TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

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

TestAmerica Job ID: 580-81081-1
Client Project/Site: Swan Island Lagoon SedimentInvestigation

For:
Pacific Groundwater Group
2377 Eastlake Avenue E
Seattle, Washington 98102

Attn: Ms. Inger Jackson

M. Elaine Walker

Authorized for release by:
11/19/2018 5:36:39 PM

Elaine Walker, Project Manager II
(253)248-4972
elaine.walker@testamericainc.com

Table of Contents

Job ID: 580-81081-1

Laboratory: TestAmerica Seattle

Narrative

CASE NARRATIVE
Client: Pacific Groundwater Group
Project: Swan Island Lagoon Sediment Investigation
Report Number: 580-81081-1

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

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

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

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

RECEIPT

Forty-four samples were received on 10/15/2018 11:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 9 coolers at receipt time were 0.6º C, 0.9º C, 1.0º C, 1.1º C, 1.5º C, 2.1º C, 2.5º C, 2.7º C and 3.0º C.

This report only contains results for samples that were received as active on the COC. The remaining samples were placed in the freezer pending potential analyses.

An additional container was provided to be archived and frozen for each of the samples and they were placed in the freezer upon receipt at the laboratory.

The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): The container labels list N7-0to26-101418, while the COC lists N7-0to27-101418. The client confirmed this to be correct.

F5-0to28-101118 has containers for MS/MSD, but was not marked on the COC. Client confirmed MS/MSD required for this sample

One container for the following sample was received empty: Received empty amber 4oz container for F6-0to27-101118. Client requested we subsample for the Dioxin analysis into this empty container.

The container labels for the following sample did not match the information listed on the Chain-of-Custody (COC): The container labels list J7-0to26-101218 with a sample of 1551, while the COC lists J7-0to26-101218with a sample time of 1552.

The container labels for the following sample did not match the information listed on the Chain-of-Custody (COC): The container labels list F4-0to27-101118 with a sample time of 1214, while the COC lists F4-0to23-101118 with a sample time of 1215.

The following samples were submitted for analysis; however, it was not listed on the Chain-of-Custody (COC): L5-0to26-101318 (580-81081-23[MS]), L5-0to26-101318 (580-81081-23[MSD]), F5-0to28-101118 (580-81081-41[MS]) and F5-0to28-101118 (580-81081-41[MSD])

The following sample were activated for all analysis by the client on 10/26/18: F1-0to23-101418 (580-81081-4) and B1-0to20-101418 (580-81081-6).

The client requested a change in the sample ID of the following sample: E2-0to23-101118 (580-81081-40). A revised COC was provided and scanned into the job as such.

Job ID: 580-81081-1 (Continued)

Laboratory: TestAmerica Seattle (Continued)

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.

DIOXIN/ FURAN

Samples H1-0to24-101418 (580-81081-2), F1-0to23-101418 (580-81081-4), B1-0to20-101418 (580-81081-6), J1-0to20-101318 (580-81081-12), J5-0to29-101318 (580-81081-15), 513-0to26-101318 (580-81081-18), J3-0to26-101318 (580-81081-19), L3-0to20-101318 (580-81081-21), L5-0to26-101318 (580-81081-23), L7-0to29-101318 (580-81081-24), H7-0to24-101218 (580-81081-26), J7-0to26-101218 (580-81081-28), H5-0to29-101118 (580-81081-33), F7-0to27-101118 (580-81081-37), 512-0to28-101118 (580-81081-39), F5-0to28-101118 (580-81081-41), F3-0to27-101118 (580-81081-42) and H3-0to28-101118 (580-81081-43) were analyzed for Dioxin/ Furan in accordance with 1613B. The samples were prepared on 10/18/2018 and 11/02/2018 and analyzed on 10/24/2018, 10/25/2018 and 11/08/2018.

Several analytes were detected in method blank MB 320-253208/1-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.

Several analytes were detected in method blank MB 320-256727/1-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.

DIOXIN/ FURAN - WATER

Sample 611-101118 (580-81081-1) was analyzed for Dioxin/ Furan in accordance with 1613B. The sample was prepared on 10/23/2018 and analyzed on 10/26/2018.

Several analytes were detected in method blank MB 320-254471/1-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.

EPA Method 1613B specifies a +/- 15 second retention time difference between the recovery standard in the initial calibration (ICAL) and the continuing calibration verification (CCV). The 13C-1,2,3,4-TCDD associated with the following samples run on instrument 3D5 exceeded this criteria: 611-101118 (580-81081-1), (CCV 320-255284/9), (LCS 320-254471/2-A), (LCSD 320-254471/3-A) and (MB 320-254471/1-A). This retention time shift is due to normal and reasonable column maintenance and does not affect the instrument chromatography resolution, sensitivity, or identification of target analytes. System retention times have been updated for proper analyte identification.

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

POLYCHLORINATED BIPHENYLS CONGENERS (PCBS)

Samples H1-0to24-101418 (580-81081-2), F1-0to23-101418 (580-81081-4), B1-0to20-101418 (580-81081-6), J1-0to20-101318 (580-81081-12), J5-0to29-101318 (580-81081-15), 513-0to26-101318 (580-81081-18), J3-0to26-101318 (580-81081-19), L3-0to20-101318 (580-81081-21), L5-0to26-101318 (580-81081-23), L7-0to29-101318 (580-81081-24), H7-0to24-101218 (580-81081-26), J7-0to26-101218 (580-81081-28), H5-0to29-101118 (580-81081-33), F7-0to27-101118 (580-81081-37), 512-0to28-101118 (580-81081-39), F5-0to28-101118 (580-81081-41), F3-0to27-101118 (580-81081-42) and H3-0to28-101118 (580-81081-43) were analyzed for polychlorinated biphenyls congeners (PCBs) in accordance with EPA Method 1668A. The samples were prepared on 10/19/2018, 11/01/2018 and 11/08/2018 and analyzed on 10/27/2018, 10/28/2018, 10/29/2018, 10/30/2018, 11/12/2018 and 11/13/2018.

Polychlorinated biphenyls, Total was detected in method blank MB 140-24629/19-B at a level exceeding the reporting limit. 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 140-24629/19-B at levels that were above the method detection limit but below the reporting limit. The values should be

Job ID: 580-81081-1 (Continued)

Laboratory: TestAmerica Seattle (Continued)

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 140-24993/3-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 140-25210/3-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.

Ion abundance ratios are outside criteria for the Isotope Dilution Analyte (IDA) associated with the following samples: J1-0to20-101318 (580-81081-12), L5-0to26-101318 (580-81081-23), H7-0to24-101218 (580-81081-26), F7-0to27-101118 (580-81081-37), and 512-0to28-101118 (580-81081-39).

The Isotope Dilution Analyte (IDA) recovery associated with the following sample is below the method recommended limit: L5-0to26-101318 (580-81081-23). Generally, data quality is not considered affected if the IDA signal-to-noise ratio is greater than 10:1, which is achieved for all IDA in the sample(s). All detection limits are below the lower calibration.

The following samples exhibited elevated noise or matrix interferences for one or more analytes causing elevation of the detection limit (EDL): H7-0to24-101218 (580-81081-26) and F5-0to28-101118 (580-81081-41) . The reporting limit (RL) for the affected analytes has been raised to be equal to the EDL, and a "G" qualifier applied.

The following samples exhibited elevated noise or matrix interferences for one or more analytes causing elevation of the detection limit (EDL): J5-0to29-101318 (580-81081-15), 513-0to26-101318 (580-81081-18), J3-0to26-101318 (580-81081-19), L5-0to26-101318 (580-81081-23), L7-0to29-101318 (580-81081-24), H7-0to24-101218 (580-81081-26), J7-0to26-101218 (580-81081-28), H5-0to29-101118 (580-81081-33), F7-0to27-101118 (580-81081-37), 512-0to28-101118 (580-81081-39), F5-0to28-101118 (580-81081-41), F3-0to27-101118 (580-81081-42) and H3-0to28-101118 (580-81081-43) . The reporting limit (RL) for the affected analytes has been raised to be equal to the EDL, and a "G" qualifier applied.

The concentration of one or more analytes associated with the following samples exceeded the instrument calibration range: J5-0to29-101318 (580-81081-15), J3-0to26-101318 (580-81081-19), H7-0to24-101218 (580-81081-26), J7-0to26-101218 (580-81081-28), H5-0to29-101118 (580-81081-33), F7-0to27-101118 (580-81081-37) and 512-0to28-101118 (580-81081-39). These analytes have been qualified; however, the peak(s) did not saturate the instrument detector. Historical data indicate that for the isotope dilution method, dilution and re-analysis will not produce significantly different results from those reported above the calibration range.

Due to the matrix, the initial volumes used for the following samples deviated from the standard procedure: H1-0to24-101418 (580-81081-2), F1-0to23-101418 (580-81081-4), B1-0to20-101418 (580-81081-6)J1-0to20-101318 (580-81081-12), J5-0to29-101318 (580-81081-15), 513-0to26-101318 (580-81081-18), J3-0to26-101318 (580-81081-19), L3-0to20-101318 (580-81081-21), L5-0to26-101318 (580-81081-23), L7-0to29-101318 (580-81081-24), H7-0to24-101218 (580-81081-26), J7-0to26-101218 (580-81081-28), H5-0to29-101118 (580-81081-33), F7-0to27-101118 (580-81081-37), 512-0to28-101118 (580-81081-39), F5-0to28-101118 (580-81081-41), F3-0to27-101118 (580-81081-42) and H3-0to28-101118 (580-81081-43). The reporting limits (RLs) have been adjusted proportionately.

Samples H1-0to24-101418 (580-81081-2)[5X], J1-0to20-101318 (580-81081-12)[3X], J5-0to29-101318 (580-81081-15)[3X], 513-0to26-101318 (580-81081-18)[10X], J3-0to26-101318 (580-81081-19)[5X], L3-0to20-101318 (580-81081-21)[3X], L5-0to26-101318 (580-81081-23)[10X], L7-0to29-101318 (580-81081-24)[5X], H7-0to24-101218 (580-81081-26)[2X], J7-0to26-101218 (580-81081-28)[5X], H5-0to29-101118 (580-81081-33)[3X], F7-0to27-101118 (580-81081-37)[5X], 512-0to28-101118 (580-81081-39)[5X], F5-0to28-101118 (580-81081-41)[20X], F3-0to27-101118 (580-81081-42)[3X] and H3-0to28-101118 (580-81081-43)[3X] 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 CONGENERS - WATER

Sample 611-101118 (580-81081-1) was analyzed for PCB Congeners in accordance with 1668A. The sample was prepared on

Job ID: 580-81081-1 (Continued)

Laboratory: TestAmerica Seattle (Continued)

10/19/2018 and analyzed on 10/25/2018.

Several analytes were detected in method blank MB 140-24630/3-A at levels exceeding the reporting limit. 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 140-24630/3-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. None of the samples associated with this method blank contained the target compound above the minimum levels; therefore, re-extraction and/or re-analysis of samples were not performed.

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

DIESEL AND EXTENDED RANGE ORGANICS

Samples H1-0to24-101418 (580-81081-2), F1-0to23-101418 (580-81081-4), B1-0to20-101418 (580-81081-6), J1-0to20-101318 (580-81081-12), J5-0to29-101318 (580-81081-15), 513-0to26-101318 (580-81081-18), J3-0to26-101318 (580-81081-19), L3-0to20-101318 (580-81081-21), L5-0to26-101318 (580-81081-23), L7-0to29-101318 (580-81081-24), H7-0to24-101218 (580-81081-26), J7-0to26-101218 (580-81081-28), H5-0to29-101118 (580-81081-33), F7-0to27-101118 (580-81081-37), 512-0to28-101118 (580-81081-39), F5-0to28-101118 (580-81081-41), F3-0to27-101118 (580-81081-42) and H3-0to28-101118 (580-81081-43) were analyzed for diesel and extended range organics in accordance with Method NWTPH-Dx. The samples were prepared on 10/27/2018 and analyzed on 11/04/2018 and 11/05/2018.

Samples H7-0to24-101218 (580-81081-26), J7-0to26-101218 (580-81081-28), H5-0to29-101118 (580-81081-33), F7-0to27-101118 (580-81081-37), 512-0to28-101118 (580-81081-39), F5-0to28-101118 (580-81081-41), F5-0to28-101118 (580-81081-41[MS]), F5-0to28-101118 (580-81081-41[MSD]), F3-0to27-101118 (580-81081-42), H3-0to28-101118 (580-81081-43) and (580-81081-F-43-B DU) were frozen by the lab within holding time and thawed and extracted at a later date. The samples were removed from freezer on 10/27/18 at 09:50 and thawed. Therefore the samples were within HT and the hold flags were removed and the data is reported.

The following continuing calibration verification (CCV) standard associated with batch 580-288139 recovered outside acceptance criteria for %D for surrogate o-Terphenyl. Since the %Rec is within the acceptance criteria for the surrogate in the CCV and associated samples, the data have been reported. J3-0to26-101318 (580-81081-19), L3-0to20-101318 (580-81081-21), L5-0to26-101318 (580-81081-23), L5-0to26-101318 (580-81081-23[MS]), L5-0to26-101318 (580-81081-23[MSD]), L7-0to29-101318 (580-81081-24), H7-0to24-101218 (580-81081-26), J7-0to26-101218 (580-81081-28), H5-0to29-101118 (580-81081-33), F7-0to27-101118 (580-81081-37), 512-0to28-101118 (580-81081-39), F5-0to28-101118 (580-81081-41), F5-0to28-101118 (580-81081-41[MS]), F5-0to28-101118 (580-81081-41[MSD]), F3-0to27-101118 (580-81081-42), H3-0to28-101118 (580-81081-43), (CCV 580-288139/25) and (580-81081-F-43-B DU).

The following samples contained a hydrocarbon pattern in the diesel range; however, the elution pattern was later than the typical diesel fuel pattern used by the laboratory for quantitative purposes: H1-0to24-101418 (580-81081-2), F1-0to23-101418 (580-81081-4), B1-0to20-101418 (580-81081-6), J1-0to20-101318 (580-81081-12), J5-0to29-101318 (580-81081-15), 513-0to26-101318 (580-81081-18), J3-0to26-101318 (580-81081-19), L3-0to20-101318 (580-81081-21), L5-0to26-101318 (580-81081-23), L7-0to29-101318 (580-81081-24), H7-0to24-101218 (580-81081-26), J7-0to26-101218 (580-81081-28), H5-0to29-101118 (580-81081-33), F7-0to27-101118 (580-81081-37), 512-0to28-101118 (580-81081-39), F5-0to28-101118 (580-81081-41), F3-0to27-101118 (580-81081-42), H3-0to28-101118 (580-81081-43), (580-81081-F-2-B DU) and (580-81081-F-43-B DU).

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

DIESEL AND MOTOR OIL RANGE ORGANICS - WATER

Sample 611-101118 (580-81081-1) was analyzed for diesel and motor oil range organics in accordance with Method NWTPH-Dx. The sample was prepared on 10/19/2018 and analyzed on 10/21/2018.

Continuing calibration verification (CCV) standard associated with batch 580-287044 recovered outside %Drift acceptance criteria for o-Terphenyl surrogate. The %Recovery is within acceptance criteria for the surrogate in the CCV and associated samples; therefore, the data are qualified and reported. (CCV 580-287044/14), (CCV 580-287044/22) and (CCVRT 580-287044/3).

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

Job ID: 580-81081-1 (Continued)

Laboratory: TestAmerica Seattle (Continued)

METALS (ICPMS)

Samples H1-0to24-101418 (580-81081-2), F1-0to23-101418 (580-81081-4), B1-0to20-101418 (580-81081-6), J1-0to20-101318 (580-81081-12), J5-0to29-101318 (580-81081-15), 513-0to26-101318 (580-81081-18), J3-0to26-101318 (580-81081-19), L3-0to20-101318 (580-81081-21), L5-0to26-101318 (580-81081-23), L7-0to29-101318 (580-81081-24), H7-0to24-101218 (580-81081-26), J7-0to26-101218 (580-81081-28), H5-0to29-101118 (580-81081-33), F7-0to27-101118 (580-81081-37), 512-0to28-101118 (580-81081-39), F5-0to28-101118 (580-81081-41), F3-0to27-101118 (580-81081-42) and H3-0to28-101118 (580-81081-43) were analyzed for Metals (ICPMS) in accordance with 6020A_LL. The samples were prepared on 11/02/2018 and analyzed on 11/02/2018 and 11/05/2018.

Copper was detected in method blank MB 580-288047/20-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Zinc failed the recovery criteria low for the MSD of sample L5-0to26-101318MSD (580-81081-23) in batch 580-288207. The MS and associated LCS/LCSD recoveries met acceptance limits.
Lead and Zinc exceeded the RPD limit for the duplicate of sample L5-0to26-101318DU (580-81081-23).

Zinc failed the recovery criteria high for the MS of sample F5-0to28-101118MS (580-81081-41) in batch 580-288207. Zinc failed the recovery criteria high for the MSD of sample F5-0to28-101118MSD (580-81081-41) in batch 580-288207. The associated LCS/LCSD recoveries met acceptance limits.

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

METALS (ICPMS) - WATER

Sample 611-101118 (580-81081-1) was analyzed for metals (ICPMS) in accordance with 6020A. The sample was prepared on 10/30/2018 and analyzed on 10/31/2018.

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

TOTAL MERCURY

Samples H1-0to24-101418 (580-81081-2), F1-0to23-101418 (580-81081-4), B1-0to20-101418 (580-81081-6), J1-0to20-101318 (580-81081-12), J5-0to29-101318 (580-81081-15), 513-0to26-101318 (580-81081-18), J3-0to26-101318 (580-81081-19), L3-0to20-101318 (580-81081-21), L5-0to26-101318 (580-81081-23), L7-0to29-101318 (580-81081-24), H7-0to24-101218 (580-81081-26), J7-0to26-101218 (580-81081-28), H5-0to29-101118 (580-81081-33), F7-0to27-101118 (580-81081-37), 512-0to28-101118 (580-81081-39), F5-0to28-101118 (580-81081-41), F3-0to27-101118 (580-81081-42) and H3-0to28-101118 (580-81081-43) were analyzed for total mercury in accordance with EPA SW-846 Method 7471A. The samples were prepared and analyzed on 10/26/2018 and 10/31/2018.

Mercury failed the recovery criteria high for the MS of sample F5-0to28-101118MS (580-81081-41) in batch 580-287887. Mercury failed the recovery criteria high for the MSD of sample F5-0to28-101118MSD (580-81081-41) in batch 580-287887. The associated LCS/LCSD recoveries met acceptance limits.

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

TOTAL MERCURY - WATER

Sample 611-101118 (580-81081-1) was analyzed for total mercury in accordance with EPA SW-846 Methods 7470A. The sample was prepared and analyzed on 10/23/2018.

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

TOTAL SUSPENDED SOLIDS

Sample 611-101118 (580-81081-1) was analyzed for total suspended solids in accordance with SM20 2540D. The samples were analyzed on 10/18/2018.

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

Job ID: 580-81081-1 (Continued)

Laboratory: TestAmerica Seattle (Continued)

TOTAL ORGANIC CARBON

Samples H1-0to24-101418 (580-81081-2), F1-0to23-101418 (580-81081-4), B1-0to20-101418 (580-81081-6), J1-0to20-101318 (580-81081-12), J5-0to29-101318 (580-81081-15), 513-0to26-101318 (580-81081-18), J3-0to26-101318 (580-81081-19), L3-0to20-101318 (580-81081-21), L5-0to26-101318 (580-81081-23), L7-0to29-101318 (580-81081-24), H7-0to24-101218 (580-81081-26), J7-0to26-101218 (580-81081-28), H5-0to29-101118 (580-81081-33), F7-0to27-101118 (580-81081-37), 512-0to28-101118 (580-81081-39), F5-0to28-101118 (580-81081-41), F3-0to27-101118 (580-81081-42) and H3-0to28-101118 (580-81081-43) were analyzed for total organic carbon in accordance with EPA SW-846 Method 9060. The samples were analyzed on 10/24/2018 and 11/01/2018.

Total Organic Carbon - Duplicates was detected in method blank MB 580-287334/5 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Total Organic Carbon - Duplicates was detected in method blank MB 580-288041/5 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Total Organic Carbon - Duplicates failed the recovery criteria low for the MS of sample L5-0to26-101318MS (580-81081-23) in batch 580-287334. Total Organic Carbon - Duplicates failed the recovery criteria low for the MSD of sample L5-0to26-101318MSD (580-81081-23) in batch 580-287334. The associated LCS/LCSD recoveries met acceptance limits.

The following sample(s) were frozen and removed from the freezer on 10/31/2018 so the H flag has been removed: F1-0to23-101418 (580-81081-4), B1-0to20-101418 (580-81081-6), (580-81081-A-4 DU), (580-81081-A-4 MS), (580-81081-A-4 MSD) and (580-81081-A-4 TRL).

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

TOTAL ORGANIC CARBON - WATER

Sample 611-101118 (580-81081-1) was analyzed for total organic carbon in accordance with SM 5310B. The sample was analyzed on 10/19/2018.

Total Organic Carbon was detected in method blank MB 580-286981/3 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has 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.

GRAIN SIZE

Samples H1-0to24-101418 (580-81081-2), F1-0to23-101418 (580-81081-4), B1-0to20-101418 (580-81081-6), J1-0to20-101318 (580-81081-12), J5-0to29-101318 (580-81081-15), 513-0to26-101318 (580-81081-18), J3-0to26-101318 (580-81081-19), L3-0to20-101318 (580-81081-21), L5-0to26-101318 (580-81081-23), L7-0to29-101318 (580-81081-24), H7-0to24-101218 (580-81081-26), J7-0to26-101218 (580-81081-28), H5-0to29-101118 (580-81081-33), F7-0to27-101118 (580-81081-37), 512-0to28-101118 (580-81081-39), F5-0to28-101118 (580-81081-41), F3-0to27-101118 (580-81081-42) and H3-0to28-101118 (580-81081-43) were analyzed for grain size in accordance with ASTM D7928 & D6913. The samples were analyzed on 10/19/2018 and 10/29/2018.

Negative silt results: Due to the difference between the actual recovered mass >63µm (#230 sieve) vs the calculated recovery and the low silt/clay content in sample J1-0to20-101318 (580-81081-12), the value for Silt is negative. This error is inherent of this method.

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

SPECIFIC GRAVITY

Samples H1-0to24-101418 (580-81081-2), F1-0to23-101418 (580-81081-4), B1-0to20-101418 (580-81081-6), J1-0to20-101318 (580-81081-12), J5-0to29-101318 (580-81081-15), 513-0to26-101318 (580-81081-18), J3-0to26-101318 (580-81081-19),

Job ID: 580-81081-1 (Continued)

Laboratory: TestAmerica Seattle (Continued)

L3-0to20-101318 (580-81081-21), L5-0to26-101318 (580-81081-23), L7-0to29-101318 (580-81081-24), H7-0to24-101218 (580-81081-26), J7-0to26-101218 (580-81081-28), H5-0to29-101118 (580-81081-33), F7-0to27-101118 (580-81081-37), 512-0to28-101118 (580-81081-39), F5-0to28-101118 (580-81081-41), F3-0to27-101118 (580-81081-42) and H3-0to28-101118 (580-81081-43) were analyzed for specific gravity in accordance with ASTM D854. The samples were analyzed on 10/25/2018 and 11/16/2018.

The density (or specific gravity) of the samples was determined using SOP number KNOX-WC-0015, based on ASTM Methods D1475 (replaced D1963) and D854. A Hubbard-Carmick type pycnometer is tared on a four-place analytical balance. The pycnometer filled with water is weighed to calibrate the volume at the desired temperature. The pycnometer filled with sample is weighed to determine the weight of the sample at the calibrated volume. The standard temperature for this procedure is 25ºC. The density and specific gravity of the material are calculated using the following equations:

d(SAMP) = [C(T) - A] / V(T)

Where:
d(SAMP) = Density of the liquid sample at temperature T, g/cm3
C(T) = Weight of pycnometer filled with sample at temperature T, g
A = Weight of pycnometer, g
V(T) = Volume of pycnometer at temperature T, cm3

d(SAMP) = [C(T) - A] / [V(T) - [(D(T) - C(T)) / dH2O(T)]]

Where:
d(SAMP) = Density of the solid sample at temperature T, g/cm3
D(T) = Weight of pycnometer filled with water and an aliquot of the sample at temperature T, g
C(T) = Weight of pycnometer partially filled with an aliquot of the sample at temperature T, g
A = Weight of pycnometer, g
dH2O(T) = Density of pure water at temperature T, g/cm3
V(T) = Volume of pycnometer at temperature T, cm3

S(T) = d(SAMP) / dH2O(T)

Where:
S(T) = Specific gravity of the sample at temperature T, unitless
d(SAMP) = Density of the sample at temperature T, g/cm3
dH2O(T) = Density of pure water at temperature T, g/cm3
T = Temperature of analysis

Conversion factors:
1 lb/gal = 0.1198 g/cm3
1 Kg/cu. m = 0.001 g/cm3

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

PERCENT SOLIDS

Samples H1-0to24-101418 (580-81081-2), F1-0to23-101418 (580-81081-4), B1-0to20-101418 (580-81081-6), J1-0to20-101318 (580-81081-12), J5-0to29-101318 (580-81081-15), 513-0to26-101318 (580-81081-18), J3-0to26-101318 (580-81081-19), L3-0to20-101318 (580-81081-21), L5-0to26-101318 (580-81081-23), L7-0to29-101318 (580-81081-24), H7-0to24-101218 (580-81081-26), J7-0to26-101218 (580-81081-28), H5-0to29-101118 (580-81081-33), F7-0to27-101118 (580-81081-37), 512-0to28-101118 (580-81081-39), F5-0to28-101118 (580-81081-41), F3-0to27-101118 (580-81081-42) and H3-0to28-101118 (580-81081-43) were analyzed for percent solids in accordance with ASTM D2216. The samples were analyzed on 11/01/2018.

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

TOTAL SOLIDS @ 70C

Job ID: 580-81081-1 (Continued)

Laboratory: TestAmerica Seattle (Continued)

Samples H1-0to24-101418 (580-81081-2), J1-0to20-101318 (580-81081-12), J5-0to29-101318 (580-81081-15), 513-0to26-101318 (580-81081-18), J3-0to26-101318 (580-81081-19), L3-0to20-101318 (580-81081-21), L5-0to26-101318 (580-81081-23), L7-0to29-101318 (580-81081-24), H7-0to24-101218 (580-81081-26), J7-0to26-101218 (580-81081-28), H5-0to29-101118 (580-81081-33), F7-0to27-101118 (580-81081-37), 512-0to28-101118 (580-81081-39), F5-0to28-101118 (580-81081-41), F3-0to27-101118 (580-81081-42) and H3-0to28-101118 (580-81081-43) were analyzed for Total Solids @ 70C. The samples were analyzed on 10/25/2018.

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

Qualifiers

GC Semi VOA

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

Dioxin

Qualifier	Qualifier Description
C93	The compound co-eluted with PCB-93
B	Compound was found in the blank and sample.
C90	The compound co-eluted with PCB-90
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.
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
E	Result exceeded calibration range.
*	Isotope Dilution analyte is outside acceptance limits.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F1	MS and/or MSD Recovery is outside acceptance limits.
F3	Duplicate RPD exceeds the control limit

Qualifiers (Continued)

Metals (Continued)

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.

General Chemistry

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.
H	Sample was prepped or analyzed beyond the specified holding time
F1	MS and/or MSD Recovery is outside acceptance limits.

Glossary

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

Client Sample ID: 611-101118
Date Collected: 10/11/18 08:20
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-1
Matrix: Water

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Motor Oil Range Organics (C24-C40)	ND		420	120	ug/L		10/19/18 08:49	10/21/18 21:24	1
#2 Diesel (C10-C24)	ND		130	79	ug/L		10/19/18 08:49	10/21/18 21:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*89*		*50 - 150*	*10/19/18 08:49*	*10/21/18 21:24*	*1*

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3,4,6,7,8-HpCDD	**3.2**	**J B**	56	0.56	pg/L		10/23/18 19:20	10/26/18 09:08	1
1,2,3,4,6,7,8-HpCDF	**3.0**	**J B**	56	0.59	pg/L		10/23/18 19:20	10/26/18 09:08	1
1,2,3,4,7,8,9-HpCDF	**15**	**J B**	56	0.71	pg/L		10/23/18 19:20	10/26/18 09:08	1
1,2,3,4,7,8-HxCDD	**1.8**	**J B**	56	1.1	pg/L		10/23/18 19:20	10/26/18 09:08	1
1,2,3,4,7,8-HxCDF	ND		56	1.6	pg/L		10/23/18 19:20	10/26/18 09:08	1
1,2,3,6,7,8-HxCDD	**1.4**	**J B**	56	1.1	pg/L		10/23/18 19:20	10/26/18 09:08	1
1,2,3,6,7,8-HxCDF	ND		56	1.4	pg/L		10/23/18 19:20	10/26/18 09:08	1
1,2,3,7,8,9-HxCDD	ND		56	0.95	pg/L		10/23/18 19:20	10/26/18 09:08	1
1,2,3,7,8,9-HxCDF	**4.6**	**J B**	56	0.88	pg/L		10/23/18 19:20	10/26/18 09:08	1
1,2,3,7,8-PeCDD	ND		56	1.7	pg/L		10/23/18 19:20	10/26/18 09:08	1
1,2,3,7,8-PeCDF	ND		56	1.2	pg/L		10/23/18 19:20	10/26/18 09:08	1
2,3,4,6,7,8-HxCDF	ND		56	0.99	pg/L		10/23/18 19:20	10/26/18 09:08	1
2,3,4,7,8-PeCDF	ND		56	1.2	pg/L		10/23/18 19:20	10/26/18 09:08	1
2,3,7,8-TCDD	ND		11	1.3	pg/L		10/23/18 19:20	10/26/18 09:08	1
2,3,7,8-TCDF	ND		11	0.80	pg/L		10/23/18 19:20	10/26/18 09:08	1
OCDD	**28**	**J B**	110	1.5	pg/L		10/23/18 19:20	10/26/18 09:08	1
OCDF	**11**	**J B**	110	1.2	pg/L		10/23/18 19:20	10/26/18 09:08	1
Total HpCDD	**5.9**	**J B**	56	0.56	pg/L		10/23/18 19:20	10/26/18 09:08	1
Total HpCDF	**21**	**J q B**	56	0.65	pg/L		10/23/18 19:20	10/26/18 09:08	1
Total HxCDD	**3.2**	**J B**	56	1.0	pg/L		10/23/18 19:20	10/26/18 09:08	1
Total HxCDF	**6.7**	**J B**	56	1.2	pg/L		10/23/18 19:20	10/26/18 09:08	1
Total PeCDD	ND		56	1.7	pg/L		10/23/18 19:20	10/26/18 09:08	1
Total PeCDF	ND		56	1.2	pg/L		10/23/18 19:20	10/26/18 09:08	1
Total TCDF	ND		11	0.80	pg/L		10/23/18 19:20	10/26/18 09:08	1
Total TCDD	ND		11	1.3	pg/L		10/23/18 19:20	10/26/18 09:08	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-1,2,3,4,6,7,8-HpCDD	*108*		*23 - 140*	*10/23/18 19:20*	*10/26/18 09:08*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*102*		*28 - 143*	*10/23/18 19:20*	*10/26/18 09:08*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*113*		*26 - 138*	*10/23/18 19:20*	*10/26/18 09:08*	*1*
13C-1,2,3,4,7,8-HxCDD	*101*		*32 - 141*	*10/23/18 19:20*	*10/26/18 09:08*	*1*
13C-1,2,3,4,7,8-HxCDF	*91*		*26 - 152*	*10/23/18 19:20*	*10/26/18 09:08*	*1*
13C-1,2,3,6,7,8-HxCDD	*80*		*28 - 130*	*10/23/18 19:20*	*10/26/18 09:08*	*1*
13C-1,2,3,6,7,8-HxCDF	*79*		*26 - 123*	*10/23/18 19:20*	*10/26/18 09:08*	*1*
13C-1,2,3,7,8,9-HxCDF	*91*		*29 - 147*	*10/23/18 19:20*	*10/26/18 09:08*	*1*
13C-1,2,3,7,8-PeCDD	*76*		*25 - 181*	*10/23/18 19:20*	*10/26/18 09:08*	*1*
13C-1,2,3,7,8-PeCDF	*75*		*24 - 185*	*10/23/18 19:20*	*10/26/18 09:08*	*1*
13C-2,3,4,6,7,8-HxCDF	*85*		*28 - 136*	*10/23/18 19:20*	*10/26/18 09:08*	*1*
13C-2,3,4,7,8-PeCDF	*79*		*21 - 178*	*10/23/18 19:20*	*10/26/18 09:08*	*1*
13C-2,3,7,8-TCDD	*84*		*25 - 164*	*10/23/18 19:20*	*10/26/18 09:08*	*1*
13C-2,3,7,8-TCDF	*77*		*24 - 169*	*10/23/18 19:20*	*10/26/18 09:08*	*1*
13C-OCDD	*104*		*17 - 157*	*10/23/18 19:20*	*10/26/18 09:08*	*1*

Client Sample ID: 611-101118
Date Collected: 10/11/18 08:20
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-1
Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
37Cl4-2,3,7,8-TCDD	91		35 - 197	10/23/18 19:20	10/26/18 09:08	1

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	ND		0.044	0.00029	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-2	**0.0024**	**J B q**	0.044	0.00033	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-3	**0.0030**	**J B**	0.044	0.00037	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-4	**0.0031**	**J B q**	0.066	0.0027	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-5	ND		0.044	0.0022	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-6	ND		0.044	0.0019	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-7	**0.0020**	**J q**	0.044	0.0020	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-8	**0.0063**	**J B q**	0.066	0.0018	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-9	ND		0.044	0.0020	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-10	ND		0.044	0.0021	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-11	**0.040**	**J B**	0.066	0.0019	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-12	**0.0021**	**J C B q**	0.088	0.0019	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-13	**0.0021**	**J C12 B q**	0.088	0.0019	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-14	ND		0.044	0.0016	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-15	**0.0034**	**J B q**	0.044	0.0021	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-16	ND		0.044	0.00031	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-17	**0.0041**	**J B**	0.044	0.00028	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-18	**0.0042**	**J C B q**	0.088	0.00025	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-19	ND		0.044	0.00034	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-20	**0.0070**	**J C B**	0.088	0.00072	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-21	**0.0038**	**J C B**	0.088	0.00070	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-22	**0.0019**	**J B**	0.044	0.00073	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-23	ND		0.044	0.00073	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-24	ND		0.044	0.00023	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-25	ND		0.044	0.00066	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-26	ND	C	0.088	0.00071	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-27	ND		0.044	0.00020	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-28	**0.0070**	**J B C20**	0.088	0.00072	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-29	ND	C26	0.088	0.00071	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-30	**0.0042**	**J C18 B q**	0.088	0.00025	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-31	**0.0062**	**J B**	0.044	0.00070	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-32	**0.0027**	**J B q**	0.044	0.00019	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-33	**0.0038**	**J B C21**	0.088	0.00070	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-34	ND		0.044	0.00076	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-35	ND		0.044	0.00074	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-36	ND		0.044	0.00071	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-37	ND		0.044	0.00073	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-38	ND		0.044	0.00076	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-39	ND		0.044	0.00068	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-40	ND	C	0.13	0.0015	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-41	ND	C40	0.13	0.0015	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-42	ND		0.044	0.0015	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-43	ND	C	0.088	0.0014	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-44	**0.020**	**J C B**	0.13	0.0013	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-45	**0.0033**	**J C B q**	0.088	0.0016	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-46	ND		0.044	0.0019	ng/L		10/19/18 08:04	10/25/18 22:29	1

Client Sample ID: 611-101118
Date Collected: 10/11/18 08:20
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-47	**0.020**	**J B C44**	0.13	0.0013	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-48	ND		0.044	0.0015	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-49	ND	C	0.088	0.0012	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-50	ND	C	0.088	0.0015	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-51	**0.0033**	**J C45 B q**	0.088	0.0016	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-52	**0.0042**	**J B**	0.044	0.0015	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-53	ND	C50	0.088	0.0015	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-54	ND		0.044	0.00015	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-55	ND		0.044	0.0011	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-56	ND		0.044	0.0011	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-57	ND		0.044	0.0011	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-58	ND		0.044	0.0011	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-59	ND	C	0.13	0.0011	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-60	ND		0.044	0.0011	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-61	**0.0061**	**J C B**	0.18	0.0010	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-62	ND	C59	0.13	0.0011	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-63	ND		0.044	0.0010	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-64	ND		0.044	0.0010	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-65	**0.020**	**J B C44**	0.13	0.0013	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-66	**0.0031**	**J B q**	0.044	0.0010	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-67	ND		0.044	0.00096	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-68	**0.0039**	**J B**	0.044	0.00099	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-69	ND	C49	0.088	0.0012	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-70	**0.0061**	**J C61 B**	0.18	0.0010	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-71	ND	C40	0.13	0.0015	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-72	ND		0.044	0.0011	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-73	ND	C43	0.088	0.0014	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-74	**0.0061**	**J C61 B**	0.18	0.0010	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-75	ND	C59	0.13	0.0011	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-76	**0.0061**	**J C61 B**	0.18	0.0010	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-77	ND		0.044	0.0011	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-78	ND		0.044	0.0011	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-79	ND		0.044	0.00098	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-80	ND		0.044	0.00096	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-81	ND		0.044	0.0010	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-82	**0.0011**	**J q**	0.044	0.00056	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-83	**0.0034**	**J C B**	0.088	0.00051	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-84	ND		0.044	0.00056	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-85	**0.0023**	**J C B q**	0.13	0.00041	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-86	**0.0060**	**J C B q**	0.26	0.00042	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-87	**0.0060**	**J B C86 q**	0.26	0.00042	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-88	ND	C	0.088	0.00050	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-89	ND		0.044	0.00055	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-90	**0.0049**	**J C B q**	0.13	0.00042	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-91	ND	C88	0.088	0.00050	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-92	ND		0.044	0.00048	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-93	ND	C	0.088	0.00048	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-94	ND		0.044	0.00054	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-95	**0.0058**	**J B**	0.044	0.00053	ng/L		10/19/18 08:04	10/25/18 22:29	1

Client Sample ID: 611-101118
Date Collected: 10/11/18 08:20
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-96	ND		0.044	0.00041	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-97	**0.0060**	**J B C86 q**	0.26	0.00042	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-98	ND	C	0.088	0.00047	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-99	**0.0034**	**J C83 B**	0.088	0.00051	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-100	ND	C93	0.088	0.00048	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-101	**0.0049**	**J B C90 q**	0.13	0.00042	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-102	ND	C98	0.088	0.00047	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-103	ND		0.044	0.00048	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-104	ND		0.044	0.00037	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-105	ND		0.044	0.0015	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-106	ND		0.044	0.0016	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-107	ND		0.044	0.0017	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-108	ND	C	0.088	0.0016	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-109	**0.0060**	**J B C86 q**	0.26	0.00042	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-110	**0.0069**	**J C B q**	0.088	0.00035	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-111	ND		0.044	0.00034	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-112	ND		0.044	0.00036	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-113	**0.0049**	**J B C90 q**	0.13	0.00042	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-114	ND		0.044	0.0014	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-115	**0.0069**	**J B C110 q**	0.088	0.00035	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-116	**0.0023**	**J C85 B q**	0.13	0.00041	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-117	**0.0023**	**J C85 B q**	0.13	0.00041	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-118	**0.0065**	**J B**	0.044	0.0015	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-119	**0.0060**	**J B C86 q**	0.26	0.00042	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-120	ND		0.044	0.00034	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-121	ND		0.044	0.00035	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-122	ND		0.044	0.0018	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-123	ND		0.044	0.0016	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-124	ND	C108	0.088	0.0016	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-125	**0.0060**	**J B C86 q**	0.26	0.00042	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-126	ND		0.044	0.0016	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-127	ND		0.044	0.0016	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-128	ND	C	0.088	0.0020	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-129	**0.0095**	**J C B**	0.18	0.0021	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-130	ND		0.044	0.0028	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-131	ND		0.044	0.0029	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-132	ND		0.044	0.0027	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-133	ND		0.044	0.0026	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-134	ND	C	0.088	0.0027	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-135	ND	C	0.088	0.00045	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-136	ND		0.044	0.00032	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-137	ND		0.044	0.0024	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-138	**0.0095**	**J B C129**	0.18	0.0021	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-139	ND	C	0.088	0.0023	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-140	ND	C139	0.088	0.0023	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-141	ND		0.044	0.0024	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-142	ND		0.044	0.0026	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-143	ND	C134	0.088	0.0027	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-144	ND		0.044	0.00041	ng/L		10/19/18 08:04	10/25/18 22:29	1

Client Sample ID: 611-101118
Date Collected: 10/11/18 08:20
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-145	ND		0.044	0.00031	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-146	ND		0.044	0.0023	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-147	**0.0072**	**J C B**	0.088	0.0026	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-148	ND		0.044	0.00043	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-149	**0.0072**	**J B C147**	0.088	0.0026	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-150	ND		0.044	0.00030	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-151	ND	C135	0.088	0.00045	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-152	ND		0.044	0.00032	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-153	**0.0066**	**J C B q**	0.088	0.0018	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-154	ND		0.044	0.00035	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-155	ND		0.044	0.00030	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-156	ND	C	0.088	0.0023	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-157	ND	C156	0.088	0.0023	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-158	ND		0.044	0.0017	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-159	ND		0.044	0.0017	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-160	**0.0095**	**J B C129**	0.18	0.0021	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-161	ND		0.044	0.0017	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-162	ND		0.044	0.0017	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-163	**0.0095**	**J B C129**	0.18	0.0021	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-164	ND		0.044	0.0018	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-165	ND		0.044	0.0020	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-166	ND	C128	0.088	0.0020	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-167	ND		0.044	0.0013	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-168	**0.0066**	**J B C153 q**	0.088	0.0018	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-169	ND		0.044	0.0013	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-170	**0.0051**	**J B q**	0.044	0.0023	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-171	ND	C	0.088	0.0023	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-172	ND		0.044	0.0022	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-173	ND	C171	0.088	0.0023	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-174	ND		0.044	0.0021	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-175	ND		0.044	0.0020	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-176	ND		0.044	0.0015	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-177	ND		0.044	0.0022	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-178	ND		0.044	0.0022	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-179	ND		0.044	0.0016	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-180	**0.0079**	**J C B q**	0.088	0.0017	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-181	ND		0.044	0.0020	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-182	ND		0.044	0.0020	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-183	ND	C	0.088	0.0020	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-184	ND		0.044	0.0017	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-185	ND	C183	0.088	0.0020	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-186	ND		0.044	0.0016	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-187	**0.0050**	**J B q**	0.044	0.0019	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-188	ND		0.044	0.0014	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-189	ND		0.044	0.0020	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-190	ND		0.044	0.0015	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-191	ND		0.044	0.0015	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-192	ND		0.044	0.0017	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-193	**0.0079**	**J C180 B q**	0.088	0.0017	ng/L		10/19/18 08:04	10/25/18 22:29	1

Client Sample ID: 611-101118
Date Collected: 10/11/18 08:20
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-194	ND		0.044	0.0038	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-195	ND		0.044	0.0042	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-196	ND		0.044	0.0014	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-197	ND		0.044	0.0011	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-198	ND	C	0.088	0.0015	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-199	ND	C198	0.088	0.0015	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-200	ND		0.044	0.00097	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-201	ND		0.044	0.0010	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-202	ND		0.044	0.0011	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-203	ND		0.044	0.0013	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-204	ND		0.044	0.0011	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-205	ND		0.044	0.0032	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-206	ND		0.044	0.0099	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-207	ND		0.044	0.0072	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-208	ND		0.044	0.0074	ng/L		10/19/18 08:04	10/25/18 22:29	1
PCB-209	ND		0.044	0.0025	ng/L		10/19/18 08:04	10/25/18 22:29	1
Total Monochlorobiphenyls	**0.0054**	**J B q**	0.044	0.00000033	ng/L		10/19/18 08:04	10/25/18 22:29	1
Total Dichlorobiphenyls	**0.057**	**J B q**	0.088	0.0000020	ng/L		10/19/18 08:04	10/25/18 22:29	1
Total Trichlorobiphenyls	**0.030**	**J B q**	0.088	0.00000056	ng/L		10/19/18 08:04	10/25/18 22:29	1
Total Tetrachlorobiphenyls	**0.041**	**J B q**	0.18	0.0000012	ng/L		10/19/18 08:04	10/25/18 22:29	1
Total Pentachlorobiphenyls	**0.037**	**J B q**	0.26	0.00000081	ng/L		10/19/18 08:04	10/25/18 22:29	1
Total Hexachlorobiphenyls	**0.023**	**J B q**	0.18	0.0000017	ng/L		10/19/18 08:04	10/25/18 22:29	1
Total Heptachlorobiphenyls	**0.018**	**J B q**	0.088	0.0000019	ng/L		10/19/18 08:04	10/25/18 22:29	1
Total Octachlorobiphenyls	ND		0.088	0.0000042	ng/L		10/19/18 08:04	10/25/18 22:29	1
Total Nonachlorobiphenyls	ND		0.044	0.0000099	ng/L		10/19/18 08:04	10/25/18 22:29	1
Polychlorinated biphenyls, Total	**0.21**	**J B q**	0.26	0.0000027	ng/L		10/19/18 08:04	10/25/18 22:29	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
PCB-1L	*67*		*30 - 140*	*10/19/18 08:04*	*10/25/18 22:29*	*1*
PCB-3L	*68*		*30 - 140*	*10/19/18 08:04*	*10/25/18 22:29*	*1*
PCB-4L	*82*		*30 - 140*	*10/19/18 08:04*	*10/25/18 22:29*	*1*
PCB-15L	*83*		*30 - 140*	*10/19/18 08:04*	*10/25/18 22:29*	*1*
PCB-19L	*85*		*30 - 140*	*10/19/18 08:04*	*10/25/18 22:29*	*1*
PCB-37L	*94*		*30 - 140*	*10/19/18 08:04*	*10/25/18 22:29*	*1*
PCB-54L	*68*		*30 - 140*	*10/19/18 08:04*	*10/25/18 22:29*	*1*
PCB-77L	*96*		*30 - 140*	*10/19/18 08:04*	*10/25/18 22:29*	*1*
PCB-81L	*93*		*30 - 140*	*10/19/18 08:04*	*10/25/18 22:29*	*1*
PCB-104L	*81*		*30 - 140*	*10/19/18 08:04*	*10/25/18 22:29*	*1*
PCB-105L	*94*		*30 - 140*	*10/19/18 08:04*	*10/25/18 22:29*	*1*
PCB-114L	*97*		*30 - 140*	*10/19/18 08:04*	*10/25/18 22:29*	*1*
PCB-118L	*92*		*30 - 140*	*10/19/18 08:04*	*10/25/18 22:29*	*1*
PCB-123L	*93*		*30 - 140*	*10/19/18 08:04*	*10/25/18 22:29*	*1*
PCB-126L	*92*		*30 - 140*	*10/19/18 08:04*	*10/25/18 22:29*	*1*
PCB-155L	*90*		*30 - 140*	*10/19/18 08:04*	*10/25/18 22:29*	*1*
PCB-156L	*94*	*C*	*30 - 140*	*10/19/18 08:04*	*10/25/18 22:29*	*1*
PCB-157L	*94*	*C156*	*30 - 140*	*10/19/18 08:04*	*10/25/18 22:29*	*1*
PCB-167L	*94*		*30 - 140*	*10/19/18 08:04*	*10/25/18 22:29*	*1*
PCB-169L	*101*		*30 - 140*	*10/19/18 08:04*	*10/25/18 22:29*	*1*

Client: Pacific Groundwater Group
Project/Site: Swan Island Lagoon SedimentInvestigation

TestAmerica Job ID: 580-81081-1

Client Sample ID: 611-101118
Date Collected: 10/11/18 08:20
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-1
Matrix: Water

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-170L	92		30 - 140	10/19/18 08:04	10/25/18 22:29	1
PCB-188L	95		30 - 140	10/19/18 08:04	10/25/18 22:29	1
PCB-189L	87		30 - 140	10/19/18 08:04	10/25/18 22:29	1
PCB-202L	110		30 - 140	10/19/18 08:04	10/25/18 22:29	1
PCB-205L	82		30 - 140	10/19/18 08:04	10/25/18 22:29	1
PCB-206L	97		30 - 140	10/19/18 08:04	10/25/18 22:29	1
PCB-208L	95		30 - 140	10/19/18 08:04	10/25/18 22:29	1
PCB-209L	101		30 - 140	10/19/18 08:04	10/25/18 22:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	98		40 - 125	10/19/18 08:04	10/25/18 22:29	1
PCB-111L	96		40 - 125	10/19/18 08:04	10/25/18 22:29	1
PCB-178L	102		40 - 125	10/19/18 08:04	10/25/18 22:29	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.0010	0.00020	mg/L		10/30/18 09:52	10/31/18 16:17	1
Cadmium	ND		0.00040	0.00010	mg/L		10/30/18 09:52	10/31/18 16:17	1
Copper	ND		0.0020	0.00060	mg/L		10/30/18 09:52	10/31/18 16:17	1
Lead	ND		0.00080	0.00020	mg/L		10/30/18 09:52	10/31/18 16:17	1
Zinc	ND		0.0070	0.0019	mg/L		10/30/18 09:52	10/31/18 16:17	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00030	0.00015	mg/L		10/23/18 10:09	10/23/18 14:55	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		2.0	2.0	mg/L			10/18/18 16:09	1
Total Organic Carbon	**0.74**	**J B**	1.0	0.19	mg/L			10/19/18 10:36	1

Client Sample ID: H1-0to24-101418

Date Collected: 10/14/18 09:09
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-2

Matrix: Solid
Percent Solids: 61.7

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	110		69	17	mg/Kg	☼	10/27/18 20:36	11/04/18 18:47	1
Motor Oil (>C24-C36)	410		69	24	mg/Kg	☼	10/27/18 20:36	11/04/18 18:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*97*		*50 - 150*	*10/27/18 20:36*	*11/04/18 18:47*	*1*

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3,4,6,7,8-HpCDD	0.087	B	0.0040	0.0030	ug/Kg	☼	10/18/18 14:49	10/24/18 02:22	1
1,2,3,4,6,7,8-HpCDF	0.023	B	0.0040	0.00095	ug/Kg	☼	10/18/18 14:49	10/24/18 02:22	1
1,2,3,4,7,8,9-HpCDF	0.0023	J B	0.0040	0.0012	ug/Kg	☼	10/18/18 14:49	10/24/18 02:22	1
1,2,3,4,7,8-HxCDD	0.0011	J B	0.0040	0.00016	ug/Kg	☼	10/18/18 14:49	10/24/18 02:22	1
1,2,3,4,7,8-HxCDF	0.0034	J B	0.0040	0.00019	ug/Kg	☼	10/18/18 14:49	10/24/18 02:22	1
1,2,3,6,7,8-HxCDD	0.0042	B	0.0040	0.00015	ug/Kg	☼	10/18/18 14:49	10/24/18 02:22	1
1,2,3,6,7,8-HxCDF	0.0019	J B	0.0040	0.00017	ug/Kg	☼	10/18/18 14:49	10/24/18 02:22	1
1,2,3,7,8,9-HxCDD	0.0027	J B	0.0040	0.00014	ug/Kg	☼	10/18/18 14:49	10/24/18 02:22	1
1,2,3,7,8,9-HxCDF	0.00056	J q B	0.0040	0.00017	ug/Kg	☼	10/18/18 14:49	10/24/18 02:22	1
1,2,3,7,8-PeCDD	0.00061	J q	0.0040	0.00012	ug/Kg	☼	10/18/18 14:49	10/24/18 02:22	1
1,2,3,7,8-PeCDF	0.00073	J B	0.0040	0.00016	ug/Kg	☼	10/18/18 14:49	10/24/18 02:22	1
2,3,4,6,7,8-HxCDF	0.0010	J B	0.0040	0.00015	ug/Kg	☼	10/18/18 14:49	10/24/18 02:22	1
2,3,4,7,8-PeCDF	0.0011	J	0.0040	0.00017	ug/Kg	☼	10/18/18 14:49	10/24/18 02:22	1
2,3,7,8-TCDD	0.00029	J q	0.00080	0.000066	ug/Kg	☼	10/18/18 14:49	10/24/18 02:22	1
OCDD	0.89	B	0.0080	0.0028	ug/Kg	☼	10/18/18 14:49	10/24/18 02:22	1
OCDF	0.075	B	0.0080	0.00020	ug/Kg	☼	10/18/18 14:49	10/24/18 02:22	1
Total HpCDD	0.19	B	0.0040	0.0030	ug/Kg	☼	10/18/18 14:49	10/24/18 02:22	1
Total HpCDF	0.095	B	0.0040	0.0011	ug/Kg	☼	10/18/18 14:49	10/24/18 02:22	1
Total HxCDD	0.030	B	0.0040	0.00015	ug/Kg	☼	10/18/18 14:49	10/24/18 02:22	1
Total HxCDF	0.035	q B	0.0040	0.00017	ug/Kg	☼	10/18/18 14:49	10/24/18 02:22	1
Total PeCDD	0.0040	q	0.0040	0.00012	ug/Kg	☼	10/18/18 14:49	10/24/18 02:22	1
Total PeCDF	0.0099	B	0.0040	0.00017	ug/Kg	☼	10/18/18 14:49	10/24/18 02:22	1
Total TCDF	0.0058	q B	0.00080	0.000095	ug/Kg	☼	10/18/18 14:49	10/24/18 02:22	1
Total TCDD	0.0020	q	0.00080	0.000066	ug/Kg	☼	10/18/18 14:49	10/24/18 02:22	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-1,2,3,4,6,7,8-HpCDD	*53*		*23 - 140*	*10/18/18 14:49*	*10/24/18 02:22*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*48*		*28 - 143*	*10/18/18 14:49*	*10/24/18 02:22*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*53*		*26 - 138*	*10/18/18 14:49*	*10/24/18 02:22*	*1*
13C-1,2,3,4,7,8-HxCDD	*54*		*32 - 141*	*10/18/18 14:49*	*10/24/18 02:22*	*1*
13C-1,2,3,4,7,8-HxCDF	*54*		*26 - 152*	*10/18/18 14:49*	*10/24/18 02:22*	*1*
13C-1,2,3,6,7,8-HxCDD	*55*		*28 - 130*	*10/18/18 14:49*	*10/24/18 02:22*	*1*
13C-1,2,3,6,7,8-HxCDF	*55*		*26 - 123*	*10/18/18 14:49*	*10/24/18 02:22*	*1*
13C-1,2,3,7,8,9-HxCDF	*59*		*29 - 147*	*10/18/18 14:49*	*10/24/18 02:22*	*1*
13C-1,2,3,7,8-PeCDD	*57*		*25 - 181*	*10/18/18 14:49*	*10/24/18 02:22*	*1*
13C-1,2,3,7,8-PeCDF	*57*		*24 - 185*	*10/18/18 14:49*	*10/24/18 02:22*	*1*
13C-2,3,4,6,7,8-HxCDF	*57*		*28 - 136*	*10/18/18 14:49*	*10/24/18 02:22*	*1*
13C-2,3,4,7,8-PeCDF	*58*		*21 - 178*	*10/18/18 14:49*	*10/24/18 02:22*	*1*
13C-2,3,7,8-TCDD	*62*		*25 - 164*	*10/18/18 14:49*	*10/24/18 02:22*	*1*
13C-2,3,7,8-TCDF	*64*		*24 - 169*	*10/18/18 14:49*	*10/24/18 02:22*	*1*
13C-OCDD	*45*		*17 - 157*	*10/18/18 14:49*	*10/24/18 02:22*	*1*

Client Sample ID: H1-0to24-101418
Date Collected: 10/14/18 09:09
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-2
Matrix: Solid
Percent Solids: 61.7

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
37Cl4-2,3,7,8-TCDD	*88*		*35 - 197*	*10/18/18 14:49*	*10/24/18 02:22*	*1*

Method: 1613B - Dioxins and Furans (HRGC/HRMS) - RA

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDF	**0.00088**	**B**	0.00080	0.000090	ug/Kg	☼	10/18/18 14:49	10/25/18 00:59	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDF	*59*		*24 - 169*	*10/18/18 14:49*	*10/25/18 00:59*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
37Cl4-2,3,7,8-TCDD	*60*		*35 - 197*	*10/18/18 14:49*	*10/25/18 00:59*	*1*

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	**0.025**	**J q B**	0.040	0.00077	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-10	ND		0.040	0.0053	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-100	**0.10**	**C93 B**	0.081	0.00098	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-101	**4.9**	**C90 B**	0.12	0.00085	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-102	**0.13**	**C98**	0.081	0.00095	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-103	**0.10**		0.040	0.00097	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-104	ND		0.040	0.00074	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-105	**1.0**	**B**	0.040	0.0046	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-106	ND		0.040	0.0050	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-107	**0.35**		0.040	0.0053	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-108	**0.12**	**C B**	0.081	0.0051	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-109	**2.8**	**C86 B**	0.24	0.00084	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-11	**0.014**	**J q B**	0.081	0.0046	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-110	**5.3**	**C B**	0.081	0.00071	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-111	ND		0.040	0.00069	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-112	**0.021**	**J**	0.040	0.00072	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-113	**4.9**	**C90 B**	0.12	0.00085	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-114	**0.067**		0.040	0.0049	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-115	**5.3**	**C110 B**	0.081	0.00071	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-116	**0.65**	**C85 B**	0.12	0.00083	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-117	**0.65**	**C85 B**	0.12	0.00083	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-118	**3.8**	**B**	0.040	0.0048	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-119	**2.8**	**C86 B**	0.24	0.00084	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-12	**0.0094**	**J q C**	0.081	0.0048	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-120	ND		0.040	0.00070	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-121	ND		0.040	0.00072	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-122	**0.042**	**q**	0.040	0.0057	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-123	**0.068**	**B**	0.040	0.0049	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-124	**0.12**	**C108 B**	0.081	0.0051	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-125	**2.8**	**C86 B**	0.24	0.00084	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-126	**0.048**	**B**	0.040	0.0050	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-127	ND		0.040	0.0049	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-128	**0.75**	**C**	0.081	0.0075	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-129	**5.0**	**C B**	0.16	0.0078	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-13	**0.0094**	**J q C12**	0.081	0.0048	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-130	**0.39**		0.040	0.010	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-131	**0.069**		0.040	0.011	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5

Client Sample ID: H1-0to24-101418
Date Collected: 10/14/18 09:09
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-2
Matrix: Solid
Percent Solids: 61.7

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-132	1.8	B	0.040	0.010	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-133	0.11		0.040	0.0097	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-134	0.31	C B	0.081	0.010	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-135	1.6	C B	0.081	0.0013	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-136	0.66	B	0.040	0.00096	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-137	0.23		0.040	0.0088	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-138	5.0	C129 B	0.16	0.0078	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-139	0.098	C	0.081	0.0087	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-14	ND		0.040	0.0041	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-140	0.098	C139	0.081	0.0087	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-141	0.73	B	0.040	0.0091	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-142	ND		0.040	0.0097	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-143	0.31	C134 B	0.081	0.010	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-144	0.17		0.040	0.0012	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-145	ND		0.040	0.00092	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-146	0.95	B	0.040	0.0086	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-147	4.3	C B	0.081	0.0098	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-148	0.012	J q	0.040	0.0013	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-149	4.3	C147 B	0.081	0.0098	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-15	0.059		0.040	0.0051	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-150	0.016	J q	0.040	0.00088	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-151	1.6	C135 B	0.081	0.0013	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-152	0.0048	J q	0.040	0.00095	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-153	3.7	C B	0.081	0.0068	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-154	0.11	B	0.040	0.0010	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-155	ND		0.040	0.00088	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-156	0.53	C B	0.081	0.0084	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-157	0.53	C156 B	0.081	0.0084	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-158	0.47		0.040	0.0061	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-159	ND		0.040	0.0065	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-16	0.056		0.040	0.00084	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-160	5.0	C129 B	0.16	0.0078	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-161	ND		0.040	0.0064	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-162	ND		0.040	0.0064	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-163	5.0	C129 B	0.16	0.0078	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-164	0.34	B	0.040	0.0068	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-165	ND		0.040	0.0073	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-166	0.75	C128	0.081	0.0075	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-167	0.18	B	0.040	0.0050	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-168	3.7	C153 B	0.081	0.0068	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-169	ND		0.040	0.0048	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-17	0.085		0.040	0.00075	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-170	0.95	B	0.040	0.0020	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-171	0.33	C B	0.081	0.0019	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-172	0.16		0.040	0.0019	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-173	0.33	C171 B	0.081	0.0019	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-174	0.92	B	0.040	0.0018	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-175	0.035	J	0.040	0.0017	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-176	0.12		0.040	0.0013	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5

Client Sample ID: H1-0to24-101418
Date Collected: 10/14/18 09:09
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-2
Matrix: Solid
Percent Solids: 61.7

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-177	0.55	B	0.040	0.0018	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-178	0.19	B	0.040	0.0019	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-179	0.41	B	0.040	0.0014	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-18	0.13	C	0.081	0.00066	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-180	1.9	C B	0.081	0.0014	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-181	ND		0.040	0.0017	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-182	0.012	J q	0.040	0.0016	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-183	0.63	C B	0.081	0.0017	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-184	ND		0.040	0.0014	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-185	0.63	C183 B	0.081	0.0017	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-186	ND		0.040	0.0014	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-187	1.2	B	0.040	0.0016	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-188	ND		0.040	0.0012	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-189	0.029	J q	0.040	0.0048	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-19	0.052	q	0.040	0.00092	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-190	0.17	B	0.040	0.0012	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-191	0.045		0.040	0.0013	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-192	ND		0.040	0.0014	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-193	1.9	C180 B	0.081	0.0014	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-194	0.41	B	0.040	0.0082	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-195	0.15		0.040	0.0090	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-196	0.22	B	0.040	0.0027	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-197	0.016	J q	0.040	0.0021	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-198	0.53	C	0.081	0.0028	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-199	0.53	C198	0.081	0.0028	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-2	0.0081	J q B	0.040	0.00092	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-20	0.31	C B	0.081	0.0025	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-200	0.051		0.040	0.0018	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-201	0.060		0.040	0.0019	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-202	0.12		0.040	0.0021	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-203	0.31	B	0.040	0.0025	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-204	ND		0.040	0.0021	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-205	0.024	J	0.040	0.0070	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-206	0.32		0.040	0.012	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-207	0.024	J q	0.040	0.0086	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-208	0.11		0.040	0.0090	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-209	0.27		0.040	0.0063	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-21	0.094	C B	0.081	0.0025	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-22	0.059	B	0.040	0.0026	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-23	ND		0.040	0.0025	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-24	0.0029	J q	0.040	0.00063	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-25	ND		0.040	0.0023	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-26	0.035	J C B	0.081	0.0025	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-27	0.016	J q	0.040	0.00055	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-28	0.31	C20 B	0.081	0.0025	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-29	0.035	J C26 B	0.081	0.0025	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-3	0.012	J q B	0.040	0.0010	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-30	0.13	C18	0.081	0.00066	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-31	0.18		0.081	0.0024	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5

Client Sample ID: H1-0to24-101418
Date Collected: 10/14/18 09:09
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-2
Matrix: Solid
Percent Solids: 61.7

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-32	0.068	B	0.040	0.00052	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-33	0.094	C21 B	0.081	0.0025	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-34	ND		0.040	0.0026	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-35	0.0076	J	0.040	0.0026	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-36	0.017	J	0.040	0.0025	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-37	0.091		0.040	0.0026	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-38	ND		0.040	0.0027	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-39	ND		0.040	0.0024	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-4	0.038	J	0.081	0.0066	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-40	0.27	C	0.12	0.0069	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-41	0.27	C40	0.12	0.0069	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-42	0.21		0.040	0.0069	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-43	0.061	J C	0.081	0.0065	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-44	1.3	C B	0.12	0.0061	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-45	0.22	C	0.081	0.0072	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-46	0.031	J	0.040	0.0087	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-47	1.3	C44 B	0.12	0.0061	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-48	0.070		0.040	0.0069	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-49	0.96	C	0.081	0.0056	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-5	ND		0.040	0.0054	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-50	0.16	C	0.081	0.0067	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-51	0.22	C45	0.081	0.0072	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-52	2.3		0.040	0.0068	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-53	0.16	C50	0.081	0.0067	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-54	0.019	J q	0.040	0.00014	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-55	0.014	J	0.040	0.0050	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-56	0.27		0.040	0.0050	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-57	ND		0.040	0.0051	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-58	0.0094	J q	0.040	0.0052	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-59	0.074	J C	0.12	0.0049	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-6	0.010	J q	0.040	0.0048	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-60	0.044	q	0.040	0.0051	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-61	1.9	C	0.16	0.0048	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-62	0.074	J C59	0.12	0.0049	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-63	0.042		0.040	0.0047	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-64	0.30		0.040	0.0046	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-65	1.3	C44 B	0.12	0.0061	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-66	0.99		0.040	0.0048	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-67	ND		0.040	0.0044	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-68	0.028	J B	0.040	0.0045	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-69	0.96	C49	0.081	0.0056	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-7	ND		0.040	0.0049	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-70	1.9	C61	0.16	0.0048	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-71	0.27	C40	0.12	0.0069	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-72	0.049		0.040	0.0050	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-73	0.061	J C43	0.081	0.0065	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-74	1.9	C61	0.16	0.0048	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-75	0.074	J C59	0.12	0.0049	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-76	1.9	C61	0.16	0.0048	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5

Client Sample ID: H1-0to24-101418
Date Collected: 10/14/18 09:09
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-2
Matrix: Solid
Percent Solids: 61.7

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-77	**0.092**	**q**	0.040	0.0050	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-78	ND		0.040	0.0052	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-79	**0.022**	**J q**	0.040	0.0045	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-8	**0.069**	**J**	0.081	0.0044	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-80	ND		0.040	0.0044	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-81	ND		0.040	0.0046	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-82	**0.42**		0.040	0.0011	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-83	**2.9**	**C**	0.081	0.0010	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-84	**1.2**		0.040	0.0011	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-85	**0.65**	**C B**	0.12	0.00083	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-86	**2.8**	**C B**	0.24	0.00084	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-87	**2.8**	**C86 B**	0.24	0.00084	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-88	**0.68**	**C B**	0.081	0.0010	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-89	ND		0.040	0.0011	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-9	**0.0062**	**J q**	0.040	0.0050	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-90	**4.9**	**C B**	0.12	0.00085	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-91	**0.68**	**C88 B**	0.081	0.0010	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-92	**0.99**	**B**	0.040	0.00097	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-93	**0.10**	**C B**	0.081	0.00098	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-94	ND		0.040	0.0011	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-95	**4.1**	**B**	0.040	0.0011	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-96	ND		0.040	0.00083	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-97	**2.8**	**C86 B**	0.24	0.00084	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-98	**0.13**	**C**	0.081	0.00095	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
PCB-99	**2.9**	**C83**	0.081	0.0010	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
Polychlorinated biphenyls, Total	**73**	**q B**	0.24	0.0047	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
Total Monochlorobiphenyls	**0.045**	**q B**	0.040	0.00091	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
Total Dichlorobiphenyls	**0.21**	**q B**	0.081	0.0050	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
Total Trichlorobiphenyls	**1.2**	**q B**	0.081	0.0019	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
Total Tetrachlorobiphenyls	**9.4**	**q B**	0.16	0.0053	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
Total Pentachlorobiphenyls	**30**	**q B**	0.24	0.0022	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
Total Hexachlorobiphenyls	**23**	**q B**	0.16	0.0061	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
Total Heptachlorobiphenyls	**7.7**	**q B**	0.081	0.0017	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
Total Octachlorobiphenyls	**1.9**	**q B**	0.081	0.0038	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5
Total Nonachlorobiphenyls	**0.45**	**q**	0.040	0.0098	ng/g	☼	10/19/18 12:00	10/27/18 14:28	5

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
PCB-104L	*83*		*30 - 140*	*10/19/18 12:00*	*10/27/18 14:28*	*5*
PCB-105L	*93*		*30 - 140*	*10/19/18 12:00*	*10/27/18 14:28*	*5*
PCB-114L	*88*		*30 - 140*	*10/19/18 12:00*	*10/27/18 14:28*	*5*
PCB-118L	*87*		*30 - 140*	*10/19/18 12:00*	*10/27/18 14:28*	*5*
PCB-123L	*87*		*30 - 140*	*10/19/18 12:00*	*10/27/18 14:28*	*5*
PCB-126L	*88*		*30 - 140*	*10/19/18 12:00*	*10/27/18 14:28*	*5*
PCB-155L	*90*		*30 - 140*	*10/19/18 12:00*	*10/27/18 14:28*	*5*
PCB-156L	*87*	*C*	*30 - 140*	*10/19/18 12:00*	*10/27/18 14:28*	*5*
PCB-157L	*87*	*C156*	*30 - 140*	*10/19/18 12:00*	*10/27/18 14:28*	*5*
PCB-15L	*80*		*30 - 140*	*10/19/18 12:00*	*10/27/18 14:28*	*5*
PCB-167L	*88*		*30 - 140*	*10/19/18 12:00*	*10/27/18 14:28*	*5*
PCB-169L	*94*		*30 - 140*	*10/19/18 12:00*	*10/27/18 14:28*	*5*
PCB-170L	*88*		*30 - 140*	*10/19/18 12:00*	*10/27/18 14:28*	*5*

Client Sample ID: H1-0to24-101418
Date Collected: 10/14/18 09:09
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-2
Matrix: Solid
Percent Solids: 61.7

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-188L	92		30 - 140	10/19/18 12:00	10/27/18 14:28	5
PCB-189L	77		30 - 140	10/19/18 12:00	10/27/18 14:28	5
PCB-19L	103		30 - 140	10/19/18 12:00	10/27/18 14:28	5
PCB-1L	66		30 - 140	10/19/18 12:00	10/27/18 14:28	5
PCB-202L	110		30 - 140	10/19/18 12:00	10/27/18 14:28	5
PCB-205L	74		30 - 140	10/19/18 12:00	10/27/18 14:28	5
PCB-206L	88		30 - 140	10/19/18 12:00	10/27/18 14:28	5
PCB-208L	86		30 - 140	10/19/18 12:00	10/27/18 14:28	5
PCB-209L	90		30 - 140	10/19/18 12:00	10/27/18 14:28	5
PCB-37L	88		30 - 140	10/19/18 12:00	10/27/18 14:28	5
PCB-3L	66		30 - 140	10/19/18 12:00	10/27/18 14:28	5
PCB-4L	79		30 - 140	10/19/18 12:00	10/27/18 14:28	5
PCB-54L	75		30 - 140	10/19/18 12:00	10/27/18 14:28	5
PCB-77L	91		30 - 140	10/19/18 12:00	10/27/18 14:28	5
PCB-81L	88		30 - 140	10/19/18 12:00	10/27/18 14:28	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-111L	91		40 - 125	10/19/18 12:00	10/27/18 14:28	5
PCB-178L	97		40 - 125	10/19/18 12:00	10/27/18 14:28	5
PCB-28L	91		40 - 125	10/19/18 12:00	10/27/18 14:28	5

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	5.5		0.25	0.050	mg/Kg	☼	11/02/18 12:26	11/05/18 14:31	5
Cadmium	0.26		0.20	0.038	mg/Kg	☼	11/02/18 12:26	11/05/18 14:31	5
Copper	39		0.50	0.11	mg/Kg	☼	11/02/18 12:26	11/05/18 14:31	5
Lead	25		0.25	0.024	mg/Kg	☼	11/02/18 12:26	11/05/18 14:31	5
Zinc	120		2.5	0.80	mg/Kg	☼	11/02/18 12:26	11/05/18 14:31	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.088		0.035	0.010	mg/Kg	☼	10/26/18 09:42	10/26/18 13:42	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	18000	B	2000	44	mg/Kg			10/24/18 15:17	1
Total Solids	61.7		0.1	0.1	%			11/01/18 11:09	1
Percent Moisture	41	H	0.10	0.10	%			10/25/18 12:18	1
Percent Solids	59	H	0.10	0.10	%			10/25/18 12:18	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Clay	1.7				%			10/19/18 16:28	1
Coarse Sand	0.9				%			10/19/18 16:28	1
Fine Sand	47.1				%			10/19/18 16:28	1
Gravel	7.2				%			10/19/18 16:28	1
Medium Sand	40.4				%			10/19/18 16:28	1
Silt	2.6				%			10/19/18 16:28	1

Client Sample ID: H1-0to24-101418
Date Collected: 10/14/18 09:09
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-2
Matrix: Solid
Percent Solids: 61.7

Method: D854 - Specific Gravity

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Density	1.59		0.0100	0.0100	g/cm3			10/25/18 00:00	1
Specific Gravity	1.59		0.0100	0.0100	NONE			10/25/18 00:00	1

Client Sample ID: F1-0to23-101418
Date Collected: 10/14/18 11:08
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-4
Matrix: Solid
Percent Solids: 72.1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	51	J	67	16	mg/Kg	☼	10/27/18 20:36	11/04/18 19:27	1
Motor Oil (>C24-C36)	160		67	23	mg/Kg	☼	10/27/18 20:36	11/04/18 19:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*96*		*50 - 150*	*10/27/18 20:36*	*11/04/18 19:27*	*1*

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3,4,6,7,8-HpCDD	0.050	B	0.0035	0.00091	ug/Kg	☼	11/02/18 16:40	11/08/18 12:16	1
1,2,3,4,6,7,8-HpCDF	0.0091	B	0.0035	0.00040	ug/Kg	☼	11/02/18 16:40	11/08/18 12:16	1
1,2,3,4,7,8,9-HpCDF	0.00071	J B	0.0035	0.00032	ug/Kg	☼	11/02/18 16:40	11/08/18 12:16	1
1,2,3,4,7,8-HxCDD	0.00046	J q	0.0035	0.000079	ug/Kg	☼	11/02/18 16:40	11/08/18 12:16	1
1,2,3,4,7,8-HxCDF	0.0012	J B	0.0035	0.000064	ug/Kg	☼	11/02/18 16:40	11/08/18 12:16	1
1,2,3,6,7,8-HxCDD	0.0041		0.0035	0.000081	ug/Kg	☼	11/02/18 16:40	11/08/18 12:16	1
1,2,3,6,7,8-HxCDF	0.00060	J B	0.0035	0.000063	ug/Kg	☼	11/02/18 16:40	11/08/18 12:16	1
1,2,3,7,8,9-HxCDD	0.0013	J B	0.0035	0.000067	ug/Kg	☼	11/02/18 16:40	11/08/18 12:16	1
1,2,3,7,8,9-HxCDF	0.00025	J B	0.0035	0.000051	ug/Kg	☼	11/02/18 16:40	11/08/18 12:16	1
1,2,3,7,8-PeCDD	0.00055	J	0.0035	0.000055	ug/Kg	☼	11/02/18 16:40	11/08/18 12:16	1
1,2,3,7,8-PeCDF	0.00031	J	0.0035	0.000077	ug/Kg	☼	11/02/18 16:40	11/08/18 12:16	1
2,3,4,6,7,8-HxCDF	0.00036	J	0.0035	0.000051	ug/Kg	☼	11/02/18 16:40	11/08/18 12:16	1
2,3,4,7,8-PeCDF	0.00032	J	0.0035	0.000085	ug/Kg	☼	11/02/18 16:40	11/08/18 12:16	1
2,3,7,8-TCDD	0.00043	J q B	0.00070	0.000038	ug/Kg	☼	11/02/18 16:40	11/08/18 12:16	1
2,3,7,8-TCDF	0.00053	J B	0.00070	0.000030	ug/Kg	☼	11/02/18 16:40	11/08/18 12:16	1
OCDD	0.47	B	0.0070	0.00038	ug/Kg	☼	11/02/18 16:40	11/08/18 12:16	1
OCDF	0.038	B	0.0070	0.000054	ug/Kg	☼	11/02/18 16:40	11/08/18 12:16	1
Total HpCDD	0.16	B	0.0035	0.00091	ug/Kg	☼	11/02/18 16:40	11/08/18 12:16	1
Total HpCDF	0.042	B	0.0035	0.00036	ug/Kg	☼	11/02/18 16:40	11/08/18 12:16	1
Total HxCDD	0.028	q B	0.0035	0.000076	ug/Kg	☼	11/02/18 16:40	11/08/18 12:16	1
Total HxCDF	0.013	q B	0.0035	0.000057	ug/Kg	☼	11/02/18 16:40	11/08/18 12:16	1
Total PeCDD	0.0013	J q	0.0035	0.000055	ug/Kg	☼	11/02/18 16:40	11/08/18 12:16	1
Total PeCDF	0.0026	J q B	0.0035	0.000081	ug/Kg	☼	11/02/18 16:40	11/08/18 12:16	1
Total TCDF	0.0019	q B	0.00070	0.000030	ug/Kg	☼	11/02/18 16:40	11/08/18 12:16	1
Total TCDD	0.0010	q B	0.00070	0.000038	ug/Kg	☼	11/02/18 16:40	11/08/18 12:16	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-1,2,3,4,6,7,8-HpCDD	*71*		*23 - 140*	*11/02/18 16:40*	*11/08/18 12:16*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*65*		*28 - 143*	*11/02/18 16:40*	*11/08/18 12:16*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*75*		*26 - 138*	*11/02/18 16:40*	*11/08/18 12:16*	*1*
13C-1,2,3,4,7,8-HxCDD	*74*		*32 - 141*	*11/02/18 16:40*	*11/08/18 12:16*	*1*
13C-1,2,3,4,7,8-HxCDF	*77*		*26 - 152*	*11/02/18 16:40*	*11/08/18 12:16*	*1*
13C-1,2,3,6,7,8-HxCDD	*71*		*28 - 130*	*11/02/18 16:40*	*11/08/18 12:16*	*1*
13C-1,2,3,6,7,8-HxCDF	*75*		*26 - 123*	*11/02/18 16:40*	*11/08/18 12:16*	*1*
13C-1,2,3,7,8,9-HxCDF	*72*		*29 - 147*	*11/02/18 16:40*	*11/08/18 12:16*	*1*
13C-1,2,3,7,8-PeCDD	*65*		*25 - 181*	*11/02/18 16:40*	*11/08/18 12:16*	*1*
13C-1,2,3,7,8-PeCDF	*67*		*24 - 185*	*11/02/18 16:40*	*11/08/18 12:16*	*1*
13C-2,3,4,6,7,8-HxCDF	*77*		*28 - 136*	*11/02/18 16:40*	*11/08/18 12:16*	*1*
13C-2,3,4,7,8-PeCDF	*67*		*21 - 178*	*11/02/18 16:40*	*11/08/18 12:16*	*1*
13C-2,3,7,8-TCDD	*69*		*25 - 164*	*11/02/18 16:40*	*11/08/18 12:16*	*1*
13C-2,3,7,8-TCDF	*72*		*24 - 169*	*11/02/18 16:40*	*11/08/18 12:16*	*1*
13C-OCDD	*68*		*17 - 157*	*11/02/18 16:40*	*11/08/18 12:16*	*1*

Client Sample ID: F1-0to23-101418
Date Collected: 10/14/18 11:08
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-4
Matrix: Solid
Percent Solids: 72.1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
37Cl4-2,3,7,8-TCDD	105		35 - 197	11/02/18 16:40	11/08/18 12:16	1

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.0090	J	0.014	0.00019	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-10	0.0023	J q	0.014	0.0014	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-100	0.049	C93	0.028	0.00016	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-101	1.5	B C90	0.042	0.00014	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-102	0.047	C98	0.028	0.00015	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-103	0.029	q	0.014	0.00016	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-104	ND		0.014	0.00012	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-105	0.37		0.014	0.0013	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-106	ND		0.014	0.0013	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-107	0.091		0.014	0.0014	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-108	0.043	C	0.028	0.0014	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-109	0.84	B C86	0.083	0.00014	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-11	0.0047	J B q	0.028	0.0012	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-110	1.6	C B	0.028	0.00011	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-111	ND		0.014	0.00011	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-112	ND		0.014	0.00012	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-113	1.5	B C90	0.042	0.00014	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-114	0.023		0.014	0.0013	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-115	1.6	B C110	0.028	0.00011	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-116	0.18	C85	0.042	0.00013	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-117	0.18	C85	0.042	0.00013	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-118	1.1		0.014	0.0012	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-119	0.84	B C86	0.083	0.00014	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-12	0.0027	J C q	0.028	0.0013	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-120	0.0094	J	0.014	0.00011	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-121	ND		0.014	0.00012	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-122	0.014	q	0.014	0.0015	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-123	0.016		0.014	0.0014	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-124	0.043	C108	0.028	0.0014	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-125	0.84	B C86	0.083	0.00014	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-126	ND		0.014	0.0014	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-127	ND		0.014	0.0013	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-128	0.25	C	0.028	0.0019	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-129	1.7	C B	0.055	0.0020	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-13	0.0027	J C12 q	0.028	0.0013	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-130	0.12		0.014	0.0026	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-131	0.024		0.014	0.0027	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-132	0.60		0.014	0.0026	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-133	0.032		0.014	0.0025	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-134	0.11	C	0.028	0.0026	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-135	0.60	C	0.028	0.00016	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-136	0.23		0.014	0.00011	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-137	0.076		0.014	0.0022	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-138	1.7	B C129	0.055	0.0020	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-139	0.031	C	0.028	0.0022	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-14	ND		0.014	0.0011	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1

Client Sample ID: F1-0to23-101418
Date Collected: 10/14/18 11:08
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-4
Matrix: Solid
Percent Solids: 72.1

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-140	0.031	C139	0.028	0.0022	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-141	0.30		0.014	0.0023	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-142	ND		0.014	0.0025	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-143	0.11	C134	0.028	0.0026	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-144	0.068		0.014	0.00014	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-145	ND		0.014	0.00011	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-146	0.29		0.014	0.0022	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-147	1.5	C	0.028	0.0025	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-148	0.0059	J	0.014	0.00015	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-149	1.5	C147	0.028	0.0025	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-15	0.013	J	0.014	0.0013	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-150	0.0053	J q	0.014	0.00010	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-151	0.60	C135	0.028	0.00016	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-152	0.0025	J	0.014	0.00011	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-153	1.3	C	0.028	0.0017	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-154	0.040		0.014	0.00012	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-155	ND		0.014	0.00010	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-156	0.21	C	0.028	0.0022	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-157	0.21	C156	0.028	0.0022	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-158	0.17		0.014	0.0016	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-159	ND		0.014	0.0017	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-16	0.015	q	0.014	0.00023	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-160	1.7	B C129	0.055	0.0020	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-161	ND		0.014	0.0016	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-162	ND		0.014	0.0016	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-163	1.7	B C129	0.055	0.0020	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-164	0.12		0.014	0.0017	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-165	ND		0.014	0.0019	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-166	0.25	C128	0.028	0.0019	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-167	0.065		0.014	0.0012	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-168	1.3	C153	0.028	0.0017	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-169	ND		0.014	0.0012	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-17	0.086		0.014	0.00020	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-170	0.38	B	0.014	0.00020	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-171	0.12	C	0.028	0.00020	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-172	0.064		0.014	0.00019	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-173	0.12	C171	0.028	0.00020	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-174	0.33		0.014	0.00018	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-175	0.014		0.014	0.00018	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-176	0.044		0.014	0.00013	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-177	0.20		0.014	0.00019	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-178	0.070		0.014	0.00019	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-179	0.15	B	0.014	0.00014	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-18	0.050	C	0.028	0.00018	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-180	0.74	C B	0.028	0.00015	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-181	0.0051	J	0.014	0.00018	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-182	ND		0.014	0.00017	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-183	0.25	C B	0.028	0.00017	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-184	ND		0.014	0.00014	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1

Client Sample ID: F1-0to23-101418
Date Collected: 10/14/18 11:08
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-4
Matrix: Solid
Percent Solids: 72.1

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-185	0.25	B C183	0.028	0.00017	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-186	ND		0.014	0.00014	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-187	0.40		0.014	0.00016	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-188	ND		0.014	0.00013	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-189	0.013	J	0.014	0.00078	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-19	0.059		0.014	0.00025	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-190	0.073		0.014	0.00013	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-191	0.018		0.014	0.00013	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-192	ND		0.014	0.00015	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-193	0.74	C180 B	0.028	0.00015	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-194	0.14		0.014	0.00094	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-195	0.055		0.014	0.0010	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-196	0.079		0.014	0.00019	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-197	0.0054	J B q	0.014	0.00015	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-198	0.16	C	0.028	0.00019	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-199	0.16	C198	0.028	0.00019	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-2	0.0013	J q	0.014	0.00021	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-20	0.13	C B	0.028	0.00056	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-200	0.017		0.014	0.00013	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-201	0.019		0.014	0.00013	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-202	0.027		0.014	0.00015	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-203	0.10		0.014	0.00017	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-204	ND		0.014	0.00015	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-205	0.0083	J	0.014	0.00079	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-206	0.070		0.014	0.0014	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-207	0.0090	J	0.014	0.0010	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-208	0.018		0.014	0.0010	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-209	0.042		0.014	0.0011	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-21	0.044	C B	0.028	0.00055	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-22	0.019		0.014	0.00058	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-23	ND		0.014	0.00057	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-24	0.00090	J q	0.014	0.00017	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-25	0.011	J	0.014	0.00052	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-26	0.015	J C	0.028	0.00055	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-27	0.019		0.014	0.00015	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-28	0.13	B C20	0.028	0.00056	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-29	0.015	J C26	0.028	0.00055	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-3	0.0033	J	0.014	0.00023	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-30	0.050	C18	0.028	0.00018	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-31	0.072	B	0.028	0.00055	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-32	0.051	B	0.014	0.00014	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-33	0.044	B C21	0.028	0.00055	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-34	0.0013	J	0.014	0.00059	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-35	ND		0.014	0.00058	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-36	ND		0.014	0.00056	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-37	0.022		0.014	0.00057	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-38	ND		0.014	0.00060	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-39	ND		0.014	0.00054	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-4	0.12		0.028	0.0018	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1

Client Sample ID: F1-0to23-101418
Date Collected: 10/14/18 11:08
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-4
Matrix: Solid
Percent Solids: 72.1

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-40	0.095	C	0.042	0.0019	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-41	0.095	C40	0.042	0.0019	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-42	0.041		0.014	0.0019	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-43	0.011	J C q	0.028	0.0018	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-44	0.41	C B	0.042	0.0017	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-45	0.10	C	0.028	0.0020	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-46	0.013	J	0.014	0.0024	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-47	0.41	B C44	0.042	0.0017	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-48	0.019	q	0.014	0.0019	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-49	0.24	C	0.028	0.0016	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-5	ND		0.014	0.0014	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-50	0.071	C	0.028	0.0019	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-51	0.10	C45	0.028	0.0020	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-52	0.65		0.014	0.0019	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-53	0.071	C50	0.028	0.0019	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-54	0.017		0.014	0.000070	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-55	0.0027	J q	0.014	0.0014	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-56	0.070	B	0.014	0.0014	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-57	ND		0.014	0.0014	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-58	ND		0.014	0.0014	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-59	0.019	J C	0.042	0.0014	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-6	0.012	J q	0.014	0.0013	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-60	0.022		0.014	0.0014	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-61	0.49	C	0.055	0.0013	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-62	0.019	J C59	0.042	0.0014	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-63	0.0084	J	0.014	0.0013	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-64	0.084		0.014	0.0013	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-65	0.41	B C44	0.042	0.0017	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-66	0.22		0.014	0.0013	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-67	ND		0.014	0.0012	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-68	0.0056	J	0.014	0.0013	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-69	0.24	C49	0.028	0.0016	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-7	0.0052	J q	0.014	0.0013	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-70	0.49	C61	0.055	0.0013	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-71	0.095	C40	0.042	0.0019	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-72	0.0079	J	0.014	0.0014	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-73	0.011	J C43 q	0.028	0.0018	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-74	0.49	C61	0.055	0.0013	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-75	0.019	J C59	0.042	0.0014	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-76	0.49	C61	0.055	0.0013	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-77	0.020		0.014	0.0014	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-78	ND		0.014	0.0014	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-79	0.0066	J q	0.014	0.0012	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-8	0.070		0.028	0.0012	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-80	ND		0.014	0.0012	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-81	ND		0.014	0.0013	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-82	0.14		0.014	0.00018	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-83	0.76	C B	0.028	0.00017	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-84	0.37	B	0.014	0.00018	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1

Client Sample ID: F1-0to23-101418
Date Collected: 10/14/18 11:08
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-4
Matrix: Solid
Percent Solids: 72.1

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-85	0.18	C	0.042	0.00013	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-86	0.84	C B	0.083	0.00014	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-87	0.84	B C86	0.083	0.00014	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-88	0.22	C	0.028	0.00016	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-89	ND		0.014	0.00018	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-9	0.0023	J q	0.014	0.0013	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-90	1.5	C B	0.042	0.00014	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-91	0.22	C88	0.028	0.00016	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-92	0.28		0.014	0.00016	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-93	0.049	C	0.028	0.00016	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-94	ND		0.014	0.00018	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-95	1.3		0.014	0.00017	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-96	0.013	J	0.014	0.00013	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-97	0.84	B C86	0.083	0.00014	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-98	0.047	C	0.028	0.00015	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
PCB-99	0.76	C83 B	0.028	0.00017	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
Polychlorinated biphenyls, Total	24	B q	0.083	0.00090	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
Total Monochlorobiphenyls	0.014	q	0.014	0.00021	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
Total Dichlorobiphenyls	0.23	B q	0.028	0.0013	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
Total Trichlorobiphenyls	0.60	B q	0.028	0.00043	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
Total Tetrachlorobiphenyls	2.6	B q	0.055	0.0015	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
Total Pentachlorobiphenyls	9.0	B q	0.083	0.00054	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
Total Hexachlorobiphenyls	7.8	B q	0.055	0.0015	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
Total Heptachlorobiphenyls	2.9	B	0.028	0.00019	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
Total Octachlorobiphenyls	0.61	B q	0.028	0.00037	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1
Total Nonachlorobiphenyls	0.097		0.014	0.0011	ng/g	☼	11/08/18 10:39	11/13/18 16:04	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
PCB-104L	*79*		*30 - 140*	*11/08/18 10:39*	*11/13/18 16:04*	*1*
PCB-105L	*89*		*30 - 140*	*11/08/18 10:39*	*11/13/18 16:04*	*1*
PCB-114L	*88*		*30 - 140*	*11/08/18 10:39*	*11/13/18 16:04*	*1*
PCB-118L	*88*		*30 - 140*	*11/08/18 10:39*	*11/13/18 16:04*	*1*
PCB-123L	*86*		*30 - 140*	*11/08/18 10:39*	*11/13/18 16:04*	*1*
PCB-126L	*86*		*30 - 140*	*11/08/18 10:39*	*11/13/18 16:04*	*1*
PCB-155L	*83*		*30 - 140*	*11/08/18 10:39*	*11/13/18 16:04*	*1*
PCB-156L	*88*	*C*	*30 - 140*	*11/08/18 10:39*	*11/13/18 16:04*	*1*
PCB-157L	*88*	*C156*	*30 - 140*	*11/08/18 10:39*	*11/13/18 16:04*	*1*
PCB-15L	*78*		*30 - 140*	*11/08/18 10:39*	*11/13/18 16:04*	*1*
PCB-167L	*89*		*30 - 140*	*11/08/18 10:39*	*11/13/18 16:04*	*1*
PCB-169L	*92*		*30 - 140*	*11/08/18 10:39*	*11/13/18 16:04*	*1*
PCB-170L	*86*		*30 - 140*	*11/08/18 10:39*	*11/13/18 16:04*	*1*
PCB-188L	*87*		*30 - 140*	*11/08/18 10:39*	*11/13/18 16:04*	*1*
PCB-189L	*80*		*30 - 140*	*11/08/18 10:39*	*11/13/18 16:04*	*1*
PCB-19L	*88*		*30 - 140*	*11/08/18 10:39*	*11/13/18 16:04*	*1*
PCB-1L	*66*		*30 - 140*	*11/08/18 10:39*	*11/13/18 16:04*	*1*
PCB-202L	*100*		*30 - 140*	*11/08/18 10:39*	*11/13/18 16:04*	*1*
PCB-205L	*76*		*30 - 140*	*11/08/18 10:39*	*11/13/18 16:04*	*1*
PCB-206L	*88*		*30 - 140*	*11/08/18 10:39*	*11/13/18 16:04*	*1*
PCB-208L	*87*		*30 - 140*	*11/08/18 10:39*	*11/13/18 16:04*	*1*
PCB-209L	*90*		*30 - 140*	*11/08/18 10:39*	*11/13/18 16:04*	*1*

Client Sample ID: F1-0to23-101418
Date Collected: 10/14/18 11:08
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-4
Matrix: Solid
Percent Solids: 72.1

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-37L	88		30 - 140	11/08/18 10:39	11/13/18 16:04	1
PCB-3L	67		30 - 140	11/08/18 10:39	11/13/18 16:04	1
PCB-4L	79		30 - 140	11/08/18 10:39	11/13/18 16:04	1
PCB-54L	58		30 - 140	11/08/18 10:39	11/13/18 16:04	1
PCB-77L	88		30 - 140	11/08/18 10:39	11/13/18 16:04	1
PCB-81L	86		30 - 140	11/08/18 10:39	11/13/18 16:04	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	11		0.25	0.051	mg/Kg	☼	11/02/18 12:26	11/05/18 14:36	5
Cadmium	0.16	J	0.20	0.039	mg/Kg	☼	11/02/18 12:26	11/05/18 14:36	5
Copper	180		0.51	0.11	mg/Kg	☼	11/02/18 12:26	11/05/18 14:36	5
Lead	16		0.25	0.024	mg/Kg	☼	11/02/18 12:26	11/05/18 14:36	5
Zinc	200		2.5	0.81	mg/Kg	☼	11/02/18 12:26	11/05/18 14:36	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.036		0.036	0.011	mg/Kg	☼	10/31/18 10:53	10/31/18 13:15	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	2900	B	2000	44	mg/Kg			11/01/18 10:45	1
Total Solids	72.1		0.1	0.1	%			11/01/18 11:09	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Clay	1.7				%			10/29/18 09:33	1
Coarse Sand	0.8				%			10/29/18 09:33	1
Fine Sand	63.7				%			10/29/18 09:33	1
Gravel	2.4				%			10/29/18 09:33	1
Medium Sand	29.7				%			10/29/18 09:33	1
Silt	1.7				%			10/29/18 09:33	1

Method: D854 - Specific Gravity

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Density	1.85		0.0100	0.0100	g/cm3			11/16/18 00:00	1
Specific Gravity	1.86		0.0100	0.0100	NONE			11/16/18 00:00	1

Client Sample ID: B1-0to20-101418
Date Collected: 10/14/18 12:58
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-6
Matrix: Solid
Percent Solids: 71.9

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	21	J	69	17	mg/Kg	☼	10/27/18 20:36	11/04/18 19:48	1
Motor Oil (>C24-C36)	120		69	24	mg/Kg	☼	10/27/18 20:36	11/04/18 19:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*96*		*50 - 150*	*10/27/18 20:36*	*11/04/18 19:48*	*1*

