X	X	X	6	

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			
Empty Kit Relinquished by:		Time:	
Relinquished by: <i>[Signature]</i>		Date: 4/19/18	
Relinquished by:		Date: 4/19/18	
Relinquished by:		Date: 4/19/18	
Custody Seals Intact: ☐ Yes ☐ No		Custody Seal No.:	

Received by: <i>[Signature]</i>		Date: 4-20-18		Company: TA KIX	
Received by:		Date: 4-20-18		Company:	
Received by:		Date: 4-20-18		Company:	
Cooler Temperature(s) °C and Other Remarks:					

Ver: 09/20/2016

TestAmerica

Ver. 09/20/2016

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>5C67</u> Correction factor: <u>-0.1</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	
10. Was the sampler identified on the COC?			☒	☐ Sampler Not Listed on COC	
11. Is the client and project name/# identified?	☒			☐ COC Incorrect/Incomplete	
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	
15. Were samples received within holding time?	☒			☐ Holding Time - Receipt	
16. Were samples received with correct chemical preservative (excluding Encore)?				☐ pH Adjusted, pH Included (See box 16A) ☐ Incorrect Preservative	
17. Were VOA samples received without headspace?				☐ Headspace (VOA only) ☐ Residual Chlorine	
18. Did you check for residual chlorine, if necessary? (e.g. 1613B, 1668) Chlorine test strip lot number: <u>7194 2020/04</u>	☒				
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: _____					
Sample Receiving Associate: <u>Ryan Henry</u> Date: <u>4/20/18</u>					

QA026R30.doc, 080916

Login Sample Receipt Checklist

Client: AECOM

Job Number: 580-76685-3

Login Number: 76685

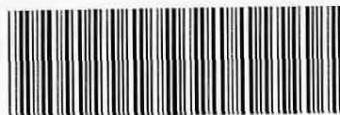
List Source: TestAmerica Seattle

List Number: 1

Creator: Gonzales, Steve

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	

THE LEADER IN ENVIRONMENTAL TESTING



580-76685 Field Sheet

Ja

Tracking # 4236 5923 0719 SO / PO / FO

Use this form to record Sample Custody Seal, Cooler Custody Seal, Temperature & corrected Temperature & other observations.
File in the job folder with the COC.