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3,4,6,7,8-HpCDD	0.046	B	0.0035	0.00079	ug/Kg	☼	11/02/18 16:40	11/08/18 13:02	1
1,2,3,4,6,7,8-HpCDF	0.010	B	0.0035	0.00023	ug/Kg	☼	11/02/18 16:40	11/08/18 13:02	1
1,2,3,4,7,8,9-HpCDF	0.00054	J B q	0.0035	0.00025	ug/Kg	☼	11/02/18 16:40	11/08/18 13:02	1
1,2,3,4,7,8-HxCDD	0.00029	J q	0.0035	0.000073	ug/Kg	☼	11/02/18 16:40	11/08/18 13:02	1
1,2,3,4,7,8-HxCDF	0.00076	J B	0.0035	0.000078	ug/Kg	☼	11/02/18 16:40	11/08/18 13:02	1
1,2,3,6,7,8-HxCDD	0.0016	J	0.0035	0.000076	ug/Kg	☼	11/02/18 16:40	11/08/18 13:02	1
1,2,3,6,7,8-HxCDF	0.00041	J B	0.0035	0.000078	ug/Kg	☼	11/02/18 16:40	11/08/18 13:02	1
1,2,3,7,8,9-HxCDD	0.00086	J B	0.0035	0.000062	ug/Kg	☼	11/02/18 16:40	11/08/18 13:02	1
1,2,3,7,8,9-HxCDF	0.00013	J B	0.0035	0.000062	ug/Kg	☼	11/02/18 16:40	11/08/18 13:02	1
1,2,3,7,8-PeCDD	ND		0.0035	0.000067	ug/Kg	☼	11/02/18 16:40	11/08/18 13:02	1
1,2,3,7,8-PeCDF	0.00016	J q	0.0035	0.000093	ug/Kg	☼	11/02/18 16:40	11/08/18 13:02	1
2,3,4,6,7,8-HxCDF	0.00017	J q	0.0035	0.000059	ug/Kg	☼	11/02/18 16:40	11/08/18 13:02	1
2,3,4,7,8-PeCDF	0.00018	J q	0.0035	0.000098	ug/Kg	☼	11/02/18 16:40	11/08/18 13:02	1
2,3,7,8-TCDD	0.00023	J B q	0.00070	0.000059	ug/Kg	☼	11/02/18 16:40	11/08/18 13:02	1
2,3,7,8-TCDF	0.00043	J B	0.00070	0.000042	ug/Kg	☼	11/02/18 16:40	11/08/18 13:02	1
OCDD	0.40	B	0.0070	0.00037	ug/Kg	☼	11/02/18 16:40	11/08/18 13:02	1
OCDF	0.047	B	0.0070	0.000069	ug/Kg	☼	11/02/18 16:40	11/08/18 13:02	1
Total HpCDD	0.11	B	0.0035	0.00079	ug/Kg	☼	11/02/18 16:40	11/08/18 13:02	1
Total HpCDF	0.050	B q	0.0035	0.00024	ug/Kg	☼	11/02/18 16:40	11/08/18 13:02	1
Total HxCDD	0.012	B q	0.0035	0.000070	ug/Kg	☼	11/02/18 16:40	11/08/18 13:02	1
Total HxCDF	0.012	B q	0.0035	0.000069	ug/Kg	☼	11/02/18 16:40	11/08/18 13:02	1
Total PeCDD	0.00099	J q	0.0035	0.000067	ug/Kg	☼	11/02/18 16:40	11/08/18 13:02	1
Total PeCDF	0.0028	J B q	0.0035	0.000096	ug/Kg	☼	11/02/18 16:40	11/08/18 13:02	1
Total TCDF	0.0013	B q	0.00070	0.000042	ug/Kg	☼	11/02/18 16:40	11/08/18 13:02	1
Total TCDD	0.00061	J B q	0.00070	0.000059	ug/Kg	☼	11/02/18 16:40	11/08/18 13:02	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-1,2,3,4,6,7,8-HpCDD	*54*		*23 - 140*	*11/02/18 16:40*	*11/08/18 13:02*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*48*		*28 - 143*	*11/02/18 16:40*	*11/08/18 13:02*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*58*		*26 - 138*	*11/02/18 16:40*	*11/08/18 13:02*	*1*
13C-1,2,3,4,7,8-HxCDD	*60*		*32 - 141*	*11/02/18 16:40*	*11/08/18 13:02*	*1*
13C-1,2,3,4,7,8-HxCDF	*62*		*26 - 152*	*11/02/18 16:40*	*11/08/18 13:02*	*1*
13C-1,2,3,6,7,8-HxCDD	*56*		*28 - 130*	*11/02/18 16:40*	*11/08/18 13:02*	*1*
13C-1,2,3,6,7,8-HxCDF	*59*		*26 - 123*	*11/02/18 16:40*	*11/08/18 13:02*	*1*
13C-1,2,3,7,8,9-HxCDF	*60*		*29 - 147*	*11/02/18 16:40*	*11/08/18 13:02*	*1*
13C-1,2,3,7,8-PeCDD	*56*		*25 - 181*	*11/02/18 16:40*	*11/08/18 13:02*	*1*
13C-1,2,3,7,8-PeCDF	*57*		*24 - 185*	*11/02/18 16:40*	*11/08/18 13:02*	*1*
13C-2,3,4,6,7,8-HxCDF	*63*		*28 - 136*	*11/02/18 16:40*	*11/08/18 13:02*	*1*
13C-2,3,4,7,8-PeCDF	*61*		*21 - 178*	*11/02/18 16:40*	*11/08/18 13:02*	*1*
13C-2,3,7,8-TCDD	*62*		*25 - 164*	*11/02/18 16:40*	*11/08/18 13:02*	*1*
13C-2,3,7,8-TCDF	*68*		*24 - 169*	*11/02/18 16:40*	*11/08/18 13:02*	*1*
13C-OCDD	*48*		*17 - 157*	*11/02/18 16:40*	*11/08/18 13:02*	*1*

Client Sample ID: B1-0to20-101418
Date Collected: 10/14/18 12:58
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-6
Matrix: Solid
Percent Solids: 71.9

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
37Cl4-2,3,7,8-TCDD	*100*		*35 - 197*	*11/02/18 16:40*	*11/08/18 13:02*	*1*

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	**0.016**		0.014	0.00021	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-10	ND		0.014	0.0014	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-100	**0.038**	**C93**	0.028	0.00021	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-101	**0.95**	**B C90**	0.041	0.00018	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-102	**0.024**	**J C98 q**	0.028	0.00020	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-103	**0.022**		0.014	0.00021	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-104	ND		0.014	0.00016	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-105	**0.22**		0.014	0.0011	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-106	ND		0.014	0.0011	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-107	**0.053**		0.014	0.0012	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-108	**0.025**	**J C**	0.028	0.0012	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-109	**0.54**	**B C86**	0.083	0.00018	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-11	**0.010**	**J B**	0.028	0.0012	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-110	**1.0**	**C B**	0.028	0.00015	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-111	ND		0.014	0.00015	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-112	ND		0.014	0.00016	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-113	**0.95**	**B C90**	0.041	0.00018	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-114	**0.013**	**J**	0.014	0.0011	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-115	**1.0**	**B C110**	0.028	0.00015	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-116	**0.12**	**C85**	0.041	0.00018	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-117	**0.12**	**C85**	0.041	0.00018	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-118	**0.63**		0.014	0.0011	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-119	**0.54**	**B C86**	0.083	0.00018	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-12	**0.0016**	**J C q**	0.028	0.0013	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-120	**0.0044**	**J q**	0.014	0.00015	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-121	ND		0.014	0.00016	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-122	**0.0097**	**J q**	0.014	0.0013	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-123	**0.0093**	**J q**	0.014	0.0011	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-124	**0.025**	**J C108**	0.028	0.0012	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-125	**0.54**	**B C86**	0.083	0.00018	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-126	**0.0028**	**J q**	0.014	0.0012	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-127	ND		0.014	0.0011	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-128	**0.17**	**C**	0.028	0.0019	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-129	**1.3**	**C B**	0.055	0.0020	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-13	**0.0016**	**J C12 q**	0.028	0.0013	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-130	**0.080**		0.014	0.0026	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-131	**0.021**		0.014	0.0028	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-132	**0.45**		0.014	0.0026	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-133	**0.025**		0.014	0.0025	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-134	**0.086**	**C**	0.028	0.0026	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-135	**0.47**	**C**	0.028	0.00029	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-136	**0.18**		0.014	0.00021	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-137	**0.050**		0.014	0.0023	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-138	**1.3**	**B C129**	0.055	0.0020	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-139	**0.024**	**J C**	0.028	0.0022	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-14	ND		0.014	0.0011	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1

Client Sample ID: B1-0to20-101418
Date Collected: 10/14/18 12:58
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-6
Matrix: Solid
Percent Solids: 71.9

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-140	0.024	J C139	0.028	0.0022	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-141	0.23		0.014	0.0023	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-142	ND		0.014	0.0025	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-143	0.086	C134	0.028	0.0026	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-144	0.064		0.014	0.00026	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-145	0.00059	J q	0.014	0.00020	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-146	0.22		0.014	0.0022	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-147	1.2	C	0.028	0.0025	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-148	0.0044	J q	0.014	0.00028	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-149	1.2	C147	0.028	0.0025	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-15	0.011	J q	0.014	0.0013	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-150	0.0047	J q	0.014	0.00019	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-151	0.47	C135	0.028	0.00029	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-152	0.0020	J q	0.014	0.00020	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-153	1.0	C	0.028	0.0017	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-154	0.026	q	0.014	0.00022	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-155	ND		0.014	0.00019	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-156	0.13	C	0.028	0.0023	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-157	0.13	C156	0.028	0.0023	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-158	0.13		0.014	0.0016	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-159	0.0095	J	0.014	0.0017	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-16	0.0069	J q	0.014	0.00039	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-160	1.3	B C129	0.055	0.0020	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-161	ND		0.014	0.0017	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-162	ND		0.014	0.0016	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-163	1.3	B C129	0.055	0.0020	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-164	0.090		0.014	0.0018	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-165	ND		0.014	0.0019	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-166	0.17	C128	0.028	0.0019	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-167	0.048		0.014	0.0012	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-168	1.0	C153	0.028	0.0017	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-169	ND		0.014	0.0012	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-17	0.021		0.014	0.00035	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-170	0.35	B	0.014	0.00052	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-171	0.12	C	0.028	0.00052	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-172	0.061		0.014	0.00051	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-173	0.12	C171	0.028	0.00052	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-174	0.33		0.014	0.00048	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-175	0.018		0.014	0.00047	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-176	0.046		0.014	0.00035	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-177	0.19		0.014	0.00050	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-178	0.070		0.014	0.00051	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-179	0.14	B	0.014	0.00037	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-18	0.019	J C	0.028	0.00031	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-180	0.73	C B	0.028	0.00039	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-181	0.0063	J	0.014	0.00047	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-182	0.0048	J q	0.014	0.00045	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-183	0.27	C B	0.028	0.00046	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-184	ND		0.014	0.00038	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1

Client Sample ID: B1-0to20-101418
Date Collected: 10/14/18 12:58
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-6
Matrix: Solid
Percent Solids: 71.9

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-185	**0.27**	**B C183**	0.028	0.00046	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-186	ND		0.014	0.00037	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-187	**0.40**		0.014	0.00043	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-188	ND		0.014	0.00033	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-189	**0.016**		0.014	0.00088	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-19	**0.019**	**q**	0.014	0.00043	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-190	**0.070**		0.014	0.00034	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-191	**0.020**		0.014	0.00035	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-192	ND		0.014	0.00039	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-193	**0.73**	**C180 B**	0.028	0.00039	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-194	**0.16**		0.014	0.0012	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-195	**0.069**		0.014	0.0013	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-196	**0.093**		0.014	0.00061	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-197	**0.0093**	**J B**	0.014	0.00047	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-198	**0.16**	**C**	0.028	0.00062	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-199	**0.16**	**C198**	0.028	0.00062	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-2	**0.0020**	**J q**	0.014	0.00024	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-20	**0.033**	**C B**	0.028	0.00047	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-200	**0.020**		0.014	0.00041	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-201	**0.021**		0.014	0.00042	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-202	**0.030**		0.014	0.00048	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-203	**0.12**		0.014	0.00055	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-204	ND		0.014	0.00047	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-205	**0.011**	**J**	0.014	0.00098	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-206	**0.070**		0.014	0.0019	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-207	**0.0088**	**J**	0.014	0.0014	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-208	**0.016**		0.014	0.0015	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-209	**0.18**		0.014	0.0011	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-21	**0.019**	**J C B**	0.028	0.00046	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-22	**0.0083**	**J**	0.014	0.00048	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-23	ND		0.014	0.00048	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-24	ND		0.014	0.00029	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-25	**0.0037**	**J**	0.014	0.00043	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-26	**0.0053**	**J C**	0.028	0.00046	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-27	**0.0051**	**J**	0.014	0.00025	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-28	**0.033**	**B C20**	0.028	0.00047	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-29	**0.0053**	**J C26**	0.028	0.00046	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-3	**0.0077**	**J**	0.014	0.00027	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-30	**0.019**	**J C18**	0.028	0.00031	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-31	**0.022**	**J B**	0.028	0.00046	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-32	**0.016**	**B**	0.014	0.00024	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-33	**0.019**	**J B C21**	0.028	0.00046	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-34	ND		0.014	0.00050	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-35	**0.0012**	**J**	0.014	0.00048	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-36	ND		0.014	0.00046	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-37	**0.0099**	**J q**	0.014	0.00048	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-38	ND		0.014	0.00050	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-39	ND		0.014	0.00045	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-4	**0.010**	**J**	0.028	0.0017	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1

Client Sample ID: B1-0to20-101418
Date Collected: 10/14/18 12:58
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-6
Matrix: Solid
Percent Solids: 71.9

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-40	0.039	J C q	0.041	0.0011	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-41	0.039	J q C40	0.041	0.0011	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-42	0.020		0.014	0.0011	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-43	0.0078	J C q	0.028	0.0011	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-44	0.23	C B	0.041	0.0010	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-45	0.067	C	0.028	0.0012	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-46	0.0069	J	0.014	0.0014	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-47	0.23	B C44	0.041	0.0010	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-48	0.0096	J	0.014	0.0011	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-49	0.12	C	0.028	0.00092	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-5	ND		0.014	0.0014	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-50	0.043	C	0.028	0.0011	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-51	0.067	C45	0.028	0.0012	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-52	0.36		0.014	0.0011	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-53	0.043	C50	0.028	0.0011	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-54	0.013	J	0.014	0.00017	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-55	0.0016	J q	0.014	0.00082	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-56	0.031	B	0.014	0.00082	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-57	ND		0.014	0.00084	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-58	ND		0.014	0.00085	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-59	0.011	J C	0.041	0.00080	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-6	0.0033	J q	0.014	0.0013	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-60	0.011	J	0.014	0.00084	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-61	0.25	C	0.055	0.00079	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-62	0.011	J C59	0.041	0.00080	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-63	0.0041	J q	0.014	0.00077	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-64	0.041		0.014	0.00076	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-65	0.23	B C44	0.041	0.0010	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-66	0.10		0.014	0.00078	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-67	ND		0.014	0.00072	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-68	0.0035	J	0.014	0.00074	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-69	0.12	C49	0.028	0.00092	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-7	ND		0.014	0.0013	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-70	0.25	C61	0.055	0.00079	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-71	0.039	J q C40	0.041	0.0011	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-72	0.0037	J	0.014	0.00082	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-73	0.0078	J C43 q	0.028	0.0011	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-74	0.25	C61	0.055	0.00079	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-75	0.011	J C59	0.041	0.00080	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-76	0.25	C61	0.055	0.00079	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-77	0.012	J	0.014	0.00081	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-78	ND		0.014	0.00085	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-79	0.0051	J	0.014	0.00073	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-8	0.011	J q	0.028	0.0012	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-80	ND		0.014	0.00072	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-81	ND		0.014	0.00076	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-82	0.10		0.014	0.00024	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-83	0.49	C B	0.028	0.00022	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-84	0.25	B	0.014	0.00025	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1

Client Sample ID: B1-0to20-101418
Date Collected: 10/14/18 12:58
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-6
Matrix: Solid
Percent Solids: 71.9

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-85	0.12	C	0.041	0.00018	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-86	0.54	C B	0.083	0.00018	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-87	0.54	B C86	0.083	0.00018	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-88	0.14	C	0.028	0.00022	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-89	ND		0.014	0.00024	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-9	0.0018	J q	0.014	0.0013	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-90	0.95	C B	0.041	0.00018	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-91	0.14	C88	0.028	0.00022	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-92	0.18		0.014	0.00021	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-93	0.038	C	0.028	0.00021	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-94	0.011	J	0.014	0.00024	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-95	0.88		0.014	0.00023	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-96	0.0089	J	0.014	0.00018	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-97	0.54	B C86	0.083	0.00018	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-98	0.024	J C q	0.028	0.00020	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
PCB-99	0.49	C83 B	0.028	0.00022	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
Polychlorinated biphenyls, Total	17	B q	0.083	0.00094	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
Total Monochlorobiphenyls	0.026	q	0.014	0.00024	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
Total Dichlorobiphenyls	0.049	B q	0.028	0.0013	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
Total Trichlorobiphenyls	0.19	B q	0.028	0.00042	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
Total Tetrachlorobiphenyls	1.4	B q	0.055	0.00088	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
Total Pentachlorobiphenyls	5.7	B q	0.083	0.00051	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
Total Hexachlorobiphenyls	6.0	B q	0.055	0.0016	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
Total Heptachlorobiphenyls	2.8	B q	0.028	0.00045	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
Total Octachlorobiphenyls	0.69	B	0.028	0.00068	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1
Total Nonachlorobiphenyls	0.095		0.014	0.0016	ng/g	☼	11/08/18 10:39	11/13/18 17:05	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
PCB-104L	*70*		*30 - 140*	*11/08/18 10:39*	*11/13/18 17:05*	*1*
PCB-105L	*79*		*30 - 140*	*11/08/18 10:39*	*11/13/18 17:05*	*1*
PCB-114L	*78*		*30 - 140*	*11/08/18 10:39*	*11/13/18 17:05*	*1*
PCB-118L	*78*		*30 - 140*	*11/08/18 10:39*	*11/13/18 17:05*	*1*
PCB-123L	*78*		*30 - 140*	*11/08/18 10:39*	*11/13/18 17:05*	*1*
PCB-126L	*77*		*30 - 140*	*11/08/18 10:39*	*11/13/18 17:05*	*1*
PCB-155L	*75*		*30 - 140*	*11/08/18 10:39*	*11/13/18 17:05*	*1*
PCB-156L	*79*	*C*	*30 - 140*	*11/08/18 10:39*	*11/13/18 17:05*	*1*
PCB-157L	*79*	*C156*	*30 - 140*	*11/08/18 10:39*	*11/13/18 17:05*	*1*
PCB-15L	*71*		*30 - 140*	*11/08/18 10:39*	*11/13/18 17:05*	*1*
PCB-167L	*79*		*30 - 140*	*11/08/18 10:39*	*11/13/18 17:05*	*1*
PCB-169L	*85*		*30 - 140*	*11/08/18 10:39*	*11/13/18 17:05*	*1*
PCB-170L	*76*		*30 - 140*	*11/08/18 10:39*	*11/13/18 17:05*	*1*
PCB-188L	*78*		*30 - 140*	*11/08/18 10:39*	*11/13/18 17:05*	*1*
PCB-189L	*72*		*30 - 140*	*11/08/18 10:39*	*11/13/18 17:05*	*1*
PCB-19L	*77*		*30 - 140*	*11/08/18 10:39*	*11/13/18 17:05*	*1*
PCB-1L	*56*		*30 - 140*	*11/08/18 10:39*	*11/13/18 17:05*	*1*
PCB-202L	*90*		*30 - 140*	*11/08/18 10:39*	*11/13/18 17:05*	*1*
PCB-205L	*67*		*30 - 140*	*11/08/18 10:39*	*11/13/18 17:05*	*1*
PCB-206L	*79*		*30 - 140*	*11/08/18 10:39*	*11/13/18 17:05*	*1*
PCB-208L	*77*		*30 - 140*	*11/08/18 10:39*	*11/13/18 17:05*	*1*
PCB-209L	*80*		*30 - 140*	*11/08/18 10:39*	*11/13/18 17:05*	*1*

Client Sample ID: B1-0to20-101418
Date Collected: 10/14/18 12:58
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-6
Matrix: Solid
Percent Solids: 71.9

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-37L	78		30 - 140	11/08/18 10:39	11/13/18 17:05	1
PCB-3L	57		30 - 140	11/08/18 10:39	11/13/18 17:05	1
PCB-4L	70		30 - 140	11/08/18 10:39	11/13/18 17:05	1
PCB-54L	56		30 - 140	11/08/18 10:39	11/13/18 17:05	1
PCB-77L	79		30 - 140	11/08/18 10:39	11/13/18 17:05	1
PCB-81L	78		30 - 140	11/08/18 10:39	11/13/18 17:05	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	5.3		0.19	0.038	mg/Kg	☼	11/02/18 12:26	11/05/18 14:40	5
Cadmium	0.089	J	0.15	0.029	mg/Kg	☼	11/02/18 12:26	11/05/18 14:40	5
Copper	25		0.38	0.083	mg/Kg	☼	11/02/18 12:26	11/05/18 14:40	5
Lead	11		0.19	0.018	mg/Kg	☼	11/02/18 12:26	11/05/18 14:40	5
Zinc	90		1.9	0.61	mg/Kg	☼	11/02/18 12:26	11/05/18 14:40	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.042		0.029	0.0087	mg/Kg	☼	10/31/18 10:53	10/31/18 13:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	3000	B	2000	44	mg/Kg			11/01/18 11:13	1
Total Solids	71.9		0.1	0.1	%			11/01/18 11:09	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Clay	1.8				%			10/29/18 09:33	1
Coarse Sand	2.6				%			10/29/18 09:33	1
Fine Sand	64.0				%			10/29/18 09:33	1
Gravel	2.2				%			10/29/18 09:33	1
Medium Sand	26.1				%			10/29/18 09:33	1
Silt	3.3				%			10/29/18 09:33	1

Method: D854 - Specific Gravity

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Density	1.67		0.0100	0.0100	g/cm3			11/16/18 00:00	1
Specific Gravity	1.67		0.0100	0.0100	NONE			11/16/18 00:00	1

Client Sample ID: J1-0to20-101318
Date Collected: 10/13/18 17:11
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-12
Matrix: Solid
Percent Solids: 74.3

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	46	J	67	17	mg/Kg	☼	10/27/18 20:36	11/04/18 20:08	1
Motor Oil (>C24-C36)	230		67	23	mg/Kg	☼	10/27/18 20:36	11/04/18 20:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*107*		*50 - 150*	*10/27/18 20:36*	*11/04/18 20:08*	*1*

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3,4,6,7,8-HpCDD	0.031	B	0.0034	0.00088	ug/Kg	☼	10/18/18 14:49	10/24/18 03:07	1
1,2,3,4,6,7,8-HpCDF	0.0079	B	0.0034	0.00039	ug/Kg	☼	10/18/18 14:49	10/24/18 03:07	1
1,2,3,4,7,8,9-HpCDF	0.0010	J B	0.0034	0.00054	ug/Kg	☼	10/18/18 14:49	10/24/18 03:07	1
1,2,3,4,7,8-HxCDD	0.00044	J B	0.0034	0.000070	ug/Kg	☼	10/18/18 14:49	10/24/18 03:07	1
1,2,3,4,7,8-HxCDF	0.00080	J B	0.0034	0.00011	ug/Kg	☼	10/18/18 14:49	10/24/18 03:07	1
1,2,3,6,7,8-HxCDD	0.0011	J B	0.0034	0.000062	ug/Kg	☼	10/18/18 14:49	10/24/18 03:07	1
1,2,3,6,7,8-HxCDF	0.00034	J q B	0.0034	0.00010	ug/Kg	☼	10/18/18 14:49	10/24/18 03:07	1
1,2,3,7,8,9-HxCDD	0.00083	J q B	0.0034	0.000058	ug/Kg	☼	10/18/18 14:49	10/24/18 03:07	1
1,2,3,7,8,9-HxCDF	0.00059	J B	0.0034	0.00010	ug/Kg	☼	10/18/18 14:49	10/24/18 03:07	1
1,2,3,7,8-PeCDD	0.00019	J q	0.0034	0.000056	ug/Kg	☼	10/18/18 14:49	10/24/18 03:07	1
1,2,3,7,8-PeCDF	0.00014	J q B	0.0034	0.000062	ug/Kg	☼	10/18/18 14:49	10/24/18 03:07	1
2,3,4,6,7,8-HxCDF	ND		0.0034	0.000092	ug/Kg	☼	10/18/18 14:49	10/24/18 03:07	1
2,3,4,7,8-PeCDF	0.00018	J q	0.0034	0.000066	ug/Kg	☼	10/18/18 14:49	10/24/18 03:07	1
2,3,7,8-TCDD	ND		0.00067	0.000036	ug/Kg	☼	10/18/18 14:49	10/24/18 03:07	1
2,3,7,8-TCDF	0.00020	J q B	0.00067	0.000029	ug/Kg	☼	10/18/18 14:49	10/24/18 03:07	1
OCDD	0.26	B	0.0067	0.00089	ug/Kg	☼	10/18/18 14:49	10/24/18 03:07	1
OCDF	0.031	B	0.0067	0.00013	ug/Kg	☼	10/18/18 14:49	10/24/18 03:07	1
Total HpCDD	0.064	B	0.0034	0.00088	ug/Kg	☼	10/18/18 14:49	10/24/18 03:07	1
Total HpCDF	0.033	B	0.0034	0.00046	ug/Kg	☼	10/18/18 14:49	10/24/18 03:07	1
Total HxCDD	0.0073	q B	0.0034	0.000063	ug/Kg	☼	10/18/18 14:49	10/24/18 03:07	1
Total HxCDF	0.0095	q B	0.0034	0.00010	ug/Kg	☼	10/18/18 14:49	10/24/18 03:07	1
Total PeCDD	0.00051	J q	0.0034	0.000056	ug/Kg	☼	10/18/18 14:49	10/24/18 03:07	1
Total PeCDF	0.0023	J q B	0.0034	0.000064	ug/Kg	☼	10/18/18 14:49	10/24/18 03:07	1
Total TCDF	0.00060	J q B	0.00067	0.000029	ug/Kg	☼	10/18/18 14:49	10/24/18 03:07	1
Total TCDD	0.000048	J	0.00067	0.000036	ug/Kg	☼	10/18/18 14:49	10/24/18 03:07	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-1,2,3,4,6,7,8-HpCDD	*62*		*23 - 140*	*10/18/18 14:49*	*10/24/18 03:07*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*56*		*28 - 143*	*10/18/18 14:49*	*10/24/18 03:07*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*60*		*26 - 138*	*10/18/18 14:49*	*10/24/18 03:07*	*1*
13C-1,2,3,4,7,8-HxCDD	*58*		*32 - 141*	*10/18/18 14:49*	*10/24/18 03:07*	*1*
13C-1,2,3,4,7,8-HxCDF	*59*		*26 - 152*	*10/18/18 14:49*	*10/24/18 03:07*	*1*
13C-1,2,3,6,7,8-HxCDD	*59*		*28 - 130*	*10/18/18 14:49*	*10/24/18 03:07*	*1*
13C-1,2,3,6,7,8-HxCDF	*59*		*26 - 123*	*10/18/18 14:49*	*10/24/18 03:07*	*1*
13C-1,2,3,7,8,9-HxCDF	*60*		*29 - 147*	*10/18/18 14:49*	*10/24/18 03:07*	*1*
13C-1,2,3,7,8-PeCDD	*56*		*25 - 181*	*10/18/18 14:49*	*10/24/18 03:07*	*1*
13C-1,2,3,7,8-PeCDF	*56*		*24 - 185*	*10/18/18 14:49*	*10/24/18 03:07*	*1*
13C-2,3,4,6,7,8-HxCDF	*60*		*28 - 136*	*10/18/18 14:49*	*10/24/18 03:07*	*1*
13C-2,3,4,7,8-PeCDF	*57*		*21 - 178*	*10/18/18 14:49*	*10/24/18 03:07*	*1*
13C-2,3,7,8-TCDD	*61*		*25 - 164*	*10/18/18 14:49*	*10/24/18 03:07*	*1*
13C-2,3,7,8-TCDF	*61*		*24 - 169*	*10/18/18 14:49*	*10/24/18 03:07*	*1*
13C-OCDD	*56*		*17 - 157*	*10/18/18 14:49*	*10/24/18 03:07*	*1*

Client Sample ID: J1-0to20-101318
Date Collected: 10/13/18 17:11
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-12
Matrix: Solid
Percent Solids: 74.3

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
37Cl4-2,3,7,8-TCDD	81		35 - 197	10/18/18 14:49	10/24/18 03:07	1

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.0054	J B	0.020	0.00029	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-10	ND		0.020	0.0024	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-100	0.079	C93 B	0.040	0.00053	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-101	0.67	C90 B	0.060	0.00046	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-102	0.040	C98	0.040	0.00051	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-103	0.035		0.020	0.00053	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-104	0.0057	J q	0.020	0.00040	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-105	0.13	B	0.020	0.0021	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-106	ND		0.020	0.0022	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-107	0.038		0.020	0.0023	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-108	0.011	J q C B	0.040	0.0022	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-109	0.34	C86 B	0.12	0.00045	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-11	0.022	J q B	0.040	0.0021	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-110	0.58	C B	0.040	0.00038	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-111	ND		0.020	0.00037	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-112	ND		0.020	0.00039	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-113	0.67	C90 B	0.060	0.00046	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-114	0.0087	J q	0.020	0.0019	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-115	0.58	C110 B	0.040	0.00038	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-116	0.071	C85 B	0.060	0.00045	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-117	0.071	C85 B	0.060	0.00045	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-118	0.37	B	0.020	0.0021	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-119	0.34	C86 B	0.12	0.00045	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-12	0.0026	J q C	0.040	0.0022	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-120	0.0063	J q	0.020	0.00038	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-121	ND		0.020	0.00039	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-122	ND		0.020	0.0025	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-123	0.0071	J B	0.020	0.0022	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-124	0.011	J q C108 B	0.040	0.0022	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-125	0.34	C86 B	0.12	0.00045	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-126	0.0069	J B	0.020	0.0022	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-127	ND		0.020	0.0021	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-128	0.11	C	0.040	0.0039	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-129	0.95	C B	0.080	0.0041	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-13	0.0026	J q C12	0.040	0.0022	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-130	0.055		0.020	0.0054	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-131	ND		0.020	0.0056	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-132	0.33	B	0.020	0.0052	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-133	0.025		0.020	0.0051	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-134	0.053	C B	0.040	0.0053	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-135	0.45	C B	0.040	0.00072	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-136	0.15	B	0.020	0.00052	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-137	0.032		0.020	0.0046	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-138	0.95	C129 B	0.080	0.0041	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-139	0.020	J C	0.040	0.0045	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-14	ND		0.020	0.0019	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3

Client Sample ID: J1-0to20-101318
Date Collected: 10/13/18 17:11
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-12
Matrix: Solid
Percent Solids: 74.3

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-140	**0.020**	**J C139**	0.040	0.0045	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-141	**0.18**	**B**	0.020	0.0047	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-142	ND		0.020	0.0050	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-143	**0.053**	**C134 B**	0.040	0.0053	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-144	**0.039**		0.020	0.00065	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-145	ND		0.020	0.00049	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-146	**0.22**	**B**	0.020	0.0045	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-147	**1.0**	**C B**	0.040	0.0051	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-148	**0.0086**	**J**	0.020	0.00069	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-149	**1.0**	**C147 B**	0.040	0.0051	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-15	**0.012**	**J**	0.020	0.0024	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-150	**0.0062**	**J**	0.020	0.00047	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-151	**0.45**	**C135 B**	0.040	0.00072	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-152	**0.0030**	**J q**	0.020	0.00051	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-153	**0.89**	**C B**	0.040	0.0035	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-154	**0.045**	**B**	0.020	0.00056	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-155	ND		0.020	0.00047	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-156	**0.081**	**C B**	0.040	0.0045	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-157	**0.081**	**C156 B**	0.040	0.0045	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-158	**0.083**		0.020	0.0032	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-159	ND		0.020	0.0034	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-16	**0.0065**	**J q**	0.020	0.00040	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-160	**0.95**	**C129 B**	0.080	0.0041	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-161	ND		0.020	0.0034	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-162	ND		0.020	0.0033	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-163	**0.95**	**C129 B**	0.080	0.0041	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-164	**0.071**	**B**	0.020	0.0036	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-165	ND		0.020	0.0038	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-166	**0.11**	**C128**	0.040	0.0039	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-167	**0.013**	**J B**	0.020	0.0026	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-168	**0.89**	**C153 B**	0.040	0.0035	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-169	ND		0.020	0.0024	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-17	**0.036**	**q**	0.020	0.00036	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-170	**0.29**	**B**	0.020	0.0011	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-171	**0.088**	**C B**	0.040	0.0011	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-172	**0.045**		0.020	0.0011	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-173	**0.088**	**C171 B**	0.040	0.0011	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-174	**0.27**	**B**	0.020	0.0010	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-175	**0.011**	**J**	0.020	0.00097	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-176	**0.039**		0.020	0.00073	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-177	**0.18**	**B**	0.020	0.0010	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-178	**0.066**	**B**	0.020	0.0011	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-179	**0.14**	**B**	0.020	0.00078	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-18	**0.018**	**J q C**	0.040	0.00032	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-180	**0.58**	**C B**	0.040	0.00081	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-181	ND		0.020	0.00097	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-182	ND		0.020	0.00093	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-183	**0.20**	**C B**	0.040	0.00095	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-184	ND		0.020	0.00079	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3

Client Sample ID: J1-0to20-101318
Date Collected: 10/13/18 17:11
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-12
Matrix: Solid
Percent Solids: 74.3

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-185	**0.20**	**C183 B**	0.040	0.00095	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-186	ND		0.020	0.00077	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-187	**0.37**	**B**	0.020	0.00090	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-188	ND		0.020	0.00068	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-189	**0.011**	**J q**	0.020	0.0023	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-19	**0.061**	**q**	0.020	0.00044	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-190	**0.051**	**q B**	0.020	0.00070	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-191	**0.013**	**J q**	0.020	0.00073	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-192	ND		0.020	0.00082	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-193	**0.58**	**C180 B**	0.040	0.00081	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-194	**0.12**	**B**	0.020	0.0038	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-195	**0.042**	**q**	0.020	0.0041	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-196	**0.059**	**q B**	0.020	0.0013	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-197	**0.0050**	**J q**	0.020	0.00097	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-198	**0.12**	**C**	0.040	0.0013	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-199	**0.12**	**C198**	0.040	0.0013	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-2	ND		0.020	0.00035	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-20	**0.041**	**C B**	0.040	0.00087	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-200	**0.012**	**J q**	0.020	0.00086	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-201	**0.013**	**J q**	0.020	0.00088	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-202	**0.023**		0.020	0.00099	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-203	**0.081**	**B**	0.020	0.0011	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-204	ND		0.020	0.00097	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-205	**0.0075**	**J q**	0.020	0.0032	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-206	**0.063**		0.020	0.0049	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-207	ND		0.020	0.0034	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-208	**0.013**	**J q**	0.020	0.0034	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-209	**0.027**		0.020	0.0033	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-21	**0.019**	**J C B**	0.040	0.00085	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-22	**0.0087**	**J B**	0.020	0.00089	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-23	ND		0.020	0.00089	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-24	ND		0.020	0.00030	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-25	**0.0050**	**J q**	0.020	0.00081	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-26	**0.0039**	**J q C B**	0.040	0.00086	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-27	**0.0076**	**J q**	0.020	0.00026	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-28	**0.041**	**C20 B**	0.040	0.00087	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-29	**0.0039**	**J q C26 B**	0.040	0.00086	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-3	**0.0028**	**J q B**	0.020	0.00040	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-30	**0.018**	**J q C18**	0.040	0.00032	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-31	**0.026**	**J**	0.040	0.00085	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-32	**0.033**	**B**	0.020	0.00025	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-33	**0.019**	**J C21 B**	0.040	0.00085	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-34	ND		0.020	0.00092	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-35	ND		0.020	0.00090	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-36	ND		0.020	0.00086	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-37	**0.014**	**J q**	0.020	0.00089	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-38	ND		0.020	0.00093	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-39	ND		0.020	0.00083	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-4	**0.023**	**J q**	0.040	0.0030	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3

Client Sample ID: J1-0to20-101318
Date Collected: 10/13/18 17:11
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-12
Matrix: Solid
Percent Solids: 74.3

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-40	0.072	C	0.060	0.0028	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-41	0.072	C40	0.060	0.0028	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-42	0.022		0.020	0.0028	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-43	0.0075	J q C	0.040	0.0026	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-44	0.43	C B	0.060	0.0025	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-45	0.18	C	0.040	0.0029	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-46	ND		0.020	0.0035	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-47	0.43	C44 B	0.060	0.0025	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-48	0.0097	J q	0.020	0.0028	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-49	0.18	C	0.040	0.0023	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-5	ND		0.020	0.0025	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-50	0.092	C	0.040	0.0027	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-51	0.18	C45	0.040	0.0029	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-52	0.24		0.020	0.0028	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-53	0.092	C50	0.040	0.0027	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-54	0.034		0.020	0.00013	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-55	ND		0.020	0.0020	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-56	0.041		0.020	0.0020	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-57	ND		0.020	0.0021	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-58	ND		0.020	0.0021	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-59	0.016	J C	0.060	0.0020	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-6	0.0033	J q	0.020	0.0022	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-60	0.022		0.020	0.0021	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-61	0.20	C	0.080	0.0019	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-62	0.016	J C59	0.060	0.0020	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-63	ND		0.020	0.0019	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-64	0.038		0.020	0.0019	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-65	0.43	C44 B	0.060	0.0025	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-66	0.11		0.020	0.0019	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-67	ND		0.020	0.0018	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-68	0.0068	J q B	0.020	0.0018	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-69	0.18	C49	0.040	0.0023	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-7	ND		0.020	0.0022	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-70	0.20	C61	0.080	0.0019	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-71	0.072	C40	0.060	0.0028	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-72	ND		0.020	0.0020	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-73	0.0075	J q C43	0.040	0.0026	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-74	0.20	C61	0.080	0.0019	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-75	0.016	J C59	0.060	0.0020	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-76	0.20	C61	0.080	0.0019	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-77	0.014	J	0.020	0.0020	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-78	ND		0.020	0.0021	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-79	ND		0.020	0.0018	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-8	0.014	J	0.040	0.0020	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-80	ND		0.020	0.0018	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-81	ND		0.020	0.0018	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-82	0.048		0.020	0.00061	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-83	0.40	C	0.040	0.00055	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-84	0.13		0.020	0.00061	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3

Client Sample ID: J1-0to20-101318
Date Collected: 10/13/18 17:11
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-12
Matrix: Solid
Percent Solids: 74.3

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-85	0.071	C B	0.060	0.00045	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-86	0.34	C B	0.12	0.00045	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-87	0.34	C86 B	0.12	0.00045	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-88	0.13	C B	0.040	0.00055	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-89	ND		0.020	0.00059	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-9	ND		0.020	0.0023	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-90	0.67	C B	0.060	0.00046	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-91	0.13	C88 B	0.040	0.00055	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-92	0.15	B	0.020	0.00052	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-93	0.079	C B	0.040	0.00053	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-94	0.014	J q	0.020	0.00059	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-95	0.55	B	0.020	0.00057	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-96	0.012	J	0.020	0.00045	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-97	0.34	C86 B	0.12	0.00045	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-98	0.040	C	0.040	0.00051	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
PCB-99	0.40	C83	0.040	0.00055	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
Polychlorinated biphenyls, Total	14	q B	0.12	0.0021	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
Total Monochlorobiphenyls	0.0082	J q B	0.020	0.00035	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
Total Dichlorobiphenyls	0.077	q B	0.040	0.0023	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
Total Trichlorobiphenyls	0.28	q B	0.040	0.00068	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
Total Tetrachlorobiphenyls	1.7	q B	0.080	0.0022	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
Total Pentachlorobiphenyls	3.8	q B	0.12	0.0010	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
Total Hexachlorobiphenyls	4.8	q B	0.080	0.0032	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
Total Heptachlorobiphenyls	2.4	q B	0.040	0.00096	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
Total Octachlorobiphenyls	0.48	q B	0.040	0.0018	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3
Total Nonachlorobiphenyls	0.076	q	0.020	0.0039	ng/g	☼	10/19/18 12:00	10/27/18 15:29	3

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
PCB-104L	*76*		*30 - 140*	*10/19/18 12:00*	*10/27/18 15:29*	*3*
PCB-105L	*81*		*30 - 140*	*10/19/18 12:00*	*10/27/18 15:29*	*3*
PCB-114L	*85*		*30 - 140*	*10/19/18 12:00*	*10/27/18 15:29*	*3*
PCB-118L	*81*		*30 - 140*	*10/19/18 12:00*	*10/27/18 15:29*	*3*
PCB-123L	*82*		*30 - 140*	*10/19/18 12:00*	*10/27/18 15:29*	*3*
PCB-126L	*82*		*30 - 140*	*10/19/18 12:00*	*10/27/18 15:29*	*3*
PCB-155L	*83*		*30 - 140*	*10/19/18 12:00*	*10/27/18 15:29*	*3*
PCB-156L	*82*	*C*	*30 - 140*	*10/19/18 12:00*	*10/27/18 15:29*	*3*
PCB-157L	*82*	*C156*	*30 - 140*	*10/19/18 12:00*	*10/27/18 15:29*	*3*
PCB-15L	*64*	*q*	*30 - 140*	*10/19/18 12:00*	*10/27/18 15:29*	*3*
PCB-167L	*83*		*30 - 140*	*10/19/18 12:00*	*10/27/18 15:29*	*3*
PCB-169L	*89*		*30 - 140*	*10/19/18 12:00*	*10/27/18 15:29*	*3*
PCB-170L	*78*		*30 - 140*	*10/19/18 12:00*	*10/27/18 15:29*	*3*
PCB-188L	*80*		*30 - 140*	*10/19/18 12:00*	*10/27/18 15:29*	*3*
PCB-189L	*73*		*30 - 140*	*10/19/18 12:00*	*10/27/18 15:29*	*3*
PCB-19L	*83*		*30 - 140*	*10/19/18 12:00*	*10/27/18 15:29*	*3*
PCB-1L	*60*		*30 - 140*	*10/19/18 12:00*	*10/27/18 15:29*	*3*
PCB-202L	*96*		*30 - 140*	*10/19/18 12:00*	*10/27/18 15:29*	*3*
PCB-205L	*69*		*30 - 140*	*10/19/18 12:00*	*10/27/18 15:29*	*3*
PCB-206L	*82*		*30 - 140*	*10/19/18 12:00*	*10/27/18 15:29*	*3*
PCB-208L	*82*		*30 - 140*	*10/19/18 12:00*	*10/27/18 15:29*	*3*
PCB-209L	*84*		*30 - 140*	*10/19/18 12:00*	*10/27/18 15:29*	*3*

Client Sample ID: J1-0to20-101318
Date Collected: 10/13/18 17:11
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-12
Matrix: Solid
Percent Solids: 74.3

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-37L	85		30 - 140	10/19/18 12:00	10/27/18 15:29	3
PCB-3L	59		30 - 140	10/19/18 12:00	10/27/18 15:29	3
PCB-4L	73		30 - 140	10/19/18 12:00	10/27/18 15:29	3
PCB-54L	68		30 - 140	10/19/18 12:00	10/27/18 15:29	3
PCB-77L	81		30 - 140	10/19/18 12:00	10/27/18 15:29	3
PCB-81L	83		30 - 140	10/19/18 12:00	10/27/18 15:29	3

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-111L	91		40 - 125	10/19/18 12:00	10/27/18 15:29	3
PCB-178L	93		40 - 125	10/19/18 12:00	10/27/18 15:29	3
PCB-28L	93		40 - 125	10/19/18 12:00	10/27/18 15:29	3

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	5.3		0.25	0.050	mg/Kg	☼	11/02/18 12:26	11/05/18 14:44	5
Cadmium	0.32		0.20	0.039	mg/Kg	☼	11/02/18 12:26	11/05/18 14:44	5
Copper	35		0.50	0.11	mg/Kg	☼	11/02/18 12:26	11/05/18 14:44	5
Lead	14		0.25	0.024	mg/Kg	☼	11/02/18 12:26	11/05/18 14:44	5
Zinc	180		2.5	0.81	mg/Kg	☼	11/02/18 12:26	11/05/18 14:44	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.018	J	0.032	0.0095	mg/Kg	☼	10/26/18 09:42	10/26/18 13:44	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	4700	B	2000	44	mg/Kg			10/24/18 15:21	1
Total Solids	74.3		0.1	0.1	%			11/01/18 11:09	1
Percent Moisture	26	H	0.10	0.10	%			10/25/18 12:18	1
Percent Solids	74	H	0.10	0.10	%			10/25/18 12:18	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Clay	6.2				%			10/19/18 16:28	1
Coarse Sand	3.1				%			10/19/18 16:28	1
Fine Sand	48.6				%			10/19/18 16:28	1
Gravel	2.4				%			10/19/18 16:28	1
Medium Sand	8.3				%			10/19/18 16:28	1
Silt	31.4				%			10/19/18 16:28	1

Method: D854 - Specific Gravity

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Density	1.90		0.0100	0.0100	g/cm3			10/25/18 00:00	1
Specific Gravity	1.91		0.0100	0.0100	NONE			10/25/18 00:00	1

Client Sample ID: J5-0to29-101318
Date Collected: 10/13/18 09:36
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-15
Matrix: Solid
Percent Solids: 29.6

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	170		170	41	mg/Kg	☼	10/27/18 20:36	11/04/18 20:28	1
Motor Oil (>C24-C36)	990		170	59	mg/Kg	☼	10/27/18 20:36	11/04/18 20:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*97*		*50 - 150*	*10/27/18 20:36*	*11/04/18 20:28*	*1*

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3,4,6,7,8-HpCDD	0.90	G B	0.023	0.023	ug/Kg	☼	10/18/18 14:49	10/24/18 03:53	1
1,2,3,4,6,7,8-HpCDF	0.27	G B	0.011	0.011	ug/Kg	☼	10/18/18 14:49	10/24/18 03:53	1
1,2,3,4,7,8,9-HpCDF	0.017	G B	0.014	0.014	ug/Kg	☼	10/18/18 14:49	10/24/18 03:53	1
1,2,3,4,7,8-HxCDD	0.0046	J B	0.0086	0.00063	ug/Kg	☼	10/18/18 14:49	10/24/18 03:53	1
1,2,3,4,7,8-HxCDF	0.032	B	0.0086	0.0023	ug/Kg	☼	10/18/18 14:49	10/24/18 03:53	1
1,2,3,6,7,8-HxCDD	0.025	B	0.0086	0.00060	ug/Kg	☼	10/18/18 14:49	10/24/18 03:53	1
1,2,3,6,7,8-HxCDF	0.0076	J B	0.0086	0.0022	ug/Kg	☼	10/18/18 14:49	10/24/18 03:53	1
1,2,3,7,8,9-HxCDD	0.010	B	0.0086	0.00054	ug/Kg	☼	10/18/18 14:49	10/24/18 03:53	1
1,2,3,7,8,9-HxCDF	ND		0.0086	0.0023	ug/Kg	☼	10/18/18 14:49	10/24/18 03:53	1
1,2,3,7,8-PeCDD	0.0023	J	0.0086	0.00040	ug/Kg	☼	10/18/18 14:49	10/24/18 03:53	1
1,2,3,7,8-PeCDF	0.0013	J q B	0.0086	0.00063	ug/Kg	☼	10/18/18 14:49	10/24/18 03:53	1
2,3,4,6,7,8-HxCDF	0.0030	J q B	0.0086	0.0021	ug/Kg	☼	10/18/18 14:49	10/24/18 03:53	1
2,3,4,7,8-PeCDF	0.0039	J	0.0086	0.00065	ug/Kg	☼	10/18/18 14:49	10/24/18 03:53	1
2,3,7,8-TCDD	0.00087	J	0.0017	0.00014	ug/Kg	☼	10/18/18 14:49	10/24/18 03:53	1
OCDD	7.8	E B	0.017	0.016	ug/Kg	☼	10/18/18 14:49	10/24/18 03:53	1
OCDF	1.2	B	0.017	0.0017	ug/Kg	☼	10/18/18 14:49	10/24/18 03:53	1
Total HpCDD	1.9	G B	0.023	0.023	ug/Kg	☼	10/18/18 14:49	10/24/18 03:53	1
Total HpCDF	1.4	G B	0.012	0.012	ug/Kg	☼	10/18/18 14:49	10/24/18 03:53	1
Total HxCDD	0.17	B	0.0086	0.00059	ug/Kg	☼	10/18/18 14:49	10/24/18 03:53	1
Total HxCDF	0.35	q B	0.0086	0.0022	ug/Kg	☼	10/18/18 14:49	10/24/18 03:53	1
Total PeCDD	0.012	q	0.0086	0.00040	ug/Kg	☼	10/18/18 14:49	10/24/18 03:53	1
Total PeCDF	0.029	q B	0.0086	0.00064	ug/Kg	☼	10/18/18 14:49	10/24/18 03:53	1
Total TCDF	0.0096	q B	0.0017	0.00016	ug/Kg	☼	10/18/18 14:49	10/24/18 03:53	1
Total TCDD	0.0089	q	0.0017	0.00014	ug/Kg	☼	10/18/18 14:49	10/24/18 03:53	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-1,2,3,4,6,7,8-HpCDD	*54*		*23 - 140*	*10/18/18 14:49*	*10/24/18 03:53*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*48*		*28 - 143*	*10/18/18 14:49*	*10/24/18 03:53*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*54*		*26 - 138*	*10/18/18 14:49*	*10/24/18 03:53*	*1*
13C-1,2,3,4,7,8-HxCDD	*55*		*32 - 141*	*10/18/18 14:49*	*10/24/18 03:53*	*1*
13C-1,2,3,4,7,8-HxCDF	*57*		*26 - 152*	*10/18/18 14:49*	*10/24/18 03:53*	*1*
13C-1,2,3,6,7,8-HxCDD	*58*		*28 - 130*	*10/18/18 14:49*	*10/24/18 03:53*	*1*
13C-1,2,3,6,7,8-HxCDF	*57*		*26 - 123*	*10/18/18 14:49*	*10/24/18 03:53*	*1*
13C-1,2,3,7,8,9-HxCDF	*57*		*29 - 147*	*10/18/18 14:49*	*10/24/18 03:53*	*1*
13C-1,2,3,7,8-PeCDD	*56*		*25 - 181*	*10/18/18 14:49*	*10/24/18 03:53*	*1*
13C-1,2,3,7,8-PeCDF	*56*		*24 - 185*	*10/18/18 14:49*	*10/24/18 03:53*	*1*
13C-2,3,4,6,7,8-HxCDF	*57*		*28 - 136*	*10/18/18 14:49*	*10/24/18 03:53*	*1*
13C-2,3,4,7,8-PeCDF	*58*		*21 - 178*	*10/18/18 14:49*	*10/24/18 03:53*	*1*
13C-2,3,7,8-TCDD	*61*		*25 - 164*	*10/18/18 14:49*	*10/24/18 03:53*	*1*
13C-2,3,7,8-TCDF	*64*		*24 - 169*	*10/18/18 14:49*	*10/24/18 03:53*	*1*
13C-OCDD	*49*		*17 - 157*	*10/18/18 14:49*	*10/24/18 03:53*	*1*

Client Sample ID: J5-0to29-101318
Date Collected: 10/13/18 09:36
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-15
Matrix: Solid
Percent Solids: 29.6

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
37Cl4-2,3,7,8-TCDD	*82*		*35 - 197*	*10/18/18 14:49*	*10/24/18 03:53*	*1*

Method: 1613B - Dioxins and Furans (HRGC/HRMS) - RA

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDF	**0.0015**	**J q B**	0.0017	0.00059	ug/Kg	☼	10/18/18 14:49	10/25/18 01:37	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDF	*59*		*24 - 169*	*10/18/18 14:49*	*10/25/18 01:37*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
37Cl4-2,3,7,8-TCDD	*59*		*35 - 197*	*10/18/18 14:49*	*10/25/18 01:37*	*1*

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	**0.22**	**B**	0.049	0.00097	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-10	**0.057**	**q**	0.049	0.0049	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-100	**4.6**	**C93 B**	0.098	0.00095	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-101	**13**	**C90 B**	0.15	0.00083	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-102	**1.2**	**C98**	0.098	0.00092	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-103	**1.6**		0.049	0.00095	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-104	**0.48**		0.049	0.00072	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-105	**1.2**	**B**	0.049	0.0071	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-106	ND		0.049	0.0073	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-107	**0.54**		0.049	0.0078	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-108	**0.15**	**q C B**	0.098	0.0075	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-109	**4.7**	**C86 B**	0.29	0.00082	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-11	**0.12**	**B**	0.098	0.0043	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-110	**8.1**	**C B**	0.098	0.00069	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-111	ND		0.049	0.00067	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-112	ND		0.049	0.00071	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-113	**13**	**C90 B**	0.15	0.00083	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-114	**0.083**		0.049	0.0068	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-115	**8.1**	**C110 B**	0.098	0.00069	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-116	**1.1**	**C85 B**	0.15	0.00081	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-117	**1.1**	**C85 B**	0.15	0.00081	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-118	**4.4**	**B**	0.049	0.0072	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-119	**4.7**	**C86 B**	0.29	0.00082	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-12	**0.060**	**J q C**	0.098	0.0045	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-120	**0.11**		0.049	0.00068	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-121	**0.10**		0.049	0.00070	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-122	**0.050**		0.049	0.0085	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-123	**0.060**	**B**	0.049	0.0072	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-124	**0.15**	**q C108 B**	0.098	0.0075	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-125	**4.7**	**C86 B**	0.29	0.00082	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-126	ND		0.049	0.0075	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-127	ND		0.049	0.0073	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-128	**1.6**	**C**	0.098	0.015	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-129	**18**	**C B**	0.20	0.015	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-13	**0.060**	**J q C12**	0.098	0.0045	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-130	**0.94**		0.049	0.020	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-131	ND		0.049	0.021	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3

Client Sample ID: J5-0to29-101318
Date Collected: 10/13/18 09:36
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-15
Matrix: Solid
Percent Solids: 29.6

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-132	5.8	B	0.049	0.020	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-133	0.52		0.049	0.019	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-134	1.2	C B	0.098	0.020	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-135	9.7	C B	0.098	0.0012	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-136	3.6	B	0.049	0.00087	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-137	0.38		0.049	0.017	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-138	18	C129 B	0.20	0.015	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-139	0.33	C	0.098	0.017	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-14	ND		0.049	0.0038	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-140	0.33	C139	0.098	0.017	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-141	3.7	B	0.049	0.018	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-142	ND		0.049	0.019	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-143	1.2	C134 B	0.098	0.020	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-144	0.89		0.049	0.0011	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-145	ND		0.049	0.00083	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-146	4.1	B	0.049	0.017	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-147	22	C B	0.098	0.019	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-148	0.19		0.049	0.0012	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-149	22	C147 B	0.098	0.019	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-15	0.39		0.049	0.0048	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-150	0.23		0.049	0.00079	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-151	9.7	C135 B	0.098	0.0012	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-152	0.15		0.049	0.00085	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-153	18	C B	0.098	0.013	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-154	0.91	B	0.049	0.00094	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-155	0.032	J q	0.049	0.00079	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-156	1.2	C B	0.098	0.016	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-157	1.2	C156 B	0.098	0.016	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-158	1.5		0.049	0.012	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-159	0.15	B	0.049	0.013	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-16	0.083		0.049	0.0010	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-160	18	C129 B	0.20	0.015	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-161	ND		0.049	0.013	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-162	ND		0.049	0.013	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-163	18	C129 B	0.20	0.015	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-164	1.4	B	0.049	0.013	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-165	ND		0.049	0.014	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-166	1.6	C128	0.098	0.015	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-167	0.46	B	0.049	0.0095	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-168	18	C153 B	0.098	0.013	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-169	ND		0.049	0.0098	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-17	4.0		0.049	0.00091	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-170	6.7	B	0.049	0.0023	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-171	2.0	C B	0.098	0.0021	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-172	1.0		0.049	0.0021	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-173	2.0	C171 B	0.098	0.0021	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-174	6.2	B	0.049	0.0020	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-175	0.24		0.049	0.0019	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-176	0.83		0.049	0.0015	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3

Client Sample ID: J5-0to29-101318
Date Collected: 10/13/18 09:36
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-15
Matrix: Solid
Percent Solids: 29.6

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-177	4.0	B	0.049	0.0021	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-178	1.5	B	0.049	0.0021	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-179	3.2	B	0.049	0.0015	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-18	0.32	C	0.098	0.00080	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-180	13	C B	0.098	0.0016	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-181	ND		0.049	0.0019	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-182	0.11		0.049	0.0019	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-183	4.6	C B	0.098	0.0019	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-184	ND		0.049	0.0016	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-185	4.6	C183 B	0.098	0.0019	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-186	ND		0.049	0.0015	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-187	8.1	B	0.049	0.0018	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-188	ND		0.049	0.0013	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-189	0.20		0.049	0.0068	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-19	6.9		0.049	0.0011	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-190	1.2	B	0.049	0.0014	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-191	0.28		0.049	0.0015	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-192	ND		0.049	0.0016	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-193	13	C180 B	0.098	0.0016	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-194	2.9	B	0.049	0.011	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-195	1.2		0.049	0.012	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-196	1.4	B	0.049	0.0046	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-197	0.11		0.049	0.0035	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-198	2.6	C	0.098	0.0046	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-199	2.6	C198	0.098	0.0046	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-2	0.050	B	0.049	0.0011	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-20	1.1	C B	0.098	0.0036	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-200	0.29		0.049	0.0031	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-201	0.29		0.049	0.0032	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-202	0.44		0.049	0.0036	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-203	1.7	B	0.049	0.0041	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-204	ND		0.049	0.0035	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-205	0.16	q	0.049	0.0091	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-206	0.87		0.049	0.0098	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-207	0.094	q	0.049	0.0073	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-208	0.21		0.049	0.0078	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-209	0.31		0.049	0.0062	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-21	0.45	C B	0.098	0.0035	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-22	0.084	B	0.049	0.0037	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-23	ND		0.049	0.0036	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-24	ND		0.049	0.00076	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-25	0.26		0.049	0.0033	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-26	0.10	C B	0.098	0.0035	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-27	0.80		0.049	0.00066	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-28	1.1	C20 B	0.098	0.0036	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-29	0.10	C26 B	0.098	0.0035	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-3	0.15	B	0.049	0.0013	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-30	0.32	C18	0.098	0.00080	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-31	0.42		0.098	0.0035	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3

Client Sample ID: J5-0to29-101318
Date Collected: 10/13/18 09:36
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-15
Matrix: Solid
Percent Solids: 29.6

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-32	2.6	B	0.049	0.00063	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-33	0.45	C21 B	0.098	0.0035	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-34	0.0071	J q	0.049	0.0038	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-35	ND		0.049	0.0037	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-36	ND		0.049	0.0035	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-37	0.18		0.049	0.0037	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-38	ND		0.049	0.0038	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-39	0.0090	J q	0.049	0.0034	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-4	1.5		0.098	0.0060	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-40	2.6	C	0.15	0.024	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-41	2.6	C40	0.15	0.024	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-42	0.44		0.049	0.024	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-43	0.82	C	0.098	0.022	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-44	25	C B	0.15	0.021	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-45	16	C	0.098	0.025	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-46	0.46		0.049	0.030	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-47	25	C44 B	0.15	0.021	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-48	0.19		0.049	0.024	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-49	9.0	C	0.098	0.020	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-5	ND		0.049	0.0050	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-50	7.0	C	0.098	0.023	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-51	16	C45	0.098	0.025	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-52	4.8		0.049	0.024	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-53	7.0	C50	0.098	0.023	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-54	3.4		0.049	0.00096	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-55	ND		0.049	0.017	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-56	0.25		0.049	0.017	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-57	ND		0.049	0.018	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-58	ND		0.049	0.018	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-59	0.84	C	0.15	0.017	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-6	0.060		0.049	0.0044	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-60	ND		0.049	0.018	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-61	1.9	C	0.20	0.017	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-62	0.84	C59	0.15	0.017	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-63	0.11		0.049	0.016	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-64	0.38		0.049	0.016	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-65	25	C44 B	0.15	0.021	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-66	1.4		0.049	0.017	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-67	ND		0.049	0.015	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-68	0.24	B	0.049	0.016	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-69	9.0	C49	0.098	0.020	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-7	0.017	J q	0.049	0.0045	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-70	1.9	C61	0.20	0.017	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-71	2.6	C40	0.15	0.024	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-72	ND		0.049	0.017	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-73	0.82	C43	0.098	0.022	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-74	1.9	C61	0.20	0.017	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-75	0.84	C59	0.15	0.017	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-76	1.9	C61	0.20	0.017	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3

Client Sample ID: J5-0to29-101318
Date Collected: 10/13/18 09:36
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-15
Matrix: Solid
Percent Solids: 29.6

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-77	ND		0.049	0.017	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-78	ND		0.049	0.018	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-79	ND		0.049	0.016	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-8	**0.20**		0.098	0.0041	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-80	ND		0.049	0.015	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-81	ND		0.049	0.016	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-82	**0.51**		0.049	0.0011	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-83	**6.9**	**C**	0.098	0.0010	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-84	**1.6**		0.049	0.0011	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-85	**1.1**	**C B**	0.15	0.00081	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-86	**4.7**	**C B**	0.29	0.00082	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-87	**4.7**	**C86 B**	0.29	0.00082	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-88	**4.1**	**C B**	0.098	0.00099	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-89	ND		0.049	0.0011	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-9	**0.019**	**J q**	0.049	0.0046	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-90	**13**	**C B**	0.15	0.00083	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-91	**4.1**	**C88 B**	0.098	0.00099	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-92	**2.7**	**B**	0.049	0.00094	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-93	**4.6**	**C B**	0.098	0.00095	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-94	**0.83**		0.049	0.0011	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-95	**9.6**	**B**	0.049	0.0010	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-96	**0.58**		0.049	0.00081	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-97	**4.7**	**C86 B**	0.29	0.00082	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-98	**1.2**	**C**	0.098	0.00092	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
PCB-99	**6.9**	**C83**	0.098	0.0010	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
Polychlorinated biphenyls, Total	**330**	**q B**	0.29	0.0070	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
Total Monochlorobiphenyls	**0.42**	**B**	0.049	0.0011	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
Total Dichlorobiphenyls	**2.4**	**q B**	0.098	0.0046	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
Total Trichlorobiphenyls	**17**	**q B**	0.098	0.0026	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
Total Tetrachlorobiphenyls	**75**	**B**	0.20	0.019	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
Total Pentachlorobiphenyls	**68**	**q B**	0.29	0.0030	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
Total Hexachlorobiphenyls	**97**	**q B**	0.20	0.012	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
Total Heptachlorobiphenyls	**53**	**B**	0.098	0.0020	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
Total Octachlorobiphenyls	**11**	**q B**	0.098	0.0056	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3
Total Nonachlorobiphenyls	**1.2**	**q**	0.049	0.0083	ng/g	☼	10/19/18 12:00	10/27/18 16:31	3

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
PCB-104L	*84*		*30 - 140*	*10/19/18 12:00*	*10/27/18 16:31*	*3*
PCB-105L	*92*		*30 - 140*	*10/19/18 12:00*	*10/27/18 16:31*	*3*
PCB-114L	*94*		*30 - 140*	*10/19/18 12:00*	*10/27/18 16:31*	*3*
PCB-118L	*90*		*30 - 140*	*10/19/18 12:00*	*10/27/18 16:31*	*3*
PCB-123L	*92*		*30 - 140*	*10/19/18 12:00*	*10/27/18 16:31*	*3*
PCB-126L	*90*		*30 - 140*	*10/19/18 12:00*	*10/27/18 16:31*	*3*
PCB-155L	*92*		*30 - 140*	*10/19/18 12:00*	*10/27/18 16:31*	*3*
PCB-156L	*91*	*C*	*30 - 140*	*10/19/18 12:00*	*10/27/18 16:31*	*3*
PCB-157L	*91*	*C156*	*30 - 140*	*10/19/18 12:00*	*10/27/18 16:31*	*3*
PCB-15L	*79*		*30 - 140*	*10/19/18 12:00*	*10/27/18 16:31*	*3*
PCB-167L	*90*		*30 - 140*	*10/19/18 12:00*	*10/27/18 16:31*	*3*
PCB-169L	*95*		*30 - 140*	*10/19/18 12:00*	*10/27/18 16:31*	*3*
PCB-170L	*88*		*30 - 140*	*10/19/18 12:00*	*10/27/18 16:31*	*3*

Client Sample ID: J5-0to29-101318
Date Collected: 10/13/18 09:36
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-15
Matrix: Solid
Percent Solids: 29.6

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-188L	96		30 - 140	10/19/18 12:00	10/27/18 16:31	3
PCB-189L	84		30 - 140	10/19/18 12:00	10/27/18 16:31	3
PCB-19L	93		30 - 140	10/19/18 12:00	10/27/18 16:31	3
PCB-1L	64		30 - 140	10/19/18 12:00	10/27/18 16:31	3
PCB-202L	112		30 - 140	10/19/18 12:00	10/27/18 16:31	3
PCB-205L	79		30 - 140	10/19/18 12:00	10/27/18 16:31	3
PCB-206L	101		30 - 140	10/19/18 12:00	10/27/18 16:31	3
PCB-208L	94		30 - 140	10/19/18 12:00	10/27/18 16:31	3
PCB-209L	98		30 - 140	10/19/18 12:00	10/27/18 16:31	3
PCB-37L	92		30 - 140	10/19/18 12:00	10/27/18 16:31	3
PCB-3L	63		30 - 140	10/19/18 12:00	10/27/18 16:31	3
PCB-4L	82		30 - 140	10/19/18 12:00	10/27/18 16:31	3
PCB-54L	76		30 - 140	10/19/18 12:00	10/27/18 16:31	3
PCB-77L	90		30 - 140	10/19/18 12:00	10/27/18 16:31	3
PCB-81L	92		30 - 140	10/19/18 12:00	10/27/18 16:31	3

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-111L	92		40 - 125	10/19/18 12:00	10/27/18 16:31	3
PCB-178L	101		40 - 125	10/19/18 12:00	10/27/18 16:31	3
PCB-28L	97		40 - 125	10/19/18 12:00	10/27/18 16:31	3

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	10		0.46	0.093	mg/Kg	☼	11/02/18 12:26	11/05/18 14:48	5
Cadmium	0.51		0.37	0.072	mg/Kg	☼	11/02/18 12:26	11/05/18 14:48	5
Copper	140		0.93	0.20	mg/Kg	☼	11/02/18 12:26	11/05/18 14:48	5
Lead	45		0.46	0.045	mg/Kg	☼	11/02/18 12:26	11/05/18 14:48	5
Zinc	320		4.6	1.5	mg/Kg	☼	11/02/18 12:26	11/05/18 14:48	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.16		0.086	0.026	mg/Kg	☼	10/26/18 09:42	10/26/18 13:46	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	39000	B	2000	44	mg/Kg			10/24/18 15:26	1
Total Solids	29.6		0.1	0.1	%			11/01/18 11:09	1
Percent Moisture	72	H	0.10	0.10	%			10/25/18 12:18	1
Percent Solids	28	H	0.10	0.10	%			10/25/18 12:18	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Clay	3.5				%			10/19/18 16:28	1
Coarse Sand	15.2				%			10/19/18 16:28	1
Fine Sand	34.8				%			10/19/18 16:28	1
Gravel	23.9				%			10/19/18 16:28	1
Medium Sand	23.3				%			10/19/18 16:28	1
Silt	-0.8				%			10/19/18 16:28	1

Client: Pacific Groundwater Group
Project/Site: Swan Island Lagoon SedimentInvestigation

TestAmerica Job ID: 580-81081-1

Client Sample ID: J5-0to29-101318
Date Collected: 10/13/18 09:36
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-15
Matrix: Solid
Percent Solids: 29.6

Method: D854 - Specific Gravity

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Density	1.21		0.0100	0.0100	g/cm3			10/25/18 00:00	1
Specific Gravity	1.22		0.0100	0.0100	NONE			10/25/18 00:00	1

Client Sample ID: 513-0to26-101318
Date Collected: 10/13/18 13:13
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-18
Matrix: Solid
Percent Solids: 32.5

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	200		150	38	mg/Kg	☼	10/27/18 20:36	11/04/18 20:48	1
Motor Oil (>C24-C36)	1200		150	54	mg/Kg	☼	10/27/18 20:36	11/04/18 20:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*90*		*50 - 150*	*10/27/18 20:36*	*11/04/18 20:48*	*1*

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3,4,6,7,8-HpCDD	0.61	G B	0.016	0.016	ug/Kg	☼	10/18/18 14:49	10/24/18 04:38	1
1,2,3,4,6,7,8-HpCDF	0.16	B	0.0078	0.0076	ug/Kg	☼	10/18/18 14:49	10/24/18 04:38	1
1,2,3,4,7,8,9-HpCDF	0.013	G B	0.0097	0.0097	ug/Kg	☼	10/18/18 14:49	10/24/18 04:38	1
1,2,3,4,7,8-HxCDD	0.0038	J B	0.0078	0.00043	ug/Kg	☼	10/18/18 14:49	10/24/18 04:38	1
1,2,3,4,7,8-HxCDF	0.024	B	0.0078	0.0012	ug/Kg	☼	10/18/18 14:49	10/24/18 04:38	1
1,2,3,6,7,8-HxCDD	0.018	B	0.0078	0.00042	ug/Kg	☼	10/18/18 14:49	10/24/18 04:38	1
1,2,3,6,7,8-HxCDF	0.0062	J B	0.0078	0.0011	ug/Kg	☼	10/18/18 14:49	10/24/18 04:38	1
1,2,3,7,8,9-HxCDD	0.0086	B	0.0078	0.00038	ug/Kg	☼	10/18/18 14:49	10/24/18 04:38	1
1,2,3,7,8,9-HxCDF	ND		0.0078	0.0011	ug/Kg	☼	10/18/18 14:49	10/24/18 04:38	1
1,2,3,7,8-PeCDD	0.0017	J	0.0078	0.00038	ug/Kg	☼	10/18/18 14:49	10/24/18 04:38	1
1,2,3,7,8-PeCDF	0.0018	J B	0.0078	0.00051	ug/Kg	☼	10/18/18 14:49	10/24/18 04:38	1
2,3,4,6,7,8-HxCDF	ND		0.0078	0.00098	ug/Kg	☼	10/18/18 14:49	10/24/18 04:38	1
2,3,4,7,8-PeCDF	0.0031	J	0.0078	0.00056	ug/Kg	☼	10/18/18 14:49	10/24/18 04:38	1
2,3,7,8-TCDD	0.00094	J	0.0016	0.00014	ug/Kg	☼	10/18/18 14:49	10/24/18 04:38	1
OCDD	5.2	B	0.016	0.014	ug/Kg	☼	10/18/18 14:49	10/24/18 04:38	1
OCDF	0.66	B	0.016	0.0011	ug/Kg	☼	10/18/18 14:49	10/24/18 04:38	1
Total HpCDD	1.3	G B	0.016	0.016	ug/Kg	☼	10/18/18 14:49	10/24/18 04:38	1
Total HpCDF	0.85	G B	0.0087	0.0087	ug/Kg	☼	10/18/18 14:49	10/24/18 04:38	1
Total HxCDD	0.13	B	0.0078	0.00041	ug/Kg	☼	10/18/18 14:49	10/24/18 04:38	1
Total HxCDF	0.24	B	0.0078	0.0011	ug/Kg	☼	10/18/18 14:49	10/24/18 04:38	1
Total PeCDD	0.010	q	0.0078	0.00038	ug/Kg	☼	10/18/18 14:49	10/24/18 04:38	1
Total PeCDF	0.022	q B	0.0078	0.00053	ug/Kg	☼	10/18/18 14:49	10/24/18 04:38	1
Total TCDF	0.0092	q B	0.0016	0.00012	ug/Kg	☼	10/18/18 14:49	10/24/18 04:38	1
Total TCDD	0.0095	q	0.0016	0.00014	ug/Kg	☼	10/18/18 14:49	10/24/18 04:38	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-1,2,3,4,6,7,8-HpCDD	*53*		*23 - 140*	*10/18/18 14:49*	*10/24/18 04:38*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*50*		*28 - 143*	*10/18/18 14:49*	*10/24/18 04:38*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*53*		*26 - 138*	*10/18/18 14:49*	*10/24/18 04:38*	*1*
13C-1,2,3,4,7,8-HxCDD	*51*		*32 - 141*	*10/18/18 14:49*	*10/24/18 04:38*	*1*
13C-1,2,3,4,7,8-HxCDF	*53*		*26 - 152*	*10/18/18 14:49*	*10/24/18 04:38*	*1*
13C-1,2,3,6,7,8-HxCDD	*55*		*28 - 130*	*10/18/18 14:49*	*10/24/18 04:38*	*1*
13C-1,2,3,6,7,8-HxCDF	*55*		*26 - 123*	*10/18/18 14:49*	*10/24/18 04:38*	*1*
13C-1,2,3,7,8,9-HxCDF	*55*		*29 - 147*	*10/18/18 14:49*	*10/24/18 04:38*	*1*
13C-1,2,3,7,8-PeCDD	*54*		*25 - 181*	*10/18/18 14:49*	*10/24/18 04:38*	*1*
13C-1,2,3,7,8-PeCDF	*52*		*24 - 185*	*10/18/18 14:49*	*10/24/18 04:38*	*1*
13C-2,3,4,6,7,8-HxCDF	*54*		*28 - 136*	*10/18/18 14:49*	*10/24/18 04:38*	*1*
13C-2,3,4,7,8-PeCDF	*54*		*21 - 178*	*10/18/18 14:49*	*10/24/18 04:38*	*1*
13C-2,3,7,8-TCDD	*56*		*25 - 164*	*10/18/18 14:49*	*10/24/18 04:38*	*1*
13C-2,3,7,8-TCDF	*58*		*24 - 169*	*10/18/18 14:49*	*10/24/18 04:38*	*1*
13C-OCDD	*52*		*17 - 157*	*10/18/18 14:49*	*10/24/18 04:38*	*1*

Client Sample ID: 513-0to26-101318
Date Collected: 10/13/18 13:13
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-18
Matrix: Solid
Percent Solids: 32.5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
37Cl4-2,3,7,8-TCDD	*76*		*35 - 197*	*10/18/18 14:49*	*10/24/18 04:38*	*1*

Method: 1613B - Dioxins and Furans (HRGC/HRMS) - RA

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDF	**0.0017**	**B**	0.0016	0.00018	ug/Kg	☼	10/18/18 14:49	10/25/18 02:15	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDF	*53*		*24 - 169*	*10/18/18 14:49*	*10/25/18 02:15*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
37Cl4-2,3,7,8-TCDD	*55*		*35 - 197*	*10/18/18 14:49*	*10/25/18 02:15*	*1*

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	**0.12**	**J q B**	0.15	0.0019	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-10	**0.028**	**J q**	0.15	0.016	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-100	**2.5**	**C93 B**	0.30	0.0045	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-101	**10**	**C90 B**	0.45	0.0039	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-102	**0.81**	**C98**	0.30	0.0044	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-103	**0.89**		0.15	0.0045	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-104	**0.23**		0.15	0.0034	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-105	**1.1**	**B**	0.15	0.017	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-106	ND		0.15	0.018	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-107	**0.48**		0.15	0.019	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-108	**0.13**	**J C B**	0.30	0.018	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-109	**3.8**	**C86 B**	0.89	0.0039	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-11	**0.13**	**J q B**	0.30	0.014	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-110	**6.9**	**C B**	0.30	0.0033	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-111	ND		0.15	0.0032	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-112	ND		0.15	0.0033	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-113	**10**	**C90 B**	0.45	0.0039	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-114	ND		0.15	0.017	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-115	**6.9**	**C110 B**	0.30	0.0033	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-116	**0.90**	**C85 B**	0.45	0.0039	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-117	**0.90**	**C85 B**	0.45	0.0039	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-118	**4.1**	**B**	0.15	0.017	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-119	**3.8**	**C86 B**	0.89	0.0039	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-12	**0.030**	**J q C**	0.30	0.014	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-120	**0.11**	**J**	0.15	0.0032	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-121	**0.065**	**J**	0.15	0.0033	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-122	ND		0.15	0.021	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-123	**0.064**	**J q B**	0.15	0.017	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-124	**0.13**	**J C108 B**	0.30	0.018	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-125	**3.8**	**C86 B**	0.89	0.0039	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-126	**0.096**	**J q B**	0.15	0.019	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-127	ND		0.15	0.018	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-128	**1.4**	**C**	0.30	0.030	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-129	**16**	**C B**	0.60	0.031	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-13	**0.030**	**J q C12**	0.30	0.014	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-130	**0.81**		0.15	0.042	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-131	ND		0.15	0.043	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10

Client Sample ID: 513-0to26-101318
Date Collected: 10/13/18 13:13
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-18
Matrix: Solid
Percent Solids: 32.5

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-132	4.8	B	0.15	0.041	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-133	0.48		0.15	0.039	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-134	0.94	C B	0.30	0.041	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-135	8.0	C B	0.30	0.0058	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-136	2.7	B	0.15	0.0042	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-137	0.33		0.15	0.035	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-138	16	C129 B	0.60	0.031	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-139	0.31	C	0.30	0.035	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-14	ND		0.15	0.012	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-140	0.31	C139	0.30	0.035	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-141	3.0	B	0.15	0.037	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-142	ND		0.15	0.039	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-143	0.94	C134 B	0.30	0.041	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-144	0.67		0.15	0.0052	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-145	0.019	J	0.15	0.0040	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-146	3.8	B	0.15	0.035	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-147	19	C B	0.30	0.040	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-148	0.20		0.15	0.0056	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-149	19	C147 B	0.30	0.040	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-15	0.21		0.15	0.015	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-150	0.20		0.15	0.0038	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-151	8.0	C135 B	0.30	0.0058	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-152	0.14	J	0.15	0.0041	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-153	16	C B	0.30	0.027	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-154	0.95	B	0.15	0.0045	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-155	0.036	J	0.15	0.0038	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-156	1.2	C B	0.30	0.034	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-157	1.2	C156 B	0.30	0.034	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-158	1.3		0.15	0.025	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-159	0.14	J B	0.15	0.026	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-16	0.061	J q	0.15	0.0030	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-160	16	C129 B	0.60	0.031	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-161	ND		0.15	0.026	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-162	ND		0.15	0.026	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-163	16	C129 B	0.60	0.031	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-164	1.1	B	0.15	0.028	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-165	ND		0.15	0.030	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-166	1.4	C128	0.30	0.030	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-167	0.44	B	0.15	0.021	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-168	16	C153 B	0.30	0.027	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-169	ND		0.15	0.019	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-17	1.3		0.15	0.0027	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-170	7.4	B	0.15	0.013	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-171	2.2	C B	0.30	0.013	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-172	1.1		0.15	0.013	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-173	2.2	C171 B	0.30	0.013	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-174	6.5	B	0.15	0.012	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-175	0.31		0.15	0.011	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-176	0.89		0.15	0.0086	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10

Client Sample ID: 513-0to26-101318
Date Collected: 10/13/18 13:13
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-18
Matrix: Solid
Percent Solids: 32.5

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-177	4.1	B	0.15	0.012	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-178	1.6	B	0.15	0.012	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-179	3.2	B	0.15	0.0091	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-18	0.21	J C	0.30	0.0024	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-180	15	C B	0.30	0.0096	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-181	ND		0.15	0.011	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-182	ND		0.15	0.011	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-183	4.9	C B	0.30	0.011	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-184	ND		0.15	0.0093	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-185	4.9	C183 B	0.30	0.011	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-186	ND		0.15	0.0091	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-187	8.4	B	0.15	0.011	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-188	ND		0.15	0.0081	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-189	0.28		0.15	0.019	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-19	2.2		0.15	0.0033	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-190	1.4	B	0.15	0.0082	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-191	0.31		0.15	0.0086	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-192	ND		0.15	0.0096	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-193	15	C180 B	0.30	0.0096	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-194	3.5	B	0.15	0.033	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-195	1.5		0.15	0.036	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-196	1.6	B	0.15	0.014	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-197	0.11	J q	0.15	0.011	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-198	2.9	C	0.30	0.014	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-199	2.9	C198	0.30	0.014	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-2	0.053	J B	0.15	0.0023	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-20	0.73	C B	0.30	0.0075	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-200	0.33		0.15	0.0095	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-201	0.30	q	0.15	0.0097	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-202	0.54		0.15	0.011	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-203	1.9	B	0.15	0.013	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-204	ND		0.15	0.011	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-205	0.18		0.15	0.028	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-206	0.84		0.15	0.034	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-207	0.081	J	0.15	0.025	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-208	0.19	q	0.15	0.025	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-209	0.34		0.15	0.021	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-21	0.31	C B	0.30	0.0073	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-22	0.084	J B	0.15	0.0077	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-23	ND		0.15	0.0076	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-24	ND		0.15	0.0023	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-25	0.12	J q	0.15	0.0069	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-26	0.079	J C B	0.30	0.0074	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-27	0.21	q	0.15	0.0020	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-28	0.73	C20 B	0.30	0.0075	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-29	0.079	J C26 B	0.30	0.0074	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-3	0.089	J B	0.15	0.0026	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-30	0.21	J C18	0.30	0.0024	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-31	0.30		0.30	0.0073	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10

Client Sample ID: 513-0to26-101318
Date Collected: 10/13/18 13:13
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-18
Matrix: Solid
Percent Solids: 32.5

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-32	0.96	B	0.15	0.0019	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-33	0.31	C21 B	0.30	0.0073	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-34	ND		0.15	0.0079	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-35	ND		0.15	0.0077	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-36	ND		0.15	0.0074	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-37	0.14	J	0.15	0.0076	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-38	ND		0.15	0.0080	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-39	ND		0.15	0.0071	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-4	0.57		0.30	0.020	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-40	1.5	C	0.45	0.036	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-41	1.5	C40	0.45	0.036	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-42	0.28	q	0.15	0.036	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-43	0.41	C	0.30	0.033	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-44	13	C B	0.45	0.031	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-45	7.3	C	0.30	0.037	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-46	0.21	q	0.15	0.045	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-47	13	C44 B	0.45	0.031	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-48	0.14	J	0.15	0.035	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-49	4.6	C	0.30	0.029	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-5	ND		0.15	0.016	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-50	3.0	C	0.30	0.034	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-51	7.3	C45	0.30	0.037	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-52	3.3		0.15	0.035	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-53	3.0	C50	0.30	0.034	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-54	1.1		0.15	0.0018	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-55	ND		0.15	0.026	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-56	0.25		0.15	0.026	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-57	ND		0.15	0.026	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-58	ND		0.15	0.027	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-59	0.41	J C	0.45	0.025	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-6	0.044	J q	0.15	0.014	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-60	0.068	J q	0.15	0.026	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-61	1.8	C	0.60	0.025	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-62	0.41	J C59	0.45	0.025	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-63	0.095	J	0.15	0.024	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-64	0.32		0.15	0.024	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-65	13	C44 B	0.45	0.031	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-66	1.2		0.15	0.025	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-67	ND		0.15	0.023	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-68	0.14	J B	0.15	0.023	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-69	4.6	C49	0.30	0.029	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-7	0.018	J q	0.15	0.015	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-70	1.8	C61	0.60	0.025	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-71	1.5	C40	0.45	0.036	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-72	ND		0.15	0.026	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-73	0.41	C43	0.30	0.033	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-74	1.8	C61	0.60	0.025	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-75	0.41	J C59	0.45	0.025	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-76	1.8	C61	0.60	0.025	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10

Client Sample ID: 513-0to26-101318
Date Collected: 10/13/18 13:13
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-18
Matrix: Solid
Percent Solids: 32.5

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-77	ND		0.15	0.027	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-78	ND		0.15	0.027	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-79	ND		0.15	0.023	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-8	**0.15**	**J**	0.30	0.013	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-80	ND		0.15	0.023	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-81	ND		0.15	0.023	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-82	**0.43**		0.15	0.0052	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-83	**5.9**	**C**	0.30	0.0048	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-84	**1.3**		0.15	0.0053	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-85	**0.90**	**C B**	0.45	0.0039	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-86	**3.8**	**C B**	0.89	0.0039	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-87	**3.8**	**C86 B**	0.89	0.0039	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-88	**2.8**	**C B**	0.30	0.0047	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-89	ND		0.15	0.0051	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-9	**0.019**	**J q**	0.15	0.015	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-90	**10**	**C B**	0.45	0.0039	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-91	**2.8**	**C88 B**	0.30	0.0047	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-92	**2.3**	**B**	0.15	0.0045	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-93	**2.5**	**C B**	0.30	0.0045	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-94	**0.58**		0.15	0.0051	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-95	**7.3**	**B**	0.15	0.0049	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-96	**0.34**		0.15	0.0039	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-97	**3.8**	**C86 B**	0.89	0.0039	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-98	**0.81**	**C**	0.30	0.0044	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
PCB-99	**5.9**	**C83**	0.30	0.0048	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
Polychlorinated biphenyls, Total	**260**	**q B**	0.89	0.018	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
Total Monochlorobiphenyls	**0.26**	**q B**	0.15	0.0023	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
Total Dichlorobiphenyls	**1.2**	**q B**	0.30	0.015	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
Total Trichlorobiphenyls	**6.7**	**q B**	0.30	0.0057	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
Total Tetrachlorobiphenyls	**39**	**q B**	0.60	0.028	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
Total Pentachlorobiphenyls	**53**	**q B**	0.89	0.0087	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
Total Hexachlorobiphenyls	**84**	**B**	0.60	0.025	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
Total Heptachlorobiphenyls	**58**	**B**	0.30	0.011	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
Total Octachlorobiphenyls	**13**	**q B**	0.30	0.017	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10
Total Nonachlorobiphenyls	**1.1**	**q**	0.15	0.028	ng/g	☼	10/19/18 12:00	10/27/18 17:32	10

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
PCB-104L	*84*		*30 - 140*	*10/19/18 12:00*	*10/27/18 17:32*	*10*
PCB-105L	*88*		*30 - 140*	*10/19/18 12:00*	*10/27/18 17:32*	*10*
PCB-114L	*90*		*30 - 140*	*10/19/18 12:00*	*10/27/18 17:32*	*10*
PCB-118L	*87*		*30 - 140*	*10/19/18 12:00*	*10/27/18 17:32*	*10*
PCB-123L	*87*		*30 - 140*	*10/19/18 12:00*	*10/27/18 17:32*	*10*
PCB-126L	*83*		*30 - 140*	*10/19/18 12:00*	*10/27/18 17:32*	*10*
PCB-155L	*93*		*30 - 140*	*10/19/18 12:00*	*10/27/18 17:32*	*10*
PCB-156L	*91*	*C*	*30 - 140*	*10/19/18 12:00*	*10/27/18 17:32*	*10*
PCB-157L	*91*	*C156*	*30 - 140*	*10/19/18 12:00*	*10/27/18 17:32*	*10*
PCB-15L	*81*		*30 - 140*	*10/19/18 12:00*	*10/27/18 17:32*	*10*
PCB-167L	*92*		*30 - 140*	*10/19/18 12:00*	*10/27/18 17:32*	*10*
PCB-169L	*97*		*30 - 140*	*10/19/18 12:00*	*10/27/18 17:32*	*10*
PCB-170L	*84*		*30 - 140*	*10/19/18 12:00*	*10/27/18 17:32*	*10*

Client Sample ID: 513-0to26-101318
Date Collected: 10/13/18 13:13
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-18
Matrix: Solid
Percent Solids: 32.5

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-188L	88		30 - 140	10/19/18 12:00	10/27/18 17:32	10
PCB-189L	78		30 - 140	10/19/18 12:00	10/27/18 17:32	10
PCB-19L	91		30 - 140	10/19/18 12:00	10/27/18 17:32	10
PCB-1L	68		30 - 140	10/19/18 12:00	10/27/18 17:32	10
PCB-202L	106		30 - 140	10/19/18 12:00	10/27/18 17:32	10
PCB-205L	73		30 - 140	10/19/18 12:00	10/27/18 17:32	10
PCB-206L	99		30 - 140	10/19/18 12:00	10/27/18 17:32	10
PCB-208L	88		30 - 140	10/19/18 12:00	10/27/18 17:32	10
PCB-209L	91		30 - 140	10/19/18 12:00	10/27/18 17:32	10
PCB-37L	91		30 - 140	10/19/18 12:00	10/27/18 17:32	10
PCB-3L	65		30 - 140	10/19/18 12:00	10/27/18 17:32	10
PCB-4L	80		30 - 140	10/19/18 12:00	10/27/18 17:32	10
PCB-54L	80		30 - 140	10/19/18 12:00	10/27/18 17:32	10
PCB-77L	85		30 - 140	10/19/18 12:00	10/27/18 17:32	10
PCB-81L	88		30 - 140	10/19/18 12:00	10/27/18 17:32	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-111L	93		40 - 125	10/19/18 12:00	10/27/18 17:32	10
PCB-178L	94		40 - 125	10/19/18 12:00	10/27/18 17:32	10
PCB-28L	95		40 - 125	10/19/18 12:00	10/27/18 17:32	10

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	10		0.41	0.082	mg/Kg	☼	11/02/18 12:26	11/05/18 14:52	5
Cadmium	0.60		0.33	0.063	mg/Kg	☼	11/02/18 12:26	11/05/18 14:52	5
Copper	130		0.82	0.18	mg/Kg	☼	11/02/18 12:26	11/05/18 14:52	5
Lead	41		0.41	0.039	mg/Kg	☼	11/02/18 12:26	11/05/18 14:52	5
Zinc	310		4.1	1.3	mg/Kg	☼	11/02/18 12:26	11/05/18 14:52	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.19		0.067	0.020	mg/Kg	☼	10/26/18 09:42	10/26/18 13:53	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	35000	B	2000	44	mg/Kg			10/24/18 15:31	1
Total Solids	32.5		0.1	0.1	%			11/01/18 11:09	1
Percent Moisture	67	H	0.10	0.10	%			10/25/18 12:18	1
Percent Solids	33	H	0.10	0.10	%			10/25/18 12:18	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Clay	22.5				%			10/19/18 16:28	1
Coarse Sand	0.0				%			10/19/18 16:28	1
Fine Sand	6.4				%			10/19/18 16:28	1
Gravel	0.0				%			10/19/18 16:28	1
Medium Sand	0.2				%			10/19/18 16:28	1
Silt	70.9				%			10/19/18 16:28	1

Client: Pacific Groundwater Group
Project/Site: Swan Island Lagoon SedimentInvestigation

TestAmerica Job ID: 580-81081-1

Client Sample ID: 513-0to26-101318
Date Collected: 10/13/18 13:13
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-18
Matrix: Solid
Percent Solids: 32.5

Method: D854 - Specific Gravity

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Density	1.23		0.0100	0.0100	g/cm3			10/25/18 00:00	1
Specific Gravity	1.24		0.0100	0.0100	NONE			10/25/18 00:00	1

Client Sample ID: J3-0to26-101318
Date Collected: 10/13/18 10:51
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-19
Matrix: Solid
Percent Solids: 44.1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	280		110	28	mg/Kg	☼	10/27/18 20:36	11/04/18 21:28	1
Motor Oil (>C24-C36)	1900		110	40	mg/Kg	☼	10/27/18 20:36	11/04/18 21:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*93*		*50 - 150*	*10/27/18 20:36*	*11/04/18 21:28*	*1*

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3,4,6,7,8-HpCDD	0.72	G B	0.018	0.018	ug/Kg	☼	10/18/18 14:49	10/24/18 05:24	1
1,2,3,4,6,7,8-HpCDF	0.25	G B	0.0087	0.0087	ug/Kg	☼	10/18/18 14:49	10/24/18 05:24	1
1,2,3,4,7,8,9-HpCDF	0.019	G B	0.012	0.012	ug/Kg	☼	10/18/18 14:49	10/24/18 05:24	1
1,2,3,4,7,8-HxCDD	0.0039	J B	0.0057	0.00047	ug/Kg	☼	10/18/18 14:49	10/24/18 05:24	1
1,2,3,4,7,8-HxCDF	0.031	B	0.0057	0.0011	ug/Kg	☼	10/18/18 14:49	10/24/18 05:24	1
1,2,3,6,7,8-HxCDD	0.022	B	0.0057	0.00043	ug/Kg	☼	10/18/18 14:49	10/24/18 05:24	1
1,2,3,6,7,8-HxCDF	0.0077	B	0.0057	0.0010	ug/Kg	☼	10/18/18 14:49	10/24/18 05:24	1
1,2,3,7,8,9-HxCDD	0.0099	B	0.0057	0.00039	ug/Kg	☼	10/18/18 14:49	10/24/18 05:24	1
1,2,3,7,8,9-HxCDF	ND		0.0057	0.0011	ug/Kg	☼	10/18/18 14:49	10/24/18 05:24	1
1,2,3,7,8-PeCDD	0.0019	J	0.0057	0.00037	ug/Kg	☼	10/18/18 14:49	10/24/18 05:24	1
1,2,3,7,8-PeCDF	0.0015	J B	0.0057	0.00038	ug/Kg	☼	10/18/18 14:49	10/24/18 05:24	1
2,3,4,6,7,8-HxCDF	0.0038	J B	0.0057	0.00095	ug/Kg	☼	10/18/18 14:49	10/24/18 05:24	1
2,3,4,7,8-PeCDF	0.0029	J	0.0057	0.00040	ug/Kg	☼	10/18/18 14:49	10/24/18 05:24	1
2,3,7,8-TCDD	0.00052	J q	0.0011	0.00011	ug/Kg	☼	10/18/18 14:49	10/24/18 05:24	1
OCDD	6.6	E B	0.011	0.011	ug/Kg	☼	10/18/18 14:49	10/24/18 05:24	1
OCDF	1.0	B	0.011	0.0013	ug/Kg	☼	10/18/18 14:49	10/24/18 05:24	1
Total HpCDD	1.6	G B	0.018	0.018	ug/Kg	☼	10/18/18 14:49	10/24/18 05:24	1
Total HpCDF	1.2	G B	0.010	0.010	ug/Kg	☼	10/18/18 14:49	10/24/18 05:24	1
Total HxCDD	0.14	B	0.0057	0.00043	ug/Kg	☼	10/18/18 14:49	10/24/18 05:24	1
Total HxCDF	0.30	B	0.0057	0.0010	ug/Kg	☼	10/18/18 14:49	10/24/18 05:24	1
Total PeCDD	0.0097	q	0.0057	0.00037	ug/Kg	☼	10/18/18 14:49	10/24/18 05:24	1
Total PeCDF	0.022	q B	0.0057	0.00039	ug/Kg	☼	10/18/18 14:49	10/24/18 05:24	1
Total TCDF	0.0079	B	0.0011	0.000097	ug/Kg	☼	10/18/18 14:49	10/24/18 05:24	1
Total TCDD	0.0067	q	0.0011	0.00011	ug/Kg	☼	10/18/18 14:49	10/24/18 05:24	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-1,2,3,4,6,7,8-HpCDD	*49*		*23 - 140*	*10/18/18 14:49*	*10/24/18 05:24*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*44*		*28 - 143*	*10/18/18 14:49*	*10/24/18 05:24*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*47*		*26 - 138*	*10/18/18 14:49*	*10/24/18 05:24*	*1*
13C-1,2,3,4,7,8-HxCDD	*48*		*32 - 141*	*10/18/18 14:49*	*10/24/18 05:24*	*1*
13C-1,2,3,4,7,8-HxCDF	*50*		*26 - 152*	*10/18/18 14:49*	*10/24/18 05:24*	*1*
13C-1,2,3,6,7,8-HxCDD	*49*		*28 - 130*	*10/18/18 14:49*	*10/24/18 05:24*	*1*
13C-1,2,3,6,7,8-HxCDF	*52*		*26 - 123*	*10/18/18 14:49*	*10/24/18 05:24*	*1*
13C-1,2,3,7,8,9-HxCDF	*51*		*29 - 147*	*10/18/18 14:49*	*10/24/18 05:24*	*1*
13C-1,2,3,7,8-PeCDD	*48*		*25 - 181*	*10/18/18 14:49*	*10/24/18 05:24*	*1*
13C-1,2,3,7,8-PeCDF	*47*		*24 - 185*	*10/18/18 14:49*	*10/24/18 05:24*	*1*
13C-2,3,4,6,7,8-HxCDF	*50*		*28 - 136*	*10/18/18 14:49*	*10/24/18 05:24*	*1*
13C-2,3,4,7,8-PeCDF	*48*		*21 - 178*	*10/18/18 14:49*	*10/24/18 05:24*	*1*
13C-2,3,7,8-TCDD	*52*		*25 - 164*	*10/18/18 14:49*	*10/24/18 05:24*	*1*
13C-2,3,7,8-TCDF	*51*		*24 - 169*	*10/18/18 14:49*	*10/24/18 05:24*	*1*
13C-OCDD	*51*		*17 - 157*	*10/18/18 14:49*	*10/24/18 05:24*	*1*

Client Sample ID: J3-0to26-101318
Date Collected: 10/13/18 10:51
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-19
Matrix: Solid
Percent Solids: 44.1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
37Cl4-2,3,7,8-TCDD	*75*		*35 - 197*	*10/18/18 14:49*	*10/24/18 05:24*	*1*

Method: 1613B - Dioxins and Furans (HRGC/HRMS) - RA

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDF	**0.0014**	**B**	0.0011	0.00043	ug/Kg	☼	10/18/18 14:49	10/25/18 02:53	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDF	*47*		*24 - 169*	*10/18/18 14:49*	*10/25/18 02:53*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
37Cl4-2,3,7,8-TCDD	*54*		*35 - 197*	*10/18/18 14:49*	*10/25/18 02:53*	*1*