Notes:	Therm. ID: <u>AK-2 / AK-3 / AK-4 / AK-5 / HACCP / Other</u> Ice <u>X</u> Wet <u>X</u> Gel <u> </u> Other <u> </u> Cooler Custody Seal: <u>seal</u> Sample Custody Seal: <u> </u> Cooler ID: <u>1 of 2</u> Temp: Observed <u>6.0</u> From: Temp Blank ☐ Sample ☒ NCM Filed: Yes ☒ No ☐																																																																				
	<table border="0" style="width: 100%;"> <tr> <th></th> <th style="text-align: center; width: 10%;">Yes</th> <th style="text-align: center; width: 10%;">No</th> <th style="text-align: center; width: 10%;">NA</th> </tr> <tr> <td>Perchlorate has headspace?</td> <td style="text-align: center;">☐</td> <td style="text-align: center;">☐</td> <td style="text-align: center;">☒</td> </tr> <tr> <td>CoC is complete w/o discrepancies?</td> <td style="text-align: center;">☒</td> <td style="text-align: center;">☐</td> <td style="text-align: center;">☐</td> </tr> <tr> <td>Samples received within holding time?</td> <td style="text-align: center;">☒</td> <td style="text-align: center;">☐</td> <td style="text-align: center;">☐</td> </tr> <tr> <td>Sample preservatives verified?</td> <td style="text-align: center;">☒</td> <td style="text-align: center;">☐</td> <td style="text-align: center;">☐</td> </tr> <tr> <td>Cooler compromised/tampered with?</td> <td style="text-align: center;">☐</td> <td style="text-align: center;">☒</td> <td style="text-align: center;">☐</td> </tr> <tr> <td>Samples compromised/tampered with?</td> <td style="text-align: center;">☐</td> <td style="text-align: center;">☒</td> <td style="text-align: center;">☐</td> </tr> <tr> <td>Samples w/o discrepancies?</td> <td style="text-align: center;">☒</td> <td style="text-align: center;">☐</td> <td style="text-align: center;">☐</td> </tr> <tr> <td>Sample containers have legible labels?</td> <td style="text-align: center;">☒</td> <td style="text-align: center;">☐</td> <td style="text-align: center;">☐</td> </tr> <tr> <td>Containers are not broken or leaking?</td> <td style="text-align: center;">☒</td> <td style="text-align: center;">☐</td> <td style="text-align: center;">☐</td> </tr> <tr> <td>Sample date/times are provided.</td> <td style="text-align: center;">☒</td> <td style="text-align: center;">☐</td> <td style="text-align: center;">☐</td> </tr> <tr> <td>Appropriate containers are used?</td> <td style="text-align: center;">☒</td> <td style="text-align: center;">☐</td> <td style="text-align: center;">☐</td> </tr> <tr> <td>Sample bottles are completely filled?</td> <td style="text-align: center;">☒</td> <td style="text-align: center;">☐</td> <td style="text-align: center;">☐</td> </tr> <tr> <td>Zero headspace?*</td> <td style="text-align: center;">☐</td> <td style="text-align: center;">☐</td> <td style="text-align: center;">☒</td> </tr> <tr> <td>Multiphasic samples are not present?</td> <td style="text-align: center;">☒</td> <td style="text-align: center;">☐</td> <td style="text-align: center;">☐</td> </tr> <tr> <td>Sample temp OK?</td> <td style="text-align: center;">☒</td> <td style="text-align: center;">☐</td> <td style="text-align: center;">☐</td> </tr> <tr> <td>Sample out of temp?</td> <td style="text-align: center;">☐</td> <td style="text-align: center;">☒</td> <td style="text-align: center;">☐</td> </tr> </table>		Yes	No	NA	Perchlorate has headspace?	☐	☐	☒	CoC is complete w/o discrepancies?	☒	☐	☐	Samples received within holding time?	☒	☐	☐	Sample preservatives verified?	☒	☐	☐	Cooler compromised/tampered with?	☐	☒	☐	Samples compromised/tampered with?	☐	☒	☐	Samples w/o discrepancies?	☒	☐	☐	Sample containers have legible labels?	☒	☐	☐	Containers are not broken or leaking?	☒	☐	☐	Sample date/times are provided.	☒	☐	☐	Appropriate containers are used?	☒	☐	☐	Sample bottles are completely filled?	☒	☐	☐	Zero headspace?*	☐	☐	☒	Multiphasic samples are not present?	☒	☐	☐	Sample temp OK?	☒	☐	☐	Sample out of temp?	☐	☒	☐
	Yes	No	NA																																																																		
Perchlorate has headspace?	☐	☐	☒																																																																		
CoC is complete w/o discrepancies?	☒	☐	☐																																																																		
Samples received within holding time?	☒	☐	☐																																																																		
Sample preservatives verified?	☒	☐	☐																																																																		
Cooler compromised/tampered with?	☐	☒	☐																																																																		
Samples compromised/tampered with?	☐	☒	☐																																																																		
Samples w/o discrepancies?	☒	☐	☐																																																																		
Sample containers have legible labels?	☒	☐	☐																																																																		
Containers are not broken or leaking?	☒	☐	☐																																																																		
Sample date/times are provided.	☒	☐	☐																																																																		
Appropriate containers are used?	☒	☐	☐																																																																		
Sample bottles are completely filled?	☒	☐	☐																																																																		
Zero headspace?*	☐	☐	☒																																																																		
Multiphasic samples are not present?	☒	☐	☐																																																																		
Sample temp OK?	☒	☐	☐																																																																		
Sample out of temp?	☐	☒	☐																																																																		
<u>MISSING COC for</u> <u># 19, 20, 21</u>	Initials: <u>KL</u> Date: <u>4/19/18</u> Time: <u>840</u> *Containers requiring zero headspace have no headspace, or bubble < 6 mm (1/4")																																																																				