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	**0.75**	**B**	0.056	0.0015	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-10	**0.038**	**J q**	0.056	0.0059	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-100	**2.0**	**C93 B**	0.11	0.0017	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-101	**15**	**C90 B**	0.17	0.0015	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-102	**0.85**	**C98**	0.11	0.0017	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-103	**0.74**		0.056	0.0017	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-104	**0.094**	**q**	0.056	0.0013	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-105	**3.1**	**B**	0.056	0.0097	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-106	ND		0.056	0.010	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-107	**0.79**		0.056	0.011	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-108	**0.35**	**C B**	0.11	0.011	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-109	**8.1**	**C86 B**	0.34	0.0015	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-11	**0.19**	**q B**	0.11	0.0052	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-110	**13**	**C B**	0.11	0.0013	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-111	ND		0.056	0.0012	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-112	ND		0.056	0.0013	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-113	**15**	**C90 B**	0.17	0.0015	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-114	**0.19**		0.056	0.0093	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-115	**13**	**C110 B**	0.11	0.0013	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-116	**1.6**	**C85 B**	0.17	0.0015	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-117	**1.6**	**C85 B**	0.17	0.0015	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-118	**8.7**	**B**	0.056	0.010	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-119	**8.1**	**C86 B**	0.34	0.0015	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-12	**0.091**	**J q C**	0.11	0.0054	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-120	**0.058**	**q**	0.056	0.0012	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-121	ND		0.056	0.0013	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-122	**0.12**		0.056	0.012	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-123	**0.13**	**B**	0.056	0.010	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-124	**0.35**	**C108 B**	0.11	0.011	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-125	**8.1**	**C86 B**	0.34	0.0015	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-126	**0.097**	**q B**	0.056	0.011	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-127	ND		0.056	0.010	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-128	**2.3**	**C**	0.11	0.016	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-129	**18**	**C B**	0.23	0.016	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-13	**0.091**	**J q C12**	0.11	0.0054	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-130	**1.1**		0.056	0.021	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-131	**0.26**		0.056	0.022	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5

Client Sample ID: J3-0to26-101318
Date Collected: 10/13/18 10:51
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-19
Matrix: Solid
Percent Solids: 44.1

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-132	6.4	B	0.056	0.021	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-133	0.38		0.056	0.020	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-134	1.3	C B	0.11	0.021	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-135	7.9	C B	0.11	0.0017	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-136	3.1	B	0.056	0.0012	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-137	0.67		0.056	0.018	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-138	18	C129 B	0.23	0.016	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-139	0.36	C	0.11	0.018	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-14	ND		0.056	0.0046	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-140	0.36	C139	0.11	0.018	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-141	3.6	B	0.056	0.019	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-142	ND		0.056	0.020	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-143	1.3	C134 B	0.11	0.021	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-144	0.82		0.056	0.0015	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-145	ND		0.056	0.0012	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-146	3.3	B	0.056	0.018	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-147	19	C B	0.11	0.020	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-148	0.12		0.056	0.0017	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-149	19	C147 B	0.11	0.020	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-15	0.29		0.056	0.0058	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-150	0.14		0.056	0.0011	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-151	7.9	C135 B	0.11	0.0017	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-152	0.077	q	0.056	0.0012	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-153	16	C B	0.11	0.014	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-154	0.64	B	0.056	0.0013	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-155	ND		0.056	0.0011	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-156	1.8	C B	0.11	0.018	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-157	1.8	C156 B	0.11	0.018	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-158	1.8		0.056	0.013	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-159	0.098	B	0.056	0.013	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-16	0.087	q	0.056	0.0011	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-160	18	C129 B	0.23	0.016	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-161	ND		0.056	0.013	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-162	ND		0.056	0.013	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-163	18	C129 B	0.23	0.016	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-164	1.3	B	0.056	0.014	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-165	ND		0.056	0.015	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-166	2.3	C128	0.11	0.016	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-167	0.57	B	0.056	0.010	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-168	16	C153 B	0.11	0.014	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-169	ND		0.056	0.0095	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-17	0.97		0.056	0.0010	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-170	5.3	B	0.056	0.0038	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-171	1.7	C B	0.11	0.0036	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-172	0.83		0.056	0.0036	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-173	1.7	C171 B	0.11	0.0036	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-174	4.8	B	0.056	0.0034	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-175	0.22		0.056	0.0032	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-176	0.66		0.056	0.0025	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5

Client Sample ID: J3-0to26-101318
Date Collected: 10/13/18 10:51
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-19
Matrix: Solid
Percent Solids: 44.1

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-177	3.0	B	0.056	0.0034	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-178	1.1	B	0.056	0.0035	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-179	2.4	B	0.056	0.0026	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-18	0.23	q C	0.11	0.00088	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-180	10	C B	0.11	0.0027	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-181	ND		0.056	0.0032	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-182	0.059		0.056	0.0031	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-183	3.6	C B	0.11	0.0032	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-184	ND		0.056	0.0027	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-185	3.6	C183 B	0.11	0.0032	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-186	ND		0.056	0.0026	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-187	5.9	B	0.056	0.0030	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-188	ND		0.056	0.0023	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-189	0.18		0.056	0.0093	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-19	1.6		0.056	0.0012	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-190	0.99	B	0.056	0.0023	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-191	0.25		0.056	0.0024	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-192	ND		0.056	0.0027	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-193	10	C180 B	0.11	0.0027	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-194	2.0	B	0.056	0.013	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-195	0.88		0.056	0.014	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-196	1.0	B	0.056	0.0047	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-197	0.086		0.056	0.0036	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-198	1.9	C	0.11	0.0048	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-199	1.9	C198	0.11	0.0048	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-2	0.10	q B	0.056	0.0018	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-20	0.60	C B	0.11	0.0042	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-200	0.21		0.056	0.0032	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-201	0.23		0.056	0.0033	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-202	0.34		0.056	0.0037	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-203	1.2	B	0.056	0.0043	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-204	ND		0.056	0.0036	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-205	0.11		0.056	0.011	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-206	0.60		0.056	0.013	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-207	0.062	q	0.056	0.0092	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-208	0.14		0.056	0.0095	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-209	0.42		0.056	0.0078	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-21	0.25	C B	0.11	0.0041	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-22	0.099	B	0.056	0.0043	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-23	ND		0.056	0.0042	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-24	ND		0.056	0.00084	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-25	0.11		0.056	0.0038	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-26	0.083	J C B	0.11	0.0041	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-27	0.20		0.056	0.00073	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-28	0.60	C20 B	0.11	0.0042	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-29	0.083	J C26 B	0.11	0.0041	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-3	0.36	B	0.056	0.0020	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-30	0.23	q C18	0.11	0.00088	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-31	0.33		0.11	0.0041	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5

Client Sample ID: J3-0to26-101318
Date Collected: 10/13/18 10:51
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-19
Matrix: Solid
Percent Solids: 44.1

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-32	0.77	B	0.056	0.00070	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-33	0.25	C21 B	0.11	0.0041	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-34	ND		0.056	0.0044	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-35	ND		0.056	0.0043	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-36	0.078		0.056	0.0041	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-37	0.13		0.056	0.0042	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-38	ND		0.056	0.0044	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-39	ND		0.056	0.0040	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-4	0.78		0.11	0.0071	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-40	1.5	C	0.17	0.026	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-41	1.5	C40	0.17	0.026	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-42	0.32		0.056	0.026	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-43	0.33	C	0.11	0.025	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-44	12	C B	0.17	0.023	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-45	5.8	C	0.11	0.028	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-46	0.18		0.056	0.033	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-47	12	C44 B	0.17	0.023	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-48	0.14	q	0.056	0.026	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-49	4.2	C	0.11	0.021	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-5	0.046	J	0.056	0.0060	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-50	2.6	C	0.11	0.025	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-51	5.8	C45	0.11	0.028	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-52	6.1		0.056	0.026	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-53	2.6	C50	0.11	0.025	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-54	1.1		0.056	0.0013	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-55	ND		0.056	0.019	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-56	0.41		0.056	0.019	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-57	ND		0.056	0.019	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-58	ND		0.056	0.020	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-59	0.32	C	0.17	0.019	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-6	0.18		0.056	0.0053	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-60	0.16		0.056	0.020	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-61	3.9	C	0.23	0.018	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-62	0.32	C59	0.17	0.019	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-63	0.070	q	0.056	0.018	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-64	0.57		0.056	0.018	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-65	12	C44 B	0.17	0.023	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-66	1.5		0.056	0.018	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-67	ND		0.056	0.017	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-68	0.096	q B	0.056	0.017	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-69	4.2	C49	0.11	0.021	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-7	0.068	q	0.056	0.0054	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-70	3.9	C61	0.23	0.018	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-71	1.5	C40	0.17	0.026	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-72	ND		0.056	0.019	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-73	0.33	C43	0.11	0.025	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-74	3.9	C61	0.23	0.018	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-75	0.32	C59	0.17	0.019	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-76	3.9	C61	0.23	0.018	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5

Client Sample ID: J3-0to26-101318
Date Collected: 10/13/18 10:51
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-19
Matrix: Solid
Percent Solids: 44.1

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-77	**0.099**		0.056	0.019	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-78	ND		0.056	0.020	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-79	**0.057**		0.056	0.017	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-8	**0.56**		0.11	0.0049	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-80	ND		0.056	0.017	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-81	ND		0.056	0.017	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-82	**1.2**		0.056	0.0020	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-83	**7.7**	**C**	0.11	0.0018	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-84	**3.1**		0.056	0.0020	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-85	**1.6**	**C B**	0.17	0.0015	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-86	**8.1**	**C B**	0.34	0.0015	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-87	**8.1**	**C86 B**	0.34	0.0015	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-88	**3.1**	**C B**	0.11	0.0018	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-89	ND		0.056	0.0019	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-9	**0.076**		0.056	0.0056	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-90	**15**	**C B**	0.17	0.0015	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-91	**3.1**	**C88 B**	0.11	0.0018	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-92	**2.7**	**B**	0.056	0.0017	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-93	**2.0**	**C B**	0.11	0.0017	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-94	**0.40**		0.056	0.0019	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-95	**12**	**B**	0.056	0.0019	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-96	**0.30**		0.056	0.0015	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-97	**8.1**	**C86 B**	0.34	0.0015	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-98	**0.85**	**C**	0.11	0.0017	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
PCB-99	**7.7**	**C83**	0.11	0.0018	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
Polychlorinated biphenyls, Total	**280**	**q B**	0.34	0.0082	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
Total Monochlorobiphenyls	**1.2**	**q B**	0.056	0.0017	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
Total Dichlorobiphenyls	**2.3**	**q B**	0.11	0.0056	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
Total Trichlorobiphenyls	**5.5**	**q B**	0.11	0.0030	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
Total Tetrachlorobiphenyls	**41**	**q B**	0.23	0.020	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
Total Pentachlorobiphenyls	**85**	**q B**	0.34	0.0045	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
Total Hexachlorobiphenyls	**91**	**q B**	0.23	0.012	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
Total Heptachlorobiphenyls	**41**	**B**	0.11	0.0033	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
Total Octachlorobiphenyls	**8.0**	**B**	0.11	0.0064	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5
Total Nonachlorobiphenyls	**0.80**	**q**	0.056	0.010	ng/g	☼	10/19/18 12:00	10/27/18 18:34	5

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
PCB-104L	*84*		*30 - 140*	*10/19/18 12:00*	*10/27/18 18:34*	*5*
PCB-105L	*94*		*30 - 140*	*10/19/18 12:00*	*10/27/18 18:34*	*5*
PCB-114L	*93*		*30 - 140*	*10/19/18 12:00*	*10/27/18 18:34*	*5*
PCB-118L	*89*		*30 - 140*	*10/19/18 12:00*	*10/27/18 18:34*	*5*
PCB-123L	*90*		*30 - 140*	*10/19/18 12:00*	*10/27/18 18:34*	*5*
PCB-126L	*88*		*30 - 140*	*10/19/18 12:00*	*10/27/18 18:34*	*5*
PCB-155L	*89*		*30 - 140*	*10/19/18 12:00*	*10/27/18 18:34*	*5*
PCB-156L	*89*	*C*	*30 - 140*	*10/19/18 12:00*	*10/27/18 18:34*	*5*
PCB-157L	*89*	*C156*	*30 - 140*	*10/19/18 12:00*	*10/27/18 18:34*	*5*
PCB-15L	*79*		*30 - 140*	*10/19/18 12:00*	*10/27/18 18:34*	*5*
PCB-167L	*90*		*30 - 140*	*10/19/18 12:00*	*10/27/18 18:34*	*5*
PCB-169L	*97*		*30 - 140*	*10/19/18 12:00*	*10/27/18 18:34*	*5*
PCB-170L	*83*		*30 - 140*	*10/19/18 12:00*	*10/27/18 18:34*	*5*

Client Sample ID: J3-0to26-101318
Date Collected: 10/13/18 10:51
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-19
Matrix: Solid
Percent Solids: 44.1

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-188L	88		30 - 140	10/19/18 12:00	10/27/18 18:34	5
PCB-189L	84		30 - 140	10/19/18 12:00	10/27/18 18:34	5
PCB-19L	94		30 - 140	10/19/18 12:00	10/27/18 18:34	5
PCB-1L	64		30 - 140	10/19/18 12:00	10/27/18 18:34	5
PCB-202L	102		30 - 140	10/19/18 12:00	10/27/18 18:34	5
PCB-205L	75		30 - 140	10/19/18 12:00	10/27/18 18:34	5
PCB-206L	95		30 - 140	10/19/18 12:00	10/27/18 18:34	5
PCB-208L	92		30 - 140	10/19/18 12:00	10/27/18 18:34	5
PCB-209L	95		30 - 140	10/19/18 12:00	10/27/18 18:34	5
PCB-37L	93		30 - 140	10/19/18 12:00	10/27/18 18:34	5
PCB-3L	64		30 - 140	10/19/18 12:00	10/27/18 18:34	5
PCB-4L	80		30 - 140	10/19/18 12:00	10/27/18 18:34	5
PCB-54L	70		30 - 140	10/19/18 12:00	10/27/18 18:34	5
PCB-77L	88		30 - 140	10/19/18 12:00	10/27/18 18:34	5
PCB-81L	90		30 - 140	10/19/18 12:00	10/27/18 18:34	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-111L	94		40 - 125	10/19/18 12:00	10/27/18 18:34	5
PCB-178L	94		40 - 125	10/19/18 12:00	10/27/18 18:34	5
PCB-28L	97		40 - 125	10/19/18 12:00	10/27/18 18:34	5

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	8.4		0.33	0.066	mg/Kg	☼	11/02/18 12:26	11/05/18 15:13	5
Cadmium	1.1		0.26	0.051	mg/Kg	☼	11/02/18 12:26	11/05/18 15:13	5
Copper	120		0.66	0.15	mg/Kg	☼	11/02/18 12:26	11/05/18 15:13	5
Lead	44		0.33	0.032	mg/Kg	☼	11/02/18 12:26	11/05/18 15:13	5
Zinc	360		3.3	1.1	mg/Kg	☼	11/02/18 12:26	11/05/18 15:13	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.13		0.050	0.015	mg/Kg	☼	10/26/18 09:42	10/26/18 13:55	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	44000	B	2000	44	mg/Kg			10/24/18 15:36	1
Total Solids	44.1		0.1	0.1	%			11/01/18 11:09	1
Percent Moisture	57	H	0.10	0.10	%			10/25/18 12:18	1
Percent Solids	43	H	0.10	0.10	%			10/25/18 12:18	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Clay	25.7				%			10/19/18 16:28	1
Coarse Sand	0.0				%			10/19/18 16:28	1
Fine Sand	9.7				%			10/19/18 16:28	1
Gravel	0.0				%			10/19/18 16:28	1
Medium Sand	0.6				%			10/19/18 16:28	1
Silt	64.0				%			10/19/18 16:28	1

Client: Pacific Groundwater Group
Project/Site: Swan Island Lagoon SedimentInvestigation

TestAmerica Job ID: 580-81081-1

Client Sample ID: J3-0to26-101318
Date Collected: 10/13/18 10:51
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-19
Matrix: Solid
Percent Solids: 44.1

Method: D854 - Specific Gravity

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Density	1.37		0.0100	0.0100	g/cm3			10/25/18 00:00	1
Specific Gravity	1.37		0.0100	0.0100	NONE			10/25/18 00:00	1

Client Sample ID: L3-0to20-101318

Date Collected: 10/13/18 14:33
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-21

Matrix: Solid
Percent Solids: 72.2

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	33	J	67	16	mg/Kg	☼	10/27/18 20:36	11/04/18 21:48	1
Motor Oil (>C24-C36)	190		67	23	mg/Kg	☼	10/27/18 20:36	11/04/18 21:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*105*		*50 - 150*	*10/27/18 20:36*	*11/04/18 21:48*	*1*

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3,4,6,7,8-HpCDD	0.079	B	0.0034	0.0018	ug/Kg	☼	10/18/18 14:49	10/24/18 06:10	1
1,2,3,4,6,7,8-HpCDF	0.028	B	0.0034	0.0012	ug/Kg	☼	10/18/18 14:49	10/24/18 06:10	1
1,2,3,4,7,8,9-HpCDF	0.0028	J B	0.0034	0.0015	ug/Kg	☼	10/18/18 14:49	10/24/18 06:10	1
1,2,3,4,7,8-HxCDD	0.00053	J B	0.0034	0.000085	ug/Kg	☼	10/18/18 14:49	10/24/18 06:10	1
1,2,3,4,7,8-HxCDF	0.0043	B	0.0034	0.00022	ug/Kg	☼	10/18/18 14:49	10/24/18 06:10	1
1,2,3,6,7,8-HxCDD	0.0024	J B	0.0034	0.000080	ug/Kg	☼	10/18/18 14:49	10/24/18 06:10	1
1,2,3,6,7,8-HxCDF	0.0011	J B	0.0034	0.00021	ug/Kg	☼	10/18/18 14:49	10/24/18 06:10	1
1,2,3,7,8,9-HxCDD	0.0011	J B	0.0034	0.000073	ug/Kg	☼	10/18/18 14:49	10/24/18 06:10	1
1,2,3,7,8,9-HxCDF	0.00047	J q B	0.0034	0.00020	ug/Kg	☼	10/18/18 14:49	10/24/18 06:10	1
1,2,3,7,8-PeCDD	0.00021	J q	0.0034	0.000091	ug/Kg	☼	10/18/18 14:49	10/24/18 06:10	1
1,2,3,7,8-PeCDF	0.00033	J B	0.0034	0.000077	ug/Kg	☼	10/18/18 14:49	10/24/18 06:10	1
2,3,4,6,7,8-HxCDF	0.00053	J B	0.0034	0.00018	ug/Kg	☼	10/18/18 14:49	10/24/18 06:10	1
2,3,4,7,8-PeCDF	0.00059	J	0.0034	0.000080	ug/Kg	☼	10/18/18 14:49	10/24/18 06:10	1
2,3,7,8-TCDD	0.00028	J	0.00068	0.000050	ug/Kg	☼	10/18/18 14:49	10/24/18 06:10	1
2,3,7,8-TCDF	0.00026	J B	0.00068	0.000028	ug/Kg	☼	10/18/18 14:49	10/24/18 06:10	1
OCDD	0.77	B	0.0068	0.0023	ug/Kg	☼	10/18/18 14:49	10/24/18 06:10	1
OCDF	0.11	B	0.0068	0.00026	ug/Kg	☼	10/18/18 14:49	10/24/18 06:10	1
Total HpCDD	0.17	B	0.0034	0.0018	ug/Kg	☼	10/18/18 14:49	10/24/18 06:10	1
Total HpCDF	0.12	B	0.0034	0.0014	ug/Kg	☼	10/18/18 14:49	10/24/18 06:10	1
Total HxCDD	0.015	B	0.0034	0.000079	ug/Kg	☼	10/18/18 14:49	10/24/18 06:10	1
Total HxCDF	0.037	q B	0.0034	0.00020	ug/Kg	☼	10/18/18 14:49	10/24/18 06:10	1
Total PeCDD	0.00099	J q	0.0034	0.000091	ug/Kg	☼	10/18/18 14:49	10/24/18 06:10	1
Total PeCDF	0.0042	B	0.0034	0.000078	ug/Kg	☼	10/18/18 14:49	10/24/18 06:10	1
Total TCDF	0.0012	q B	0.00068	0.000028	ug/Kg	☼	10/18/18 14:49	10/24/18 06:10	1
Total TCDD	0.00079	q	0.00068	0.000050	ug/Kg	☼	10/18/18 14:49	10/24/18 06:10	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-1,2,3,4,6,7,8-HpCDD	*64*		*23 - 140*	*10/18/18 14:49*	*10/24/18 06:10*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*58*		*28 - 143*	*10/18/18 14:49*	*10/24/18 06:10*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*63*		*26 - 138*	*10/18/18 14:49*	*10/24/18 06:10*	*1*
13C-1,2,3,4,7,8-HxCDD	*59*		*32 - 141*	*10/18/18 14:49*	*10/24/18 06:10*	*1*
13C-1,2,3,4,7,8-HxCDF	*60*		*26 - 152*	*10/18/18 14:49*	*10/24/18 06:10*	*1*
13C-1,2,3,6,7,8-HxCDD	*56*		*28 - 130*	*10/18/18 14:49*	*10/24/18 06:10*	*1*
13C-1,2,3,6,7,8-HxCDF	*58*		*26 - 123*	*10/18/18 14:49*	*10/24/18 06:10*	*1*
13C-1,2,3,7,8,9-HxCDF	*59*		*29 - 147*	*10/18/18 14:49*	*10/24/18 06:10*	*1*
13C-1,2,3,7,8-PeCDD	*54*		*25 - 181*	*10/18/18 14:49*	*10/24/18 06:10*	*1*
13C-1,2,3,7,8-PeCDF	*54*		*24 - 185*	*10/18/18 14:49*	*10/24/18 06:10*	*1*
13C-2,3,4,6,7,8-HxCDF	*59*		*28 - 136*	*10/18/18 14:49*	*10/24/18 06:10*	*1*
13C-2,3,4,7,8-PeCDF	*55*		*21 - 178*	*10/18/18 14:49*	*10/24/18 06:10*	*1*
13C-2,3,7,8-TCDD	*58*		*25 - 164*	*10/18/18 14:49*	*10/24/18 06:10*	*1*
13C-2,3,7,8-TCDF	*58*		*24 - 169*	*10/18/18 14:49*	*10/24/18 06:10*	*1*
13C-OCDD	*63*		*17 - 157*	*10/18/18 14:49*	*10/24/18 06:10*	*1*

Client Sample ID: L3-0to20-101318
Date Collected: 10/13/18 14:33
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-21
Matrix: Solid
Percent Solids: 72.2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
37Cl4-2,3,7,8-TCDD	86		35 - 197	10/18/18 14:49	10/24/18 06:10	1

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.013	J B	0.020	0.00033	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-10	0.0049	J q	0.020	0.0020	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-100	0.28	C93 B	0.040	0.00068	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-101	2.7	C90 B	0.060	0.00059	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-102	0.11	C98	0.040	0.00066	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-103	0.13		0.020	0.00068	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-104	0.027		0.020	0.00052	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-105	0.44	B	0.020	0.0031	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-106	ND		0.020	0.0032	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-107	0.11		0.020	0.0035	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-108	0.054	C B	0.040	0.0033	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-109	1.2	C86 B	0.12	0.00059	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-11	0.018	J q B	0.040	0.0017	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-110	2.2	C B	0.040	0.00050	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-111	ND		0.020	0.00048	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-112	ND		0.020	0.00050	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-113	2.7	C90 B	0.060	0.00059	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-114	0.025	q	0.020	0.0030	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-115	2.2	C110 B	0.040	0.00050	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-116	0.24	C85 B	0.060	0.00058	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-117	0.24	C85 B	0.060	0.00058	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-118	1.3	B	0.020	0.0031	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-119	1.2	C86 B	0.12	0.00059	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-12	0.0063	J q C	0.040	0.0018	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-120	0.014	J q	0.020	0.00049	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-121	ND		0.020	0.00050	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-122	0.017	J	0.020	0.0037	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-123	0.023	B	0.020	0.0033	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-124	0.054	C108 B	0.040	0.0033	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-125	1.2	C86 B	0.12	0.00059	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-126	0.013	J q B	0.020	0.0034	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-127	ND		0.020	0.0032	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-128	0.51	C	0.040	0.014	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-129	6.2	C B	0.080	0.015	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-13	0.0063	J q C12	0.040	0.0018	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-130	0.26		0.020	0.019	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-131	ND		0.020	0.020	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-132	1.8	B	0.020	0.019	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-133	0.099		0.020	0.018	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-134	0.30	C B	0.040	0.019	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-135	3.2	C B	0.040	0.00094	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-136	0.97	B	0.020	0.00068	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-137	0.090		0.020	0.017	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-138	6.2	C129 B	0.080	0.015	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-139	0.073	C	0.040	0.016	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-14	ND		0.020	0.0015	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3

Client Sample ID: L3-0to20-101318
Date Collected: 10/13/18 14:33
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-21
Matrix: Solid
Percent Solids: 72.2

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-140	0.073	C139	0.040	0.016	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-141	1.8	B	0.020	0.017	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-142	ND		0.020	0.018	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-143	0.30	C134 B	0.040	0.019	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-144	0.53		0.020	0.00085	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-145	0.0060	J q	0.020	0.00064	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-146	1.2	B	0.020	0.016	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-147	7.1	C B	0.040	0.018	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-148	0.020		0.020	0.00091	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-149	7.1	C147 B	0.040	0.018	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-15	0.030		0.020	0.0020	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-150	0.026	q	0.020	0.00062	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-151	3.2	C135 B	0.040	0.00094	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-152	0.0095	J q	0.020	0.00066	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-153	6.8	C B	0.040	0.013	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-154	0.14	B	0.020	0.00073	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-155	ND		0.020	0.00062	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-156	0.46	C B	0.040	0.016	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-157	0.46	C156 B	0.040	0.016	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-158	0.67		0.020	0.012	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-159	0.11	B	0.020	0.012	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-16	0.019	J q	0.020	0.00052	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-160	6.2	C129 B	0.080	0.015	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-161	ND		0.020	0.012	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-162	ND		0.020	0.012	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-163	6.2	C129 B	0.080	0.015	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-164	0.49	B	0.020	0.013	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-165	ND		0.020	0.014	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-166	0.51	C128	0.040	0.014	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-167	0.20	B	0.020	0.0090	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-168	6.8	C153 B	0.040	0.013	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-169	ND		0.020	0.0093	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-17	0.32		0.020	0.00047	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-170	4.2	B	0.020	0.0018	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-171	1.7	C B	0.040	0.0017	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-172	0.91		0.020	0.0017	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-173	1.7	C171 B	0.040	0.0017	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-174	5.0	B	0.020	0.0016	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-175	0.31		0.020	0.0016	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-176	0.78		0.020	0.0012	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-177	2.6	B	0.020	0.0017	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-178	1.1	B	0.020	0.0017	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-179	2.2	B	0.020	0.0013	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-18	0.061	C	0.040	0.00041	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-180	12	C B	0.040	0.0013	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-181	ND		0.020	0.0016	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-182	ND		0.020	0.0015	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-183	4.8	C B	0.040	0.0015	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-184	ND		0.020	0.0013	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3

Client: Pacific Groundwater Group
Project/Site: Swan Island Lagoon SedimentInvestigation

TestAmerica Job ID: 580-81081-1

Client Sample ID: L3-0to20-101318
Date Collected: 10/13/18 14:33
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-21
Matrix: Solid
Percent Solids: 72.2

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-185	4.8	C183 B	0.040	0.0015	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-186	ND		0.020	0.0012	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-187	6.4	B	0.020	0.0015	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-188	ND		0.020	0.0011	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-189	0.17		0.020	0.0034	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-19	0.69		0.020	0.00057	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-190	1.1	B	0.020	0.0011	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-191	0.32		0.020	0.0012	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-192	ND		0.020	0.0013	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-193	12	C180 B	0.040	0.0013	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-194	4.0	B	0.020	0.0071	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-195	1.6		0.020	0.0078	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-196	2.4	B	0.020	0.0026	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-197	0.21		0.020	0.0020	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-198	3.9	C	0.040	0.0027	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-199	3.9	C198	0.040	0.0027	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-2	0.0059	J q B	0.020	0.00038	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-20	0.15	C B	0.040	0.0012	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-200	0.47		0.020	0.0018	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-201	0.54		0.020	0.0018	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-202	0.69		0.020	0.0021	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-203	2.9	B	0.020	0.0024	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-204	ND		0.020	0.0020	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-205	0.31		0.020	0.0060	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-206	2.2		0.020	0.0047	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-207	0.28		0.020	0.0033	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-208	0.45		0.020	0.0034	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-209	0.31		0.020	0.0027	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-21	0.069	C B	0.040	0.0011	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-22	0.029	B	0.020	0.0012	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-23	ND		0.020	0.0012	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-24	ND		0.020	0.00039	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-25	0.027		0.020	0.0011	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-26	0.027	J q C B	0.040	0.0012	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-27	0.063		0.020	0.00034	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-28	0.15	C20 B	0.040	0.0012	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-29	0.027	J q C26 B	0.040	0.0012	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-3	0.010	J B	0.020	0.00042	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-30	0.061	C18	0.040	0.00041	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-31	0.088		0.040	0.0011	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-32	0.21	B	0.020	0.00033	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-33	0.069	C21 B	0.040	0.0011	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-34	ND		0.020	0.0012	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-35	0.0031	J q	0.020	0.0012	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-36	0.016	J	0.020	0.0012	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-37	0.041		0.020	0.0012	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-38	ND		0.020	0.0012	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-39	ND		0.020	0.0011	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-4	0.12		0.040	0.0024	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3

Client Sample ID: L3-0to20-101318
Date Collected: 10/13/18 14:33
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-21
Matrix: Solid
Percent Solids: 72.2

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-40	0.27	C	0.060	0.0070	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-41	0.27	C40	0.060	0.0070	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-42	0.088		0.020	0.0070	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-43	0.065	C	0.040	0.0066	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-44	2.1	C B	0.060	0.0062	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-45	1.1	C	0.040	0.0073	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-46	ND		0.020	0.0089	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-47	2.1	C44 B	0.060	0.0062	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-48	0.040		0.020	0.0070	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-49	0.88	C	0.040	0.0057	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-5	ND		0.020	0.0020	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-50	0.50	C	0.040	0.0068	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-51	1.1	C45	0.040	0.0073	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-52	1.2		0.020	0.0069	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-53	0.50	C50	0.040	0.0068	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-54	0.24		0.020	0.00038	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-55	0.0071	J	0.020	0.0051	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-56	0.13		0.020	0.0051	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-57	ND		0.020	0.0052	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-58	ND		0.020	0.0052	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-59	0.066	C	0.060	0.0049	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-6	0.0085	J q	0.020	0.0018	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-60	0.055		0.020	0.0052	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-61	0.78	C	0.080	0.0049	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-62	0.066	C59	0.060	0.0049	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-63	0.018	J	0.020	0.0047	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-64	0.13		0.020	0.0047	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-65	2.1	C44 B	0.060	0.0062	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-66	0.33		0.020	0.0048	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-67	ND		0.020	0.0045	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-68	0.019	J q B	0.020	0.0046	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-69	0.88	C49	0.040	0.0057	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-7	ND		0.020	0.0018	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-70	0.78	C61	0.080	0.0049	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-71	0.27	C40	0.060	0.0070	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-72	ND		0.020	0.0051	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-73	0.065	C43	0.040	0.0066	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-74	0.78	C61	0.080	0.0049	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-75	0.066	C59	0.060	0.0049	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-76	0.78	C61	0.080	0.0049	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-77	0.031	q	0.020	0.0050	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-78	ND		0.020	0.0052	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-79	ND		0.020	0.0045	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-8	0.026	J	0.040	0.0016	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-80	ND		0.020	0.0044	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-81	ND		0.020	0.0047	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-82	0.18		0.020	0.00078	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-83	1.2	C	0.040	0.00072	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-84	0.48		0.020	0.00079	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3

Client Sample ID: L3-0to20-101318
Date Collected: 10/13/18 14:33
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-21
Matrix: Solid
Percent Solids: 72.2

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-85	0.24	C B	0.060	0.00058	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-86	1.2	C B	0.12	0.00059	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-87	1.2	C86 B	0.12	0.00059	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-88	0.44	C B	0.040	0.00071	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-89	ND		0.020	0.00077	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-9	0.0019	J q	0.020	0.0019	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-90	2.7	C B	0.060	0.00059	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-91	0.44	C88 B	0.040	0.00071	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-92	0.50	B	0.020	0.00067	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-93	0.28	C B	0.040	0.00068	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-94	0.046	q	0.020	0.00077	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-95	2.3	B	0.020	0.00074	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-96	0.045		0.020	0.00058	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-97	1.2	C86 B	0.12	0.00059	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-98	0.11	C	0.040	0.00066	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
PCB-99	1.2	C83	0.040	0.00072	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
Polychlorinated biphenyls, Total	120	q B	0.12	0.0036	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
Total Monochlorobiphenyls	0.029	q B	0.020	0.00038	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
Total Dichlorobiphenyls	0.22	q B	0.040	0.0019	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
Total Trichlorobiphenyls	1.8	q B	0.040	0.00091	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
Total Tetrachlorobiphenyls	8.0	q B	0.080	0.0054	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
Total Pentachlorobiphenyls	14	q B	0.12	0.0015	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
Total Hexachlorobiphenyls	33	q B	0.080	0.011	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
Total Heptachlorobiphenyls	44	B	0.040	0.0015	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
Total Octachlorobiphenyls	17	B	0.040	0.0035	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3
Total Nonachlorobiphenyls	2.9		0.020	0.0038	ng/g	☼	10/19/18 12:00	10/27/18 19:36	3

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
PCB-104L	*84*		*30 - 140*	*10/19/18 12:00*	*10/27/18 19:36*	*3*
PCB-105L	*93*		*30 - 140*	*10/19/18 12:00*	*10/27/18 19:36*	*3*
PCB-114L	*92*		*30 - 140*	*10/19/18 12:00*	*10/27/18 19:36*	*3*
PCB-118L	*91*		*30 - 140*	*10/19/18 12:00*	*10/27/18 19:36*	*3*
PCB-123L	*90*		*30 - 140*	*10/19/18 12:00*	*10/27/18 19:36*	*3*
PCB-126L	*91*		*30 - 140*	*10/19/18 12:00*	*10/27/18 19:36*	*3*
PCB-155L	*93*		*30 - 140*	*10/19/18 12:00*	*10/27/18 19:36*	*3*
PCB-156L	*91*	*C*	*30 - 140*	*10/19/18 12:00*	*10/27/18 19:36*	*3*
PCB-157L	*91*	*C156*	*30 - 140*	*10/19/18 12:00*	*10/27/18 19:36*	*3*
PCB-15L	*81*		*30 - 140*	*10/19/18 12:00*	*10/27/18 19:36*	*3*
PCB-167L	*93*		*30 - 140*	*10/19/18 12:00*	*10/27/18 19:36*	*3*
PCB-169L	*95*		*30 - 140*	*10/19/18 12:00*	*10/27/18 19:36*	*3*
PCB-170L	*88*		*30 - 140*	*10/19/18 12:00*	*10/27/18 19:36*	*3*
PCB-188L	*88*		*30 - 140*	*10/19/18 12:00*	*10/27/18 19:36*	*3*
PCB-189L	*80*		*30 - 140*	*10/19/18 12:00*	*10/27/18 19:36*	*3*
PCB-19L	*88*		*30 - 140*	*10/19/18 12:00*	*10/27/18 19:36*	*3*
PCB-1L	*65*		*30 - 140*	*10/19/18 12:00*	*10/27/18 19:36*	*3*
PCB-202L	*109*		*30 - 140*	*10/19/18 12:00*	*10/27/18 19:36*	*3*
PCB-205L	*77*		*30 - 140*	*10/19/18 12:00*	*10/27/18 19:36*	*3*
PCB-206L	*92*		*30 - 140*	*10/19/18 12:00*	*10/27/18 19:36*	*3*
PCB-208L	*91*		*30 - 140*	*10/19/18 12:00*	*10/27/18 19:36*	*3*
PCB-209L	*96*		*30 - 140*	*10/19/18 12:00*	*10/27/18 19:36*	*3*

Client Sample ID: L3-0to20-101318
Date Collected: 10/13/18 14:33
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-21
Matrix: Solid
Percent Solids: 72.2

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-37L	90		30 - 140	10/19/18 12:00	10/27/18 19:36	3
PCB-3L	65		30 - 140	10/19/18 12:00	10/27/18 19:36	3
PCB-4L	82		30 - 140	10/19/18 12:00	10/27/18 19:36	3
PCB-54L	75		30 - 140	10/19/18 12:00	10/27/18 19:36	3
PCB-77L	90		30 - 140	10/19/18 12:00	10/27/18 19:36	3
PCB-81L	88		30 - 140	10/19/18 12:00	10/27/18 19:36	3

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-111L	91		40 - 125	10/19/18 12:00	10/27/18 19:36	3
PCB-178L	94		40 - 125	10/19/18 12:00	10/27/18 19:36	3
PCB-28L	91		40 - 125	10/19/18 12:00	10/27/18 19:36	3

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3.9		0.20	0.040	mg/Kg	☼	11/02/18 12:26	11/05/18 15:18	5
Cadmium	0.24		0.16	0.031	mg/Kg	☼	11/02/18 12:26	11/05/18 15:18	5
Copper	33		0.40	0.087	mg/Kg	☼	11/02/18 12:26	11/05/18 15:18	5
Lead	12		0.20	0.019	mg/Kg	☼	11/02/18 12:26	11/05/18 15:18	5
Zinc	110		2.0	0.64	mg/Kg	☼	11/02/18 12:26	11/05/18 15:18	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.036		0.033	0.0098	mg/Kg	☼	10/26/18 09:47	10/26/18 13:57	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	4300	B	2000	44	mg/Kg			10/24/18 15:41	1
Total Solids	72.2		0.1	0.1	%			11/01/18 11:09	1
Percent Moisture	27	H	0.10	0.10	%			10/25/18 12:18	1
Percent Solids	73	H	0.10	0.10	%			10/25/18 12:18	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Clay	10.6				%			10/19/18 16:28	1
Coarse Sand	0.7				%			10/19/18 16:28	1
Fine Sand	45.5				%			10/19/18 16:28	1
Gravel	0.2				%			10/19/18 16:28	1
Medium Sand	13.2				%			10/19/18 16:28	1
Silt	29.9				%			10/19/18 16:28	1

Method: D854 - Specific Gravity

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Density	1.85		0.0100	0.0100	g/cm3			10/25/18 00:00	1
Specific Gravity	1.86		0.0100	0.0100	NONE			10/25/18 00:00	1

Client Sample ID: L5-0to26-101318
Date Collected: 10/13/18 13:13
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-23
Matrix: Solid
Percent Solids: 32.3

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	180		150	37	mg/Kg	☼	10/27/18 20:36	11/04/18 22:08	1
Motor Oil (>C24-C36)	1000		150	52	mg/Kg	☼	10/27/18 20:36	11/04/18 22:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*98*		*50 - 150*	*10/27/18 20:36*	*11/04/18 22:08*	*1*

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3,4,6,7,8-HpCDD	0.58	G B	0.013	0.013	ug/Kg	☼	10/18/18 14:49	10/24/18 06:55	1
1,2,3,4,6,7,8-HpCDF	0.17	B	0.0076	0.0068	ug/Kg	☼	10/18/18 14:49	10/24/18 06:55	1
1,2,3,4,7,8,9-HpCDF	0.015	G B	0.0090	0.0090	ug/Kg	☼	10/18/18 14:49	10/24/18 06:55	1
1,2,3,4,7,8-HxCDD	0.0039	J B	0.0076	0.00042	ug/Kg	☼	10/18/18 14:49	10/24/18 06:55	1
1,2,3,4,7,8-HxCDF	0.026	B	0.0076	0.0014	ug/Kg	☼	10/18/18 14:49	10/24/18 06:55	1
1,2,3,6,7,8-HxCDD	0.019	B	0.0076	0.00040	ug/Kg	☼	10/18/18 14:49	10/24/18 06:55	1
1,2,3,6,7,8-HxCDF	0.0063	J B	0.0076	0.0013	ug/Kg	☼	10/18/18 14:49	10/24/18 06:55	1
1,2,3,7,8,9-HxCDD	0.0078	B	0.0076	0.00036	ug/Kg	☼	10/18/18 14:49	10/24/18 06:55	1
1,2,3,7,8,9-HxCDF	ND		0.0076	0.0012	ug/Kg	☼	10/18/18 14:49	10/24/18 06:55	1
1,2,3,7,8-PeCDD	0.0019	J	0.0076	0.00044	ug/Kg	☼	10/18/18 14:49	10/24/18 06:55	1
1,2,3,7,8-PeCDF	0.0018	J B	0.0076	0.00052	ug/Kg	☼	10/18/18 14:49	10/24/18 06:55	1
2,3,4,6,7,8-HxCDF	0.0022	J q B	0.0076	0.0011	ug/Kg	☼	10/18/18 14:49	10/24/18 06:55	1
2,3,4,7,8-PeCDF	0.0033	J	0.0076	0.00055	ug/Kg	☼	10/18/18 14:49	10/24/18 06:55	1
2,3,7,8-TCDD	0.00062	J q	0.0015	0.00014	ug/Kg	☼	10/18/18 14:49	10/24/18 06:55	1
OCDD	4.8	B	0.015	0.0097	ug/Kg	☼	10/18/18 14:49	10/24/18 06:55	1
OCDF	0.66	B	0.015	0.0013	ug/Kg	☼	10/18/18 14:49	10/24/18 06:55	1
Total HpCDD	1.2	G B	0.013	0.013	ug/Kg	☼	10/18/18 14:49	10/24/18 06:55	1
Total HpCDF	0.86	G B	0.0079	0.0079	ug/Kg	☼	10/18/18 14:49	10/24/18 06:55	1
Total HxCDD	0.12	B	0.0076	0.00040	ug/Kg	☼	10/18/18 14:49	10/24/18 06:55	1
Total HxCDF	0.26	q B	0.0076	0.0012	ug/Kg	☼	10/18/18 14:49	10/24/18 06:55	1
Total PeCDD	0.011	q	0.0076	0.00044	ug/Kg	☼	10/18/18 14:49	10/24/18 06:55	1
Total PeCDF	0.029	q B	0.0076	0.00053	ug/Kg	☼	10/18/18 14:49	10/24/18 06:55	1
Total TCDF	0.012	q B	0.0015	0.00014	ug/Kg	☼	10/18/18 14:49	10/24/18 06:55	1
Total TCDD	0.0088	q	0.0015	0.00014	ug/Kg	☼	10/18/18 14:49	10/24/18 06:55	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-1,2,3,4,6,7,8-HpCDD	*55*		*23 - 140*	*10/18/18 14:49*	*10/24/18 06:55*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*51*		*28 - 143*	*10/18/18 14:49*	*10/24/18 06:55*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*57*		*26 - 138*	*10/18/18 14:49*	*10/24/18 06:55*	*1*
13C-1,2,3,4,7,8-HxCDD	*53*		*32 - 141*	*10/18/18 14:49*	*10/24/18 06:55*	*1*
13C-1,2,3,4,7,8-HxCDF	*54*		*26 - 152*	*10/18/18 14:49*	*10/24/18 06:55*	*1*
13C-1,2,3,6,7,8-HxCDD	*52*		*28 - 130*	*10/18/18 14:49*	*10/24/18 06:55*	*1*
13C-1,2,3,6,7,8-HxCDF	*53*		*26 - 123*	*10/18/18 14:49*	*10/24/18 06:55*	*1*
13C-1,2,3,7,8,9-HxCDF	*55*		*29 - 147*	*10/18/18 14:49*	*10/24/18 06:55*	*1*
13C-1,2,3,7,8-PeCDD	*50*		*25 - 181*	*10/18/18 14:49*	*10/24/18 06:55*	*1*
13C-1,2,3,7,8-PeCDF	*51*		*24 - 185*	*10/18/18 14:49*	*10/24/18 06:55*	*1*
13C-2,3,4,6,7,8-HxCDF	*54*		*28 - 136*	*10/18/18 14:49*	*10/24/18 06:55*	*1*
13C-2,3,4,7,8-PeCDF	*53*		*21 - 178*	*10/18/18 14:49*	*10/24/18 06:55*	*1*
13C-2,3,7,8-TCDD	*54*		*25 - 164*	*10/18/18 14:49*	*10/24/18 06:55*	*1*
13C-2,3,7,8-TCDF	*57*		*24 - 169*	*10/18/18 14:49*	*10/24/18 06:55*	*1*
13C-OCDD	*56*		*17 - 157*	*10/18/18 14:49*	*10/24/18 06:55*	*1*

Client Sample ID: L5-0to26-101318
Date Collected: 10/13/18 13:13
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-23
Matrix: Solid
Percent Solids: 32.3

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
37Cl4-2,3,7,8-TCDD	*83*		*35 - 197*	*10/18/18 14:49*	*10/24/18 06:55*	*1*

Method: 1613B - Dioxins and Furans (HRGC/HRMS) - RA

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDF	**0.0017**	**B**	0.0015	0.00018	ug/Kg	☼	10/18/18 14:49	10/25/18 03:30	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDF	*50*		*24 - 169*	*10/18/18 14:49*	*10/25/18 03:30*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
37Cl4-2,3,7,8-TCDD	*62*		*35 - 197*	*10/18/18 14:49*	*10/25/18 03:30*	*1*

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	**0.16**	**q B**	0.15	0.0029	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-10	**0.040**	**J q**	0.15	0.018	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-100	**2.3**	**C93 B**	0.30	0.0044	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-101	**23**	**C90 B**	0.46	0.0038	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-102	**1.0**	**C98**	0.30	0.0042	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-103	**0.95**		0.15	0.0044	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-104	**0.18**		0.15	0.0033	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-105	**5.2**	**B**	0.15	0.026	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-106	ND		0.15	0.027	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-107	**1.2**		0.15	0.029	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-108	**0.57**	**C B**	0.30	0.027	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-109	**12**	**C86 B**	0.91	0.0038	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-11	**0.14**	**J B**	0.30	0.016	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-110	**20**	**C B**	0.30	0.0032	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-111	ND		0.15	0.0031	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-112	ND		0.15	0.0032	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-113	**23**	**C90 B**	0.46	0.0038	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-114	**0.35**		0.15	0.024	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-115	**20**	**C110 B**	0.30	0.0032	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-116	**2.5**	**C85 B**	0.46	0.0037	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-117	**2.5**	**C85 B**	0.46	0.0037	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-118	**14**	**B**	0.15	0.024	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-119	**12**	**C86 B**	0.91	0.0038	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-12	**0.090**	**J q C**	0.30	0.017	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-120	**0.13**	**J**	0.15	0.0031	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-121	ND		0.15	0.0032	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-122	**0.21**		0.15	0.031	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-123	**0.25**	**B**	0.15	0.026	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-124	**0.57**	**C108 B**	0.30	0.027	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-125	**12**	**C86 B**	0.91	0.0038	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-126	**0.20**	**B**	0.15	0.030	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-127	ND		0.15	0.027	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-128	**3.3**	**C**	0.30	0.035	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-129	**28**	**C B**	0.61	0.036	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-13	**0.090**	**J q C12**	0.30	0.017	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-130	**1.6**		0.15	0.048	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-131	**0.32**		0.15	0.050	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10

Client Sample ID: L5-0to26-101318
Date Collected: 10/13/18 13:13
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-23
Matrix: Solid
Percent Solids: 32.3

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-132	9.6	B	0.15	0.047	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-133	0.63		0.15	0.045	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-134	1.8	C B	0.30	0.047	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-135	12	C B	0.30	0.0067	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-136	4.5	B	0.15	0.0048	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-137	1.0		0.15	0.041	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-138	28	C129 B	0.61	0.036	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-139	0.53	C	0.30	0.040	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-14	ND		0.15	0.014	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-140	0.53	C139	0.30	0.040	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-141	5.7	B	0.15	0.042	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-142	ND		0.15	0.045	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-143	1.8	C134 B	0.30	0.047	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-144	1.3		0.15	0.0061	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-145	ND		0.15	0.0046	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-146	5.2	B	0.15	0.040	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-147	29	C B	0.30	0.046	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-148	0.17		0.15	0.0065	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-149	29	C147 B	0.30	0.046	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-15	0.26	q	0.15	0.019	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-150	0.18		0.15	0.0044	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-151	12	C135 B	0.30	0.0067	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-152	0.050	J q	0.15	0.0047	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-153	25	C B	0.30	0.032	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-154	0.93	B	0.15	0.0052	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-155	0.023	J q	0.15	0.0044	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-156	2.6	C B	0.30	0.038	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-157	2.6	C156 B	0.30	0.038	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-158	2.8		0.15	0.028	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-159	0.22	B	0.15	0.030	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-16	0.26		0.15	0.0034	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-160	28	C129 B	0.61	0.036	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-161	ND		0.15	0.030	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-162	ND		0.15	0.030	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-163	28	C129 B	0.61	0.036	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-164	2.0	B	0.15	0.032	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-165	ND		0.15	0.034	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-166	3.3	C128	0.30	0.035	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-167	0.93	B	0.15	0.022	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-168	25	C153 B	0.30	0.032	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-169	ND		0.15	0.025	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-17	1.6		0.15	0.0031	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-170	14	B	0.15	0.015	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-171	3.6	C B	0.30	0.014	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-172	1.8		0.15	0.014	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-173	3.6	C171 B	0.30	0.014	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-174	10	B	0.15	0.013	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-175	0.41		0.15	0.013	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-176	1.4		0.15	0.0096	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10

Client: Pacific Groundwater Group
Project/Site: Swan Island Lagoon SedimentInvestigation

TestAmerica Job ID: 580-81081-1

Client Sample ID: L5-0to26-101318
Date Collected: 10/13/18 13:13
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-23
Matrix: Solid
Percent Solids: 32.3

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-177	6.3	B	0.15	0.013	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-178	2.3	B	0.15	0.014	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-179	4.8	B	0.15	0.010	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-18	0.71	q C	0.30	0.0027	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-180	22	C B	0.30	0.011	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-181	ND		0.15	0.013	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-182	ND		0.15	0.012	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-183	7.4	C B	0.30	0.012	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-184	ND		0.15	0.010	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-185	7.4	C183 B	0.30	0.012	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-186	ND		0.15	0.010	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-187	13	B	0.15	0.012	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-188	ND		0.15	0.0088	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-189	0.27	q	0.15	0.022	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-19	2.7		0.15	0.0038	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-190	2.1	B	0.15	0.0092	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-191	0.50		0.15	0.0095	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-192	ND		0.15	0.011	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-193	22	C180 B	0.30	0.011	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-194	4.2	B	0.15	0.041	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-195	1.8		0.15	0.045	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-196	2.2	B	0.15	0.018	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-197	0.18		0.15	0.014	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-198	4.0	C	0.30	0.018	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-199	4.0	C198	0.30	0.018	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-2	0.26	B	0.15	0.0033	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-20	1.3	C B	0.30	0.011	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-200	0.46		0.15	0.012	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-201	0.49		0.15	0.012	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-202	0.64		0.15	0.014	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-203	2.6	B	0.15	0.016	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-204	ND		0.15	0.014	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-205	0.19	q	0.15	0.035	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-206	1.2		0.15	0.042	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-207	0.14	J q	0.15	0.033	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-208	0.33		0.15	0.036	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-209	0.26	q	0.15	0.023	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-21	0.66	C B	0.30	0.011	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-22	0.29	B	0.15	0.011	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-23	ND		0.15	0.011	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-24	ND		0.15	0.0026	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-25	0.17		0.15	0.010	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-26	0.18	J C B	0.30	0.011	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-27	0.30	q	0.15	0.0023	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-28	1.3	C20 B	0.30	0.011	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-29	0.18	J C26 B	0.30	0.011	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-3	0.22	B	0.15	0.0037	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-30	0.71	q C18	0.30	0.0027	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-31	0.89		0.30	0.011	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10

Client Sample ID: L5-0to26-101318
Date Collected: 10/13/18 13:13
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-23
Matrix: Solid
Percent Solids: 32.3

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-32	1.1	B	0.15	0.0022	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-33	0.66	C21 B	0.30	0.011	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-34	ND		0.15	0.012	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-35	ND		0.15	0.011	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-36	ND		0.15	0.011	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-37	0.23	q	0.15	0.011	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-38	ND		0.15	0.012	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-39	ND		0.15	0.011	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-4	1.2		0.30	0.022	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-40	2.0	C	0.46	0.048	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-41	2.0	C40	0.46	0.048	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-42	0.59		0.15	0.048	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-43	0.60	C	0.30	0.045	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-44	15	C B	0.46	0.042	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-45	7.5	C	0.30	0.050	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-46	0.32		0.15	0.061	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-47	15	C44 B	0.46	0.042	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-48	0.34		0.15	0.048	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-49	6.3	C	0.30	0.039	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-5	ND		0.15	0.019	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-50	3.5	C	0.30	0.047	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-51	7.5	C45	0.30	0.050	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-52	11		0.15	0.048	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-53	3.5	C50	0.30	0.047	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-54	1.2		0.15	0.0029	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-55	ND		0.15	0.035	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-56	0.85		0.15	0.035	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-57	ND		0.15	0.035	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-58	ND		0.15	0.036	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-59	0.53	C	0.46	0.034	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-6	0.21		0.15	0.017	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-60	0.36		0.15	0.036	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-61	7.0	C	0.61	0.033	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-62	0.53	C59	0.46	0.034	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-63	0.11	J	0.15	0.033	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-64	1.1		0.15	0.032	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-65	15	C44 B	0.46	0.042	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-66	2.6		0.15	0.033	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-67	ND		0.15	0.031	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-68	0.15	B	0.15	0.031	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-69	6.3	C49	0.30	0.039	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-7	ND		0.15	0.017	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-70	7.0	C61	0.61	0.033	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-71	2.0	C40	0.46	0.048	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-72	ND		0.15	0.035	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-73	0.60	C43	0.30	0.045	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-74	7.0	C61	0.61	0.033	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-75	0.53	C59	0.46	0.034	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-76	7.0	C61	0.61	0.033	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10

Client Sample ID: L5-0to26-101318
Date Collected: 10/13/18 13:13
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-23
Matrix: Solid
Percent Solids: 32.3

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-77	**0.098**	**J q**	0.15	0.035	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-78	ND		0.15	0.036	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-79	**0.10**	**J q**	0.15	0.031	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-8	**0.41**		0.30	0.015	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-80	ND		0.15	0.031	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-81	ND		0.15	0.032	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-82	**1.7**		0.15	0.0051	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-83	**12**	**C**	0.30	0.0046	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-84	**4.4**		0.15	0.0051	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-85	**2.5**	**C B**	0.46	0.0037	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-86	**12**	**C B**	0.91	0.0038	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-87	**12**	**C86 B**	0.91	0.0038	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-88	**4.1**	**C B**	0.30	0.0046	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-89	ND		0.15	0.0050	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-9	**0.039**	**J q**	0.15	0.017	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-90	**23**	**C B**	0.46	0.0038	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-91	**4.1**	**C88 B**	0.30	0.0046	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-92	**4.2**	**B**	0.15	0.0043	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-93	**2.3**	**C B**	0.30	0.0044	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-94	**0.59**		0.15	0.0050	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-95	**18**	**B**	0.15	0.0048	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-96	**0.40**		0.15	0.0037	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-97	**12**	**C86 B**	0.91	0.0038	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-98	**1.0**	**C**	0.30	0.0042	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
PCB-99	**12**	**C83**	0.30	0.0046	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
Polychlorinated biphenyls, Total	**450**	**q B**	0.91	0.022	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
Total Monochlorobiphenyls	**0.64**	**q B**	0.15	0.0033	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
Total Dichlorobiphenyls	**2.4**	**q B**	0.30	0.017	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
Total Trichlorobiphenyls	**10**	**q B**	0.30	0.0082	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
Total Tetrachlorobiphenyls	**61**	**q B**	0.61	0.037	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
Total Pentachlorobiphenyls	**130**	**B**	0.91	0.011	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
Total Hexachlorobiphenyls	**140**	**q B**	0.61	0.028	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
Total Heptachlorobiphenyls	**90**	**q B**	0.30	0.012	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
Total Octachlorobiphenyls	**17**	**q B**	0.30	0.022	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10
Total Nonachlorobiphenyls	**1.7**	**q**	0.15	0.037	ng/g	☼	10/19/18 12:00	10/27/18 20:37	10

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
PCB-104L	*84*		*30 - 140*	*10/19/18 12:00*	*10/27/18 20:37*	*10*
PCB-105L	*86*		*30 - 140*	*10/19/18 12:00*	*10/27/18 20:37*	*10*
PCB-114L	*89*		*30 - 140*	*10/19/18 12:00*	*10/27/18 20:37*	*10*
PCB-118L	*90*		*30 - 140*	*10/19/18 12:00*	*10/27/18 20:37*	*10*
PCB-123L	*91*		*30 - 140*	*10/19/18 12:00*	*10/27/18 20:37*	*10*
PCB-126L	*84*		*30 - 140*	*10/19/18 12:00*	*10/27/18 20:37*	*10*
PCB-155L	*92*		*30 - 140*	*10/19/18 12:00*	*10/27/18 20:37*	*10*
PCB-156L	*97*	*C*	*30 - 140*	*10/19/18 12:00*	*10/27/18 20:37*	*10*
PCB-157L	*97*	*C156*	*30 - 140*	*10/19/18 12:00*	*10/27/18 20:37*	*10*
PCB-15L	*82*		*30 - 140*	*10/19/18 12:00*	*10/27/18 20:37*	*10*
PCB-167L	*95*		*30 - 140*	*10/19/18 12:00*	*10/27/18 20:37*	*10*
PCB-169L	*95*		*30 - 140*	*10/19/18 12:00*	*10/27/18 20:37*	*10*
PCB-170L	*29*	*q **	*30 - 140*	*10/19/18 12:00*	*10/27/18 20:37*	*10*

Client Sample ID: L5-0to26-101318
Date Collected: 10/13/18 13:13
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-23
Matrix: Solid
Percent Solids: 32.3

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

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
PCB-188L	*85*		*30 - 140*	*10/19/18 12:00*	*10/27/18 20:37*	*10*
PCB-189L	*80*		*30 - 140*	*10/19/18 12:00*	*10/27/18 20:37*	*10*
PCB-19L	*87*		*30 - 140*	*10/19/18 12:00*	*10/27/18 20:37*	*10*
PCB-1L	*67*		*30 - 140*	*10/19/18 12:00*	*10/27/18 20:37*	*10*
PCB-202L	*102*		*30 - 140*	*10/19/18 12:00*	*10/27/18 20:37*	*10*
PCB-205L	*79*		*30 - 140*	*10/19/18 12:00*	*10/27/18 20:37*	*10*
PCB-206L	*102*		*30 - 140*	*10/19/18 12:00*	*10/27/18 20:37*	*10*
PCB-208L	*87*		*30 - 140*	*10/19/18 12:00*	*10/27/18 20:37*	*10*
PCB-209L	*111*	*q*	*30 - 140*	*10/19/18 12:00*	*10/27/18 20:37*	*10*
PCB-37L	*89*		*30 - 140*	*10/19/18 12:00*	*10/27/18 20:37*	*10*
PCB-3L	*64*		*30 - 140*	*10/19/18 12:00*	*10/27/18 20:37*	*10*
PCB-4L	*85*		*30 - 140*	*10/19/18 12:00*	*10/27/18 20:37*	*10*
PCB-54L	*70*		*30 - 140*	*10/19/18 12:00*	*10/27/18 20:37*	*10*
PCB-77L	*87*		*30 - 140*	*10/19/18 12:00*	*10/27/18 20:37*	*10*
PCB-81L	*85*		*30 - 140*	*10/19/18 12:00*	*10/27/18 20:37*	*10*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
PCB-111L	*86*		*40 - 125*	*10/19/18 12:00*	*10/27/18 20:37*	*10*
PCB-178L	*95*		*40 - 125*	*10/19/18 12:00*	*10/27/18 20:37*	*10*
PCB-28L	*97*		*40 - 125*	*10/19/18 12:00*	*10/27/18 20:37*	*10*

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**10**		0.58	0.12	mg/Kg	☼	11/02/18 12:26	11/05/18 13:41	5
Cadmium	**0.54**		0.46	0.089	mg/Kg	☼	11/02/18 12:26	11/05/18 13:41	5
Copper	**130**		1.2	0.25	mg/Kg	☼	11/02/18 12:26	11/05/18 13:41	5
Lead	**53**		0.58	0.055	mg/Kg	☼	11/02/18 12:26	11/05/18 13:41	5
Zinc	**310**	**F1**	5.8	1.9	mg/Kg	☼	11/02/18 12:26	11/05/18 13:41	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.18**		0.059	0.018	mg/Kg	☼	10/26/18 09:42	10/26/18 13:08	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	**38000**	**B F1**	2000	44	mg/Kg			10/24/18 14:48	1
Total Solids	**32.3**		0.1	0.1	%			11/01/18 11:09	1
Percent Moisture	**68**	**H**	0.10	0.10	%			10/25/18 12:18	1
Percent Solids	**32**	**H**	0.10	0.10	%			10/25/18 12:18	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Clay	**26.9**				%			10/19/18 16:28	1
Coarse Sand	**0.0**				%			10/19/18 16:28	1
Fine Sand	**10.4**				%			10/19/18 16:28	1
Gravel	**0.0**				%			10/19/18 16:28	1
Medium Sand	**0.5**				%			10/19/18 16:28	1
Silt	**62.3**				%			10/19/18 16:28	1

Client: Pacific Groundwater Group
Project/Site: Swan Island Lagoon SedimentInvestigation

TestAmerica Job ID: 580-81081-1

Client Sample ID: L5-0to26-101318
Date Collected: 10/13/18 13:13
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-23
Matrix: Solid
Percent Solids: 32.3

Method: D854 - Specific Gravity

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Density	1.25		0.0100	0.0100	g/cm3			10/25/18 00:00	1
Specific Gravity	1.25		0.0100	0.0100	NONE			10/25/18 00:00	1

Client Sample ID: L7-0to29-101318
Date Collected: 10/13/18 11:36
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-24
Matrix: Solid
Percent Solids: 31.8

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	180		150	38	mg/Kg	☼	10/27/18 20:36	11/04/18 23:09	1
Motor Oil (>C24-C36)	1000		150	53	mg/Kg	☼	10/27/18 20:36	11/04/18 23:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*94*		*50 - 150*	*10/27/18 20:36*	*11/04/18 23:09*	*1*

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3,4,6,7,8-HpCDD	0.43	G B	0.0082	0.0082	ug/Kg	☼	10/18/18 14:49	10/24/18 11:13	1
1,2,3,4,6,7,8-HpCDF	0.14	B	0.0079	0.0052	ug/Kg	☼	10/18/18 14:49	10/24/18 11:13	1
1,2,3,4,7,8,9-HpCDF	0.012	B	0.0079	0.0064	ug/Kg	☼	10/18/18 14:49	10/24/18 11:13	1
1,2,3,4,7,8-HxCDD	0.0030	J B	0.0079	0.00036	ug/Kg	☼	10/18/18 14:49	10/24/18 11:13	1
1,2,3,4,7,8-HxCDF	0.026	B	0.0079	0.0013	ug/Kg	☼	10/18/18 14:49	10/24/18 11:13	1
1,2,3,6,7,8-HxCDD	0.014	B	0.0079	0.00036	ug/Kg	☼	10/18/18 14:49	10/24/18 11:13	1
1,2,3,6,7,8-HxCDF	0.0057	J B	0.0079	0.0012	ug/Kg	☼	10/18/18 14:49	10/24/18 11:13	1
1,2,3,7,8,9-HxCDD	0.0067	J B	0.0079	0.00031	ug/Kg	☼	10/18/18 14:49	10/24/18 11:13	1
1,2,3,7,8,9-HxCDF	ND		0.0079	0.0012	ug/Kg	☼	10/18/18 14:49	10/24/18 11:13	1
1,2,3,7,8-PeCDD	0.0014	J	0.0079	0.00031	ug/Kg	☼	10/18/18 14:49	10/24/18 11:13	1
1,2,3,7,8-PeCDF	0.0013	J q B	0.0079	0.00039	ug/Kg	☼	10/18/18 14:49	10/24/18 11:13	1
2,3,4,6,7,8-HxCDF	0.0026	J B	0.0079	0.0011	ug/Kg	☼	10/18/18 14:49	10/24/18 11:13	1
2,3,4,7,8-PeCDF	0.0028	J	0.0079	0.00042	ug/Kg	☼	10/18/18 14:49	10/24/18 11:13	1
2,3,7,8-TCDD	0.00060	J q	0.0016	0.00015	ug/Kg	☼	10/18/18 14:49	10/24/18 11:13	1
OCDD	3.7	B	0.016	0.0078	ug/Kg	☼	10/18/18 14:49	10/24/18 11:13	1
OCDF	0.46	B	0.016	0.00094	ug/Kg	☼	10/18/18 14:49	10/24/18 11:13	1
Total HpCDD	0.94	G B	0.0082	0.0082	ug/Kg	☼	10/18/18 14:49	10/24/18 11:13	1
Total HpCDF	0.67	B	0.0079	0.0058	ug/Kg	☼	10/18/18 14:49	10/24/18 11:13	1
Total HxCDD	0.097	B	0.0079	0.00034	ug/Kg	☼	10/18/18 14:49	10/24/18 11:13	1
Total HxCDF	0.23	q B	0.0079	0.0012	ug/Kg	☼	10/18/18 14:49	10/24/18 11:13	1
Total PeCDD	0.0091	q	0.0079	0.00031	ug/Kg	☼	10/18/18 14:49	10/24/18 11:13	1
Total PeCDF	0.019	q B	0.0079	0.00041	ug/Kg	☼	10/18/18 14:49	10/24/18 11:13	1
Total TCDF	0.0074	q B	0.0016	0.00012	ug/Kg	☼	10/18/18 14:49	10/24/18 11:13	1
Total TCDD	0.0064	q	0.0016	0.00015	ug/Kg	☼	10/18/18 14:49	10/24/18 11:13	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-1,2,3,4,6,7,8-HpCDD	*50*		*23 - 140*	*10/18/18 14:49*	*10/24/18 11:13*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*47*		*28 - 143*	*10/18/18 14:49*	*10/24/18 11:13*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*52*		*26 - 138*	*10/18/18 14:49*	*10/24/18 11:13*	*1*
13C-1,2,3,4,7,8-HxCDD	*50*		*32 - 141*	*10/18/18 14:49*	*10/24/18 11:13*	*1*
13C-1,2,3,4,7,8-HxCDF	*53*		*26 - 152*	*10/18/18 14:49*	*10/24/18 11:13*	*1*
13C-1,2,3,6,7,8-HxCDD	*52*		*28 - 130*	*10/18/18 14:49*	*10/24/18 11:13*	*1*
13C-1,2,3,6,7,8-HxCDF	*52*		*26 - 123*	*10/18/18 14:49*	*10/24/18 11:13*	*1*
13C-1,2,3,7,8,9-HxCDF	*54*		*29 - 147*	*10/18/18 14:49*	*10/24/18 11:13*	*1*
13C-1,2,3,7,8-PeCDD	*52*		*25 - 181*	*10/18/18 14:49*	*10/24/18 11:13*	*1*
13C-1,2,3,7,8-PeCDF	*53*		*24 - 185*	*10/18/18 14:49*	*10/24/18 11:13*	*1*
13C-2,3,4,6,7,8-HxCDF	*53*		*28 - 136*	*10/18/18 14:49*	*10/24/18 11:13*	*1*
13C-2,3,4,7,8-PeCDF	*54*		*21 - 178*	*10/18/18 14:49*	*10/24/18 11:13*	*1*
13C-2,3,7,8-TCDD	*54*		*25 - 164*	*10/18/18 14:49*	*10/24/18 11:13*	*1*
13C-2,3,7,8-TCDF	*57*		*24 - 169*	*10/18/18 14:49*	*10/24/18 11:13*	*1*
13C-OCDD	*50*		*17 - 157*	*10/18/18 14:49*	*10/24/18 11:13*	*1*

Client Sample ID: L7-0to29-101318
Date Collected: 10/13/18 11:36
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-24
Matrix: Solid
Percent Solids: 31.8

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
37Cl4-2,3,7,8-TCDD	*82*		*35 - 197*	*10/18/18 14:49*	*10/24/18 11:13*	*1*

Method: 1613B - Dioxins and Furans (HRGC/HRMS) - RA

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDF	**0.0012**	**J B**	0.0016	0.00014	ug/Kg	☼	10/18/18 14:49	10/25/18 04:08	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDF	*52*		*24 - 169*	*10/18/18 14:49*	*10/25/18 04:08*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
37Cl4-2,3,7,8-TCDD	*60*		*35 - 197*	*10/18/18 14:49*	*10/25/18 04:08*	*1*

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	**0.11**	**B**	0.079	0.0014	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-10	**0.073**	**J q**	0.079	0.0099	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-100	**3.7**	**C93 B**	0.16	0.0015	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-101	**21**	**C90 B**	0.24	0.0013	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-102	**5.7**	**C98**	0.16	0.0014	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-103	**1.6**		0.079	0.0015	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-104	**0.26**		0.079	0.0011	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-105	**2.0**	**B**	0.079	0.014	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-106	ND		0.079	0.015	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-107	**1.4**		0.079	0.016	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-108	**0.28**	**C B**	0.16	0.015	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-109	**8.9**	**C86 B**	0.47	0.0013	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-11	**0.12**	**J B**	0.16	0.0087	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-110	**13**	**C B**	0.16	0.0011	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-111	ND		0.079	0.0010	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-112	ND		0.079	0.0011	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-113	**21**	**C90 B**	0.24	0.0013	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-114	**0.17**		0.079	0.014	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-115	**13**	**C110 B**	0.16	0.0011	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-116	**1.6**	**C85 B**	0.24	0.0013	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-117	**1.6**	**C85 B**	0.24	0.0013	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-118	**8.9**	**B**	0.079	0.013	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-119	**8.9**	**C86 B**	0.47	0.0013	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-12	**0.050**	**J C**	0.16	0.0090	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-120	**0.37**		0.079	0.0011	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-121	ND		0.079	0.0011	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-122	**0.098**	**q**	0.079	0.017	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-123	**0.11**	**B**	0.079	0.015	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-124	**0.28**	**C108 B**	0.16	0.015	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-125	**8.9**	**C86 B**	0.47	0.0013	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-126	ND		0.079	0.015	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-127	ND		0.079	0.015	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-128	**4.6**	**C**	0.16	0.048	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-129	**60**	**C B**	0.31	0.049	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-13	**0.050**	**J C12**	0.16	0.0090	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-130	**3.1**		0.079	0.065	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-131	ND		0.079	0.068	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5

Client Sample ID: L7-0to29-101318
Date Collected: 10/13/18 11:36
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-24
Matrix: Solid
Percent Solids: 31.8

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-132	15	B	0.079	0.064	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-133	1.3		0.079	0.062	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-134	4.1	C B	0.16	0.064	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-135	28	C B	0.16	0.0013	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-136	7.2	B	0.079	0.00094	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-137	1.1		0.079	0.056	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-138	60	C129 B	0.31	0.049	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-139	0.87	C	0.16	0.055	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-14	ND		0.079	0.0076	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-140	0.87	C139	0.16	0.055	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-141	13	B	0.079	0.057	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-142	ND		0.079	0.061	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-143	4.1	C134 B	0.16	0.064	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-144	2.6		0.079	0.0012	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-145	0.12		0.079	0.00090	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-146	13	B	0.079	0.054	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-147	58	C B	0.16	0.062	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-148	0.34		0.079	0.0013	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-149	58	C147 B	0.16	0.062	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-15	0.30		0.079	0.010	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-150	0.28	q	0.079	0.00086	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-151	28	C135 B	0.16	0.0013	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-152	0.51		0.079	0.00092	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-153	65	C B	0.16	0.043	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-154	2.3	B	0.079	0.0010	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-155	ND		0.079	0.00086	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-156	4.8	C B	0.16	0.054	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-157	4.8	C156 B	0.16	0.054	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-158	5.5		0.079	0.039	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-159	0.70	B	0.079	0.041	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-16	0.12	q	0.079	0.0023	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-160	60	C129 B	0.31	0.049	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-161	ND		0.079	0.041	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-162	ND		0.079	0.040	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-163	60	C129 B	0.31	0.049	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-164	4.3	B	0.079	0.043	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-165	ND		0.079	0.046	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-166	4.6	C128	0.16	0.048	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-167	1.8	B	0.079	0.032	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-168	65	C153 B	0.16	0.043	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-169	ND		0.079	0.030	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-17	6.5		0.079	0.0021	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-170	34	B	0.079	0.0018	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-171	11	C B	0.16	0.0018	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-172	5.4		0.079	0.0018	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-173	11	C171 B	0.16	0.0018	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-174	30	B	0.079	0.0017	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-175	1.3		0.079	0.0016	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-176	3.9		0.079	0.0012	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5

Client Sample ID: L7-0to29-101318
Date Collected: 10/13/18 11:36
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-24
Matrix: Solid
Percent Solids: 31.8

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-177	19	B	0.079	0.0017	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-178	6.2	B	0.079	0.0018	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-179	13	B	0.079	0.0013	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-18	0.40	C	0.16	0.0018	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-180	71	C B	0.16	0.0014	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-181	ND		0.079	0.0016	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-182	ND		0.079	0.0016	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-183	24	C B	0.16	0.0016	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-184	ND		0.079	0.0013	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-185	24	C183 B	0.16	0.0016	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-186	ND		0.079	0.0013	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-187	36	B	0.079	0.0015	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-188	ND		0.079	0.0012	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-189	1.2		0.079	0.013	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-19	9.6		0.079	0.0025	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-190	6.7	B	0.079	0.0012	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-191	1.7		0.079	0.0012	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-192	ND		0.079	0.0014	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-193	71	C180 B	0.16	0.0014	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-194	15	B	0.079	0.014	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-195	6.7		0.079	0.015	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-196	7.8	B	0.079	0.0019	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-197	0.58		0.079	0.0014	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-198	13	C	0.16	0.0019	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-199	13	C198	0.16	0.0019	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-2	0.045	J B	0.079	0.0017	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-20	1.1	C B	0.16	0.0059	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-200	1.5		0.079	0.0013	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-201	1.6		0.079	0.0013	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-202	2.0		0.079	0.0015	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-203	8.6	B	0.079	0.0017	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-204	ND		0.079	0.0014	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-205	0.80		0.079	0.012	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-206	2.5		0.079	0.013	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-207	0.35		0.079	0.0095	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-208	0.51		0.079	0.010	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-209	0.42		0.079	0.0044	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-21	0.43	C B	0.16	0.0057	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-22	0.11	B	0.079	0.0060	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-23	ND		0.079	0.0060	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-24	ND		0.079	0.0017	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-25	0.24		0.079	0.0054	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-26	0.11	J C B	0.16	0.0058	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-27	1.5		0.079	0.0015	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-28	1.1	C20 B	0.16	0.0059	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-29	0.11	J C26 B	0.16	0.0058	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-3	0.096	B	0.079	0.0020	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-30	0.40	C18	0.16	0.0018	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-31	0.45		0.16	0.0057	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5

Client Sample ID: L7-0to29-101318
Date Collected: 10/13/18 11:36
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-24
Matrix: Solid
Percent Solids: 31.8

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-32	1.7	B	0.079	0.0014	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-33	0.43	C21 B	0.16	0.0057	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-34	ND		0.079	0.0062	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-35	ND		0.079	0.0060	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-36	ND		0.079	0.0058	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-37	0.18		0.079	0.0060	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-38	ND		0.079	0.0062	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-39	0.025	J q	0.079	0.0056	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-4	1.9		0.16	0.012	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-40	3.1	C	0.24	0.045	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-41	3.1	C40	0.24	0.045	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-42	0.60		0.079	0.046	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-43	1.2	C	0.16	0.043	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-44	23	C B	0.24	0.040	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-45	12	C	0.16	0.048	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-46	0.41		0.079	0.058	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-47	23	C44 B	0.24	0.040	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-48	1.3		0.079	0.045	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-49	6.4	C	0.16	0.037	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-5	ND		0.079	0.010	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-50	5.3	C	0.16	0.044	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-51	12	C45	0.16	0.048	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-52	5.2		0.079	0.045	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-53	5.3	C50	0.16	0.044	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-54	3.5		0.079	0.0015	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-55	ND		0.079	0.033	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-56	0.36		0.079	0.033	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-57	ND		0.079	0.034	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-58	ND		0.079	0.034	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-59	0.58	C	0.24	0.032	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-6	0.071	J	0.079	0.0089	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-60	ND		0.079	0.034	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-61	3.1	C	0.31	0.032	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-62	0.58	C59	0.24	0.032	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-63	0.11		0.079	0.031	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-64	0.53		0.079	0.030	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-65	23	C44 B	0.24	0.040	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-66	1.9		0.079	0.032	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-67	ND		0.079	0.029	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-68	0.16	q B	0.079	0.030	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-69	6.4	C49	0.16	0.037	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-7	ND		0.079	0.0091	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-70	3.1	C61	0.31	0.032	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-71	3.1	C40	0.24	0.045	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-72	0.12		0.079	0.033	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-73	1.2	C43	0.16	0.043	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-74	3.1	C61	0.31	0.032	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-75	0.58	C59	0.24	0.032	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-76	3.1	C61	0.31	0.032	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5

Client Sample ID: L7-0to29-101318
Date Collected: 10/13/18 11:36
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-24
Matrix: Solid
Percent Solids: 31.8

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-77	**0.086**		0.079	0.031	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-78	ND		0.079	0.034	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-79	ND		0.079	0.030	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-8	**0.20**		0.16	0.0082	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-80	ND		0.079	0.029	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-81	ND		0.079	0.032	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-82	**0.83**		0.079	0.0017	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-83	**20**	**C**	0.16	0.0016	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-84	**2.3**		0.079	0.0017	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-85	**1.6**	**C B**	0.24	0.0013	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-86	**8.9**	**C B**	0.47	0.0013	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-87	**8.9**	**C86 B**	0.47	0.0013	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-88	**4.6**	**C B**	0.16	0.0015	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-89	**0.55**		0.079	0.0017	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-9	ND		0.079	0.0093	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-90	**21**	**C B**	0.24	0.0013	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-91	**4.6**	**C88 B**	0.16	0.0015	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-92	**5.2**	**B**	0.079	0.0015	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-93	**3.7**	**C B**	0.16	0.0015	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-94	**2.3**		0.079	0.0017	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-95	**13**	**B**	0.079	0.0016	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-96	**0.75**		0.079	0.0013	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-97	**8.9**	**C86 B**	0.47	0.0013	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-98	**5.7**	**C**	0.16	0.0014	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
PCB-99	**20**	**C83**	0.16	0.0016	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
Polychlorinated biphenyls, Total	**840**	**q B**	0.47	0.013	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
Total Monochlorobiphenyls	**0.25**	**B**	0.079	0.0017	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
Total Dichlorobiphenyls	**2.7**	**q B**	0.16	0.0093	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
Total Trichlorobiphenyls	**22**	**q B**	0.16	0.0045	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
Total Tetrachlorobiphenyls	**69**	**q B**	0.31	0.035	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
Total Pentachlorobiphenyls	**120**	**q B**	0.47	0.0058	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
Total Hexachlorobiphenyls	**300**	**q B**	0.31	0.037	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
Total Heptachlorobiphenyls	**260**	**B**	0.16	0.0020	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
Total Octachlorobiphenyls	**58**	**B**	0.16	0.0049	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5
Total Nonachlorobiphenyls	**3.4**		0.079	0.011	ng/g	☼	10/19/18 12:00	10/28/18 01:31	5

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
PCB-104L	*82*		*30 - 140*	*10/19/18 12:00*	*10/28/18 01:31*	*5*
PCB-105L	*91*		*30 - 140*	*10/19/18 12:00*	*10/28/18 01:31*	*5*
PCB-114L	*88*		*30 - 140*	*10/19/18 12:00*	*10/28/18 01:31*	*5*
PCB-118L	*89*		*30 - 140*	*10/19/18 12:00*	*10/28/18 01:31*	*5*
PCB-123L	*87*		*30 - 140*	*10/19/18 12:00*	*10/28/18 01:31*	*5*
PCB-126L	*88*		*30 - 140*	*10/19/18 12:00*	*10/28/18 01:31*	*5*
PCB-155L	*89*		*30 - 140*	*10/19/18 12:00*	*10/28/18 01:31*	*5*
PCB-156L	*88*	*C*	*30 - 140*	*10/19/18 12:00*	*10/28/18 01:31*	*5*
PCB-157L	*88*	*C156*	*30 - 140*	*10/19/18 12:00*	*10/28/18 01:31*	*5*
PCB-15L	*78*		*30 - 140*	*10/19/18 12:00*	*10/28/18 01:31*	*5*
PCB-167L	*89*		*30 - 140*	*10/19/18 12:00*	*10/28/18 01:31*	*5*
PCB-169L	*96*		*30 - 140*	*10/19/18 12:00*	*10/28/18 01:31*	*5*
PCB-170L	*87*		*30 - 140*	*10/19/18 12:00*	*10/28/18 01:31*	*5*

Client Sample ID: L7-0to29-101318
Date Collected: 10/13/18 11:36
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-24
Matrix: Solid
Percent Solids: 31.8

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

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
PCB-188L	*89*		*30 - 140*	*10/19/18 12:00*	*10/28/18 01:31*	*5*
PCB-189L	*79*		*30 - 140*	*10/19/18 12:00*	*10/28/18 01:31*	*5*
PCB-19L	*85*		*30 - 140*	*10/19/18 12:00*	*10/28/18 01:31*	*5*
PCB-1L	*64*		*30 - 140*	*10/19/18 12:00*	*10/28/18 01:31*	*5*
PCB-202L	*104*		*30 - 140*	*10/19/18 12:00*	*10/28/18 01:31*	*5*
PCB-205L	*77*		*30 - 140*	*10/19/18 12:00*	*10/28/18 01:31*	*5*
PCB-206L	*99*		*30 - 140*	*10/19/18 12:00*	*10/28/18 01:31*	*5*
PCB-208L	*90*		*30 - 140*	*10/19/18 12:00*	*10/28/18 01:31*	*5*
PCB-209L	*94*		*30 - 140*	*10/19/18 12:00*	*10/28/18 01:31*	*5*
PCB-37L	*90*		*30 - 140*	*10/19/18 12:00*	*10/28/18 01:31*	*5*
PCB-3L	*62*		*30 - 140*	*10/19/18 12:00*	*10/28/18 01:31*	*5*
PCB-4L	*80*		*30 - 140*	*10/19/18 12:00*	*10/28/18 01:31*	*5*
PCB-54L	*73*		*30 - 140*	*10/19/18 12:00*	*10/28/18 01:31*	*5*
PCB-77L	*90*		*30 - 140*	*10/19/18 12:00*	*10/28/18 01:31*	*5*
PCB-81L	*89*		*30 - 140*	*10/19/18 12:00*	*10/28/18 01:31*	*5*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
PCB-111L	*91*		*40 - 125*	*10/19/18 12:00*	*10/28/18 01:31*	*5*
PCB-178L	*95*		*40 - 125*	*10/19/18 12:00*	*10/28/18 01:31*	*5*
PCB-28L	*100*		*40 - 125*	*10/19/18 12:00*	*10/28/18 01:31*	*5*

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**11**		0.57	0.11	mg/Kg	☼	11/02/18 12:26	11/05/18 15:22	5
Cadmium	**0.47**		0.46	0.088	mg/Kg	☼	11/02/18 12:26	11/05/18 15:22	5
Copper	**200**		1.1	0.25	mg/Kg	☼	11/02/18 12:26	11/05/18 15:22	5
Lead	**110**		0.57	0.055	mg/Kg	☼	11/02/18 12:26	11/05/18 15:22	5
Zinc	**440**		5.7	1.8	mg/Kg	☼	11/02/18 12:26	11/05/18 15:22	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.18**		0.075	0.023	mg/Kg	☼	10/26/18 09:47	10/26/18 14:00	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	**35000**	**B**	2000	44	mg/Kg			10/24/18 15:45	1
Total Solids	**31.8**		0.1	0.1	%			11/01/18 11:09	1
Percent Moisture	**68**	**H**	0.10	0.10	%			10/25/18 12:18	1
Percent Solids	**32**	**H**	0.10	0.10	%			10/25/18 12:18	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Clay	**23.6**				%			10/19/18 16:28	1
Coarse Sand	**0.1**				%			10/19/18 16:28	1
Fine Sand	**13.7**				%			10/19/18 16:28	1
Gravel	**0.0**				%			10/19/18 16:28	1
Medium Sand	**2.1**				%			10/19/18 16:28	1
Silt	**60.4**				%			10/19/18 16:28	1

Client: Pacific Groundwater Group
Project/Site: Swan Island Lagoon SedimentInvestigation

TestAmerica Job ID: 580-81081-1

Client Sample ID: L7-0to29-101318
Date Collected: 10/13/18 11:36
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-24
Matrix: Solid
Percent Solids: 31.8

Method: D854 - Specific Gravity

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Density	1.24		0.0100	0.0100	g/cm3			10/25/18 00:00	1
Specific Gravity	1.24		0.0100	0.0100	NONE			10/25/18 00:00	1

Client Sample ID: H7-0to24-101218
Date Collected: 10/12/18 15:14
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-26
Matrix: Solid
Percent Solids: 41.9

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	300		120	28	mg/Kg	☼	10/27/18 20:36	11/04/18 23:29	1
Motor Oil (>C24-C36)	1200		120	40	mg/Kg	☼	10/27/18 20:36	11/04/18 23:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*93*		*50 - 150*	*10/27/18 20:36*	*11/04/18 23:29*	*1*

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3,4,6,7,8-HpCDD	1.5	G B	0.022	0.022	ug/Kg	☼	10/18/18 14:49	10/24/18 11:58	1
1,2,3,4,6,7,8-HpCDF	0.61	G B	0.024	0.024	ug/Kg	☼	10/18/18 14:49	10/24/18 11:58	1
1,2,3,4,7,8,9-HpCDF	0.058	G q B	0.029	0.029	ug/Kg	☼	10/18/18 14:49	10/24/18 11:58	1
1,2,3,4,7,8-HxCDD	0.0055	J B	0.0059	0.00090	ug/Kg	☼	10/18/18 14:49	10/24/18 11:58	1
1,2,3,4,7,8-HxCDF	0.13	B	0.0059	0.0052	ug/Kg	☼	10/18/18 14:49	10/24/18 11:58	1
1,2,3,6,7,8-HxCDD	0.043	B	0.0059	0.00087	ug/Kg	☼	10/18/18 14:49	10/24/18 11:58	1
1,2,3,6,7,8-HxCDF	0.019	B	0.0059	0.0049	ug/Kg	☼	10/18/18 14:49	10/24/18 11:58	1
1,2,3,7,8,9-HxCDD	0.013	B	0.0059	0.00078	ug/Kg	☼	10/18/18 14:49	10/24/18 11:58	1
1,2,3,7,8,9-HxCDF	ND		0.0059	0.0050	ug/Kg	☼	10/18/18 14:49	10/24/18 11:58	1
1,2,3,7,8-PeCDD	ND		0.0059	0.0026	ug/Kg	☼	10/18/18 14:49	10/24/18 11:58	1
1,2,3,7,8-PeCDF	0.0044	J B	0.0059	0.0017	ug/Kg	☼	10/18/18 14:49	10/24/18 11:58	1
2,3,4,6,7,8-HxCDF	0.0065	B	0.0059	0.0045	ug/Kg	☼	10/18/18 14:49	10/24/18 11:58	1
2,3,4,7,8-PeCDF	0.0074		0.0059	0.0018	ug/Kg	☼	10/18/18 14:49	10/24/18 11:58	1
2,3,7,8-TCDD	0.00073	J q	0.0012	0.00022	ug/Kg	☼	10/18/18 14:49	10/24/18 11:58	1
OCDD	12	G E B	0.024	0.024	ug/Kg	☼	10/18/18 14:49	10/24/18 11:58	1
OCDF	3.2	B	0.012	0.0037	ug/Kg	☼	10/18/18 14:49	10/24/18 11:58	1
Total HpCDD	2.8	G B	0.022	0.022	ug/Kg	☼	10/18/18 14:49	10/24/18 11:58	1
Total HpCDF	3.5	G q B	0.026	0.026	ug/Kg	☼	10/18/18 14:49	10/24/18 11:58	1
Total HxCDD	0.27	q B	0.0059	0.00085	ug/Kg	☼	10/18/18 14:49	10/24/18 11:58	1
Total HxCDF	0.94	q B	0.0059	0.0049	ug/Kg	☼	10/18/18 14:49	10/24/18 11:58	1
Total PeCDD	0.016	q	0.0059	0.0026	ug/Kg	☼	10/18/18 14:49	10/24/18 11:58	1
Total PeCDF	0.098	B	0.0059	0.0017	ug/Kg	☼	10/18/18 14:49	10/24/18 11:58	1
Total TCDF	0.019	q B	0.0012	0.00036	ug/Kg	☼	10/18/18 14:49	10/24/18 11:58	1
Total TCDD	0.012	q	0.0012	0.00022	ug/Kg	☼	10/18/18 14:49	10/24/18 11:58	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-1,2,3,4,6,7,8-HpCDD	*49*		*23 - 140*	*10/18/18 14:49*	*10/24/18 11:58*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*45*		*28 - 143*	*10/18/18 14:49*	*10/24/18 11:58*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*50*		*26 - 138*	*10/18/18 14:49*	*10/24/18 11:58*	*1*
13C-1,2,3,4,7,8-HxCDD	*52*		*32 - 141*	*10/18/18 14:49*	*10/24/18 11:58*	*1*
13C-1,2,3,4,7,8-HxCDF	*55*		*26 - 152*	*10/18/18 14:49*	*10/24/18 11:58*	*1*
13C-1,2,3,6,7,8-HxCDD	*54*		*28 - 130*	*10/18/18 14:49*	*10/24/18 11:58*	*1*
13C-1,2,3,6,7,8-HxCDF	*55*		*26 - 123*	*10/18/18 14:49*	*10/24/18 11:58*	*1*
13C-1,2,3,7,8,9-HxCDF	*55*		*29 - 147*	*10/18/18 14:49*	*10/24/18 11:58*	*1*
13C-1,2,3,7,8-PeCDD	*52*		*25 - 181*	*10/18/18 14:49*	*10/24/18 11:58*	*1*
13C-1,2,3,7,8-PeCDF	*54*		*24 - 185*	*10/18/18 14:49*	*10/24/18 11:58*	*1*
13C-2,3,4,6,7,8-HxCDF	*54*		*28 - 136*	*10/18/18 14:49*	*10/24/18 11:58*	*1*
13C-2,3,4,7,8-PeCDF	*54*		*21 - 178*	*10/18/18 14:49*	*10/24/18 11:58*	*1*
13C-2,3,7,8-TCDD	*55*		*25 - 164*	*10/18/18 14:49*	*10/24/18 11:58*	*1*
13C-2,3,7,8-TCDF	*58*		*24 - 169*	*10/18/18 14:49*	*10/24/18 11:58*	*1*
13C-OCDD	*49*		*17 - 157*	*10/18/18 14:49*	*10/24/18 11:58*	*1*

Client Sample ID: H7-0to24-101218
Date Collected: 10/12/18 15:14
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-26
Matrix: Solid
Percent Solids: 41.9

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
37Cl4-2,3,7,8-TCDD	*104*		*35 - 197*	*10/18/18 14:49*	*10/24/18 11:58*	*1*

Method: 1613B - Dioxins and Furans (HRGC/HRMS) - RA

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDF	**0.0023**	**B**	0.0012	0.00022	ug/Kg	☼	10/18/18 14:49	10/25/18 04:46	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDF	*52*		*24 - 169*	*10/18/18 14:49*	*10/25/18 04:46*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
37Cl4-2,3,7,8-TCDD	*58*		*35 - 197*	*10/18/18 14:49*	*10/25/18 04:46*	*1*

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	**2.0**	**B**	0.38	0.014	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-10	**1.5**	**q**	0.38	0.12	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-100	**83**	**C93 B**	0.76	0.017	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-101	**250**	**C90 B**	1.1	0.015	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-102	**32**	**C98**	0.76	0.017	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-103	**33**		0.38	0.017	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-104	**8.2**		0.38	0.013	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-105	**31**	**B**	0.38	0.19	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-106	ND		0.38	0.20	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-107	ND		0.38	0.21	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-108	**3.3**	**q C B**	0.76	0.20	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-109	**58**	**C86 B**	2.3	0.015	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-11	ND		0.76	0.11	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-110	**150**	**C B**	0.76	0.013	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-111	ND		0.38	0.012	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-112	ND		0.38	0.013	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-113	**250**	**C90 B**	1.1	0.015	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-114	**2.3**		0.38	0.18	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-115	**150**	**C110 B**	0.76	0.013	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-116	**11**	**C85 B**	1.1	0.015	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-117	**11**	**C85 B**	1.1	0.015	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-118	**100**	**B**	0.38	0.18	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-119	**58**	**C86 B**	2.3	0.015	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-12	ND	C	0.76	0.11	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-120	ND		0.38	0.012	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-121	**2.0**	**q**	0.38	0.013	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-122	**1.7**	**q**	0.38	0.23	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-123	ND		0.38	0.20	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-124	**3.3**	**q C108 B**	0.76	0.20	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-125	**58**	**C86 B**	2.3	0.015	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-126	ND		0.38	0.21	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-127	ND		0.38	0.20	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-128	ND	C	0.76	0.61	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-129	**490**	**C B**	1.5	0.64	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-13	ND	C12	0.76	0.11	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-130	**27**	**G**	0.84	0.84	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-131	ND	G	0.87	0.87	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2

Client Sample ID: H7-0to24-101218
Date Collected: 10/12/18 15:14
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-26
Matrix: Solid
Percent Solids: 41.9

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-132	130	G B	0.82	0.82	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-133	12	G	0.79	0.79	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-134	30	G C B	0.83	0.83	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-135	250	C B	0.76	0.018	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-136	79	B	0.38	0.013	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-137	11	G	0.72	0.72	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-138	490	C129 B	1.5	0.64	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-139	6.1	C	0.76	0.71	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-14	ND		0.38	0.096	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-140	6.1	C139	0.76	0.71	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-141	110	G B	0.74	0.74	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-142	ND	G	0.79	0.79	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-143	30	G C134 B	0.83	0.83	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-144	24		0.38	0.017	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-145	ND		0.38	0.013	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-146	100	G B	0.70	0.70	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-147	510	G C B	0.80	0.80	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-148	4.1		0.38	0.018	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-149	510	G C147 B	0.80	0.80	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-15	3.0		0.38	0.13	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-150	5.4		0.38	0.012	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-151	250	C135 B	0.76	0.018	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-152	5.3		0.38	0.013	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-153	480	C B	0.76	0.55	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-154	20	B	0.38	0.014	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-155	0.71		0.38	0.012	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-156	39	C B	0.76	0.69	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-157	39	C156 B	0.76	0.69	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-158	47	G	0.50	0.50	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-159	4.6	G B	0.53	0.53	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-16	ND		0.38	0.017	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-160	490	C129 B	1.5	0.64	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-161	ND	G	0.52	0.52	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-162	ND	G	0.52	0.52	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-163	490	C129 B	1.5	0.64	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-164	33	G B	0.56	0.56	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-165	ND	G	0.60	0.60	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-166	ND	C128	0.76	0.61	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-167	14	G B	0.39	0.39	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-168	480	C153 B	0.76	0.55	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-169	ND	G	0.40	0.40	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-17	100		0.38	0.015	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-170	260	B	0.38	0.024	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-171	79	C B	0.76	0.022	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-172	38		0.38	0.022	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-173	79	C171 B	0.76	0.022	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-174	ND		0.38	0.021	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-175	9.7		0.38	0.020	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-176	28		0.38	0.015	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2

Client Sample ID: H7-0to24-101218
Date Collected: 10/12/18 15:14
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-26
Matrix: Solid
Percent Solids: 41.9

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-177	ND		0.38	0.022	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-178	ND		0.38	0.022	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-179	**99**	**B**	0.38	0.016	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-18	ND	C	0.76	0.013	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-180	ND	C	0.76	0.017	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-181	ND		0.38	0.020	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-182	ND		0.38	0.019	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-183	**150**	**C B**	0.76	0.020	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-184	ND		0.38	0.017	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-185	**150**	**C183 B**	0.76	0.020	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-186	ND		0.38	0.016	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-187	ND		0.38	0.019	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-188	ND		0.38	0.014	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-189	**8.4**		0.38	0.12	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-19	**150**		0.38	0.018	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-190	**49**	**B**	0.38	0.015	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-191	**13**		0.38	0.015	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-192	ND		0.38	0.017	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-193	ND	C180	0.76	0.017	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-194	**110**	**B**	0.38	0.18	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-195	**50**		0.38	0.19	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-196	**57**	**B**	0.38	0.023	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-197	**4.3**		0.38	0.018	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-198	**94**	**C**	0.76	0.024	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-199	**94**	**C198**	0.76	0.024	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-2	**0.37**	**J B**	0.38	0.017	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-20	**25**	**C B**	0.76	0.10	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-200	**10**		0.38	0.016	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-201	**11**		0.38	0.016	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-202	**15**		0.38	0.018	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-203	**64**	**B**	0.38	0.021	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-204	ND		0.38	0.018	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-205	**6.0**		0.38	0.15	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-206	**23**		0.38	0.19	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-207	**2.8**		0.38	0.15	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-208	**4.4**		0.38	0.16	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-209	**2.0**		0.38	0.077	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-21	**11**	**C B**	0.76	0.10	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-22	**0.93**	**q B**	0.38	0.11	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-23	ND		0.38	0.10	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-24	ND		0.38	0.012	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-25	ND		0.38	0.095	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-26	**1.9**	**C B**	0.76	0.10	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-27	**20**		0.38	0.011	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-28	**25**	**C20 B**	0.76	0.10	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-29	**1.9**	**C26 B**	0.76	0.10	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-3	**2.2**	**B**	0.38	0.020	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-30	ND	C18	0.76	0.013	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-31	**6.6**		0.76	0.10	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2

Client Sample ID: H7-0to24-101218
Date Collected: 10/12/18 15:14
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-26
Matrix: Solid
Percent Solids: 41.9

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-32	71	B	0.38	0.010	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-33	11	C21 B	0.76	0.10	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-34	0.18	J	0.38	0.11	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-35	ND		0.38	0.11	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-36	ND		0.38	0.10	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-37	1.1		0.38	0.11	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-38	0.21	J	0.38	0.11	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-39	0.32	J	0.38	0.098	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-4	41		0.76	0.14	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-40	60	C	1.1	0.63	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-41	60	C40	1.1	0.63	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-42	8.7	G	0.63	0.63	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-43	18	C	0.76	0.59	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-44	560	C B	1.1	0.56	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-45	390	C	0.76	0.66	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-46	11	G q	0.80	0.80	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-47	560	C44 B	1.1	0.56	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-48	6.0	G	0.63	0.63	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-49	ND	C	0.76	0.51	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-5	ND		0.38	0.13	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-50	180	C	0.76	0.61	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-51	390	C45	0.76	0.66	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-52	110	G	0.62	0.62	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-53	180	C50	0.76	0.61	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-54	77		0.38	0.016	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-55	ND	G	0.46	0.46	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-56	2.7	G q	0.46	0.46	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-57	ND	G	0.47	0.47	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-58	ND	G	0.47	0.47	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-59	20	C	1.1	0.45	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-6	0.98	q	0.38	0.11	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-60	ND	G	0.47	0.47	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-61	33	C	1.5	0.44	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-62	20	C59	1.1	0.45	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-63	ND	G	0.43	0.43	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-64	6.9	G	0.42	0.42	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-65	560	C44 B	1.1	0.56	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-66	17	G	0.44	0.44	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-67	ND	G	0.40	0.40	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-68	4.8	G B	0.41	0.41	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-69	ND	C49	0.76	0.51	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-7	0.40	q	0.38	0.11	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-70	33	C61	1.5	0.44	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-71	60	C40	1.1	0.63	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-72	ND	G	0.46	0.46	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-73	18	C43	0.76	0.59	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-74	33	C61	1.5	0.44	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-75	20	C59	1.1	0.45	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-76	33	C61	1.5	0.44	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2

Client Sample ID: H7-0to24-101218
Date Collected: 10/12/18 15:14
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-26
Matrix: Solid
Percent Solids: 41.9

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-77	ND	G	0.46	0.46	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-78	ND	G	0.47	0.47	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-79	ND	G	0.41	0.41	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-8	**2.7**		0.76	0.10	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-80	ND	G	0.40	0.40	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-81	ND	G	0.41	0.41	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-82	ND		0.38	0.020	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-83	**140**	**C**	0.76	0.018	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-84	**34**		0.38	0.020	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-85	**11**	**C B**	1.1	0.015	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-86	**58**	**C B**	2.3	0.015	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-87	**58**	**C86 B**	2.3	0.015	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-88	**85**	**C B**	0.76	0.018	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-89	ND		0.38	0.020	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-9	ND		0.38	0.12	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-90	**250**	**C B**	1.1	0.015	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-91	**85**	**C88 B**	0.76	0.018	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-92	**53**	**B**	0.38	0.017	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-93	**83**	**C B**	0.76	0.017	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-94	**22**		0.38	0.020	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-95	**180**	**B**	0.38	0.019	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-96	**15**		0.38	0.015	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-97	**58**	**C86 B**	2.3	0.015	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-98	**32**	**C**	0.76	0.017	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
PCB-99	**140**	**C83**	0.76	0.018	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
Polychlorinated biphenyls, Total	**6900**	**q B**	2.3	0.17	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
Total Monochlorobiphenyls	**4.6**	**B**	0.38	0.017	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
Total Dichlorobiphenyls	**50**	**q B**	0.76	0.12	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
Total Trichlorobiphenyls	**390**	**q B**	0.76	0.072	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
Total Tetrachlorobiphenyls	**1500**	**q B**	1.5	0.49	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
Total Pentachlorobiphenyls	**1300**	**q B**	2.3	0.075	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
Total Hexachlorobiphenyls	**2400**	**B**	1.5	0.48	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
Total Heptachlorobiphenyls	**730**	**B**	0.76	0.024	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
Total Octachlorobiphenyls	**420**	**B**	0.76	0.061	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2
Total Nonachlorobiphenyls	**30**		0.38	0.17	ng/g	☼	10/19/18 12:00	10/29/18 02:40	2

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
PCB-104L	*85*		*30 - 140*	*10/19/18 12:00*	*10/29/18 02:40*	*2*
PCB-105L	*92*		*30 - 140*	*10/19/18 12:00*	*10/29/18 02:40*	*2*
PCB-114L	*92*		*30 - 140*	*10/19/18 12:00*	*10/29/18 02:40*	*2*
PCB-118L	*93*		*30 - 140*	*10/19/18 12:00*	*10/29/18 02:40*	*2*
PCB-123L	*90*		*30 - 140*	*10/19/18 12:00*	*10/29/18 02:40*	*2*
PCB-126L	*88*		*30 - 140*	*10/19/18 12:00*	*10/29/18 02:40*	*2*
PCB-155L	*90*		*30 - 140*	*10/19/18 12:00*	*10/29/18 02:40*	*2*
PCB-156L	*89*	*C*	*30 - 140*	*10/19/18 12:00*	*10/29/18 02:40*	*2*
PCB-157L	*89*	*C156*	*30 - 140*	*10/19/18 12:00*	*10/29/18 02:40*	*2*
PCB-15L	*70*		*30 - 140*	*10/19/18 12:00*	*10/29/18 02:40*	*2*
PCB-167L	*90*		*30 - 140*	*10/19/18 12:00*	*10/29/18 02:40*	*2*
PCB-169L	*93*		*30 - 140*	*10/19/18 12:00*	*10/29/18 02:40*	*2*
PCB-170L	*81*		*30 - 140*	*10/19/18 12:00*	*10/29/18 02:40*	*2*

Client Sample ID: H7-0to24-101218
Date Collected: 10/12/18 15:14
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-26
Matrix: Solid
Percent Solids: 41.9

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-188L	87		30 - 140	10/19/18 12:00	10/29/18 02:40	2
PCB-189L	82		30 - 140	10/19/18 12:00	10/29/18 02:40	2
PCB-19L	85		30 - 140	10/19/18 12:00	10/29/18 02:40	2
PCB-1L	66		30 - 140	10/19/18 12:00	10/29/18 02:40	2
PCB-202L	104		30 - 140	10/19/18 12:00	10/29/18 02:40	2
PCB-205L	75		30 - 140	10/19/18 12:00	10/29/18 02:40	2
PCB-206L	91		30 - 140	10/19/18 12:00	10/29/18 02:40	2
PCB-208L	87		30 - 140	10/19/18 12:00	10/29/18 02:40	2
PCB-209L	92		30 - 140	10/19/18 12:00	10/29/18 02:40	2
PCB-37L	85		30 - 140	10/19/18 12:00	10/29/18 02:40	2
PCB-3L	62		30 - 140	10/19/18 12:00	10/29/18 02:40	2
PCB-4L	78		30 - 140	10/19/18 12:00	10/29/18 02:40	2
PCB-54L	63	q	30 - 140	10/19/18 12:00	10/29/18 02:40	2
PCB-77L	84		30 - 140	10/19/18 12:00	10/29/18 02:40	2
PCB-81L	87		30 - 140	10/19/18 12:00	10/29/18 02:40	2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-111L	93		40 - 125	10/19/18 12:00	10/29/18 02:40	2
PCB-178L	92		40 - 125	10/19/18 12:00	10/29/18 02:40	2
PCB-28L	95		40 - 125	10/19/18 12:00	10/29/18 02:40	2

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	9.1		0.42	0.084	mg/Kg	☼	11/02/18 12:26	11/05/18 15:26	5
Cadmium	0.43		0.34	0.065	mg/Kg	☼	11/02/18 12:26	11/05/18 15:26	5
Copper	150		0.84	0.19	mg/Kg	☼	11/02/18 12:26	11/05/18 15:26	5
Lead	48		0.42	0.040	mg/Kg	☼	11/02/18 12:26	11/05/18 15:26	5
Zinc	310		4.2	1.4	mg/Kg	☼	11/02/18 12:26	11/05/18 15:26	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.33		0.061	0.018	mg/Kg	☼	10/26/18 09:47	10/26/18 13:17	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	27000		2000	44	mg/Kg			10/24/18 16:36	1
Total Solids	41.9		0.1	0.1	%			11/01/18 11:09	1
Percent Moisture	58	H	0.10	0.10	%			10/25/18 12:18	1
Percent Solids	42	H	0.10	0.10	%			10/25/18 12:18	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Clay	28.8				%			10/19/18 16:28	1
Coarse Sand	0.2				%			10/19/18 16:28	1
Fine Sand	13.6				%			10/19/18 16:28	1
Gravel	1.3				%			10/19/18 16:28	1
Medium Sand	6.4				%			10/19/18 16:28	1
Silt	49.7				%			10/19/18 16:28	1

Client: Pacific Groundwater Group
Project/Site: Swan Island Lagoon SedimentInvestigation

TestAmerica Job ID: 580-81081-1

Client Sample ID: H7-0to24-101218
Date Collected: 10/12/18 15:14
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-26
Matrix: Solid
Percent Solids: 41.9

Method: D854 - Specific Gravity

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Density	1.35		0.0100	0.0100	g/cm3			10/25/18 00:00	1
Specific Gravity	1.35		0.0100	0.0100	NONE			10/25/18 00:00	1

Client Sample ID: J7-0to26-101218
Date Collected: 10/12/18 15:52
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-28
Matrix: Solid
Percent Solids: 40.5

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	220		120	29	mg/Kg	☼	10/27/18 20:36	11/04/18 23:49	1
Motor Oil (>C24-C36)	1100		120	41	mg/Kg	☼	10/27/18 20:36	11/04/18 23:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*84*		*50 - 150*	*10/27/18 20:36*	*11/04/18 23:49*	*1*

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3,4,6,7,8-HpCDD	1.5	G B	0.023	0.023	ug/Kg	☼	10/18/18 14:49	10/24/18 12:44	1
1,2,3,4,6,7,8-HpCDF	0.64	G B	0.020	0.020	ug/Kg	☼	10/18/18 14:49	10/24/18 12:44	1
1,2,3,4,7,8,9-HpCDF	0.045	G B	0.026	0.026	ug/Kg	☼	10/18/18 14:49	10/24/18 12:44	1
1,2,3,4,7,8-HxCDD	0.0044	J B	0.0062	0.00095	ug/Kg	☼	10/18/18 14:49	10/24/18 12:44	1
1,2,3,4,7,8-HxCDF	0.10	B	0.0062	0.0043	ug/Kg	☼	10/18/18 14:49	10/24/18 12:44	1
1,2,3,6,7,8-HxCDD	0.049	B	0.0062	0.00096	ug/Kg	☼	10/18/18 14:49	10/24/18 12:44	1
1,2,3,6,7,8-HxCDF	0.018	B	0.0062	0.0042	ug/Kg	☼	10/18/18 14:49	10/24/18 12:44	1
1,2,3,7,8,9-HxCDD	0.0097	q B	0.0062	0.00084	ug/Kg	☼	10/18/18 14:49	10/24/18 12:44	1
1,2,3,7,8,9-HxCDF	ND		0.0062	0.0041	ug/Kg	☼	10/18/18 14:49	10/24/18 12:44	1
1,2,3,7,8-PeCDD	ND		0.0062	0.00063	ug/Kg	☼	10/18/18 14:49	10/24/18 12:44	1
1,2,3,7,8-PeCDF	0.0028	J B	0.0062	0.0011	ug/Kg	☼	10/18/18 14:49	10/24/18 12:44	1
2,3,4,6,7,8-HxCDF	0.0090	B	0.0062	0.0038	ug/Kg	☼	10/18/18 14:49	10/24/18 12:44	1
2,3,4,7,8-PeCDF	0.011		0.0062	0.0012	ug/Kg	☼	10/18/18 14:49	10/24/18 12:44	1
2,3,7,8-TCDD	0.0010	J	0.0012	0.00017	ug/Kg	☼	10/18/18 14:49	10/24/18 12:44	1
OCDD	13	G E B	0.017	0.017	ug/Kg	☼	10/18/18 14:49	10/24/18 12:44	1
OCDF	2.6	B	0.012	0.0023	ug/Kg	☼	10/18/18 14:49	10/24/18 12:44	1
Total HpCDD	3.1	G B	0.023	0.023	ug/Kg	☼	10/18/18 14:49	10/24/18 12:44	1
Total HpCDF	3.6	G B	0.023	0.023	ug/Kg	☼	10/18/18 14:49	10/24/18 12:44	1
Total HxCDD	0.30	q B	0.0062	0.00092	ug/Kg	☼	10/18/18 14:49	10/24/18 12:44	1
Total HxCDF	1.0	B	0.0062	0.0041	ug/Kg	☼	10/18/18 14:49	10/24/18 12:44	1
Total PeCDD	0.032	q	0.0062	0.00063	ug/Kg	☼	10/18/18 14:49	10/24/18 12:44	1
Total PeCDF	0.081	q B	0.0062	0.0012	ug/Kg	☼	10/18/18 14:49	10/24/18 12:44	1
Total TCDF	0.012	q B	0.0012	0.00014	ug/Kg	☼	10/18/18 14:49	10/24/18 12:44	1
Total TCDD	0.013	q	0.0012	0.00017	ug/Kg	☼	10/18/18 14:49	10/24/18 12:44	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-1,2,3,4,6,7,8-HpCDD	*51*		*23 - 140*	*10/18/18 14:49*	*10/24/18 12:44*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*45*		*28 - 143*	*10/18/18 14:49*	*10/24/18 12:44*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*49*		*26 - 138*	*10/18/18 14:49*	*10/24/18 12:44*	*1*
13C-1,2,3,4,7,8-HxCDD	*50*		*32 - 141*	*10/18/18 14:49*	*10/24/18 12:44*	*1*
13C-1,2,3,4,7,8-HxCDF	*53*		*26 - 152*	*10/18/18 14:49*	*10/24/18 12:44*	*1*
13C-1,2,3,6,7,8-HxCDD	*51*		*28 - 130*	*10/18/18 14:49*	*10/24/18 12:44*	*1*
13C-1,2,3,6,7,8-HxCDF	*52*		*26 - 123*	*10/18/18 14:49*	*10/24/18 12:44*	*1*
13C-1,2,3,7,8,9-HxCDF	*53*		*29 - 147*	*10/18/18 14:49*	*10/24/18 12:44*	*1*
13C-1,2,3,7,8-PeCDD	*50*		*25 - 181*	*10/18/18 14:49*	*10/24/18 12:44*	*1*
13C-1,2,3,7,8-PeCDF	*50*		*24 - 185*	*10/18/18 14:49*	*10/24/18 12:44*	*1*
13C-2,3,4,6,7,8-HxCDF	*51*		*28 - 136*	*10/18/18 14:49*	*10/24/18 12:44*	*1*
13C-2,3,4,7,8-PeCDF	*51*		*21 - 178*	*10/18/18 14:49*	*10/24/18 12:44*	*1*
13C-2,3,7,8-TCDD	*52*		*25 - 164*	*10/18/18 14:49*	*10/24/18 12:44*	*1*
13C-2,3,7,8-TCDF	*54*		*24 - 169*	*10/18/18 14:49*	*10/24/18 12:44*	*1*
13C-OCDD	*56*		*17 - 157*	*10/18/18 14:49*	*10/24/18 12:44*	*1*

Client Sample ID: J7-0to26-101218
Date Collected: 10/12/18 15:52
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-28
Matrix: Solid
Percent Solids: 40.5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
37Cl4-2,3,7,8-TCDD	*80*		*35 - 197*	*10/18/18 14:49*	*10/24/18 12:44*	*1*

Method: 1613B - Dioxins and Furans (HRGC/HRMS) - RA

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDF	**0.0021**	**B**	0.0012	0.00018	ug/Kg	☼	10/18/18 14:49	10/25/18 05:24	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDF	*50*		*24 - 169*	*10/18/18 14:49*	*10/25/18 05:24*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
37Cl4-2,3,7,8-TCDD	*59*		*35 - 197*	*10/18/18 14:49*	*10/25/18 05:24*	*1*

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	**0.70**	**B**	0.30	0.0065	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-10	**0.30**	**q**	0.30	0.058	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-100	**28**	**C93 B**	0.59	0.011	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-101	**120**	**C90 B**	0.89	0.0096	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-102	**11**	**C98**	0.59	0.011	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-103	**11**		0.30	0.011	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-104	**2.4**		0.30	0.0084	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-105	**16**	**B**	0.30	0.082	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-106	ND		0.30	0.084	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-107	**4.7**		0.30	0.090	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-108	**1.8**	**C B**	0.59	0.086	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-109	**54**	**C86 B**	1.8	0.0095	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-11	**0.13**	**J B**	0.59	0.051	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-110	**84**	**C B**	0.59	0.0080	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-111	**0.60**		0.30	0.0077	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-112	**0.57**		0.30	0.0082	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-113	**120**	**C90 B**	0.89	0.0096	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-114	**1.1**	**q**	0.30	0.077	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-115	**84**	**C110 B**	0.59	0.0080	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-116	**13**	**C85 B**	0.89	0.0094	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-117	**13**	**C85 B**	0.89	0.0094	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-118	**47**	**B**	0.30	0.078	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-119	**54**	**C86 B**	1.8	0.0095	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-12	**0.19**	**J q C**	0.59	0.052	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-120	**0.91**		0.30	0.0079	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-121	**0.81**		0.30	0.0081	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-122	**0.87**	**q**	0.30	0.097	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-123	**0.59**	**q B**	0.30	0.082	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-124	**1.8**	**C108 B**	0.59	0.086	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-125	**54**	**C86 B**	1.8	0.0095	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-126	**0.15**	**J q B**	0.30	0.092	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-127	ND		0.30	0.084	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-128	**15**	**C**	0.59	0.22	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-129	**170**	**C B**	1.2	0.23	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-13	**0.19**	**J q C12**	0.59	0.052	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-130	**7.5**		0.30	0.30	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-131	**1.6**	**G**	0.31	0.31	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5

Client Sample ID: J7-0to26-101218
Date Collected: 10/12/18 15:52
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-28
Matrix: Solid
Percent Solids: 40.5

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-132	47	B	0.30	0.29	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-133	4.9		0.30	0.28	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-134	11	C B	0.59	0.30	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-135	88	C B	0.59	0.016	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-136	30	B	0.30	0.012	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-137	4.0		0.30	0.26	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-138	170	C129 B	1.2	0.23	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-139	2.9	C	0.59	0.25	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-14	ND		0.30	0.045	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-140	2.9	C139	0.59	0.25	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-141	35	B	0.30	0.27	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-142	ND		0.30	0.28	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-143	11	C134 B	0.59	0.30	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-144	7.7		0.30	0.015	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-145	ND		0.30	0.011	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-146	33	B	0.30	0.25	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-147	200	C B	0.59	0.29	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-148	2.3		0.30	0.016	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-149	200	C147 B	0.59	0.29	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-15	1.1		0.30	0.058	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-150	3.1		0.30	0.011	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-151	88	C135 B	0.59	0.016	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-152	2.0		0.30	0.012	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-153	170	C B	0.59	0.20	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-154	9.5	B	0.30	0.013	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-155	0.28	J	0.30	0.011	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-156	13	C B	0.59	0.24	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-157	13	C156 B	0.59	0.24	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-158	15		0.30	0.18	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-159	1.3	B	0.30	0.19	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-16	0.52		0.30	0.0098	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-160	170	C129 B	1.2	0.23	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-161	ND		0.30	0.19	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-162	0.32	q	0.30	0.19	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-163	170	C129 B	1.2	0.23	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-164	12	B	0.30	0.20	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-165	0.50	q	0.30	0.21	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-166	15	C128	0.59	0.22	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-167	4.5	B	0.30	0.15	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-168	170	C153 B	0.59	0.20	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-169	0.66	q	0.30	0.15	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-17	11		0.30	0.0088	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-170	71	B	0.30	0.020	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-171	22	C B	0.59	0.020	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-172	11		0.30	0.019	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-173	22	C171 B	0.59	0.020	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-174	64	B	0.30	0.018	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-175	2.5		0.30	0.018	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-176	8.5		0.30	0.013	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5

Client Sample ID: J7-0to26-101218
Date Collected: 10/12/18 15:52
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-28
Matrix: Solid
Percent Solids: 40.5

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-177	41	B	0.30	0.019	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-178	16	B	0.30	0.019	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-179	33	B	0.30	0.014	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-18	1.6	C	0.59	0.0077	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-180	150	C B	0.59	0.015	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-181	0.72		0.30	0.018	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-182	1.1	q	0.30	0.017	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-183	48	C B	0.59	0.017	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-184	ND		0.30	0.014	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-185	48	C183 B	0.59	0.017	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-186	ND		0.30	0.014	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-187	85	B	0.30	0.016	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-188	0.56		0.30	0.013	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-189	2.5		0.30	0.051	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-19	20		0.30	0.011	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-190	13	B	0.30	0.013	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-191	3.4		0.30	0.013	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-192	ND		0.30	0.015	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-193	150	C180 B	0.59	0.015	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-194	32	B	0.30	0.080	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-195	14		0.30	0.087	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-196	15	B	0.30	0.023	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-197	1.2		0.30	0.018	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-198	27	C	0.59	0.024	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-199	27	C198	0.59	0.024	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-2	0.20	J q B	0.30	0.0075	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-20	4.7	C B	0.59	0.028	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-200	2.8		0.30	0.016	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-201	3.0		0.30	0.016	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-202	4.4		0.30	0.018	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-203	18	B	0.30	0.021	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-204	ND		0.30	0.018	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-205	1.6	q	0.30	0.067	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-206	5.7		0.30	0.084	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-207	0.78		0.30	0.062	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-208	1.0	q	0.30	0.066	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-209	0.65		0.30	0.027	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-21	2.3	C B	0.59	0.027	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-22	0.51	B	0.30	0.028	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-23	ND		0.30	0.028	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-24	0.074	J	0.30	0.0074	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-25	1.2		0.30	0.026	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-26	0.35	J q C B	0.59	0.027	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-27	2.0		0.30	0.0064	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-28	4.7	C20 B	0.59	0.028	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-29	0.35	J q C26 B	0.59	0.027	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-3	0.42	B	0.30	0.0081	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-30	1.6	C18	0.59	0.0077	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-31	1.9		0.59	0.027	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5

Client Sample ID: J7-0to26-101218
Date Collected: 10/12/18 15:52
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-28
Matrix: Solid
Percent Solids: 40.5

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-32	11	B	0.30	0.0061	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-33	2.3	C21 B	0.59	0.027	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-34	ND		0.30	0.029	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-35	ND		0.30	0.028	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-36	ND		0.30	0.027	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-37	0.62		0.30	0.028	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-38	ND		0.30	0.029	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-39	ND		0.30	0.026	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-4	6.1		0.59	0.068	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-40	15	C	0.89	0.27	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-41	15	C40	0.89	0.27	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-42	2.4		0.30	0.27	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-43	4.6	C	0.59	0.26	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-44	130	C B	0.89	0.24	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-45	77	C	0.59	0.29	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-46	2.5	G	0.35	0.35	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-47	130	C44 B	0.89	0.24	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-48	1.3		0.30	0.27	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-49	56	C	0.59	0.22	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-5	0.063	J q	0.30	0.059	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-50	38	C	0.59	0.26	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-51	77	C45	0.59	0.29	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-52	49		0.30	0.27	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-53	38	C50	0.59	0.26	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-54	13		0.30	0.0092	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-55	0.46	q	0.30	0.20	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-56	2.3		0.30	0.20	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-57	ND		0.30	0.20	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-58	0.36		0.30	0.20	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-59	3.7	C	0.89	0.19	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-6	0.42	q	0.30	0.052	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-60	1.1		0.30	0.20	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-61	26	C	1.2	0.19	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-62	3.7	C59	0.89	0.19	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-63	0.71		0.30	0.18	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-64	3.9		0.30	0.18	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-65	130	C44 B	0.89	0.24	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-66	9.1		0.30	0.19	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-67	ND		0.30	0.17	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-68	1.1	B	0.30	0.18	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-69	56	C49	0.59	0.22	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-7	0.14	J q	0.30	0.053	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-70	26	C61	1.2	0.19	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-71	15	C40	0.89	0.27	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-72	ND		0.30	0.20	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-73	4.6	C43	0.59	0.26	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-74	26	C61	1.2	0.19	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-75	3.7	C59	0.89	0.19	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-76	26	C61	1.2	0.19	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5

Client Sample ID: J7-0to26-101218
Date Collected: 10/12/18 15:52
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-28
Matrix: Solid
Percent Solids: 40.5

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-77	**0.62**		0.30	0.19	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-78	ND		0.30	0.20	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-79	**0.36**		0.30	0.18	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-8	**1.2**		0.59	0.048	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-80	ND		0.30	0.17	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-81	ND		0.30	0.19	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-82	**6.9**		0.30	0.013	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-83	**64**	**C**	0.59	0.012	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-84	**19**		0.30	0.013	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-85	**13**	**C B**	0.89	0.0094	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-86	**54**	**C B**	1.8	0.0095	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-87	**54**	**C86 B**	1.8	0.0095	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-88	**39**	**C B**	0.59	0.011	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-89	**0.73**		0.30	0.012	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-9	**0.13**	**J q**	0.30	0.054	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-90	**120**	**C B**	0.89	0.0096	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-91	**39**	**C88 B**	0.59	0.011	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-92	**23**	**B**	0.30	0.011	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-93	**28**	**C B**	0.59	0.011	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-94	**6.6**		0.30	0.012	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-95	**89**	**B**	0.30	0.012	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-96	**4.9**		0.30	0.0094	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-97	**54**	**C86 B**	1.8	0.0095	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-98	**11**	**C**	0.59	0.011	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
PCB-99	**64**	**C83**	0.59	0.012	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
Polychlorinated biphenyls, Total	**2800**	**q B**	1.8	0.072	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
Total Monochlorobiphenyls	**1.3**	**q B**	0.30	0.0074	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
Total Dichlorobiphenyls	**9.8**	**q B**	0.59	0.054	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
Total Trichlorobiphenyls	**58**	**q B**	0.59	0.021	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
Total Tetrachlorobiphenyls	**440**	**q B**	1.2	0.21	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
Total Pentachlorobiphenyls	**650**	**q B**	1.8	0.034	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
Total Hexachlorobiphenyls	**890**	**q B**	1.2	0.17	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
Total Heptachlorobiphenyls	**570**	**q B**	0.59	0.018	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
Total Octachlorobiphenyls	**120**	**q B**	0.59	0.035	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5
Total Nonachlorobiphenyls	**7.5**	**q**	0.30	0.071	ng/g	☼	10/19/18 12:00	10/29/18 03:42	5

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
PCB-104L	*80*		*30 - 140*	*10/19/18 12:00*	*10/29/18 03:42*	*5*
PCB-105L	*93*		*30 - 140*	*10/19/18 12:00*	*10/29/18 03:42*	*5*
PCB-114L	*92*		*30 - 140*	*10/19/18 12:00*	*10/29/18 03:42*	*5*
PCB-118L	*92*		*30 - 140*	*10/19/18 12:00*	*10/29/18 03:42*	*5*
PCB-123L	*90*		*30 - 140*	*10/19/18 12:00*	*10/29/18 03:42*	*5*
PCB-126L	*89*		*30 - 140*	*10/19/18 12:00*	*10/29/18 03:42*	*5*
PCB-155L	*92*		*30 - 140*	*10/19/18 12:00*	*10/29/18 03:42*	*5*
PCB-156L	*90*	*C*	*30 - 140*	*10/19/18 12:00*	*10/29/18 03:42*	*5*
PCB-157L	*90*	*C156*	*30 - 140*	*10/19/18 12:00*	*10/29/18 03:42*	*5*
PCB-15L	*73*		*30 - 140*	*10/19/18 12:00*	*10/29/18 03:42*	*5*
PCB-167L	*93*		*30 - 140*	*10/19/18 12:00*	*10/29/18 03:42*	*5*
PCB-169L	*95*		*30 - 140*	*10/19/18 12:00*	*10/29/18 03:42*	*5*
PCB-170L	*89*		*30 - 140*	*10/19/18 12:00*	*10/29/18 03:42*	*5*

Client Sample ID: J7-0to26-101218
Date Collected: 10/12/18 15:52
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-28
Matrix: Solid
Percent Solids: 40.5

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-188L	89		30 - 140	10/19/18 12:00	10/29/18 03:42	5
PCB-189L	86		30 - 140	10/19/18 12:00	10/29/18 03:42	5
PCB-19L	83		30 - 140	10/19/18 12:00	10/29/18 03:42	5
PCB-1L	67		30 - 140	10/19/18 12:00	10/29/18 03:42	5
PCB-202L	110		30 - 140	10/19/18 12:00	10/29/18 03:42	5
PCB-205L	78		30 - 140	10/19/18 12:00	10/29/18 03:42	5
PCB-206L	98		30 - 140	10/19/18 12:00	10/29/18 03:42	5
PCB-208L	90		30 - 140	10/19/18 12:00	10/29/18 03:42	5
PCB-209L	97		30 - 140	10/19/18 12:00	10/29/18 03:42	5
PCB-37L	91		30 - 140	10/19/18 12:00	10/29/18 03:42	5
PCB-3L	63		30 - 140	10/19/18 12:00	10/29/18 03:42	5
PCB-4L	80		30 - 140	10/19/18 12:00	10/29/18 03:42	5
PCB-54L	66		30 - 140	10/19/18 12:00	10/29/18 03:42	5
PCB-77L	87		30 - 140	10/19/18 12:00	10/29/18 03:42	5
PCB-81L	86		30 - 140	10/19/18 12:00	10/29/18 03:42	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-111L	90		40 - 125	10/19/18 12:00	10/29/18 03:42	5
PCB-178L	92		40 - 125	10/19/18 12:00	10/29/18 03:42	5
PCB-28L	92		40 - 125	10/19/18 12:00	10/29/18 03:42	5

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	19		0.51	0.10	mg/Kg	☼	11/02/18 12:26	11/05/18 15:30	5
Cadmium	0.51		0.41	0.078	mg/Kg	☼	11/02/18 12:26	11/05/18 15:30	5
Copper	450		1.0	0.22	mg/Kg	☼	11/02/18 12:26	11/05/18 15:30	5
Lead	160		0.51	0.049	mg/Kg	☼	11/02/18 12:26	11/05/18 15:30	5
Zinc	480		5.1	1.6	mg/Kg	☼	11/02/18 12:26	11/05/18 15:30	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.43		0.061	0.018	mg/Kg	☼	10/31/18 10:53	10/31/18 13:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	37000		2000	44	mg/Kg			10/24/18 16:41	1
Total Solids	40.5		0.1	0.1	%			11/01/18 12:04	1
Percent Moisture	60	H	0.10	0.10	%			10/25/18 12:18	1
Percent Solids	40	H	0.10	0.10	%			10/25/18 12:18	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Clay	17.9				%			10/19/18 16:28	1
Coarse Sand	0.6				%			10/19/18 16:28	1
Fine Sand	23.9				%			10/19/18 16:28	1
Gravel	0.9				%			10/19/18 16:28	1
Medium Sand	14.6				%			10/19/18 16:28	1
Silt	42.2				%			10/19/18 16:28	1

Client: Pacific Groundwater Group
Project/Site: Swan Island Lagoon SedimentInvestigation

TestAmerica Job ID: 580-81081-1

Client Sample ID: J7-0to26-101218
Date Collected: 10/12/18 15:52
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-28
Matrix: Solid
Percent Solids: 40.5

Method: D854 - Specific Gravity

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Density	1.32		0.0100	0.0100	g/cm3			10/25/18 00:00	1
Specific Gravity	1.32		0.0100	0.0100	NONE			10/25/18 00:00	1

Client Sample ID: H5-0to29-101118
Date Collected: 10/11/18 15:31
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-33
Matrix: Solid
Percent Solids: 31.2

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	170		160	39	mg/Kg	☼	10/27/18 20:36	11/05/18 00:09	1
Motor Oil (>C24-C36)	1000		160	56	mg/Kg	☼	10/27/18 20:36	11/05/18 00:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*97*		*50 - 150*	*10/27/18 20:36*	*11/05/18 00:09*	*1*

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3,4,6,7,8-HpCDD	0.89	G B	0.017	0.017	ug/Kg	☼	10/18/18 14:49	10/24/18 13:30	1
1,2,3,4,6,7,8-HpCDF	0.29	B	0.0080	0.0080	ug/Kg	☼	10/18/18 14:49	10/24/18 13:30	1
1,2,3,4,7,8,9-HpCDF	0.022	G q B	0.011	0.011	ug/Kg	☼	10/18/18 14:49	10/24/18 13:30	1
1,2,3,4,7,8-HxCDD	0.0048	J B	0.0080	0.00064	ug/Kg	☼	10/18/18 14:49	10/24/18 13:30	1
1,2,3,4,7,8-HxCDF	0.050	B	0.0080	0.0028	ug/Kg	☼	10/18/18 14:49	10/24/18 13:30	1
1,2,3,6,7,8-HxCDD	0.030	B	0.0080	0.00061	ug/Kg	☼	10/18/18 14:49	10/24/18 13:30	1
1,2,3,6,7,8-HxCDF	0.010	B	0.0080	0.0027	ug/Kg	☼	10/18/18 14:49	10/24/18 13:30	1
1,2,3,7,8,9-HxCDD	0.011	B	0.0080	0.00055	ug/Kg	☼	10/18/18 14:49	10/24/18 13:30	1
1,2,3,7,8,9-HxCDF	ND		0.0080	0.0025	ug/Kg	☼	10/18/18 14:49	10/24/18 13:30	1
1,2,3,7,8-PeCDD	0.0023	J	0.0080	0.00066	ug/Kg	☼	10/18/18 14:49	10/24/18 13:30	1
1,2,3,7,8-PeCDF	0.0036	J B	0.0080	0.00069	ug/Kg	☼	10/18/18 14:49	10/24/18 13:30	1
2,3,4,6,7,8-HxCDF	0.0047	J B	0.0080	0.0022	ug/Kg	☼	10/18/18 14:49	10/24/18 13:30	1
2,3,4,7,8-PeCDF	0.0060	J	0.0080	0.00076	ug/Kg	☼	10/18/18 14:49	10/24/18 13:30	1
2,3,7,8-TCDD	0.00048	J q	0.0016	0.00016	ug/Kg	☼	10/18/18 14:49	10/24/18 13:30	1
OCDD	6.9	E B	0.016	0.011	ug/Kg	☼	10/18/18 14:49	10/24/18 13:30	1
OCDF	0.95	B	0.016	0.0013	ug/Kg	☼	10/18/18 14:49	10/24/18 13:30	1
Total HpCDD	1.9	G B	0.017	0.017	ug/Kg	☼	10/18/18 14:49	10/24/18 13:30	1
Total HpCDF	1.4	G q B	0.0094	0.0094	ug/Kg	☼	10/18/18 14:49	10/24/18 13:30	1
Total HxCDD	0.20	q B	0.0080	0.00060	ug/Kg	☼	10/18/18 14:49	10/24/18 13:30	1
Total HxCDF	0.43	B	0.0080	0.0025	ug/Kg	☼	10/18/18 14:49	10/24/18 13:30	1
Total PeCDD	0.015	q	0.0080	0.00066	ug/Kg	☼	10/18/18 14:49	10/24/18 13:30	1
Total PeCDF	0.049	q B	0.0080	0.00072	ug/Kg	☼	10/18/18 14:49	10/24/18 13:30	1
Total TCDF	0.014	q B	0.0016	0.00017	ug/Kg	☼	10/18/18 14:49	10/24/18 13:30	1
Total TCDD	0.011	q	0.0016	0.00016	ug/Kg	☼	10/18/18 14:49	10/24/18 13:30	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-1,2,3,4,6,7,8-HpCDD	*53*		*23 - 140*	*10/18/18 14:49*	*10/24/18 13:30*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*50*		*28 - 143*	*10/18/18 14:49*	*10/24/18 13:30*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*53*		*26 - 138*	*10/18/18 14:49*	*10/24/18 13:30*	*1*
13C-1,2,3,4,7,8-HxCDD	*52*		*32 - 141*	*10/18/18 14:49*	*10/24/18 13:30*	*1*
13C-1,2,3,4,7,8-HxCDF	*52*		*26 - 152*	*10/18/18 14:49*	*10/24/18 13:30*	*1*
13C-1,2,3,6,7,8-HxCDD	*48*		*28 - 130*	*10/18/18 14:49*	*10/24/18 13:30*	*1*
13C-1,2,3,6,7,8-HxCDF	*50*		*26 - 123*	*10/18/18 14:49*	*10/24/18 13:30*	*1*
13C-1,2,3,7,8,9-HxCDF	*52*		*29 - 147*	*10/18/18 14:49*	*10/24/18 13:30*	*1*
13C-1,2,3,7,8-PeCDD	*49*		*25 - 181*	*10/18/18 14:49*	*10/24/18 13:30*	*1*
13C-1,2,3,7,8-PeCDF	*49*		*24 - 185*	*10/18/18 14:49*	*10/24/18 13:30*	*1*
13C-2,3,4,6,7,8-HxCDF	*52*		*28 - 136*	*10/18/18 14:49*	*10/24/18 13:30*	*1*
13C-2,3,4,7,8-PeCDF	*49*		*21 - 178*	*10/18/18 14:49*	*10/24/18 13:30*	*1*
13C-2,3,7,8-TCDD	*50*		*25 - 164*	*10/18/18 14:49*	*10/24/18 13:30*	*1*
13C-2,3,7,8-TCDF	*51*		*24 - 169*	*10/18/18 14:49*	*10/24/18 13:30*	*1*
13C-OCDD	*56*		*17 - 157*	*10/18/18 14:49*	*10/24/18 13:30*	*1*

Client Sample ID: H5-0to29-101118
Date Collected: 10/11/18 15:31
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-33
Matrix: Solid
Percent Solids: 31.2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
37Cl4-2,3,7,8-TCDD	*73*		*35 - 197*	*10/18/18 14:49*	*10/24/18 13:30*	*1*

Method: 1613B - Dioxins and Furans (HRGC/HRMS) - RA

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDF	**0.0025**	**B**	0.0016	0.00018	ug/Kg	☼	10/18/18 14:49	10/25/18 06:02	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDF	*46*		*24 - 169*	*10/18/18 14:49*	*10/25/18 06:02*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
37Cl4-2,3,7,8-TCDD	*54*		*35 - 197*	*10/18/18 14:49*	*10/25/18 06:02*	*1*

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	**0.17**	**q B**	0.046	0.0011	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-10	**0.023**	**J q**	0.046	0.0074	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-100	**2.7**	**C93 B**	0.093	0.0017	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-101	**15**	**C90 B**	0.14	0.0014	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-102	**0.98**	**C98**	0.093	0.0016	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-103	**1.0**		0.046	0.0017	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-104	**0.26**		0.046	0.0013	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-105	**2.5**	**B**	0.046	0.010	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-106	ND		0.046	0.011	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-107	**0.76**		0.046	0.011	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-108	**0.29**	**C B**	0.093	0.011	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-109	**7.2**	**C86 B**	0.28	0.0014	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-11	**0.12**	**B**	0.093	0.0065	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-110	**12**	**C B**	0.093	0.0012	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-111	ND		0.046	0.0012	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-112	ND		0.046	0.0012	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-113	**15**	**C90 B**	0.14	0.0014	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-114	**0.16**		0.046	0.010	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-115	**12**	**C110 B**	0.093	0.0012	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-116	**1.6**	**C85 B**	0.14	0.0014	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-117	**1.6**	**C85 B**	0.14	0.0014	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-118	**7.7**	**B**	0.046	0.010	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-119	**7.2**	**C86 B**	0.28	0.0014	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-12	**0.037**	**J q C**	0.093	0.0067	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-120	**0.10**	**q**	0.046	0.0012	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-121	ND		0.046	0.0012	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-122	**0.12**		0.046	0.012	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-123	**0.099**	**B**	0.046	0.011	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-124	**0.29**	**C108 B**	0.093	0.011	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-125	**7.2**	**C86 B**	0.28	0.0014	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-126	ND		0.046	0.011	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-127	ND		0.046	0.011	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-128	**2.2**	**C**	0.093	0.015	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-129	**19**	**C B**	0.19	0.016	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-13	**0.037**	**J q C12**	0.093	0.0067	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-130	**1.1**		0.046	0.021	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-131	**0.21**		0.046	0.022	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3

Client Sample ID: H5-0to29-101118
Date Collected: 10/11/18 15:31
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-33
Matrix: Solid
Percent Solids: 31.2

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-132	6.4	B	0.046	0.020	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-133	0.51		0.046	0.020	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-134	1.2	C B	0.093	0.021	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-135	8.5	C B	0.093	0.0017	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-136	3.2	B	0.046	0.0012	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-137	0.58		0.046	0.018	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-138	19	C129 B	0.19	0.016	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-139	0.36	C	0.093	0.018	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-14	ND		0.046	0.0057	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-140	0.36	C139	0.093	0.018	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-141	3.6	B	0.046	0.019	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-142	ND		0.046	0.020	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-143	1.2	C134 B	0.093	0.021	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-144	0.81		0.046	0.0015	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-145	ND		0.046	0.0011	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-146	4.0	B	0.046	0.017	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-147	20	C B	0.093	0.020	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-148	0.16		0.046	0.0016	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-149	20	C147 B	0.093	0.020	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-15	0.22		0.046	0.0073	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-150	0.17		0.046	0.0011	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-151	8.5	C135 B	0.093	0.0017	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-152	0.11		0.046	0.0012	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-153	17	C B	0.093	0.014	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-154	0.77	B	0.046	0.0013	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-155	0.030	J	0.046	0.0011	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-156	1.7	C B	0.093	0.018	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-157	1.7	C156 B	0.093	0.018	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-158	1.7		0.046	0.013	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-159	0.12	B	0.046	0.013	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-16	0.077		0.046	0.0014	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-160	19	C129 B	0.19	0.016	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-161	ND		0.046	0.013	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-162	ND		0.046	0.013	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-163	19	C129 B	0.19	0.016	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-164	1.4	B	0.046	0.014	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-165	ND		0.046	0.015	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-166	2.2	C128	0.093	0.015	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-167	0.57	B	0.046	0.0098	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-168	17	C153 B	0.093	0.014	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-169	ND		0.046	0.0098	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-17	1.5		0.046	0.0012	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-170	6.1	B	0.046	0.0030	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-171	1.9	C B	0.093	0.0029	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-172	0.96		0.046	0.0029	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-173	1.9	C171 B	0.093	0.0029	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-174	5.8	B	0.046	0.0027	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-175	0.23		0.046	0.0026	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-176	0.76		0.046	0.0020	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3

Client Sample ID: H5-0to29-101118
Date Collected: 10/11/18 15:31
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-33
Matrix: Solid
Percent Solids: 31.2

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-177	3.7	B	0.046	0.0028	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-178	1.3	B	0.046	0.0028	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-179	2.8	B	0.046	0.0021	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-18	0.25	C	0.093	0.0011	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-180	12	C B	0.093	0.0022	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-181	ND		0.046	0.0026	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-182	0.091		0.046	0.0025	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-183	4.2	C B	0.093	0.0026	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-184	ND		0.046	0.0021	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-185	4.2	C183 B	0.093	0.0026	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-186	ND		0.046	0.0021	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-187	7.3	B	0.046	0.0024	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-188	ND		0.046	0.0018	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-189	0.21		0.046	0.0078	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-19	2.2		0.046	0.0015	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-190	1.2	B	0.046	0.0019	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-191	0.27		0.046	0.0020	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-192	ND		0.046	0.0022	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-193	12	C180 B	0.093	0.0022	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-194	2.7	B	0.046	0.011	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-195	1.2		0.046	0.012	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-196	1.3	B	0.046	0.0043	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-197	0.10		0.046	0.0032	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-198	2.4	C	0.093	0.0043	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-199	2.4	C198	0.093	0.0043	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-2	0.049	q B	0.046	0.0013	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-20	0.81	C B	0.093	0.0038	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-200	0.27		0.046	0.0029	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-201	0.29		0.046	0.0030	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-202	0.43		0.046	0.0033	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-203	1.6	B	0.046	0.0038	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-204	ND		0.046	0.0033	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-205	0.14		0.046	0.0090	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-206	0.80		0.046	0.010	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-207	0.10		0.046	0.0077	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-208	0.21		0.046	0.0081	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-209	0.33		0.046	0.0035	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-21	0.34	C B	0.093	0.0038	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-22	0.086	B	0.046	0.0039	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-23	ND		0.046	0.0039	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-24	ND		0.046	0.0010	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-25	0.14		0.046	0.0036	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-26	0.076	J C B	0.093	0.0038	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-27	0.29		0.046	0.00089	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-28	0.81	C20 B	0.093	0.0038	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-29	0.076	J C26 B	0.093	0.0038	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-3	0.14	B	0.046	0.0015	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-30	0.25	C18	0.093	0.0011	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-31	0.35		0.093	0.0038	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3

Client Sample ID: H5-0to29-101118
Date Collected: 10/11/18 15:31
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-33
Matrix: Solid
Percent Solids: 31.2

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-32	1.2	B	0.046	0.00085	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-33	0.34	C21 B	0.093	0.0038	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-34	ND		0.046	0.0041	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-35	0.011	J q	0.046	0.0039	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-36	ND		0.046	0.0038	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-37	0.16		0.046	0.0039	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-38	ND		0.046	0.0041	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-39	ND		0.046	0.0037	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-4	0.60		0.093	0.0089	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-40	1.6	C	0.14	0.034	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-41	1.6	C40	0.14	0.034	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-42	0.37		0.046	0.034	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-43	0.43	q C	0.093	0.032	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-44	15	C B	0.14	0.030	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-45	8.4	C	0.093	0.036	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-46	0.22	q	0.046	0.044	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-47	15	C44 B	0.14	0.030	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-48	0.15	q	0.046	0.034	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-49	5.5	C	0.093	0.028	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-5	ND		0.046	0.0075	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-50	3.4	C	0.093	0.033	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-51	8.4	C45	0.093	0.036	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-52	5.6		0.046	0.034	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-53	3.4	C50	0.093	0.033	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-54	1.5		0.046	0.00098	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-55	ND		0.046	0.025	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-56	0.38		0.046	0.025	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-57	ND		0.046	0.025	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-58	ND		0.046	0.026	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-59	0.52	C	0.14	0.024	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-6	0.059		0.046	0.0066	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-60	0.13		0.046	0.026	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-61	3.4	C	0.19	0.024	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-62	0.52	C59	0.14	0.024	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-63	0.11		0.046	0.023	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-64	0.52		0.046	0.023	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-65	15	C44 B	0.14	0.030	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-66	1.6		0.046	0.024	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-67	ND		0.046	0.022	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-68	0.14	B	0.046	0.023	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-69	5.5	C49	0.093	0.028	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-7	0.023	J q	0.046	0.0068	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-70	3.4	C61	0.19	0.024	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-71	1.6	C40	0.14	0.034	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-72	0.074		0.046	0.025	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-73	0.43	q C43	0.093	0.032	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-74	3.4	C61	0.19	0.024	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-75	0.52	C59	0.14	0.024	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-76	3.4	C61	0.19	0.024	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3

Client Sample ID: H5-0to29-101118
Date Collected: 10/11/18 15:31
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-33
Matrix: Solid
Percent Solids: 31.2

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-77	**0.11**	**q**	0.046	0.025	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-78	ND		0.046	0.026	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-79	**0.050**		0.046	0.022	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-8	**0.18**		0.093	0.0061	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-80	ND		0.046	0.022	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-81	ND		0.046	0.023	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-82	**1.1**		0.046	0.0019	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-83	**7.9**	**C**	0.093	0.0017	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-84	**2.7**		0.046	0.0019	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-85	**1.6**	**C B**	0.14	0.0014	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-86	**7.2**	**C B**	0.28	0.0014	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-87	**7.2**	**C86 B**	0.28	0.0014	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-88	**3.5**	**C B**	0.093	0.0017	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-89	ND		0.046	0.0019	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-9	**0.012**	**J q**	0.046	0.0070	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-90	**15**	**C B**	0.14	0.0014	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-91	**3.5**	**C88 B**	0.093	0.0017	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-92	**3.1**	**B**	0.046	0.0016	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-93	**2.7**	**C B**	0.093	0.0017	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-94	**0.56**		0.046	0.0019	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-95	**12**	**B**	0.046	0.0018	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-96	**0.37**		0.046	0.0014	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-97	**7.2**	**C86 B**	0.28	0.0014	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-98	**0.98**	**C**	0.093	0.0016	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
PCB-99	**7.9**	**C83**	0.093	0.0017	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
Polychlorinated biphenyls, Total	**300**	**q B**	0.28	0.0082	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
Total Monochlorobiphenyls	**0.36**	**q B**	0.046	0.0013	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
Total Dichlorobiphenyls	**1.3**	**q B**	0.093	0.0070	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
Total Trichlorobiphenyls	**7.5**	**q B**	0.093	0.0029	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
Total Tetrachlorobiphenyls	**49**	**q B**	0.19	0.027	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
Total Pentachlorobiphenyls	**84**	**q B**	0.28	0.0045	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
Total Hexachlorobiphenyls	**95**	**B**	0.19	0.012	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
Total Heptachlorobiphenyls	**49**	**B**	0.093	0.0027	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
Total Octachlorobiphenyls	**10**	**B**	0.093	0.0054	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3
Total Nonachlorobiphenyls	**1.1**		0.046	0.0087	ng/g	☼	10/19/18 12:00	10/28/18 04:35	3

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
PCB-104L	*80*		*30 - 140*	*10/19/18 12:00*	*10/28/18 04:35*	*3*
PCB-105L	*91*		*30 - 140*	*10/19/18 12:00*	*10/28/18 04:35*	*3*
PCB-114L	*91*		*30 - 140*	*10/19/18 12:00*	*10/28/18 04:35*	*3*
PCB-118L	*89*		*30 - 140*	*10/19/18 12:00*	*10/28/18 04:35*	*3*
PCB-123L	*87*		*30 - 140*	*10/19/18 12:00*	*10/28/18 04:35*	*3*
PCB-126L	*89*		*30 - 140*	*10/19/18 12:00*	*10/28/18 04:35*	*3*
PCB-155L	*91*		*30 - 140*	*10/19/18 12:00*	*10/28/18 04:35*	*3*
PCB-156L	*88*	*C*	*30 - 140*	*10/19/18 12:00*	*10/28/18 04:35*	*3*
PCB-157L	*88*	*C156*	*30 - 140*	*10/19/18 12:00*	*10/28/18 04:35*	*3*
PCB-15L	*79*		*30 - 140*	*10/19/18 12:00*	*10/28/18 04:35*	*3*
PCB-167L	*89*		*30 - 140*	*10/19/18 12:00*	*10/28/18 04:35*	*3*
PCB-169L	*95*		*30 - 140*	*10/19/18 12:00*	*10/28/18 04:35*	*3*
PCB-170L	*84*		*30 - 140*	*10/19/18 12:00*	*10/28/18 04:35*	*3*

Client Sample ID: H5-0to29-101118
Date Collected: 10/11/18 15:31
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-33
Matrix: Solid
Percent Solids: 31.2

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

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
PCB-188L	*89*		*30 - 140*	*10/19/18 12:00*	*10/28/18 04:35*	*3*
PCB-189L	*78*		*30 - 140*	*10/19/18 12:00*	*10/28/18 04:35*	*3*
PCB-19L	*90*		*30 - 140*	*10/19/18 12:00*	*10/28/18 04:35*	*3*
PCB-1L	*65*		*30 - 140*	*10/19/18 12:00*	*10/28/18 04:35*	*3*
PCB-202L	*106*		*30 - 140*	*10/19/18 12:00*	*10/28/18 04:35*	*3*
PCB-205L	*72*		*30 - 140*	*10/19/18 12:00*	*10/28/18 04:35*	*3*
PCB-206L	*95*		*30 - 140*	*10/19/18 12:00*	*10/28/18 04:35*	*3*
PCB-208L	*87*		*30 - 140*	*10/19/18 12:00*	*10/28/18 04:35*	*3*
PCB-209L	*87*		*30 - 140*	*10/19/18 12:00*	*10/28/18 04:35*	*3*
PCB-37L	*91*		*30 - 140*	*10/19/18 12:00*	*10/28/18 04:35*	*3*
PCB-3L	*63*		*30 - 140*	*10/19/18 12:00*	*10/28/18 04:35*	*3*
PCB-4L	*80*		*30 - 140*	*10/19/18 12:00*	*10/28/18 04:35*	*3*
PCB-54L	*71*		*30 - 140*	*10/19/18 12:00*	*10/28/18 04:35*	*3*
PCB-77L	*88*		*30 - 140*	*10/19/18 12:00*	*10/28/18 04:35*	*3*
PCB-81L	*88*		*30 - 140*	*10/19/18 12:00*	*10/28/18 04:35*	*3*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
PCB-111L	*90*		*40 - 125*	*10/19/18 12:00*	*10/28/18 04:35*	*3*
PCB-178L	*94*		*40 - 125*	*10/19/18 12:00*	*10/28/18 04:35*	*3*
PCB-28L	*95*		*40 - 125*	*10/19/18 12:00*	*10/28/18 04:35*	*3*

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**9.0**		0.52	0.10	mg/Kg	☼	11/02/18 12:26	11/05/18 15:34	5
Cadmium	**0.43**		0.41	0.079	mg/Kg	☼	11/02/18 12:26	11/05/18 15:34	5
Copper	**130**		1.0	0.23	mg/Kg	☼	11/02/18 12:26	11/05/18 15:34	5
Lead	**38**		0.52	0.050	mg/Kg	☼	11/02/18 12:26	11/05/18 15:34	5
Zinc	**270**		5.2	1.7	mg/Kg	☼	11/02/18 12:26	11/05/18 15:34	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.17**		0.081	0.024	mg/Kg	☼	10/31/18 10:53	10/31/18 13:27	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	**37000**		2000	44	mg/Kg			10/24/18 16:45	1
Total Solids	**31.2**		0.1	0.1	%			11/01/18 12:04	1
Percent Moisture	**68**	**H**	0.10	0.10	%			10/25/18 12:18	1
Percent Solids	**32**	**H**	0.10	0.10	%			10/25/18 12:18	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Clay	**23.9**				%			10/19/18 16:28	1
Coarse Sand	**0.0**				%			10/19/18 16:28	1
Fine Sand	**8.6**				%			10/19/18 16:28	1
Gravel	**0.0**				%			10/19/18 16:28	1
Medium Sand	**0.2**				%			10/19/18 16:28	1
Silt	**67.3**				%			10/19/18 16:28	1

Client: Pacific Groundwater Group
Project/Site: Swan Island Lagoon SedimentInvestigation

TestAmerica Job ID: 580-81081-1

Client Sample ID: H5-0to29-101118
Date Collected: 10/11/18 15:31
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-33
Matrix: Solid
Percent Solids: 31.2

Method: D854 - Specific Gravity

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Density	1.24		0.0100	0.0100	g/cm3			10/25/18 00:00	1
Specific Gravity	1.25		0.0100	0.0100	NONE			10/25/18 00:00	1

Client Sample ID: F7-0to27-101118
Date Collected: 10/11/18 10:16
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-37
Matrix: Solid
Percent Solids: 38.8

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	200		120	31	mg/Kg	☼	10/27/18 20:36	11/05/18 00:29	1
Motor Oil (>C24-C36)	1000		120	43	mg/Kg	☼	10/27/18 20:36	11/05/18 00:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*99*		*50 - 150*	*10/27/18 20:36*	*11/05/18 00:29*	*1*

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3,4,6,7,8-HpCDD	1.7	G B	0.024	0.024	ug/Kg	☼	10/18/18 14:49	10/24/18 14:15	1
1,2,3,4,6,7,8-HpCDF	0.69	G B	0.022	0.022	ug/Kg	☼	10/18/18 14:49	10/24/18 14:15	1
1,2,3,4,7,8,9-HpCDF	0.049	G B	0.026	0.026	ug/Kg	☼	10/18/18 14:49	10/24/18 14:15	1
1,2,3,4,7,8-HxCDD	0.0050	J B	0.0065	0.00065	ug/Kg	☼	10/18/18 14:49	10/24/18 14:15	1
1,2,3,4,7,8-HxCDF	0.080	B	0.0065	0.0038	ug/Kg	☼	10/18/18 14:49	10/24/18 14:15	1
1,2,3,6,7,8-HxCDD	0.050	B	0.0065	0.00063	ug/Kg	☼	10/18/18 14:49	10/24/18 14:15	1
1,2,3,6,7,8-HxCDF	0.012	B	0.0065	0.0036	ug/Kg	☼	10/18/18 14:49	10/24/18 14:15	1
1,2,3,7,8,9-HxCDD	0.013	B	0.0065	0.00056	ug/Kg	☼	10/18/18 14:49	10/24/18 14:15	1
1,2,3,7,8,9-HxCDF	ND		0.0065	0.0034	ug/Kg	☼	10/18/18 14:49	10/24/18 14:15	1
1,2,3,7,8-PeCDD	0.0020	J	0.0065	0.00089	ug/Kg	☼	10/18/18 14:49	10/24/18 14:15	1
1,2,3,7,8-PeCDF	0.0027	J q B	0.0065	0.0011	ug/Kg	☼	10/18/18 14:49	10/24/18 14:15	1
2,3,4,6,7,8-HxCDF	0.0049	J B	0.0065	0.0033	ug/Kg	☼	10/18/18 14:49	10/24/18 14:15	1
2,3,4,7,8-PeCDF	0.0055	J	0.0065	0.0012	ug/Kg	☼	10/18/18 14:49	10/24/18 14:15	1
2,3,7,8-TCDD	0.00077	J	0.0013	0.00018	ug/Kg	☼	10/18/18 14:49	10/24/18 14:15	1
OCDD	16	G E B	0.031	0.031	ug/Kg	☼	10/18/18 14:49	10/24/18 14:15	1
OCDF	3.7	B	0.013	0.0038	ug/Kg	☼	10/18/18 14:49	10/24/18 14:15	1
Total HpCDD	3.4	G B	0.024	0.024	ug/Kg	☼	10/18/18 14:49	10/24/18 14:15	1
Total HpCDF	4.0	G B	0.024	0.024	ug/Kg	☼	10/18/18 14:49	10/24/18 14:15	1
Total HxCDD	0.30	q B	0.0065	0.00061	ug/Kg	☼	10/18/18 14:49	10/24/18 14:15	1
Total HxCDF	0.81	q B	0.0065	0.0035	ug/Kg	☼	10/18/18 14:49	10/24/18 14:15	1
Total PeCDD	0.020	q	0.0065	0.00089	ug/Kg	☼	10/18/18 14:49	10/24/18 14:15	1
Total PeCDF	0.054	q B	0.0065	0.0011	ug/Kg	☼	10/18/18 14:49	10/24/18 14:15	1
Total TCDF	0.013	q B	0.0013	0.00022	ug/Kg	☼	10/18/18 14:49	10/24/18 14:15	1
Total TCDD	0.010		0.0013	0.00018	ug/Kg	☼	10/18/18 14:49	10/24/18 14:15	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-1,2,3,4,6,7,8-HpCDD	*42*		*23 - 140*	*10/18/18 14:49*	*10/24/18 14:15*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*35*		*28 - 143*	*10/18/18 14:49*	*10/24/18 14:15*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*42*		*26 - 138*	*10/18/18 14:49*	*10/24/18 14:15*	*1*
13C-1,2,3,4,7,8-HxCDD	*38*		*32 - 141*	*10/18/18 14:49*	*10/24/18 14:15*	*1*
13C-1,2,3,4,7,8-HxCDF	*38*		*26 - 152*	*10/18/18 14:49*	*10/24/18 14:15*	*1*
13C-1,2,3,6,7,8-HxCDD	*39*		*28 - 130*	*10/18/18 14:49*	*10/24/18 14:15*	*1*
13C-1,2,3,6,7,8-HxCDF	*38*		*26 - 123*	*10/18/18 14:49*	*10/24/18 14:15*	*1*
13C-1,2,3,7,8,9-HxCDF	*41*		*29 - 147*	*10/18/18 14:49*	*10/24/18 14:15*	*1*
13C-1,2,3,7,8-PeCDD	*38*		*25 - 181*	*10/18/18 14:49*	*10/24/18 14:15*	*1*
13C-1,2,3,7,8-PeCDF	*38*		*24 - 185*	*10/18/18 14:49*	*10/24/18 14:15*	*1*
13C-2,3,4,6,7,8-HxCDF	*38*		*28 - 136*	*10/18/18 14:49*	*10/24/18 14:15*	*1*
13C-2,3,4,7,8-PeCDF	*39*		*21 - 178*	*10/18/18 14:49*	*10/24/18 14:15*	*1*
13C-2,3,7,8-TCDD	*40*		*25 - 164*	*10/18/18 14:49*	*10/24/18 14:15*	*1*
13C-2,3,7,8-TCDF	*40*		*24 - 169*	*10/18/18 14:49*	*10/24/18 14:15*	*1*
13C-OCDD	*42*		*17 - 157*	*10/18/18 14:49*	*10/24/18 14:15*	*1*

Client Sample ID: F7-0to27-101118
Date Collected: 10/11/18 10:16
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-37
Matrix: Solid
Percent Solids: 38.8

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
37Cl4-2,3,7,8-TCDD	*62*		*35 - 197*	*10/18/18 14:49*	*10/24/18 14:15*	*1*

Method: 1613B - Dioxins and Furans (HRGC/HRMS) - RA

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDF	**0.0025**	**B**	0.0013	0.00019	ug/Kg	☼	10/18/18 14:49	10/25/18 06:40	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDF	*36*		*24 - 169*	*10/18/18 14:49*	*10/25/18 06:40*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
37Cl4-2,3,7,8-TCDD	*41*		*35 - 197*	*10/18/18 14:49*	*10/25/18 06:40*	*1*

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	**5.0**	**B**	0.31	0.0063	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-10	**0.51**	**q**	0.31	0.047	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-100	**22**	**C93 B**	0.62	0.011	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-101	**70**	**C90 B**	0.93	0.0095	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-102	**4.6**	**C98**	0.62	0.010	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-103	**7.5**		0.31	0.011	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-104	**2.4**		0.31	0.0082	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-105	**13**	**B**	0.31	0.061	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-106	ND		0.31	0.062	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-107	**3.7**		0.31	0.066	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-108	**1.7**	**C B**	0.62	0.064	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-109	**35**	**C86 B**	1.9	0.0093	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-11	**0.14**	**J q B**	0.62	0.041	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-110	**58**	**C B**	0.62	0.0079	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-111	**0.43**		0.31	0.0076	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-112	**0.59**		0.31	0.0080	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-113	**70**	**C90 B**	0.93	0.0095	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-114	**0.91**		0.31	0.057	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-115	**58**	**C110 B**	0.62	0.0079	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-116	**8.8**	**C85 B**	0.93	0.0092	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-117	**8.8**	**C85 B**	0.93	0.0092	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-118	**38**	**B**	0.31	0.059	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-119	**35**	**C86 B**	1.9	0.0093	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-12	**0.44**	**J q C**	0.62	0.042	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-120	**0.38**	**q**	0.31	0.0077	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-121	**0.45**	**q**	0.31	0.0079	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-122	**0.66**		0.31	0.072	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-123	**0.62**	**B**	0.31	0.060	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-124	**1.7**	**C108 B**	0.62	0.064	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-125	**35**	**C86 B**	1.9	0.0093	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-126	**0.10**	**J q B**	0.31	0.067	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-127	ND		0.31	0.062	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-128	**12**	**C**	0.62	0.11	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-129	**88**	**C B**	1.2	0.11	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-13	**0.44**	**J q C12**	0.62	0.042	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-130	**5.5**		0.31	0.15	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-131	**0.79**		0.31	0.15	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5

Client Sample ID: F7-0to27-101118
Date Collected: 10/11/18 10:16
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-37
Matrix: Solid
Percent Solids: 38.8

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-132	30	B	0.31	0.14	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-133	2.0		0.31	0.14	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-134	5.6	C B	0.62	0.14	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-135	33	C B	0.62	0.012	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-136	13	B	0.31	0.0089	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-137	3.6		0.31	0.12	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-138	88	C129 B	1.2	0.11	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-139	1.6	q C	0.62	0.12	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-14	ND		0.31	0.036	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-140	1.6	q C139	0.62	0.12	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-141	16	B	0.31	0.13	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-142	ND		0.31	0.14	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-143	5.6	C134 B	0.62	0.14	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-144	3.4		0.31	0.011	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-145	0.14	J	0.31	0.0085	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-146	16	B	0.31	0.12	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-147	86	C B	0.62	0.14	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-148	0.65		0.31	0.012	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-149	86	C147 B	0.62	0.14	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-15	2.7		0.31	0.048	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-150	0.81		0.31	0.0081	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-151	33	C135 B	0.62	0.012	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-152	0.68		0.31	0.0088	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-153	71	C B	0.62	0.096	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-154	2.8	B	0.31	0.0097	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-155	0.19	J	0.31	0.0082	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-156	9.5	C B	0.62	0.12	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-157	9.5	C156 B	0.62	0.12	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-158	8.7		0.31	0.087	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-159	0.57	B	0.31	0.092	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-16	0.52	q	0.31	0.0075	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-160	88	C129 B	1.2	0.11	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-161	ND		0.31	0.091	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-162	0.27	J	0.31	0.090	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-163	88	C129 B	1.2	0.11	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-164	6.1	B	0.31	0.097	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-165	0.21	J q	0.31	0.10	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-166	12	C128	0.62	0.11	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-167	2.9	B	0.31	0.070	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-168	71	C153 B	0.62	0.096	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-169	0.13	J q	0.31	0.071	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-17	17		0.31	0.0067	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-170	23	B	0.31	0.024	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-171	7.4	C B	0.62	0.024	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-172	3.4		0.31	0.024	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-173	7.4	C171 B	0.62	0.024	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-174	20	B	0.31	0.022	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-175	0.95		0.31	0.021	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-176	2.7		0.31	0.016	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5

Client Sample ID: F7-0to27-101118
Date Collected: 10/11/18 10:16
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-37
Matrix: Solid
Percent Solids: 38.8

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-177	12	B	0.31	0.023	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-178	4.3	B	0.31	0.023	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-179	9.3	B	0.31	0.017	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-18	1.8	C	0.62	0.0059	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-180	44	C B	0.62	0.018	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-181	0.29	J q	0.31	0.021	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-182	0.29	J q	0.31	0.021	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-183	15	C B	0.62	0.021	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-184	ND		0.31	0.018	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-185	15	C183 B	0.62	0.021	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-186	ND		0.31	0.017	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-187	24	B	0.31	0.020	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-188	0.17	J	0.31	0.015	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-189	0.87		0.31	0.038	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-19	27		0.31	0.0082	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-190	4.1	B	0.31	0.016	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-191	1.3		0.31	0.016	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-192	ND		0.31	0.018	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-193	44	C180 B	0.62	0.018	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-194	8.0	B	0.31	0.062	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-195	3.4		0.31	0.068	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-196	4.2	B	0.31	0.024	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-197	0.34		0.31	0.019	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-198	7.5	C	0.62	0.025	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-199	7.5	C198	0.62	0.025	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-2	0.19	J q B	0.31	0.0075	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-20	7.2	C B	0.62	0.035	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-200	0.84		0.31	0.017	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-201	0.94		0.31	0.017	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-202	1.2	q	0.31	0.019	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-203	4.6	q B	0.31	0.022	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-204	ND		0.31	0.019	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-205	0.42		0.31	0.052	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-206	2.2		0.31	0.079	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-207	0.25	J	0.31	0.060	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-208	0.47		0.31	0.063	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-209	0.38		0.31	0.024	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-21	2.9	C B	0.62	0.034	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-22	0.49	B	0.31	0.036	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-23	ND		0.31	0.035	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-24	0.15	J q	0.31	0.0056	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-25	1.9		0.31	0.032	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-26	0.56	J C B	0.62	0.034	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-27	3.1		0.31	0.0049	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-28	7.2	C20 B	0.62	0.035	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-29	0.56	J C26 B	0.62	0.034	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-3	1.7	B	0.31	0.0085	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-30	1.8	C18	0.62	0.0059	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-31	2.5		0.62	0.034	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5

Client Sample ID: F7-0to27-101118
Date Collected: 10/11/18 10:16
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-37
Matrix: Solid
Percent Solids: 38.8

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-32	21	B	0.31	0.0047	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-33	2.9	C21 B	0.62	0.034	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-34	ND		0.31	0.037	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-35	ND		0.31	0.036	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-36	ND		0.31	0.034	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-37	0.61		0.31	0.036	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-38	ND		0.31	0.037	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-39	0.056	J q	0.31	0.033	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-4	9.8		0.62	0.054	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-40	13	C	0.93	0.18	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-41	13	C40	0.93	0.18	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-42	2.6		0.31	0.18	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-43	4.2	C	0.62	0.16	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-44	140	C B	0.93	0.16	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-45	100	C	0.62	0.18	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-46	3.6		0.31	0.22	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-47	140	C44 B	0.93	0.16	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-48	1.0		0.31	0.18	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-49	56	C	0.62	0.14	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-5	0.17	J q	0.31	0.047	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-50	49	C	0.62	0.17	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-51	100	C45	0.62	0.18	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-52	33		0.31	0.17	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-53	49	C50	0.62	0.17	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-54	21		0.31	0.0068	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-55	0.40		0.31	0.13	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-56	1.2	q	0.31	0.13	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-57	ND		0.31	0.13	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-58	0.35	q	0.31	0.13	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-59	5.1	C	0.93	0.12	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-6	0.88	q	0.31	0.042	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-60	0.45	q	0.31	0.13	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-61	14	C	1.2	0.12	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-62	5.1	C59	0.93	0.12	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-63	0.78		0.31	0.12	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-64	2.4		0.31	0.12	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-65	140	C44 B	0.93	0.16	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-66	6.2		0.31	0.12	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-67	ND		0.31	0.11	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-68	0.79	q B	0.31	0.11	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-69	56	C49	0.62	0.14	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-7	0.33	q	0.31	0.043	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-70	14	C61	1.2	0.12	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-71	13	C40	0.93	0.18	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-72	0.36		0.31	0.13	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-73	4.2	C43	0.62	0.16	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-74	14	C61	1.2	0.12	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-75	5.1	C59	0.93	0.12	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-76	14	C61	1.2	0.12	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5

Client Sample ID: F7-0to27-101118
Date Collected: 10/11/18 10:16
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-37
Matrix: Solid
Percent Solids: 38.8

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-77	**0.34**	**q**	0.31	0.12	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-78	ND		0.31	0.13	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-79	**0.24**	**J q**	0.31	0.11	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-8	**2.9**		0.62	0.039	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-80	ND		0.31	0.11	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-81	ND		0.31	0.12	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-82	**5.3**		0.31	0.012	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-83	**35**	**C**	0.62	0.011	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-84	**12**		0.31	0.013	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-85	**8.8**	**C B**	0.93	0.0092	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-86	**35**	**C B**	1.9	0.0093	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-87	**35**	**C86 B**	1.9	0.0093	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-88	**20**	**C B**	0.62	0.011	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-89	ND		0.31	0.012	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-9	**0.35**	**q**	0.31	0.044	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-90	**70**	**C B**	0.93	0.0095	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-91	**20**	**C88 B**	0.62	0.011	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-92	**15**	**B**	0.31	0.011	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-93	**22**	**C B**	0.62	0.011	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-94	**4.0**		0.31	0.012	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-95	**49**	**B**	0.31	0.012	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-96	**2.9**		0.31	0.0092	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-97	**35**	**C86 B**	1.9	0.0093	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-98	**4.6**	**C**	0.62	0.010	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
PCB-99	**35**	**C83**	0.62	0.011	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
Polychlorinated biphenyls, Total	**1600**	**q B**	1.9	0.051	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
Total Monochlorobiphenyls	**6.9**	**q B**	0.31	0.0074	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
Total Dichlorobiphenyls	**18**	**q B**	0.62	0.044	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
Total Trichlorobiphenyls	**87**	**q B**	0.62	0.025	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
Total Tetrachlorobiphenyls	**460**	**q B**	1.2	0.14	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
Total Pentachlorobiphenyls	**410**	**q B**	1.9	0.027	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
Total Hexachlorobiphenyls	**420**	**q B**	1.2	0.085	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
Total Heptachlorobiphenyls	**170**	**q B**	0.62	0.021	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
Total Octachlorobiphenyls	**31**	**q B**	0.62	0.031	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5
Total Nonachlorobiphenyls	**2.9**		0.31	0.067	ng/g	☼	10/19/18 12:00	10/29/18 04:44	5

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
PCB-104L	*80*		*30 - 140*	*10/19/18 12:00*	*10/29/18 04:44*	*5*
PCB-105L	*95*		*30 - 140*	*10/19/18 12:00*	*10/29/18 04:44*	*5*
PCB-114L	*95*		*30 - 140*	*10/19/18 12:00*	*10/29/18 04:44*	*5*
PCB-118L	*95*		*30 - 140*	*10/19/18 12:00*	*10/29/18 04:44*	*5*
PCB-123L	*92*		*30 - 140*	*10/19/18 12:00*	*10/29/18 04:44*	*5*
PCB-126L	*90*		*30 - 140*	*10/19/18 12:00*	*10/29/18 04:44*	*5*
PCB-155L	*94*		*30 - 140*	*10/19/18 12:00*	*10/29/18 04:44*	*5*
PCB-156L	*89*	*C*	*30 - 140*	*10/19/18 12:00*	*10/29/18 04:44*	*5*
PCB-157L	*89*	*C156*	*30 - 140*	*10/19/18 12:00*	*10/29/18 04:44*	*5*
PCB-15L	*71*		*30 - 140*	*10/19/18 12:00*	*10/29/18 04:44*	*5*
PCB-167L	*90*		*30 - 140*	*10/19/18 12:00*	*10/29/18 04:44*	*5*
PCB-169L	*92*		*30 - 140*	*10/19/18 12:00*	*10/29/18 04:44*	*5*
PCB-170L	*86*		*30 - 140*	*10/19/18 12:00*	*10/29/18 04:44*	*5*

Client Sample ID: F7-0to27-101118
Date Collected: 10/11/18 10:16
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-37
Matrix: Solid
Percent Solids: 38.8

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-188L	89		30 - 140	10/19/18 12:00	10/29/18 04:44	5
PCB-189L	75		30 - 140	10/19/18 12:00	10/29/18 04:44	5
PCB-19L	77	q	30 - 140	10/19/18 12:00	10/29/18 04:44	5
PCB-1L	63		30 - 140	10/19/18 12:00	10/29/18 04:44	5
PCB-202L	109		30 - 140	10/19/18 12:00	10/29/18 04:44	5
PCB-205L	76		30 - 140	10/19/18 12:00	10/29/18 04:44	5
PCB-206L	94		30 - 140	10/19/18 12:00	10/29/18 04:44	5
PCB-208L	88		30 - 140	10/19/18 12:00	10/29/18 04:44	5
PCB-209L	95		30 - 140	10/19/18 12:00	10/29/18 04:44	5
PCB-37L	91		30 - 140	10/19/18 12:00	10/29/18 04:44	5
PCB-3L	62		30 - 140	10/19/18 12:00	10/29/18 04:44	5
PCB-4L	77		30 - 140	10/19/18 12:00	10/29/18 04:44	5
PCB-54L	66		30 - 140	10/19/18 12:00	10/29/18 04:44	5
PCB-77L	86		30 - 140	10/19/18 12:00	10/29/18 04:44	5
PCB-81L	83		30 - 140	10/19/18 12:00	10/29/18 04:44	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-111L	89		40 - 125	10/19/18 12:00	10/29/18 04:44	5
PCB-178L	96		40 - 125	10/19/18 12:00	10/29/18 04:44	5
PCB-28L	98		40 - 125	10/19/18 12:00	10/29/18 04:44	5

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	16		0.40	0.080	mg/Kg	☼	11/02/18 12:26	11/05/18 15:39	5
Cadmium	0.67		0.32	0.061	mg/Kg	☼	11/02/18 12:26	11/05/18 15:39	5
Copper	370		0.80	0.18	mg/Kg	☼	11/02/18 12:26	11/05/18 15:39	5
Lead	82		0.40	0.038	mg/Kg	☼	11/02/18 12:26	11/05/18 15:39	5
Zinc	460		4.0	1.3	mg/Kg	☼	11/02/18 12:26	11/05/18 15:39	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.23		0.056	0.017	mg/Kg	☼	10/31/18 10:53	10/31/18 13:29	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	29000		2000	44	mg/Kg			10/24/18 16:50	1
Total Solids	38.8		0.1	0.1	%			11/01/18 12:04	1
Percent Moisture	61	H	0.10	0.10	%			10/25/18 12:18	1
Percent Solids	39	H	0.10	0.10	%			10/25/18 12:18	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Clay	23.4				%			10/19/18 16:28	1
Coarse Sand	0.2				%			10/19/18 16:28	1
Fine Sand	18.9				%			10/19/18 16:28	1
Gravel	0.0				%			10/19/18 16:28	1
Medium Sand	9.9				%			10/19/18 16:28	1
Silt	47.5				%			10/19/18 16:28	1

Client: Pacific Groundwater Group
Project/Site: Swan Island Lagoon SedimentInvestigation

TestAmerica Job ID: 580-81081-1

Client Sample ID: F7-0to27-101118
Date Collected: 10/11/18 10:16
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-37
Matrix: Solid
Percent Solids: 38.8

Method: D854 - Specific Gravity

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Density	1.39		0.0100	0.0100	g/cm3			10/25/18 00:00	1
Specific Gravity	1.39		0.0100	0.0100	NONE			10/25/18 00:00	1

Client Sample ID: 512-0to28-101118
Date Collected: 10/11/18 11:27
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-39
Matrix: Solid
Percent Solids: 34.9

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	180		140	34	mg/Kg	☼	10/27/18 20:36	11/05/18 01:09	1
Motor Oil (>C24-C36)	1000		140	49	mg/Kg	☼	10/27/18 20:36	11/05/18 01:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*103*		*50 - 150*	*10/27/18 20:36*	*11/05/18 01:09*	*1*

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3,4,6,7,8-HpCDD	0.81	G B	0.015	0.015	ug/Kg	☼	10/18/18 14:49	10/24/18 15:01	1
1,2,3,4,6,7,8-HpCDF	0.20	B	0.0071	0.0070	ug/Kg	☼	10/18/18 14:49	10/24/18 15:01	1
1,2,3,4,7,8,9-HpCDF	0.014	G q B	0.0088	0.0088	ug/Kg	☼	10/18/18 14:49	10/24/18 15:01	1
1,2,3,4,7,8-HxCDD	0.0046	J B	0.0071	0.00049	ug/Kg	☼	10/18/18 14:49	10/24/18 15:01	1
1,2,3,4,7,8-HxCDF	0.023	B	0.0071	0.0020	ug/Kg	☼	10/18/18 14:49	10/24/18 15:01	1
1,2,3,6,7,8-HxCDD	0.023	B	0.0071	0.00046	ug/Kg	☼	10/18/18 14:49	10/24/18 15:01	1
1,2,3,6,7,8-HxCDF	0.0060	J B	0.0071	0.0020	ug/Kg	☼	10/18/18 14:49	10/24/18 15:01	1
1,2,3,7,8,9-HxCDD	0.0090	B	0.0071	0.00042	ug/Kg	☼	10/18/18 14:49	10/24/18 15:01	1
1,2,3,7,8,9-HxCDF	ND		0.0071	0.0018	ug/Kg	☼	10/18/18 14:49	10/24/18 15:01	1
1,2,3,7,8-PeCDD	0.0021	J	0.0071	0.00041	ug/Kg	☼	10/18/18 14:49	10/24/18 15:01	1
1,2,3,7,8-PeCDF	0.0016	J q B	0.0071	0.00047	ug/Kg	☼	10/18/18 14:49	10/24/18 15:01	1
2,3,4,6,7,8-HxCDF	0.0034	J B	0.0071	0.0017	ug/Kg	☼	10/18/18 14:49	10/24/18 15:01	1
2,3,4,7,8-PeCDF	0.0032	J	0.0071	0.00050	ug/Kg	☼	10/18/18 14:49	10/24/18 15:01	1
2,3,7,8-TCDD	0.00079	J q	0.0014	0.00015	ug/Kg	☼	10/18/18 14:49	10/24/18 15:01	1
OCDD	6.0	E B	0.014	0.0095	ug/Kg	☼	10/18/18 14:49	10/24/18 15:01	1
OCDF	0.93	B	0.014	0.0011	ug/Kg	☼	10/18/18 14:49	10/24/18 15:01	1
Total HpCDD	1.8	G B	0.015	0.015	ug/Kg	☼	10/18/18 14:49	10/24/18 15:01	1
Total HpCDF	1.1	G q B	0.0079	0.0079	ug/Kg	☼	10/18/18 14:49	10/24/18 15:01	1
Total HxCDD	0.16	B	0.0071	0.00046	ug/Kg	☼	10/18/18 14:49	10/24/18 15:01	1
Total HxCDF	0.28	B	0.0071	0.0019	ug/Kg	☼	10/18/18 14:49	10/24/18 15:01	1
Total PeCDD	0.013	q	0.0071	0.00041	ug/Kg	☼	10/18/18 14:49	10/24/18 15:01	1
Total PeCDF	0.026	q B	0.0071	0.00048	ug/Kg	☼	10/18/18 14:49	10/24/18 15:01	1
Total TCDF	0.0099	q B	0.0014	0.00015	ug/Kg	☼	10/18/18 14:49	10/24/18 15:01	1
Total TCDD	0.011	q	0.0014	0.00015	ug/Kg	☼	10/18/18 14:49	10/24/18 15:01	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-1,2,3,4,6,7,8-HpCDD	*46*		*23 - 140*	*10/18/18 14:49*	*10/24/18 15:01*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*41*		*28 - 143*	*10/18/18 14:49*	*10/24/18 15:01*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*47*		*26 - 138*	*10/18/18 14:49*	*10/24/18 15:01*	*1*
13C-1,2,3,4,7,8-HxCDD	*46*		*32 - 141*	*10/18/18 14:49*	*10/24/18 15:01*	*1*
13C-1,2,3,4,7,8-HxCDF	*46*		*26 - 152*	*10/18/18 14:49*	*10/24/18 15:01*	*1*
13C-1,2,3,6,7,8-HxCDD	*44*		*28 - 130*	*10/18/18 14:49*	*10/24/18 15:01*	*1*
13C-1,2,3,6,7,8-HxCDF	*43*		*26 - 123*	*10/18/18 14:49*	*10/24/18 15:01*	*1*
13C-1,2,3,7,8,9-HxCDF	*46*		*29 - 147*	*10/18/18 14:49*	*10/24/18 15:01*	*1*
13C-1,2,3,7,8-PeCDD	*44*		*25 - 181*	*10/18/18 14:49*	*10/24/18 15:01*	*1*
13C-1,2,3,7,8-PeCDF	*45*		*24 - 185*	*10/18/18 14:49*	*10/24/18 15:01*	*1*
13C-2,3,4,6,7,8-HxCDF	*45*		*28 - 136*	*10/18/18 14:49*	*10/24/18 15:01*	*1*
13C-2,3,4,7,8-PeCDF	*47*		*21 - 178*	*10/18/18 14:49*	*10/24/18 15:01*	*1*
13C-2,3,7,8-TCDD	*47*		*25 - 164*	*10/18/18 14:49*	*10/24/18 15:01*	*1*
13C-2,3,7,8-TCDF	*48*		*24 - 169*	*10/18/18 14:49*	*10/24/18 15:01*	*1*
13C-OCDD	*48*		*17 - 157*	*10/18/18 14:49*	*10/24/18 15:01*	*1*

Client Sample ID: 512-0to28-101118
Date Collected: 10/11/18 11:27
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-39
Matrix: Solid
Percent Solids: 34.9

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
37Cl4-2,3,7,8-TCDD	*70*		*35 - 197*	*10/18/18 14:49*	*10/24/18 15:01*	*1*

Method: 1613B - Dioxins and Furans (HRGC/HRMS) - RA

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDF	**0.0017**	**B**	0.0014	0.00015	ug/Kg	☼	10/18/18 14:49	10/25/18 07:18	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDF	*43*		*24 - 169*	*10/18/18 14:49*	*10/25/18 07:18*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
37Cl4-2,3,7,8-TCDD	*48*		*35 - 197*	*10/18/18 14:49*	*10/25/18 07:18*	*1*

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	**0.52**	**B**	0.071	0.0016	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-10	**0.037**	**J q**	0.071	0.012	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-100	**4.1**	**C93 B**	0.14	0.0026	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-101	**22**	**C90 B**	0.21	0.0023	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-102	**1.4**	**C98**	0.14	0.0025	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-103	**1.6**		0.071	0.0026	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-104	**0.33**		0.071	0.0020	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-105	**4.3**	**B**	0.071	0.017	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-106	ND		0.071	0.018	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-107	**1.3**		0.071	0.019	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-108	**0.49**	**C B**	0.14	0.018	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-109	**11**	**C86 B**	0.43	0.0023	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-11	**0.099**	**J q B**	0.14	0.010	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-110	**19**	**C B**	0.14	0.0019	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-111	ND		0.071	0.0018	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-112	ND		0.071	0.0019	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-113	**22**	**C90 B**	0.21	0.0023	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-114	**0.29**		0.071	0.016	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-115	**19**	**C110 B**	0.14	0.0019	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-116	**2.6**	**C85 B**	0.21	0.0022	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-117	**2.6**	**C85 B**	0.21	0.0022	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-118	**13**	**B**	0.071	0.017	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-119	**11**	**C86 B**	0.43	0.0023	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-12	**0.050**	**J q C**	0.14	0.011	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-120	**0.17**	**q**	0.071	0.0019	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-121	ND		0.071	0.0019	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-122	**0.16**	**q**	0.071	0.020	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-123	**0.16**	**B**	0.071	0.017	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-124	**0.49**	**C108 B**	0.14	0.018	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-125	**11**	**C86 B**	0.43	0.0023	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-126	**0.045**	**J B**	0.071	0.018	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-127	ND		0.071	0.018	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-128	**3.4**	**C**	0.14	0.024	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-129	**27**	**C B**	0.28	0.025	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-13	**0.050**	**J q C12**	0.14	0.011	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-130	**1.6**		0.071	0.033	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-131	ND		0.071	0.034	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5

Client Sample ID: 512-0to28-101118
Date Collected: 10/11/18 11:27
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-39
Matrix: Solid
Percent Solids: 34.9

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-132	9.0	B	0.071	0.032	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-133	0.75		0.071	0.031	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-134	1.7	C B	0.14	0.032	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-135	12	C B	0.14	0.0030	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-136	4.4	B	0.071	0.0021	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-137	0.97		0.071	0.028	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-138	27	C129 B	0.28	0.025	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-139	0.58	C	0.14	0.027	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-14	ND		0.071	0.0092	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-140	0.58	C139	0.14	0.027	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-141	4.9	B	0.071	0.029	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-142	ND		0.071	0.031	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-143	1.7	C134 B	0.14	0.032	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-144	1.1		0.071	0.0027	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-145	0.023	J q	0.071	0.0020	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-146	5.9	B	0.071	0.027	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-147	29	C B	0.14	0.031	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-148	0.25		0.071	0.0029	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-149	29	C147 B	0.14	0.031	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-15	0.25		0.071	0.012	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-150	0.29		0.071	0.0019	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-151	12	C135 B	0.14	0.0030	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-152	0.19		0.071	0.0021	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-153	24	C B	0.14	0.021	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-154	1.2	B	0.071	0.0023	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-155	0.030	J	0.071	0.0019	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-156	2.7	C B	0.14	0.027	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-157	2.7	C156 B	0.14	0.027	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-158	2.5		0.071	0.019	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-159	ND		0.071	0.020	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-16	0.13	q	0.071	0.0025	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-160	27	C129 B	0.28	0.025	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-161	ND		0.071	0.020	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-162	ND		0.071	0.020	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-163	27	C129 B	0.28	0.025	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-164	2.0	B	0.071	0.022	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-165	ND		0.071	0.023	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-166	3.4	C128	0.14	0.024	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-167	0.81	B	0.071	0.015	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-168	24	C153 B	0.14	0.021	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-169	ND		0.071	0.016	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-17	1.7		0.071	0.0022	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-170	8.4	B	0.071	0.0032	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-171	2.5	C B	0.14	0.0031	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-172	1.3		0.071	0.0031	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-173	2.5	C171 B	0.14	0.0031	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-174	7.7	B	0.071	0.0029	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-175	0.28		0.071	0.0028	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-176	1.0		0.071	0.0021	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5

Client: Pacific Groundwater Group
Project/Site: Swan Island Lagoon SedimentInvestigation

TestAmerica Job ID: 580-81081-1

Client Sample ID: 512-0to28-101118
Date Collected: 10/11/18 11:27
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-39
Matrix: Solid
Percent Solids: 34.9

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-177	4.9	B	0.071	0.0030	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-178	1.8	B	0.071	0.0031	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-179	3.7	B	0.071	0.0023	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-18	0.44	C	0.14	0.0020	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-180	17	C B	0.14	0.0024	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-181	ND		0.071	0.0028	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-182	0.13		0.071	0.0027	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-183	5.6	C B	0.14	0.0028	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-184	ND		0.071	0.0023	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-185	5.6	C183 B	0.14	0.0028	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-186	ND		0.071	0.0023	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-187	9.8	B	0.071	0.0026	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-188	ND		0.071	0.0020	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-189	0.27		0.071	0.011	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-19	2.2		0.071	0.0027	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-190	1.4	B	0.071	0.0020	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-191	0.37		0.071	0.0021	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-192	ND		0.071	0.0024	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-193	17	C180 B	0.14	0.0024	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-194	3.5	B	0.071	0.019	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-195	1.5		0.071	0.021	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-196	1.8	B	0.071	0.0061	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-197	0.12	q	0.071	0.0046	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-198	3.3	C	0.14	0.0062	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-199	3.3	C198	0.14	0.0062	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-2	0.075	B	0.071	0.0019	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-20	1.3	C B	0.14	0.0064	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-200	0.35		0.071	0.0041	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-201	0.39		0.071	0.0042	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-202	0.59		0.071	0.0047	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-203	2.2	B	0.071	0.0055	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-204	ND		0.071	0.0047	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-205	0.18		0.071	0.016	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-206	0.96		0.071	0.023	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-207	0.11		0.071	0.017	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-208	0.24		0.071	0.017	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-209	0.33		0.071	0.0054	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-21	0.55	C B	0.14	0.0062	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-22	0.14	B	0.071	0.0065	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-23	ND		0.071	0.0065	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-24	ND		0.071	0.0019	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-25	0.25		0.071	0.0059	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-26	0.12	J C B	0.14	0.0063	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-27	0.35		0.071	0.0016	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-28	1.3	C20 B	0.14	0.0064	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-29	0.12	J C26 B	0.14	0.0063	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-3	0.24	B	0.071	0.0022	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-30	0.44	C18	0.14	0.0020	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-31	0.55		0.14	0.0062	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5

Client Sample ID: 512-0to28-101118
Date Collected: 10/11/18 11:27
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-39
Matrix: Solid
Percent Solids: 34.9

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-32	2.2	B	0.071	0.0016	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-33	0.55	C21 B	0.14	0.0062	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-34	ND		0.071	0.0067	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-35	0.017	J	0.071	0.0066	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-36	ND		0.071	0.0063	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-37	0.19		0.071	0.0065	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-38	ND		0.071	0.0068	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-39	ND		0.071	0.0061	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-4	0.63		0.14	0.014	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-40	2.5	C	0.21	0.045	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-41	2.5	C40	0.21	0.045	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-42	0.52		0.071	0.045	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-43	0.67	C	0.14	0.042	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-44	23	C B	0.21	0.040	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-45	13	C	0.14	0.047	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-46	0.42		0.071	0.057	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-47	23	C44 B	0.21	0.040	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-48	0.22		0.071	0.045	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-49	9.2	C	0.14	0.037	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-5	0.028	J	0.071	0.012	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-50	6.1	C	0.14	0.044	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-51	13	C45	0.14	0.047	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-52	9.4		0.071	0.045	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-53	6.1	C50	0.14	0.044	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-54	2.0		0.071	0.0013	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-55	0.051	J	0.071	0.033	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-56	0.57		0.071	0.033	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-57	ND		0.071	0.033	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-58	ND		0.071	0.034	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-59	0.72	C	0.21	0.032	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-6	0.12		0.071	0.011	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-60	0.20		0.071	0.033	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-61	5.6	C	0.28	0.031	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-62	0.72	C59	0.21	0.032	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-63	0.17		0.071	0.031	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-64	0.85		0.071	0.030	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-65	23	C44 B	0.21	0.040	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-66	2.3		0.071	0.031	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-67	ND		0.071	0.029	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-68	0.19	B	0.071	0.030	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-69	9.2	C49	0.14	0.037	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-7	0.041	J q	0.071	0.011	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-70	5.6	C61	0.28	0.031	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-71	2.5	C40	0.21	0.045	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-72	ND		0.071	0.033	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-73	0.67	C43	0.14	0.042	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-74	5.6	C61	0.28	0.031	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-75	0.72	C59	0.21	0.032	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-76	5.6	C61	0.28	0.031	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5

Client Sample ID: 512-0to28-101118
Date Collected: 10/11/18 11:27
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-39
Matrix: Solid
Percent Solids: 34.9

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-77	**0.11**	**q**	0.071	0.031	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-78	ND		0.071	0.034	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-79	ND		0.071	0.029	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-8	**0.36**		0.14	0.0099	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-80	ND		0.071	0.029	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-81	ND		0.071	0.032	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-82	**1.5**		0.071	0.0030	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-83	**12**	**C**	0.14	0.0028	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-84	**4.2**		0.071	0.0031	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-85	**2.6**	**C B**	0.21	0.0022	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-86	**11**	**C B**	0.43	0.0023	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-87	**11**	**C86 B**	0.43	0.0023	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-88	**6.2**	**C B**	0.14	0.0027	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-89	ND		0.071	0.0030	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-9	**0.041**	**J q**	0.071	0.011	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-90	**22**	**C B**	0.21	0.0023	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-91	**6.2**	**C88 B**	0.14	0.0027	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-92	**4.7**	**B**	0.071	0.0026	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-93	**4.1**	**C B**	0.14	0.0026	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-94	**0.94**		0.071	0.0030	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-95	**17**	**B**	0.071	0.0029	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-96	**0.74**		0.071	0.0022	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-97	**11**	**C86 B**	0.43	0.0023	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-98	**1.4**	**C**	0.14	0.0025	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
PCB-99	**12**	**C83**	0.14	0.0028	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
Polychlorinated biphenyls, Total	**440**	**q B**	0.43	0.013	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
Total Monochlorobiphenyls	**0.84**	**B**	0.071	0.0019	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
Total Dichlorobiphenyls	**1.7**	**q B**	0.14	0.011	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
Total Trichlorobiphenyls	**10**	**q B**	0.14	0.0049	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
Total Tetrachlorobiphenyls	**78**	**q B**	0.28	0.035	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
Total Pentachlorobiphenyls	**130**	**q B**	0.43	0.0074	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
Total Hexachlorobiphenyls	**140**	**q B**	0.28	0.019	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
Total Heptachlorobiphenyls	**66**	**B**	0.14	0.0030	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
Total Octachlorobiphenyls	**14**	**q B**	0.14	0.0087	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5
Total Nonachlorobiphenyls	**1.3**		0.071	0.019	ng/g	☼	10/19/18 12:00	10/28/18 06:39	5

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
PCB-104L	*83*		*30 - 140*	*10/19/18 12:00*	*10/28/18 06:39*	*5*
PCB-105L	*91*		*30 - 140*	*10/19/18 12:00*	*10/28/18 06:39*	*5*
PCB-114L	*95*		*30 - 140*	*10/19/18 12:00*	*10/28/18 06:39*	*5*
PCB-118L	*90*		*30 - 140*	*10/19/18 12:00*	*10/28/18 06:39*	*5*
PCB-123L	*93*		*30 - 140*	*10/19/18 12:00*	*10/28/18 06:39*	*5*
PCB-126L	*90*		*30 - 140*	*10/19/18 12:00*	*10/28/18 06:39*	*5*
PCB-155L	*93*		*30 - 140*	*10/19/18 12:00*	*10/28/18 06:39*	*5*
PCB-156L	*87*	*C*	*30 - 140*	*10/19/18 12:00*	*10/28/18 06:39*	*5*
PCB-157L	*87*	*C156*	*30 - 140*	*10/19/18 12:00*	*10/28/18 06:39*	*5*
PCB-15L	*77*		*30 - 140*	*10/19/18 12:00*	*10/28/18 06:39*	*5*
PCB-167L	*92*		*30 - 140*	*10/19/18 12:00*	*10/28/18 06:39*	*5*
PCB-169L	*94*		*30 - 140*	*10/19/18 12:00*	*10/28/18 06:39*	*5*
PCB-170L	*83*		*30 - 140*	*10/19/18 12:00*	*10/28/18 06:39*	*5*