Isotope Dilution Summary

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

TestAmerica Job ID: 580-76685-3

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)
580-76685-1	PDI-SG-B133-BL1	136	122	114	109	113	113	138	113
580-76685-2	PDI-SG-B135-BL1	87	86	78	83	93	88	111	86
580-76685-3	PDI-SG-B112-BL1	91	90	83	84	97	88	113	85
580-76685-4	PDI-SG-B115-BL1	97	94	84	81	83	84	95	82
580-76685-5	PDI-SG-B156-BL1	107	95	87	87	82	87	100	88
580-76685-6	PDI-SG-B159-BL1	91	91	74	75	114	89	130	81
580-76685-7	PDI-SG-B163-BL1	86	86	76	77	83	89	87	91
580-76685-8	PDI-SG-B164-BL1	94	93	77	83	77	82	86	82
580-76685-9	PDI-SG-B164-BL1-D	86	87	76	85	82	86	93	89
580-76685-10	PDI-SG-B167-BL1	108	105	91	95	133	103	137	98
580-76685-11	PDI-SG-B169-BL1	97	95	80	85	97	85	106	85
580-76685-12	PDI-SG-B114-BL1	108	103	93	104	108	98	117	97
580-76685-13	PDI-SG-B171-BL1	68	67	70	75	70	77	74	72
580-76685-14	PDI-SG-B173-BL1	78	78	75	83	73	91	81	88
580-76685-15	PDI-SG-B175-BL1	75	74	76	83	81	89	85	89
580-76685-16	PDI-SG-B108-BL1	73	73	73	83	79	87	80	88
580-76685-17	PDI-SG-B160-BL1	73	78	72	81	76	86	82	89
580-76685-18	PDI-SG-B168-BL1	71	79	74	82	102	93	108	82
580-76685-19	PDI-SG-B202-BL1	80	86 q	73	77	102	77	78	74
580-76685-19 MS	PDI-SG-B202-BL1	67	69	63	75	74	85	74	82
580-76685-19 MSD	PDI-SG-B202-BL1	63	68	61	73	69	81	74	81
LCS 140-19793/18-B	Lab Control Sample	100	91	83	83	79	82	96	81
LCS 140-19817/17-B	Lab Control Sample	99	77	80	67	92	77	96	74
LCS 140-19878/15-B	Lab Control Sample	99	75	75	56	88	73	92	78
LCSD 140-19793/19-B	Lab Control Sample Dup	103	95	89	77	86	81	102	83
LCSD 140-19817/18-B	Lab Control Sample Dup	97	80	79	66	88	79	92	75
LCSD 140-19878/16-B	Lab Control Sample Dup	92	64	67	55	74	64	79	66
MB 140-19793/17-B	Method Blank	105	92	86	82	78	77	96	78
MB 140-19817/16-B	Method Blank	92	76	79	65	91	77	89	71
MB 140-19878/14-B	Method Blank	91	72	79	64	85	76	94	79
		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)
580-76685-1	PDI-SG-B133-BL1	113	129	112	113	119	118	113	138
580-76685-2	PDI-SG-B135-BL1	85	97	87	87	90	91	88	106
580-76685-3	PDI-SG-B112-BL1	85	107	87	87	90	90	89	108
580-76685-4	PDI-SG-B115-BL1	82	91	84	83	86	87	86	104
580-76685-5	PDI-SG-B156-BL1	86	92	85	84	87	87	87	103
580-76685-6	PDI-SG-B159-BL1	79	104	91	88	92	92	86	100
580-76685-7	PDI-SG-B163-BL1	88	94	86	86	89	88	89	95
580-76685-8	PDI-SG-B164-BL1	82	86	81	81	83	84	78	92
580-76685-9	PDI-SG-B164-BL1-D	88	88	84	83	86	86	83	97
580-76685-10	PDI-SG-B167-BL1	95	120	102	101	107	106	93	116
580-76685-11	PDI-SG-B169-BL1	84	92	84	83	87	86	82	95
580-76685-12	PDI-SG-B114-BL1	98	106	97	96	100	98	96	113
580-76685-13	PDI-SG-B171-BL1	61	74	87	81	81	80	62	76
580-76685-14	PDI-SG-B173-BL1	88	76	75	85	85	85	84	82
580-76685-15	PDI-SG-B175-BL1	89	78	85	87	86	85	84	82
580-76685-16	PDI-SG-B108-BL1	89	74	80	87	84	85	83	80