Client Sample ID: 512-0to28-101118
Date Collected: 10/11/18 11:27
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-39
Matrix: Solid
Percent Solids: 34.9

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-188L	91		30 - 140	10/19/18 12:00	10/28/18 06:39	5
PCB-189L	78		30 - 140	10/19/18 12:00	10/28/18 06:39	5
PCB-19L	79	q	30 - 140	10/19/18 12:00	10/28/18 06:39	5
PCB-1L	60		30 - 140	10/19/18 12:00	10/28/18 06:39	5
PCB-202L	106		30 - 140	10/19/18 12:00	10/28/18 06:39	5
PCB-205L	74		30 - 140	10/19/18 12:00	10/28/18 06:39	5
PCB-206L	95		30 - 140	10/19/18 12:00	10/28/18 06:39	5
PCB-208L	88		30 - 140	10/19/18 12:00	10/28/18 06:39	5
PCB-209L	95		30 - 140	10/19/18 12:00	10/28/18 06:39	5
PCB-37L	86		30 - 140	10/19/18 12:00	10/28/18 06:39	5
PCB-3L	61		30 - 140	10/19/18 12:00	10/28/18 06:39	5
PCB-4L	76		30 - 140	10/19/18 12:00	10/28/18 06:39	5
PCB-54L	77		30 - 140	10/19/18 12:00	10/28/18 06:39	5
PCB-77L	89		30 - 140	10/19/18 12:00	10/28/18 06:39	5
PCB-81L	87		30 - 140	10/19/18 12:00	10/28/18 06:39	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-111L	97		40 - 125	10/19/18 12:00	10/28/18 06:39	5
PCB-178L	97		40 - 125	10/19/18 12:00	10/28/18 06:39	5
PCB-28L	94		40 - 125	10/19/18 12:00	10/28/18 06:39	5

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	8.3		0.37	0.074	mg/Kg	☼	11/02/18 12:26	11/05/18 15:43	5
Cadmium	0.45		0.29	0.057	mg/Kg	☼	11/02/18 12:26	11/05/18 15:43	5
Copper	110		0.74	0.16	mg/Kg	☼	11/02/18 12:26	11/05/18 15:43	5
Lead	34		0.37	0.035	mg/Kg	☼	11/02/18 12:26	11/05/18 15:43	5
Zinc	250		3.7	1.2	mg/Kg	☼	11/02/18 12:26	11/05/18 15:43	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.20		0.052	0.016	mg/Kg	☼	10/31/18 10:53	10/31/18 13:31	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	35000		2000	44	mg/Kg			10/24/18 16:55	1
Total Solids	34.9		0.1	0.1	%			11/01/18 12:04	1
Percent Moisture	65	H	0.10	0.10	%			10/25/18 12:18	1
Percent Solids	35	H	0.10	0.10	%			10/25/18 12:18	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Clay	25.8				%			10/19/18 16:28	1
Coarse Sand	0.1				%			10/19/18 16:28	1
Fine Sand	12.9				%			10/19/18 16:28	1
Gravel	0.0				%			10/19/18 16:28	1
Medium Sand	0.5				%			10/19/18 16:28	1
Silt	60.7				%			10/19/18 16:28	1

Client: Pacific Groundwater Group
Project/Site: Swan Island Lagoon SedimentInvestigation

TestAmerica Job ID: 580-81081-1

Client Sample ID: 512-0to28-101118
Date Collected: 10/11/18 11:27
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-39
Matrix: Solid
Percent Solids: 34.9

Method: D854 - Specific Gravity

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Density	1.19		0.0100	0.0100	g/cm3			10/25/18 00:00	1
Specific Gravity	1.19		0.0100	0.0100	NONE			10/25/18 00:00	1

Client Sample ID: F5-0to28-101118
Date Collected: 10/11/18 11:27
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-41
Matrix: Solid
Percent Solids: 34.2

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	160		150	36	mg/Kg	☼	10/27/18 20:36	11/05/18 01:30	1
Motor Oil (>C24-C36)	920		150	51	mg/Kg	☼	10/27/18 20:36	11/05/18 01:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*94*		*50 - 150*	*10/27/18 20:36*	*11/05/18 01:30*	*1*

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3,4,6,7,8-HpCDD	0.59	G B	0.012	0.012	ug/Kg	☼	10/18/18 14:49	10/24/18 15:46	1
1,2,3,4,6,7,8-HpCDF	0.15	B	0.0073	0.0054	ug/Kg	☼	10/18/18 14:49	10/24/18 15:46	1
1,2,3,4,7,8,9-HpCDF	0.011	B	0.0073	0.0065	ug/Kg	☼	10/18/18 14:49	10/24/18 15:46	1
1,2,3,4,7,8-HxCDD	0.0034	J B	0.0073	0.00043	ug/Kg	☼	10/18/18 14:49	10/24/18 15:46	1
1,2,3,4,7,8-HxCDF	0.013	B	0.0073	0.0013	ug/Kg	☼	10/18/18 14:49	10/24/18 15:46	1
1,2,3,6,7,8-HxCDD	0.017	B	0.0073	0.00041	ug/Kg	☼	10/18/18 14:49	10/24/18 15:46	1
1,2,3,6,7,8-HxCDF	0.0034	J q B	0.0073	0.0012	ug/Kg	☼	10/18/18 14:49	10/24/18 15:46	1
1,2,3,7,8,9-HxCDD	0.0062	J B	0.0073	0.00037	ug/Kg	☼	10/18/18 14:49	10/24/18 15:46	1
1,2,3,7,8,9-HxCDF	ND		0.0073	0.0012	ug/Kg	☼	10/18/18 14:49	10/24/18 15:46	1
1,2,3,7,8-PeCDD	0.0016	J	0.0073	0.00056	ug/Kg	☼	10/18/18 14:49	10/24/18 15:46	1
1,2,3,7,8-PeCDF	0.0013	J q B	0.0073	0.00029	ug/Kg	☼	10/18/18 14:49	10/24/18 15:46	1
2,3,4,6,7,8-HxCDF	0.0016	J q B	0.0073	0.0011	ug/Kg	☼	10/18/18 14:49	10/24/18 15:46	1
2,3,4,7,8-PeCDF	0.0021	J q	0.0073	0.00031	ug/Kg	☼	10/18/18 14:49	10/24/18 15:46	1
2,3,7,8-TCDD	0.00048	J q	0.0015	0.00015	ug/Kg	☼	10/18/18 14:49	10/24/18 15:46	1
OCDD	5.2	B	0.015	0.011	ug/Kg	☼	10/18/18 14:49	10/24/18 15:46	1
OCDF	0.70	B	0.015	0.0014	ug/Kg	☼	10/18/18 14:49	10/24/18 15:46	1
Total HpCDD	1.3	G B	0.012	0.012	ug/Kg	☼	10/18/18 14:49	10/24/18 15:46	1
Total HpCDF	0.82	B	0.0073	0.0060	ug/Kg	☼	10/18/18 14:49	10/24/18 15:46	1
Total HxCDD	0.12	B	0.0073	0.00041	ug/Kg	☼	10/18/18 14:49	10/24/18 15:46	1
Total HxCDF	0.20	q B	0.0073	0.0012	ug/Kg	☼	10/18/18 14:49	10/24/18 15:46	1
Total PeCDD	0.011	q	0.0073	0.00056	ug/Kg	☼	10/18/18 14:49	10/24/18 15:46	1
Total PeCDF	0.026	q B	0.0073	0.00030	ug/Kg	☼	10/18/18 14:49	10/24/18 15:46	1
Total TCDF	0.012	q B	0.0015	0.00017	ug/Kg	☼	10/18/18 14:49	10/24/18 15:46	1
Total TCDD	0.0089	q	0.0015	0.00015	ug/Kg	☼	10/18/18 14:49	10/24/18 15:46	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-1,2,3,4,6,7,8-HpCDD	*46*		*23 - 140*	*10/18/18 14:49*	*10/24/18 15:46*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*40*		*28 - 143*	*10/18/18 14:49*	*10/24/18 15:46*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*47*		*26 - 138*	*10/18/18 14:49*	*10/24/18 15:46*	*1*
13C-1,2,3,4,7,8-HxCDD	*46*		*32 - 141*	*10/18/18 14:49*	*10/24/18 15:46*	*1*
13C-1,2,3,4,7,8-HxCDF	*45*		*26 - 152*	*10/18/18 14:49*	*10/24/18 15:46*	*1*
13C-1,2,3,6,7,8-HxCDD	*42*		*28 - 130*	*10/18/18 14:49*	*10/24/18 15:46*	*1*
13C-1,2,3,6,7,8-HxCDF	*43*		*26 - 123*	*10/18/18 14:49*	*10/24/18 15:46*	*1*
13C-1,2,3,7,8,9-HxCDF	*46*		*29 - 147*	*10/18/18 14:49*	*10/24/18 15:46*	*1*
13C-1,2,3,7,8-PeCDD	*43*		*25 - 181*	*10/18/18 14:49*	*10/24/18 15:46*	*1*
13C-1,2,3,7,8-PeCDF	*44*		*24 - 185*	*10/18/18 14:49*	*10/24/18 15:46*	*1*
13C-2,3,4,6,7,8-HxCDF	*44*		*28 - 136*	*10/18/18 14:49*	*10/24/18 15:46*	*1*
13C-2,3,4,7,8-PeCDF	*46*		*21 - 178*	*10/18/18 14:49*	*10/24/18 15:46*	*1*
13C-2,3,7,8-TCDD	*47*		*25 - 164*	*10/18/18 14:49*	*10/24/18 15:46*	*1*
13C-2,3,7,8-TCDF	*49*		*24 - 169*	*10/18/18 14:49*	*10/24/18 15:46*	*1*
13C-OCDD	*46*		*17 - 157*	*10/18/18 14:49*	*10/24/18 15:46*	*1*

Client Sample ID: F5-0to28-101118
Date Collected: 10/11/18 11:27
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-41
Matrix: Solid
Percent Solids: 34.2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
37Cl4-2,3,7,8-TCDD	*67*		*35 - 197*	*10/18/18 14:49*	*10/24/18 15:46*	*1*

Method: 1613B - Dioxins and Furans (HRGC/HRMS) - RA

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDF	**0.0015**	**B**	0.0015	0.00014	ug/Kg	☼	10/18/18 14:49	10/25/18 07:56	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDF	*44*		*24 - 169*	*10/18/18 14:49*	*10/25/18 07:56*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
37Cl4-2,3,7,8-TCDD	*48*		*35 - 197*	*10/18/18 14:49*	*10/25/18 07:56*	*1*

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	**1.0**	**q B**	0.29	0.0046	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-10	**0.051**	**J q**	0.29	0.029	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-100	**13**	**C93 B**	0.58	0.0030	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-101	**260**	**C90 B**	0.87	0.0026	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-102	**8.0**	**C98**	0.58	0.0029	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-103	**16**		0.29	0.0030	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-104	**0.65**		0.29	0.0022	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-105	**13**	**B**	0.29	0.073	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-106	ND		0.29	0.084	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-107	**8.6**		0.29	0.090	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-108	**1.8**	**q C B**	0.58	0.086	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-109	**57**	**C86 B**	1.7	0.0025	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-11	**0.10**	**J q B**	0.58	0.025	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-110	**130**	**C B**	0.58	0.0022	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-111	**0.79**		0.29	0.0021	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-112	**0.92**		0.29	0.0022	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-113	**260**	**C90 B**	0.87	0.0026	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-114	**1.0**		0.29	0.081	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-115	**130**	**C110 B**	0.58	0.0022	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-116	**9.7**	**q C85 B**	0.87	0.0025	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-117	**9.7**	**q C85 B**	0.87	0.0025	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-118	**78**	**B**	0.29	0.082	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-119	**57**	**C86 B**	1.7	0.0025	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-12	**0.14**	**J q C**	0.58	0.026	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-120	**2.2**		0.29	0.0021	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-121	ND		0.29	0.0022	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-122	**0.56**	**q**	0.29	0.097	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-123	**0.53**	**q B**	0.29	0.088	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-124	**1.8**	**q C108 B**	0.58	0.086	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-125	**57**	**C86 B**	1.7	0.0025	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-126	ND		0.29	0.086	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-127	ND		0.29	0.084	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-128	**52**	**C**	0.58	0.34	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-129	**750**	**C B**	1.2	0.35	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-13	**0.14**	**J q C12**	0.58	0.026	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-130	**29**	**G**	0.47	0.47	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-131	**3.3**	**G q**	0.48	0.48	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20

Client Sample ID: F5-0to28-101118
Date Collected: 10/11/18 11:27
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-41
Matrix: Solid
Percent Solids: 34.2

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-132	200	G B	0.45	0.45	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-133	11	G	0.44	0.44	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-134	37	C B	0.58	0.46	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-135	400	C B	0.58	0.0035	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-136	120	B	0.29	0.0025	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-137	5.5	G	0.40	0.40	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-138	750	C129 B	1.2	0.35	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-139	4.3	C	0.58	0.39	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-14	ND		0.29	0.022	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-140	4.3	C139	0.58	0.39	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-141	190	G B	0.41	0.41	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-142	ND	G	0.44	0.44	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-143	37	C134 B	0.58	0.46	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-144	46		0.29	0.0032	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-145	0.54	q	0.29	0.0024	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-146	130	G B	0.39	0.39	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-147	770	C B	0.58	0.44	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-148	1.9		0.29	0.0034	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-149	770	C147 B	0.58	0.44	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-15	0.40		0.29	0.028	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-150	2.6		0.29	0.0023	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-151	400	C135 B	0.58	0.0035	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-152	2.3		0.29	0.0025	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-153	810	C B	0.58	0.31	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-154	16	B	0.29	0.0027	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-155	ND		0.29	0.0023	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-156	55	C B	0.58	0.41	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-157	55	C156 B	0.58	0.41	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-158	68		0.29	0.28	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-159	8.9	B	0.29	0.29	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-16	0.30		0.29	0.0048	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-160	750	C129 B	1.2	0.35	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-161	ND		0.29	0.29	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-162	0.92		0.29	0.29	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-163	750	C129 B	1.2	0.35	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-164	54	G B	0.31	0.31	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-165	ND	G	0.33	0.33	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-166	52	C128	0.58	0.34	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-167	21	B	0.29	0.22	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-168	810	C153 B	0.58	0.31	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-169	1.2	q	0.29	0.21	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-17	1.8		0.29	0.0043	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-170	430	B	0.29	0.0032	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-171	140	C B	0.58	0.0034	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-172	68		0.29	0.0034	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-173	140	C171 B	0.58	0.0034	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-174	400	B	0.29	0.0032	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-175	17		0.29	0.0031	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-176	56		0.29	0.0023	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20

Client Sample ID: F5-0to28-101118
Date Collected: 10/11/18 11:27
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-41
Matrix: Solid
Percent Solids: 34.2

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-177	230	B	0.29	0.0032	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-178	75	B	0.29	0.0033	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-179	170	B	0.29	0.0024	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-18	0.70	C	0.58	0.0038	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-180	920	C B	0.58	0.0026	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-181	2.8		0.29	0.0030	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-182	3.3	q	0.29	0.0029	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-183	310	C B	0.58	0.0030	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-184	ND		0.29	0.0025	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-185	310	C183 B	0.58	0.0030	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-186	ND		0.29	0.0024	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-187	440	B	0.29	0.0028	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-188	ND		0.29	0.0023	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-189	13		0.29	0.053	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-19	2.0		0.29	0.0053	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-190	85	B	0.29	0.0022	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-191	20		0.29	0.0023	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-192	ND		0.29	0.0026	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-193	920	C180 B	0.58	0.0026	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-194	160	B	0.29	0.068	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-195	73		0.29	0.074	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-196	88	B	0.29	0.0038	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-197	7.0		0.29	0.0029	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-198	140	C	0.58	0.0038	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-199	140	C198	0.58	0.0038	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-2	0.13	J q B	0.29	0.0054	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-20	2.7	C B	0.58	0.018	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-200	18		0.29	0.0026	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-201	18		0.29	0.0026	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-202	22		0.29	0.0029	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-203	98	B	0.29	0.0034	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-204	ND		0.29	0.0029	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-205	9.0		0.29	0.057	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-206	24		0.29	0.043	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-207	3.4		0.29	0.032	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-208	4.3		0.29	0.034	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-209	1.2		0.29	0.011	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-21	1.2	C B	0.58	0.018	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-22	0.34	B	0.29	0.019	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-23	ND		0.29	0.019	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-24	ND		0.29	0.0036	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-25	0.68		0.29	0.017	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-26	0.21	J q C B	0.58	0.018	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-27	0.32		0.29	0.0032	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-28	2.7	C20 B	0.58	0.018	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-29	0.21	J q C26 B	0.58	0.018	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-3	0.61	B	0.29	0.0060	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-30	0.70	C18	0.58	0.0038	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-31	1.4		0.58	0.018	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20

Client Sample ID: F5-0to28-101118
Date Collected: 10/11/18 11:27
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-41
Matrix: Solid
Percent Solids: 34.2

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-32	2.5	B	0.29	0.0030	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-33	1.2	C21 B	0.58	0.018	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-34	ND		0.29	0.019	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-35	ND		0.29	0.019	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-36	ND		0.29	0.018	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-37	0.42		0.29	0.019	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-38	ND		0.29	0.020	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-39	ND		0.29	0.018	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-4	1.1		0.58	0.036	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-40	12	C	0.87	0.19	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-41	12	C40	0.87	0.19	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-42	1.9	q	0.29	0.19	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-43	1.6	q C	0.58	0.18	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-44	76	C B	0.87	0.17	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-45	27	C	0.58	0.20	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-46	1.0		0.29	0.24	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-47	76	C44 B	0.87	0.17	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-48	0.84	q	0.29	0.19	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-49	56	C	0.58	0.16	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-5	0.040	J	0.29	0.029	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-50	19	C	0.58	0.19	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-51	27	C45	0.58	0.20	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-52	29		0.29	0.19	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-53	19	C50	0.58	0.19	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-54	2.5		0.29	0.0032	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-55	0.19	J q	0.29	0.14	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-56	1.4		0.29	0.14	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-57	ND		0.29	0.14	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-58	ND		0.29	0.14	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-59	2.1	C	0.87	0.14	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-6	0.24	J	0.29	0.026	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-60	0.42	q	0.29	0.14	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-61	17	C	1.2	0.13	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-62	2.1	C59	0.87	0.14	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-63	0.60		0.29	0.13	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-64	5.1		0.29	0.13	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-65	76	C44 B	0.87	0.17	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-66	8.2		0.29	0.13	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-67	ND		0.29	0.12	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-68	0.85	B	0.29	0.13	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-69	56	C49	0.58	0.16	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-7	0.10	J	0.29	0.027	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-70	17	C61	1.2	0.13	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-71	12	C40	0.87	0.19	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-72	0.44	q	0.29	0.14	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-73	1.6	q C43	0.58	0.18	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-74	17	C61	1.2	0.13	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-75	2.1	C59	0.87	0.14	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-76	17	C61	1.2	0.13	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20

Client Sample ID: F5-0to28-101118
Date Collected: 10/11/18 11:27
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-41
Matrix: Solid
Percent Solids: 34.2

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-77	**0.29**		0.29	0.14	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-78	ND		0.29	0.14	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-79	**0.38**		0.29	0.12	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-8	**0.92**		0.58	0.024	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-80	ND		0.29	0.12	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-81	ND		0.29	0.13	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-82	**4.3**		0.29	0.0034	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-83	**120**	**C**	0.58	0.0031	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-84	**13**		0.29	0.0034	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-85	**9.7**	**q C B**	0.87	0.0025	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-86	**57**	**C B**	1.7	0.0025	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-87	**57**	**C86 B**	1.7	0.0025	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-88	**73**	**C B**	0.58	0.0031	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-89	ND		0.29	0.0033	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-9	**0.11**	**J**	0.29	0.027	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-90	**260**	**C B**	0.87	0.0026	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-91	**73**	**C88 B**	0.58	0.0031	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-92	**63**	**B**	0.29	0.0029	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-93	**13**	**C B**	0.58	0.0030	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-94	**7.4**		0.29	0.0033	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-95	**150**	**B**	0.29	0.0032	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-96	**6.1**		0.29	0.0025	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-97	**57**	**C86 B**	1.7	0.0025	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-98	**8.0**	**C**	0.58	0.0029	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
PCB-99	**120**	**C83**	0.58	0.0031	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
Polychlorinated biphenyls, Total	**9200**	**q B**	1.7	0.062	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
Total Monochlorobiphenyls	**1.7**	**q B**	0.29	0.0054	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
Total Dichlorobiphenyls	**3.2**	**q B**	0.58	0.027	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
Total Trichlorobiphenyls	**15**	**q B**	0.58	0.013	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
Total Tetrachlorobiphenyls	**260**	**q B**	1.2	0.15	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
Total Pentachlorobiphenyls	**1000**	**q B**	1.7	0.029	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
Total Hexachlorobiphenyls	**3800**	**q B**	1.2	0.26	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
Total Heptachlorobiphenyls	**3400**	**q B**	0.58	0.0052	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
Total Octachlorobiphenyls	**630**	**B**	0.58	0.020	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20
Total Nonachlorobiphenyls	**32**		0.29	0.037	ng/g	☼	10/19/18 12:00	10/30/18 08:04	20

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
PCB-104L	*83*		*30 - 140*	*10/19/18 12:00*	*10/30/18 08:04*	*20*
PCB-105L	*87*		*30 - 140*	*10/19/18 12:00*	*10/30/18 08:04*	*20*
PCB-114L	*83*		*30 - 140*	*10/19/18 12:00*	*10/30/18 08:04*	*20*
PCB-118L	*78*		*30 - 140*	*10/19/18 12:00*	*10/30/18 08:04*	*20*
PCB-123L	*79*		*30 - 140*	*10/19/18 12:00*	*10/30/18 08:04*	*20*
PCB-126L	*83*		*30 - 140*	*10/19/18 12:00*	*10/30/18 08:04*	*20*
PCB-155L	*90*		*30 - 140*	*10/19/18 12:00*	*10/30/18 08:04*	*20*
PCB-156L	*88*	*C*	*30 - 140*	*10/19/18 12:00*	*10/30/18 08:04*	*20*
PCB-157L	*88*	*C156*	*30 - 140*	*10/19/18 12:00*	*10/30/18 08:04*	*20*
PCB-15L	*75*		*30 - 140*	*10/19/18 12:00*	*10/30/18 08:04*	*20*
PCB-167L	*90*		*30 - 140*	*10/19/18 12:00*	*10/30/18 08:04*	*20*
PCB-169L	*101*		*30 - 140*	*10/19/18 12:00*	*10/30/18 08:04*	*20*
PCB-170L	*84*		*30 - 140*	*10/19/18 12:00*	*10/30/18 08:04*	*20*

Client Sample ID: F5-0to28-101118
Date Collected: 10/11/18 11:27
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-41
Matrix: Solid
Percent Solids: 34.2

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-188L	80		30 - 140	10/19/18 12:00	10/30/18 08:04	20
PCB-189L	77		30 - 140	10/19/18 12:00	10/30/18 08:04	20
PCB-19L	97		30 - 140	10/19/18 12:00	10/30/18 08:04	20
PCB-1L	64		30 - 140	10/19/18 12:00	10/30/18 08:04	20
PCB-202L	102		30 - 140	10/19/18 12:00	10/30/18 08:04	20
PCB-205L	70		30 - 140	10/19/18 12:00	10/30/18 08:04	20
PCB-206L	85		30 - 140	10/19/18 12:00	10/30/18 08:04	20
PCB-208L	76		30 - 140	10/19/18 12:00	10/30/18 08:04	20
PCB-209L	75		30 - 140	10/19/18 12:00	10/30/18 08:04	20
PCB-37L	78		30 - 140	10/19/18 12:00	10/30/18 08:04	20
PCB-3L	61		30 - 140	10/19/18 12:00	10/30/18 08:04	20
PCB-4L	73		30 - 140	10/19/18 12:00	10/30/18 08:04	20
PCB-54L	78		30 - 140	10/19/18 12:00	10/30/18 08:04	20
PCB-77L	88		30 - 140	10/19/18 12:00	10/30/18 08:04	20
PCB-81L	90		30 - 140	10/19/18 12:00	10/30/18 08:04	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-111L	100		40 - 125	10/19/18 12:00	10/30/18 08:04	20
PCB-178L	88		40 - 125	10/19/18 12:00	10/30/18 08:04	20
PCB-28L	93		40 - 125	10/19/18 12:00	10/30/18 08:04	20

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	8.0		0.60	0.12	mg/Kg	☼	11/02/18 12:26	11/05/18 14:19	5
Cadmium	0.42	J	0.48	0.093	mg/Kg	☼	11/02/18 12:26	11/05/18 14:19	5
Copper	110		1.2	0.27	mg/Kg	☼	11/02/18 12:26	11/05/18 14:19	5
Lead	35		0.60	0.058	mg/Kg	☼	11/02/18 12:26	11/05/18 14:19	5
Zinc	240	F1	6.0	1.9	mg/Kg	☼	11/02/18 12:26	11/05/18 14:19	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.19	F1	0.059	0.018	mg/Kg	☼	10/31/18 10:53	10/31/18 13:06	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	37000		2000	44	mg/Kg			10/24/18 16:08	1
Total Solids	34.2		0.1	0.1	%			11/01/18 12:04	1
Percent Moisture	66	H	0.10	0.10	%			10/25/18 12:18	1
Percent Solids	34	H	0.10	0.10	%			10/25/18 12:18	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Clay	26.2				%			10/19/18 16:28	1
Coarse Sand	0.1				%			10/19/18 16:28	1
Fine Sand	12.5				%			10/19/18 16:28	1
Gravel	0.0				%			10/19/18 16:28	1
Medium Sand	0.5				%			10/19/18 16:28	1
Silt	60.8				%			10/19/18 16:28	1

Client: Pacific Groundwater Group
Project/Site: Swan Island Lagoon SedimentInvestigation

TestAmerica Job ID: 580-81081-1

Client Sample ID: F5-0to28-101118
Date Collected: 10/11/18 11:27
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-41
Matrix: Solid
Percent Solids: 34.2

Method: D854 - Specific Gravity

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Density	1.30		0.0100	0.0100	g/cm3			10/25/18 00:00	1
Specific Gravity	1.30		0.0100	0.0100	NONE			10/25/18 00:00	1

Client Sample ID: F3-0to27-101118
Date Collected: 10/11/18 13:27
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-42
Matrix: Solid
Percent Solids: 41.5

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	140		120	29	mg/Kg	☼	10/27/18 20:36	11/05/18 02:30	1
Motor Oil (>C24-C36)	810		120	41	mg/Kg	☼	10/27/18 20:36	11/05/18 02:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*90*		*50 - 150*	*10/27/18 20:36*	*11/05/18 02:30*	*1*

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3,4,6,7,8-HpCDD	0.40	G B	0.0093	0.0093	ug/Kg	☼	10/18/18 14:49	10/24/18 16:32	1
1,2,3,4,6,7,8-HpCDF	0.092	B	0.0059	0.0036	ug/Kg	☼	10/18/18 14:49	10/24/18 16:32	1
1,2,3,4,7,8,9-HpCDF	0.0073	B	0.0059	0.0045	ug/Kg	☼	10/18/18 14:49	10/24/18 16:32	1
1,2,3,4,7,8-HxCDD	0.0027	J B	0.0059	0.00028	ug/Kg	☼	10/18/18 14:49	10/24/18 16:32	1
1,2,3,4,7,8-HxCDF	0.011	B	0.0059	0.00093	ug/Kg	☼	10/18/18 14:49	10/24/18 16:32	1
1,2,3,6,7,8-HxCDD	0.013	B	0.0059	0.00027	ug/Kg	☼	10/18/18 14:49	10/24/18 16:32	1
1,2,3,6,7,8-HxCDF	0.0036	J B	0.0059	0.00090	ug/Kg	☼	10/18/18 14:49	10/24/18 16:32	1
1,2,3,7,8,9-HxCDD	0.0050	J B	0.0059	0.00024	ug/Kg	☼	10/18/18 14:49	10/24/18 16:32	1
1,2,3,7,8,9-HxCDF	ND		0.0059	0.00083	ug/Kg	☼	10/18/18 14:49	10/24/18 16:32	1
1,2,3,7,8-PeCDD	0.0017	J	0.0059	0.00038	ug/Kg	☼	10/18/18 14:49	10/24/18 16:32	1
1,2,3,7,8-PeCDF	0.0011	J B	0.0059	0.00037	ug/Kg	☼	10/18/18 14:49	10/24/18 16:32	1
2,3,4,6,7,8-HxCDF	0.0015	J q B	0.0059	0.00075	ug/Kg	☼	10/18/18 14:49	10/24/18 16:32	1
2,3,4,7,8-PeCDF	0.0017	J q	0.0059	0.00041	ug/Kg	☼	10/18/18 14:49	10/24/18 16:32	1
2,3,7,8-TCDD	0.00047	J q	0.0012	0.00013	ug/Kg	☼	10/18/18 14:49	10/24/18 16:32	1
OCDD	3.0	B	0.012	0.0053	ug/Kg	☼	10/18/18 14:49	10/24/18 16:32	1
OCDF	0.38	B	0.012	0.00050	ug/Kg	☼	10/18/18 14:49	10/24/18 16:32	1
Total HpCDD	0.88	G B	0.0093	0.0093	ug/Kg	☼	10/18/18 14:49	10/24/18 16:32	1
Total HpCDF	0.47	B	0.0059	0.0041	ug/Kg	☼	10/18/18 14:49	10/24/18 16:32	1
Total HxCDD	0.093	B	0.0059	0.00026	ug/Kg	☼	10/18/18 14:49	10/24/18 16:32	1
Total HxCDF	0.14	q B	0.0059	0.00085	ug/Kg	☼	10/18/18 14:49	10/24/18 16:32	1
Total PeCDD	0.0086	q	0.0059	0.00038	ug/Kg	☼	10/18/18 14:49	10/24/18 16:32	1
Total PeCDF	0.016	q B	0.0059	0.00039	ug/Kg	☼	10/18/18 14:49	10/24/18 16:32	1
Total TCDF	0.0090	q B	0.0012	0.00011	ug/Kg	☼	10/18/18 14:49	10/24/18 16:32	1
Total TCDD	0.0070	q	0.0012	0.00013	ug/Kg	☼	10/18/18 14:49	10/24/18 16:32	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-1,2,3,4,6,7,8-HpCDD	*47*		*23 - 140*	*10/18/18 14:49*	*10/24/18 16:32*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*43*		*28 - 143*	*10/18/18 14:49*	*10/24/18 16:32*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*49*		*26 - 138*	*10/18/18 14:49*	*10/24/18 16:32*	*1*
13C-1,2,3,4,7,8-HxCDD	*45*		*32 - 141*	*10/18/18 14:49*	*10/24/18 16:32*	*1*
13C-1,2,3,4,7,8-HxCDF	*45*		*26 - 152*	*10/18/18 14:49*	*10/24/18 16:32*	*1*
13C-1,2,3,6,7,8-HxCDD	*42*		*28 - 130*	*10/18/18 14:49*	*10/24/18 16:32*	*1*
13C-1,2,3,6,7,8-HxCDF	*42*		*26 - 123*	*10/18/18 14:49*	*10/24/18 16:32*	*1*
13C-1,2,3,7,8,9-HxCDF	*45*		*29 - 147*	*10/18/18 14:49*	*10/24/18 16:32*	*1*
13C-1,2,3,7,8-PeCDD	*42*		*25 - 181*	*10/18/18 14:49*	*10/24/18 16:32*	*1*
13C-1,2,3,7,8-PeCDF	*43*		*24 - 185*	*10/18/18 14:49*	*10/24/18 16:32*	*1*
13C-2,3,4,6,7,8-HxCDF	*44*		*28 - 136*	*10/18/18 14:49*	*10/24/18 16:32*	*1*
13C-2,3,4,7,8-PeCDF	*42*		*21 - 178*	*10/18/18 14:49*	*10/24/18 16:32*	*1*
13C-2,3,7,8-TCDD	*45*		*25 - 164*	*10/18/18 14:49*	*10/24/18 16:32*	*1*
13C-2,3,7,8-TCDF	*45*		*24 - 169*	*10/18/18 14:49*	*10/24/18 16:32*	*1*
13C-OCDD	*50*		*17 - 157*	*10/18/18 14:49*	*10/24/18 16:32*	*1*

Client Sample ID: F3-0to27-101118
Date Collected: 10/11/18 13:27
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-42
Matrix: Solid
Percent Solids: 41.5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
37Cl4-2,3,7,8-TCDD	*65*		*35 - 197*	*10/18/18 14:49*	*10/24/18 16:32*	*1*

Method: 1613B - Dioxins and Furans (HRGC/HRMS) - RA

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDF	**0.0013**	**B**	0.0012	0.00013	ug/Kg	☼	10/18/18 14:49	10/25/18 08:33	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDF	*40*		*24 - 169*	*10/18/18 14:49*	*10/25/18 08:33*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
37Cl4-2,3,7,8-TCDD	*46*		*35 - 197*	*10/18/18 14:49*	*10/25/18 08:33*	*1*

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	**0.28**	**B**	0.036	0.0010	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-10	**0.032**	**J q**	0.036	0.0052	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-100	**1.6**	**C93 B**	0.072	0.0035	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-101	**22**	**C90 B**	0.11	0.0031	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-102	**1.6**	**C98**	0.072	0.0034	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-103	**0.66**		0.036	0.0035	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-104	ND		0.036	0.0027	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-105	**5.3**	**B**	0.036	0.012	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-106	ND		0.036	0.013	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-107	**1.3**		0.036	0.014	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-108	**0.60**	**C B**	0.072	0.013	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-109	**13**	**C86 B**	0.22	0.0030	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-11	**0.079**	**q B**	0.072	0.0046	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-110	**20**	**C B**	0.072	0.0026	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-111	ND		0.036	0.0025	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-112	ND		0.036	0.0026	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-113	**22**	**C90 B**	0.11	0.0031	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-114	**0.31**		0.036	0.012	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-115	**20**	**C110 B**	0.072	0.0026	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-116	**2.7**	**C85 B**	0.11	0.0030	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-117	**2.7**	**C85 B**	0.11	0.0030	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-118	**15**	**B**	0.036	0.012	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-119	**13**	**C86 B**	0.22	0.0030	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-12	**0.043**	**J q C**	0.072	0.0047	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-120	**0.12**	**q**	0.036	0.0025	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-121	ND		0.036	0.0026	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-122	**0.18**	**q**	0.036	0.015	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-123	**0.18**	**q B**	0.036	0.013	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-124	**0.60**	**C108 B**	0.072	0.013	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-125	**13**	**C86 B**	0.22	0.0030	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-126	ND		0.036	0.014	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-127	ND		0.036	0.013	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-128	**3.7**	**C**	0.072	0.023	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-129	**30**	**C B**	0.14	0.024	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-13	**0.043**	**J q C12**	0.072	0.0047	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-130	**1.7**		0.036	0.032	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-131	**0.34**		0.036	0.033	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3

Client Sample ID: F3-0to27-101118
Date Collected: 10/11/18 13:27
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-42
Matrix: Solid
Percent Solids: 41.5

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-132	9.1	B	0.036	0.031	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-133	0.63		0.036	0.030	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-134	2.0	C B	0.072	0.031	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-135	11	C B	0.072	0.0078	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-136	3.8	B	0.036	0.0056	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-137	1.1		0.036	0.027	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-138	30	C129 B	0.14	0.024	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-139	0.56	C	0.072	0.027	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-14	ND		0.036	0.0040	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-140	0.56	C139	0.072	0.027	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-141	5.7	B	0.036	0.028	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-142	ND		0.036	0.030	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-143	2.0	C134 B	0.072	0.031	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-144	1.2		0.036	0.0070	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-145	ND		0.036	0.0053	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-146	5.7	B	0.036	0.026	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-147	26	C B	0.072	0.030	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-148	0.17		0.036	0.0075	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-149	26	C147 B	0.072	0.030	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-15	0.17		0.036	0.0051	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-150	0.17		0.036	0.0051	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-151	11	C135 B	0.072	0.0078	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-152	0.22		0.036	0.0055	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-153	25	C B	0.072	0.021	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-154	0.99	B	0.036	0.0061	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-155	ND		0.036	0.0051	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-156	3.1	C B	0.072	0.026	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-157	3.1	C156 B	0.072	0.026	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-158	2.9		0.036	0.019	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-159	0.20	B	0.036	0.020	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-16	0.20		0.036	0.0010	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-160	30	C129 B	0.14	0.024	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-161	ND		0.036	0.020	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-162	ND		0.036	0.020	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-163	30	C129 B	0.14	0.024	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-164	2.0	B	0.036	0.021	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-165	ND		0.036	0.023	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-166	3.7	C128	0.072	0.023	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-167	0.99	B	0.036	0.015	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-168	25	C153 B	0.072	0.021	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-169	ND		0.036	0.015	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-17	1.8		0.036	0.00093	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-170	11	B	0.036	0.0087	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-171	3.3	C B	0.072	0.0088	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-172	1.7		0.036	0.0088	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-173	3.3	C171 B	0.072	0.0088	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-174	9.3	B	0.036	0.0082	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-175	0.40		0.036	0.0079	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-176	1.2		0.036	0.0060	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3

Client Sample ID: F3-0to27-101118
Date Collected: 10/11/18 13:27
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-42
Matrix: Solid
Percent Solids: 41.5

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-177	5.8	B	0.036	0.0084	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-178	2.0	B	0.036	0.0086	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-179	4.2	B	0.036	0.0063	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-18	0.41	C	0.072	0.00082	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-180	21	C B	0.072	0.0067	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-181	ND		0.036	0.0079	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-182	ND		0.036	0.0076	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-183	7.1	C B	0.072	0.0078	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-184	ND		0.036	0.0065	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-185	7.1	C183 B	0.072	0.0078	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-186	ND		0.036	0.0063	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-187	12	B	0.036	0.0074	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-188	ND		0.036	0.0058	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-189	0.39		0.036	0.0090	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-19	1.7		0.036	0.0011	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-190	2.1	B	0.036	0.0057	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-191	0.51		0.036	0.0060	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-192	ND		0.036	0.0067	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-193	21	C180 B	0.072	0.0067	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-194	4.5	B	0.036	0.012	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-195	2.0		0.036	0.013	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-196	2.2	B	0.036	0.0061	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-197	0.17		0.036	0.0046	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-198	3.9	C	0.072	0.0062	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-199	3.9	C198	0.072	0.0062	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-2	0.039	B	0.036	0.0012	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-20	0.77	C B	0.072	0.0032	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-200	0.44		0.036	0.0041	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-201	0.44		0.036	0.0042	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-202	0.62		0.036	0.0047	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-203	2.6	B	0.036	0.0055	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-204	ND		0.036	0.0047	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-205	0.27		0.036	0.010	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-206	1.1		0.036	0.0090	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-207	0.14		0.036	0.0066	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-208	0.27		0.036	0.0069	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-209	0.29		0.036	0.0034	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-21	0.38	C B	0.072	0.0031	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-22	0.14	B	0.036	0.0033	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-23	ND		0.036	0.0032	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-24	ND		0.036	0.00078	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-25	0.098		0.036	0.0029	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-26	0.098	C B	0.072	0.0031	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-27	0.35		0.036	0.00068	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-28	0.77	C20 B	0.072	0.0032	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-29	0.098	C26 B	0.072	0.0031	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-3	0.076	B	0.036	0.0013	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-30	0.41	C18	0.072	0.00082	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-31	0.46		0.072	0.0031	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3

Client Sample ID: F3-0to27-101118
Date Collected: 10/11/18 13:27
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-42
Matrix: Solid
Percent Solids: 41.5

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-32	0.57	B	0.036	0.00065	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-33	0.38	C21 B	0.072	0.0031	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-34	ND		0.036	0.0034	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-35	0.014	J	0.036	0.0033	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-36	ND		0.036	0.0032	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-37	0.14		0.036	0.0033	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-38	ND		0.036	0.0034	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-39	0.0080	J	0.036	0.0030	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-4	0.53		0.072	0.0063	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-40	1.4	C	0.11	0.034	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-41	1.4	C40	0.11	0.034	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-42	0.37		0.036	0.034	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-43	0.48	C	0.072	0.032	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-44	12	C B	0.11	0.030	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-45	5.1	C	0.072	0.036	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-46	0.16	G	0.044	0.044	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-47	12	C44 B	0.11	0.030	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-48	0.26		0.036	0.034	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-49	3.9	C	0.072	0.028	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-5	0.024	J	0.036	0.0053	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-50	1.6	C	0.072	0.033	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-51	5.1	C45	0.072	0.036	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-52	9.7		0.036	0.034	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-53	1.6	C50	0.072	0.033	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-54	0.93		0.036	0.0014	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-55	ND		0.036	0.025	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-56	0.63		0.036	0.025	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-57	ND		0.036	0.025	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-58	ND		0.036	0.026	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-59	0.32	C	0.11	0.024	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-6	0.12		0.036	0.0047	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-60	0.24		0.036	0.025	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-61	6.7	C	0.14	0.024	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-62	0.32	C59	0.11	0.024	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-63	0.12		0.036	0.023	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-64	0.90		0.036	0.023	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-65	12	C44 B	0.11	0.030	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-66	2.1		0.036	0.024	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-67	ND		0.036	0.022	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-68	0.057	q B	0.036	0.022	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-69	3.9	C49	0.072	0.028	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-7	0.040	q	0.036	0.0048	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-70	6.7	C61	0.14	0.024	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-71	1.4	C40	0.11	0.034	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-72	ND		0.036	0.025	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-73	0.48	C43	0.072	0.032	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-74	6.7	C61	0.14	0.024	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-75	0.32	C59	0.11	0.024	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-76	6.7	C61	0.14	0.024	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3

Client Sample ID: F3-0to27-101118
Date Collected: 10/11/18 13:27
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-42
Matrix: Solid
Percent Solids: 41.5

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-77	**0.13**		0.036	0.024	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-78	ND		0.036	0.026	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-79	**0.073**		0.036	0.022	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-8	**0.39**		0.072	0.0043	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-80	ND		0.036	0.022	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-81	ND		0.036	0.024	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-82	**2.0**		0.036	0.0041	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-83	**13**	**C**	0.072	0.0037	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-84	**5.0**		0.036	0.0041	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-85	**2.7**	**C B**	0.11	0.0030	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-86	**13**	**C B**	0.22	0.0030	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-87	**13**	**C86 B**	0.22	0.0030	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-88	**3.9**	**C B**	0.072	0.0037	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-89	ND		0.036	0.0040	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-9	**0.046**		0.036	0.0049	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-90	**22**	**C B**	0.11	0.0031	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-91	**3.9**	**C88 B**	0.072	0.0037	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-92	**4.3**	**B**	0.036	0.0035	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-93	**1.6**	**C B**	0.072	0.0035	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-94	**0.85**		0.036	0.0040	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-95	**17**	**B**	0.036	0.0039	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-96	**0.33**		0.036	0.0030	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-97	**13**	**C86 B**	0.22	0.0030	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-98	**1.6**	**C**	0.072	0.0034	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
PCB-99	**13**	**C83**	0.072	0.0037	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
Polychlorinated biphenyls, Total	**430**	**q B**	0.22	0.0095	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
Total Monochlorobiphenyls	**0.40**	**B**	0.036	0.0012	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
Total Dichlorobiphenyls	**1.5**	**q B**	0.072	0.0049	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
Total Trichlorobiphenyls	**7.1**	**B**	0.072	0.0024	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
Total Tetrachlorobiphenyls	**47**	**q B**	0.14	0.027	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
Total Pentachlorobiphenyls	**130**	**q B**	0.22	0.0064	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
Total Hexachlorobiphenyls	**140**	**B**	0.14	0.020	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
Total Heptachlorobiphenyls	**82**	**B**	0.072	0.0074	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
Total Octachlorobiphenyls	**17**	**B**	0.072	0.0069	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3
Total Nonachlorobiphenyls	**1.5**		0.036	0.0075	ng/g	☼	10/19/18 12:00	10/28/18 08:42	3

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
PCB-104L	*85*		*30 - 140*	*10/19/18 12:00*	*10/28/18 08:42*	*3*
PCB-105L	*92*		*30 - 140*	*10/19/18 12:00*	*10/28/18 08:42*	*3*
PCB-114L	*93*		*30 - 140*	*10/19/18 12:00*	*10/28/18 08:42*	*3*
PCB-118L	*89*		*30 - 140*	*10/19/18 12:00*	*10/28/18 08:42*	*3*
PCB-123L	*89*		*30 - 140*	*10/19/18 12:00*	*10/28/18 08:42*	*3*
PCB-126L	*88*		*30 - 140*	*10/19/18 12:00*	*10/28/18 08:42*	*3*
PCB-155L	*92*		*30 - 140*	*10/19/18 12:00*	*10/28/18 08:42*	*3*
PCB-156L	*90*	*C*	*30 - 140*	*10/19/18 12:00*	*10/28/18 08:42*	*3*
PCB-157L	*90*	*C156*	*30 - 140*	*10/19/18 12:00*	*10/28/18 08:42*	*3*
PCB-15L	*81*		*30 - 140*	*10/19/18 12:00*	*10/28/18 08:42*	*3*
PCB-167L	*90*		*30 - 140*	*10/19/18 12:00*	*10/28/18 08:42*	*3*
PCB-169L	*96*		*30 - 140*	*10/19/18 12:00*	*10/28/18 08:42*	*3*
PCB-170L	*86*		*30 - 140*	*10/19/18 12:00*	*10/28/18 08:42*	*3*

Client Sample ID: F3-0to27-101118
Date Collected: 10/11/18 13:27
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-42
Matrix: Solid
Percent Solids: 41.5

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-188L	91		30 - 140	10/19/18 12:00	10/28/18 08:42	3
PCB-189L	82		30 - 140	10/19/18 12:00	10/28/18 08:42	3
PCB-19L	90		30 - 140	10/19/18 12:00	10/28/18 08:42	3
PCB-1L	63		30 - 140	10/19/18 12:00	10/28/18 08:42	3
PCB-202L	110		30 - 140	10/19/18 12:00	10/28/18 08:42	3
PCB-205L	78		30 - 140	10/19/18 12:00	10/28/18 08:42	3
PCB-206L	98		30 - 140	10/19/18 12:00	10/28/18 08:42	3
PCB-208L	88		30 - 140	10/19/18 12:00	10/28/18 08:42	3
PCB-209L	93		30 - 140	10/19/18 12:00	10/28/18 08:42	3
PCB-37L	93		30 - 140	10/19/18 12:00	10/28/18 08:42	3
PCB-3L	64		30 - 140	10/19/18 12:00	10/28/18 08:42	3
PCB-4L	81		30 - 140	10/19/18 12:00	10/28/18 08:42	3
PCB-54L	71		30 - 140	10/19/18 12:00	10/28/18 08:42	3
PCB-77L	88		30 - 140	10/19/18 12:00	10/28/18 08:42	3
PCB-81L	89		30 - 140	10/19/18 12:00	10/28/18 08:42	3

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-111L	94		40 - 125	10/19/18 12:00	10/28/18 08:42	3
PCB-178L	99		40 - 125	10/19/18 12:00	10/28/18 08:42	3
PCB-28L	94		40 - 125	10/19/18 12:00	10/28/18 08:42	3

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	7.3		0.31	0.062	mg/Kg	☼	11/02/18 10:56	11/02/18 19:23	5
Cadmium	0.43		0.25	0.048	mg/Kg	☼	11/02/18 10:56	11/02/18 19:23	5
Copper	72	B	0.62	0.14	mg/Kg	☼	11/02/18 10:56	11/02/18 19:23	5
Lead	22		0.31	0.030	mg/Kg	☼	11/02/18 10:56	11/02/18 19:23	5
Zinc	210		3.1	1.0	mg/Kg	☼	11/02/18 10:56	11/02/18 19:23	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14		0.055	0.016	mg/Kg	☼	10/31/18 10:53	10/31/18 13:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	24000		2000	44	mg/Kg			10/24/18 17:00	1
Total Solids	41.5		0.1	0.1	%			11/01/18 12:04	1
Percent Moisture	57	H	0.10	0.10	%			10/25/18 12:18	1
Percent Solids	43	H	0.10	0.10	%			10/25/18 12:18	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Clay	18.6				%			10/19/18 16:28	1
Coarse Sand	1.1				%			10/19/18 16:28	1
Fine Sand	28.4				%			10/19/18 16:28	1
Gravel	0.0				%			10/19/18 16:28	1
Medium Sand	10.1				%			10/19/18 16:28	1
Silt	41.7				%			10/19/18 16:28	1

Client: Pacific Groundwater Group
Project/Site: Swan Island Lagoon SedimentInvestigation

TestAmerica Job ID: 580-81081-1

Client Sample ID: F3-0to27-101118
Date Collected: 10/11/18 13:27
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-42
Matrix: Solid
Percent Solids: 41.5

Method: D854 - Specific Gravity

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Density	1.35		0.0100	0.0100	g/cm3			10/25/18 00:00	1
Specific Gravity	1.35		0.0100	0.0100	NONE			10/25/18 00:00	1

Client Sample ID: H3-0to28-101118
Date Collected: 10/11/18 14:06
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-43
Matrix: Solid
Percent Solids: 33.7

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	210		150	36	mg/Kg	☼	10/27/18 20:48	11/05/18 02:50	1
Motor Oil (>C24-C36)	1200		150	51	mg/Kg	☼	10/27/18 20:48	11/05/18 02:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*102*		*50 - 150*	*10/27/18 20:48*	*11/05/18 02:50*	*1*

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3,4,6,7,8-HpCDD	0.55	G B	0.012	0.012	ug/Kg	☼	10/18/18 14:49	10/24/18 17:17	1
1,2,3,4,6,7,8-HpCDF	0.14	B	0.0075	0.0058	ug/Kg	☼	10/18/18 14:49	10/24/18 17:17	1
1,2,3,4,7,8,9-HpCDF	0.010	B	0.0075	0.0074	ug/Kg	☼	10/18/18 14:49	10/24/18 17:17	1
1,2,3,4,7,8-HxCDD	0.0037	J B	0.0075	0.00041	ug/Kg	☼	10/18/18 14:49	10/24/18 17:17	1
1,2,3,4,7,8-HxCDF	0.015	B	0.0075	0.0012	ug/Kg	☼	10/18/18 14:49	10/24/18 17:17	1
1,2,3,6,7,8-HxCDD	0.017	B	0.0075	0.00038	ug/Kg	☼	10/18/18 14:49	10/24/18 17:17	1
1,2,3,6,7,8-HxCDF	0.0048	J B	0.0075	0.0012	ug/Kg	☼	10/18/18 14:49	10/24/18 17:17	1
1,2,3,7,8,9-HxCDD	0.0080	B	0.0075	0.00035	ug/Kg	☼	10/18/18 14:49	10/24/18 17:17	1
1,2,3,7,8,9-HxCDF	ND		0.0075	0.0011	ug/Kg	☼	10/18/18 14:49	10/24/18 17:17	1
1,2,3,7,8-PeCDD	0.0019	J q	0.0075	0.00044	ug/Kg	☼	10/18/18 14:49	10/24/18 17:17	1
1,2,3,7,8-PeCDF	0.0015	J B	0.0075	0.00037	ug/Kg	☼	10/18/18 14:49	10/24/18 17:17	1
2,3,4,6,7,8-HxCDF	0.0022	J q B	0.0075	0.0010	ug/Kg	☼	10/18/18 14:49	10/24/18 17:17	1
2,3,4,7,8-PeCDF	0.0026	J	0.0075	0.00040	ug/Kg	☼	10/18/18 14:49	10/24/18 17:17	1
2,3,7,8-TCDD	0.00099	J	0.0015	0.00018	ug/Kg	☼	10/18/18 14:49	10/24/18 17:17	1
OCDD	4.4	B	0.015	0.0075	ug/Kg	☼	10/18/18 14:49	10/24/18 17:17	1
OCDF	0.62	B	0.015	0.0010	ug/Kg	☼	10/18/18 14:49	10/24/18 17:17	1
Total HpCDD	1.2	G B	0.012	0.012	ug/Kg	☼	10/18/18 14:49	10/24/18 17:17	1
Total HpCDF	0.80	B	0.0075	0.0066	ug/Kg	☼	10/18/18 14:49	10/24/18 17:17	1
Total HxCDD	0.13	B	0.0075	0.00038	ug/Kg	☼	10/18/18 14:49	10/24/18 17:17	1
Total HxCDF	0.23	q B	0.0075	0.0011	ug/Kg	☼	10/18/18 14:49	10/24/18 17:17	1
Total PeCDD	0.012	q	0.0075	0.00044	ug/Kg	☼	10/18/18 14:49	10/24/18 17:17	1
Total PeCDF	0.024	q B	0.0075	0.00038	ug/Kg	☼	10/18/18 14:49	10/24/18 17:17	1
Total TCDF	0.0090	q B	0.0015	0.00013	ug/Kg	☼	10/18/18 14:49	10/24/18 17:17	1
Total TCDD	0.0095	q	0.0015	0.00018	ug/Kg	☼	10/18/18 14:49	10/24/18 17:17	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-1,2,3,4,6,7,8-HpCDD	*48*		*23 - 140*	*10/18/18 14:49*	*10/24/18 17:17*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*43*		*28 - 143*	*10/18/18 14:49*	*10/24/18 17:17*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*48*		*26 - 138*	*10/18/18 14:49*	*10/24/18 17:17*	*1*
13C-1,2,3,4,7,8-HxCDD	*47*		*32 - 141*	*10/18/18 14:49*	*10/24/18 17:17*	*1*
13C-1,2,3,4,7,8-HxCDF	*48*		*26 - 152*	*10/18/18 14:49*	*10/24/18 17:17*	*1*
13C-1,2,3,6,7,8-HxCDD	*45*		*28 - 130*	*10/18/18 14:49*	*10/24/18 17:17*	*1*
13C-1,2,3,6,7,8-HxCDF	*46*		*26 - 123*	*10/18/18 14:49*	*10/24/18 17:17*	*1*
13C-1,2,3,7,8,9-HxCDF	*49*		*29 - 147*	*10/18/18 14:49*	*10/24/18 17:17*	*1*
13C-1,2,3,7,8-PeCDD	*47*		*25 - 181*	*10/18/18 14:49*	*10/24/18 17:17*	*1*
13C-1,2,3,7,8-PeCDF	*47*		*24 - 185*	*10/18/18 14:49*	*10/24/18 17:17*	*1*
13C-2,3,4,6,7,8-HxCDF	*47*		*28 - 136*	*10/18/18 14:49*	*10/24/18 17:17*	*1*
13C-2,3,4,7,8-PeCDF	*48*		*21 - 178*	*10/18/18 14:49*	*10/24/18 17:17*	*1*
13C-2,3,7,8-TCDD	*49*		*25 - 164*	*10/18/18 14:49*	*10/24/18 17:17*	*1*
13C-2,3,7,8-TCDF	*50*		*24 - 169*	*10/18/18 14:49*	*10/24/18 17:17*	*1*
13C-OCDD	*47*		*17 - 157*	*10/18/18 14:49*	*10/24/18 17:17*	*1*

Client Sample ID: H3-0to28-101118
Date Collected: 10/11/18 14:06
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-43
Matrix: Solid
Percent Solids: 33.7

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
37Cl4-2,3,7,8-TCDD	*74*		*35 - 197*	*10/18/18 14:49*	*10/24/18 17:17*	*1*

Method: 1613B - Dioxins and Furans (HRGC/HRMS) - RA

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDF	**0.0017**	**B**	0.0015	0.00016	ug/Kg	☼	10/18/18 14:49	10/25/18 09:11	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDF	*45*		*24 - 169*	*10/18/18 14:49*	*10/25/18 09:11*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
37Cl4-2,3,7,8-TCDD	*54*		*35 - 197*	*10/18/18 14:49*	*10/25/18 09:11*	*1*

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	**0.14**		0.044	0.00098	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-10	**0.011**	**J q**	0.044	0.0056	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-100	**1.3**	**C93**	0.088	0.00072	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-101	**9.1**	**B C90**	0.13	0.00063	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-102	**0.54**	**C98**	0.088	0.00070	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-103	**0.62**		0.044	0.00072	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-104	**0.098**		0.044	0.00055	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-105	**1.2**	**B**	0.044	0.0073	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-106	ND		0.044	0.0076	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-107	**0.49**		0.044	0.0081	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-108	**0.16**	**C**	0.088	0.0078	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-109	**3.8**	**B C86**	0.26	0.00062	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-11	**0.10**	**B**	0.088	0.0049	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-110	**6.8**	**C B**	0.088	0.00052	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-111	**0.050**	**B**	0.044	0.00051	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-112	**0.039**	**J**	0.044	0.00053	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-113	**9.1**	**B C90**	0.13	0.00063	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-114	**0.076**	**B q**	0.044	0.0071	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-115	**6.8**	**B C110**	0.088	0.00052	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-116	**0.82**	**C85 B**	0.13	0.00061	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-117	**0.82**	**C85 B**	0.13	0.00061	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-118	**4.2**	**B**	0.044	0.0071	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-119	**3.8**	**B C86**	0.26	0.00062	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-12	**0.031**	**J C**	0.088	0.0051	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-120	**0.072**	**q**	0.044	0.00051	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-121	**0.043**	**J**	0.044	0.00053	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-122	**0.052**	**q**	0.044	0.0088	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-123	**0.052**	**B q**	0.044	0.0077	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-124	**0.16**	**C108**	0.088	0.0078	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-125	**3.8**	**B C86**	0.26	0.00062	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-126	**0.012**	**J q**	0.044	0.0080	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-127	ND		0.044	0.0076	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-128	**1.4**	**C**	0.088	0.013	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-129	**14**	**C B**	0.18	0.013	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-13	**0.031**	**J C12**	0.088	0.0051	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-130	**0.80**		0.044	0.018	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-131	**0.12**	**q**	0.044	0.018	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3

Client Sample ID: H3-0to28-101118
Date Collected: 10/11/18 14:06
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-43
Matrix: Solid
Percent Solids: 33.7

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-132	4.5	B	0.044	0.017	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-133	0.42		0.044	0.017	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-134	0.87	C	0.088	0.017	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-135	7.0	C B	0.088	0.00062	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-136	2.5	B	0.044	0.00045	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-137	0.35		0.044	0.015	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-138	14	B C129	0.18	0.013	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-139	0.29	C	0.088	0.015	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-14	ND		0.044	0.0043	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-140	0.29	C139	0.088	0.015	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-141	2.7	B	0.044	0.016	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-142	ND		0.044	0.017	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-143	0.87	C134	0.088	0.017	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-144	0.62		0.044	0.00057	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-145	ND		0.044	0.00043	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-146	3.5	B	0.044	0.015	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-147	16	C B	0.088	0.017	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-148	0.16		0.044	0.00060	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-149	16	B C147	0.088	0.017	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-15	0.12		0.044	0.0054	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-150	0.14		0.044	0.00041	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-151	7.0	C135 B	0.088	0.00062	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-152	0.081		0.044	0.00044	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-153	14	C B	0.088	0.012	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-154	0.63	q	0.044	0.00049	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-155	0.016	J	0.044	0.00041	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-156	1.0	C	0.088	0.015	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-157	1.0	C156	0.088	0.015	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-158	1.1		0.044	0.011	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-159	0.12		0.044	0.011	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-16	0.052	B	0.044	0.0011	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-160	14	B C129	0.18	0.013	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-161	ND		0.044	0.011	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-162	0.034	J	0.044	0.011	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-163	14	B C129	0.18	0.013	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-164	1.0		0.044	0.012	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-165	0.026	J q	0.044	0.013	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-166	1.4	C128	0.088	0.013	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-167	0.40		0.044	0.0083	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-168	14	B C153	0.088	0.012	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-169	0.048	q	0.044	0.0083	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-17	0.48		0.044	0.0010	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-170	5.3	B	0.044	0.00048	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-171	1.7	C	0.088	0.00047	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-172	0.84		0.044	0.00047	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-173	1.7	C171	0.088	0.00047	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-174	5.0	B	0.044	0.00044	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-175	0.20		0.044	0.00042	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-176	0.67		0.044	0.00032	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3

Client Sample ID: H3-0to28-101118
Date Collected: 10/11/18 14:06
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-43
Matrix: Solid
Percent Solids: 33.7

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-177	3.3		0.044	0.00045	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-178	1.2		0.044	0.00046	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-179	2.5	B	0.044	0.00034	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-18	0.15	C B	0.088	0.00089	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-180	11	C B	0.088	0.00035	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-181	ND		0.044	0.00042	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-182	0.080		0.044	0.00041	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-183	3.6	C B	0.088	0.00041	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-184	ND		0.044	0.00035	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-185	3.6	B C183	0.088	0.00041	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-186	ND		0.044	0.00034	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-187	6.7	B	0.044	0.00039	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-188	ND		0.044	0.00030	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-189	0.17		0.044	0.0057	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-19	0.75		0.044	0.0012	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-190	0.95		0.044	0.00031	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-191	0.23		0.044	0.00032	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-192	ND		0.044	0.00036	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-193	11	C180 B	0.088	0.00035	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-194	2.3	B	0.044	0.0051	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-195	0.94		0.044	0.0056	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-196	1.1		0.044	0.00051	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-197	0.090		0.044	0.00039	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-198	2.2	C B	0.088	0.00051	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-199	2.2	C198 B	0.088	0.00051	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-2	0.048	B	0.044	0.0012	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-20	0.42	C B	0.088	0.0028	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-200	0.23		0.044	0.00034	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-201	0.25		0.044	0.00035	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-202	0.41		0.044	0.00039	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-203	1.4		0.044	0.00046	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-204	ND		0.044	0.00039	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-205	0.14		0.044	0.0043	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-206	0.75		0.044	0.0056	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-207	0.087		0.044	0.0041	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-208	0.20		0.044	0.0043	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-209	0.66	B	0.044	0.00062	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-21	0.19	C B	0.088	0.0028	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-22	0.055	B	0.044	0.0029	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-23	ND		0.044	0.0029	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-24	ND		0.044	0.00085	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-25	0.070		0.044	0.0026	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-26	0.053	J C B	0.088	0.0028	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-27	0.12		0.044	0.00074	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-28	0.42	B C20	0.088	0.0028	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-29	0.053	J C26 B	0.088	0.0028	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-3	0.079	B	0.044	0.0014	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-30	0.15	C18 B	0.088	0.00089	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-31	0.20	B	0.088	0.0028	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3

Client Sample ID: H3-0to28-101118
Date Collected: 10/11/18 14:06
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-43
Matrix: Solid
Percent Solids: 33.7

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-32	0.40	B	0.044	0.00071	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-33	0.19	B C21	0.088	0.0028	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-34	ND		0.044	0.0030	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-35	0.0096	J	0.044	0.0029	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-36	ND		0.044	0.0028	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-37	0.11	B	0.044	0.0029	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-38	ND		0.044	0.0030	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-39	0.0056	J q	0.044	0.0027	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-4	0.20		0.088	0.0069	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-40	0.84	C B	0.13	0.024	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-41	0.84	B C40	0.13	0.024	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-42	0.20		0.044	0.024	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-43	0.19	C	0.088	0.022	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-44	6.3	C B	0.13	0.021	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-45	3.1	C B	0.088	0.025	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-46	0.11		0.044	0.030	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-47	6.3	B C44	0.13	0.021	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-48	0.088		0.044	0.023	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-49	2.6	C B	0.088	0.019	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-5	ND		0.044	0.0057	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-50	1.4	C	0.088	0.023	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-51	3.1	C45 B	0.088	0.025	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-52	2.8	B	0.044	0.023	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-53	1.4	C50	0.088	0.023	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-54	0.54		0.044	0.00091	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-55	0.032	J	0.044	0.017	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-56	0.24	B	0.044	0.017	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-57	ND		0.044	0.017	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-58	ND		0.044	0.018	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-59	0.20	C	0.13	0.017	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-6	0.034	J	0.044	0.0050	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-60	0.074	B	0.044	0.017	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-61	1.7	C B	0.18	0.016	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-62	0.20	C59	0.13	0.017	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-63	0.055		0.044	0.016	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-64	0.28	B	0.044	0.016	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-65	6.3	B C44	0.13	0.021	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-66	0.94	B	0.044	0.016	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-67	ND		0.044	0.015	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-68	0.089		0.044	0.015	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-69	2.6	B C49	0.088	0.019	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-7	0.013	J q	0.044	0.0051	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-70	1.7	C61 B	0.18	0.016	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-71	0.84	B C40	0.13	0.024	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-72	0.048		0.044	0.017	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-73	0.19	C43	0.088	0.022	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-74	1.7	C61 B	0.18	0.016	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-75	0.20	C59	0.13	0.017	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-76	1.7	C61 B	0.18	0.016	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3

Client Sample ID: H3-0to28-101118
Date Collected: 10/11/18 14:06
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-43
Matrix: Solid
Percent Solids: 33.7

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-77	**0.089**	**B**	0.044	0.017	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-78	ND		0.044	0.018	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-79	**0.028**	**J q**	0.044	0.015	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-8	**0.10**		0.088	0.0046	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-80	ND		0.044	0.015	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-81	ND		0.044	0.016	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-82	**0.49**		0.044	0.00083	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-83	**5.1**	**C B**	0.088	0.00076	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-84	**1.4**	**B**	0.044	0.00084	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-85	**0.82**	**C B**	0.13	0.00061	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-86	**3.8**	**C B**	0.26	0.00062	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-87	**3.8**	**B C86**	0.26	0.00062	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-88	**2.2**	**C**	0.088	0.00075	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-89	**0.043**	**J q**	0.044	0.00081	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-9	**0.013**	**J q**	0.044	0.0052	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-90	**9.1**	**C B**	0.13	0.00063	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-91	**2.2**	**C88**	0.088	0.00075	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-92	**2.0**	**B**	0.044	0.00071	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-93	**1.3**	**C**	0.088	0.00072	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-94	**0.32**		0.044	0.00081	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-95	**6.9**	**B**	0.044	0.00079	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-96	**0.20**		0.044	0.00061	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-97	**3.8**	**B C86**	0.26	0.00062	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-98	**0.54**	**C**	0.088	0.00070	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
PCB-99	**5.1**	**C83 B**	0.088	0.00076	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
Polychlorinated biphenyls, Total	**200**	**B q**	0.26	0.0052	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
Total Monochlorobiphenyls	**0.27**	**B**	0.044	0.0012	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
Total Dichlorobiphenyls	**0.62**	**B q**	0.088	0.0052	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
Total Trichlorobiphenyls	**3.1**	**B q**	0.088	0.0022	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
Total Tetrachlorobiphenyls	**22**	**B q**	0.18	0.018	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
Total Pentachlorobiphenyls	**48**	**B q**	0.26	0.0029	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
Total Hexachlorobiphenyls	**74**	**B q**	0.18	0.010	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
Total Heptachlorobiphenyls	**43**	**B**	0.088	0.00064	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
Total Octachlorobiphenyls	**9.1**	**B**	0.088	0.0017	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3
Total Nonachlorobiphenyls	**1.0**		0.044	0.0047	ng/g	☼	11/01/18 10:35	11/12/18 16:25	3

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
PCB-104L	*78*		*30 - 140*	*11/01/18 10:35*	*11/12/18 16:25*	*3*
PCB-105L	*85*		*30 - 140*	*11/01/18 10:35*	*11/12/18 16:25*	*3*
PCB-114L	*85*		*30 - 140*	*11/01/18 10:35*	*11/12/18 16:25*	*3*
PCB-118L	*83*		*30 - 140*	*11/01/18 10:35*	*11/12/18 16:25*	*3*
PCB-123L	*83*		*30 - 140*	*11/01/18 10:35*	*11/12/18 16:25*	*3*
PCB-126L	*83*		*30 - 140*	*11/01/18 10:35*	*11/12/18 16:25*	*3*
PCB-155L	*78*		*30 - 140*	*11/01/18 10:35*	*11/12/18 16:25*	*3*
PCB-156L	*84*	*C*	*30 - 140*	*11/01/18 10:35*	*11/12/18 16:25*	*3*
PCB-157L	*84*	*C156*	*30 - 140*	*11/01/18 10:35*	*11/12/18 16:25*	*3*
PCB-15L	*80*		*30 - 140*	*11/01/18 10:35*	*11/12/18 16:25*	*3*
PCB-167L	*84*		*30 - 140*	*11/01/18 10:35*	*11/12/18 16:25*	*3*
PCB-169L	*88*		*30 - 140*	*11/01/18 10:35*	*11/12/18 16:25*	*3*
PCB-170L	*81*		*30 - 140*	*11/01/18 10:35*	*11/12/18 16:25*	*3*

Client Sample ID: H3-0to28-101118
Date Collected: 10/11/18 14:06
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-43
Matrix: Solid
Percent Solids: 33.7

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-188L	83		30 - 140	11/01/18 10:35	11/12/18 16:25	3
PCB-189L	76		30 - 140	11/01/18 10:35	11/12/18 16:25	3
PCB-19L	89		30 - 140	11/01/18 10:35	11/12/18 16:25	3
PCB-1L	65		30 - 140	11/01/18 10:35	11/12/18 16:25	3
PCB-202L	94		30 - 140	11/01/18 10:35	11/12/18 16:25	3
PCB-205L	71		30 - 140	11/01/18 10:35	11/12/18 16:25	3
PCB-206L	84		30 - 140	11/01/18 10:35	11/12/18 16:25	3
PCB-208L	81		30 - 140	11/01/18 10:35	11/12/18 16:25	3
PCB-209L	83		30 - 140	11/01/18 10:35	11/12/18 16:25	3
PCB-37L	86		30 - 140	11/01/18 10:35	11/12/18 16:25	3
PCB-3L	63		30 - 140	11/01/18 10:35	11/12/18 16:25	3
PCB-4L	78		30 - 140	11/01/18 10:35	11/12/18 16:25	3
PCB-54L	56		30 - 140	11/01/18 10:35	11/12/18 16:25	3
PCB-77L	80		30 - 140	11/01/18 10:35	11/12/18 16:25	3
PCB-81L	81		30 - 140	11/01/18 10:35	11/12/18 16:25	3

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-111L	88		40 - 125	11/01/18 10:35	11/12/18 16:25	3
PCB-178L	93		40 - 125	11/01/18 10:35	11/12/18 16:25	3
PCB-28L	93		40 - 125	11/01/18 10:35	11/12/18 16:25	3

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	8.7		0.42	0.084	mg/Kg	☼	11/02/18 10:56	11/02/18 19:27	5
Cadmium	0.48		0.33	0.064	mg/Kg	☼	11/02/18 10:56	11/02/18 19:27	5
Copper	100	B	0.84	0.18	mg/Kg	☼	11/02/18 10:56	11/02/18 19:27	5
Lead	35		0.42	0.040	mg/Kg	☼	11/02/18 10:56	11/02/18 19:27	5
Zinc	250		4.2	1.3	mg/Kg	☼	11/02/18 10:56	11/02/18 19:27	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.19		0.055	0.016	mg/Kg	☼	10/31/18 10:53	10/31/18 13:36	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	37000		2000	44	mg/Kg			10/24/18 17:04	1
Total Solids	33.7		0.1	0.1	%			11/01/18 12:04	1
Percent Moisture	67	H	0.10	0.10	%			10/25/18 12:18	1
Percent Solids	33	H	0.10	0.10	%			10/25/18 12:18	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Clay	23.5				%			10/19/18 16:28	1
Coarse Sand	0.1				%			10/19/18 16:28	1
Fine Sand	12.6				%			10/19/18 16:28	1
Gravel	0.0				%			10/19/18 16:28	1
Medium Sand	0.9				%			10/19/18 16:28	1
Silt	63.0				%			10/19/18 16:28	1

Client: Pacific Groundwater Group
Project/Site: Swan Island Lagoon SedimentInvestigation

TestAmerica Job ID: 580-81081-1

Client Sample ID: H3-0to28-101118
Date Collected: 10/11/18 14:06
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-43
Matrix: Solid
Percent Solids: 33.7

Method: D854 - Specific Gravity

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Density	1.24		0.0100	0.0100	g/cm3			10/25/18 00:00	1
Specific Gravity	1.25		0.0100	0.0100	NONE			10/25/18 00:00	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Lab Sample ID: MB 580-286922/1-A
Matrix: Water
Analysis Batch: 287044

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 286922

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Motor Oil Range Organics (C24-C40)	ND		350	96	ug/L		10/19/18 08:49	10/21/18 15:33	1
#2 Diesel (C10-C24)	ND		110	65	ug/L		10/19/18 08:49	10/21/18 15:33	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*89*		*50 - 150*	*10/19/18 08:49*	*10/21/18 15:33*	*1*

Lab Sample ID: LCS 580-286922/2-A
Matrix: Water
Analysis Batch: 287044

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 286922

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Motor Oil Range Organics (C24-C40)	2000	1930		ug/L		97	53 - 129
#2 Diesel (C10-C24)	2000	1890		ug/L		94	50 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
o-Terphenyl	*107*		*50 - 150*

Lab Sample ID: LCSD 580-286922/3-A
Matrix: Water
Analysis Batch: 287044

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 286922

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Motor Oil Range Organics (C24-C40)	2000	1810		ug/L		90	53 - 129	7	19
#2 Diesel (C10-C24)	2000	1720		ug/L		86	50 - 120	9	26

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
o-Terphenyl	*93*		*50 - 150*

Lab Sample ID: MB 580-287619/1-A
Matrix: Solid
Analysis Batch: 288139

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 287619

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Motor Oil (>C24-C36)	ND		50	18	mg/Kg		10/27/18 20:36	11/04/18 17:47	1
#2 Diesel (C10-C24)	ND		50	12	mg/Kg		10/27/18 20:36	11/04/18 17:47	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*102*		*50 - 150*	*10/27/18 20:36*	*11/04/18 17:47*	*1*

Lab Sample ID: LCS 580-287619/2-A
Matrix: Solid
Analysis Batch: 288139

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 287619

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Motor Oil (>C24-C36)	500	426		mg/Kg		85	70 - 129

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) (Continued)

Lab Sample ID: LCS 580-287619/2-A
Matrix: Solid
Analysis Batch: 288139

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 287619

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
#2 Diesel (C10-C24)			500	428		mg/Kg		86	70 - 125		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
o-Terphenyl	*87*		*50 - 150*

Lab Sample ID: LCSD 580-287619/3-A
Matrix: Solid
Analysis Batch: 288139

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 287619

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Motor Oil (>C24-C36)			500	422		mg/Kg		84	70 - 129	1	16
#2 Diesel (C10-C24)			500	425		mg/Kg		85	70 - 125	1	16

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
o-Terphenyl	*91*		*50 - 150*

Lab Sample ID: 580-81081-23 MS
Matrix: Solid
Analysis Batch: 288139

Client Sample ID: L5-0to26-101318
Prep Type: Total/NA
Prep Batch: 287619

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
#2 Diesel (C10-C24)	180		1510	1450		mg/Kg	☼	85	70 - 125		
Motor Oil (>C24-C36)	1000		1510	2310		mg/Kg	☼	85	70 - 129		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
o-Terphenyl	*99*		*50 - 150*

Lab Sample ID: 580-81081-23 MSD
Matrix: Solid
Analysis Batch: 288139

Client Sample ID: L5-0to26-101318
Prep Type: Total/NA
Prep Batch: 287619

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
#2 Diesel (C10-C24)	180		1470	1420		mg/Kg	☼	84	70 - 125	2	16
Motor Oil (>C24-C36)	1000		1470	2350		mg/Kg	☼	90	70 - 129	2	16

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
o-Terphenyl	*104*		*50 - 150*

Lab Sample ID: 580-81081-41 MS
Matrix: Solid
Analysis Batch: 288139

Client Sample ID: F5-0to28-101118
Prep Type: Total/NA
Prep Batch: 287619

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
#2 Diesel (C10-C24)	160		1410	1340		mg/Kg	☼	84	70 - 125		
Motor Oil (>C24-C36)	920		1410	2190		mg/Kg	☼	89	70 - 129		

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) (Continued)

Lab Sample ID: 580-81081-41 MS
Matrix: Solid
Analysis Batch: 288139

Client Sample ID: F5-0to28-101118
Prep Type: Total/NA
Prep Batch: 287619

Surrogate	MS %Recovery	MS Qualifier	Limits
o-Terphenyl	*79*		*50 - 150*

Lab Sample ID: 580-81081-41 MSD
Matrix: Solid
Analysis Batch: 288139

Client Sample ID: F5-0to28-101118
Prep Type: Total/NA
Prep Batch: 287619

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
#2 Diesel (C10-C24)	160		1410	1350		mg/Kg	☼	84	70 - 125	0	16
Motor Oil (>C24-C36)	920		1410	2250		mg/Kg	☼	94	70 - 129	3	16

Surrogate	MSD %Recovery	MSD Qualifier	Limits
o-Terphenyl	*94*		*50 - 150*

Lab Sample ID: 580-81081-2 DU
Matrix: Solid
Analysis Batch: 288139

Client Sample ID: H1-0to24-101418
Prep Type: Total/NA
Prep Batch: 287619

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Motor Oil (>C24-C36)	410		408		mg/Kg	☼	0	35
#2 Diesel (C10-C24)	110		118		mg/Kg	☼	5	35

Surrogate	DU %Recovery	DU Qualifier	Limits
o-Terphenyl	*90*		*50 - 150*

Lab Sample ID: 580-81081-43 DU
Matrix: Solid
Analysis Batch: 288139

Client Sample ID: H3-0to28-101118
Prep Type: Total/NA
Prep Batch: 287619

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Motor Oil (>C24-C36)	1200		1050		mg/Kg	☼	14	35
#2 Diesel (C10-C24)	210		176		mg/Kg	☼	19	35

Surrogate	DU %Recovery	DU Qualifier	Limits
o-Terphenyl	*96*		*50 - 150*

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Lab Sample ID: MB 320-253208/1-A
Matrix: Solid
Analysis Batch: 254745

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 253208

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3,4,6,7,8-HpCDD	0.000395	J	0.0050	0.000032	ug/Kg		10/18/18 14:49	10/24/18 00:05	1
1,2,3,4,6,7,8-HpCDF	0.000348	J	0.0050	0.000049	ug/Kg		10/18/18 14:49	10/24/18 00:05	1
1,2,3,4,7,8,9-HpCDF	0.000842	J	0.0050	0.000071	ug/Kg		10/18/18 14:49	10/24/18 00:05	1
1,2,3,4,7,8-HxCDD	0.000294	J	0.0050	0.000035	ug/Kg		10/18/18 14:49	10/24/18 00:05	1
1,2,3,4,7,8-HxCDF	0.000179	J q	0.0050	0.000036	ug/Kg		10/18/18 14:49	10/24/18 00:05	1

Method: 1613B - Dioxins and Furans (HRGC/HRMS) (Continued)

Lab Sample ID: MB 320-253208/1-A
Matrix: Solid
Analysis Batch: 254745

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 253208

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3,6,7,8-HxCDD	0.000139	J	0.0050	0.000032	ug/Kg		10/18/18 14:49	10/24/18 00:05	1
1,2,3,6,7,8-HxCDF	0.000144	J q	0.0050	0.000034	ug/Kg		10/18/18 14:49	10/24/18 00:05	1
1,2,3,7,8,9-HxCDD	0.000267	J	0.0050	0.000030	ug/Kg		10/18/18 14:49	10/24/18 00:05	1
1,2,3,7,8,9-HxCDF	0.000662	J q	0.0050	0.000035	ug/Kg		10/18/18 14:49	10/24/18 00:05	1
1,2,3,7,8-PeCDD	ND		0.0050	0.000037	ug/Kg		10/18/18 14:49	10/24/18 00:05	1
1,2,3,7,8-PeCDF	0.000145	J q	0.0050	0.000044	ug/Kg		10/18/18 14:49	10/24/18 00:05	1
2,3,4,6,7,8-HxCDF	0.000197	J	0.0050	0.000030	ug/Kg		10/18/18 14:49	10/24/18 00:05	1
2,3,4,7,8-PeCDF	ND		0.0050	0.000047	ug/Kg		10/18/18 14:49	10/24/18 00:05	1
2,3,7,8-TCDD	ND		0.0010	0.000036	ug/Kg		10/18/18 14:49	10/24/18 00:05	1
2,3,7,8-TCDF	0.0000618	J q	0.0010	0.000028	ug/Kg		10/18/18 14:49	10/24/18 00:05	1
OCDD	0.00133	J q	0.010	0.000030	ug/Kg		10/18/18 14:49	10/24/18 00:05	1
OCDF	0.000960	J	0.010	0.000035	ug/Kg		10/18/18 14:49	10/24/18 00:05	1
Total HpCDD	0.000531	J q	0.0050	0.000032	ug/Kg		10/18/18 14:49	10/24/18 00:05	1
Total HpCDF	0.00119	J	0.0050	0.000060	ug/Kg		10/18/18 14:49	10/24/18 00:05	1
Total HxCDD	0.000699	J	0.0050	0.000032	ug/Kg		10/18/18 14:49	10/24/18 00:05	1
Total HxCDF	0.00151	J q	0.0050	0.000033	ug/Kg		10/18/18 14:49	10/24/18 00:05	1
Total PeCDD	ND		0.0050	0.000038	ug/Kg		10/18/18 14:49	10/24/18 00:05	1
Total PeCDF	0.000145	J q	0.0050	0.000045	ug/Kg		10/18/18 14:49	10/24/18 00:05	1
Total TCDF	0.0000618	J q	0.0010	0.000028	ug/Kg		10/18/18 14:49	10/24/18 00:05	1
Total TCDD	ND		0.0010	0.000039	ug/Kg		10/18/18 14:49	10/24/18 00:05	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-1,2,3,4,6,7,8-HpCDD	*81*		*23 - 140*	*10/18/18 14:49*	*10/24/18 00:05*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*78*		*28 - 143*	*10/18/18 14:49*	*10/24/18 00:05*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*79*		*26 - 138*	*10/18/18 14:49*	*10/24/18 00:05*	*1*
13C-1,2,3,4,7,8-HxCDD	*76*		*32 - 141*	*10/18/18 14:49*	*10/24/18 00:05*	*1*
13C-1,2,3,4,7,8-HxCDF	*79*		*26 - 152*	*10/18/18 14:49*	*10/24/18 00:05*	*1*
13C-1,2,3,6,7,8-HxCDD	*76*		*28 - 130*	*10/18/18 14:49*	*10/24/18 00:05*	*1*
13C-1,2,3,6,7,8-HxCDF	*79*		*26 - 123*	*10/18/18 14:49*	*10/24/18 00:05*	*1*
13C-1,2,3,7,8,9-HxCDF	*78*		*29 - 147*	*10/18/18 14:49*	*10/24/18 00:05*	*1*
13C-1,2,3,7,8-PeCDD	*76*		*25 - 181*	*10/18/18 14:49*	*10/24/18 00:05*	*1*
13C-1,2,3,7,8-PeCDF	*76*		*24 - 185*	*10/18/18 14:49*	*10/24/18 00:05*	*1*
13C-2,3,4,6,7,8-HxCDF	*80*		*28 - 136*	*10/18/18 14:49*	*10/24/18 00:05*	*1*
13C-2,3,4,7,8-PeCDF	*76*		*21 - 178*	*10/18/18 14:49*	*10/24/18 00:05*	*1*
13C-2,3,7,8-TCDD	*79*		*25 - 164*	*10/18/18 14:49*	*10/24/18 00:05*	*1*
13C-2,3,7,8-TCDF	*78*		*24 - 169*	*10/18/18 14:49*	*10/24/18 00:05*	*1*
13C-OCDD	*75*		*17 - 157*	*10/18/18 14:49*	*10/24/18 00:05*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
37Cl4-2,3,7,8-TCDD	*97*		*35 - 197*	*10/18/18 14:49*	*10/24/18 00:05*	*1*

Lab Sample ID: LCS 320-253208/2-A
Matrix: Solid
Analysis Batch: 254745

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 253208

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,3,4,6,7,8-HpCDD	0.100	0.102		ug/Kg		102	70 - 140
1,2,3,4,6,7,8-HpCDF	0.100	0.104		ug/Kg		104	82 - 122

Method: 1613B - Dioxins and Furans (HRGC/HRMS) (Continued)

Lab Sample ID: LCS 320-253208/2-A
Matrix: Solid
Analysis Batch: 254745

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 253208

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,3,4,7,8,9-HpCDF	0.100	0.104		ug/Kg		104	78 - 138
1,2,3,4,7,8-HxCDD	0.100	0.102		ug/Kg		102	70 - 164
1,2,3,4,7,8-HxCDF	0.100	0.103		ug/Kg		103	72 - 134
1,2,3,6,7,8-HxCDD	0.100	0.102		ug/Kg		102	76 - 134
1,2,3,6,7,8-HxCDF	0.100	0.102		ug/Kg		102	84 - 130
1,2,3,7,8,9-HxCDD	0.100	0.103		ug/Kg		103	64 - 162
1,2,3,7,8,9-HxCDF	0.100	0.101		ug/Kg		101	78 - 130
1,2,3,7,8-PeCDD	0.100	0.102		ug/Kg		102	70 - 142
1,2,3,7,8-PeCDF	0.100	0.103		ug/Kg		103	80 - 134
2,3,4,6,7,8-HxCDF	0.100	0.102		ug/Kg		102	70 - 156
2,3,4,7,8-PeCDF	0.100	0.102		ug/Kg		102	68 - 160
2,3,7,8-TCDD	0.0200	0.0203		ug/Kg		101	67 - 158
2,3,7,8-TCDF	0.0200	0.0203		ug/Kg		101	75 - 158
OCDD	0.200	0.206		ug/Kg		103	78 - 144
OCDF	0.200	0.203		ug/Kg		102	63 - 170

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C-1,2,3,4,6,7,8-HpCDD	*79*		*26 - 166*
13C-1,2,3,4,6,7,8-HpCDF	*75*		*21 - 158*
13C-1,2,3,4,7,8,9-HpCDF	*77*		*20 - 186*
13C-1,2,3,4,7,8-HxCDD	*74*		*21 - 193*
13C-1,2,3,4,7,8-HxCDF	*75*		*19 - 202*
13C-1,2,3,6,7,8-HxCDD	*79*		*25 - 163*
13C-1,2,3,6,7,8-HxCDF	*78*		*21 - 159*
13C-1,2,3,7,8,9-HxCDF	*77*		*17 - 205*
13C-1,2,3,7,8-PeCDD	*74*		*21 - 227*
13C-1,2,3,7,8-PeCDF	*73*		*21 - 192*
13C-2,3,4,6,7,8-HxCDF	*78*		*22 - 176*
13C-2,3,4,7,8-PeCDF	*73*		*13 - 328*
13C-2,3,7,8-TCDD	*75*		*20 - 175*
13C-2,3,7,8-TCDF	*74*		*22 - 152*
13C-OCDD	*74*		*13 - 199*

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
37Cl4-2,3,7,8-TCDD	*94*		*31 - 191*

Lab Sample ID: LCSD 320-253208/3-A
Matrix: Solid
Analysis Batch: 254745

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 253208

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,3,4,6,7,8-HpCDD	0.100	0.103		ug/Kg		103	70 - 140	1	50
1,2,3,4,6,7,8-HpCDF	0.100	0.103		ug/Kg		103	82 - 122	1	50
1,2,3,4,7,8,9-HpCDF	0.100	0.104		ug/Kg		104	78 - 138	0	50
1,2,3,4,7,8-HxCDD	0.100	0.102		ug/Kg		102	70 - 164	1	50
1,2,3,4,7,8-HxCDF	0.100	0.0990		ug/Kg		99	72 - 134	4	50
1,2,3,6,7,8-HxCDD	0.100	0.104		ug/Kg		104	76 - 134	2	50
1,2,3,6,7,8-HxCDF	0.100	0.102		ug/Kg		102	84 - 130	0	50

Method: 1613B - Dioxins and Furans (HRGC/HRMS) (Continued)

Lab Sample ID: LCSD 320-253208/3-A
Matrix: Solid
Analysis Batch: 254745

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 253208

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,3,7,8,9-HxCDD			0.100	0.106		ug/Kg		106	64 - 162	2	50
1,2,3,7,8,9-HxCDF			0.100	0.102		ug/Kg		102	78 - 130	1	50
1,2,3,7,8-PeCDD			0.100	0.102		ug/Kg		102	70 - 142	0	50
1,2,3,7,8-PeCDF			0.100	0.102		ug/Kg		102	80 - 134	1	50
2,3,4,6,7,8-HxCDF			0.100	0.101		ug/Kg		101	70 - 156	1	50
2,3,4,7,8-PeCDF			0.100	0.101		ug/Kg		101	68 - 160	1	50
2,3,7,8-TCDD			0.0200	0.0196		ug/Kg		98	67 - 158	3	50
2,3,7,8-TCDF			0.0200	0.0204		ug/Kg		102	75 - 158	1	50
OCDD			0.200	0.208		ug/Kg		104	78 - 144	1	50
OCDF			0.200	0.207		ug/Kg		104	63 - 170	2	50

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
13C-1,2,3,4,6,7,8-HpCDD	*77*		*26 - 166*
13C-1,2,3,4,6,7,8-HpCDF	*76*		*21 - 158*
13C-1,2,3,4,7,8,9-HpCDF	*76*		*20 - 186*
13C-1,2,3,4,7,8-HxCDD	*73*		*21 - 193*
13C-1,2,3,4,7,8-HxCDF	*76*		*19 - 202*
13C-1,2,3,6,7,8-HxCDD	*73*		*25 - 163*
13C-1,2,3,6,7,8-HxCDF	*75*		*21 - 159*
13C-1,2,3,7,8,9-HxCDF	*75*		*17 - 205*
13C-1,2,3,7,8-PeCDD	*69*		*21 - 227*
13C-1,2,3,7,8-PeCDF	*70*		*21 - 192*
13C-2,3,4,6,7,8-HxCDF	*76*		*22 - 176*
13C-2,3,4,7,8-PeCDF	*69*		*13 - 328*
13C-2,3,7,8-TCDD	*73*		*20 - 175*
13C-2,3,7,8-TCDF	*72*		*22 - 152*
13C-OCDD	*71*		*13 - 199*

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
37Cl4-2,3,7,8-TCDD	*91*		*31 - 191*

Lab Sample ID: MB 320-254471/1-A
Matrix: Water
Analysis Batch: 255284

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 254471

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3,4,6,7,8-HpCDD	4.85	J	50	0.75	pg/L		10/23/18 19:20	10/26/18 01:10	1
1,2,3,4,6,7,8-HpCDF	5.18	J	50	0.55	pg/L		10/23/18 19:20	10/26/18 01:10	1
1,2,3,4,7,8,9-HpCDF	15.0	J	50	0.68	pg/L		10/23/18 19:20	10/26/18 01:10	1
1,2,3,4,7,8-HxCDD	3.40	J	50	1.0	pg/L		10/23/18 19:20	10/26/18 01:10	1
1,2,3,4,7,8-HxCDF	ND		50	1.5	pg/L		10/23/18 19:20	10/26/18 01:10	1
1,2,3,6,7,8-HxCDD	2.20	J	50	0.99	pg/L		10/23/18 19:20	10/26/18 01:10	1
1,2,3,6,7,8-HxCDF	ND		50	1.3	pg/L		10/23/18 19:20	10/26/18 01:10	1
1,2,3,7,8,9-HxCDD	3.76	J q	50	0.88	pg/L		10/23/18 19:20	10/26/18 01:10	1
1,2,3,7,8,9-HxCDF	5.27	J	50	0.83	pg/L		10/23/18 19:20	10/26/18 01:10	1
1,2,3,7,8-PeCDD	ND		50	1.6	pg/L		10/23/18 19:20	10/26/18 01:10	1
1,2,3,7,8-PeCDF	ND		50	1.3	pg/L		10/23/18 19:20	10/26/18 01:10	1
2,3,4,6,7,8-HxCDF	2.27	J q	50	0.89	pg/L		10/23/18 19:20	10/26/18 01:10	1

Method: 1613B - Dioxins and Furans (HRGC/HRMS) (Continued)

Lab Sample ID: MB 320-254471/1-A
Matrix: Water
Analysis Batch: 255284

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 254471

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,4,7,8-PeCDF	ND		50	1.3	pg/L		10/23/18 19:20	10/26/18 01:10	1
2,3,7,8-TCDD	ND		10	1.3	pg/L		10/23/18 19:20	10/26/18 01:10	1
2,3,7,8-TCDF	ND		10	0.85	pg/L		10/23/18 19:20	10/26/18 01:10	1
OCDD	20.9	J	100	1.1	pg/L		10/23/18 19:20	10/26/18 01:10	1
OCDF	13.8	J q	100	1.2	pg/L		10/23/18 19:20	10/26/18 01:10	1
Total HpCDD	7.60	J	50	0.75	pg/L		10/23/18 19:20	10/26/18 01:10	1
Total HpCDF	23.3	J q	50	0.61	pg/L		10/23/18 19:20	10/26/18 01:10	1
Total HxCDD	9.36	J q	50	0.96	pg/L		10/23/18 19:20	10/26/18 01:10	1
Total HxCDF	10.5	J q	50	1.1	pg/L		10/23/18 19:20	10/26/18 01:10	1
Total PeCDD	ND		50	1.6	pg/L		10/23/18 19:20	10/26/18 01:10	1
Total PeCDF	ND		50	1.3	pg/L		10/23/18 19:20	10/26/18 01:10	1
Total TCDF	ND		10	0.85	pg/L		10/23/18 19:20	10/26/18 01:10	1
Total TCDD	ND		10	1.3	pg/L		10/23/18 19:20	10/26/18 01:10	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-1,2,3,4,6,7,8-HpCDD	*81*		*23 - 140*	*10/23/18 19:20*	*10/26/18 01:10*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*79*		*28 - 143*	*10/23/18 19:20*	*10/26/18 01:10*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*87*		*26 - 138*	*10/23/18 19:20*	*10/26/18 01:10*	*1*
13C-1,2,3,4,7,8-HxCDD	*80*		*32 - 141*	*10/23/18 19:20*	*10/26/18 01:10*	*1*
13C-1,2,3,4,7,8-HxCDF	*75*		*26 - 152*	*10/23/18 19:20*	*10/26/18 01:10*	*1*
13C-1,2,3,6,7,8-HxCDD	*70*		*28 - 130*	*10/23/18 19:20*	*10/26/18 01:10*	*1*
13C-1,2,3,6,7,8-HxCDF	*67*		*26 - 123*	*10/23/18 19:20*	*10/26/18 01:10*	*1*
13C-1,2,3,7,8,9-HxCDF	*76*		*29 - 147*	*10/23/18 19:20*	*10/26/18 01:10*	*1*
13C-1,2,3,7,8-PeCDD	*68*		*25 - 181*	*10/23/18 19:20*	*10/26/18 01:10*	*1*
13C-1,2,3,7,8-PeCDF	*69*		*24 - 185*	*10/23/18 19:20*	*10/26/18 01:10*	*1*
13C-2,3,4,6,7,8-HxCDF	*74*		*28 - 136*	*10/23/18 19:20*	*10/26/18 01:10*	*1*
13C-2,3,4,7,8-PeCDF	*72*		*21 - 178*	*10/23/18 19:20*	*10/26/18 01:10*	*1*
13C-2,3,7,8-TCDD	*74*		*25 - 164*	*10/23/18 19:20*	*10/26/18 01:10*	*1*
13C-2,3,7,8-TCDF	*79*		*24 - 169*	*10/23/18 19:20*	*10/26/18 01:10*	*1*
13C-OCDD	*85*		*17 - 157*	*10/23/18 19:20*	*10/26/18 01:10*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
37Cl4-2,3,7,8-TCDD	*97*		*35 - 197*	*10/23/18 19:20*	*10/26/18 01:10*	*1*

Lab Sample ID: LCS 320-254471/2-A
Matrix: Water
Analysis Batch: 255284

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 254471

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,3,4,6,7,8-HpCDD	1000	1030		pg/L		103	70 - 140
1,2,3,4,6,7,8-HpCDF	1000	1040		pg/L		104	82 - 122
1,2,3,4,7,8,9-HpCDF	1000	1050		pg/L		105	78 - 138
1,2,3,4,7,8-HxCDD	1000	1020		pg/L		102	70 - 164
1,2,3,4,7,8-HxCDF	1000	1010		pg/L		101	72 - 134
1,2,3,6,7,8-HxCDD	1000	1020		pg/L		102	76 - 134
1,2,3,6,7,8-HxCDF	1000	1040		pg/L		104	84 - 130
1,2,3,7,8,9-HxCDD	1000	986		pg/L		99	64 - 162
1,2,3,7,8,9-HxCDF	1000	1030		pg/L		103	78 - 130

Method: 1613B - Dioxins and Furans (HRGC/HRMS) (Continued)

Lab Sample ID: LCS 320-254471/2-A
Matrix: Water
Analysis Batch: 255284

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 254471

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,2,3,7,8-PeCDD			1000	1050		pg/L		105	70 - 142		
1,2,3,7,8-PeCDF			1000	1090		pg/L		109	80 - 134		
2,3,4,6,7,8-HxCDF			1000	1030		pg/L		103	70 - 156		
2,3,4,7,8-PeCDF			1000	1040		pg/L		104	68 - 160		
2,3,7,8-TCDD			200	218		pg/L		109	67 - 158		
2,3,7,8-TCDF			200	207		pg/L		103	75 - 158		
OCDD			2000	1960		pg/L		98	78 - 144		
OCDF			2000	2050		pg/L		102	63 - 170		

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C-1,2,3,4,6,7,8-HpCDD	*85*		*26 - 166*
13C-1,2,3,4,6,7,8-HpCDF	*81*		*21 - 158*
13C-1,2,3,4,7,8,9-HpCDF	*88*		*20 - 186*
13C-1,2,3,4,7,8-HxCDD	*81*		*21 - 193*
13C-1,2,3,4,7,8-HxCDF	*73*		*19 - 202*
13C-1,2,3,6,7,8-HxCDD	*68*		*25 - 163*
13C-1,2,3,6,7,8-HxCDF	*66*		*21 - 159*
13C-1,2,3,7,8,9-HxCDF	*75*		*17 - 205*
13C-1,2,3,7,8-PeCDD	*71*		*21 - 227*
13C-1,2,3,7,8-PeCDF	*71*		*21 - 192*
13C-2,3,4,6,7,8-HxCDF	*72*		*22 - 176*
13C-2,3,4,7,8-PeCDF	*73*		*13 - 328*
13C-2,3,7,8-TCDD	*75*		*20 - 175*
13C-2,3,7,8-TCDF	*80*		*22 - 152*
13C-OCDD	*85*		*13 - 199*

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
37Cl4-2,3,7,8-TCDD	*97*		*31 - 191*

Lab Sample ID: LCSD 320-254471/3-A
Matrix: Water
Analysis Batch: 255284

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 254471

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,3,4,6,7,8-HpCDD			1000	1060		pg/L		106	70 - 140	3	50
1,2,3,4,6,7,8-HpCDF			1000	1030		pg/L		103	82 - 122	1	50
1,2,3,4,7,8,9-HpCDF			1000	1020		pg/L		102	78 - 138	2	50
1,2,3,4,7,8-HxCDD			1000	995		pg/L		100	70 - 164	3	50
1,2,3,4,7,8-HxCDF			1000	989		pg/L		99	72 - 134	2	50
1,2,3,6,7,8-HxCDD			1000	1020		pg/L		102	76 - 134	1	50
1,2,3,6,7,8-HxCDF			1000	1000		pg/L		100	84 - 130	4	50
1,2,3,7,8,9-HxCDD			1000	979		pg/L		98	64 - 162	1	50
1,2,3,7,8,9-HxCDF			1000	1010		pg/L		101	78 - 130	2	50
1,2,3,7,8-PeCDD			1000	1020		pg/L		102	70 - 142	3	50
1,2,3,7,8-PeCDF			1000	1060		pg/L		106	80 - 134	3	50
2,3,4,6,7,8-HxCDF			1000	1010		pg/L		101	70 - 156	2	50
2,3,4,7,8-PeCDF			1000	1010		pg/L		101	68 - 160	2	50
2,3,7,8-TCDD			200	227		pg/L		113	67 - 158	4	50

Method: 1613B - Dioxins and Furans (HRGC/HRMS) (Continued)

Lab Sample ID: LCSD 320-254471/3-A
Matrix: Water
Analysis Batch: 255284

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 254471

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2,3,7,8-TCDF			200	202		pg/L		101	75 - 158	3	50
OCDD			2000	2060		pg/L		103	78 - 144	5	50
OCDF			2000	2160		pg/L		108	63 - 170	5	50

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
13C-1,2,3,4,6,7,8-HpCDD	*85*		*26 - 166*
13C-1,2,3,4,6,7,8-HpCDF	*85*		*21 - 158*
13C-1,2,3,4,7,8,9-HpCDF	*91*		*20 - 186*
13C-1,2,3,4,7,8-HxCDD	*84*		*21 - 193*
13C-1,2,3,4,7,8-HxCDF	*76*		*19 - 202*
13C-1,2,3,6,7,8-HxCDD	*69*		*25 - 163*
13C-1,2,3,6,7,8-HxCDF	*68*		*21 - 159*
13C-1,2,3,7,8,9-HxCDF	*78*		*17 - 205*
13C-1,2,3,7,8-PeCDD	*68*		*21 - 227*
13C-1,2,3,7,8-PeCDF	*67*		*21 - 192*
13C-2,3,4,6,7,8-HxCDF	*75*		*22 - 176*
13C-2,3,4,7,8-PeCDF	*71*		*13 - 328*
13C-2,3,7,8-TCDD	*72*		*20 - 175*
13C-2,3,7,8-TCDF	*74*		*22 - 152*
13C-OCDD	*84*		*13 - 199*

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
37Cl4-2,3,7,8-TCDD	*95*		*31 - 191*

Lab Sample ID: MB 320-256727/1-A
Matrix: Solid
Analysis Batch: 257738

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 256727

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3,4,6,7,8-HpCDD	0.000453	J	0.0050	0.000066	ug/Kg		11/02/18 16:40	11/08/18 09:59	1
1,2,3,4,6,7,8-HpCDF	0.000130	J q	0.0050	0.000037	ug/Kg		11/02/18 16:40	11/08/18 09:59	1
1,2,3,4,7,8,9-HpCDF	0.000186	J	0.0050	0.000049	ug/Kg		11/02/18 16:40	11/08/18 09:59	1
1,2,3,4,7,8-HxCDD	ND		0.0050	0.000056	ug/Kg		11/02/18 16:40	11/08/18 09:59	1
1,2,3,4,7,8-HxCDF	0.0000676	J	0.0050	0.000037	ug/Kg		11/02/18 16:40	11/08/18 09:59	1
1,2,3,6,7,8-HxCDD	ND		0.0050	0.000055	ug/Kg		11/02/18 16:40	11/08/18 09:59	1
1,2,3,6,7,8-HxCDF	0.0000617	J	0.0050	0.000037	ug/Kg		11/02/18 16:40	11/08/18 09:59	1
1,2,3,7,8,9-HxCDD	0.000142	J	0.0050	0.000046	ug/Kg		11/02/18 16:40	11/08/18 09:59	1
1,2,3,7,8,9-HxCDF	0.000167	J q	0.0050	0.000030	ug/Kg		11/02/18 16:40	11/08/18 09:59	1
1,2,3,7,8-PeCDD	ND		0.0050	0.000046	ug/Kg		11/02/18 16:40	11/08/18 09:59	1
1,2,3,7,8-PeCDF	ND		0.0050	0.000060	ug/Kg		11/02/18 16:40	11/08/18 09:59	1
2,3,4,6,7,8-HxCDF	ND		0.0050	0.000029	ug/Kg		11/02/18 16:40	11/08/18 09:59	1
2,3,4,7,8-PeCDF	ND		0.0050	0.000065	ug/Kg		11/02/18 16:40	11/08/18 09:59	1
2,3,7,8-TCDD	0.000248	J q	0.0010	0.000057	ug/Kg		11/02/18 16:40	11/08/18 09:59	1
2,3,7,8-TCDF	0.000200	J	0.0010	0.000048	ug/Kg		11/02/18 16:40	11/08/18 09:59	1
OCDD	0.00289	J	0.010	0.000048	ug/Kg		11/02/18 16:40	11/08/18 09:59	1
OCDF	0.000273	J	0.010	0.000025	ug/Kg		11/02/18 16:40	11/08/18 09:59	1
Total HpCDD	0.00114	J	0.0050	0.000066	ug/Kg		11/02/18 16:40	11/08/18 09:59	1
Total HpCDF	0.000389	J q	0.0050	0.000043	ug/Kg		11/02/18 16:40	11/08/18 09:59	1

Method: 1613B - Dioxins and Furans (HRGC/HRMS) (Continued)

Lab Sample ID: MB 320-256727/1-A
Matrix: Solid
Analysis Batch: 257738

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 256727

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
Total HxCDD	0.000142	J	0.0050	0.000052	ug/Kg		11/02/18 16:40	11/08/18 09:59	1
Total HxCDF	0.000297	J q	0.0050	0.000033	ug/Kg		11/02/18 16:40	11/08/18 09:59	1
Total PeCDD	ND		0.0050	0.000046	ug/Kg		11/02/18 16:40	11/08/18 09:59	1
Total PeCDF	0.000162	J q	0.0050	0.000062	ug/Kg		11/02/18 16:40	11/08/18 09:59	1
Total TCDF	0.000329	J	0.0010	0.000048	ug/Kg		11/02/18 16:40	11/08/18 09:59	1
Total TCDD	0.000248	J q	0.0010	0.000057	ug/Kg		11/02/18 16:40	11/08/18 09:59	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-1,2,3,4,6,7,8-HpCDD	*87*		*23 - 140*	*11/02/18 16:40*	*11/08/18 09:59*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*91*		*28 - 143*	*11/02/18 16:40*	*11/08/18 09:59*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*88*		*26 - 138*	*11/02/18 16:40*	*11/08/18 09:59*	*1*
13C-1,2,3,4,7,8-HxCDD	*87*		*32 - 141*	*11/02/18 16:40*	*11/08/18 09:59*	*1*
13C-1,2,3,4,7,8-HxCDF	*93*		*26 - 152*	*11/02/18 16:40*	*11/08/18 09:59*	*1*
13C-1,2,3,6,7,8-HxCDD	*91*		*28 - 130*	*11/02/18 16:40*	*11/08/18 09:59*	*1*
13C-1,2,3,6,7,8-HxCDF	*91*		*26 - 123*	*11/02/18 16:40*	*11/08/18 09:59*	*1*
13C-1,2,3,7,8,9-HxCDF	*87*		*29 - 147*	*11/02/18 16:40*	*11/08/18 09:59*	*1*
13C-1,2,3,7,8-PeCDD	*81*		*25 - 181*	*11/02/18 16:40*	*11/08/18 09:59*	*1*
13C-1,2,3,7,8-PeCDF	*80*		*24 - 185*	*11/02/18 16:40*	*11/08/18 09:59*	*1*
13C-2,3,4,6,7,8-HxCDF	*93*		*28 - 136*	*11/02/18 16:40*	*11/08/18 09:59*	*1*
13C-2,3,4,7,8-PeCDF	*80*		*21 - 178*	*11/02/18 16:40*	*11/08/18 09:59*	*1*
13C-2,3,7,8-TCDD	*82*		*25 - 164*	*11/02/18 16:40*	*11/08/18 09:59*	*1*
13C-2,3,7,8-TCDF	*80*		*24 - 169*	*11/02/18 16:40*	*11/08/18 09:59*	*1*
13C-OCDD	*86*		*17 - 157*	*11/02/18 16:40*	*11/08/18 09:59*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
37Cl4-2,3,7,8-TCDD	*103*		*35 - 197*	*11/02/18 16:40*	*11/08/18 09:59*	*1*

Lab Sample ID: LCS 320-256727/2-A
Matrix: Solid
Analysis Batch: 257738

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 256727

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,3,4,6,7,8-HpCDD	0.100	0.104		ug/Kg		104	70 - 140
1,2,3,4,6,7,8-HpCDF	0.100	0.101		ug/Kg		101	82 - 122
1,2,3,4,7,8,9-HpCDF	0.100	0.102		ug/Kg		102	78 - 138
1,2,3,4,7,8-HxCDD	0.100	0.101		ug/Kg		101	70 - 164
1,2,3,4,7,8-HxCDF	0.100	0.102		ug/Kg		102	72 - 134
1,2,3,6,7,8-HxCDD	0.100	0.103		ug/Kg		103	76 - 134
1,2,3,6,7,8-HxCDF	0.100	0.102		ug/Kg		102	84 - 130
1,2,3,7,8,9-HxCDD	0.100	0.0997		ug/Kg		100	64 - 162
1,2,3,7,8,9-HxCDF	0.100	0.104		ug/Kg		104	78 - 130
1,2,3,7,8-PeCDD	0.100	0.103		ug/Kg		103	70 - 142
1,2,3,7,8-PeCDF	0.100	0.102		ug/Kg		102	80 - 134
2,3,4,6,7,8-HxCDF	0.100	0.103		ug/Kg		103	70 - 156
2,3,4,7,8-PeCDF	0.100	0.100		ug/Kg		100	68 - 160
2,3,7,8-TCDD	0.0200	0.0204		ug/Kg		102	67 - 158
2,3,7,8-TCDF	0.0200	0.0209		ug/Kg		104	75 - 158
OCDD	0.200	0.208		ug/Kg		104	78 - 144

Method: 1613B - Dioxins and Furans (HRGC/HRMS) (Continued)

Lab Sample ID: LCS 320-256727/2-A
Matrix: Solid
Analysis Batch: 257738

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 256727

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
OCDF			0.200	0.209		ug/Kg		104	63 - 170		

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C-1,2,3,4,6,7,8-HpCDD	*77*		*26 - 166*
13C-1,2,3,4,6,7,8-HpCDF	*80*		*21 - 158*
13C-1,2,3,4,7,8,9-HpCDF	*80*		*20 - 186*
13C-1,2,3,4,7,8-HxCDD	*79*		*21 - 193*
13C-1,2,3,4,7,8-HxCDF	*83*		*19 - 202*
13C-1,2,3,6,7,8-HxCDD	*79*		*25 - 163*
13C-1,2,3,6,7,8-HxCDF	*83*		*21 - 159*
13C-1,2,3,7,8,9-HxCDF	*74*		*17 - 205*
13C-1,2,3,7,8-PeCDD	*72*		*21 - 227*
13C-1,2,3,7,8-PeCDF	*72*		*21 - 192*
13C-2,3,4,6,7,8-HxCDF	*81*		*22 - 176*
13C-2,3,4,7,8-PeCDF	*72*		*13 - 328*
13C-2,3,7,8-TCDD	*72*		*20 - 175*
13C-2,3,7,8-TCDF	*71*		*22 - 152*
13C-OCDD	*75*		*13 - 199*

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
37Cl4-2,3,7,8-TCDD	*106*		*31 - 191*

Lab Sample ID: LCSD 320-256727/3-A
Matrix: Solid
Analysis Batch: 257738

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 256727

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,3,4,6,7,8-HpCDD			0.100	0.105		ug/Kg		105	70 - 140	1	50
1,2,3,4,6,7,8-HpCDF			0.100	0.106		ug/Kg		106	82 - 122	5	50
1,2,3,4,7,8,9-HpCDF			0.100	0.103		ug/Kg		103	78 - 138	1	50
1,2,3,4,7,8-HxCDD			0.100	0.101		ug/Kg		101	70 - 164	1	50
1,2,3,4,7,8-HxCDF			0.100	0.101		ug/Kg		101	72 - 134	1	50
1,2,3,6,7,8-HxCDD			0.100	0.105		ug/Kg		105	76 - 134	2	50
1,2,3,6,7,8-HxCDF			0.100	0.105		ug/Kg		105	84 - 130	3	50
1,2,3,7,8,9-HxCDD			0.100	0.0998		ug/Kg		100	64 - 162	0	50
1,2,3,7,8,9-HxCDF			0.100	0.102		ug/Kg		102	78 - 130	2	50
1,2,3,7,8-PeCDD			0.100	0.104		ug/Kg		104	70 - 142	1	50
1,2,3,7,8-PeCDF			0.100	0.103		ug/Kg		103	80 - 134	1	50
2,3,4,6,7,8-HxCDF			0.100	0.103		ug/Kg		103	70 - 156	0	50
2,3,4,7,8-PeCDF			0.100	0.103		ug/Kg		103	68 - 160	3	50
2,3,7,8-TCDD			0.0200	0.0202		ug/Kg		101	67 - 158	1	50
2,3,7,8-TCDF			0.0200	0.0207		ug/Kg		103	75 - 158	1	50
OCDD			0.200	0.222		ug/Kg		111	78 - 144	7	50
OCDF			0.200	0.209		ug/Kg		104	63 - 170	0	50

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
13C-1,2,3,4,6,7,8-HpCDD	*93*		*26 - 166*
13C-1,2,3,4,6,7,8-HpCDF	*89*		*21 - 158*

Method: 1613B - Dioxins and Furans (HRGC/HRMS) (Continued)

Lab Sample ID: LCSD 320-256727/3-A
Matrix: Solid
Analysis Batch: 257738

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 256727

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
13C-1,2,3,4,7,8,9-HpCDF	*94*		*20 - 186*
13C-1,2,3,4,7,8-HxCDD	*93*		*21 - 193*
13C-1,2,3,4,7,8-HxCDF	*97*		*19 - 202*
13C-1,2,3,6,7,8-HxCDD	*91*		*25 - 163*
13C-1,2,3,6,7,8-HxCDF	*94*		*21 - 159*
13C-1,2,3,7,8,9-HxCDF	*88*		*17 - 205*
13C-1,2,3,7,8-PeCDD	*82*		*21 - 227*
13C-1,2,3,7,8-PeCDF	*82*		*21 - 192*
13C-2,3,4,6,7,8-HxCDF	*95*		*22 - 176*
13C-2,3,4,7,8-PeCDF	*81*		*13 - 328*
13C-2,3,7,8-TCDD	*82*		*20 - 175*
13C-2,3,7,8-TCDF	*83*		*22 - 152*
13C-OCDD	*89*		*13 - 199*

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
37Cl4-2,3,7,8-TCDD	*102*		*31 - 191*

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

Lab Sample ID: MB 140-24629/19-B
Matrix: Solid
Analysis Batch: 24861

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24629

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.000606	J	0.010	0.000060	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-10	ND		0.010	0.0015	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-11	0.00243	J q	0.020	0.0013	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-12	ND	C	0.020	0.0014	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-13	ND	C12	0.020	0.0014	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-14	ND		0.010	0.0012	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-15	ND		0.010	0.0016	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-16	ND		0.010	0.00019	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-100	0.000778	J q C93	0.020	0.00011	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-101	0.00350	J C90	0.030	0.000093	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-102	ND	C98	0.020	0.00010	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-103	ND		0.010	0.00011	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-17	ND		0.010	0.00017	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-104	ND		0.010	0.000081	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-105	0.000701	J q	0.010	0.00018	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-106	ND		0.010	0.00019	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-107	ND		0.010	0.00021	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-108	0.000343	J q C	0.020	0.00020	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-109	0.00270	J q C86	0.060	0.000092	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-110	0.00175	J C	0.020	0.000077	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-111	ND		0.010	0.000075	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-112	ND		0.010	0.000079	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-113	0.00350	J C90	0.030	0.000093	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-114	ND		0.010	0.00018	ng/g		10/19/18 12:00	10/27/18 04:21	1

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

Lab Sample ID: MB 140-24629/19-B
Matrix: Solid
Analysis Batch: 24861

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24629

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-115	0.00175	J C110	0.020	0.000077	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-116	0.000912	J q C85	0.030	0.000091	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-117	0.000912	J q C85	0.030	0.000091	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-18	ND	C	0.020	0.00015	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-118	0.00102	J q	0.010	0.00018	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-119	0.00270	J q C86	0.060	0.000092	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-120	ND		0.010	0.000076	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-121	ND		0.010	0.000078	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-122	ND		0.010	0.00022	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-123	0.000519	J q	0.010	0.00019	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-124	0.000343	J q C108	0.020	0.00020	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-125	0.00270	J q C86	0.060	0.000092	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-126	0.000458	J q	0.010	0.00021	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-127	ND		0.010	0.00019	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-128	ND	C	0.020	0.00015	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-129	0.00414	J q C	0.040	0.00015	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-130	ND		0.010	0.00020	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-131	ND		0.010	0.00021	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-132	0.00115	J q	0.010	0.00019	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-133	ND		0.010	0.00019	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-19	ND		0.010	0.00021	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-134	0.000876	J C	0.020	0.00020	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-135	0.000849	J q C	0.020	0.000060	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-136	0.000675	J q	0.010	0.000044	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-137	ND		0.010	0.00017	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-138	0.00414	J q C129	0.040	0.00015	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-139	ND	C	0.020	0.00017	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-140	ND	C139	0.020	0.00017	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-141	0.00116	J q	0.010	0.00018	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-142	ND		0.010	0.00019	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-143	0.000876	J C134	0.020	0.00020	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-144	ND		0.010	0.000055	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-145	ND		0.010	0.000041	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-146	0.000987	J	0.010	0.00017	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-147	0.00307	J q C	0.020	0.00019	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-2	0.00128	J q	0.010	0.000071	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-148	ND		0.010	0.000058	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-20	0.00122	J C	0.020	0.00019	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-149	0.00307	J q C147	0.020	0.00019	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-150	ND		0.010	0.000040	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-151	0.000849	J q C135	0.020	0.000060	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-152	ND		0.010	0.000043	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-153	0.00325	J q C	0.020	0.00013	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-154	0.000563	J q	0.010	0.000047	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-155	ND		0.010	0.000040	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-156	0.000508	J q C	0.020	0.00017	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-157	0.000508	J q C156	0.020	0.00017	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-158	ND		0.010	0.00012	ng/g		10/19/18 12:00	10/27/18 04:21	1

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

Lab Sample ID: MB 140-24629/19-B
Matrix: Solid
Analysis Batch: 24861

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24629

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-159	0.000525	J	0.010	0.00013	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-160	0.00414	J q C129	0.040	0.00015	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-161	ND		0.010	0.00012	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-162	ND		0.010	0.00012	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-163	0.00414	J q C129	0.040	0.00015	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-164	0.000501	J q	0.010	0.00013	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-165	ND		0.010	0.00014	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-21	0.00113	J C	0.020	0.00019	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-166	ND	C128	0.020	0.00015	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-167	0.000490	J q	0.010	0.000095	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-22	0.000247	J q	0.010	0.00020	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-168	0.00325	J q C153	0.020	0.00013	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-23	0.000383	J q	0.010	0.00019	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-169	ND		0.010	0.000092	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-24	ND		0.010	0.00014	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-170	0.00119	J q	0.010	0.00019	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-25	ND		0.010	0.00018	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-171	0.00110	J C	0.020	0.00018	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-26	0.000265	J q C	0.020	0.00019	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-172	ND		0.010	0.00018	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-173	0.00110	J C171	0.020	0.00018	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-27	ND		0.010	0.00012	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-174	0.00191	J q	0.010	0.00017	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-28	0.00122	J C20	0.020	0.00019	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-175	ND		0.010	0.00017	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-176	ND		0.010	0.00013	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-29	0.000265	J q C26	0.020	0.00019	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-177	0.00132	J q	0.010	0.00018	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-3	0.000613	J q	0.010	0.000080	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-178	0.000554	J q	0.010	0.00018	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-30	ND	C18	0.020	0.00015	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-179	0.000825	J q	0.010	0.00013	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-31	ND		0.020	0.00019	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-180	0.00379	J q C	0.020	0.00014	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-32	0.000948	J q	0.010	0.00012	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-181	ND		0.010	0.00017	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-33	0.00113	J C21	0.020	0.00019	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-182	ND		0.010	0.00016	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-34	ND		0.010	0.00020	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-183	0.00189	J C	0.020	0.00016	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-35	ND		0.010	0.00020	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-184	ND		0.010	0.00014	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-36	ND		0.010	0.00019	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-185	0.00189	J C183	0.020	0.00016	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-37	ND		0.010	0.00020	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-186	ND		0.010	0.00013	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-187	0.00176	J q	0.010	0.00015	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-38	ND		0.010	0.00020	ng/g		10/19/18 12:00	10/27/18 04:21	1

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

Lab Sample ID: MB 140-24629/19-B
Matrix: Solid
Analysis Batch: 24861

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24629

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-188	ND		0.010	0.00012	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-39	ND		0.010	0.00018	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-189	ND		0.010	0.00023	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-190	0.000654	J q	0.010	0.00012	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-4	ND		0.020	0.0017	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-191	ND		0.010	0.00012	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-40	ND	C	0.030	0.00070	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-192	0.000360	J q	0.010	0.00014	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-193	0.00379	J q C180	0.020	0.00014	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-41	ND	C40	0.030	0.00070	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-194	0.000963	J q	0.010	0.00033	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-42	ND		0.010	0.00070	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-195	ND		0.010	0.00037	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-43	ND	C	0.020	0.00066	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-196	0.000932	J q	0.010	0.000046	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-197	ND		0.010	0.000036	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-44	0.00911	J C	0.030	0.00062	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-198	ND	C	0.020	0.000047	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-199	ND	C198	0.020	0.000047	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-45	ND	C	0.020	0.00074	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-200	ND		0.010	0.000032	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-201	ND		0.010	0.000032	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-46	ND		0.010	0.00089	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-202	ND		0.010	0.000036	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-47	0.00911	J C44	0.030	0.00062	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-203	0.000496	J q	0.010	0.000042	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-48	ND		0.010	0.00070	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-204	ND		0.010	0.000036	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-49	ND	C	0.020	0.00057	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-205	ND		0.010	0.00028	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-206	ND		0.010	0.0010	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-207	ND		0.010	0.00074	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-5	ND		0.010	0.0016	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-208	ND		0.010	0.00077	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-50	ND	C	0.020	0.00068	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-209	ND		0.010	0.00021	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-51	ND	C45	0.020	0.00074	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-52	ND		0.010	0.00070	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-53	ND	C50	0.020	0.00068	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-54	ND		0.010	0.000032	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-55	ND		0.010	0.00051	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-56	ND		0.010	0.00051	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-57	ND		0.010	0.00052	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-58	ND		0.010	0.00053	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-59	ND	C	0.030	0.00050	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-6	ND		0.010	0.0014	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-60	ND		0.010	0.00052	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-61	ND	C	0.040	0.00049	ng/g		10/19/18 12:00	10/27/18 04:21	1

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

Lab Sample ID: MB 140-24629/19-B
Matrix: Solid
Analysis Batch: 24861

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24629

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-62	ND	C59	0.030	0.00050	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-63	ND		0.010	0.00048	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-64	ND		0.010	0.00047	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-65	0.00911	J C44	0.030	0.00062	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-66	ND		0.010	0.00049	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-67	ND		0.010	0.00045	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-68	0.000779	J q	0.010	0.00046	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-69	ND	C49	0.020	0.00057	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-7	ND		0.010	0.0014	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-70	ND	C61	0.040	0.00049	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-71	ND	C40	0.030	0.00070	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-72	ND		0.010	0.00051	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-73	ND	C43	0.020	0.00066	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-74	ND	C61	0.040	0.00049	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-75	ND	C59	0.030	0.00050	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-76	ND	C61	0.040	0.00049	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-77	ND		0.010	0.00051	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-78	ND		0.010	0.00053	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-79	ND		0.010	0.00046	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-8	ND		0.020	0.0013	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-80	ND		0.010	0.00045	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-81	ND		0.010	0.00047	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-82	ND		0.010	0.00012	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-83	ND	C	0.020	0.00011	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-84	ND		0.010	0.00012	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-85	0.000912	J q C	0.030	0.000091	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-86	0.00270	J q C	0.060	0.000092	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-87	0.00270	J q C86	0.060	0.000092	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-88	0.000694	J q C	0.020	0.00011	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-89	ND		0.010	0.00012	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-9	ND		0.010	0.0014	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-90	0.00350	J C	0.030	0.000093	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-91	0.000694	J q C88	0.020	0.00011	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-92	0.000785	J	0.010	0.00011	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-93	0.000778	J q C	0.020	0.00011	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-94	ND		0.010	0.00012	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-95	0.00156	J q	0.010	0.00012	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-96	ND		0.010	0.000091	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-97	0.00270	J q C86	0.060	0.000092	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-98	ND	C	0.020	0.00010	ng/g		10/19/18 12:00	10/27/18 04:21	1
PCB-99	ND	C83	0.020	0.00011	ng/g		10/19/18 12:00	10/27/18 04:21	1
Total Monochlorobiphenyls	0.00250	J q	0.010	0.000071	ng/g		10/19/18 12:00	10/27/18 04:21	1
Total Dichlorobiphenyls	0.00243	J q	0.020	0.0014	ng/g		10/19/18 12:00	10/27/18 04:21	1
Total Trichlorobiphenyls	0.00419	J q	0.020	0.00018	ng/g		10/19/18 12:00	10/27/18 04:21	1
Total Tetrachlorobiphenyls	0.00989	J q	0.040	0.00055	ng/g		10/19/18 12:00	10/27/18 04:21	1
Total Pentachlorobiphenyls	0.0157	J q	0.060	0.00013	ng/g		10/19/18 12:00	10/27/18 04:21	1
Total Hexachlorobiphenyls	0.0187	J q	0.040	0.00013	ng/g		10/19/18 12:00	10/27/18 04:21	1
Total Heptachlorobiphenyls	0.0154	J q	0.020	0.00016	ng/g		10/19/18 12:00	10/27/18 04:21	1

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

Lab Sample ID: MB 140-24629/19-B
Matrix: Solid
Analysis Batch: 24861

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24629

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Octachlorobiphenyls	0.00239	J q	0.020	0.00012	ng/g		10/19/18 12:00	10/27/18 04:21	1
Polychlorinated biphenyls, Total	0.0712	q	0.060	0.00043	ng/g		10/19/18 12:00	10/27/18 04:21	1
Total Nonachlorobiphenyls	ND		0.010	0.0010	ng/g		10/19/18 12:00	10/27/18 04:21	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
PCB-1L	*61*		*30 - 140*	*10/19/18 12:00*	*10/27/18 04:21*	*1*
PCB-3L	*60*		*30 - 140*	*10/19/18 12:00*	*10/27/18 04:21*	*1*
PCB-4L	*76*		*30 - 140*	*10/19/18 12:00*	*10/27/18 04:21*	*1*
PCB-15L	*69*		*30 - 140*	*10/19/18 12:00*	*10/27/18 04:21*	*1*
PCB-19L	*82*		*30 - 140*	*10/19/18 12:00*	*10/27/18 04:21*	*1*
PCB-37L	*79*		*30 - 140*	*10/19/18 12:00*	*10/27/18 04:21*	*1*
PCB-54L	*71*		*30 - 140*	*10/19/18 12:00*	*10/27/18 04:21*	*1*
PCB-104L	*77*		*30 - 140*	*10/19/18 12:00*	*10/27/18 04:21*	*1*
PCB-105L	*87*		*30 - 140*	*10/19/18 12:00*	*10/27/18 04:21*	*1*
PCB-114L	*83*		*30 - 140*	*10/19/18 12:00*	*10/27/18 04:21*	*1*
PCB-118L	*84*		*30 - 140*	*10/19/18 12:00*	*10/27/18 04:21*	*1*
PCB-123L	*81*		*30 - 140*	*10/19/18 12:00*	*10/27/18 04:21*	*1*
PCB-126L	*80*		*30 - 140*	*10/19/18 12:00*	*10/27/18 04:21*	*1*
PCB-155L	*85*		*30 - 140*	*10/19/18 12:00*	*10/27/18 04:21*	*1*
PCB-156L	*82*	*C*	*30 - 140*	*10/19/18 12:00*	*10/27/18 04:21*	*1*
PCB-157L	*82*	*C156*	*30 - 140*	*10/19/18 12:00*	*10/27/18 04:21*	*1*
PCB-167L	*84*		*30 - 140*	*10/19/18 12:00*	*10/27/18 04:21*	*1*
PCB-169L	*90*		*30 - 140*	*10/19/18 12:00*	*10/27/18 04:21*	*1*
PCB-170L	*83*		*30 - 140*	*10/19/18 12:00*	*10/27/18 04:21*	*1*
PCB-188L	*83*		*30 - 140*	*10/19/18 12:00*	*10/27/18 04:21*	*1*
PCB-189L	*72*		*30 - 140*	*10/19/18 12:00*	*10/27/18 04:21*	*1*
PCB-202L	*103*		*30 - 140*	*10/19/18 12:00*	*10/27/18 04:21*	*1*
PCB-205L	*72*		*30 - 140*	*10/19/18 12:00*	*10/27/18 04:21*	*1*
PCB-206L	*86*		*30 - 140*	*10/19/18 12:00*	*10/27/18 04:21*	*1*
PCB-208L	*83*		*30 - 140*	*10/19/18 12:00*	*10/27/18 04:21*	*1*
PCB-209L	*92*		*30 - 140*	*10/19/18 12:00*	*10/27/18 04:21*	*1*
PCB-77L	*77*		*30 - 140*	*10/19/18 12:00*	*10/27/18 04:21*	*1*
PCB-81L	*76*		*30 - 140*	*10/19/18 12:00*	*10/27/18 04:21*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
PCB-28L	*88*		*40 - 125*	*10/19/18 12:00*	*10/27/18 04:21*	*1*
PCB-111L	*86*		*40 - 125*	*10/19/18 12:00*	*10/27/18 04:21*	*1*
PCB-178L	*93*		*40 - 125*	*10/19/18 12:00*	*10/27/18 04:21*	*1*

Lab Sample ID: LCS 140-24629/20-B
Matrix: Solid
Analysis Batch: 24861

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 24629

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1	0.500	0.440		ng/g		88	50 - 150
PCB-15	0.500	0.531		ng/g		106	50 - 150
PCB-104	0.500	0.546		ng/g		109	50 - 150
PCB-105	0.500	0.541		ng/g		108	50 - 150

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

Lab Sample ID: LCS 140-24629/20-B
Matrix: Solid
Analysis Batch: 24861

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 24629

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
PCB-114			0.500	0.586		ng/g		117	50 - 150		
PCB-118			0.500	0.574		ng/g		115	50 - 150		
PCB-123			0.500	0.618		ng/g		124	50 - 150		
PCB-126			0.500	0.590		ng/g		118	50 - 150		
PCB-19			0.500	0.606		ng/g		121	50 - 150		
PCB-155			0.500	0.558		ng/g		112	50 - 150		
PCB-156			1.00	1.11	C	ng/g		111	50 - 150		
PCB-157			1.00	1.11	C156	ng/g		111	50 - 150		
PCB-167			0.500	0.562		ng/g		112	50 - 150		
PCB-169			0.500	0.504		ng/g		101	50 - 150		
PCB-3			0.500	0.446		ng/g		89	50 - 150		
PCB-37			0.500	0.542		ng/g		108	50 - 150		
PCB-188			0.500	0.552		ng/g		110	50 - 150		
PCB-189			0.500	0.559		ng/g		112	50 - 150		
PCB-4			0.500	0.504		ng/g		101	50 - 150		
PCB-202			0.500	0.504		ng/g		101	50 - 150		
PCB-205			0.500	0.604		ng/g		121	50 - 150		
PCB-206			0.500	0.525		ng/g		105	50 - 150		
PCB-208			0.500	0.553		ng/g		111	50 - 150		
PCB-209			0.500	0.566		ng/g		113	50 - 150		
PCB-54			0.500	0.572		ng/g		114	50 - 150		
PCB-77			0.500	0.521		ng/g		104	50 - 150		
PCB-81			0.500	0.485		ng/g		97	50 - 150		

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
PCB-1L	*62*		*30 - 140*
PCB-3L	*61*		*30 - 140*
PCB-4L	*75*		*30 - 140*
PCB-15L	*71*		*30 - 140*
PCB-19L	*81*		*30 - 140*
PCB-37L	*80*		*30 - 140*
PCB-54L	*68*		*30 - 140*
PCB-104L	*75*		*30 - 140*
PCB-105L	*90*		*30 - 140*
PCB-114L	*84*		*30 - 140*
PCB-118L	*84*		*30 - 140*
PCB-123L	*82*		*30 - 140*
PCB-126L	*82*		*30 - 140*
PCB-155L	*83*		*30 - 140*
PCB-156L	*84*	*C*	*30 - 140*
PCB-157L	*84*	*C156*	*30 - 140*
PCB-167L	*84*		*30 - 140*
PCB-169L	*91*		*30 - 140*
PCB-170L	*83*		*30 - 140*
PCB-188L	*84*		*30 - 140*
PCB-189L	*75*		*30 - 140*
PCB-202L	*103*		*30 - 140*
PCB-205L	*72*		*30 - 140*

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

Lab Sample ID: LCS 140-24629/20-B
Matrix: Solid
Analysis Batch: 24861

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 24629

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
PCB-206L	87		30 - 140
PCB-208L	85		30 - 140
PCB-209L	92		30 - 140
PCB-77L	80		30 - 140
PCB-81L	80		30 - 140

Surrogate	LCS %Recovery	LCS Qualifier	Limits
PCB-28L	93		40 - 125
PCB-111L	88		40 - 125
PCB-178L	95		40 - 125

Lab Sample ID: LCSD 140-24629/21-B
Matrix: Solid
Analysis Batch: 24861

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 24629

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-1			0.500	0.426		ng/g		85	50 - 150	3	50
PCB-15			0.500	0.557		ng/g		111	50 - 150	5	50
PCB-104			0.500	0.545		ng/g		109	50 - 150	0	50
PCB-105			0.500	0.543		ng/g		109	50 - 150	0	50
PCB-114			0.500	0.579		ng/g		116	50 - 150	1	50
PCB-118			0.500	0.551		ng/g		110	50 - 150	4	50
PCB-123			0.500	0.599		ng/g		120	50 - 150	3	50
PCB-126			0.500	0.584		ng/g		117	50 - 150	1	50
PCB-19			0.500	0.561		ng/g		112	50 - 150	8	50
PCB-155			0.500	0.525		ng/g		105	50 - 150	6	50
PCB-156			1.00	1.09	C	ng/g		109	50 - 150	2	50
PCB-157			1.00	1.09	C156	ng/g		109	50 - 150	2	50
PCB-167			0.500	0.554		ng/g		111	50 - 150	1	50
PCB-169			0.500	0.494		ng/g		99	50 - 150	2	50
PCB-3			0.500	0.452		ng/g		90	50 - 150	1	50
PCB-37			0.500	0.521		ng/g		104	50 - 150	4	50
PCB-188			0.500	0.545		ng/g		109	50 - 150	1	50
PCB-189			0.500	0.554		ng/g		111	50 - 150	1	50
PCB-4			0.500	0.490		ng/g		98	50 - 150	3	50
PCB-202			0.500	0.499		ng/g		100	50 - 150	1	50
PCB-205			0.500	0.599		ng/g		120	50 - 150	1	50
PCB-206			0.500	0.512		ng/g		102	50 - 150	2	50
PCB-208			0.500	0.552		ng/g		110	50 - 150	0	50
PCB-209			0.500	0.567		ng/g		113	50 - 150	0	50
PCB-54			0.500	0.578		ng/g		116	50 - 150	1	50
PCB-77			0.500	0.523		ng/g		105	50 - 150	0	50
PCB-81			0.500	0.483		ng/g		97	50 - 150	0	50

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	Limits
PCB-1L	64		30 - 140
PCB-3L	60		30 - 140
PCB-4L	77		30 - 140

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

Lab Sample ID: LCSD 140-24629/21-B
Matrix: Solid
Analysis Batch: 24861

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 24629

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	Limits
PCB-15L	69		30 - 140
PCB-19L	84		30 - 140
PCB-37L	79		30 - 140
PCB-54L	66		30 - 140
PCB-104L	76		30 - 140
PCB-105L	93		30 - 140
PCB-114L	88		30 - 140
PCB-118L	87		30 - 140
PCB-123L	86		30 - 140
PCB-126L	86		30 - 140
PCB-155L	87		30 - 140
PCB-156L	86	C	30 - 140
PCB-157L	86	C156	30 - 140
PCB-167L	84		30 - 140
PCB-169L	91		30 - 140
PCB-170L	85		30 - 140
PCB-188L	85		30 - 140
PCB-189L	77		30 - 140
PCB-202L	105		30 - 140
PCB-205L	75		30 - 140
PCB-206L	91		30 - 140
PCB-208L	87		30 - 140
PCB-209L	95		30 - 140
PCB-77L	78		30 - 140
PCB-81L	78		30 - 140

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
PCB-28L	88		40 - 125
PCB-111L	87		40 - 125
PCB-178L	97		40 - 125

Lab Sample ID: MB 140-24630/3-A
Matrix: Water
Analysis Batch: 24803

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24630

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	ND		0.040	0.00018	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-10	ND		0.040	0.0020	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-11	0.0295	J	0.060	0.0018	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-12	0.00249	J C q	0.080	0.0018	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-13	0.00249	J C12 q	0.080	0.0018	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-14	ND		0.040	0.0015	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-15	0.00422	J q	0.040	0.0020	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-16	0.00212	J q	0.040	0.00038	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-100	ND	C93	0.080	0.00053	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-101	0.00554	J C90 q	0.12	0.00047	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-102	0.00132	J C98 q	0.080	0.00052	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-103	ND		0.040	0.00053	ng/L		10/19/18 08:04	10/25/18 14:16	1

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

Lab Sample ID: MB 140-24630/3-A
Matrix: Water
Analysis Batch: 24803

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24630

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-17	0.00596	J	0.040	0.00034	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-104	ND		0.040	0.00041	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-105	0.00307	J	0.040	0.00075	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-106	ND		0.040	0.00080	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-107	0.00212	J q	0.040	0.00086	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-108	0.00237	J C q	0.080	0.00082	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-109	0.00612	J C86 q	0.24	0.00046	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-110	0.00461	J C q	0.080	0.00039	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-111	0.00107	J	0.040	0.00038	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-112	ND		0.040	0.00040	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-113	0.00554	J C90 q	0.12	0.00047	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-114	ND		0.040	0.00078	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-115	0.00461	J C110 q	0.080	0.00039	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-116	0.00377	J C85 q	0.12	0.00046	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-117	0.00377	J C85 q	0.12	0.00046	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-18	0.00285	J C q	0.080	0.00030	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-118	0.00558	J q	0.040	0.00077	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-119	0.00612	J C86 q	0.24	0.00046	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-120	0.00216	J	0.040	0.00038	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-121	ND		0.040	0.00039	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-122	ND		0.040	0.00093	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-123	ND		0.040	0.00081	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-124	0.00237	J q C108	0.080	0.00082	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-125	0.00612	J C86 q	0.24	0.00046	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-126	0.00322	J	0.040	0.00081	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-127	0.00134	J q	0.040	0.00080	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-128	0.00406	J C	0.080	0.0015	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-129	0.00882	J C q	0.16	0.0015	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-130	ND		0.040	0.0020	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-131	ND		0.040	0.0021	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-132	ND		0.040	0.0020	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-133	ND		0.040	0.0019	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-19	0.00113	J q	0.040	0.00041	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-134	ND	C	0.080	0.0020	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-135	0.00508	J C	0.080	0.00043	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-136	0.000664	J q	0.040	0.00031	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-137	ND		0.040	0.0017	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-138	0.00882	J C129 q	0.16	0.0015	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-139	0.00212	J C q	0.080	0.0017	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-140	0.00212	J C139 q	0.080	0.0017	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-141	ND		0.040	0.0018	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-142	ND		0.040	0.0019	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-143	ND	C134	0.080	0.0020	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-144	0.00110	J q	0.040	0.00039	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-145	ND		0.040	0.00029	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-146	ND		0.040	0.0017	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-147	0.00443	J C	0.080	0.0019	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-2	0.00154	J q	0.040	0.00021	ng/L		10/19/18 08:04	10/25/18 14:16	1

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

Lab Sample ID: MB 140-24630/3-A
Matrix: Water
Analysis Batch: 24803

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24630

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-148	ND		0.040	0.00041	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-20	0.00707	J C q	0.080	0.00037	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-149	0.00443	J C147	0.080	0.0019	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-150	ND		0.040	0.00028	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-151	0.00508	J C135	0.080	0.00043	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-152	ND		0.040	0.00030	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-153	0.00637	J C	0.080	0.0013	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-154	0.00141	J	0.040	0.00033	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-155	0.00119	J q	0.040	0.00028	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-156	0.00510	J C	0.080	0.0017	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-157	0.00510	J C156	0.080	0.0017	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-158	0.00221	J	0.040	0.0012	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-159	ND		0.040	0.0013	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-160	0.00882	J C129 q	0.16	0.0015	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-161	ND		0.040	0.0013	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-162	0.00246	J	0.040	0.0013	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-163	0.00882	J C129 q	0.16	0.0015	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-164	0.00318	J q	0.040	0.0013	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-165	ND		0.040	0.0014	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-21	0.00720	J C	0.080	0.00037	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-166	0.00406	J C128	0.080	0.0015	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-167	ND		0.040	0.00097	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-22	0.00300	J	0.040	0.00038	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-168	0.00637	J C153	0.080	0.0013	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-23	ND		0.040	0.00038	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-169	0.00429	J	0.040	0.00093	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-24	ND		0.040	0.00028	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-170	0.00405	J	0.040	0.00084	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-25	0.00129	J q	0.040	0.00035	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-171	0.00451	J C	0.080	0.00086	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-26	0.00154	J C	0.080	0.00037	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-172	0.00326	J	0.040	0.00085	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-173	0.00451	J C171	0.080	0.00086	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-27	ND		0.040	0.00025	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-174	0.00363	J q	0.040	0.00080	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-28	0.00707	J C20 q	0.080	0.00037	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-175	0.00214	J q	0.040	0.00077	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-176	ND		0.040	0.00058	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-29	0.00154	J C26	0.080	0.00037	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-177	ND		0.040	0.00082	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-3	0.00211	J	0.040	0.00022	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-178	ND		0.040	0.00084	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-30	0.00285	J C18 q	0.080	0.00030	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-179	ND		0.040	0.00062	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-31	0.00526	J	0.040	0.00037	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-180	0.00636	J C q	0.080	0.00065	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-32	0.00184	J q	0.040	0.00024	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-181	0.00214	J	0.040	0.00077	ng/L		10/19/18 08:04	10/25/18 14:16	1

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

Lab Sample ID: MB 140-24630/3-A
Matrix: Water
Analysis Batch: 24803

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24630

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-33	0.00720	J C21	0.080	0.00037	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-182	ND		0.040	0.00074	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-34	ND		0.040	0.00040	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-183	0.00547	J C	0.080	0.00076	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-35	0.00115	J q	0.040	0.00038	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-184	ND		0.040	0.00063	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-36	ND		0.040	0.00037	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-185	0.00547	J C183	0.080	0.00076	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-37	0.00223	J q	0.040	0.00038	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-186	ND		0.040	0.00061	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-187	0.00346	J	0.040	0.00072	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-38	ND		0.040	0.00040	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-188	ND		0.040	0.00056	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-39	0.00116	J q	0.040	0.00036	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-189	0.00558	J	0.040	0.00089	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-190	0.00370	J	0.040	0.00056	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-4	0.00337	J q	0.060	0.0025	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-191	0.00264	J	0.040	0.00058	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-40	ND	C	0.12	0.0017	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-192	ND		0.040	0.00065	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-193	0.00636	J C180 q	0.080	0.00065	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-41	ND	C40	0.12	0.0017	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-194	0.00402	J q	0.040	0.0019	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-42	ND		0.040	0.0017	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-195	ND		0.040	0.0021	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-43	ND	C	0.080	0.0016	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-196	0.00374	J	0.040	0.00064	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-197	0.00143	J	0.040	0.00049	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-44	0.634	C	0.12	0.0015	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-198	0.00537	J C	0.080	0.00065	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-199	0.00537	J C198	0.080	0.00065	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-45	0.0892	C	0.080	0.0018	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-200	ND		0.040	0.00044	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-201	ND		0.040	0.00045	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-46	ND		0.040	0.0021	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-202	ND		0.040	0.00050	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-47	0.634	C44	0.12	0.0015	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-203	0.00280	J q	0.040	0.00058	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-48	ND		0.040	0.0017	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-204	ND		0.040	0.00049	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-49	0.00979	J C q	0.080	0.0014	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-205	0.00631	J	0.040	0.0016	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-206	ND		0.040	0.0031	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-207	ND		0.040	0.0023	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-5	ND		0.040	0.0020	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-208	ND		0.040	0.0025	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-50	ND	C	0.080	0.0016	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-209	0.00558	J	0.040	0.0020	ng/L		10/19/18 08:04	10/25/18 14:16	1

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

Lab Sample ID: MB 140-24630/3-A
Matrix: Water
Analysis Batch: 24803

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24630

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-51	0.0892	C45	0.080	0.0018	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-52	0.00283	J	0.040	0.0017	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-53	ND	C50	0.080	0.0016	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-54	ND		0.040	0.00018	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-55	ND		0.040	0.0012	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-56	ND		0.040	0.0012	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-57	ND		0.040	0.0012	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-58	ND		0.040	0.0013	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-59	0.00638	J C	0.12	0.0012	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-6	ND		0.040	0.0018	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-60	ND		0.040	0.0013	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-61	0.00854	J C	0.16	0.0012	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-62	0.00638	J C59	0.12	0.0012	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-63	ND		0.040	0.0011	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-64	ND		0.040	0.0011	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-65	0.634	C44	0.12	0.0015	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-66	0.00510	J	0.040	0.0012	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-67	ND		0.040	0.0011	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-68	0.0900		0.040	0.0011	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-69	0.00979	J C49 q	0.080	0.0014	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-7	ND		0.040	0.0018	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-70	0.00854	J C61	0.16	0.0012	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-71	ND	C40	0.12	0.0017	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-72	ND		0.040	0.0012	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-73	ND	C43	0.080	0.0016	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-74	0.00854	J C61	0.16	0.0012	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-75	0.00638	J C59	0.12	0.0012	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-76	0.00854	J C61	0.16	0.0012	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-77	ND		0.040	0.0012	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-78	ND		0.040	0.0013	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-79	ND		0.040	0.0011	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-8	0.00449	J q	0.060	0.0017	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-80	ND		0.040	0.0011	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-81	ND		0.040	0.0012	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-82	ND		0.040	0.00062	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-83	0.00496	J C q	0.080	0.00056	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-84	ND		0.040	0.00062	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-85	0.00377	J C q	0.12	0.00046	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-86	0.00612	J C q	0.24	0.00046	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-87	0.00612	J C86 q	0.24	0.00046	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-88	ND	C	0.080	0.00056	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-89	ND		0.040	0.00060	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-9	ND		0.040	0.0019	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-90	0.00554	J C q	0.12	0.00047	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-91	ND	C88	0.080	0.00056	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-92	ND		0.040	0.00053	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-93	ND	C	0.080	0.00053	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-94	ND		0.040	0.00060	ng/L		10/19/18 08:04	10/25/18 14:16	1

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

Lab Sample ID: MB 140-24630/3-A
Matrix: Water
Analysis Batch: 24803

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24630

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-95	0.00317	J q	0.040	0.00058	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-96	0.000878	J q	0.040	0.00046	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-97	0.00612	J C86 q	0.24	0.00046	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-98	0.00132	J C q	0.080	0.00052	ng/L		10/19/18 08:04	10/25/18 14:16	1
PCB-99	0.00496	J C83 q	0.080	0.00056	ng/L		10/19/18 08:04	10/25/18 14:16	1
Total Monochlorobiphenyls	0.00365	J q	0.040	0.00000020	ng/L		10/19/18 08:04	10/25/18 14:16	1
Total Dichlorobiphenyls	0.0441	J q	0.080	0.0000019	ng/L		10/19/18 08:04	10/25/18 14:16	1
Total Trichlorobiphenyls	0.0438	J q	0.080	0.00000035	ng/L		10/19/18 08:04	10/25/18 14:16	1
Total Tetrachlorobiphenyls	0.846	q	0.16	0.0000013	ng/L		10/19/18 08:04	10/25/18 14:16	1
Total Pentachlorobiphenyls	0.0513	J q	0.24	0.00000060	ng/L		10/19/18 08:04	10/25/18 14:16	1
Total Hexachlorobiphenyls	0.0525	J q	0.16	0.0000012	ng/L		10/19/18 08:04	10/25/18 14:16	1
Total Heptachlorobiphenyls	0.0469	J q	0.080	0.00000072	ng/L		10/19/18 08:04	10/25/18 14:16	1
Total Octachlorobiphenyls	0.0237	J q	0.080	0.00000089	ng/L		10/19/18 08:04	10/25/18 14:16	1
Polychlorinated biphenyls, Total	1.12	q	0.24	0.0000014	ng/L		10/19/18 08:04	10/25/18 14:16	1
Total Nonachlorobiphenyls	ND		0.040	0.0000031	ng/L		10/19/18 08:04	10/25/18 14:16	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
PCB-1L	*65*		*30 - 140*	*10/19/18 08:04*	*10/25/18 14:16*	*1*
PCB-3L	*65*		*30 - 140*	*10/19/18 08:04*	*10/25/18 14:16*	*1*
PCB-4L	*79*		*30 - 140*	*10/19/18 08:04*	*10/25/18 14:16*	*1*
PCB-15L	*78*		*30 - 140*	*10/19/18 08:04*	*10/25/18 14:16*	*1*
PCB-19L	*87*		*30 - 140*	*10/19/18 08:04*	*10/25/18 14:16*	*1*
PCB-37L	*88*		*30 - 140*	*10/19/18 08:04*	*10/25/18 14:16*	*1*
PCB-54L	*68*		*30 - 140*	*10/19/18 08:04*	*10/25/18 14:16*	*1*
PCB-104L	*73*		*30 - 140*	*10/19/18 08:04*	*10/25/18 14:16*	*1*
PCB-105L	*97*		*30 - 140*	*10/19/18 08:04*	*10/25/18 14:16*	*1*
PCB-114L	*90*		*30 - 140*	*10/19/18 08:04*	*10/25/18 14:16*	*1*
PCB-118L	*91*		*30 - 140*	*10/19/18 08:04*	*10/25/18 14:16*	*1*
PCB-123L	*89*		*30 - 140*	*10/19/18 08:04*	*10/25/18 14:16*	*1*
PCB-126L	*92*		*30 - 140*	*10/19/18 08:04*	*10/25/18 14:16*	*1*
PCB-155L	*83*		*30 - 140*	*10/19/18 08:04*	*10/25/18 14:16*	*1*
PCB-156L	*94*	*C*	*30 - 140*	*10/19/18 08:04*	*10/25/18 14:16*	*1*
PCB-157L	*94*	*C156*	*30 - 140*	*10/19/18 08:04*	*10/25/18 14:16*	*1*
PCB-167L	*93*		*30 - 140*	*10/19/18 08:04*	*10/25/18 14:16*	*1*
PCB-169L	*101*		*30 - 140*	*10/19/18 08:04*	*10/25/18 14:16*	*1*
PCB-170L	*89*		*30 - 140*	*10/19/18 08:04*	*10/25/18 14:16*	*1*
PCB-188L	*86*		*30 - 140*	*10/19/18 08:04*	*10/25/18 14:16*	*1*
PCB-189L	*85*		*30 - 140*	*10/19/18 08:04*	*10/25/18 14:16*	*1*
PCB-202L	*106*		*30 - 140*	*10/19/18 08:04*	*10/25/18 14:16*	*1*
PCB-205L	*79*		*30 - 140*	*10/19/18 08:04*	*10/25/18 14:16*	*1*
PCB-206L	*94*		*30 - 140*	*10/19/18 08:04*	*10/25/18 14:16*	*1*
PCB-208L	*91*		*30 - 140*	*10/19/18 08:04*	*10/25/18 14:16*	*1*
PCB-209L	*93*		*30 - 140*	*10/19/18 08:04*	*10/25/18 14:16*	*1*
PCB-77L	*90*		*30 - 140*	*10/19/18 08:04*	*10/25/18 14:16*	*1*

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

Lab Sample ID: MB 140-24630/3-A
Matrix: Water
Analysis Batch: 24803

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24630

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-81L	86		30 - 140	10/19/18 08:04	10/25/18 14:16	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	102		40 - 125	10/19/18 08:04	10/25/18 14:16	1
PCB-111L	99		40 - 125	10/19/18 08:04	10/25/18 14:16	1
PCB-178L	105		40 - 125	10/19/18 08:04	10/25/18 14:16	1

Lab Sample ID: LCS 140-24630/4-A
Matrix: Water
Analysis Batch: 24803

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 24630

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1	1.00	0.874		ng/L		87	50 - 150
PCB-15	1.00	1.01		ng/L		101	50 - 150
PCB-104	1.00	1.19		ng/L		119	50 - 150
PCB-105	1.00	1.01		ng/L		101	50 - 150
PCB-114	1.00	1.09		ng/L		109	50 - 150
PCB-118	1.00	1.06		ng/L		106	50 - 150
PCB-123	1.00	1.06		ng/L		106	50 - 150
PCB-126	1.00	1.05		ng/L		105	50 - 150
PCB-19	1.00	1.18		ng/L		118	50 - 150
PCB-155	1.00	1.17		ng/L		117	50 - 150
PCB-156	2.00	2.04	C	ng/L		102	50 - 150
PCB-157	2.00	2.04	C156	ng/L		102	50 - 150
PCB-167	1.00	1.03		ng/L		103	50 - 150
PCB-169	1.00	0.936		ng/L		94	50 - 150
PCB-3	1.00	0.886		ng/L		89	50 - 150
PCB-37	1.00	1.01		ng/L		101	50 - 150
PCB-188	1.00	1.10		ng/L		110	50 - 150
PCB-189	1.00	0.989		ng/L		99	50 - 150
PCB-4	1.00	0.970		ng/L		97	50 - 150
PCB-202	1.00	0.937		ng/L		94	50 - 150
PCB-205	1.00	1.12		ng/L		112	50 - 150
PCB-206	1.00	0.939		ng/L		94	50 - 150
PCB-208	1.00	0.984		ng/L		98	50 - 150
PCB-209	1.00	0.987		ng/L		99	50 - 150
PCB-54	1.00	1.22		ng/L		122	50 - 150
PCB-77	1.00	0.974		ng/L		97	50 - 150
PCB-81	1.00	0.925		ng/L		92	50 - 150

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
PCB-1L	61		30 - 140
PCB-3L	61		30 - 140
PCB-4L	74		30 - 140
PCB-15L	73		30 - 140
PCB-19L	78		30 - 140
PCB-37L	85		30 - 140
PCB-54L	60		30 - 140

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

Lab Sample ID: LCS 140-24630/4-A
Matrix: Water
Analysis Batch: 24803

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 24630

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
PCB-104L	63		30 - 140
PCB-105L	90		30 - 140
PCB-114L	86		30 - 140
PCB-118L	85		30 - 140
PCB-123L	82		30 - 140
PCB-126L	87		30 - 140
PCB-155L	69		30 - 140
PCB-156L	90	C	30 - 140
PCB-157L	90	C156	30 - 140
PCB-167L	90		30 - 140
PCB-169L	96		30 - 140
PCB-170L	86		30 - 140
PCB-188L	77		30 - 140
PCB-189L	80		30 - 140
PCB-202L	102		30 - 140
PCB-205L	76		30 - 140
PCB-206L	90		30 - 140
PCB-208L	88		30 - 140
PCB-209L	92		30 - 140
PCB-77L	86		30 - 140
PCB-81L	84		30 - 140

Surrogate	LCS %Recovery	LCS Qualifier	Limits
PCB-28L	98		40 - 125
PCB-111L	98		40 - 125
PCB-178L	104		40 - 125

Lab Sample ID: MB 140-24993/3-B
Matrix: Solid
Analysis Batch: 25293

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24993

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	ND		0.010	0.000085	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-10	ND		0.010	0.00075	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-11	0.00300	J	0.020	0.00066	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-12	ND	C	0.020	0.00068	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-13	ND	C12	0.020	0.00068	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-14	ND		0.010	0.00058	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-15	ND		0.010	0.00077	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-16	0.000384	J q	0.010	0.000039	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-100	ND	C93	0.020	0.000068	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-101	0.00172	J C90 q	0.030	0.000059	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-102	ND	C98	0.020	0.000066	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-103	ND		0.010	0.000068	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-17	ND		0.010	0.000035	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-104	ND		0.010	0.000052	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-105	0.000535	J q	0.010	0.000068	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-106	ND		0.010	0.000072	ng/g		11/01/18 10:35	11/12/18 02:41	1

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

Lab Sample ID: MB 140-24993/3-B
Matrix: Solid
Analysis Batch: 25293

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24993

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-107	ND		0.010	0.000077	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-108	ND	C	0.020	0.000074	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-109	0.00121	J C86 q	0.060	0.000058	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-110	0.00240	J C q	0.020	0.000049	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-111	0.000379	J	0.010	0.000048	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-112	ND		0.010	0.000050	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-113	0.00172	J C90 q	0.030	0.000059	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-114	0.000123	J q	0.010	0.000065	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-115	0.00240	J C110 q	0.020	0.000049	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-116	0.000387	J C85 q	0.030	0.000058	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-117	0.000387	J C85 q	0.030	0.000058	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-18	0.000854	J C q	0.020	0.000031	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-118	0.00127	J q	0.010	0.000068	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-119	0.00121	J C86 q	0.060	0.000058	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-120	ND		0.010	0.000049	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-121	ND		0.010	0.000050	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-122	ND		0.010	0.000083	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-123	0.000200	J q	0.010	0.000074	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-124	ND	C108	0.020	0.000074	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-125	0.00121	J C86 q	0.060	0.000058	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-126	ND		0.010	0.000077	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-127	ND		0.010	0.000072	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-128	ND	C	0.020	0.00027	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-129	0.00269	J C q	0.040	0.00028	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-130	ND		0.010	0.00036	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-131	ND		0.010	0.00038	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-132	0.000770	J q	0.010	0.00036	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-133	ND		0.010	0.00034	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-19	ND		0.010	0.000043	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-134	ND	C	0.020	0.00036	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-135	0.000693	J C q	0.020	0.000023	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-136	0.000597	J q	0.010	0.000017	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-137	ND		0.010	0.00031	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-138	0.00269	J C129 q	0.040	0.00028	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-139	ND	C	0.020	0.00031	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-140	ND	C139	0.020	0.00031	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-141	0.000894	J	0.010	0.00032	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-142	ND		0.010	0.00034	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-143	ND	C134	0.020	0.00036	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-144	ND		0.010	0.000021	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-145	ND		0.010	0.000016	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-146	0.000367	J q	0.010	0.00030	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-147	0.00177	J C q	0.020	0.00035	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-2	0.000526	J q	0.010	0.00010	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-148	ND		0.010	0.000022	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-20	0.000833	J C	0.020	0.000084	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-149	0.00177	J C147 q	0.020	0.00035	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-150	ND		0.010	0.000015	ng/g		11/01/18 10:35	11/12/18 02:41	1

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

Lab Sample ID: MB 140-24993/3-B
Matrix: Solid
Analysis Batch: 25293

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24993

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-151	0.000693	J C135 q	0.020	0.000023	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-152	ND		0.010	0.000016	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-153	0.00242	J C	0.020	0.00024	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-154	ND		0.010	0.000018	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-155	ND		0.010	0.000015	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-156	ND	C	0.020	0.00031	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-157	ND	C156	0.020	0.00031	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-158	ND		0.010	0.00022	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-159	ND		0.010	0.00023	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-160	0.00269	J C129 q	0.040	0.00028	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-161	ND		0.010	0.00023	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-162	ND		0.010	0.00023	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-163	0.00269	J C129 q	0.040	0.00028	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-164	ND		0.010	0.00024	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-165	ND		0.010	0.00026	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-21	0.000483	J C q	0.020	0.000082	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-166	ND	C128	0.020	0.00027	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-167	ND		0.010	0.00017	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-22	0.000235	J q	0.010	0.000086	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-168	0.00242	J C153	0.020	0.00024	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-23	ND		0.010	0.000085	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-169	ND		0.010	0.00017	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-24	ND		0.010	0.000029	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-170	0.000988	J q	0.010	0.000055	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-25	ND		0.010	0.000078	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-171	ND	C	0.020	0.000053	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-26	0.000254	J C q	0.020	0.000083	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-172	ND		0.010	0.000053	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-173	ND	C171	0.020	0.000053	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-27	ND		0.010	0.000026	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-174	0.000304	J q	0.010	0.000049	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-28	0.000833	J C20	0.020	0.000084	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-175	ND		0.010	0.000048	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-176	ND		0.010	0.000036	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-29	0.000254	J C26 q	0.020	0.000083	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-177	ND		0.010	0.000051	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-3	0.000498	J q	0.010	0.00012	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-178	ND		0.010	0.000052	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-30	0.000854	J C18 q	0.020	0.000031	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-179	0.000323	J q	0.010	0.000038	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-31	0.000507	J	0.020	0.000082	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-180	0.00186	J C q	0.020	0.000040	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-32	0.000248	J q	0.010	0.000024	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-181	ND		0.010	0.000048	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-33	0.000483	J C21 q	0.020	0.000082	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-182	ND		0.010	0.000046	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-34	ND		0.010	0.000089	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-183	0.000688	J C q	0.020	0.000047	ng/g		11/01/18 10:35	11/12/18 02:41	1

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

Lab Sample ID: MB 140-24993/3-B
Matrix: Solid
Analysis Batch: 25293

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24993

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-35	ND		0.010	0.000086	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-184	ND		0.010	0.000039	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-36	ND		0.010	0.000083	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-185	0.000688	J C183 q	0.020	0.000047	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-37	0.000276	J q	0.010	0.000086	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-186	ND		0.010	0.000038	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-187	0.000901	J	0.010	0.000044	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-38	ND		0.010	0.000089	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-188	ND		0.010	0.000034	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-39	ND		0.010	0.000080	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-189	ND		0.010	0.000064	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-190	ND		0.010	0.000035	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-4	ND		0.020	0.00087	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-191	ND		0.010	0.000036	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-40	0.000543	J C q	0.030	0.00026	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-192	ND		0.010	0.000040	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-193	0.00186	J C180 q	0.020	0.000040	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-41	0.000543	J q C40	0.030	0.00026	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-194	0.000578	J q	0.010	0.000018	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-42	ND		0.010	0.00026	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-195	ND		0.010	0.000020	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-43	ND	C	0.020	0.00025	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-196	ND		0.010	0.000014	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-197	ND		0.010	0.000011	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-44	0.00234	J C q	0.030	0.00023	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-198	0.000467	J C	0.020	0.000014	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-199	0.000467	J C198	0.020	0.000014	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-45	0.00101	J C	0.020	0.00027	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-200	ND		0.010	0.0000094	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-201	ND		0.010	0.0000096	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-46	ND		0.010	0.00033	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-202	ND		0.010	0.000011	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-47	0.00234	J C44 q	0.030	0.00023	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-203	ND		0.010	0.000012	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-48	ND		0.010	0.00026	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-204	ND		0.010	0.000011	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-49	0.000509	J C q	0.020	0.00021	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-205	ND		0.010	0.000015	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-206	ND		0.010	0.00040	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-207	ND		0.010	0.00029	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-5	ND		0.010	0.00076	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-208	ND		0.010	0.00030	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-50	ND	C	0.020	0.00025	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-209	0.000503	J q	0.010	0.000014	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-51	0.00101	J C45	0.020	0.00027	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-52	0.00200	J	0.010	0.00026	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-53	ND	C50	0.020	0.00025	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-54	ND		0.010	0.000027	ng/g		11/01/18 10:35	11/12/18 02:41	1

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

Lab Sample ID: MB 140-24993/3-B
Matrix: Solid
Analysis Batch: 25293

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24993

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-55	ND		0.010	0.00019	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-56	0.000535	J	0.010	0.00019	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-57	ND		0.010	0.00019	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-58	ND		0.010	0.00020	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-59	ND	C	0.030	0.00018	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-6	ND		0.010	0.00067	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-60	0.000453	J q	0.010	0.00019	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-61	0.000974	J C q	0.040	0.00018	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-62	ND	C59	0.030	0.00018	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-63	ND		0.010	0.00018	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-64	0.000389	J q	0.010	0.00017	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-65	0.00234	J C44 q	0.030	0.00023	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-66	0.000751	J q	0.010	0.00018	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-67	ND		0.010	0.00017	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-68	ND		0.010	0.00017	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-69	0.000509	J C49 q	0.020	0.00021	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-7	ND		0.010	0.00069	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-70	0.000974	J C61 q	0.040	0.00018	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-71	0.000543	J q C40	0.030	0.00026	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-72	ND		0.010	0.00019	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-73	ND	C43	0.020	0.00025	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-74	0.000974	J C61 q	0.040	0.00018	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-75	ND	C59	0.030	0.00018	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-76	0.000974	J C61 q	0.040	0.00018	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-77	0.000492	J q	0.010	0.00019	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-78	ND		0.010	0.00020	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-79	ND		0.010	0.00017	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-8	ND		0.020	0.00062	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-80	ND		0.010	0.00017	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-81	ND		0.010	0.00018	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-82	ND		0.010	0.000078	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-83	0.000861	J C q	0.020	0.000072	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-84	0.000553	J q	0.010	0.000079	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-85	0.000387	J C q	0.030	0.000058	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-86	0.00121	J C q	0.060	0.000058	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-87	0.00121	J C86 q	0.060	0.000058	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-88	ND	C	0.020	0.000071	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-89	ND		0.010	0.000077	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-9	ND		0.010	0.00071	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-90	0.00172	J C q	0.030	0.000059	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-91	ND	C88	0.020	0.000071	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-92	0.000301	J q	0.010	0.000067	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-93	ND	C	0.020	0.000068	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-94	ND		0.010	0.000077	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-95	0.00127	J q	0.010	0.000074	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-96	ND		0.010	0.000058	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-97	0.00121	J C86 q	0.060	0.000058	ng/g		11/01/18 10:35	11/12/18 02:41	1
PCB-98	ND	C	0.020	0.000066	ng/g		11/01/18 10:35	11/12/18 02:41	1

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

Lab Sample ID: MB 140-24993/3-B
Matrix: Solid
Analysis Batch: 25293

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24993

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-99	0.000861	J C83 q	0.020	0.000072	ng/g		11/01/18 10:35	11/12/18 02:41	1
Total Monochlorobiphenyls	0.00102	J q	0.010	0.00010	ng/g		11/01/18 10:35	11/12/18 02:41	1
Total Dichlorobiphenyls	0.00300	J q	0.020	0.00070	ng/g		11/01/18 10:35	11/12/18 02:41	1
Total Trichlorobiphenyls	0.00407	J q	0.020	0.000066	ng/g		11/01/18 10:35	11/12/18 02:41	1
Total Tetrachlorobiphenyls	0.0100	J q	0.040	0.00020	ng/g		11/01/18 10:35	11/12/18 02:41	1
Total Pentachlorobiphenyls	0.0112	J q	0.060	0.000066	ng/g		11/01/18 10:35	11/12/18 02:41	1
Total Hexachlorobiphenyls	0.0102	J q	0.040	0.00021	ng/g		11/01/18 10:35	11/12/18 02:41	1
Total Heptachlorobiphenyls	0.00506	J q	0.020	0.000045	ng/g		11/01/18 10:35	11/12/18 02:41	1
Total Octachlorobiphenyls	0.00105	J q	0.020	0.000013	ng/g		11/01/18 10:35	11/12/18 02:41	1
Polychlorinated biphenyls, Total	0.0461	J q	0.060	0.00019	ng/g		11/01/18 10:35	11/12/18 02:41	1
Total Nonachlorobiphenyls	ND		0.010	0.00040	ng/g		11/01/18 10:35	11/12/18 02:41	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
PCB-1L	*68*		*30 - 140*	*11/01/18 10:35*	*11/12/18 02:41*	*1*
PCB-3L	*66*		*30 - 140*	*11/01/18 10:35*	*11/12/18 02:41*	*1*
PCB-4L	*82*		*30 - 140*	*11/01/18 10:35*	*11/12/18 02:41*	*1*
PCB-15L	*77*		*30 - 140*	*11/01/18 10:35*	*11/12/18 02:41*	*1*
PCB-19L	*87*		*30 - 140*	*11/01/18 10:35*	*11/12/18 02:41*	*1*
PCB-37L	*82*		*30 - 140*	*11/01/18 10:35*	*11/12/18 02:41*	*1*
PCB-54L	*62*		*30 - 140*	*11/01/18 10:35*	*11/12/18 02:41*	*1*
PCB-104L	*80*		*30 - 140*	*11/01/18 10:35*	*11/12/18 02:41*	*1*
PCB-105L	*93*		*30 - 140*	*11/01/18 10:35*	*11/12/18 02:41*	*1*
PCB-114L	*88*		*30 - 140*	*11/01/18 10:35*	*11/12/18 02:41*	*1*
PCB-118L	*86*		*30 - 140*	*11/01/18 10:35*	*11/12/18 02:41*	*1*
PCB-123L	*84*		*30 - 140*	*11/01/18 10:35*	*11/12/18 02:41*	*1*
PCB-126L	*85*		*30 - 140*	*11/01/18 10:35*	*11/12/18 02:41*	*1*
PCB-155L	*84*		*30 - 140*	*11/01/18 10:35*	*11/12/18 02:41*	*1*
PCB-156L	*84*	*C*	*30 - 140*	*11/01/18 10:35*	*11/12/18 02:41*	*1*
PCB-157L	*84*	*C156*	*30 - 140*	*11/01/18 10:35*	*11/12/18 02:41*	*1*
PCB-167L	*87*		*30 - 140*	*11/01/18 10:35*	*11/12/18 02:41*	*1*
PCB-169L	*91*		*30 - 140*	*11/01/18 10:35*	*11/12/18 02:41*	*1*
PCB-170L	*84*		*30 - 140*	*11/01/18 10:35*	*11/12/18 02:41*	*1*
PCB-188L	*87*		*30 - 140*	*11/01/18 10:35*	*11/12/18 02:41*	*1*
PCB-189L	*76*		*30 - 140*	*11/01/18 10:35*	*11/12/18 02:41*	*1*
PCB-202L	*102*		*30 - 140*	*11/01/18 10:35*	*11/12/18 02:41*	*1*
PCB-205L	*73*		*30 - 140*	*11/01/18 10:35*	*11/12/18 02:41*	*1*
PCB-206L	*86*		*30 - 140*	*11/01/18 10:35*	*11/12/18 02:41*	*1*
PCB-208L	*85*		*30 - 140*	*11/01/18 10:35*	*11/12/18 02:41*	*1*
PCB-209L	*89*		*30 - 140*	*11/01/18 10:35*	*11/12/18 02:41*	*1*
PCB-77L	*78*		*30 - 140*	*11/01/18 10:35*	*11/12/18 02:41*	*1*
PCB-81L	*77*		*30 - 140*	*11/01/18 10:35*	*11/12/18 02:41*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
PCB-28L	*92*		*40 - 125*	*11/01/18 10:35*	*11/12/18 02:41*	*1*
PCB-111L	*89*		*40 - 125*	*11/01/18 10:35*	*11/12/18 02:41*	*1*
PCB-178L	*97*		*40 - 125*	*11/01/18 10:35*	*11/12/18 02:41*	*1*

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

Lab Sample ID: LCS 140-24993/4-B
Matrix: Solid
Analysis Batch: 25293

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 24993

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1	0.500	0.403		ng/g		81	50 - 150
PCB-15	0.500	0.501		ng/g		100	50 - 150
PCB-104	0.500	0.528		ng/g		106	50 - 150
PCB-105	0.500	0.501		ng/g		100	50 - 150
PCB-114	0.500	0.543		ng/g		109	50 - 150
PCB-118	0.500	0.511		ng/g		102	50 - 150
PCB-123	0.500	0.575		ng/g		115	50 - 150
PCB-126	0.500	0.547		ng/g		109	50 - 150
PCB-19	0.500	0.567		ng/g		113	50 - 150
PCB-155	0.500	0.494		ng/g		99	50 - 150
PCB-156	1.00	1.02	C	ng/g		102	50 - 150
PCB-157	1.00	1.02	C156	ng/g		102	50 - 150
PCB-167	0.500	0.516		ng/g		103	50 - 150
PCB-169	0.500	0.453		ng/g		91	50 - 150
PCB-3	0.500	0.402		ng/g		80	50 - 150
PCB-37	0.500	0.495		ng/g		99	50 - 150
PCB-188	0.500	0.506		ng/g		101	50 - 150
PCB-189	0.500	0.513		ng/g		103	50 - 150
PCB-4	0.500	0.446		ng/g		89	50 - 150
PCB-202	0.500	0.458		ng/g		92	50 - 150
PCB-205	0.500	0.575		ng/g		115	50 - 150
PCB-206	0.500	0.474		ng/g		95	50 - 150
PCB-208	0.500	0.517		ng/g		103	50 - 150
PCB-209	0.500	0.527		ng/g		105	50 - 150
PCB-54	0.500	0.554		ng/g		111	50 - 150
PCB-77	0.500	0.470		ng/g		94	50 - 150
PCB-81	0.500	0.466		ng/g		93	50 - 150

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
PCB-1L	*66*		*30 - 140*
PCB-3L	*64*		*30 - 140*
PCB-4L	*79*		*30 - 140*
PCB-15L	*72*		*30 - 140*
PCB-19L	*81*		*30 - 140*
PCB-37L	*79*		*30 - 140*
PCB-54L	*59*		*30 - 140*
PCB-104L	*77*		*30 - 140*
PCB-105L	*89*		*30 - 140*
PCB-114L	*85*		*30 - 140*
PCB-118L	*83*		*30 - 140*
PCB-123L	*82*		*30 - 140*
PCB-126L	*81*		*30 - 140*
PCB-155L	*81*		*30 - 140*
PCB-156L	*82*	*C*	*30 - 140*
PCB-157L	*82*	*C156*	*30 - 140*
PCB-167L	*81*		*30 - 140*
PCB-169L	*88*		*30 - 140*
PCB-170L	*80*		*30 - 140*

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

Lab Sample ID: LCS 140-24993/4-B
Matrix: Solid
Analysis Batch: 25293

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 24993

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
PCB-188L	85		30 - 140
PCB-189L	74		30 - 140
PCB-202L	99		30 - 140
PCB-205L	71		30 - 140
PCB-206L	85		30 - 140
PCB-208L	83		30 - 140
PCB-209L	87		30 - 140
PCB-77L	75		30 - 140
PCB-81L	75		30 - 140

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

Lab Sample ID: LCSD 140-24993/5-B
Matrix: Solid
Analysis Batch: 25293

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 24993

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-1			0.500	0.398		ng/g		80	50 - 150	1	50
PCB-15			0.500	0.502		ng/g		100	50 - 150	0	50
PCB-104			0.500	0.521		ng/g		104	50 - 150	1	50
PCB-105			0.500	0.508		ng/g		102	50 - 150	1	50
PCB-114			0.500	0.543		ng/g		109	50 - 150	0	50
PCB-118			0.500	0.522		ng/g		104	50 - 150	2	50
PCB-123			0.500	0.566		ng/g		113	50 - 150	2	50
PCB-126			0.500	0.527		ng/g		105	50 - 150	4	50
PCB-19			0.500	0.558		ng/g		112	50 - 150	1	50
PCB-155			0.500	0.520		ng/g		104	50 - 150	5	50
PCB-156			1.00	1.02	C	ng/g		102	50 - 150	0	50
PCB-157			1.00	1.02	C156	ng/g		102	50 - 150	0	50
PCB-167			0.500	0.523		ng/g		105	50 - 150	1	50
PCB-169			0.500	0.456		ng/g		91	50 - 150	1	50
PCB-3			0.500	0.413		ng/g		83	50 - 150	3	50
PCB-37			0.500	0.498		ng/g		100	50 - 150	1	50
PCB-188			0.500	0.502		ng/g		100	50 - 150	1	50
PCB-189			0.500	0.531		ng/g		106	50 - 150	3	50
PCB-4			0.500	0.459		ng/g		92	50 - 150	3	50
PCB-202			0.500	0.457		ng/g		91	50 - 150	0	50
PCB-205			0.500	0.558		ng/g		112	50 - 150	3	50
PCB-206			0.500	0.486		ng/g		97	50 - 150	2	50
PCB-208			0.500	0.503		ng/g		101	50 - 150	3	50
PCB-209			0.500	0.505		ng/g		101	50 - 150	4	50
PCB-54			0.500	0.577		ng/g		115	50 - 150	4	50
PCB-77			0.500	0.471		ng/g		94	50 - 150	0	50
PCB-81			0.500	0.463		ng/g		93	50 - 150	1	50

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	Limits
PCB-1L	67		30 - 140
PCB-3L	63		30 - 140
PCB-4L	78		30 - 140
PCB-15L	71		30 - 140
PCB-19L	85		30 - 140
PCB-37L	80		30 - 140
PCB-54L	59		30 - 140
PCB-104L	78		30 - 140
PCB-105L	90		30 - 140
PCB-114L	85		30 - 140
PCB-118L	86		30 - 140
PCB-123L	84		30 - 140
PCB-126L	82		30 - 140
PCB-155L	79		30 - 140
PCB-156L	82	C	30 - 140
PCB-157L	82	C156	30 - 140
PCB-167L	82		30 - 140
PCB-169L	88		30 - 140
PCB-170L	79		30 - 140
PCB-188L	86		30 - 140
PCB-189L	73		30 - 140
PCB-202L	98		30 - 140
PCB-205L	73		30 - 140
PCB-206L	85		30 - 140
PCB-208L	83		30 - 140
PCB-209L	87		30 - 140
PCB-77L	77		30 - 140
PCB-81L	76		30 - 140

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
PCB-28L	87		40 - 125
PCB-111L	86		40 - 125
PCB-178L	95		40 - 125

Lab Sample ID: MB 140-25210/3-B
Matrix: Solid
Analysis Batch: 25340

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 25210

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	ND		0.010	0.000098	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-10	ND		0.010	0.0017	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-11	0.00243	J q	0.020	0.0015	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-12	ND	C	0.020	0.0016	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-13	ND	C12	0.020	0.0016	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-14	ND		0.010	0.0013	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-15	ND		0.010	0.0018	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-16	ND		0.010	0.00019	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-100	ND	C93	0.020	0.00013	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-101	0.00120	J C90	0.030	0.00012	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-102	ND	C98	0.020	0.00013	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-103	ND		0.010	0.00013	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-17	ND		0.010	0.00017	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-104	ND		0.010	0.00010	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-105	ND		0.010	0.00030	ng/g		11/08/18 10:39	11/13/18 15:02	1

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

Lab Sample ID: MB 140-25210/3-B
Matrix: Solid
Analysis Batch: 25340

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 25210

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-106	ND		0.010	0.00033	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-107	ND		0.010	0.00035	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-108	ND	C	0.020	0.00033	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-109	0.00132	J C86	0.060	0.00011	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-110	0.00129	J C q	0.020	0.000096	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-111	ND		0.010	0.000093	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-112	ND		0.010	0.000098	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-113	0.00120	J C90	0.030	0.00012	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-114	ND		0.010	0.00030	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-115	0.00129	J C110 q	0.020	0.000096	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-116	ND	C85	0.030	0.00011	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-117	ND	C85	0.030	0.00011	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-18	ND	C	0.020	0.00015	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-118	ND		0.010	0.00030	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-119	0.00132	J C86	0.060	0.00011	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-120	ND		0.010	0.000094	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-121	ND		0.010	0.000097	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-122	ND		0.010	0.00038	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-123	ND		0.010	0.00033	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-124	ND	C108	0.020	0.00033	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-125	0.00132	J C86	0.060	0.00011	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-126	ND		0.010	0.00036	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-127	ND		0.010	0.00032	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-128	ND	C	0.020	0.00040	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-129	0.00150	J C	0.040	0.00042	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-130	ND		0.010	0.00055	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-131	ND		0.010	0.00057	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-132	ND		0.010	0.00054	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-133	ND		0.010	0.00052	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-19	ND		0.010	0.00020	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-134	ND	C	0.020	0.00054	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-135	ND	C	0.020	0.000086	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-136	ND		0.010	0.000062	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-137	ND		0.010	0.00047	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-138	0.00150	J C129	0.040	0.00042	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-139	ND	C	0.020	0.00046	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-140	ND	C139	0.020	0.00046	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-141	ND		0.010	0.00049	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-142	ND		0.010	0.00052	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-143	ND	C134	0.020	0.00054	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-144	ND		0.010	0.000078	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-145	ND		0.010	0.000059	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-146	ND		0.010	0.00046	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-147	ND	C	0.020	0.00052	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-2	ND		0.010	0.00011	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-148	ND		0.010	0.000083	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-20	0.000908	J C q	0.020	0.00024	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-149	ND	C147	0.020	0.00052	ng/g		11/08/18 10:39	11/13/18 15:02	1

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

Lab Sample ID: MB 140-25210/3-B
Matrix: Solid
Analysis Batch: 25340

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 25210

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-150	ND		0.010	0.000056	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-151	ND	C135	0.020	0.000086	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-152	ND		0.010	0.000061	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-153	ND	C	0.020	0.00036	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-154	ND		0.010	0.000067	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-155	ND		0.010	0.000056	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-156	ND	C	0.020	0.00047	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-157	ND	C156	0.020	0.00047	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-158	ND		0.010	0.00033	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-159	ND		0.010	0.00035	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-160	0.00150	J C129	0.040	0.00042	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-161	ND		0.010	0.00034	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-162	ND		0.010	0.00034	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-163	0.00150	J C129	0.040	0.00042	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-164	ND		0.010	0.00037	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-165	ND		0.010	0.00039	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-21	0.000454	J C q	0.020	0.00023	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-166	ND	C128	0.020	0.00040	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-167	ND		0.010	0.00025	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-22	ND		0.010	0.00024	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-168	ND	C153	0.020	0.00036	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-23	ND		0.010	0.00024	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-169	ND		0.010	0.00026	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-24	ND		0.010	0.00014	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-170	0.000359	J q	0.010	0.00022	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-25	ND		0.010	0.00022	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-171	ND	C	0.020	0.00022	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-26	ND	C	0.020	0.00023	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-172	ND		0.010	0.00022	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-173	ND	C171	0.020	0.00022	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-27	ND		0.010	0.00012	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-174	ND		0.010	0.00020	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-28	0.000908	J C20 q	0.020	0.00024	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-175	ND		0.010	0.00020	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-176	ND		0.010	0.00015	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-29	ND	C26	0.020	0.00023	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-177	ND		0.010	0.00021	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-3	ND		0.010	0.00012	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-178	ND		0.010	0.00021	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-30	ND	C18	0.020	0.00015	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-179	0.000200	J q	0.010	0.00016	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-31	0.000405	J q	0.020	0.00023	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-180	0.000833	J C q	0.020	0.00016	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-32	0.000279	J q	0.010	0.00012	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-181	ND		0.010	0.00020	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-33	0.000454	J C21 q	0.020	0.00023	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-182	ND		0.010	0.00019	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-34	ND		0.010	0.00025	ng/g		11/08/18 10:39	11/13/18 15:02	1

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

Lab Sample ID: MB 140-25210/3-B
Matrix: Solid
Analysis Batch: 25340

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 25210

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-183	0.000824	J C q	0.020	0.00019	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-35	ND		0.010	0.00024	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-184	ND		0.010	0.00016	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-36	ND		0.010	0.00023	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-185	0.000824	J C183 q	0.020	0.00019	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-37	ND		0.010	0.00024	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-186	ND		0.010	0.00016	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-187	ND		0.010	0.00018	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-38	ND		0.010	0.00025	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-188	ND		0.010	0.00014	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-39	ND		0.010	0.00022	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-189	ND		0.010	0.00045	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-190	ND		0.010	0.00014	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-4	ND		0.020	0.0019	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-191	ND		0.010	0.00015	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-40	ND	C	0.030	0.00059	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-192	ND		0.010	0.00016	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-193	0.000833	J C180 q	0.020	0.00016	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-41	ND	C40	0.030	0.00059	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-194	ND		0.010	0.00084	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-42	ND		0.010	0.00060	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-195	ND		0.010	0.00091	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-43	ND	C	0.020	0.00056	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-196	ND		0.010	0.00016	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-197	0.000320	J	0.010	0.00012	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-44	0.00229	J C q	0.030	0.00053	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-198	ND	C	0.020	0.00016	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-199	ND	C198	0.020	0.00016	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-45	ND	C	0.020	0.00062	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-200	ND		0.010	0.00011	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-201	ND		0.010	0.00011	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-46	ND		0.010	0.00076	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-202	ND		0.010	0.00012	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-47	0.00229	J C44 q	0.030	0.00053	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-203	ND		0.010	0.00014	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-48	ND		0.010	0.00059	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-204	ND		0.010	0.00012	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-49	ND	C	0.020	0.00049	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-205	ND		0.010	0.00071	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-206	ND		0.010	0.0012	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-207	ND		0.010	0.00090	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-5	ND		0.010	0.0017	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-208	ND		0.010	0.00094	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-50	ND	C	0.020	0.00058	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-209	ND		0.010	0.0011	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-51	ND	C45	0.020	0.00062	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-52	ND		0.010	0.00059	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-53	ND	C50	0.020	0.00058	ng/g		11/08/18 10:39	11/13/18 15:02	1

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

Lab Sample ID: MB 140-25210/3-B
Matrix: Solid
Analysis Batch: 25340

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 25210

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-54	ND		0.010	0.00010	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-55	ND		0.010	0.00043	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-56	0.000758	J q	0.010	0.00043	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-57	ND		0.010	0.00044	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-58	ND		0.010	0.00045	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-59	ND	C	0.030	0.00042	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-6	ND		0.010	0.0015	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-60	ND		0.010	0.00044	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-61	ND	C	0.040	0.00041	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-62	ND	C59	0.030	0.00042	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-63	ND		0.010	0.00040	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-64	ND		0.010	0.00040	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-65	0.00229	J C44 q	0.030	0.00053	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-66	ND		0.010	0.00041	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-67	ND		0.010	0.00038	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-68	ND		0.010	0.00039	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-69	ND	C49	0.020	0.00049	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-7	ND		0.010	0.0016	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-70	ND	C61	0.040	0.00041	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-71	ND	C40	0.030	0.00059	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-72	ND		0.010	0.00043	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-73	ND	C43	0.020	0.00056	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-74	ND	C61	0.040	0.00041	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-75	ND	C59	0.030	0.00042	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-76	ND	C61	0.040	0.00041	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-77	ND		0.010	0.00043	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-78	ND		0.010	0.00045	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-79	ND		0.010	0.00039	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-8	ND		0.020	0.0014	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-80	ND		0.010	0.00038	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-81	ND		0.010	0.00039	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-82	ND		0.010	0.00015	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-83	0.000585	J C q	0.020	0.00014	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-84	0.000494	J q	0.010	0.00015	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-85	ND	C	0.030	0.00011	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-86	0.00132	J C	0.060	0.00011	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-87	0.00132	J C86	0.060	0.00011	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-88	ND	C	0.020	0.00014	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-89	ND		0.010	0.00015	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-9	ND		0.010	0.0016	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-90	0.00120	J C	0.030	0.00012	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-91	ND	C88	0.020	0.00014	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-92	ND		0.010	0.00013	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-93	ND	C	0.020	0.00013	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-94	ND		0.010	0.00015	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-95	ND		0.010	0.00014	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-96	ND		0.010	0.00011	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-97	0.00132	J C86	0.060	0.00011	ng/g		11/08/18 10:39	11/13/18 15:02	1

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

Lab Sample ID: MB 140-25210/3-B
Matrix: Solid
Analysis Batch: 25340

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 25210

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-98	ND	C	0.020	0.00013	ng/g		11/08/18 10:39	11/13/18 15:02	1
PCB-99	0.000585	J C83 q	0.020	0.00014	ng/g		11/08/18 10:39	11/13/18 15:02	1
Total Monochlorobiphenyls	ND		0.010	0.00012	ng/g		11/08/18 10:39	11/13/18 15:02	1
Total Dichlorobiphenyls	0.00243	J q	0.020	0.0016	ng/g		11/08/18 10:39	11/13/18 15:02	1
Total Trichlorobiphenyls	0.00205	J q	0.020	0.00021	ng/g		11/08/18 10:39	11/13/18 15:02	1
Total Tetrachlorobiphenyls	0.00305	J q	0.040	0.00046	ng/g		11/08/18 10:39	11/13/18 15:02	1
Total Pentachlorobiphenyls	0.00489	J q	0.060	0.00019	ng/g		11/08/18 10:39	11/13/18 15:02	1
Total Hexachlorobiphenyls	0.00150	J	0.040	0.00033	ng/g		11/08/18 10:39	11/13/18 15:02	1
Total Heptachlorobiphenyls	0.00222	J q	0.020	0.00019	ng/g		11/08/18 10:39	11/13/18 15:02	1
Total Octachlorobiphenyls	0.000320	J	0.020	0.00032	ng/g		11/08/18 10:39	11/13/18 15:02	1
Polychlorinated biphenyls, Total	0.0164	J q	0.060	0.00062	ng/g		11/08/18 10:39	11/13/18 15:02	1
Total Nonachlorobiphenyls	ND		0.010	0.0012	ng/g		11/08/18 10:39	11/13/18 15:02	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
PCB-1L	*71*		*30 - 140*	*11/08/18 10:39*	*11/13/18 15:02*	*1*
PCB-3L	*67*		*30 - 140*	*11/08/18 10:39*	*11/13/18 15:02*	*1*
PCB-4L	*84*		*30 - 140*	*11/08/18 10:39*	*11/13/18 15:02*	*1*
PCB-15L	*71*		*30 - 140*	*11/08/18 10:39*	*11/13/18 15:02*	*1*
PCB-19L	*91*		*30 - 140*	*11/08/18 10:39*	*11/13/18 15:02*	*1*
PCB-37L	*83*		*30 - 140*	*11/08/18 10:39*	*11/13/18 15:02*	*1*
PCB-54L	*66*		*30 - 140*	*11/08/18 10:39*	*11/13/18 15:02*	*1*
PCB-104L	*79*		*30 - 140*	*11/08/18 10:39*	*11/13/18 15:02*	*1*
PCB-105L	*89*		*30 - 140*	*11/08/18 10:39*	*11/13/18 15:02*	*1*
PCB-114L	*89*		*30 - 140*	*11/08/18 10:39*	*11/13/18 15:02*	*1*
PCB-118L	*87*		*30 - 140*	*11/08/18 10:39*	*11/13/18 15:02*	*1*
PCB-123L	*85*		*30 - 140*	*11/08/18 10:39*	*11/13/18 15:02*	*1*
PCB-126L	*82*		*30 - 140*	*11/08/18 10:39*	*11/13/18 15:02*	*1*
PCB-155L	*87*		*30 - 140*	*11/08/18 10:39*	*11/13/18 15:02*	*1*
PCB-156L	*88*	*C*	*30 - 140*	*11/08/18 10:39*	*11/13/18 15:02*	*1*
PCB-157L	*88*	*C156*	*30 - 140*	*11/08/18 10:39*	*11/13/18 15:02*	*1*
PCB-167L	*88*		*30 - 140*	*11/08/18 10:39*	*11/13/18 15:02*	*1*
PCB-169L	*93*		*30 - 140*	*11/08/18 10:39*	*11/13/18 15:02*	*1*
PCB-170L	*85*		*30 - 140*	*11/08/18 10:39*	*11/13/18 15:02*	*1*
PCB-188L	*85*		*30 - 140*	*11/08/18 10:39*	*11/13/18 15:02*	*1*
PCB-189L	*79*		*30 - 140*	*11/08/18 10:39*	*11/13/18 15:02*	*1*
PCB-202L	*101*		*30 - 140*	*11/08/18 10:39*	*11/13/18 15:02*	*1*
PCB-205L	*74*		*30 - 140*	*11/08/18 10:39*	*11/13/18 15:02*	*1*
PCB-206L	*89*		*30 - 140*	*11/08/18 10:39*	*11/13/18 15:02*	*1*
PCB-208L	*87*		*30 - 140*	*11/08/18 10:39*	*11/13/18 15:02*	*1*
PCB-209L	*93*		*30 - 140*	*11/08/18 10:39*	*11/13/18 15:02*	*1*
PCB-77L	*82*		*30 - 140*	*11/08/18 10:39*	*11/13/18 15:02*	*1*
PCB-81L	*82*		*30 - 140*	*11/08/18 10:39*	*11/13/18 15:02*	*1*

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

Lab Sample ID: LCS 140-25210/4-B
Matrix: Solid
Analysis Batch: 25340

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 25210

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1	0.500	0.391		ng/g		78	50 - 150
PCB-15	0.500	0.500		ng/g		100	50 - 150
PCB-104	0.500	0.524		ng/g		105	50 - 150
PCB-105	0.500	0.499		ng/g		100	50 - 150
PCB-114	0.500	0.534		ng/g		107	50 - 150
PCB-118	0.500	0.512		ng/g		102	50 - 150
PCB-123	0.500	0.556		ng/g		111	50 - 150
PCB-126	0.500	0.537		ng/g		107	50 - 150
PCB-19	0.500	0.571		ng/g		114	50 - 150
PCB-155	0.500	0.510		ng/g		102	50 - 150
PCB-156	1.00	1.02	C	ng/g		102	50 - 150
PCB-157	1.00	1.02	C156	ng/g		102	50 - 150
PCB-167	0.500	0.515		ng/g		103	50 - 150
PCB-169	0.500	0.465		ng/g		93	50 - 150
PCB-3	0.500	0.413		ng/g		83	50 - 150
PCB-37	0.500	0.496		ng/g		99	50 - 150
PCB-188	0.500	0.497		ng/g		99	50 - 150
PCB-189	0.500	0.522		ng/g		104	50 - 150
PCB-4	0.500	0.450		ng/g		90	50 - 150
PCB-202	0.500	0.458		ng/g		92	50 - 150
PCB-205	0.500	0.558		ng/g		112	50 - 150
PCB-206	0.500	0.493		ng/g		99	50 - 150
PCB-208	0.500	0.504		ng/g		101	50 - 150
PCB-209	0.500	0.518		ng/g		104	50 - 150
PCB-54	0.500	0.566		ng/g		113	50 - 150
PCB-77	0.500	0.468		ng/g		94	50 - 150
PCB-81	0.500	0.449		ng/g		90	50 - 150