TestAmerica Seattle

Isotope Dilution Summary

Client: AECOM

TestAmerica Job ID: 580-76685-3

Project/Site: Portland Harbor Pre-Remedial Design

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)
580-76685-17	PDI-SG-B160-BL1	86	80	82	89	85	83	85	84
580-76685-18	PDI-SG-B168-BL1	86	83	85	89	88	86	86	88
580-76685-19	PDI-SG-B202-BL1	74	65	81	77	83	79	78	75
580-76685-19 MS	PDI-SG-B202-BL1	81	78	83	92	98	88	79	79
580-76685-19 MSD	PDI-SG-B202-BL1	80	77	88	88	83	84	83	79
LCS 140-19793/18-B	Lab Control Sample	82	91	82	79	83	81	83	100
LCS 140-19817/17-B	Lab Control Sample	71	96	83	82	80	83	79	95
LCS 140-19878/15-B	Lab Control Sample	75	90	82	82	77	78	73	93
LCSD 140-19793/19-B	Lab Control Sample Dup	80	94	84	86	89	87	85	98
LCSD 140-19817/18-B	Lab Control Sample Dup	75	95	86	83	83	83	79	92
LCSD 140-19878/16-B	Lab Control Sample Dup	65	89	85	82	81	81	75	91
MB 140-19793/17-B	Method Blank	78	92	85	83	85	84	85	102
MB 140-19817/16-B	Method Blank	71	97	86	83	82	83	77	93
MB 140-19878/14-B	Method Blank	74	89	87	87	85	84	80	95
		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)
580-76685-1	PDI-SG-B133-BL1	117 C	117 C156	119	108	108	127	135	131
580-76685-2	PDI-SG-B135-BL1	85 C	85 C156	86	84	81	93	94	94
580-76685-3	PDI-SG-B112-BL1	90 C	90 C156	88	87	83	90	94	96
580-76685-4	PDI-SG-B115-BL1	85 C	85 C156	84	81	84	89	92	98
580-76685-5	PDI-SG-B156-BL1	87 C	87 C156	88	87	85	89	92	96
580-76685-6	PDI-SG-B159-BL1	87 C	87 C156	89	89	84	88	99	89
580-76685-7	PDI-SG-B163-BL1	92 C	92 C156	88	93	83	88	97	88
580-76685-8	PDI-SG-B164-BL1	84 C	84 C156	83	83	77	83	90	89
580-76685-9	PDI-SG-B164-BL1-D	83 C	83 C156	84	84	85	93	95	91
580-76685-10	PDI-SG-B167-BL1	95 C	95 C156	102	99	95	103	121	104
580-76685-11	PDI-SG-B169-BL1	87 C	87 C156	88	85	82	85	93	93
580-76685-12	PDI-SG-B114-BL1	97 C	97 C156	98	97	94	100	114	104
580-76685-13	PDI-SG-B171-BL1	73 C	73 C156	75	64	78	91	67	93
580-76685-14	PDI-SG-B173-BL1	84 C	84 C156	85	87	82	91	91	91
580-76685-15	PDI-SG-B175-BL1	86 C	86 C156	88	88	84	98	96	96
580-76685-16	PDI-SG-B108-BL1	83 C	83 C156	84	85	82	95	94	95
580-76685-17	PDI-SG-B160-BL1	86 C	86 C156	85	84	82	90	94	94
580-76685-18	PDI-SG-B168-BL1	84 C	84 C156	89	85	81	97	95	94
580-76685-19	PDI-SG-B202-BL1	82 C	82 C156	85	133 q	67	72	89	69
580-76685-19 MS	PDI-SG-B202-BL1	86 C	86 C156	88	86	84	90	97	89
580-76685-19 MSD	PDI-SG-B202-BL1	81 C	81 C156	81	89	85	89	95	88
LCS 140-19793/18-B	Lab Control Sample	83 C	83 C156	82	84	84	88	93	97
LCS 140-19817/17-B	Lab Control Sample	83 C	83 C156	85	88	85	94	76	102
LCS 140-19878/15-B	Lab Control Sample	82 C	82 C156	83	87	81	91	80	95
LCSD 140-19793/19-B	Lab Control Sample Dup	87 C	87 C156	85	86	80	83	93	94
LCSD 140-19817/18-B	Lab Control Sample Dup	85 C	85 C156	84	89	85	97	77	104
LCSD 140-19878/16-B	Lab Control Sample Dup	79 C	79 C156	80	83	82	88	76	87
MB 140-19793/17-B	Method Blank	84 C	84 C156	84	84	82	84	97	100
MB 140-19817/16-B	Method Blank	83 C	83 C156	86	90	84	93	75	101
MB 140-19878/14-B	Method Blank	85 C	85 C156	83	91	81	88	80	94