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
PCB-1L	*73*		*30 - 140*
PCB-3L	*68*		*30 - 140*
PCB-4L	*84*		*30 - 140*
PCB-15L	*75*		*30 - 140*
PCB-19L	*91*		*30 - 140*
PCB-37L	*88*		*30 - 140*
PCB-54L	*63*		*30 - 140*
PCB-104L	*75*		*30 - 140*
PCB-105L	*89*		*30 - 140*
PCB-114L	*87*		*30 - 140*
PCB-118L	*86*		*30 - 140*
PCB-123L	*85*		*30 - 140*
PCB-126L	*83*		*30 - 140*
PCB-155L	*83*		*30 - 140*
PCB-156L	*85*	*C*	*30 - 140*
PCB-157L	*85*	*C156*	*30 - 140*
PCB-167L	*85*		*30 - 140*
PCB-169L	*89*		*30 - 140*
PCB-170L	*84*		*30 - 140*

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

Lab Sample ID: LCS 140-25210/4-B
Matrix: Solid
Analysis Batch: 25340

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 25210

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
PCB-188L	*85*		*30 - 140*
PCB-189L	*78*		*30 - 140*
PCB-202L	*100*		*30 - 140*
PCB-205L	*74*		*30 - 140*
PCB-206L	*86*		*30 - 140*
PCB-208L	*85*		*30 - 140*
PCB-209L	*90*		*30 - 140*
PCB-77L	*84*		*30 - 140*
PCB-81L	*84*		*30 - 140*

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 580-287728/22-A
Matrix: Water
Analysis Batch: 287894

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 287728

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.0010	0.00020	mg/L		10/30/18 09:52	10/31/18 13:58	1
Cadmium	ND		0.00040	0.00010	mg/L		10/30/18 09:52	10/31/18 13:58	1
Copper	ND		0.0020	0.00060	mg/L		10/30/18 09:52	10/31/18 13:58	1
Lead	ND		0.00080	0.00020	mg/L		10/30/18 09:52	10/31/18 13:58	1
Zinc	ND		0.0070	0.0019	mg/L		10/30/18 09:52	10/31/18 13:58	1

Lab Sample ID: LCS 580-287728/23-A
Matrix: Water
Analysis Batch: 287894

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 287728

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	4.00	3.95		mg/L		99	80 - 120
Cadmium	0.100	0.102		mg/L		102	80 - 120
Copper	0.500	0.476		mg/L		95	80 - 120
Lead	1.00	0.956		mg/L		96	80 - 120
Zinc	4.00	3.85		mg/L		96	80 - 120

Lab Sample ID: LCSD 580-287728/24-A
Matrix: Water
Analysis Batch: 287894

Client Sample ID: Lab Control Sample Dup
Prep Type: Total Recoverable
Prep Batch: 287728

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	4.00	3.93		mg/L		98	80 - 120	0	20
Cadmium	0.100	0.102		mg/L		102	80 - 120	0	20
Copper	0.500	0.479		mg/L		96	80 - 120	0	20
Lead	1.00	0.946		mg/L		95	80 - 120	1	20
Zinc	4.00	3.84		mg/L		96	80 - 120	0	20

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 580-288047/20-A
Matrix: Solid
Analysis Batch: 288150

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 288047

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.25	0.050	mg/Kg		11/02/18 10:56	11/02/18 18:03	5
Cadmium	ND		0.20	0.039	mg/Kg		11/02/18 10:56	11/02/18 18:03	5
Copper	0.158	J	0.50	0.11	mg/Kg		11/02/18 10:56	11/02/18 18:03	5
Lead	ND		0.25	0.024	mg/Kg		11/02/18 10:56	11/02/18 18:03	5
Zinc	ND		2.5	0.81	mg/Kg		11/02/18 10:56	11/02/18 18:03	5

Lab Sample ID: LCS 580-288047/21-A
Matrix: Solid
Analysis Batch: 288150

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 288047

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	50.0	51.1		mg/Kg		102	80 - 120
Cadmium	50.0	49.6		mg/Kg		99	80 - 120
Copper	50.0	50.1		mg/Kg		100	80 - 120
Lead	50.0	47.8		mg/Kg		96	80 - 120
Zinc	50.0	50.1		mg/Kg		100	80 - 120

Lab Sample ID: LCSD 580-288047/22-A
Matrix: Solid
Analysis Batch: 288150

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 288047

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	50.0	48.2		mg/Kg		96	80 - 120	6	20
Cadmium	50.0	47.3		mg/Kg		95	80 - 120	5	20
Copper	50.0	48.1		mg/Kg		96	80 - 120	4	20
Lead	50.0	47.5		mg/Kg		95	80 - 120	1	20
Zinc	50.0	51.3		mg/Kg		103	80 - 120	2	20

Lab Sample ID: MB 580-288057/22-A
Matrix: Solid
Analysis Batch: 288207

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 288057

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.25	0.050	mg/Kg		11/02/18 12:26	11/05/18 13:28	5
Cadmium	ND		0.20	0.039	mg/Kg		11/02/18 12:26	11/05/18 13:28	5
Copper	ND		0.50	0.11	mg/Kg		11/02/18 12:26	11/05/18 13:28	5
Lead	ND		0.25	0.024	mg/Kg		11/02/18 12:26	11/05/18 13:28	5
Zinc	ND		2.5	0.81	mg/Kg		11/02/18 12:26	11/05/18 13:28	5

Lab Sample ID: LCS 580-288057/23-A
Matrix: Solid
Analysis Batch: 288207

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 288057

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	50.0	51.5		mg/Kg		103	80 - 120
Cadmium	50.0	50.3		mg/Kg		101	80 - 120
Copper	50.0	52.3		mg/Kg		105	80 - 120
Lead	50.0	51.3		mg/Kg		103	80 - 120
Zinc	50.0	52.5		mg/Kg		105	80 - 120

Lab Sample ID: LCSD 580-288057/24-A
Matrix: Solid
Analysis Batch: 288207

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 288057

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic			50.0	49.9		mg/Kg		100	80 - 120	3	20
Cadmium			50.0	48.5		mg/Kg		97	80 - 120	4	20
Copper			50.0	50.8		mg/Kg		102	80 - 120	3	20
Lead			50.0	50.1		mg/Kg		100	80 - 120	2	20
Zinc			50.0	51.2		mg/Kg		102	80 - 120	3	20

Lab Sample ID: 580-81081-23 MS
Matrix: Solid
Analysis Batch: 288207

Client Sample ID: L5-0to26-101318
Prep Type: Total/NA
Prep Batch: 288057

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	10		114	127		mg/Kg	☼	102	80 - 120
Cadmium	0.54		114	114		mg/Kg	☼	99	80 - 120
Copper	130		114	244		mg/Kg	☼	97	80 - 120
Lead	53		114	151		mg/Kg	☼	86	80 - 120
Zinc	310	F1	114	410		mg/Kg	☼	87	80 - 120

Lab Sample ID: 580-81081-23 MSD
Matrix: Solid
Analysis Batch: 288207

Client Sample ID: L5-0to26-101318
Prep Type: Total/NA
Prep Batch: 288057

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	10		114	124		mg/Kg	☼	100	80 - 120	2	20
Cadmium	0.54		114	113		mg/Kg	☼	99	80 - 120	1	20
Copper	130		114	229		mg/Kg	☼	84	80 - 120	7	20
Lead	53		114	164		mg/Kg	☼	97	80 - 120	8	20
Zinc	310	F1	114	387	F1	mg/Kg	☼	67	80 - 120	6	20

Lab Sample ID: 580-81081-41 MS
Matrix: Solid
Analysis Batch: 288207

Client Sample ID: F5-0to28-101118
Prep Type: Total/NA
Prep Batch: 288057

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	8.0		121	127		mg/Kg	☼	99	80 - 120
Cadmium	0.42	J	121	118		mg/Kg	☼	97	80 - 120
Copper	110		121	241		mg/Kg	☼	112	80 - 120
Lead	35		121	158		mg/Kg	☼	101	80 - 120
Zinc	240	F1	121	405	F1	mg/Kg	☼	135	80 - 120

Lab Sample ID: 580-81081-41 MSD
Matrix: Solid
Analysis Batch: 288207

Client Sample ID: F5-0to28-101118
Prep Type: Total/NA
Prep Batch: 288057

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	8.0		121	129		mg/Kg	☼	99	80 - 120	1	20
Cadmium	0.42	J	121	121		mg/Kg	☼	99	80 - 120	2	20
Copper	110		121	247		mg/Kg	☼	116	80 - 120	2	20
Lead	35		121	157		mg/Kg	☼	101	80 - 120	0	20
Zinc	240	F1	121	407	F1	mg/Kg	☼	136	80 - 120	1	20

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

Lab Sample ID: 580-81081-23 DU — **Client Sample ID: L5-0to26-101318**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 288207 — **Prep Batch: 288057**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Arsenic	10		9.72		mg/Kg	☼	6	20
Cadmium	0.54		0.499		mg/Kg	☼	8	20
Copper	130		127		mg/Kg	☼	5	20
Lead	53		37.0	F3	mg/Kg	☼	35	20
Zinc	310	F1	383	F3	mg/Kg	☼	21	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 580-287143/21-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 287248 — **Prep Batch: 287143**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00030	0.00015	mg/L		10/23/18 10:13	10/23/18 14:48	1

Lab Sample ID: LCS 580-287143/22-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 287248 — **Prep Batch: 287143**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00200	0.00181		mg/L		90	80 - 120

Lab Sample ID: LCSD 580-287143/23-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 287248 — **Prep Batch: 287143**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.00200	0.00186		mg/L		93	80 - 120	3	20

Lab Sample ID: 580-81081-1 MS — **Client Sample ID: 611-101118**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 287248 — **Prep Batch: 287143**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	ND		0.00200	0.00193		mg/L		97	80 - 120

Lab Sample ID: 580-81081-1 MSD — **Client Sample ID: 611-101118**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 287248 — **Prep Batch: 287143**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	ND		0.00200	0.00191		mg/L		96	80 - 120	1	20

Lab Sample ID: 580-81081-1 DU — **Client Sample ID: 611-101118**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 287248 — **Prep Batch: 287143**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Mercury	ND		ND		mg/L		NC	20

Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 580-287482/22-A
Matrix: Solid
Analysis Batch: 287539

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 287482

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.030	0.0090	mg/Kg		10/26/18 09:47	10/26/18 12:59	1

Lab Sample ID: LCS 580-287482/23-A
Matrix: Solid
Analysis Batch: 287539

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 287482

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.167	0.152		mg/Kg		91	80 - 120

Lab Sample ID: LCSD 580-287482/24-A
Matrix: Solid
Analysis Batch: 287539

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 287482

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.167	0.135		mg/Kg		81	80 - 120	12	20

Lab Sample ID: 580-81081-23 MS
Matrix: Solid
Analysis Batch: 287539

Client Sample ID: L5-0to26-101318
Prep Type: Total/NA
Prep Batch: 287482

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.18		0.320	0.551		mg/Kg	☼	117	80 - 120

Lab Sample ID: 580-81081-23 MSD
Matrix: Solid
Analysis Batch: 287539

Client Sample ID: L5-0to26-101318
Prep Type: Total/NA
Prep Batch: 287482

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.18		0.326	0.511		mg/Kg	☼	103	80 - 120	8	20

Lab Sample ID: 580-81081-23 DU
Matrix: Solid
Analysis Batch: 287539

Client Sample ID: L5-0to26-101318
Prep Type: Total/NA
Prep Batch: 287482

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Mercury	0.18		0.192		mg/Kg	☼	9	20

Lab Sample ID: MB 580-287855/22-A
Matrix: Solid
Analysis Batch: 287887

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 287855

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.030	0.0090	mg/Kg		10/31/18 10:53	10/31/18 12:55	1

Lab Sample ID: LCS 580-287855/23-A
Matrix: Solid
Analysis Batch: 287887

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 287855

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.167	0.180		mg/Kg		108	80 - 120

Lab Sample ID: LCSD 580-287855/24-A
Matrix: Solid
Analysis Batch: 287887

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 287855

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury			0.167	0.176		mg/Kg		106	80 - 120	2	20

Lab Sample ID: 580-81081-41 MS
Matrix: Solid
Analysis Batch: 287887

Client Sample ID: F5-0to28-101118
Prep Type: Total/NA
Prep Batch: 287855

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury	0.19	F1	0.329	0.633	F1	mg/Kg	☼	133	80 - 120		

Lab Sample ID: 580-81081-41 MSD
Matrix: Solid
Analysis Batch: 287887

Client Sample ID: F5-0to28-101118
Prep Type: Total/NA
Prep Batch: 287855

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.19	F1	0.329	0.612	F1	mg/Kg	☼	127	80 - 120	3	20

Lab Sample ID: 580-81081-41 DU
Matrix: Solid
Analysis Batch: 287887

Client Sample ID: F5-0to28-101118
Prep Type: Total/NA
Prep Batch: 287855

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Mercury	0.19	F1	0.172		mg/Kg	☼	12	20

Method: 9060_PSEP - TOC (Puget Sound)

Lab Sample ID: MB 580-287334/5
Matrix: Solid
Analysis Batch: 287334

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	128	J	2000	44	mg/Kg			10/24/18 14:40	1

Lab Sample ID: LCS 580-287334/6
Matrix: Solid
Analysis Batch: 287334

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Organic Carbon - Duplicates			4270	3790		mg/Kg		89	68 - 149		

Lab Sample ID: LCSD 580-287334/7
Matrix: Solid
Analysis Batch: 287334

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon - Duplicates			4270	3130		mg/Kg		73	68 - 149	19	32

Method: 9060_PSEP - TOC (Puget Sound) (Continued)

Lab Sample ID: 580-81081-23 MS
Matrix: Solid
Analysis Batch: 287334

Client Sample ID: L5-0to26-101318
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon - Duplicates	38000	B F1	120000	116000	F1	mg/Kg		65	68 - 149

Lab Sample ID: 580-81081-23 MSD
Matrix: Solid
Analysis Batch: 287334

Client Sample ID: L5-0to26-101318
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon - Duplicates	38000	B F1	120000	118000	F1	mg/Kg		67	68 - 149	2	32

Lab Sample ID: 580-81081-23 DU
Matrix: Solid
Analysis Batch: 287334

Client Sample ID: L5-0to26-101318
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Organic Carbon - Duplicates	38000	B F1	37000		mg/Kg		2	50

Lab Sample ID: 580-81081-23 TRL
Matrix: Solid
Analysis Batch: 287334

Client Sample ID: L5-0to26-101318
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	TRL Result	TRL Qualifier	Unit	D	RSD	RSD Limit
Total Organic Carbon - Duplicates	38000	B F1	37200		mg/Kg		0.9	20

Lab Sample ID: MB 580-287405/5
Matrix: Solid
Analysis Batch: 287405

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	ND		2000	44	mg/Kg			10/24/18 15:57	1

Lab Sample ID: LCS 580-287405/7
Matrix: Solid
Analysis Batch: 287405

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon - Duplicates	4270	3060		mg/Kg		72	68 - 149

Lab Sample ID: LCSD 580-287405/6
Matrix: Solid
Analysis Batch: 287405

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon - Duplicates	4270	3020		mg/Kg		71	68 - 149	1	32

Method: 9060_PSEP - TOC (Puget Sound) (Continued)

Lab Sample ID: 580-81081-41 MS
Matrix: Solid
Analysis Batch: 287405

Client Sample ID: F5-0to28-101118
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon - Duplicates	37000		120000	145000		mg/Kg		91	68 - 149

Lab Sample ID: 580-81081-41 MSD
Matrix: Solid
Analysis Batch: 287405

Client Sample ID: F5-0to28-101118
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon - Duplicates	37000		120000	128000		mg/Kg		76	68 - 149	12	32

Lab Sample ID: 580-81081-41 DU
Matrix: Solid
Analysis Batch: 287405

Client Sample ID: F5-0to28-101118
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Organic Carbon - Duplicates	37000		36000		mg/Kg		1	50

Lab Sample ID: 580-81081-41 TRL
Matrix: Solid
Analysis Batch: 287405

Client Sample ID: F5-0to28-101118
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	TRL Result	TRL Qualifier	Unit	D	RSD	RSD Limit
Total Organic Carbon - Duplicates	37000		35300		mg/Kg		2	20

Lab Sample ID: MB 580-288041/5
Matrix: Solid
Analysis Batch: 288041

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	138	J	2000	44	mg/Kg			11/01/18 10:37	1

Lab Sample ID: LCS 580-288041/6
Matrix: Solid
Analysis Batch: 288041

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon - Duplicates	4270	3620		mg/Kg		85	68 - 149

Lab Sample ID: LCSD 580-288041/7
Matrix: Solid
Analysis Batch: 288041

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon - Duplicates	4270	3320		mg/Kg		78	68 - 149	8	32

Method: 9060_PSEP - TOC (Puget Sound) (Continued)

Lab Sample ID: 580-81081-4 MS
Matrix: Solid
Analysis Batch: 288041

Client Sample ID: F1-0to23-101418
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon - Duplicates	2900	B	120000	104000		mg/Kg		84	68 - 149

Lab Sample ID: 580-81081-4 MSD
Matrix: Solid
Analysis Batch: 288041

Client Sample ID: F1-0to23-101418
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon - Duplicates	2900	B	120000	97800		mg/Kg		79	68 - 149	6	32

Lab Sample ID: 580-81081-4 DU
Matrix: Solid
Analysis Batch: 288041

Client Sample ID: F1-0to23-101418
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Organic Carbon - Duplicates	2900	B	2900		mg/Kg		1	50

Lab Sample ID: 580-81081-4 TRL
Matrix: Solid
Analysis Batch: 288041

Client Sample ID: F1-0to23-101418
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	TRL Result	TRL Qualifier	Unit	D	RSD	RSD Limit
Total Organic Carbon - Duplicates	2900	B	2990		mg/Kg		1	20

Method: D 2216 - Percent Moisture

Lab Sample ID: 580-81081-26 DU
Matrix: Solid
Analysis Batch: 287954

Client Sample ID: H7-0to24-101218
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Solids	41.9		41.6		%		0.7	20

Lab Sample ID: 580-81081-28 DU
Matrix: Solid
Analysis Batch: 287962

Client Sample ID: J7-0to26-101218
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Solids	40.5		40.0		%		1	20

Method: Moisture 70C - Percent Moisture, 70 C

Lab Sample ID: 580-81081-23 DU
Matrix: Solid
Analysis Batch: 288179

Client Sample ID: L5-0to26-101318
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Percent Moisture	68	H	68		%		0.08	20
Percent Solids	32	H	32		%		0.2	20

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

Lab Sample ID: MB 580-286874/1
Matrix: Water
Analysis Batch: 286874

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		2.0	2.0	mg/L			10/18/18 16:09	1

Lab Sample ID: LCS 580-286874/2
Matrix: Water
Analysis Batch: 286874

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Suspended Solids	27.6	32.8		mg/L		119	70.6 - 120

Lab Sample ID: 580-81081-1 DU
Matrix: Water
Analysis Batch: 286874

Client Sample ID: 611-101118
Prep Type: Total/NA

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

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

Lab Sample ID: MB 580-286981/3
Matrix: Water
Analysis Batch: 286981

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	0.418	J	1.0	0.19	mg/L			10/19/18 10:36	1

Lab Sample ID: LCS 580-286981/4
Matrix: Water
Analysis Batch: 286981

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	10.0	10.3		mg/L		103	85 - 115

Lab Sample ID: 580-81081-1 MS
Matrix: Water
Analysis Batch: 286981

Client Sample ID: 611-101118
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	0.74	J B	10.0	10.8		mg/L		100	85 - 115

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

Lab Sample ID: 580-81081-1 MSD
Matrix: Water
Analysis Batch: 286981

Client Sample ID: 611-101118
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon	0.74	J B	10.0	11.0		mg/L		103	85 - 115	2	20

Lab Sample ID: 580-81081-1 DU
Matrix: Water
Analysis Batch: 286981

Client Sample ID: 611-101118
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Organic Carbon	0.74	J B	0.698	J	mg/L		6	20

Method: D7928/D6913 - ASTM D7928/D6913

Lab Sample ID: 580-81081-23 DU
Matrix: Solid
Analysis Batch: 286982

Client Sample ID: L5-0to26-101318
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Clay	26.9		24.9		%		8	20
Coarse Sand	0.0		0.0		%		NC	20
Fine Sand	10.4		9.7		%		7	20
Gravel	0.0		0.0		%		NC	20
Medium Sand	0.5		0.6		%		18	20
Silt	62.3		64.8		%		4	20

Method: D854 - Specific Gravity

Lab Sample ID: LCS 140-24823/1
Matrix: Solid
Analysis Batch: 24823

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Density	0.997	0.9971		g/cm3		100	99 - 101

Lab Sample ID: 580-81081-2 DU
Matrix: Solid
Analysis Batch: 24823

Client Sample ID: H1-0to24-101418
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Density	1.59		1.622		g/cm3		2	10

Lab Sample ID: LCS 140-24824/1
Matrix: Solid
Analysis Batch: 24824

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Density	0.997	0.9967		g/cm3		100	99 - 101

Method: D854 - Specific Gravity (Continued)

Lab Sample ID: 580-81081-41 DU — **Client Sample ID: F5-0to28-101118**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 24824

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Density	1.30		1.228		g/cm3		6	10

Lab Sample ID: LCS 140-24870/1 — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 24870

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Specific Gravity	1.00	0.9996		NONE		100	99 - 101

Lab Sample ID: 580-81081-41 DU — **Client Sample ID: F5-0to28-101118**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 24870

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Specific Gravity	1.30		1.231		NONE		6	10

Lab Sample ID: LCS 140-24871/1 — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 24871

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Specific Gravity	1.00	1.000		NONE		100	99 - 101

Lab Sample ID: 580-81081-2 DU — **Client Sample ID: H1-0to24-101418**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 24871

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Specific Gravity	1.59		1.627		NONE		2	10

Lab Sample ID: LCS 140-25479/1 — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 25479

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Density	0.997	0.9960		g/cm3		100	99 - 101

Lab Sample ID: 580-81081-4 DU — **Client Sample ID: F1-0to23-101418**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 25479

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Density	1.85		1.794		g/cm3		3	10

Lab Sample ID: LCS 140-25480/1 — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 25480

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Specific Gravity	1.00	0.9989		NONE		100	99 - 101

QC Sample Results

Client: Pacific Groundwater Group
Project/Site: Swan Island Lagoon SedimentInvestigation

TestAmerica Job ID: 580-81081-1

Lab Sample ID: 580-81081-4 DU
Matrix: Solid
Analysis Batch: 25480

Client Sample ID: F1-0to23-101418
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Specific Gravity	1.86			1.799		NONE				3	10

Client Sample ID: 611-101118

Lab Sample ID: 580-81081-1

Date Collected: 10/11/18 08:20

Matrix: Water

Date Received: 10/15/18 11:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			286922	10/19/18 08:49	KO	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	287044	10/21/18 21:24	TL1	TAL SEA
Total/NA	Prep	1613B			254471	10/23/18 19:20	A1A	TAL SAC
Total/NA	Analysis	1613B		1	255284	10/26/18 09:08	SMA	TAL SAC
Total/NA	Prep	HRMS-Sepf			24630	10/19/18 08:04	BRS	TAL KNX
Total/NA	Analysis	1668A		1	24803	10/25/18 22:29	JMN	TAL KNX
Total Recoverable	Prep	3005A			287728	10/30/18 09:52	T1H	TAL SEA
Total Recoverable	Analysis	6020A		1	287926	10/31/18 16:17	FCW	TAL SEA
Total/NA	Prep	7470A			287143	10/23/18 10:09	JKM	TAL SEA
Total/NA	Analysis	7470A		1	287248	10/23/18 14:55	T1H	TAL SEA
Total/NA	Analysis	SM 2540D		1	286874	10/18/18 16:09	TTN	TAL SEA
Total/NA	Analysis	SM 5310B		1	286981	10/19/18 10:36	TTN	TAL SEA

Client Sample ID: H1-0to24-101418

Lab Sample ID: 580-81081-2

Date Collected: 10/14/18 09:09

Matrix: Solid

Date Received: 10/15/18 11:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	287334	10/24/18 15:17	A1K	TAL SEA
Total/NA	Analysis	D 2216		1	287954	11/01/18 11:09	BAH	TAL SEA
Total/NA	Analysis	Moisture 70C		1	288179	10/25/18 12:18	HJM	TAL SEA
Total/NA	Analysis	D7928/D6913		1	286982	10/19/18 16:28	A1K	TAL SEA
Total/NA	Analysis	D854		1	24823	10/25/18 00:00	JAH	TAL KNX
Total/NA	Analysis	D854		1	24871	10/25/18 00:00	JAH	TAL KNX

Client Sample ID: H1-0to24-101418

Lab Sample ID: 580-81081-2

Date Collected: 10/14/18 09:09

Matrix: Solid

Date Received: 10/15/18 11:30

Percent Solids: 61.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			287619	10/27/18 20:36	BAH	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	288139	11/04/18 18:47	Z1R	TAL SEA
Total/NA	Prep	HRMS-Sox	RA		253208	10/18/18 14:49	SR1	TAL SAC
Total/NA	Analysis	1613B	RA	1	255039	10/25/18 00:59	ALM	TAL SAC
Total/NA	Prep	HRMS-Sox			253208	10/18/18 14:49	SR1	TAL SAC
Total/NA	Analysis	1613B		1	254745	10/24/18 02:22	AS	TAL SAC
Total/NA	Prep	HRMS-Sox			24629	10/19/18 12:00	CLI	TAL KNX
Total/NA	Cleanup	Split			24711	10/23/18 08:50	EBS	TAL KNX
Total/NA	Analysis	1668A		5	24868	10/27/18 14:28	JMN	TAL KNX
Total/NA	Prep	3050B			288057	11/02/18 12:26	T1H	TAL SEA
Total/NA	Analysis	6020B		5	288207	11/05/18 14:31	FCW	TAL SEA
Total/NA	Prep	7471A			287482	10/26/18 09:42	JKM	TAL SEA

Lab Chronicle

Client: Pacific Groundwater Group
Project/Site: Swan Island Lagoon SedimentInvestigation

TestAmerica Job ID: 580-81081-1

Client Sample ID: H1-0to24-101418

Lab Sample ID: 580-81081-2
Date Collected: 10/14/18 09:09
Matrix: Solid
Date Received: 10/15/18 11:30
Percent Solids: 61.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7471A		1	287539	10/26/18 13:42	T1H	TAL SEA

Client Sample ID: F1-0to23-101418

Lab Sample ID: 580-81081-4
Date Collected: 10/14/18 11:08
Matrix: Solid
Date Received: 10/15/18 11:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	288041	11/01/18 10:45	A1K	TAL SEA
Total/NA	Analysis	D 2216		1	287954	11/01/18 11:09	BAH	TAL SEA
Total/NA	Analysis	D7928/D6913		1	287654	10/29/18 09:33	JKM	TAL SEA
Total/NA	Analysis	D854		1	25479	11/16/18 00:00	JAH	TAL KNX
Total/NA	Analysis	D854		1	25480	11/16/18 00:00	JAH	TAL KNX

Client Sample ID: F1-0to23-101418

Lab Sample ID: 580-81081-4
Date Collected: 10/14/18 11:08
Matrix: Solid
Date Received: 10/15/18 11:30
Percent Solids: 72.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			287619	10/27/18 20:36	BAH	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	288139	11/04/18 19:27	Z1R	TAL SEA
Total/NA	Prep	HRMS-Sox			256727	11/02/18 16:40	SR1	TAL SAC
Total/NA	Analysis	1613B		1	257738	11/08/18 12:16	KSS	TAL SAC
Total/NA	Prep	HRMS-Sox			25210	11/08/18 10:39	BRS	TAL KNX
Total/NA	Cleanup	Split			25246	11/09/18 11:07	SMM	TAL KNX
Total/NA	Analysis	1668A		1	25340	11/13/18 16:04	JMN	TAL KNX
Total/NA	Prep	3050B			288057	11/02/18 12:26	T1H	TAL SEA
Total/NA	Analysis	6020B		5	288207	11/05/18 14:36	FCW	TAL SEA
Total/NA	Prep	7471A			287855	10/31/18 10:53	T1H	TAL SEA
Total/NA	Analysis	7471A		1	287887	10/31/18 13:15	T1H	TAL SEA

Client Sample ID: B1-0to20-101418

Lab Sample ID: 580-81081-6
Date Collected: 10/14/18 12:58
Matrix: Solid
Date Received: 10/15/18 11:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	288041	11/01/18 11:13	A1K	TAL SEA
Total/NA	Analysis	D 2216		1	287954	11/01/18 11:09	BAH	TAL SEA
Total/NA	Analysis	D7928/D6913		1	287654	10/29/18 09:33	JKM	TAL SEA
Total/NA	Analysis	D854		1	25479	11/16/18 00:00	JAH	TAL KNX
Total/NA	Analysis	D854		1	25480	11/16/18 00:00	JAH	TAL KNX

Lab Chronicle

Client: Pacific Groundwater Group
Project/Site: Swan Island Lagoon SedimentInvestigation

TestAmerica Job ID: 580-81081-1

Client Sample ID: B1-0to20-101418

Date Collected: 10/14/18 12:58
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-6

Matrix: Solid
Percent Solids: 71.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			287619	10/27/18 20:36	BAH	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	288139	11/04/18 19:48	Z1R	TAL SEA
Total/NA	Prep	HRMS-Sox			256727	11/02/18 16:40	SR1	TAL SAC
Total/NA	Analysis	1613B		1	257738	11/08/18 13:02	KSS	TAL SAC
Total/NA	Prep	HRMS-Sox			25210	11/08/18 10:39	BRS	TAL KNX
Total/NA	Cleanup	Split			25246	11/09/18 11:07	SMM	TAL KNX
Total/NA	Analysis	1668A		1	25340	11/13/18 17:05	JMN	TAL KNX
Total/NA	Prep	3050B			288057	11/02/18 12:26	T1H	TAL SEA
Total/NA	Analysis	6020B		5	288207	11/05/18 14:40	FCW	TAL SEA
Total/NA	Prep	7471A			287855	10/31/18 10:53	T1H	TAL SEA
Total/NA	Analysis	7471A		1	287887	10/31/18 13:22	T1H	TAL SEA

Client Sample ID: J1-0to20-101318

Date Collected: 10/13/18 17:11
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-12

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	287334	10/24/18 15:21	A1K	TAL SEA
Total/NA	Analysis	D 2216		1	287954	11/01/18 11:09	BAH	TAL SEA
Total/NA	Analysis	Moisture 70C		1	288179	10/25/18 12:18	HJM	TAL SEA
Total/NA	Analysis	D7928/D6913		1	286982	10/19/18 16:28	A1K	TAL SEA
Total/NA	Analysis	D854		1	24823	10/25/18 00:00	JAH	TAL KNX
Total/NA	Analysis	D854		1	24871	10/25/18 00:00	JAH	TAL KNX

Client Sample ID: J1-0to20-101318

Date Collected: 10/13/18 17:11
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-12

Matrix: Solid
Percent Solids: 74.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			287619	10/27/18 20:36	BAH	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	288139	11/04/18 20:08	Z1R	TAL SEA
Total/NA	Prep	HRMS-Sox			253208	10/18/18 14:49	SR1	TAL SAC
Total/NA	Analysis	1613B		1	254745	10/24/18 03:07	AS	TAL SAC
Total/NA	Prep	HRMS-Sox			24629	10/19/18 12:00	CLI	TAL KNX
Total/NA	Cleanup	Split			24711	10/23/18 08:50	EBS	TAL KNX
Total/NA	Analysis	1668A		3	24868	10/27/18 15:29	JMN	TAL KNX
Total/NA	Prep	3050B			288057	11/02/18 12:26	T1H	TAL SEA
Total/NA	Analysis	6020B		5	288207	11/05/18 14:44	FCW	TAL SEA
Total/NA	Prep	7471A			287482	10/26/18 09:42	JKM	TAL SEA
Total/NA	Analysis	7471A		1	287539	10/26/18 13:44	T1H	TAL SEA

Lab Chronicle

Client: Pacific Groundwater Group
Project/Site: Swan Island Lagoon SedimentInvestigation

TestAmerica Job ID: 580-81081-1

Client Sample ID: J5-0to29-101318

Lab Sample ID: 580-81081-15

Date Collected: 10/13/18 09:36
Matrix: Solid
Date Received: 10/15/18 11:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	287334	10/24/18 15:26	A1K	TAL SEA
Total/NA	Analysis	D 2216		1	287954	11/01/18 11:09	BAH	TAL SEA
Total/NA	Analysis	Moisture 70C		1	288179	10/25/18 12:18	HJM	TAL SEA
Total/NA	Analysis	D7928/D6913		1	286982	10/19/18 16:28	A1K	TAL SEA
Total/NA	Analysis	D854		1	24823	10/25/18 00:00	JAH	TAL KNX
Total/NA	Analysis	D854		1	24871	10/25/18 00:00	JAH	TAL KNX

Client Sample ID: J5-0to29-101318

Lab Sample ID: 580-81081-15

Date Collected: 10/13/18 09:36
Matrix: Solid
Date Received: 10/15/18 11:30
Percent Solids: 29.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			287619	10/27/18 20:36	BAH	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	288139	11/04/18 20:28	Z1R	TAL SEA
Total/NA	Prep	HRMS-Sox	RA		253208	10/18/18 14:49	SR1	TAL SAC
Total/NA	Analysis	1613B	RA	1	255039	10/25/18 01:37	ALM	TAL SAC
Total/NA	Prep	HRMS-Sox			253208	10/18/18 14:49	SR1	TAL SAC
Total/NA	Analysis	1613B		1	254745	10/24/18 03:53	AS	TAL SAC
Total/NA	Prep	HRMS-Sox			24629	10/19/18 12:00	CLI	TAL KNX
Total/NA	Cleanup	Split			24711	10/23/18 08:50	EBS	TAL KNX
Total/NA	Analysis	1668A		3	24868	10/27/18 16:31	JMN	TAL KNX
Total/NA	Prep	3050B			288057	11/02/18 12:26	T1H	TAL SEA
Total/NA	Analysis	6020B		5	288207	11/05/18 14:48	FCW	TAL SEA
Total/NA	Prep	7471A			287482	10/26/18 09:42	JKM	TAL SEA
Total/NA	Analysis	7471A		1	287539	10/26/18 13:46	T1H	TAL SEA

Client Sample ID: 513-0to26-101318

Lab Sample ID: 580-81081-18

Date Collected: 10/13/18 13:13
Matrix: Solid
Date Received: 10/15/18 11:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	287334	10/24/18 15:31	A1K	TAL SEA
Total/NA	Analysis	D 2216		1	287954	11/01/18 11:09	BAH	TAL SEA
Total/NA	Analysis	Moisture 70C		1	288179	10/25/18 12:18	HJM	TAL SEA
Total/NA	Analysis	D7928/D6913		1	286982	10/19/18 16:28	A1K	TAL SEA
Total/NA	Analysis	D854		1	24823	10/25/18 00:00	JAH	TAL KNX
Total/NA	Analysis	D854		1	24871	10/25/18 00:00	JAH	TAL KNX

Lab Chronicle

Client: Pacific Groundwater Group
Project/Site: Swan Island Lagoon SedimentInvestigation

TestAmerica Job ID: 580-81081-1

Client Sample ID: 513-0to26-101318

Lab Sample ID: 580-81081-18
Date Collected: 10/13/18 13:13
Matrix: Solid
Date Received: 10/15/18 11:30
Percent Solids: 32.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			287619	10/27/18 20:36	BAH	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	288139	11/04/18 20:48	Z1R	TAL SEA
Total/NA	Prep	HRMS-Sox	RA		253208	10/18/18 14:49	SR1	TAL SAC
Total/NA	Analysis	1613B	RA	1	255039	10/25/18 02:15	ALM	TAL SAC
Total/NA	Prep	HRMS-Sox			253208	10/18/18 14:49	SR1	TAL SAC
Total/NA	Analysis	1613B		1	254745	10/24/18 04:38	AS	TAL SAC
Total/NA	Prep	HRMS-Sox			24629	10/19/18 12:00	CLI	TAL KNX
Total/NA	Cleanup	Split			24711	10/23/18 08:50	EBS	TAL KNX
Total/NA	Analysis	1668A		10	24868	10/27/18 17:32	JMN	TAL KNX
Total/NA	Prep	3050B			288057	11/02/18 12:26	T1H	TAL SEA
Total/NA	Analysis	6020B		5	288207	11/05/18 14:52	FCW	TAL SEA
Total/NA	Prep	7471A			287482	10/26/18 09:42	JKM	TAL SEA
Total/NA	Analysis	7471A		1	287539	10/26/18 13:53	T1H	TAL SEA

Client Sample ID: J3-0to26-101318

Lab Sample ID: 580-81081-19
Date Collected: 10/13/18 10:51
Matrix: Solid
Date Received: 10/15/18 11:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	287334	10/24/18 15:36	A1K	TAL SEA
Total/NA	Analysis	D 2216		1	287954	11/01/18 11:09	BAH	TAL SEA
Total/NA	Analysis	Moisture 70C		1	288179	10/25/18 12:18	HJM	TAL SEA
Total/NA	Analysis	D7928/D6913		1	286982	10/19/18 16:28	A1K	TAL SEA
Total/NA	Analysis	D854		1	24823	10/25/18 00:00	JAH	TAL KNX
Total/NA	Analysis	D854		1	24871	10/25/18 00:00	JAH	TAL KNX

Client Sample ID: J3-0to26-101318

Lab Sample ID: 580-81081-19
Date Collected: 10/13/18 10:51
Matrix: Solid
Date Received: 10/15/18 11:30
Percent Solids: 44.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			287619	10/27/18 20:36	BAH	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	288139	11/04/18 21:28	Z1R	TAL SEA
Total/NA	Prep	HRMS-Sox	RA		253208	10/18/18 14:49	SR1	TAL SAC
Total/NA	Analysis	1613B	RA	1	255039	10/25/18 02:53	ALM	TAL SAC
Total/NA	Prep	HRMS-Sox			253208	10/18/18 14:49	SR1	TAL SAC
Total/NA	Analysis	1613B		1	254745	10/24/18 05:24	AS	TAL SAC
Total/NA	Prep	HRMS-Sox			24629	10/19/18 12:00	CLI	TAL KNX
Total/NA	Cleanup	Split			24711	10/23/18 08:50	EBS	TAL KNX
Total/NA	Analysis	1668A		5	24868	10/27/18 18:34	JMN	TAL KNX
Total/NA	Prep	3050B			288057	11/02/18 12:26	T1H	TAL SEA
Total/NA	Analysis	6020B		5	288207	11/05/18 15:13	FCW	TAL SEA
Total/NA	Prep	7471A			287482	10/26/18 09:42	JKM	TAL SEA

Lab Chronicle

Client: Pacific Groundwater Group
Project/Site: Swan Island Lagoon SedimentInvestigation

TestAmerica Job ID: 580-81081-1

Client Sample ID: J3-0to26-101318

Lab Sample ID: 580-81081-19
Date Collected: 10/13/18 10:51
Matrix: Solid
Date Received: 10/15/18 11:30
Percent Solids: 44.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7471A		1	287539	10/26/18 13:55	T1H	TAL SEA

Client Sample ID: L3-0to20-101318

Lab Sample ID: 580-81081-21
Date Collected: 10/13/18 14:33
Matrix: Solid
Date Received: 10/15/18 11:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	287334	10/24/18 15:41	A1K	TAL SEA
Total/NA	Analysis	D 2216		1	287954	11/01/18 11:09	BAH	TAL SEA
Total/NA	Analysis	Moisture 70C		1	288179	10/25/18 12:18	HJM	TAL SEA
Total/NA	Analysis	D7928/D6913		1	286982	10/19/18 16:28	A1K	TAL SEA
Total/NA	Analysis	D854		1	24823	10/25/18 00:00	JAH	TAL KNX
Total/NA	Analysis	D854		1	24871	10/25/18 00:00	JAH	TAL KNX

Client Sample ID: L3-0to20-101318

Lab Sample ID: 580-81081-21
Date Collected: 10/13/18 14:33
Matrix: Solid
Date Received: 10/15/18 11:30
Percent Solids: 72.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			287619	10/27/18 20:36	BAH	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	288139	11/04/18 21:48	Z1R	TAL SEA
Total/NA	Prep	HRMS-Sox			253208	10/18/18 14:49	SR1	TAL SAC
Total/NA	Analysis	1613B		1	254745	10/24/18 06:10	AS	TAL SAC
Total/NA	Prep	HRMS-Sox			24629	10/19/18 12:00	CLI	TAL KNX
Total/NA	Cleanup	Split			24711	10/23/18 08:50	EBS	TAL KNX
Total/NA	Analysis	1668A		3	24868	10/27/18 19:36	JMN	TAL KNX
Total/NA	Prep	3050B			288057	11/02/18 12:26	T1H	TAL SEA
Total/NA	Analysis	6020B		5	288207	11/05/18 15:18	FCW	TAL SEA
Total/NA	Prep	7471A			287482	10/26/18 09:47	JKM	TAL SEA
Total/NA	Analysis	7471A		1	287539	10/26/18 13:57	T1H	TAL SEA

Client Sample ID: L5-0to26-101318

Lab Sample ID: 580-81081-23
Date Collected: 10/13/18 13:13
Matrix: Solid
Date Received: 10/15/18 11:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	287334	10/24/18 14:48	A1K	TAL SEA
Total/NA	Analysis	D 2216		1	287954	11/01/18 11:09	BAH	TAL SEA
Total/NA	Analysis	Moisture 70C		1	288179	10/25/18 12:18	HJM	TAL SEA
Total/NA	Analysis	D7928/D6913		1	286982	10/19/18 16:28	A1K	TAL SEA
Total/NA	Analysis	D854		1	24823	10/25/18 00:00	JAH	TAL KNX
Total/NA	Analysis	D854		1	24871	10/25/18 00:00	JAH	TAL KNX

Lab Chronicle

Client: Pacific Groundwater Group
Project/Site: Swan Island Lagoon SedimentInvestigation

TestAmerica Job ID: 580-81081-1

Client Sample ID: L5-0to26-101318

Lab Sample ID: 580-81081-23

Date Collected: 10/13/18 13:13
Matrix: Solid
Date Received: 10/15/18 11:30
Percent Solids: 32.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			287619	10/27/18 20:36	BAH	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	288139	11/04/18 22:08	Z1R	TAL SEA
Total/NA	Prep	HRMS-Sox	RA		253208	10/18/18 14:49	SR1	TAL SAC
Total/NA	Analysis	1613B	RA	1	255039	10/25/18 03:30	ALM	TAL SAC
Total/NA	Prep	HRMS-Sox			253208	10/18/18 14:49	SR1	TAL SAC
Total/NA	Analysis	1613B		1	254745	10/24/18 06:55	AS	TAL SAC
Total/NA	Prep	HRMS-Sox			24629	10/19/18 12:00	CLI	TAL KNX
Total/NA	Cleanup	Split			24711	10/23/18 08:50	EBS	TAL KNX
Total/NA	Analysis	1668A		10	24868	10/27/18 20:37	JMN	TAL KNX
Total/NA	Prep	3050B			288057	11/02/18 12:26	T1H	TAL SEA
Total/NA	Analysis	6020B		5	288207	11/05/18 13:41	FCW	TAL SEA
Total/NA	Prep	7471A			287482	10/26/18 09:42	JKM	TAL SEA
Total/NA	Analysis	7471A		1	287539	10/26/18 13:08	T1H	TAL SEA

Client Sample ID: L7-0to29-101318

Lab Sample ID: 580-81081-24

Date Collected: 10/13/18 11:36
Matrix: Solid
Date Received: 10/15/18 11:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	287334	10/24/18 15:45	A1K	TAL SEA
Total/NA	Analysis	D 2216		1	287954	11/01/18 11:09	BAH	TAL SEA
Total/NA	Analysis	Moisture 70C		1	288179	10/25/18 12:18	HJM	TAL SEA
Total/NA	Analysis	D7928/D6913		1	286982	10/19/18 16:28	A1K	TAL SEA
Total/NA	Analysis	D854		1	24823	10/25/18 00:00	JAH	TAL KNX
Total/NA	Analysis	D854		1	24871	10/25/18 00:00	JAH	TAL KNX

Client Sample ID: L7-0to29-101318

Lab Sample ID: 580-81081-24

Date Collected: 10/13/18 11:36
Matrix: Solid
Date Received: 10/15/18 11:30
Percent Solids: 31.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			287619	10/27/18 20:36	BAH	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	288139	11/04/18 23:09	Z1R	TAL SEA
Total/NA	Prep	HRMS-Sox	RA		253208	10/18/18 14:49	SR1	TAL SAC
Total/NA	Analysis	1613B	RA	1	255039	10/25/18 04:08	ALM	TAL SAC
Total/NA	Prep	HRMS-Sox			253208	10/18/18 14:49	SR1	TAL SAC
Total/NA	Analysis	1613B		1	254750	10/24/18 11:13	AS	TAL SAC
Total/NA	Prep	HRMS-Sox			24629	10/19/18 12:00	CLI	TAL KNX
Total/NA	Cleanup	Split			24711	10/23/18 08:50	EBS	TAL KNX
Total/NA	Analysis	1668A		5	24878	10/28/18 01:31	PMP	TAL KNX
Total/NA	Prep	3050B			288057	11/02/18 12:26	T1H	TAL SEA
Total/NA	Analysis	6020B		5	288207	11/05/18 15:22	FCW	TAL SEA
Total/NA	Prep	7471A			287482	10/26/18 09:47	JKM	TAL SEA

Client Sample ID: L7-0to29-101318

Lab Sample ID: 580-81081-24
Date Collected: 10/13/18 11:36
Matrix: Solid
Date Received: 10/15/18 11:30
Percent Solids: 31.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7471A		1	287539	10/26/18 14:00	T1H	TAL SEA

Client Sample ID: H7-0to24-101218

Lab Sample ID: 580-81081-26
Date Collected: 10/12/18 15:14
Matrix: Solid
Date Received: 10/15/18 11:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	287405	10/24/18 16:36	A1K	TAL SEA
Total/NA	Analysis	D 2216		1	287954	11/01/18 11:09	BAH	TAL SEA
Total/NA	Analysis	Moisture 70C		1	288179	10/25/18 12:18	HJM	TAL SEA
Total/NA	Analysis	D7928/D6913		1	286982	10/19/18 16:28	A1K	TAL SEA
Total/NA	Analysis	D854		1	24823	10/25/18 00:00	JAH	TAL KNX
Total/NA	Analysis	D854		1	24871	10/25/18 00:00	JAH	TAL KNX

Client Sample ID: H7-0to24-101218

Lab Sample ID: 580-81081-26
Date Collected: 10/12/18 15:14
Matrix: Solid
Date Received: 10/15/18 11:30
Percent Solids: 41.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			287619	10/27/18 20:36	BAH	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	288139	11/04/18 23:29	Z1R	TAL SEA
Total/NA	Prep	HRMS-Sox	RA		253208	10/18/18 14:49	SR1	TAL SAC
Total/NA	Analysis	1613B	RA	1	255039	10/25/18 04:46	ALM	TAL SAC
Total/NA	Prep	HRMS-Sox			253208	10/18/18 14:49	SR1	TAL SAC
Total/NA	Analysis	1613B		1	254750	10/24/18 11:58	AS	TAL SAC
Total/NA	Prep	HRMS-Sox			24629	10/19/18 12:00	CLI	TAL KNX
Total/NA	Cleanup	Split			24711	10/23/18 08:50	EBS	TAL KNX
Total/NA	Analysis	1668A		2	24885	10/29/18 02:40	LKM	TAL KNX
Total/NA	Prep	3050B			288057	11/02/18 12:26	T1H	TAL SEA
Total/NA	Analysis	6020B		5	288207	11/05/18 15:26	FCW	TAL SEA
Total/NA	Prep	7471A			287482	10/26/18 09:47	JKM	TAL SEA
Total/NA	Analysis	7471A		1	287539	10/26/18 13:17	T1H	TAL SEA

Client Sample ID: J7-0to26-101218

Lab Sample ID: 580-81081-28
Date Collected: 10/12/18 15:52
Matrix: Solid
Date Received: 10/15/18 11:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	287405	10/24/18 16:41	A1K	TAL SEA
Total/NA	Analysis	D 2216		1	287962	11/01/18 12:04	BAH	TAL SEA
Total/NA	Analysis	Moisture 70C		1	288179	10/25/18 12:18	HJM	TAL SEA
Total/NA	Analysis	D7928/D6913		1	286982	10/19/18 16:28	A1K	TAL SEA

Lab Chronicle

Client: Pacific Groundwater Group
Project/Site: Swan Island Lagoon SedimentInvestigation

TestAmerica Job ID: 580-81081-1

Client Sample ID: J7-0to26-101218
Date Collected: 10/12/18 15:52
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-28
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D854		1	24823	10/25/18 00:00	JAH	TAL KNX
Total/NA	Analysis	D854		1	24871	10/25/18 00:00	JAH	TAL KNX

Client Sample ID: J7-0to26-101218
Date Collected: 10/12/18 15:52
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-28
Matrix: Solid
Percent Solids: 40.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			287619	10/27/18 20:36	BAH	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	288139	11/04/18 23:49	Z1R	TAL SEA
Total/NA	Prep	HRMS-Sox	RA		253208	10/18/18 14:49	SR1	TAL SAC
Total/NA	Analysis	1613B	RA	1	255039	10/25/18 05:24	ALM	TAL SAC
Total/NA	Prep	HRMS-Sox			253208	10/18/18 14:49	SR1	TAL SAC
Total/NA	Analysis	1613B		1	254750	10/24/18 12:44	AS	TAL SAC
Total/NA	Prep	HRMS-Sox			24629	10/19/18 12:00	CLI	TAL KNX
Total/NA	Cleanup	Split			24711	10/23/18 08:50	EBS	TAL KNX
Total/NA	Analysis	1668A		5	24885	10/29/18 03:42	LKM	TAL KNX
Total/NA	Prep	3050B			288057	11/02/18 12:26	T1H	TAL SEA
Total/NA	Analysis	6020B		5	288207	11/05/18 15:30	FCW	TAL SEA
Total/NA	Prep	7471A			287855	10/31/18 10:53	T1H	TAL SEA
Total/NA	Analysis	7471A		1	287887	10/31/18 13:24	T1H	TAL SEA

Client Sample ID: H5-0to29-101118
Date Collected: 10/11/18 15:31
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-33
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	287405	10/24/18 16:45	A1K	TAL SEA
Total/NA	Analysis	D 2216		1	287962	11/01/18 12:04	BAH	TAL SEA
Total/NA	Analysis	Moisture 70C		1	288179	10/25/18 12:18	HJM	TAL SEA
Total/NA	Analysis	D7928/D6913		1	286982	10/19/18 16:28	A1K	TAL SEA
Total/NA	Analysis	D854		1	24823	10/25/18 00:00	JAH	TAL KNX
Total/NA	Analysis	D854		1	24871	10/25/18 00:00	JAH	TAL KNX

Client Sample ID: H5-0to29-101118
Date Collected: 10/11/18 15:31
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-33
Matrix: Solid
Percent Solids: 31.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			287619	10/27/18 20:36	BAH	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	288139	11/05/18 00:09	Z1R	TAL SEA
Total/NA	Prep	HRMS-Sox	RA		253208	10/18/18 14:49	SR1	TAL SAC

Lab Chronicle

Client: Pacific Groundwater Group
Project/Site: Swan Island Lagoon SedimentInvestigation

TestAmerica Job ID: 580-81081-1

Client Sample ID: H5-0to29-101118

Lab Sample ID: 580-81081-33
Date Collected: 10/11/18 15:31
Matrix: Solid
Date Received: 10/15/18 11:30
Percent Solids: 31.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	1613B	RA	1	255039	10/25/18 06:02	ALM	TAL SAC
Total/NA	Prep	HRMS-Sox			253208	10/18/18 14:49	SR1	TAL SAC
Total/NA	Analysis	1613B		1	254750	10/24/18 13:30	AS	TAL SAC
Total/NA	Prep	HRMS-Sox			24629	10/19/18 12:00	CLI	TAL KNX
Total/NA	Cleanup	Split			24711	10/23/18 08:50	EBS	TAL KNX
Total/NA	Analysis	1668A		3	24878	10/28/18 04:35	PMP	TAL KNX
Total/NA	Prep	3050B			288057	11/02/18 12:26	T1H	TAL SEA
Total/NA	Analysis	6020B		5	288207	11/05/18 15:34	FCW	TAL SEA
Total/NA	Prep	7471A			287855	10/31/18 10:53	T1H	TAL SEA
Total/NA	Analysis	7471A		1	287887	10/31/18 13:27	T1H	TAL SEA

Client Sample ID: F7-0to27-101118

Lab Sample ID: 580-81081-37
Date Collected: 10/11/18 10:16
Matrix: Solid
Date Received: 10/15/18 11:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	287405	10/24/18 16:50	A1K	TAL SEA
Total/NA	Analysis	D 2216		1	287962	11/01/18 12:04	BAH	TAL SEA
Total/NA	Analysis	Moisture 70C		1	288179	10/25/18 12:18	HJM	TAL SEA
Total/NA	Analysis	D7928/D6913		1	286982	10/19/18 16:28	A1K	TAL SEA
Total/NA	Analysis	D854		1	24823	10/25/18 00:00	JAH	TAL KNX
Total/NA	Analysis	D854		1	24871	10/25/18 00:00	JAH	TAL KNX

Client Sample ID: F7-0to27-101118

Lab Sample ID: 580-81081-37
Date Collected: 10/11/18 10:16
Matrix: Solid
Date Received: 10/15/18 11:30
Percent Solids: 38.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			287619	10/27/18 20:36	BAH	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	288139	11/05/18 00:29	Z1R	TAL SEA
Total/NA	Prep	HRMS-Sox	RA		253208	10/18/18 14:49	SR1	TAL SAC
Total/NA	Analysis	1613B	RA	1	255039	10/25/18 06:40	ALM	TAL SAC
Total/NA	Prep	HRMS-Sox			253208	10/18/18 14:49	SR1	TAL SAC
Total/NA	Analysis	1613B		1	254750	10/24/18 14:15	AS	TAL SAC
Total/NA	Prep	HRMS-Sox			24629	10/19/18 12:00	CLI	TAL KNX
Total/NA	Cleanup	Split			24711	10/23/18 08:50	EBS	TAL KNX
Total/NA	Analysis	1668A		5	24885	10/29/18 04:44	LKM	TAL KNX
Total/NA	Prep	3050B			288057	11/02/18 12:26	T1H	TAL SEA
Total/NA	Analysis	6020B		5	288207	11/05/18 15:39	FCW	TAL SEA
Total/NA	Prep	7471A			287855	10/31/18 10:53	T1H	TAL SEA
Total/NA	Analysis	7471A		1	287887	10/31/18 13:29	T1H	TAL SEA

Lab Chronicle

Client: Pacific Groundwater Group
Project/Site: Swan Island Lagoon SedimentInvestigation

TestAmerica Job ID: 580-81081-1

Client Sample ID: 512-0to28-101118
Date Collected: 10/11/18 11:27
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-39
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	287405	10/24/18 16:55	A1K	TAL SEA
Total/NA	Analysis	D 2216		1	287962	11/01/18 12:04	BAH	TAL SEA
Total/NA	Analysis	Moisture 70C		1	288179	10/25/18 12:18	HJM	TAL SEA
Total/NA	Analysis	D7928/D6913		1	286982	10/19/18 16:28	A1K	TAL SEA
Total/NA	Analysis	D854		1	24824	10/25/18 00:00	JAH	TAL KNX
Total/NA	Analysis	D854		1	24870	10/25/18 00:00	JAH	TAL KNX

Client Sample ID: 512-0to28-101118
Date Collected: 10/11/18 11:27
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-39
Matrix: Solid
Percent Solids: 34.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			287619	10/27/18 20:36	BAH	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	288139	11/05/18 01:09	Z1R	TAL SEA
Total/NA	Prep	HRMS-Sox	RA		253208	10/18/18 14:49	SR1	TAL SAC
Total/NA	Analysis	1613B	RA	1	255039	10/25/18 07:18	ALM	TAL SAC
Total/NA	Prep	HRMS-Sox			253208	10/18/18 14:49	SR1	TAL SAC
Total/NA	Analysis	1613B		1	254750	10/24/18 15:01	AS	TAL SAC
Total/NA	Prep	HRMS-Sox			24629	10/19/18 12:00	CLI	TAL KNX
Total/NA	Cleanup	Split			24711	10/23/18 08:50	EBS	TAL KNX
Total/NA	Analysis	1668A		5	24878	10/28/18 06:39	PMP	TAL KNX
Total/NA	Prep	3050B			288057	11/02/18 12:26	T1H	TAL SEA
Total/NA	Analysis	6020B		5	288207	11/05/18 15:43	FCW	TAL SEA
Total/NA	Prep	7471A			287855	10/31/18 10:53	T1H	TAL SEA
Total/NA	Analysis	7471A		1	287887	10/31/18 13:31	T1H	TAL SEA

Client Sample ID: F5-0to28-101118
Date Collected: 10/11/18 11:27
Date Received: 10/15/18 11:30

Lab Sample ID: 580-81081-41
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	287405	10/24/18 16:08	A1K	TAL SEA
Total/NA	Analysis	D 2216		1	287962	11/01/18 12:04	BAH	TAL SEA
Total/NA	Analysis	Moisture 70C		1	288179	10/25/18 12:18	HJM	TAL SEA
Total/NA	Analysis	D7928/D6913		1	286982	10/19/18 16:28	A1K	TAL SEA
Total/NA	Analysis	D854		1	24824	10/25/18 00:00	JAH	TAL KNX
Total/NA	Analysis	D854		1	24870	10/25/18 00:00	JAH	TAL KNX

Client Sample ID: F5-0to28-101118

Lab Sample ID: 580-81081-41

Date Collected: 10/11/18 11:27

Matrix: Solid

Date Received: 10/15/18 11:30

Percent Solids: 34.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			287619	10/27/18 20:36	BAH	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	288139	11/05/18 01:30	Z1R	TAL SEA
Total/NA	Prep	HRMS-Sox	RA		253208	10/18/18 14:49	SR1	TAL SAC
Total/NA	Analysis	1613B	RA	1	255039	10/25/18 07:56	ALM	TAL SAC
Total/NA	Prep	HRMS-Sox			253208	10/18/18 14:49	SR1	TAL SAC
Total/NA	Analysis	1613B		1	254750	10/24/18 15:46	AS	TAL SAC
Total/NA	Prep	HRMS-Sox			24629	10/19/18 12:00	CLI	TAL KNX
Total/NA	Cleanup	Split			24711	10/23/18 08:50	EBS	TAL KNX
Total/NA	Analysis	1668A		20	24911	10/30/18 08:04	LKM	TAL KNX
Total/NA	Prep	3050B			288057	11/02/18 12:26	T1H	TAL SEA
Total/NA	Analysis	6020B		5	288207	11/05/18 14:19	FCW	TAL SEA
Total/NA	Prep	7471A			287855	10/31/18 10:53	T1H	TAL SEA
Total/NA	Analysis	7471A		1	287887	10/31/18 13:06	T1H	TAL SEA

Client Sample ID: F3-0to27-101118

Lab Sample ID: 580-81081-42

Date Collected: 10/11/18 13:27

Matrix: Solid

Date Received: 10/15/18 11:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	287405	10/24/18 17:00	A1K	TAL SEA
Total/NA	Analysis	D 2216		1	287962	11/01/18 12:04	BAH	TAL SEA
Total/NA	Analysis	Moisture 70C		1	288179	10/25/18 12:18	HJM	TAL SEA
Total/NA	Analysis	D7928/D6913		1	286982	10/19/18 16:28	A1K	TAL SEA
Total/NA	Analysis	D854		1	24824	10/25/18 00:00	JAH	TAL KNX
Total/NA	Analysis	D854		1	24870	10/25/18 00:00	JAH	TAL KNX

Client Sample ID: F3-0to27-101118

Lab Sample ID: 580-81081-42

Date Collected: 10/11/18 13:27

Matrix: Solid

Date Received: 10/15/18 11:30

Percent Solids: 41.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			287619	10/27/18 20:36	BAH	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	288139	11/05/18 02:30	Z1R	TAL SEA
Total/NA	Prep	HRMS-Sox	RA		253208	10/18/18 14:49	SR1	TAL SAC
Total/NA	Analysis	1613B	RA	1	255039	10/25/18 08:33	ALM	TAL SAC
Total/NA	Prep	HRMS-Sox			253208	10/18/18 14:49	SR1	TAL SAC
Total/NA	Analysis	1613B		1	254750	10/24/18 16:32	AS	TAL SAC
Total/NA	Prep	HRMS-Sox			24629	10/19/18 12:00	CLI	TAL KNX
Total/NA	Cleanup	Split			24711	10/23/18 08:50	EBS	TAL KNX
Total/NA	Analysis	1668A		3	24878	10/28/18 08:42	PMP	TAL KNX
Total/NA	Prep	3050B			288047	11/02/18 10:56	T1H	TAL SEA
Total/NA	Analysis	6020B		5	288150	11/02/18 19:23	FCW	TAL SEA
Total/NA	Prep	7471A			287855	10/31/18 10:53	T1H	TAL SEA

Lab Chronicle

Client: Pacific Groundwater Group
Project/Site: Swan Island Lagoon SedimentInvestigation

TestAmerica Job ID: 580-81081-1

Client Sample ID: F3-0to27-101118

Lab Sample ID: 580-81081-42
Date Collected: 10/11/18 13:27
Matrix: Solid
Date Received: 10/15/18 11:30
Percent Solids: 41.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7471A		1	287887	10/31/18 13:33	T1H	TAL SEA

Client Sample ID: H3-0to28-101118

Lab Sample ID: 580-81081-43
Date Collected: 10/11/18 14:06
Matrix: Solid
Date Received: 10/15/18 11:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	287405	10/24/18 17:04	A1K	TAL SEA
Total/NA	Analysis	D 2216		1	287962	11/01/18 12:04	BAH	TAL SEA
Total/NA	Analysis	Moisture 70C		1	288179	10/25/18 12:18	HJM	TAL SEA
Total/NA	Analysis	D7928/D6913		1	286982	10/19/18 16:28	A1K	TAL SEA
Total/NA	Analysis	D854		1	24824	10/25/18 00:00	JAH	TAL KNX
Total/NA	Analysis	D854		1	24870	10/25/18 00:00	JAH	TAL KNX

Client Sample ID: H3-0to28-101118

Lab Sample ID: 580-81081-43
Date Collected: 10/11/18 14:06
Matrix: Solid
Date Received: 10/15/18 11:30
Percent Solids: 33.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			287619	10/27/18 20:48	BAH	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	288139	11/05/18 02:50	Z1R	TAL SEA
Total/NA	Prep	HRMS-Sox	RA		253208	10/18/18 14:49	SR1	TAL SAC
Total/NA	Analysis	1613B	RA	1	255039	10/25/18 09:11	ALM	TAL SAC
Total/NA	Prep	HRMS-Sox			253208	10/18/18 14:49	SR1	TAL SAC
Total/NA	Analysis	1613B		1	254750	10/24/18 17:17	AS	TAL SAC
Total/NA	Prep	HRMS-Sox			24993	11/01/18 10:35	CLI	TAL KNX
Total/NA	Cleanup	Split			25135	11/06/18 15:04	SMM	TAL KNX
Total/NA	Analysis	1668A		3	25300	11/12/18 16:25	JMN	TAL KNX
Total/NA	Prep	3050B			288047	11/02/18 10:56	T1H	TAL SEA
Total/NA	Analysis	6020B		5	288150	11/02/18 19:27	FCW	TAL SEA
Total/NA	Prep	7471A			287855	10/31/18 10:53	T1H	TAL SEA
Total/NA	Analysis	7471A		1	287887	10/31/18 13:36	T1H	TAL SEA

Laboratory References:

TAL KNX = TestAmerica Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000
TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600
TAL SEA = TestAmerica Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

Accreditation/Certification Summary

Client: Pacific Groundwater Group
Project/Site: Swan Island Lagoon SedimentInvestigation

TestAmerica Job ID: 580-81081-1

Laboratory: TestAmerica Seattle

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska (UST)	State Program	10	17-024	01-19-19
ANAB	DoD ELAP		L2236	01-19-19
ANAB	ISO/IEC 17025		L2236	01-19-19
California	State Program	9	2901	11-05-18
Montana (UST)	State Program	8	N/A	04-30-20
Nevada	State Program	9	WA000502019-1	07-31-19
Oregon	NELAP	10	WA100007	11-05-19
US Fish & Wildlife	Federal		LE058448-0	07-31-19
USDA	Federal		P330-14-00126	02-10-20
Washington	State Program	10	C553	02-17-19

Laboratory: TestAmerica 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	10-31-19
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	07-31-19
New Jersey	NELAP	2	TN001	06-30-19
New York	NELAP	2	10781	03-31-19
North Carolina (DW)	State Program	4	21705	07-31-19
North Carolina (WW/SW)	State Program	4	64	12-31-18
Ohio VAP	State Program	5	CL0059	08-28-20
Oklahoma	State Program	6	9415	08-31-19
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	08-31-19
US Fish & Wildlife	Federal		LE-058448-0	07-31-19
USDA	Federal		P330-16-00262	08-20-19
Utah	NELAP	8	TN00009	07-31-19
Virginia	NELAP	3	460176	09-14-19
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	08-31-19

Laboratory: TestAmerica Sacramento

Accreditation/Certification Summary

Client: Pacific Groundwater Group
TestAmerica Job ID: 580-81081-1
Project/Site: Swan Island Lagoon SedimentInvestigation

Laboratory: TestAmerica Sacramento (Continued)

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	17-020	01-20-21
ANAB	DoD ELAP		L2468	01-20-21
Arizona	State Program	9	AZ0708	08-11-19
Arkansas DEQ	State Program	6	88-0691	06-17-19
California	State Program	9	2897	01-31-19
Colorado	State Program	8	CA00044	08-31-19
Connecticut	State Program	1	PH-0691	06-30-19
Florida	NELAP	4	E87570	06-30-19
Georgia	State Program	4	N/A	01-28-19
Hawaii	State Program	9	N/A	01-29-19
Illinois	NELAP	5	200060	03-17-19
Kansas	NELAP	7	E-10375	11-30-18
Louisiana	NELAP	6	30612	06-30-19
Maine	State Program	1	CA0004	04-14-20
Michigan	State Program	5	9947	01-31-20
Nevada	State Program	9	CA00044	07-31-19
New Hampshire	NELAP	1	2997	04-18-19
New Jersey	NELAP	2	CA005	06-30-19
New York	NELAP	2	11666	03-31-19
Oregon	NELAP	10	4040	01-29-19
Pennsylvania	NELAP	3	68-01272	03-31-19
Texas	NELAP	6	T104704399	05-31-19
US Fish & Wildlife	Federal		LE148388-0	07-31-19
USDA	Federal		P330-18-00239	01-17-21
USEPA UCMR	Federal	1	CA00044	12-31-20
Utah	NELAP	8	CA00044	02-28-19
Vermont	State Program	1	VT-4040	04-30-19
Virginia	NELAP	3	460278	03-14-19
Washington	State Program	10	C581	05-05-19
West Virginia (DW)	State Program	3	9930C	12-31-18
Wyoming	State Program	8	8TMS-L	01-28-19

Sample Summary

Client: Pacific Groundwater Group
Project/Site: Swan Island Lagoon SedimentInvestigation

TestAmerica Job ID: 580-81081-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-81081-1	611-101118	Water	10/11/18 08:20	10/15/18 11:30
580-81081-2	H1-0to24-101418	Solid	10/14/18 09:09	10/15/18 11:30
580-81081-4	F1-0to23-101418	Solid	10/14/18 11:08	10/15/18 11:30
580-81081-6	B1-0to20-101418	Solid	10/14/18 12:58	10/15/18 11:30
580-81081-12	J1-0to20-101318	Solid	10/13/18 17:11	10/15/18 11:30
580-81081-15	J5-0to29-101318	Solid	10/13/18 09:36	10/15/18 11:30
580-81081-18	513-0to26-101318	Solid	10/13/18 13:13	10/15/18 11:30
580-81081-19	J3-0to26-101318	Solid	10/13/18 10:51	10/15/18 11:30
580-81081-21	L3-0to20-101318	Solid	10/13/18 14:33	10/15/18 11:30
580-81081-23	L5-0to26-101318	Solid	10/13/18 13:13	10/15/18 11:30
580-81081-24	L7-0to29-101318	Solid	10/13/18 11:36	10/15/18 11:30
580-81081-26	H7-0to24-101218	Solid	10/12/18 15:14	10/15/18 11:30
580-81081-28	J7-0to26-101218	Solid	10/12/18 15:52	10/15/18 11:30
580-81081-33	H5-0to29-101118	Solid	10/11/18 15:31	10/15/18 11:30
580-81081-37	F7-0to27-101118	Solid	10/11/18 10:16	10/15/18 11:30
580-81081-39	512-0to28-101118	Solid	10/11/18 11:27	10/15/18 11:30
580-81081-41	F5-0to28-101118	Solid	10/11/18 11:27	10/15/18 11:30
580-81081-42	F3-0to27-101118	Solid	10/11/18 13:27	10/15/18 11:30
580-81081-43	H3-0to28-101118	Solid	10/11/18 14:06	10/15/18 11:30

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

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Matt Luxon	Lab PM: Walker, Elaine M	Carrier Tracking No(s):	COC No: 580-30854-10094.1
Client Contact: Jeff Parker & Janet Knox	Phone: (360) 296-6712	E-Mail: elaine.walker@testamericainc.com		Page: Page 1 of 13
Company: Pacific Groundwater Group				Job #: 2006-00115
Address: 2377 Eastlake Avenue E	Due Date Requested:			
City: Seattle	TAT Requested (days): Standard			
State, Zip: WA, 98102				
Phone: 206-329-0141(Tel) 206-329-6968(Fax)	PO #: Purchase Order Requested			
Email: jeff@pgwg.com; janet@pgwg.com	WO #:			
Project Name: Swan Island Lagoon Sediment Investigation	Project #: 58013007			
Site:	SSOW#:			

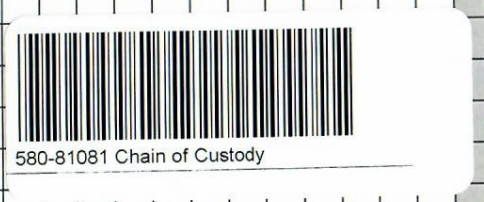
Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1668A - PCB Congeners	8082A - PCB Aroclors	1613B - Dioxin/Furans	6020A Metals - As,Cd,Cu,Pb,Zn	7471A - Mercury	D422 - Grain Size	D854 - Specific Gravity	Total Solids	NWTPH-Diesel Extended	SM5310 - TOC	2540D - Total Suspended Solids	Frozen Archive	Total Number of containers	Special Instructions/Note:
			Preservation Code:																	
611-101118	10/11/18			W			X	-	X	X	X	-	-	-	X	X	X	-		



Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological	☐ Return To Client ☐ Disposal By Lab ☒ Archive For 6 Months
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:
Relinquished by:	Date/Time: 10/15/18 1057	Company Acme ENV	Received by: Date/Time: 10-15-18 / 1057 Company M-E
Relinquished by:	Date/Time: 10-15-18 / 1130	Company M-E	Received by: Date/Time: 10/15/18 1130 Company TAER
Relinquished by:	Date/Time:	Company	Received by: Date/Time: Company

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 2.7, 0.6, 2.5, 1.1, 1.5, 0.9, 1.0, 2.1, 3.0

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

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Matt Luxon	Lab PM: Walker, Elaine M	Carrier Tracking No(s):	COC No: 580-30854-10094.1
Client Contact: Jeff Parker & Janet Knox	Phone: (360) 296-6712	E-Mail: elaine.walker@testamericainc.com		Page: Page 2 of 13
Company: Pacific Groundwater Group				Job #: 2006-00115
Address: 2377 Eastlake Avenue E	Due Date Requested:			
City: Seattle	TAT Requested (days): Standard			
State, Zip: WA, 98102				
Phone: 206-329-0141(Tel) 206-329-6968(Fax)	PO #: Purchase Order Requested			
Email: jeff@pgwg.com; janet@pgwg.com	WO #:			
Project Name: Swan Island Lagoon Sediment Investigation	Project #: 58013007			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1668A - PCB Congeners	8082A - PCB Aroclors	1613B - Dioxin/Furans	6020A Metals - As,Cd,Cu,Pb,Zn	7471A - Mercury	D422 - Grain Size	D854 - Specific Gravity	Total Solids	NWTPH-Diesel Extended	SM5310 - TOC	2540D - Total Suspended Solids	Frozen Archive		Total Number of containers	Special Instructions/Note:
			Preservation Code:																		
H4-0to28-10/11/18	10/11/18	1447			N	N												X			
E7-0to26-10/11/18		0947			N	N												X			
F7-0to27-10/11/18		1016			N	N												X			
H6-0to27-10/11/18		1627			N	N												X			
512-0to28-10/11/18		1127			N	N												X			duplicate
E2-0to16-10/11/18		1718			N	N												X			
F5-0to28-~~10/11~~ 10/11/18		1127			N	N												X			
F3-0to27-101118		1327			N	N												X			
H3-0to28-101118		1406			N	N												X			
F4-0to27-101118	10/11/18	1214			N	N												X			

Code sequence is located in sample ID ML

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☒ Archive For 6 Months

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

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		10/15/18 1657	GPWG ENV		10-15-18 / 1657	MLE
2	Relinquished by:	Date/Time: 10-15-18 / 1130	Company MLE	Received by:	Date/Time: 10/15/18 1130	Company TAOR
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: △ Yes △ No

Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

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

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Matt Luxon	Lab PM: Walker, Elaine M	Carrier Tracking No(s):	COC No: 580-30854-10094.1
Client Contact: Jeff Parker & Janet Knox	Phone: (360) 296-6712	E-Mail: elaine.walker@testamericainc.com		Page: Page 3 of 13
Company: Pacific Groundwater Group				Job #: 2006-00115

Address: 2377 Eastlake Avenue E	Due Date Requested:	
City: Seattle	TAT Requested (days): Standard	
State, Zip: WA, 98102		
Phone: 206-329-0141(Tel) 206-329-6968(Fax)	PO #: Purchase Order Requested	
Email: jeff@pgwg.com; janet@pgwg.com	WO #:	
Project Name: Swan Island Lagoon Sediment Investigation	Project #: 58013007	
Site:	SSOW#:	

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1668A - PCB Congeners	8082A - PCB Aroclors	1613B - Dioxin/Furans	6020A Metals - As,Cd,Cu,Pb,Zn	7471A - Mercury	D422 - Grain Size	D854 - Specific Gravity	Total Solids	NWTPH-Diesel Extended	SM5310 - TOC	2540D - Total Suspended Solids	Frozen Archive		Total Number of containers	Special Instructions/Note:
			Preservation Code:																		
H5-0to29-101118	10-11-18	1531					X		X	X	X	X	X	X	X	X					Phase 1
H3-0to28-101118		1406					X		X	X	X	X	X	X	X	X					Phase 1
F5-0to28-101118		1127					X		X	X	X	X	X	X	X	X					Phase 1
F3-0to27-101118		1327					X		X	X	X	X	X	X	X	X					Phase 1
H4-0to28-101118		1447					X		X	X	X	Hg						X			Archive NO Analyses
S12-0to28-101118	10-11-18	1127					X		X	X	X	X	X	X	X	X		X	TL		Phase 1

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☒ Archive For 6 Months

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

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Date/Time	Company		Date/Time	Company
Relinquished by:	10/15/18 10:57	Pacific Env	Received by:	10-15-18 / 1057	MJE
Relinquished by:	10-15-18 / 1130		Received by:	10/15/18 1130	TAL SEA
Relinquished by:			Received by:		

Custody Seals Intact: △ Yes △ No

Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

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

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Matt Luxon	Lab PM: Walker, Elaine M	Carrier Tracking No(s):	COC No: 580-30854-10094.1
Client Contact: Jeff Parker & Janet Knox	Phone: (360) 296-6712	E-Mail: elaine.walker@testamericainc.com		Page: Page 1 of 3
Company: Pacific Groundwater Group				Job #: 2006-00115
Address: 2377 Eastlake Avenue E	Due Date Requested:			
City: Seattle	TAT Requested (days): Standard			
State, Zip: WA, 98102				
Phone: 206-329-0141(Tel) 206-329-6968(Fax)	PO #: Purchase Order Requested			
Email: jeff@pgwg.com; janet@pgwg.com	WO #:			
Project Name: Swan Island Lagoon Sediment Investigation	Project #: 58013007			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1668A - PCB Congeners	8082A - PCB Aroclors	1613B - Dioxin/Furans	6020A Metals - As,Cd,Cu,Pb,Zn	7471A - Mercury	D422 - Grain Size	D854 - Specific Gravity	Total Solids	NWTPH-Diesel Extended	SM5310 - TOC	2540D - Total Suspended Solids	Frozen Archive	Total Number of containers	Special Instructions/Note:
			Preservation Code:																	
F4-0to23-101118	10/11/18	1245		S														X		Archive
F5-0to28-101118	"	1127		S			X		X	X	X	X	X	X	X	X				✓
H6-0to -101118	"	1627		S														X		Archive
F7-0to -101118	"	1016		S			X		X	X	X	X	X	X	X	X				✓
F6-0to -101118	"	1052		S														X		Archive
E7-0to -101118	10/11/18	937		S														X		Archive
E2-0to -101118	10/11/18	1718		S														X		Archive

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☒ Archive For 6 Months

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

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		10/15/18 10:57	Aem Env.		10-15-18 / 1057	M.E
2		10-15-18 / 1130	M.E		10/15/18 1130	TAOL
3		Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: △ Yes △ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

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

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Matt Luxon	Lab PM: Walker, Elaine M	Carrier Tracking No(s):	COC No: 580-30854-10094.1
Client Contact: Jeff Parker & Janet Knox	Phone: (360) 296-6712	E-Mail: elaine.walker@testamericainc.com		Page: Page 5 of 13
Company: Pacific Groundwater Group				Job #: 2006-00115
Address: 2377 Eastlake Avenue E	Due Date Requested:			
City: Seattle	TAT Requested (days): Standard			
State, Zip: WA, 98102				
Phone: 206-329-0141(Tel) 206-329-6968(Fax)	PO #: Purchase Order Requested			
Email: jeff@pgwg.com; janet@pgwg.com	WO #:			
Project Name: Swan Island Lagoon Sediment Investigation	Project #: 58013007			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Note: disregard slashes in sample ID MC

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1668A - PCB Congeners	8082A - PCB Aroclors	1613B - Dioxin/Furans	6020A Metals - As,Cd,Cu,Pb,Zn	7471A - Mercury	D422 - Grain Size	D854 - Specific Gravity	Total Solids	NWTPH-Diesel Extended	SM5310 - TOC	2540D - Total Suspended Solids	Frozen Archive	Total Number of containers	Special Instructions/Note:
			Preservation Code:																	
G2-0to28-101218	10/12/18	1125	G	S	N	N												X		
H7-0to24-101218	10/12/18	1514	G	S	N	N												X		
J2A4-0to14-10/12/18	10/12/18	1320	G	S	N	N												X		
~~J7~~ J7-0to26-10/12/18	10/12/18	1551	G	S	N	N												X		
J2A3-0to18-10/12/18	10/12/18	1258	G	S	N	N												X		
B2-0to22-10/12/18	10/12/18	0822	G	S	N	N												X		
I2-0to31-10/12/18	10/12/18	0936	G	S	N	N												X		
H2-0to30-10/12/18	10/12/18	1028	G	S	N	N												X		
F5-0to28-10/11/18	10/11/18	1127	G	S	N	N												X		
H5-0to29-10/11/18	10/11/18	1531	G	S	N	N												X		
F6-0to27-10/11/18	10/11/18	1052	G	S	N	N												X		

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☒ Archive For 6 Months

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

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by:	Date/Time: 10/15/18 10:57	Company	Received by:	Date/Time: 10-15-18 1057	Company M.E
Relinquished by:	Date/Time: 10-15-18 1130	Company ME	Received by:	Date/Time: 10/15/18 1130	Company M.E
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: △ Yes △ No

Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

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

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Matt Luxon	Lab PM: Walker, Elaine M	Carrier Tracking No(s):	COC No: 580-30854-10094.1
Client Contact: Jeff Parker & Janet Knox	Phone: (360) 296-6712	E-Mail: elaine.walker@testamericainc.com		Page: Page 6 of 11 13
Company: Pacific Groundwater Group				Job #: 2006-00115
Address: 2377 Eastlake Avenue E	Due Date Requested:			
City: Seattle	TAT Requested (days): Standard			
State, Zip: WA, 98102				
Phone: 206-329-0141(Tel) 206-329-6968(Fax)	PO #: Purchase Order Requested			
Email: jeff@pgwg.com; janet@pgwg.com	WO #:			
Project Name: Swan Island Lagoon Sediment Investigation	Project #: 58013007			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1668A - PCB Congeners	8082A - PCB Aroclors	1613B - Dioxin/Furans	6020A Metals - As,Cd,Cu,Pb,Zn	7471A - Mercury	D422 - Grain Size	D854 - Specific Gravity	Total Solids	NWTPH-Diesel Extended	SM5310 - TOC	2540D - Total Suspended Solids	Frozen Archive		Total Number of containers	Special Instructions/Note:
Preservation Code:																					
B2-0to22 - 101218	10/12/18	0822		S														X			Archive
G2-0to28 - 101218		1125		S														X			"
H2-0to30 - 101218		1028		S														X			"
H7-0to24 - 101218		1515		S			X		XX	X	XX	X	X	X							✓
I2-0to31 - 101218		930		S														X			Archive
J2A3-0to18 - 101218		1258		C														X			"
J2A4-0to14 - 101218		1320		C														X			"
J7-0to26 - 101218	10/12/18	1552		S			X		X	XXX	XX	X	X	X	X	X					✓

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☒ Archive For 6 Months

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

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		10/15/18 10:57	Hong Env		10-15-18 / 1657	M.E
2		10-15-18 / 1135	M.E		10/15/18 1120	
3		Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: △ Yes △ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

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

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Matt Luxon	Lab PM: Walker, Elaine M	Carrier Tracking No(s):	COC No: 580-30854-10094.1
Client Contact: Jeff Parker & Janet Knox	Phone: (360) 296-6712	E-Mail: elaine.walker@testamericainc.com		Page: Page 7 of 13
Company: Pacific Groundwater Group				Job #: 2006 - 00115
Address: 2377 Eastlake Avenue E	Due Date Requested:			
City: Seattle	TAT Requested (days): Standard			
State, Zip: WA, 98102				
Phone: 206-329-0141(Tel) 206-329-6968(Fax)	PO #: Purchase Order Requested			
Email: jeff@pgwg.com; janet@pgwg.com	WO #:			
Project Name: Swan Island Lagoon Sediment Investigation	Project #: 58013007			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - Di Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1668A - PCB Congeners	8082A - PCB Aroclors	1613B - Dioxin/Furans	6020A Metals - As,Cd,Cu,Pb,Zn	7471A - Mercury	D422 - Grain Size	D854 - Specific Gravity	Total Solids	NWTPH-Diesel Extended	SM5310 - TOC	2540D - Total Suspended Solids	Frozen Archive	Total Number of containers	Special Instructions/Note:
			Preservation Code:																	
LS-0to26 - 101318	10/13/18	1313		S														X		ARCHIVE
LS-0to26 - 101318 MS/MSD	10/13/18	1313		S														X		
L7 - 0to29 - 101318	10/13/18	1136		S														X		ARCHIVE

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☒ Archive For 6 Months

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

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:	
Relinquished by:	Date/Time: 10/15/18 10:57	Company: Anne Env.	Received by:	Date/Time: 10-15-18 1057 Company: M.E
Relinquished by:	Date/Time: 10-15-18 1130	Company: M.E	Received by:	Date/Time: 10/15/18 1130 Company: TAPSE
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time: Company:

Custody Seals Intact: △ Yes △ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

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

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Matt Luxon	Lab PM: Walker, Elaine M	Carrier Tracking No(s):
Client Contact: Jeff Parker & Janet Knox	Phone: (360) 296-6712	E-Mail: elaine.walker@testamericainc.com	
Company: Pacific Groundwater Group			
Address: 2377 Eastlake Avenue E	Due Date Requested:		
City: Seattle	TAT Requested (days): Standard		
State, Zip: WA, 98102			
Phone: 206-329-0141(Tel) 206-329-6968(Fax)	PO #: Purchase Order Requested		
Email: jeff@pgwg.com; janet@pgwg.com	WO #:		
Project Name: Swan Island Lagoon Sediment Investigation	Project #: 58013007		
Site:	SSOW#:		

COC No: 580-30854-10094.1
Page: Page 8 of 13
Job #: 2006-00115

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1668A - PCB Congeners	8082A - PCB Aroclors	1613B - Dioxin/Furans	6020A Metals - As,Cd,Cu,Pb,Zn	7471A - Mercury	D422 - Grain Size	D854 - Specific Gravity	Total Solids	NWTPH-Diesel Extended	SM5310 - TOC	2540D - Total Suspended Solids	Frozen Archive	Total Number of containers	Special Instructions/Note:
			Preservation Code:																	
J1-0to 20 - 101318	10/13/18	1711		S														X		
I1-0to19 - 101318		1559		S														X		
L6-0to28 - 101318		1200		S														X		
J5-0to29 - 101318		936		S														X		
J6-0to30 - 101318		901		S														X		
J4-0to29 - 101318		1022		S														X		
5130to 26 - 101318		1313		S														X		
J3-0to 26 - 101318		1051		S														X		
L2-0to22 - 101318		1525		S														X		
L3-0to20 - 101318		1433		S														X		
L4-0to28 - 101318	10/13/18	1347		S														X		

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☒ Archive For 6 Months

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

Special Instructions/QC Requirements:

Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:	
Relinquished by:	Date/Time: 10/15/18 10:57	Company Anw Env.	Received by:		Date/Time: 10-15-18 / 1057	Company M.E	
Relinquished by:	Date/Time: 10-15-18 / 1138	Company M.E	Received by:		Date/Time: 10/15/18 1130	Company TAPCK	
Relinquished by:	Date/Time:	Company	Received by:		Date/Time:	Company	

Custody Seals Intact: △ Yes △ No
Custody Seal No.:
Cooler Temperature(s) °C and Other Remarks:

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

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Matt Luxon	Lab PM: Walker, Elaine M	Carrier Tracking No(s):	COC No: 580-30854-10094.1
Client Contact: Jeff Parker & Janet Knox	Phone: (360) 296-6712	E-Mail: elaine.walker@testamericainc.com		Page: Page 9 of 13
Company: Pacific Groundwater Group				Job #: 2006-00115
Address: 2377 Eastlake Avenue E	Due Date Requested:			
City: Seattle	TAT Requested (days): Standard			
State, Zip: WA, 98102				
Phone: 206-329-0141(Tel) 206-329-6968(Fax)	PO #: Purchase Order Requested			
Email: jeff@pgwg.com; janet@pgwg.com	WO #:			
Project Name: Swan Island Lagoon Sediment Investigation	Project #: 58013007			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1668A - PCB Congeners	8082A - PCB Aroclors	1613B - Dioxin/Furans	6020A Metals - As,Cd,Cu,Pb,Zn	7471A - Mercury	D422 - Grain Size	D854 - Specific Gravity	Total Solids	NWTPH-Diesel Extended	SM5310 - TOC	2540D - Total Suspended Solids	Frozen Archive		Total Number of containers	Special Instructions/Note:
			Preservation Code:																		
L5-0to26 - 101318	10/13/18	1313		S			X		X	X	X	X	X	X	X	X					✓
J1-0to20 - 101318		1711		S			X		X	X	X	X	X	X	X	X					✓
L6-0to28 - 101318		1208		S														X			Archive
L5-0to26 - 101318 MS/MSD		1313		S			X		X	X	X	X	X	X	X	X					MS/MSD for L5
I1-0to19 - 101318		1559		S														X			Archive
S13-0to26 - 101318		1313		S			X		X	X	X	X	X	X	X	X					✓
L4-0to28 - 101318	10/13/18	1347		S														X			Archive

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☒ Archive For 6 Months

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

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		10/15/18 10:57	Acme Env.		10-15-18 / 1057	M.E
2		10-15-18 / 1130	M.E		10/15/18 1130	TAOR
3		Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: △ Yes △ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

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

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Matt Luxon	Lab PM: Walker, Elaine M	Carrier Tracking No(s):	COC No: 580-30854-10094.1
Client Contact: Jeff Parker & Janet Knox	Phone: (360) 296-6712	E-Mail: elaine.walker@testamericainc.com		Page: Page 10 of 13
Company: Pacific Groundwater Group				Job #: 2006-00115
Address: 2377 Eastlake Avenue E	Due Date Requested:			
City: Seattle	TAT Requested (days): Standard			
State, Zip: WA, 98102				
Phone: 206-329-0141(Tel) 206-329-6968(Fax)	PO #: Purchase Order Requested			
Email: jeff@pgwg.com; janet@pgwg.com	WO #:			
Project Name: Swan Island Lagoon Sediment Investigation	Project #: 58013007			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1668A - PCB Congeners	8082A - PCB Aroclors	1613B - Dioxin/Furans	6020A Metals - As,Cd,Cu,Pb,Zn	7471A - Mercury	D422 - Grain Size	D854 - Specific Gravity	Total Solids	NWTPH-Diesel Extended	SM5310 - TOC	2540D - Total Suspended Solids	Frozen Archive	Total Number of containers	Special Instructions/Note:
			Preservation Code:																	
J4-0to29-101318	10/13/18	1022		S														X		Archive
L3-0to20-101318		1433		S			X		X	X	X	X	X	X	X	X				✓
J6-0to30-101318		901		S														X		Archive
L7-0to29-101318		1136		S			X		X	X	X	X	X	X	X	X				✓
J5-0to29-101318		936		S			X		X	X	X	X	X	X	X	X				✓
J3-0to26-101318		1051		S			X		X	X	X	X	X	X	T	T				✓
L2-0to22-101318	10/13/18	1525		S														X		Archive

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☒ Archive For 6 Months

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

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		10/15/18 10:54	Anne Env.		10-15-18 / 1057	M.E
2	Relinquished by:	Date/Time: 10-15-18 / 1130	Company M.E	Received by:	Date/Time: 10/15/18 1130	Company TAL
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

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

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Matt Luxon	Lab PM: Walker, Elaine M	Carrier Tracking No(s):	COC No: 580-30854-10094.1
Client Contact: Jeff Parker & Janet Knox	Phone: (360) 296-6712	E-Mail: elaine.walker@testamericainc.com		Page: Page 11 of 13
Company: Pacific Groundwater Group				Job #: 2006-00115
Address: 2377 Eastlake Avenue E	Due Date Requested:			
City: Seattle	TAT Requested (days): Standard			
State, Zip: WA, 98102				
Phone: [illegible] 0141(Tel) 206-329-6968(Fax)	PO #: Purchase Order Requested			
Email: jeff@pgwg.com; janet@pgwg.com	WO #:			
Project Name: Swan Island Lagoon Sediment Investigation	Project #: 58013007			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1668A - PCB Congeners	8082A - PCB Aroclors	1613B - Dioxin/Furans	6020A Metals - As,Cd,Cu,Pb,Zn	7471A - Mercury	D422 - Grain Size	D854 - Specific Gravity	Total Solids	NWTPH-Diesel Extended	SM5310 - TOC	2540D - Total Suspended Solids	Frozen Archive		Total Number of containers	Special Instructions/Note:
			Preservation Code:																		
N4-0to29-101418	10/14/13	1723	G	S	N	N												X			Phase 2
H1-0to24-101418		0909	G	S	N	N	X		X	X	X	X	X	X	X	X					Phase 1
N7-0to20-101418		1510	G	S	N	N	X		X	X	X	X	X	X	X	X		X[2]			Phase 1
C1-0to22-101418		1346	G	S	N	N												X			Phase 2
F1-0to23-101418	10/14/13	1108	G	S	N	N	X		X	X	X	X	X	X	X	X					Phase 1

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

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

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☒ Archive For 6 Months

Special Instructions/QC Requirements:

Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:	
Relinquished by:	Date/Time: 10/15/18 10:57	Company: Acme Env.	Received by:	Date/Time: 10-15-18 / 1057	Company: M.E		
Relinquished by:	Date/Time: 10-15-18 / 1130	Company: M.E	Received by:	Date/Time: 10/15/18 1130	Company: TAS		
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company		

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

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

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information
Client Contact: Jeff Parker & Janet Knox
Company: Pacific Groundwater Group
Address: 2377 Eastlake Avenue E
City: Seattle
State, Zip: WA, 98102
Phone: 206-329-0141(Tel) 206-329-6968(Fax)
Email: jeff@pgwg.com; janet@pgwg.com
Project Name: Swan Island Lagoon Sediment Investigation
Site:

Sampler: Matt Luxon
Phone: (360) 296-6712
Lab PM: Walker, Elaine M
E-Mail: elaine.walker@testamericainc.com
Carrier Tracking No(s):
COC No: 580-30854-10094.1
Page: Page 12 of 13
Job #: 2006-00115

Due Date Requested:
TAT Requested (days): Standard
PO #: Purchase Order Requested
WO #:
Project #: 58013007
SSOW#:

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1668A - PCB Congeners	8082A - PCB Aroclors	1613B - Dioxin/Furans	6020A Metals - As,Cd,Cu,Pb,Zn	7471A - Mercury	D422 - Grain Size	D854 - Specific Gravity	Total Solids	NWTPH-Diesel Extended	SM5310 - TOC	2540D - Total Suspended Solids	Frozen Archive	Total Number of containers	Special Instructions/Note:
			Preservation Code:																	
H1-0to24-101418	10/14/18	0909		S														X		
G1-0to24-101418		1012		S														X		
F1-0to23-101418		1108		S														X		
E1-0to20-101418		1204		S														X		
B1-0to20-101418		1258		S														X		
C1-0to22-101418		1346		S														X		
N7-0to27-101418		1510		S														X		
N6-0to28-101418		1604		S														X		
N5-0to28-101418		1646		S														X		
N4-0to29-101418	10/14/18	1723		S														Y		

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological
Deliverable Requested: I, II, III, IV, Other (specify)

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☒ Archive For 6 Months
Special Instructions/QC Requirements:

Empty Kit Relinquished by: Date: Time: Method of Shipment:

	Date/Time	Company		Date/Time	Company
Relinquished by:	10/15/18 10:57	Pacific GW	Received by:	10-15-18 / 1057	M.E
Relinquished by:	10-15-18 / 1130	M.E	Received by:	10/15/18 1130	TRACE
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: △ Yes △ No
Custody Seal No.:
Cooler Temperature(s) °C and Other Remarks:

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

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Matt Luxon	Lab PM: Walker, Elaine M	Carrier Tracking No(s):	COC No: 580-30854-10094.1
Client Contact: Jeff Parker & Janet Knox	Phone: (360) 296-6712	E-Mail: elaine.walker@testamericainc.com		Page: Page 13 of 13
Company: Pacific Groundwater Group				Job #: 2006-00115
Address: 2377 Eastlake Avenue E	Due Date Requested:			
City: Seattle	TAT Requested (days): Standard			
State, Zip: WA, 98102				
Phone: 206-329-0141(Tel) 206-329-6968(Fax)	PO #: Purchase Order Requested			
Email: jeff@pgwg.com; janet@pgwg.com	WO #:			
Project Name: Swan Island Lagoon Sediment Investigation	Project #: 58013007			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1668A - PCB Congeners	8082A - PCB Aroclors	1613B - Dioxin/Furans	6020A Metals - As,Cd,Cu,Pb,Zn	7471A - Mercury	D422 - Grain Size	D854 - Specific Gravity	Total Solids	NWTPH-Diesel Extended	SM5310 - TOC	2540D - Total Suspended Solids	Frozen Archive	Total Number of containers	Special Instructions/Note:
			Preservation Code:																	
G1-0to24-101418	10/14/18	1012		S														X		A
B1-0to20-101418		1258		S																V
NB-0to28-101418		1604		S														X		A
NS-0to28-101418		1646		S																V
E1-0to20-101418	10/14/18	1204		S														X		A

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☒ Archive For 6 Months

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

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		10/15/18 10:57	Anne Env.		10-15-18 1057	N.E
2	Relinquished by:	Date/Time: 10-15-18 1130	Company N.E	Received by:	Date/Time: 10/15/18 1130	Company TAOA
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: △ Yes △ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