TestAmerica Seattle

Isotope Dilution Summary

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

TestAmerica Job ID: 580-76685-3

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)			
		PCB205L (30-140)	PCB206L (30-140)	PCB208L (30-140)	PCB209L (30-140)
580-76685-1	PDI-SG-B133-BL1	108	82	85	67
580-76685-2	PDI-SG-B135-BL1	80	62	68	56
580-76685-3	PDI-SG-B112-BL1	80	61	64	52
580-76685-4	PDI-SG-B115-BL1	80	60	65	53
580-76685-5	PDI-SG-B156-BL1	81	65	70	58
580-76685-6	PDI-SG-B159-BL1	80	59	64	52
580-76685-7	PDI-SG-B163-BL1	81	66	68	57
580-76685-8	PDI-SG-B164-BL1	77	62	64	54
580-76685-9	PDI-SG-B164-BL1-D	79	66	69	57
580-76685-10	PDI-SG-B167-BL1	92	79	84	69
580-76685-11	PDI-SG-B169-BL1	80	63	66	58
580-76685-12	PDI-SG-B114-BL1	93	75	81	68
580-76685-13	PDI-SG-B171-BL1	68	70	74	65
580-76685-14	PDI-SG-B173-BL1	72	74	74	65
580-76685-15	PDI-SG-B175-BL1	74	74	79	65
580-76685-16	PDI-SG-B108-BL1	72	68	76	59
580-76685-17	PDI-SG-B160-BL1	73	71	78	61
580-76685-18	PDI-SG-B168-BL1	73	71	79	62
580-76685-19	PDI-SG-B202-BL1	62	62	62	54
580-76685-19 MS	PDI-SG-B202-BL1	69	69	73	61
580-76685-19 MSD	PDI-SG-B202-BL1	72	70	69	61
LCS 140-19793/18-B	Lab Control Sample	78	68	71	61
LCS 140-19817/17-B	Lab Control Sample	70	80	74	78
LCS 140-19878/15-B	Lab Control Sample	73	81	73	81
LCSD 140-19793/19-B	Lab Control Sample Dup	79	70	70	60
LCSD 140-19817/18-B	Lab Control Sample Dup	74	82	78	84
LCSD 140-19878/16-B	Lab Control Sample Dup	72	79	69	78
MB 140-19793/17-B	Method Blank	80	69	70	60
MB 140-19817/16-B	Method Blank	73	83	76	84
MB 140-19878/14-B	Method Blank	73	80	72	77

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

TestAmerica Seattle

Isotope Dilution Summary

Client: AECOM

Project/Site: Portland Harbor Pre-Remedial Design

TestAmerica Job ID: 580-76685-3

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

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

Matrix: Water

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)
580-76685-20	PDI-RB-VVSS-180416-1735	84	78	74	84	71	94	82	90
580-76685-21	PDI-RB-VVSS-180416-1800	79	75	74	70	78	92	87	77
LCS 140-19763/13-A	Lab Control Sample	81	71	69	71	75	89	86	89
MB 140-19763/12-A	Method Blank	84	75	71	72	75	83	80	89

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)
580-76685-20	PDI-RB-VVSS-180416-1735	84	77	89	84	82	81	84	78
580-76685-21	PDI-RB-VVSS-180416-1800	77	75	79	79	73	73	76	72
LCS 140-19763/13-A	Lab Control Sample	83	71	80	74	76	74	79	74
MB 140-19763/12-A	Method Blank	83	64	87	78	76	76	84	64

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)
580-76685-20	PDI-RB-VVSS-180416-1735	85 C	85 C156	84	90	84	86	87	93
580-76685-21	PDI-RB-VVSS-180416-1800	80 C	80 C156	79	86	82	79	86	91
LCS 140-19763/13-A	Lab Control Sample	82 C	82 C156	82	90	80	72	88	83
MB 140-19763/12-A	Method Blank	90 C	90 C156	86	99	85	67	96	87

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PCB205L (30-140)	PCB206L (30-140)	PCB208L (30-140)	PCB209L (30-140)
580-76685-20	PDI-RB-VVSS-180416-1735	70	71	72	66
580-76685-21	PDI-RB-VVSS-180416-1800	68	73	71	69
LCS 140-19763/13-A	Lab Control Sample	71	71	70	65
MB 140-19763/12-A	Method Blank	78	78	75	71

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

TestAmerica Seattle

Isotope Dilution Summary

Client: AECOM

Project/Site: Portland Harbor Pre-Remedial Design

TestAmerica Job ID: 580-76685-3

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

1

2

3

4

5

6

7

8

9

10

11

12

13