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

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Matt Luxon	Lab PM: Walker, Elaine M	Carrier Tracking No(s):	COC No: 580-30854-10094.1
Client Contact: Jeff Parker & Janet Knox	Phone: (360) 296-6712	E-Mail: elaine.walker@testamericainc.com		Page: Page 1 of 13
Company: Pacific Groundwater Group				Job #: 2006-00115
Address: 2377 Eastlake Avenue E	Due Date Requested:			
City: Seattle	TAT Requested (days): Standard			
State, Zip: WA, 98102				
Phone: 206-329-0141(Tel) 206-329-6968(Fax)	PO #: Purchase Order Requested			
Email: jeff@pgwg.com; janet@pgwg.com	WO #:			
Project Name: Swan Island Lagoon Sediment Investigation	Project #: 58013007			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1668A - PCB Congeners	8082A - PCB Aroclors	1613B - Dioxin/Furans	6020A Metals - As,Cd,Cu,Pb,Zn	7471A - Mercury	D422 - Grain Size	D854 - Specific Gravity	Total Solids	NWTPH-Diesel Extended	SM5310 - TOC	2540D - Total Suspended Solids	Frozen Archive	Total Number of containers	Special Instructions/Note:
			Preservation Code:																	
611-101118	10/11/18			W			X	-	X	X	X	-	-	-	X	X	X	-		

580-81081 Chain of Custody

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological	☐ Return To Client ☐ Disposal By Lab ☒ Archive For 6 Months
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		10/15/18 1057	Ramboll		10-15-18 / 1057	M-E
2		10-15-18 / 1130	M-E		10/15/18 1130	TAER
3		10/15/18 1800	TAER		10.16.18 0915	TASea

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 2.7, 0.6, 2.5, 1.1 1.5, 0.9 1.0 2.1 3.0 4=4.6, 3.2, 2.6, 1.4, 4.4

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

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Matt Luxon	Lab PM: Walker, Elaine M	Carrier Tracking No(s):	COC No: 580-30854-10094.1
Client Contact: Jeff Parker & Janet Knox	Phone: (360) 296-6712	E-Mail: elaine.walker@testamericainc.com		Page: Page 2 of 13
Company: Pacific Groundwater Group		**Analysis Requested**		Job #: 2006-00115
Address: 2377 Eastlake Avenue E	**Due Date Requested:**			
City: Seattle	**TAT Requested (days):** Standard			
State, Zip: WA, 98102				
Phone: 206-329-0141(Tel) 206-329-6968(Fax)	PO #: Purchase Order Requested			
Email: jeff@pgwg.com; janet@pgwg.com	WO #:			
Project Name: Swan Island Lagoon Sediment Investigation	Project #: 58013007			
Site:	SSOW#:			

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA
M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1668A - PCB Congeners	8082A - PCB Aroclors	1613B - Dioxin/Furans	6020A Metals - As,Cd,Cu,Pb,Zn	7471A - Mercury	D422 - Grain Size	D854 - Specific Gravity	Total Solids	NWTPH-Diesel Extended	SM5310 - TOC	2540D - Total Suspended Solids	Frozen Archive	Total Number of containers	Special Instructions/Note:
			Preservation Code:																	
H4-0to28-10/11/18	10/11/18	1447			N	N												X		
E7-0to26-10/11/18		0947			N	N												X		
F7-0to27-10/11/18		1016			N	N												X		
H6-0to27-10/11/18		1627			N	N												X		
5J2-0to28-10/11/18		1127			N	N												X		duplicate
E2-0to16-101118		1718			N	N												X		
F5-0to28-~~10/11/18~~ 101118		1127			N	N												X		
F3-0to27-101118		1327			N	N												X		
H3-0to28-101118		1406			N	N												X		
F4-0to27-101118	10/11/18	1214			N	N												X		

Note: discrepancy in sample ID ML

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☒ Archive For 6 Months

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

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	10/15/18 1057	G.Env Env	[signature]	10-15-18 / 1057	M.E
[signature]	10-15-18 / 1130	ME	[signature]	10/15/18 1130	TAPDX
[signature]	10/15/18 1800	TAPDX	[signature]	10.16.18 0915	TASea

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

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

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Matt Luxon	Lab PM: Walker, Elaine M	Carrier Tracking No(s):	COC No: 580-30854-10094.1
Client Contact: Jeff Parker & Janet Knox	Phone: (360) 296-6712	E-Mail: elaine.walker@testamericainc.com		Page: Page 3 of 13
Company: Pacific Groundwater Group				Job #: 2006-00115

Address: 2377 Eastlake Avenue E	Due Date Requested:	Analysis Requested	Preservation Codes:
City: Seattle	TAT Requested (days): Standard		A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
State, Zip: WA, 98102			
Phone: 206-329-0141(Tel) 206-329-6968(Fax)	PO #: Purchase Order Requested		
Email: jeff@pgwg.com; janet@pgwg.com	WO #:		
Project Name: Swan Island Lagoon Sediment Investigation	Project #: 58013007		
Site:	SSOW#:		Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1668A - PCB Congeners	8082A - PCB Aroclors	1613B - Dioxin/Furans	6020A Metals - As,Cd,Cu,Pb,Zn	7471A - Mercury	D422 - Grain Size	D854 - Specific Gravity	Total Solids	NWTPH-Diesel Extended	SM5310 - TOC	2540D - Total Suspended Solids	Frozen Archive		Total Number of containers	Special Instructions/Note:
			Preservation Code:																		
H5-0to29-101118	10-11-18	1531					X		X	X	X	X	X	X	X	X					Phase 1
H3-0to28-101118		1406					X		X	X	X	X	X	X	X	X					Phase 1
F5-0to28-101118		1127					X		X	X	X	X	X	X	X	X					Phase 1
F3-0to27-101118		1327					X		X	X	X	X	X	X	X	X					Phase 1
H4-0to28-101118		1447					X		X	X	X	Arc						X			Archive No Analyses
S12-0to28-101118	10-11-18	1127					X		X	X	X	X	X	X	X	X		X			Phase 1

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☒ Archive For 6 Months

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

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		10/15/18 10:57	Pierce Env		10-15-18 1657	A.E
2	Relinquished by:	Date/Time: 10-15-18 1120	Company	Received by:	Date/Time: 10/15/18 1130	Company TAER
3	Relinquished by:	Date/Time: 10/15/18 1800	Company TAER	Received by:	Date/Time: 10.16.18 0915	Company TAES

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

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

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Matt Luxon	Lab PM: Walker, Elaine M	Carrier Tracking No(s):	COC No: 580-30854-10094.1
Client Contact: Jeff Parker & Janet Knox	Phone: (360) 296-6712	E-Mail: elaine.walker@testamericainc.com		Page: Page 1 of 3
Company: Pacific Groundwater Group				Job #: 2006-00115
Address: 2377 Eastlake Avenue E	Due Date Requested:			
City: Seattle	TAT Requested (days): Standard			
State, Zip: WA, 98102				
Phone: 206-329-0141(Tel) 206-329-6968(Fax)	PO #: Purchase Order Requested			
Email: jeff@pgwg.com; janet@pgwg.com	WO #:			
Project Name: Swan Island Lagoon Sediment Investigation	Project #: 58013007			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1668A - PCB Congeners	8082A - PCB Aroclors	1613B - Dioxin/Furans	6020A Metals - As,Cd,Cu,Pb,Zn	7471A - Mercury	D422 - Grain Size	D854 - Specific Gravity	Total Solids	NWTPH-Diesel Extended	SM5310 - TOC	2540D - Total Suspended Solids	Frozen Archive		Total Number of containers	Special Instructions/Note:
			Preservation Code:																		
F4-0to23-101118	10/11/18	1245		S														X			Archive
F5-0to28-101118		1127		S			X		X	X	X	X	X	X	X	X					✓
H6-0to -101118		1627		S														X			Archive
F7-0to -101118		1016		S			X		X	X	X	X	X	X	X	X					✓
F6-0to -101118		1052		S														X			Archive
E7-0to -101118	10/11/18	937		S														X			Archive
E2-0to -101118	10/11/18	1718		S														X			Archive

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☒ Archive For 6 Months

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

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1		10/15/18 10:57	Anw Env.		10-15-18 / 1057	M.E
2		10-15-18 / 1130	M.E		10/15/18 1130	DRL
3		10/15/18 1500	TRAN		10-16-18 0915	TASE2

Custody Seals Intact: Δ Yes Δ No
Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

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

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Matt Luxon	Lab PM: Walker, Elaine M	Carrier Tracking No(s):	COC No: 580-30854-10094.1
Client Contact: Jeff Parker & Janet Knox	Phone: (360) 296-6712	E-Mail: elaine.walker@testamericainc.com		Page: Page 5 of 13
Company: Pacific Groundwater Group				Job #: 2006-00115
Address: 2377 Eastlake Avenue E	Due Date Requested:			
City: Seattle	TAT Requested (days): Standard			
State, Zip: WA, 98102				
Phone: 206-329-0141(Tel) 206-329-6968(Fax)	PO #: Purchase Order Requested			
Email: jeff@pgwg.com; janet@pgwg.com	WO #:			
Project Name: Swan Island Lagoon Sediment Investigation	Project #: 58013007			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - pH 4-5
Z - other (specify)

Other:

Note: disregard slashes in Sample ID MC

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1668A - PCB Congeners	8082A - PCB Aroclors	1613B - Dioxin/Furans	6020A Metals - As,Cd,Cu,Pb,Zn	7471A - Mercury	D422 - Grain Size	D854 - Specific Gravity	Total Solids	NWTPH-Diesel Extended	SM5310 - TOC	2540D - Total Suspended Solids	Frozen Archive		Total Number of containers	Special Instructions/Note:
			Preservation Code:																		
G2-0to28-101218	10/12/18	1125	G	S	N	N												X			
H7-0to24-101218	10/12/18	1514	G	S	N	N												X			
J2A4-0to14-10/12/18	10/12/18	1320	G	S	N	N												X			
~~J7-0to26-10/12/18~~ J7-0to26-10/12/18	10/12/18	1551	G	S	N	N												X			
J2A3-0to18-10/12/18	10/12/18	1258	G	S	N	N												X			
B2-0to22-10/12/18	10/12/18	0822	G	S	N	N												X			
I2-0to31-10/12/18	10/12/18	0936	G	S	N	N												X			
H2-0to30-10/12/18	10/12/18	1028	G	S	N	N												X			
F5-0to28-10/11/18	10/11/18	1127	G	S	N	N												X			
H5-0to29-10/11/18	10/11/18	1531	G	S	N	N												X			
F6-0to27-10/11/18	10/11/18	1052	G	S	N	N												X			

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☒ Archive For 6 Months

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

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		10/15/18 10:57			10-15-18 1057	M.E
2	Relinquished by:	Date/Time: 10-15-18 1130	Company M.E	Received by:	Date/Time: 10/15/18 1130	Company TAOR
3	Relinquished by:	Date/Time: 10/15/18 1800	Company TAOR	Received by:	Date/Time: 10.16.18 0915	Company TASEA

Custody Seals Intact: ☐ Yes ☐ No
Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

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

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Matt Luxon	Lab PM: Walker, Elaine M	Carrier Tracking No(s):	COC No: 580-30854-10094.1
Client Contact: Jeff Parker & Janet Knox	Phone: (360) 296-6712	E-Mail: elaine.walker@testamericainc.com		Page: Page 6 of 13
Company: Pacific Groundwater Group				Job #: 2006-00115
Address: 2377 Eastlake Avenue E	Due Date Requested:			
City: Seattle	TAT Requested (days): Standard			
State, Zip: WA, 98102				
Phone: 206-329-0141(Tel) 206-329-6968(Fax)	PO #: Purchase Order Requested			
Email: jeff@pgwg.com; janet@pgwg.com	WO #:			
Project Name: Swan Island Lagoon Sediment Investigation	Project #: 58013007			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1668A - PCB Congeners	8082A - PCB Aroclors	1613B - Dioxin/Furans	6020A Metals - As,Cd,Cu,Pb,Zn	7471A - Mercury	D422 - Grain Size	D854 - Specific Gravity	Total Solids	NWTPH-Diesel Extended	SM5310 - TOC	2540D - Total Suspended Solids	Frozen Archive		Total Number of containers	Special Instructions/Note:
			Preservation Code:																		
B2-0to22 - 101218	10/12/18	0822		S														X			Archive
G2-0to28 - 101218		1125		S														X			"
H2-0to30 - 101218		1028		S														X			"
H7-0to24 - 101218		1515		S			X		X	X	X	X	X	X	X	X					✓
I2-0to31 - 101218		936		S														X			Archive
J2A3-0to18 - 101218		1258		S														X			"
J2A4-0to14 - 101218		1320		S														X			"
J7-0to28 - 101218	10/12/18	1552		S			X		X	X	X	X	X	X	X	X					✓

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☒ Archive For 6 Months

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

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1		10/15/18 10:57			10-15-18 1057	M.E
2		10-15-18 1135	M.E		10/15/18 1130	
3		10/15/18 1500			10.16.18 0915	TASEA

Custody Seals Intact: ☐ Yes ☐ No
Custody Seal No.:
Cooler Temperature(s) °C and Other Remarks:

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

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Matt Luxon	Lab PM: Walker, Elaine M	Carrier Tracking No(s):	COC No: 580-30854-10094.1
Client Contact: Jeff Parker & Janet Knox	Phone: (360) 296-6712	E-Mail: elaine.walker@testamericainc.com		Page: Page 7 of 13
Company: Pacific Groundwater Group				Job #: 2806 - 00115
Address: 2377 Eastlake Avenue E	Due Date Requested:			
City: Seattle	TAT Requested (days): Standard			
State, Zip: WA, 98102				
Phone: 206-329-0141(Tel) 206-329-6968(Fax)	PO #: Purchase Order Requested			
Email: jeff@pgwg.com; janet@pgwg.com	WO #:			
Project Name: Swan Island Lagoon Sediment Investigation	Project #: 58013007			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1668A - PCB Congeners	8082A - PCB Aroclors	1613B - Dioxin/Furans	6020A Metals - As,Cd,Cu,Pb,Zn	7471A - Mercury	D422 - Grain Size	D854 - Specific Gravity	Total Solids	NWTPH-Diesel Extended	SM5310 - TOC	2540D - Total Suspended Solids	Frozen Archive	Total Number of containers	Special Instructions/Note:
			Preservation Code:																	
LS-0402E - 101318	10/13/18	1313		S														X		ARCHIVE
LS-0402G - 101318 MS/MSD	10/13/18	1313		S														X		
L7 - 0429 - 101318	10/13/18	1136		S														X		ARCHIVE

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☒ Archive For 6 Months

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

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		10/15/18 10:57	Anne Env.		10-15-18 1057	M.E
2		10-15-18 1130	M.E		10/15/18 1130	TASC
3		10/15/18 1800	TASC		10-16-18 0915	TASC

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

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

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Matt Luxon	Lab PM: Walker, Elaine M	Carrier Tracking No(s):	COC No: 580-30854-10094.1
Client Contact: Jeff Parker & Janet Knox	Phone: (360) 296-6712	E-Mail: elaine.walker@testamericainc.com		Page: Page 8 of 13
Company: Pacific Groundwater Group				Job #: 2006-00115
Address: 2377 Eastlake Avenue E	Due Date Requested:			
City: Seattle	TAT Requested (days): Standard			
State, Zip: WA, 98102				
Phone: 206-329-0141(Tel) 206-329-6968(Fax)	PO #: Purchase Order Requested			
Email: jeff@pgwg.com; janet@pgwg.com	WO #:			
Project Name: Swan Island Lagoon Sediment Investigation	Project #: 58013007			
Site:	SSOW#:			

Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1668A - PCB Congeners	8082A - PCB Aroclors	1613B - Dioxin/Furans	6020A Metals - As,Cd,Cu,Pb,Zn	7471A - Mercury	D422 - Grain Size	D854 - Specific Gravity	Total Solids	NWTPH-Diesel Extended	SM5310 - TOC	2540D - Total Suspended Solids	Frozen Archive	Total Number of containers	Special Instructions/Note:
			Preservation Code:																	
J1-0to20-101318	10/13/18	1711		S														X		
J1-0to19-101318		1559		S														X		
J6-0to28-101318		1200		S														X		
J5-0to24-101318		936		S														X		
J6-0to30-101318		901		S														X		
J4-0to24-101318		1022		S														X		
S130to26-101318		1313		S														X		
J3-0to26-101318		1051		S														X		
L2-0to22-101318		1525		S														X		
L3-0to20-101318		1433		S														X		
J4-0to28-101318	10/13/18	1347		S														X		

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☒ Archive For 6 Months

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

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		10/15/18 10:57	Anne Eva.		10-15-18 / 1057	M.E
2		10-15-18 / 1135	M.E		10/15/18 1130	TAPCK
3		10/15/18 1800	TAPCK		10.16.18 0915	TASEA

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

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

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Matt Luxon	Lab PM: Walker, Elaine M	Carrier Tracking No(s):	COC No: 580-30854-10094.1
Client Contact: Jeff Parker & Janet Knox	Phone: (360) 296-6712	E-Mail: elaine.walker@testamericainc.com		Page: Page 9 of 13
Company: Pacific Groundwater Group				Job #: 2006-00115
Address: 2377 Eastlake Avenue E	Due Date Requested:			
City: Seattle	TAT Requested (days): Standard			
State, Zip: WA, 98102				
Phone: 206-329-0141(Tel) 206-329-6968(Fax)	PO #: Purchase Order Requested			
Email: jeff@pgwg.com; janet@pgwg.com	WO #:			
Project Name: Swan Island Lagoon Sediment Investigation	Project #: 58013007			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1668A - PCB Congeners	8082A - PCB Aroclors	1613B - Dioxin/Furans	6020A Metals - As,Cd,Cu,Pb,Zn	7471A - Mercury	D422 - Grain Size	D854 - Specific Gravity	Total Solids	NWTPH-Diesel Extended	SM5310 - TOC	2540D - Total Suspended Solids	Frozen Archive		Total Number of containers	Special Instructions/Note:
			Preservation Code:																		
L5-Of026-101318	10/13/18	1313		S			X		X	X	X	X	X	X	X	X					✓
J1-Of020-101318		1711		S			X		X	X	X	X	X	X	X	X					✓
L6-Of028-101318		1208		S														X			Archive
L5-Of026-101318 MS/MSD		1313		S		X	X		X	X	X	X	X	X	X	X					MS/MSD for L5
I1-Of019-101318		1559		S														X			Archive
S13-Of026-101318		1313		S			X		X	X	X	X	X	X	X	X					✓
L4-Of028-101318	10/13/18	1347		S														X			Archive

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☒ Archive For 6 Months

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

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		10/15/18 10:57	Genie Env.		10-15-18 / 1057	M.E
2	Relinquished by:	Date/Time: 10-15-18 / 1130	Company ME	Received by:	Date/Time: 10/15/18 1130	Company TAOR
3	Relinquished by:	Date/Time: 10/15/18 1800	Company TAOR	Received by:	Date/Time: 10-16-18 0915	Company TASEA

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

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

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Matt Luxon	Lab PM: Walker, Elaine M	Carrier Tracking No(s):	COC No: 580-30854-10094.1
Client Contact: Jeff Parker & Janet Knox	Phone: (360) 296-6712	E-Mail: elaine.walker@testamericainc.com		Page: Page 10 of 13
Company: Pacific Groundwater Group				Job #: 7006-00115
Address: 2377 Eastlake Avenue E	Due Date Requested:			
City: Seattle	TAT Requested (days): Standard			
State, Zip: WA, 98102				
Phone: 206-329-0141(Tel) 206-329-6968(Fax)	PO #: Purchase Order Requested			
Email: jeff@pgwg.com; janet@pgwg.com	WO #:			
Project Name: Swan Island Lagoon Sediment Investigation	Project #: 58013007			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1668A - PCB Congeners	8082A - PCB Aroclors	1613B - Dioxin/Furans	6020A Metals - As,Cd,Cu,Pb,Zn	7471A - Mercury	D422 - Grain Size	D854 - Specific Gravity	Total Solids	NWTPH-Diesel Extended	SM5310 - TOC	2540D - Total Suspended Solids	Frozen Archive		Total Number of containers	Special Instructions/Note:
			Preservation Code:																		
J4-0to29-101318	10/13/18	1022		S														X			Archive
L3-0to20-101318		1433		S			X		X	X	X	X	X	X	X	X					✓
J6-0to30-101318		901		S														X			Archive
L7-0to29-101318		1136		S			X		X	X	X	X	X	X	X	X					✓
J5-0to29-101318		936		S			X		X	X	X	X	X	X	X	X					✓
J3-0to26-101318		1051		S			X		X	X	X	X	X	X	X	X					✓
L2-0to22-101318	10/13/18	1525		S														X			Archive

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☒ Archive For 6 Months

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

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1		10/15/18 10:57	Anne Env.		10-15-18 / 1057	M.E
2		10-15-18 / 1130	M.E		10/15/18 1130	TAL
3		10/15/18 1600	TAL		10.16.18 0915	TASEA

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

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

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Matt Luxon	Lab PM: Walker, Elaine M	Carrier Tracking No(s):	COC No: 580-30854-10094.1
Client Contact: Jeff Parker & Janet Knox	Phone: (360) 296-6712	E-Mail: elaine.walker@testamericainc.com		Page: Page 1 of 13
Company: Pacific Groundwater Group				Job #: 2006-00115
Address: 2377 Eastlake Avenue E	Due Date Requested:			
City: Seattle	TAT Requested (days): Standard			
State, Zip: WA, 98102				
Phone: [illegible]0141(Tel) 206-329-6968(Fax)	PO #: Purchase Order Requested			
Email: jeff@pgwg.com; janet@pgwg.com	WO #:			
Project Name: Swan Island Lagoon Sediment Investigation	Project #: 58013007			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1668A - PCB Congeners	8082A - PCB Aroclors	1613B - Dioxin/Furans	6020A Metals - As,Cd,Cu,Pb,Zn	7471A - Mercury	D422 - Grain Size	D854 - Specific Gravity	Total Solids	NWTPH-Diesel Extended	SM5310 - TOC	2540D - Total Suspended Solids	Frozen Archive		Total Number of containers	Special Instructions/Note:
			Preservation Code:		X	X														X	
N7-0to29-101418	10/17/13	1723	G	S	N	N												X			Phase 2
H1-0to24-101418		0909	G	S	N	N	X		X	X	X	X	X	X	X	X					Phase 1
N7-0to20-101418		1510	G	S	N	N	X		X	X	X	X	X	X	X	X		[illegible]			Phase 1
C1-0to22-101418		13:16	G	S	N	N												X			Phase 2
F1-0to23-101418	10/14/13	1108	G	S	N	N	X		X	X	X	X	X	X	X	X					Phase 1

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☒ Archive For 6 Months

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

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[signature]	10/15/18 10:57	Anne Env.	[signature]	10-15-18 / 1057	M.E
2	[signature]	10-15-18 / 1130	M.E	[signature]	10/15/18 1130	TAR
3	[signature]	10/15/18 1600	TAR	[signature]	10-16-18 095	TAS2

Custody Seals Intact: △ Yes △ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

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

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Matt Luxon	Lab PM: Walker, Elaine M	Carrier Tracking No(s):	COC No: 580-30854-10094.1
Client Contact: Jeff Parker & Janet Knox	Phone: (360) 296-6712	E-Mail: elaine.walker@testamericainc.com		Page: Page 12of 13
Company: Pacific Groundwater Group				Job #: 2606-00115
Address: 2377 Eastlake Avenue E	Due Date Requested:			
City: Seattle	TAT Requested (days): Standard			
State, Zip: WA, 98102				
Phone: 206-329-0141(Tel) 206-329-6968(Fax)	PO #: Purchase Order Requested			
Email: jeff@pgwg.com; janet@pgwg.com	WO #:			
Project Name: Swan Island Lagoon Sediment Investigation	Project #: 58013007			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1668A - PCB Congeners	8082A - PCB Aroclors	1613B - Dioxin/Furans	6020A Metals - As,Cd,Cu,Pb,Zn	7471A - Mercury	D422 - Grain Size	D854 - Specific Gravity	Total Solids	NWTPH-Diesel Extended	SM5310 - TOC	2540D - Total Suspended Solids	Frozen Archive	Total Number of containers	Special Instructions/Note:
			Preservation Code:																	
H1-0to24-101418	10/14/18	0909		S														X		
G1-0to24-101418		1012		S														X		
F1-0to23-101418		1108		S														X		
E1-0to20-101418		1204		S														X		
B1-0to20-101418		1258		S														X		
C1-0to22-101418		1346		S														X		
N7-0to27-101418		1510		S														X		
N6-0to28-101418		1604		S														X		
N5-0to26-101418		1646		S														X		
N4-0to29-101418	10/14/18	1723		S														X		

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☒ Archive For 6 Months

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

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		10/15/18 10:57	Acme Env		10-15-18 1057	M.E
2		10-15-18 1130	M.E		10/15/18 1130	TRACK
3		10/15/18 1800	TRACK		10-16-18 0915	TASEA

Custody Seals Intact: ☐ Yes ☐ No
Custody Seal No.:
Cooler Temperature(s) °C and Other Remarks:

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

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Matt Luxon	Lab PM: Walker, Elaine M	Carrier Tracking No(s):	COC No: 580-30854-10094.1
Client Contact: Jeff Parker & Janet Knox	Phone: (360) 296-6712	E-Mail: elaine.walker@testamericainc.com		Page: Page 13 of 13
Company: Pacific Groundwater Group				Job #: 2006 - 00115
Address: 2377 Eastlake Avenue E	Due Date Requested:			
City: Seattle	TAT Requested (days): Standard			
State, Zip: WA, 98102				
Phone: 206-329-0141(Tel) 206-329-6968(Fax)	PO #: Purchase Order Requested			
Email: jeff@pgwg.com; janet@pgwg.com	WO #:			
Project Name: Swan Island Lagoon Sediment Investigation	Project #: 58013007			
Site:	SSOW#:			

Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1668A - PCB Congeners	8082A - PCB Aroclors	1613B - Dioxin/Furans	6020A Metals - As,Cd,Cu,Pb,Zn	7471A - Mercury	D422 - Grain Size	D854 - Specific Gravity	Total Solids	NWTPH-Diesel Extended	SM5310 - TOC	2540D - Total Suspended Solids	Frozen Archive	Total Number of containers	Special Instructions/Note:
			Preservation Code:																	
G-0to24 - 101418	10/14/18	1012		S														X		A
B1-0to20 - 101418	"	1258		S																V
NG-0to28 - 101418		1604		S														X		A
NS-0to28 - 101418	↓	1646		S																V
E1-0to20 - 101418	10/14/18	1204		S														X		A

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☒ Archive For 6 Months

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

Special Instructions/QC Requirements:

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Empty Kit Relinquished by:		Date:	Time:	Method of Shipment:	
Relinquished by:	Date/Time: 10/15/18 10:57	Company: Arcadis Envi	Received by:	Date/Time: 10-15-18 1057	Company: N.E
Relinquished by:	Date/Time: 10-15-18 1130	Company: N.E	Received by:	Date/Time: 10/15/18 1130	Company: TAOR
Relinquished by:	Date/Time: 10/15/18 1800	Company: TAOR	Received by:	Date/Time: 10-16-18 0915	Company: TASEA
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:		

(1)

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

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Matt Luxon	Lab PM: Walker, Elaine M	Carrier Tracking No(s):
Client Contact: Jeff Parker & Janet Knox	Phone: (360) 296-6712	E-Mail: elaine.walker@testamericainc.com	COC No: 580-30854-10094.1
Company: Pacific Groundwater Group			Page: Page 1 of 13
Address: 2377 Eastlake Avenue E	Due Date Requested:		Job #: 2006-00115
City: Seattle	TAT Requested (days): Standard		
State, Zip: WA, 98102			
Phone: 206-329-0141(Tel) 206-329-6968(Fax)	PO #: Purchase Order Requested		
Email: jeff@pgwg.com; janet@pgwg.com	WO #:		
Project Name: Swan Island Lagoon Sediment Investigation	Project #: 58013007		
Site:	SSOW#:		

Analysis Requested

Preservation Codes:
A - HCL; B - NaOH; C - Zn Acetate; D - Nitric Acid; E - NaHSO4; F - MeOH; G - Amchlor; H - Ascorbic Acid; I - Ice; J - DI Water; K - EDTA; L - EDA; M - Hexane; N - None; O - AsNaO2; P - Na2O4S; Q - Na2SO3; R - Na2S2O3; S - H2SO4; T - TSP Dodecahydrate; U - Acetone; V - MCAA; W - pH 4-5; Z - other (specify); Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1668A - PCB Congeners	8082A - PCB Aroclors	1613B - Dioxin/Furans	6020A Metals - As,Cd,Cu,Pb,Zn	7471A - Mercury	D422 - Grain Size	D854 - Specific Gravity	Total Solids	NWTPH-Diesel Extended	SM5310 - TOC	2540D - Total Suspended Solids	Frozen Archive	Total Number of containers	Special Instructions/Note:
			Preservation Code:																	
611-101118	10/11/18			W			X	-	X	X	X	-	-	-	X	X	X	-		

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

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

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☒ Archive For 6 Months

Special Instructions/QC Requirements:

Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:
Relinquished by:	Date/Time: 10/15/18 1057	Company: Aqua Env	Received by:	Date/Time: 10-15-18 / 1057	Company: M-E	
Relinquished by:	Date/Time: 10-15-18 / 1130	Company: M-E	Received by:	Date/Time: 10/15/18 1130	Company: DBR	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company	
Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 2.7 0.6, 2.5, 1.1, 1.5, 0.9, 1.0, 2.1, 3.0			

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

Chain of Custody Record

2

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Matt Luxon	Lab PM: Walker, Elaine M	Carrier Tracking No(s):	COC No: 580-30854-10094.1
Client Contact: Jeff Parker & Janet Knox	Phone: (360) 296-6712	E-Mail: elaine.walker@testamericainc.com		Page: Page 12 of 13
Company: Pacific Groundwater Group				Job #: 2006-00115
Address: 2377 Eastlake Avenue E	Due Date Requested:			
City: Seattle	TAT Requested (days): Standard			
State, Zip: WA, 98102				
Phone: 206-329-0141(Tel) 206-329-6968(Fax)	PO #: Purchase Order Requested			
Email: jeff@pgwg.com; janet@pgwg.com	WO #:			
Project Name: Swan Island Lagoon Sediment Investigation	Project #: 58013007			
Site:	SSOW#:			

Analysis Requested

Preservation Codes: A - HCL; B - NaOH; C - Zn Acetate; D - Nitric Acid; E - NaHSO4; F - MeOH; G - Amchlor; H - Ascorbic Acid; I - Ice; J - DI Water; K - EDTA; L - EDA; M - Hexane; N - None; O - AsNaO2; P - Na2O4S; Q - Na2SO3; R - Na2S2O3; S - H2SO4; T - TSP Dodecahydrate; U - Acetone; V - MCAA; W - pH 4-5; Z - other (specify); Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1668A - PCB Congeners	8082A - PCB Aroclors	1613B - Dioxin/Furans	6020A Metals - As,Cd,Cu,Pb,Zn	7471A - Mercury	D422 - Grain Size	D854 - Specific Gravity	Total Solids	NWTPH-Diesel Extended	SM5310 - TOC	2540D - Total Suspended Solids	Frozen Archive	Total Number of containers	Special Instructions/Note:
			Preservation Code:																	
2 H1-C1c24-101418	10/14/18	0904		S			X		X	X	X	X	X	X	X	V		X		11/13
G1-C1c24-101418		1012		S														X		13/13
F1-C1c23-101418		1108		S														X		11/13
E1-C1c20-101418		1204		S														X		13/13
B1-C1c20-101418		1258		S														X		13/13
C1-C1c22-101418		1346		S														X		11/13
8 N7-C1c27-101418		1510		S			X	X	X	X	X	X	X	X	X	X		X		11/13 N7-D1c20
N6-C1c28-101418		1604		S														X		13/13
N5-C1c26-101418		1646		S														X		13/13
N4-C1c29-101418	10/14/18	1723		S														X		11/13

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☒ Archive For 6 Months

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

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		10/15/18 10:57	Kemo Env		10-15-18 / 1057	M.E
2		10-15-18 / 1130	M.E		10/15/18 1130	TAKL
3						

Custody Seals Intact: ∆ Yes ∆ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

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

Chain of Custody Record

3

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Matt Luxon	Lab PM: Walker, Elaine M	Carrier Tracking No(s):	COC No: 580-30854-10094.1
Client Contact: Jeff Parker & Janet Knox	Phone: (360) 296-6712	E-Mail: elaine.walker@testamericainc.com		Page: Page 8 of 13
Company: Pacific Groundwater Group				Job #: 2006-00115
Address: 2377 Eastlake Avenue E	Due Date Requested:			
City: Seattle	TAT Requested (days): Standard			
State, Zip: WA, 98102				
Phone: 206-329-0141(Tel) 206-329-6988(Fax)	PO #: Purchase Order Requested			
Email: jeff@pgwg.com; janet@pgwg.com	WO #:			
Project Name: Swan Island Lagoon Sediment Investigation	Project #: 58013007			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

	Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1668A - PCB Congeners	8082A - PCB Aroclors	1613B - Dioxin/Furans	6020A Metals - As,Cd,Cu,Pb,Zn	7471A - Mercury	D422 - Grain Size	D854 - Specific Gravity	Total Solids	NWTPH-Diesel Extended	SM5310 - TOC	2540D - Total Suspended Solids	Frozen Archive	Total Number of containers	Special Instructions/Note:
	Preservation Code:																				
12	J1-0to20-101318	10/13/18	1711		S			X		X	X	X	X	X	X	X		X			9/13
	I1-0to19-101318		1559		S													X			9/13
	L6-0to27-101318		1200		S													X			9/13
15	J5-0to24-101318		936		S			X		X	X	X	X	X	X	X		X			10/13
	J6-0to30-101318		901		S													X			10/13
	J4-0to29-101318		1022		S													X			10/13
18	S130to26-101318		1313		S			X		X	X	X	X	X	X	X		X			9/13
19	J3-0to26-101318		1051		S			X		X	X	X	X	X	X	X		X			10/13
	L2-0to22-101318		1525		S													X			10/13
21	L3-0to20-101318		1437		S													X			10/13
	J4-0to28-101318	10/13/18	1347		S			X		X	X	X	X	X	X	X		X			10/13
																		X			9/13

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☒ Archive For 6 Months

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

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company
		10/15/18 10:57	Anu Env.		10-15-18 / 1057	M.E
	Relinquished by:	10-15-18 / 1138	M.E	Received by:	10/15/18 1130	TaPCK
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks

(4)

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

Chain of Custody Record

TestAmerica
"THE LEADER IN ENVIRONMENTAL TESTING"

Client Information	Sampler: Matt Luxon	Lab PM: Walker, Elaine M	Carrier Tracking No(s):	COC No: 580-30854-10094.1
Client Contact: Jeff Parker & Janet Knox	Phone: (360) 296-6712	E-Mail: elaine.walker@testamericainc.com		Page: Page 7 of 13
Company: Pacific Groundwater Group				Job #: 2806 - 0015
Address: 2377 Eastlake Avenue E	Due Date Requested:			
City: Seattle	TAT Requested (days): Standard			
State, Zip: WA, 98102				
Phone: 206-329-0141(Tel) 206-329-6968(Fax)	PO #: Purchase Order Requested			
Email: jeff@pgwg.com; janet@pgwg.com	WO #:			
Project Name: Swan Island Lagoon Sediment Investigation	Project #: 58013007			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL; B - NaOH; C - Zn Acetate; D - Nitric Acid; E - NaHSO4; F - MeOH; G - Amchlor; H - Ascorbic Acid; I - Ice; J - DI Water; K - EDTA; L - EDA; M - Hexane; N - None; O - AsNaO2; P - Na2O4S; Q - Na2SO3; R - Na2S2O3; S - H2SO4; T - TSP Dodecahydrate; U - Acetone; V - MCAA; W - pH 4-5; Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1668A - PCB Congeners	8082A - PCB Aroclors	1613B - Dioxin/Furans	6020A Metals - As,Cd,Cu,Pb,Zn	7471A - Mercury	D422 - Grain Size	D854 - Specific Gravity	Total Solids	NWTPH-Diesel Extended	SM5310 - TOC	2540D - Total Suspended Solids	Frozen Archive	Total Number of containers	Special Instructions/Note:
			Preservation Code:																	
23 LS-0102C - 101318	10/13/18	1313		S			X		X	X	X	X	X	X	Y	X		X		ARCHIVE 9/13
LS-0102C - 101318 MS/MSD	10/13/18	1213		S			X		X	X	X	X	X	X	X	X		X		9/13'
24 LF-0102A - 101318	10/13/18	1136		S			X		X	X	X	X	X	X	X	X		X		ARCHIVE 10/13

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological	☐ Return To Client ☐ Disposal By Lab ☒ Archive For 6 Months
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		10/15/18 10:57	Anchor QEA		10-15-18 1657	M.E
2		10-15-18 1130	M.E		10/15/18 1130	PGWG
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: △ Yes △ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

5

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

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler	Lab PM	Carrier Tracking No(s).	COC No
Client Contact: Jeff Parker & Janet Knox	Matt Luxon	Walker, Elaine M		580-30854-10094.1
Company: Pacific Groundwater Group	Phone: (360) 296-6712	E-Mail: elaine.walker@testamericainc.com		Page: Page 5 of 13
Address: 2377 Eastlake Avenue E	Due Date Requested:			Job #: 2006-00115
City: Seattle	TAT Requested (days): Standard			
State, Zip: WA, 98102				
Phone: 206-329-0141(Tel) 206-329-6968(Fax)	PO #: Purchase Order Requested			
Email: jeff@pgwg.com; janet@pgwg.com	WO #:			
Project Name: Swan Island Lagoon Sediment Investigation	Project #: 58013007			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

Note: disregard slashes in Sample ID ML

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1668A - PCB Congeners	8082A - PCB Aroclors	1613B - Dioxin/Furans	6020A Metals - As,Cd,Cu,Pb,Zn	7471A - Mercury	D422 - Grain Size	D854 - Specific Gravity	Total Solids	NWTPH-Diesel Extended	SM5310 - TOC	2540D - Total Suspended Solids	Frozen Archive	Total Number of containers	Special Instructions/Note:
			Preservation Code:		X	X													X	
G2-0to28-101218	10/12/18	1125	G	S	N	N												X		6/13
26 H7-0to24-101218	10/12/18	1514	G	S	N	N	X		X	X	X	X	X	X	X	X		X		6/13
J2A4-0to14-10/12/18	10/12/18	1320	G	S	N	N												X		6/13
28 ~~J7-0to26~~ J7-0to26-10/12/18	10/12/18	1551	G	S	N	N	X		X	X	X	X	X	X	X	X		X		6/13 DR 16527
J2A3-0to18-10/12/18	10/12/18	1258	G	S	N	N												X		6/13
B2-0to22-10/12/18	10/12/18	0822	G	S	N	N												X		6/13
I2-0to31-10/12/18	10/12/18	0936	G	S	N	N												X		6/13
H2-0to30-10/12/18	10/12/18	1028	G	S	N	N												X		6/13
~~F5-0to28-10/11/18~~	~~10/11/18~~	~~1129~~	G	S	N	N												X		3/13 + 2/13
33 H5-0to29-10/11/18	10/11/18	1531	G	S	N	N	X		X	X	X	X	X	X	X	X		X		8/13
F6-0to27-10/11/18	10/11/18	1052	G	S	N	N												X		4/13

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☒ Archive For 6 Months

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

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	10/15/18 10:57			10-15-18 1057	M-E
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	10-15-18 1130	ME		10/15/18 1130	TA-SEA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: △ Yes △ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

(6)

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

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler	Lab PM:	Carrier Tracking No(s):	COC No:
Client Contact: Jeff Parker & Janet Knox	Matt Luxon	Walker, Elaine M		580-30854-10094.1
Company: Pacific Groundwater Group	Phone: (360) 296-6712	E-Mail: elaine.walker@testamericainc.com		Page: Page 2 of 3
Address: 2377 Eastlake Avenue E	Due Date Requested:			Job #: 2006-00115
City: Seattle	TAT Requested (days): Standard			
State, Zip: WA, 98102				
Phone: 206-329-0141(Tel) 206-329-6968(Fax)	PO #: Purchase Order Requested			
Email: jeff@pgwg.com; janet@pgwg.com	WO #:			
Project Name: Swan Island Lagoon Sediment Investigation	Project #: 58013007			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1668A - PCB Congeners	8082A - PCB Aroclors	1613B - Dioxin/Furans	6020A Metals - As,Cd,Cu,Pb,Zn	7471A - Mercury	D422 - Grain Size	D854 - Specific Gravity	Total Solids	NWTPH-Diesel Extended	SM5310 - TOC	2540D - Total Suspended Solids	Frozen Archive	Total Number of containers	Special Instructions/Note:
			Preservation Code:																	
H4-0to25-10/11/18	10/11/18	1447			N	N												X		3/3
E7-0to26-10/11/18		0947			N	N												X		4/3
F7-0to27-10/11/18		1016			N	N	X		X	X	X	X	X	X	X	X		X		4/3
H6-0to27-10/11/18		1627			N	N												X		4/3
512-0to28-10/11/18		1127			N	N	X		X	X	X	X	X	X	X	X		X		duplicate of which? 3/3
E2-0to16-10/11/18		1718			N	N												X		4/3
F5-0to28-~~total~~/10/11/18		1127			N	N	X		X	X	X	X	X	X	X	X		X		4/3 #1/3
F3-0to27-101118		1327			N	N	X		X	X	X	X	X	X	X	X		X		3/3
H3-0to28-101118		1406			N	N	X		X	X	X	X	X	X	X	X		X		3/3
F4-0to27-101118	10/11/18	1214			N	N												X		JW
F4-0to23-101118	10/11/18	1215			N	N												X		4/3 - 12? KP 10/16/18 Duplicate

Note discrepancy stated in sample ID ML39

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☒ Archive For 6 Months

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

Special Instructions/QC Requirements:

Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:	
Relinquished by:	Date/Time: 10/15/18 1657	Company: G. EW ENV	Received by:		Date/Time: 10-15-18 1657	Company: H.E	
Relinquished by:	Date/Time: 10-15-18 1130	Company: HE	Received by:		Date/Time: 10/15/18 1130	Company: TAOR	
Relinquished by:	Date/Time	Company	Received by:		Date/Time:	Company	

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

Revised 10/26/18 ~~10/27/18~~ 10/31/18

580 - 81081

consolidated COC (1) 16

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

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Matt Luxon	Lab PM: Walker, Elaine M	Carrier Tracking No(s):
Client Contact: Jeff Parker & Janet Knox	Phone: (360) 296-6712	E-Mail: elaine.walker@testamericainc.com	COC No: 580-30854-10094.1
Company: Pacific Groundwater Group			Page: Page 1 of 13
Address: 2377 Eastlake Avenue E	Due Date Requested:		Job #: 2006 - 20115
City: Seattle	TAT Requested (days): Standard		
State, Zip: WA, 98102			Preservation Codes:
Phone: 206-329-0141(Tel) 206-329-6968(Fax)	PO #: Purchase Order Requested		A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Email: jeff@pgwg.com; janet@pgwg.com	WO #:		
Project Name: Swan Island Lagoon Sediment Investigation	Project #: 58013007		Other:
Site:	SSOW#:		

Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	1668A - PCB Congeners	8082A - PCB Aroclors	1613B - Dioxin/Furans	6020A Metals - As,Cd,Cu,Pb,Zn	7471A - Mercury	D422 - Grain Size	D854 - Specific Gravity	Total Solids	NWTPH-Diesel Extended	SM5310 - TOC	2540D - Total Suspended Solids	Frozen Archive	Total Number of containers	Special Instructions/Note:
			Preservation Code:		X													X	
611 - 10111 8	10/11/18			W		X	-	X	X	X	-	-	-	X	X	X	-		

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological
Deliverable Requested: I, II, III, IV, Other (specify)

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☒ Archive For 6 Months
Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:		Method of Shipment:	
Relinquished by:	Date/Time: 10/15/18 1057	Company: Aqua ENV	Received by:	Date/Time: 10-15-18 / 1057	Company: M-E
Relinquished by:	Date/Time: 10-15-18 / 1150	Company: M-E	Received by:	Date/Time: 10/15/18 1150	Company: DASER
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company
Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 2.7, 0.6, 2.5, 1.1, 1.5, 0.9, 1.0, 2.1, 3.0		

580-81081
consolidated

(2)/6

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

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Matt Luxon	Lab PM: Walker, Elaine M	Carrier Tracking No(s):	COC No: 580-30854-10094.1
Client Contact: Jeff Parker & Janet Knox	Phone: (360) 296-6712	E-Mail: elaine.walker@testamericainc.com		Page: Page 12 of 13
Company: Pacific Groundwater Group				Job #: 2 C 06 - 00115
Address: 2377 Eastlake Avenue E	Due Date Requested:			
City: Seattle	TAT Requested (days): Standard			
State, Zip: WA, 98102				
Phone: 206-329-0141(Tel) 206-329-0966(Fax)	PO #: Purchase Order Requested			
Email: jeff@pgwg.com; janet@pgwg.com	WO #:			
Project Name: Swan Island Lagoon Sediment Investigation	Project #: 58013007			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL; B - NaOH; C - Zn Acetate; D - Nitric Acid; E - NaHSO4; F - MeOH; G - Amchlor; H - Ascorbic Acid; I - Ice; J - DI Water; K - EDTA; L - EDA; M - Hexane; N - None; O - AsNaO2; P - Na2O4S; Q - Na2SO3; R - Na2S2O3; S - H2SO4; T - TSP Dodecahydrate; U - Acetone; V - MCAA; W - pH 4-5; Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Preservation Code:	Total Number of Containers	1668A - PCB Congeners	8082A - PCB Aroclors	9013B - Digest/Furans	6020A Metals - As,Cd,Cu,Pb,Zn	7471A - Mercury	D422 - Grain Size	D854 - Specific Gravity	Total Solids	NWTPH-Diesel Extended	EM5219 - TOC	2540D - Total Suspended Solids	Freeze Archive	Special Instructions/Note:
2 H1-Ch21-101418	10/14/13	0904	G	S			X	X	X	X	X	X	X	X	Y			X	11/13
G1-Ch24-101418		1012	G	S														X	11/13
F1-Ch23-101418		1108	G	S			X	X	X	X	X	X	X	X	X			X	11/13 JP added 10/26/13
E1-Ch20-101418		1204	G	S														X	11/13
B1-Ch22-101418		1258	G	S			X	X	X	X	X	X	X	X	X			Y	11/13 JP added 10/26/13
C1-Ch22-101418		1346	G	S														X	11/13
8 N7-Ch27-101418		1510	G	S			X	X	X	X	X	X	X	X				Y	11/13 ~~N7 Ch20 JP~~
N6-Ch28-101418		1604	G	S														Y	11/13
N5-Ch26-101418		1646	G	S														X	11/13
N4-Ch29-101418	10/14	1723	G	S														Y	11/13

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

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

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☒ Archive For 9 Months

Special Instructions/QC Requirements:

Empty Kit Relinquished by:		Date:	Time:	Method of Shipment:			
Relinquished by:	Date/Time: 10/15/13 10:57	Company: Pace Env	Received by:	Date/Time: 10-15-13 1057	Company: PACE		
Relinquished by:	Date/Time: 10-15-13 1130	Company: PACE	Received by:	Date/Time: 10/15/13 1130	Company: PACE		
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:		

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

580-81081
consolidated

(3)/6

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

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Matt Luxon	Lab PM: Walker, Elaine M	Carrier Tracking No(s):	COC No: 580-30854-10094.1
Client Contact: Jeff Parker & Janet Knox	Phone: (380) 295-6712	E-Mail: elaine.walker@testamericainc.com		Page: Page 3 of 13
Company: Pacific Groundwater Group				Job #: 2006-00115
Address: 2377 Eastlake Avenue E	Due Date Requested:			
City: Seattle	TAT Requested (days): Standard			
State, Zip: WA, 98102				
Phone: 206-329-0141(Tel) 206-329-6988(Fax)	PO #: Purchase Order Requested			
Email: jeff@pgwg.com; janet@pgwg.com	WO #:			
Project Name: Swan Island Lagoon Sediment Investigation	Project #: 58013007			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

	Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1668A - PCB Congeners	8082A - PCB Aroclors	1613B - Dioxin/Furans	6020A Metals - As,Cd,Cu,Pb,Zn	7471A - Mercury	D422 - Grain Size	D854 - Specific Gravity	Total Solids	NWTPH-Diesel Extended	SM5310 - TOC	2540D - Total Suspended Solids	Frozen Archive	Total Number of Containers	Special Instructions/Note:
	Preservation Codes:																				
12	J1-0to20-101318	10/13/18	1711		S			X		X	X	X	X	X	X	X		X			9/13
	J1-0to19-101318		1559		S													X			9/13
	L6-0to28-101318		1208		S													X			9/13
15	J5-0to29-101318		936		S			X		X	X	X	X	X	X	X		X			10/13
	J6-0to30-101318		901		S													X			10/13
	J4-0to29-101318		1022		S													X			10/13
18	S13Oto26-101318		1313		S			X		X	X	X	X	X	X	X		X			9/13
19	J3-0to26-101318		1051		S			X		X	X	X	X	X	X	X		X			10/13
	L2-0to22-101318		1525		S													X			10/13
21	L3-0to20-101318		1437		S			X		X	X	X	X	X	X	X		X			10/13
	U4-0to28-101318	10/13/18	1347		S													X			9/13

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

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

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☒ Archive For 6 Months

Special Instructions/QC Requirements:

Empty Kit Relinquished by: Date: Time:

Method of Shipment:

Relinquished by:	Date/Time: 10/15/18 10:57	Company: Anw Env	Received by:	Date/Time: 10-15-18 / 1657	Company: M.E
Relinquished by:	Date/Time: 10-15-18 / 1130	Company: M.E	Received by:	Date/Time: 10/15/18 1130	Company: TAK
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

570-81081 consolidated

(4)/6

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

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Matt Luxon	Lab PM: Walker, Elaine M	Carrier Tracking No(s):	COC No: 580-30854-10094.1
Client Contact: Jeff Parker & Janet Knox	Phone: (360) 296-6712	E-Mail: elaine.walker@testamericainc.com		Page: Page 7 of 13
Company: Pacific Groundwater Group				Job #: 2806 - 00115
Address: 2377 Eastlake Avenue E	Due Date Requested:			
City: Seattle	TAT Requested (days): Standard			
State, Zip: WA, 98102				
Phone: 206-329-0141(Tel) 206-329-6968(Fax)	PO #: Purchase Order Requested			
Email: jeff@pgwg.com; janet@pgwg.com	WO #:			
Project Name: Swan Island Lagoon Sediment Investigation	Project #: 58013007			
Site:	SSOW#:			

Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (w=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1668A - PCB Congeners	8082A - PCB Aroclors	1613B - Dioxin/Furans	6020A Metals - As,Cd,Cu,Pb,Zn	7471A - Mercury	D422 - Grain Size	D854 - Specific Gravity	Total Solids	NWTPH-Diesel Extended	SM5310 - TOC	2540D - Total Suspended Solids	Porewn Archive	Total Number of containers	Special Instructions/Note:
			Preservation Code:		X	X														
LS-01026 - 101318	10/13/18	1313		S			X		X	X	X	X	X	X	Y	X		X		ARCHIVE 9/13
LS-01026 - 101318 MS/MSD	10/13/18	1213		S			Y		Y	Y	Y	Y	X	Y	Y	X		X		9/13
LS-01029 - 101318	10/13/18	1136		S			X		X	X	X	X	X	X	X	X		X		ARCHIVE 10/13

23 24

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

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

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☒ Archive For 6 Months

Special Instructions/QC Requirements:

Empty Kit Relinquished by: Date: Time: Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
	10/15/18 10:57	Pac Grp		10-15-18 1057	ME
	10-15-18 1130	ME		10/15/18 1130	Pac Grp
	Date/Time:	Company		Date/Time:	Company

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

580-81081
consolidated

5/6

Chain of Custody Record

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

TestAmerica

Client Information	Sampler: Matt Luxon	Lab PM: Walker, Elaine M	Carrier Tracking No(s):	COC No: 580-30864-10094.1
Client Contact: Jeff Parker & Janet Knox	Phone: (360) 296-6712	E-Mail: elaine.walker@testamericainc.com		Page: Page 5 of 13
Company: Pacific Groundwater Group				Job #: 2006-00115
Address: 2377 Eastlake Avenue E	Due Date Requested:			
City: Seattle	TAT Requested (days): Standard			
State, Zip: WA, 98102				
Phone: 206-329-0141(Tel) 206-329-6988(Fax)	PO #: Purchase Order Requested			
Email: jeff@pgwg.com; janet@pgwg.com	WO #:			
Project Name: Swan Island Lagoon Sediment Investigation	Project #: 58013007			
Site:	SSOW#:			

Note: disregard slashes in sample ID ML

Analysis Requested

Preservation Codes: A - HCL; B - NaOH; C - Zn Acetate; D - Nitric Acid; E - NaHSO4; F - MeOH; G - Ascorbic Acid; H - Ascorbic Acid; I - Ice; J - DI Water; K - EDTA; L - EDA; M - Hexane; N - None; O - AsNaO2; P - Na2O4S; Q - Na2SO3; R - Na2S2O3; S - H2SO4; T - TSP Dodecahydrate; U - Acetone; V - MCAA; W - pH 4-5; Z - other (specify); Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (Water, Solid, Organic, Biota, Air=Air, Asbestos)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1668A - PCB Congeners	8082A - PCB Aroclors	1613B - Dioxin/Furans	6020A Metals - As,Cd,Cu,Pb,Zn	7471A - Mercury	D422 - Grain Size	D854 - Specific Gravity	Total Solids	NWTPH-Diesel Extended	9060 - TOC	2540D - Total Suspended Solids	Frozen Archive	Total Number of Containers	Special Instructions/Note:
			Preservation Code:																	
G-2-0to28-101218	10/12/18	1125	G	S	N	N												X		6/13
H7-0to24-101218	10/12/18	1514	G	S	N	N	X		X	X	X	X	X	X	X	X		X		6/13
J2A4-0604-10/12/18	10/12/18	1328	G	S	N	N												X		6/17
~~J7a~~ J7-0to26-10/12/18	10/12/18	~~1551~~	G	S	N	N	X		X	X	X	X	X	X	X	X		X		6/13 DR 1552 1552
J2A3-0604-10/12/18	10/12/18	1258	G	S	N	N												X		6/13
B2-0to22-10/12/18	10/12/18	0812	G	S	N	N												X		6/13
I2-0to31-10/12/18	10/12/18	0936	G	S	N	N												X		6/13
H2-0to30-10/12/18	10/12/18	1028	G	S	N	N												X		6/13
~~F5-0to25-10/11/18~~	~~10/11/18~~	~~1129~~	G	S	N	N														
H5-0to29-10/11/18	10/11/18	1531	G	S	N	N	X		X	X	X	X	X	X	X	X		X		3/13 & 2/13
F6-0to27-10/11/18	10/11/18	1052	G	S	N	N												X		8/13
																		X		4/13 split 40z for PFAS(10) container & DUP

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

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

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☐ Disposal By Lab ☒ Archive For 8 Months

Special Instructions/QC Requirements:

Empty Kit Relinquished by: Date: Time:

Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
	10/15/18 10:57			10-15-18 1051	M-E
Relinquished by	Date/Time	Company	Received by	Date/Time	Company
	10-15-18 1130	M-E		10/15/18 1130	TA SEA
Relinquished by	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

580-81081
consolidated

(6)/6

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

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Matt Luxon	Lab PM: Walker, Elaine M	Carrier Tracking No(s):	COC No: 580-30854-10094.1
Client Contact: Jeff Parker & Janet Knox	Phone: (360) 296-6712	E-Mail: elaine.walker@testamericainc.com		Page: Page 2 of 13
Company: Pacific Groundwater Group				Job #: 2006-00115
Address: 2377 Eastlake Avenue E	Due Date Requested:	**Analysis Requested**		Preservation Codes:
City: Seattle	TAT Requested (days): Standard			A - HCL; B - NaOH; C - Zn Acetate; D - Nitric Acid; E - NaHSO4; F - MeOH; G - Amchlor; H - Ascorbic Acid; I - Ice; J - DI Water; K - EDTA; L - EDA
State, Zip: WA, 98102				M - Hexane; N - None; O - AsNaO2; P - Na2O4S; Q - Na2SO3; R - Na2S2O3; S - H2SO4; T - TSP Dodecahydrate; U - Acetone; V - MCAA; W - pH 4-5; Z - other (specify)
Phone: 206-329-0141(Tel) 206-329-6968(Fax)	PO #: Purchase Order Requested			Other:
Email: jeff@pgwg.com; janet@pgwg.com	WO #:			
Project Name: Swan Island Lagoon Sediment Investigation	Project #: 58013007			
Site:	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1668A - PCB Congeners	8082A - PCB Aroclors	1613B - Dioxin/Furans	6020A Metals - As,Cd,Cu,Pb,Zn	7471A - Mercury	D422 - Grain Size	D854 - Specific Gravity	Total Solids	NWTPH-Diesel Extended	SM5310 - TOC	2540D - Total Suspended Solids	Frozen Archive	Total Number of containers	Special Instructions/Note:
			Preservation Code:		X	X													X	
H4-0t025-10/11/18	10/11/18	1447			N	N														
E7-0t026-10/11/18		~~0947~~ 0937			N	N												X		3/13
F7-0t027-10/11/18		1016			N	N	X		X	X	X	X	X	X	X	X		X		4/13
H6-0t027-10/11/18		1627			N	N												X		4/13
S12-0t023-10/11/18		1127			N	N												X		4/13
E2-0t026-101118		1718			N	N	X		X	X	X	X	X	X	X	X		X		duplicate of WH?? 3/13
F5-0t028-~~10/11/18~~ 101118		1127			N	N												X		4/13
F3-0t027-101118		1327			N	Y	X		X	X	X	X	X	X	X	X		X		4/13 ~~3/13~~ MS/MSD (HP)
H3-0t028-101118		1406			N	N	X		X	X	X	X	X	X	X	X		X		3/13
F4-0t027-101118	10/11/18	1214			N	N	X		X	X	X	X	X	X	X	X		X		3/13
~~F4-0t023-101118~~	10/11/18	1215			N	N												X		~~4/13~~ ??? KC 10/16/18 Duplicate

Margin notes: Note: discrepancy 5S12-0t023 in sample ID; ML39; 40; 41; 42; 43

(KR 10/13)

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☐ Disposal By Lab ☒ Archive For 6 Months

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

Special Instructions/QC Requirements:

Empty Kit Relinquished by: | Date: | Time: | Method of Shipment:

Relinquished by: [signature]	Date/Time: 10/15/18 1157	Company: G. W. Sci	Received by: [signature]	Date/Time: 10-15-18 / 1157	Company: TAE
Relinquished by: [signature]	Date/Time: 10-15-18 / 1130	Company: TAE	Received by: [signature]	Date/Time: 10/15/18 1130	Company: TA-SEA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

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

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Walker, Elaine M	Carrier Tracking No(s):	COC No: 580-60296.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: elaine.walker@testamericainc.com	State of Origin: Oregon	Page: Page 1 of 5
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 580-81081-1
Address: 5815 Middlebrook Pike, ,	Due Date Requested: 11/1/2018			
City: Knoxville	TAT Requested (days):			
State, Zip: TN, 37921				
Phone: 865-291-3000(Tel) 865-584-4315(Fax)	PO #:			
Email:	WO #:			
Project Name: Portland Harbor Confidential Investigati	Project #: 58013007			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4

580-81081 Chain of Custody

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1668A/1668_P_Sep 209 PCBs plus Totals	Screen_1668/Screen_PCB_P_W	1668A/1668_P_Sox (MOD) 209 PCBs plus Totals	1668A/1668_Split (MOD) 209 PCBs plus Totals	Screen_1668/Screen_PCB_P_S	D854/ Specific Gravity	Total Num	Special Instructions/Note:
			Preservation Code:											
611-101118 (580-81081-1)	10/11/18	08:20 Pacific		Water			X	X					2	CUSTODY SEALS INTACT
H1-0to24-101418 (580-81081-2)	10/14/18	09:09 Pacific		Solid					X	X	X	X	1	RECEIVED AT
G1-0to24-101418 (580-81081-3)	10/14/18	10:12 Pacific		Solid					X	X	X	X	1	RT AT 0.2, 0.1 °C
F1-0to23-101418 (580-81081-4)	10/14/18	11:08 Pacific		Solid					X	X	X	X	1	CT 0.3, 0.2 °C
E1-0to20-101418 (580-81081-5)	10/14/18	12:04 Pacific		Solid					X	X	X	X	1	DNO 10-17-18
B1-0to20-101418 (580-81081-6)	10/14/18	12:58 Pacific		Solid					X	X	X	X	1	2 COOLERS FEDX #
C1-0to22-101418 (580-81081-7)	10/14/18	13:46 Pacific		Solid					X	X	X	X	1	4611 5676 3399 PO
N7-0to26-101418 (580-81081-8)	10/14/18	15:10 Pacific		Solid					X	X	X	X	1	4611 5676 3388 PO
N6-0to28-101418 (580-81081-9)	10/14/18	11:04 Pacific		Solid					X	X	X	X	1	

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

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) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		10/16/18 1330	TAKW		10-17-18 09:00	TAKW
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 09/20/2016

11/19/2018

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

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Walker, Elaine M	Carrier Tracking No(s):	COC No: 580-60296.2
Client Contact: Shipping/Receiving	Phone:	E-Mail: elaine.walker@testamericainc.com	State of Origin: Oregon	Page: Page 2 of 5
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 580-81081-1
Address: 5815 Middlebrook Pike, ,	Due Date Requested: 11/1/2018			
City: Knoxville	TAT Requested (days):			
State, Zip: TN, 37921				
Phone: 865-291-3000(Tel) 865-584-4315(Fax)	PO #:			
Email:	WO #:			
Project Name: Portland Harbor Confidential Investigati	Project #: 58013007			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1668A/1668_P_Sep 209 PCBs plus Totals	Screen_1668/Screen_PCB_P_W	1668A/1668_P_Sox (MOD) 209 PCBs plus Totals	1668A/1668_Split (MOD) 209 PCBs plus Totals	Screen_1668/Screen_PCB_P_S	D854/ Specific Gravity	Total Number of containers	Special Instructions/Note:
Preservation Code:														
N5-0to28-101418 (580-81081-10)	10/14/18	16:46 Pacific		Solid					X	X	X	X	4	
N4-0to29-101418 (580-81081-11)	10/14/18	17:23 Pacific		Solid					X	X	X	X	1	
J1-0to20-101318 (580-81081-12)	10/13/18	17:11 Pacific		Solid					X	X	X	X	1	
I1-0to19-101318 (580-81081-13)	10/13/18	15:59 Pacific		Solid					X	X	X	X	1	
L6-0to28-101318 (580-81081-14)	10/13/18	12:08 Pacific		Solid					X	X	X	X	1	
J5-0to29-101318 (580-81081-15)	10/13/18	09:30 Pacific		Solid					X	X	X	X	1	
J6-0to30-101318 (580-81081-16)	10/13/18	09:01 Pacific		Solid					X	X	X	X	1	
J4-0to29-101318 (580-81081-17)	10/13/18	10:22 Pacific		Solid					X	X	X	X	1	
513-0to26-101318 (580-81081-18)	10/13/18	13:13 Pacific		Solid					X	X	X	X	1	

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

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) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:			
Relinquished by:	Date/Time: 10/16/18 1330	Company DAECK	Received by:	Date/Time: 10-17-18 09:00	Company TA KNX
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 09/20/2016

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

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Walker, Elaine M	Carrier Tracking No(s):	COC No: 580-60296.3
Client Contact: Shipping/Receiving	Phone:	E-Mail: elaine.walker@testamericainc.com	State of Origin: Oregon	Page: Page 3 of 5
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 580-81081-1
Address: 5815 Middlebrook Pike, ,	Due Date Requested: 11/1/2018			
City: Knoxville	TAT Requested (days):			
State, Zip: TN, 37921				
Phone: 865-291-3000(Tel) 865-584-4315(Fax)	PO #:			
Email:	WO #:			
Project Name: Portland Harbor Confidential Investigati	Project #: 58013007			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1668A/1668_P_Sep 209 PCBs plus Totals	Screen_1668/Screen_PCB_P_W	1668A/1668_P_Sox (MOD) 209 PCBs plus Totals	1668A/1668_Split (MOD) 209 PCBs plus Totals	Screen_1668/Screen_PCB_P_S	D854/ Specific Gravity	Total Number of containers	Special Instructions/Note:
			Preservation Code:											
J3-0to26-101318 (580-81081-19)	10/13/18	10:51 Pacific		Solid					X	X	X	X	1	
L2-0to22-101318 (580-81081-20)	10/13/18	15:25 Pacific		Solid					X	X	X	X	1	
L3-0to20-101318 (580-81081-21)	10/13/18	14:33 Pacific		Solid					X	X	X	X	1	
L4-0to28-101318 (580-81081-22)	10/13/18	13:47 Pacific		Solid					X	X	X	X	1	
L5-0to26-101318 (580-81081-23)	10/13/18	13:13 Pacific		Solid					X	X	X	X	1	
L7-0to29-101318 (580-81081-24)	10/13/18	11:36 Pacific		Solid					X	X	X	X	1	
G2-0to28-101218 (580-81081-25)	10/12/18	11:25 Pacific		Solid					X	X	X	X	1	
H7-0to24-101218 (580-81081-26)	10/12/18	15:14 Pacific		Solid					X	X	X	X	1	
J2A4-0to14-101218 (580-81081-27)	10/12/18	13:20 Pacific		Solid					X	X	X	X	1	

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

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) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		10/16/18 1330	TAL		10-17-18 09:01	TA KNX
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 09/20/2016

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

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Walker, Elaine M	Carrier Tracking No(s):	COC No: 580-60296.4
Client Contact: Shipping/Receiving	Phone:	E-Mail: elaine.walker@testamericainc.com	State of Origin: Oregon	Page: Page 4 of 5
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 580-81081-1
Address: 5815 Middlebrook Pike, ,	Due Date Requested: 11/1/2018			
City: Knoxville	TAT Requested (days):			
State, Zip: TN, 37921				
Phone: 865-291-3000(Tel) 865-584-4315(Fax)	PO #:			
Email:	WO #:			
Project Name: Portland Harbor Confidential Investigati	Project #: 58013007			
Site:	SSOW#:			

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1668A/1668_P_Sep 209 PCBs plus Totals	Screen_1668/Screen_PCB_P_W	1668A/1668_P_Sox (MOD) 209 PCBs plus Totals	1668A/1668_Split (MOD) 209 PCBs plus Totals	Screen_1668/Screen_PCB_P_S	D854/ Specific Gravity	Total Number of containers	Special Instructions/Note:
			Preservation Code:											
J7-0to26-101218 (580-81081-28)	10/12/18	15:51 Pacific		Solid					X	X	X	X	1	
J2A3-0to18-101218 (580-81081-29)	10/12/18	12:58 Pacific		Solid					X	X	X	X	1	
B2-0to22-101218 (580-81081-30)	10/12/18	08:22 Pacific		Solid					X	X	X	X	1	
I2-0to31-101218 (580-81081-31)	10/12/18	09:36 Pacific		Solid					X	X	X	X	1	
H2-0to30-101218 (580-81081-32)	10/12/18	10:28 Pacific		Solid					X	X	X	X	1	
H5-0to29-101118 (580-81081-33)	10/11/18	15:31 Pacific		Solid					X	X	X	X	1	
F6-0to27-101118 (580-81081-34)	10/11/18	10:52 Pacific		Solid					X	X	X	X	1	
H4-0to28-101118 (580-81081-35)	10/11/18	14:47 Pacific		Solid					X	X	X	X	1	
E7-0to26-101118 (580-81081-36)	10/11/18	09:47 Pacific		Solid					X	X	X	X	1	

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

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For _____ Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by:	Date/Time: 10/16/18 1330	Company TAOR	Received by:	Date/Time: 10-17-18 09:00	Company TA-KNX
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 09/20/2016

11/19/2018

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

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Walker, Elaine M	Carrier Tracking No(s):	COC No: 580-60296.5
Client Contact: Shipping/Receiving	Phone:	E-Mail: elaine.walker@testamericainc.com	State of Origin: Oregon	Page: Page 5 of 5
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 580-81081-1
Address: 5815 Middlebrook Pike, ,	Due Date Requested: 11/1/2018			
City: Knoxville	TAT Requested (days):			
State, Zip: TN, 37921				
Phone: 865-291-3000(Tel) 865-584-4315(Fax)	PO #:			
Email:	WO #:			
Project Name: Portland Harbor Confidential Investigati	Project #: 58013007			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1668A/1668_P_Sep 209 PCBs plus Totals	Screen_1668/Screen_PCB_P_W	1668A/1668_P_Sox (MOD) 209 PCBs plus Totals	1668A/1668_Split (MOD) 209 PCBs plus Totals	Screen_1668/Screen_PCB_P_S	D854/ Specific Gravity	Total Number of containers	Special Instructions/Note:
			Preservation Code:											
F7-0to27-101118 (580-81081-37)	10/11/18	10:16 Pacific		Solid					X	X	X	X	1	
H6-0to27-101118 (580-81081-38)	10/11/18	16:27 Pacific		Solid					X	X	X	X	1	
512-0to28-101118 (580-81081-39)	10/11/18	11:27 Pacific		Solid					X	X	X	X	1	
E2-0to16-101118 (580-81081-40)	10/11/18	17:18 Pacific		Solid					X	X	X	X	1	
F5-0to28-101118 (580-81081-41)	10/11/18	11:27 Pacific		Solid					X	X	X	X	1	
F3-0to27-101118 (580-81081-42)	10/11/18	13:27 Pacific		Solid					X	X	X	X	1	
H3-0to28-101118 (580-81081-43)	10/11/18	14:06 Pacific		Solid					X	X	X	X	1	
F4-0to27-101118 (580-81081-44)	10/11/18	12:14 Pacific		Solid					X	X	X	X	1	

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

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		10/16/18 1330	DSOK		10-17-18 09:00	TA-KNX
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 09/20/2016

Loc: 580
81081

TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST **Log In Number:**

Review Items	Yes	No	NA	If No, what was the problem?
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 : SC68 Correction factor: +0.1c	✓			☐ **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)**
18. Did you check for residual chlorine, if necessary? (e.g. 1613B, 1668) Chlorine test strip lot number: 7191 2020/04	✓			☐ **Residual Chlorine**
19. For 1613B water samples is pH<9?			✓	☐ If no, lab will adjust
20. For rad samples was sample activity info. Provided?			✓	☐ Project missing info

Comments/Actions Taken

8, 580-81081-23 MS/MSD CONTAINERS

8, 580-81081-H1 " "

Labeling Verified by: **Date:**

pH test strip lot number:

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

Project #: _____ PM Instructions: _____

Sample Receiving Associate: Thumbaman Date: 10-17-18

QA026R30.doc, 080916

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

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Walker, Elaine M	Carrier Tracking No(s):	COC No: 580-60274.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: elaine.walker@testamericainc.com	State of Origin: Oregon	Page: Page 1 of 5
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 580-81081-1
Address: 880 Riverside Parkway, ,	Due Date Requested: 10/31/2018			
City: West Sacramento	TAT Requested (days):			
State, Zip: CA, 95605				
Phone: 916-373-5600(Tel) 916-372-1059(Fax)	PO #:			
Email:	WO #:			
Project Name: Portland Harbor Confidential Investigati	Project #: 58013007			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=wasteoil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1613B/1613B_Sox_Sep_P (MOD) Full List w/o Totals	1613B/HRMS_Sox_P (MOD) Full List w/o Totals	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
611-101118 (580-81081-1)	10/11/18	08:20 Pacific		Water			X		2	
H1-0to24-101418 (580-81081-2)	10/14/18	09:09 Pacific		Solid				X	2	
G1-0to24-101418 (580-81081-3)	10/14/18	10:12 Pacific		Solid				X	2	
F1-0to23-101418 (580-81081-4)	10/14/18	11:08 Pacific		Solid				X	2	
E1-0to20-101418 (580-81081-5)	10/14/18	12:04 Pacific		Solid				X	2	
B1-0to22-101418 (580-81081-6)	10/14/18	12:58 Pacific		Solid				X	2	
C1-0to22-101418 (580-81081-7)	10/14/18	13:46 Pacific		Solid				X	2	
N7-0to26-101418 (580-81081-8)	10/14/18	15:10 Pacific		Solid				X	2	
N6-0to28-101418 (580-81081-9)	10/14/18	11:04 Pacific		Solid				X	2	

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/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

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) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by:	Date/Time: 10/15/18 1830	Company TAOR	Received by:	Date/Time: 10-16-18 915	Company TA-Sac
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 09/20/2016

11/19/2018

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

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Walker, Elaine M	Carrier Tracking No(s):	COC No: 580-60274.2
Client Contact: Shipping/Receiving	Phone:	E-Mail: elaine.walker@testamericainc.com	State of Origin: Oregon	Page: Page 2 of 5
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 580-81081-1
Address: 880 Riverside Parkway, ,	Due Date Requested: 10/31/2018			
City: West Sacramento	TAT Requested (days):			
State, Zip: CA, 95605				
Phone: 916-373-5600(Tel) 916-372-1059(Fax)	PO #:			
Email:	WO #:			
Project Name: Portland Harbor Confidential Investigati	Project #: 58013007			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1613B/1613B_Sox_Sep_P (MOD) Full List w/o Totals	1613B/HRMS_Sox_P (MOD) Full List w/o Totals	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
N5-0to28-101418 (580-81081-10)	10/14/18	16:46 Pacific		Solid				X	2	
N4-0to29-101418 (580-81081-11)	10/14/18	17:23 Pacific		Solid				X	2	
J1-0to20-101318 (580-81081-12)	10/13/18	17:11 Pacific		Solid				X	2	
I1-0to19-101318 (580-81081-13)	10/13/18	15:59 Pacific		Solid				X	2	
L6-0to28-101318 (580-81081-14)	10/13/18	12:08 Pacific		Solid				X	2	
J5-0to29-101318 (580-81081-15)	10/13/18	09:30 Pacific		Solid				X	2	
J6-0to30-101318 (580-81081-16)	10/13/18	09:01 Pacific		Solid				X	2	
J4-0to29-101318 (580-81081-17)	10/13/18	10:22 Pacific		Solid				X	2	
513-0to26-101318 (580-81081-18)	10/13/18	13:13 Pacific		Solid				X	2	

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) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	10/15/18 1830	TAOR		10-16-18 915	TA-Sea
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 09/20/2016

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

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Walker, Elaine M	Carrier Tracking No(s):	COC No: 580-60274.3
Client Contact: Shipping/Receiving	Phone:	E-Mail: elaine.walker@testamericainc.com	State of Origin: Oregon	Page: Page 3 of 5
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 580-81081-1
Address: 880 Riverside Parkway, ,	Due Date Requested: 10/31/2018			
City: West Sacramento	TAT Requested (days):			
State, Zip: CA, 95605				
Phone: 916-373-5600(Tel) 916-372-1059(Fax)	PO #:			
Email:	WO #:			
Project Name: Portland Harbor Confidential Investigati	Project #: 58013007			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1613B/1613B_Sox_Sep_P (MOD) Full List w/o Totals	1613B/HRMS_Sox_P (MOD) Full List w/o Totals	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
J3-0to26-101318 (580-81081-19)	10/13/18	10:51 Pacific		Solid				X	2	
L2-0to22-101318 (580-81081-20)	10/13/18	15:25 Pacific		Solid				X	2	
L3-0to20-101318 (580-81081-21)	10/13/18	14:33 Pacific		Solid				X	2	
L4-0to28-101318 (580-81081-22)	10/13/18	13:47 Pacific		Solid				X	2	
L5-0to26-101318 (580-81081-23)	10/13/18	13:13 Pacific		Solid				X	3	
L7-0to29-101318 (580-81081-24)	10/13/18	11:36 Pacific		Solid				X	2	
G2-0to28-101218 (580-81081-25)	10/12/18	11:25 Pacific		Solid				X	2	
H7-0to24-101218 (580-81081-26)	10/12/18	15:14 Pacific		Solid				X	2	
J2A4-0to14-101218 (580-81081-27)	10/12/18	13:20 Pacific		Solid				X	2	

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 *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For _____ Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:		Date:	Time:	Method of Shipment:		
Relinquished by:	Date/Time: 10/15/18 1830	Company TAS	Received by:	Date/Time: 10-16-18 915	Company TA-Sea	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company	
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:			

Ver: 09/20/2016

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

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Walker, Elaine M	Carrier Tracking No(s):	COC No: 580-60274.4
Client Contact: Shipping/Receiving	Phone:	E-Mail: elaine.walker@testamericainc.com	State of Origin: Oregon	Page: Page 4 of 5
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 580-81081-1
Address: 880 Riverside Parkway, ,	Due Date Requested: 10/31/2018			
City: West Sacramento	TAT Requested (days):			
State, Zip: CA, 95605				
Phone: 916-373-5600(Tel) 916-372-1059(Fax)	PO #:			
Email:	WO #:			
Project Name: Portland Harbor Confidential Investigati	Project #: 58013007			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1613B/1613B_Sox_Sep_P (MOD) Full List w/o Totals	1613B/HRMS_Sox_P (MOD) Full List w/o Totals	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
J7-0to26-101218 (580-81081-28)	10/12/18	15:51 Pacific		Solid				X	2	
J2A3-0to18-101218 (580-81081-29)	10/12/18	12:58 Pacific		Solid				X	2	
B2-0to22-101218 (580-81081-30)	10/12/18	08:22 Pacific		Solid				X	2	
I2-0to31-101218 (580-81081-31)	10/12/18	09:36 Pacific		Solid				X	2	
H2-0to30-101218 (580-81081-32)	10/12/18	10:28 Pacific		Solid				X	2	
H5-0to29-101218 (580-81081-33)	10/12/18	15:31 Pacific		Solid				X	2	
F6-0to27-101218 (580-81081-34)	10/12/18	10:52 Pacific		Solid				X	2	
H4-0to28-101118 (580-81081-35)	10/11/18	14:47 Pacific		Solid				X	2	
E7-0to26-101118 (580-81081-36)	10/11/18	09:47 Pacific		Solid				X	2	

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) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[signature]	10/15/18 1830	TARGA	[signature]	10-16-18 915	TA-Sac
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 09/20/2016

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

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Walker, Elaine M	Carrier Tracking No(s):	COC No: 580-60274.5
Client Contact: Shipping/Receiving	Phone:	E-Mail: elaine.walker@testamericainc.com	State of Origin: Oregon	Page: Page 5 of 5
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 580-81081-1
Address: 880 Riverside Parkway, ,	Due Date Requested: 10/31/2018			
City: West Sacramento	TAT Requested (days):			
State, Zip: CA, 95605				
Phone: 916-373-5600(Tel) 916-372-1059(Fax)	PO #:			
Email:	WO #:			
Project Name: Portland Harbor Confidential Investigati	Project #: 58013007			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1613B/1613B_Sox_Sep_P (MOD) Full List w/o Totals	1613B/HRMS_Sox_P (MOD) Full List w/o Totals	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
F7-0to27-101118 (580-81081-37)	10/11/18	10:16 Pacific		Solid				X	2	
H6-0to27-101118 (580-81081-38)	10/11/18	16:27 Pacific		Solid				X	2	
512-0to28-101118 (580-81081-39)	10/11/18	11:27 Pacific		Solid				X	2	
E2-0to16-101118 (580-81081-40)	10/11/18	17:18 Pacific		Solid				X	2	
F5-0to28-101118 (580-81081-41)	10/11/18	11:27 Pacific		Solid				X	3	
F3-0to27-101118 (580-81081-42)	10/11/18	13:27 Pacific		Solid				X	2	
H3-0to28-101118 (580-81081-43)	10/11/18	14:06 Pacific		Solid				X	2	
F4-0to27-101118 (580-81081-44)	10/11/18	12:14 Pacific		Solid				X	2	

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) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	10/15/18 1430	DRCA		10-16-18 915	TA-Sac
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 09/20/2016

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

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Walker, Elaine M	Carrier Tracking No(s):	COC No: 580-60401.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: elaine.walker@testamericainc.com	State of Origin: Oregon	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 580-81081-1
Address: 880 Riverside Parkway,	Due Date Requested: 10/31/2018			
City: West Sacramento	TAT Requested (days):			
State, Zip: CA, 95605				
Phone: 916-373-5600(Tel) 916-372-1059(Fax)	PO #:			
Email:	WO #:			
Project Name: Portland Harbor Confidential Investigati	Project #: 58013007			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	AutoOP/ PH Frozen Archive Container billed @ $0.	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
F6-0to27-101118	10/11/18	10:52 Pacific		Solid			X	1	
									Freeze upon arrival -

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/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

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) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Tom Blankinship	10/18/18	TA-Sea			
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 09/20/2016

Placed in Freezer @ 1025 DH 10/22/18

Login Sample Receipt Checklist

Client: Pacific Groundwater Group

Job Number: 580-81081-1

Login Number: 81081
List Number: 1
Creator: O'Connell, Jason I

List Source: TestAmerica Seattle

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

Login Sample Receipt Checklist

Client: Pacific Groundwater Group

Job Number: 580-81081-1

Login Number: 81081
List Number: 4
Creator: Gooch, Mayce

List Source: TestAmerica Sacramento
List Creation: 10/17/18 09:30 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	492453, 492454, 492455
Sample custody seals, if present, are intact.	N/A	
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	1.9C 5.2C 5.2C
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?	False	Received project as a subcontract.
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.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Sacramento

Sample Receiving Notes

580-81081 Field Sheet

Job: _____

Tracking # 4611 5676 5311 SO / PO / FO / 2-Day / SAT / Ground / UPS / Courier /

Drop Off / GSO / OnTrac / Goldstreak / USPS / Other _____

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:
Sample
580-81081-C-24
Received w/cracked l.d. Taped to secure.

Therm. ID: AK-2 / AK-3 / AK-5 / AK-6 / HACCP / Other _____ (+0.7°C)

Ice X Wet X Gel _____ Other _____

Cooler Custody Seal: 492453

Sample Custody Seal: —

Cooler ID: 1 of 3

Temp: Observed 5.2 Corrected 5.2

From: Temp Blank ☐ Sample ☒

NCM Filed: Yes ☐ No ☐

	Yes	No	NA
Perchlorate has headspace?	☐	☐	☒
Alkalinity has no 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?	☐	☒	☐

Initials: EL Date: 10/16/18

*Containers requiring zero headspace have no headspace, or bubble < 6 mm (1/4")

~~WHEMS~~
WRIJ

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Sacramento
Sample Receiving Notes

Job: _____

Tracking # 4611 5676 3322 SO / PO / FO / 2-Day / SAT / Ground / UPS / Courier /
Drop Off / GSO / OnTrac / Goldstreak / USPS / Other _____

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: AK-2 / AK-3 / AK-5 / AK-6 / HACCP / Other _____ (+0.7°C)

Ice X Wet X Gel _____ Other _____

Cooler Custody Seal: 492454

Sample Custody Seal: —

Cooler ID: ~~2 of 2~~ EC 10/16/18 2 of 3

Temp: Observed 5.2 Corrected 5.2

From: Temp Blank ☐ Sample ☒

NCM Filed: Yes ☐ No ☐

	Yes	No	NA
Perchlorate has headspace?	☐	☐	☒
Alkalinity has no 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?	☐	☒	☐

Initials: EC Date: 10/16/18

*Containers requiring zero headspace have no headspace, or bubble < 6 mm (1/4")

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Sacramento
Sample Receiving Notes

Job: _____

Tracking # 4611 5676 3333 SO / PO / FO / 2-Day / SAT / Ground / UPS / Courier / Drop Off / GSO / OnTrac / Goldstreak / USPS / Other _____

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: Sample ~~#17C~~ 81081 #17C was received with cracked lid. Taped up to secure.

MLo 10-16-18

Therm. ID: AK-2 / AK-3 / AK-5 / AK-6 / HACCP / Other____ (+0.7°C)

Ice — Wet — Gel _____ Other _____

Cooler Custody Seal: 492455

Sample Custody Seal: —

Cooler ID: 3 of 3

Temp: Observed 1.9 Corrected 1.9

From: Temp Blank ☐ Sample ☐

NCM Filed: Yes ☐ No ☐

	Yes	No	NA
Perchlorate has headspace?	☐	☐	☐
Alkalinity has no 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?	☐	☐	☐

Initials: MLo Date: 10-16-18

*Containers requiring zero headspace have no headspace, or bubble < 6 mm (1/4")

Isotope Dilution Summary

Client: Pacific Groundwater Group
Project/Site: Swan Island Lagoon SedimentInvestigation

TestAmerica Job ID: 580-81081-1

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Matrix: Solid **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	HpCDD (23-140)	HpCDF (28-143)	HpCDF2 (26-138)	HxCDD (32-141)	HxCDF (26-152)	HxDD (28-130)	HxDF (26-123)	HxCF (29-147)
580-81081-2	H1-0to24-101418	53	48	53	54	54	55	55	59
580-81081-2 - RA	H1-0to24-101418								
580-81081-4	F1-0to23-101418	71	65	75	74	77	71	75	72
580-81081-6	B1-0to20-101418	54	48	58	60	62	56	59	60
580-81081-12	J1-0to20-101318	62	56	60	58	59	59	59	60
580-81081-15	J5-0to29-101318	54	48	54	55	57	58	57	57
580-81081-15 - RA	J5-0to29-101318								
580-81081-18	513-0to26-101318	53	50	53	51	53	55	55	55
580-81081-18 - RA	513-0to26-101318								
580-81081-19	J3-0to26-101318	49	44	47	48	50	49	52	51
580-81081-19 - RA	J3-0to26-101318								
580-81081-21	L3-0to20-101318	64	58	63	59	60	56	58	59
580-81081-23	L5-0to26-101318	55	51	57	53	54	52	53	55
580-81081-23 - RA	L5-0to26-101318								
580-81081-24	L7-0to29-101318	50	47	52	50	53	52	52	54
580-81081-24 - RA	L7-0to29-101318								
580-81081-26	H7-0to24-101218	49	45	50	52	55	54	55	55
580-81081-26 - RA	H7-0to24-101218								
580-81081-28	J7-0to26-101218	51	45	49	50	53	51	52	53
580-81081-28 - RA	J7-0to26-101218								
580-81081-33	H5-0to29-101118	53	50	53	52	52	48	50	52
580-81081-33 - RA	H5-0to29-101118								
580-81081-37	F7-0to27-101118	42	35	42	38	38	39	38	41
580-81081-37 - RA	F7-0to27-101118								
580-81081-39	512-0to28-101118	46	41	47	46	46	44	43	46
580-81081-39 - RA	512-0to28-101118								
580-81081-41	F5-0to28-101118	46	40	47	46	45	42	43	46
580-81081-41 - RA	F5-0to28-101118								
580-81081-42	F3-0to27-101118	47	43	49	45	45	42	42	45
580-81081-42 - RA	F3-0to27-101118								
580-81081-43	H3-0to28-101118	48	43	48	47	48	45	46	49
580-81081-43 - RA	H3-0to28-101118								
MB 320-253208/1-A	Method Blank	81	78	79	76	79	76	79	78
MB 320-256727/1-A	Method Blank	87	91	88	87	93	91	91	87

		Percent Isotope Dilution Recovery (Acceptance Limits)						
Lab Sample ID	Client Sample ID	PeCDD (25-181)	PeCDF (24-185)	13CHxCF (28-136)	PeCF (21-178)	TCDD (25-164)	TCDF (24-169)	OCDD (17-157)
580-81081-2	H1-0to24-101418	57	57	57	58	62	64	45
580-81081-2 - RA	H1-0to24-101418						59	
580-81081-4	F1-0to23-101418	65	67	77	67	69	72	68
580-81081-6	B1-0to20-101418	56	57	63	61	62	68	48
580-81081-12	J1-0to20-101318	56	56	60	57	61	61	56
580-81081-15	J5-0to29-101318	56	56	57	58	61	64	49
580-81081-15 - RA	J5-0to29-101318						59	
580-81081-18	513-0to26-101318	54	52	54	54	56	58	52
580-81081-18 - RA	513-0to26-101318						53	
580-81081-19	J3-0to26-101318	48	47	50	48	52	51	51
580-81081-19 - RA	J3-0to26-101318						47	
580-81081-21	L3-0to20-101318	54	54	59	55	58	58	63

Method: 1613B - Dioxins and Furans (HRGC/HRMS) (Continued)

Matrix: Solid **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)						
Lab Sample ID	Client Sample ID	PeCDD (25-181)	PeCDF (24-185)	13CHxCF (28-136)	PeCF (21-178)	TCDD (25-164)	TCDF (24-169)	OCDD (17-157)
580-81081-23	L5-0to26-101318	50	51	54	53	54	57	56
580-81081-23 - RA	L5-0to26-101318						50	
580-81081-24	L7-0to29-101318	52	53	53	54	54	57	50
580-81081-24 - RA	L7-0to29-101318						52	
580-81081-26	H7-0to24-101218	52	54	54	54	55	58	49
580-81081-26 - RA	H7-0to24-101218						52	
580-81081-28	J7-0to26-101218	50	50	51	51	52	54	56
580-81081-28 - RA	J7-0to26-101218						50	
580-81081-33	H5-0to29-101118	49	49	52	49	50	51	56
580-81081-33 - RA	H5-0to29-101118						46	
580-81081-37	F7-0to27-101118	38	38	38	39	40	40	42
580-81081-37 - RA	F7-0to27-101118						36	
580-81081-39	512-0to28-101118	44	45	45	47	47	48	48
580-81081-39 - RA	512-0to28-101118						43	
580-81081-41	F5-0to28-101118	43	44	44	46	47	49	46
580-81081-41 - RA	F5-0to28-101118						44	
580-81081-42	F3-0to27-101118	42	43	44	42	45	45	50
580-81081-42 - RA	F3-0to27-101118						40	
580-81081-43	H3-0to28-101118	47	47	47	48	49	50	47
580-81081-43 - RA	H3-0to28-101118						45	
MB 320-253208/1-A	Method Blank	76	76	80	76	79	78	75
MB 320-256727/1-A	Method Blank	81	80	93	80	82	80	86

Surrogate Legend

HpCDD = 13C-1,2,3,4,6,7,8-HpCDD
HpCDF = 13C-1,2,3,4,6,7,8-HpCDF
HpCDF2 = 13C-1,2,3,4,7,8,9-HpCDF
HxCDD = 13C-1,2,3,4,7,8-HxCDD
HxCDF = 13C-1,2,3,4,7,8-HxCDF
HxDD = 13C-1,2,3,6,7,8-HxCDD
HxDF = 13C-1,2,3,6,7,8-HxCDF
HxCF = 13C-1,2,3,7,8,9-HxCDF
PeCDD = 13C-1,2,3,7,8-PeCDD
PeCDF = 13C-1,2,3,7,8-PeCDF
13CHxCF = 13C-2,3,4,6,7,8-HxCDF
PeCF = 13C-2,3,4,7,8-PeCDF
TCDD = 13C-2,3,7,8-TCDD
TCDF = 13C-2,3,7,8-TCDF
OCDD = 13C-OCDD

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Matrix: Solid **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	HpCDD (26-166)	HpCDF (21-158)	HpCDF2 (20-186)	HxCDD (21-193)	HxCDF (19-202)	HxDD (25-163)	HxDF (21-159)	HxCF (17-205)
LCS 320-253208/2-A	Lab Control Sample	79	75	77	74	75	79	78	77
LCS 320-256727/2-A	Lab Control Sample	77	80	80	79	83	79	83	74
LCSD 320-253208/3-A	Lab Control Sample Dup	77	76	76	73	76	73	75	75

Method: 1613B - Dioxins and Furans (HRGC/HRMS) (Continued)

Matrix: Solid **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	HpCDD (26-166)	HpCDF (21-158)	HpCDF2 (20-186)	HxCDD (21-193)	HxCDF (19-202)	HxDD (25-163)	HxDF (21-159)	HxCF (17-205)
LCSD 320-256727/3-A	Lab Control Sample Dup	93	89	94	93	97	91	94	88

		Percent Isotope Dilution Recovery (Acceptance Limits)						
Lab Sample ID	Client Sample ID	PeCDD (21-227)	PeCDF (21-192)	13CHxCF (22-176)	PeCF (13-328)	TCDD (20-175)	TCDF (22-152)	OCDD (13-199)
LCS 320-253208/2-A	Lab Control Sample	74	73	78	73	75	74	74
LCS 320-256727/2-A	Lab Control Sample	72	72	81	72	72	71	75
LCSD 320-253208/3-A	Lab Control Sample Dup	69	70	76	69	73	72	71
LCSD 320-256727/3-A	Lab Control Sample Dup	82	82	95	81	82	83	89

Surrogate Legend

HpCDD = 13C-1,2,3,4,6,7,8-HpCDD
HpCDF = 13C-1,2,3,4,6,7,8-HpCDF
HpCDF2 = 13C-1,2,3,4,7,8,9-HpCDF
HxCDD = 13C-1,2,3,4,7,8-HxCDD
HxCDF = 13C-1,2,3,4,7,8-HxCDF
HxDD = 13C-1,2,3,6,7,8-HxCDD
HxDF = 13C-1,2,3,6,7,8-HxCDF
HxCF = 13C-1,2,3,7,8,9-HxCDF
PeCDD = 13C-1,2,3,7,8-PeCDD
PeCDF = 13C-1,2,3,7,8-PeCDF
13CHxCF = 13C-2,3,4,6,7,8-HxCDF
PeCF = 13C-2,3,4,7,8-PeCDF
TCDD = 13C-2,3,7,8-TCDD
TCDF = 13C-2,3,7,8-TCDF
OCDD = 13C-OCDD

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	HpCDD (23-140)	HpCDF (28-143)	HpCDF2 (26-138)	HxCDD (32-141)	HxCDF (26-152)	HxDD (28-130)	HxDF (26-123)	HxCF (29-147)
580-81081-1	611-101118	108	102	113	101	91	80	79	91
MB 320-254471/1-A	Method Blank	81	79	87	80	75	70	67	76

		Percent Isotope Dilution Recovery (Acceptance Limits)						
Lab Sample ID	Client Sample ID	PeCDD (25-181)	PeCDF (24-185)	13CHxCF (28-136)	PeCF (21-178)	TCDD (25-164)	TCDF (24-169)	OCDD (17-157)
580-81081-1	611-101118	76	75	85	79	84	77	104
MB 320-254471/1-A	Method Blank	68	69	74	72	74	79	85

Surrogate Legend

HpCDD = 13C-1,2,3,4,6,7,8-HpCDD
HpCDF = 13C-1,2,3,4,6,7,8-HpCDF
HpCDF2 = 13C-1,2,3,4,7,8,9-HpCDF
HxCDD = 13C-1,2,3,4,7,8-HxCDD
HxCDF = 13C-1,2,3,4,7,8-HxCDF
HxDD = 13C-1,2,3,6,7,8-HxCDD
HxDF = 13C-1,2,3,6,7,8-HxCDF
HxCF = 13C-1,2,3,7,8,9-HxCDF

PeCDD = 13C-1,2,3,7,8-PeCDD
PeCDF = 13C-1,2,3,7,8-PeCDF
13CHxCF = 13C-2,3,4,6,7,8-HxCDF
PeCF = 13C-2,3,4,7,8-PeCDF
TCDD = 13C-2,3,7,8-TCDD
TCDF = 13C-2,3,7,8-TCDF
OCDD = 13C-OCDD

Method: 1613B - Dioxins and Furans (HRGC/HRMS)

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	HpCDD (26-166)	HpCDF (21-158)	HpCDF2 (20-186)	HxCDD (21-193)	HxCDF (19-202)	HxDD (25-163)	HxDF (21-159)	HxCF (17-205)
LCS 320-254471/2-A	Lab Control Sample	85	81	88	81	73	68	66	75
LCSD 320-254471/3-A	Lab Control Sample Dup	85	85	91	84	76	69	68	78

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PeCDD (21-227)	PeCDF (21-192)	13CHxCF (22-176)	PeCF (13-328)	TCDD (20-175)	TCDF (22-152)	OCDD (13-199)	
LCS 320-254471/2-A	Lab Control Sample	71	71	72	73	75	80	85	
LCSD 320-254471/3-A	Lab Control Sample Dup	68	67	75	71	72	74	84	

Surrogate Legend

HpCDD = 13C-1,2,3,4,6,7,8-HpCDD
HpCDF = 13C-1,2,3,4,6,7,8-HpCDF
HpCDF2 = 13C-1,2,3,4,7,8,9-HpCDF
HxCDD = 13C-1,2,3,4,7,8-HxCDD
HxCDF = 13C-1,2,3,4,7,8-HxCDF
HxDD = 13C-1,2,3,6,7,8-HxCDD
HxDF = 13C-1,2,3,6,7,8-HxCDF
HxCF = 13C-1,2,3,7,8,9-HxCDF
PeCDD = 13C-1,2,3,7,8-PeCDD
PeCDF = 13C-1,2,3,7,8-PeCDF
13CHxCF = 13C-2,3,4,6,7,8-HxCDF
PeCF = 13C-2,3,4,7,8-PeCDF
TCDD = 13C-2,3,7,8-TCDD
TCDF = 13C-2,3,7,8-TCDF
OCDD = 13C-OCDD

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	PCB104L (30-140)	PCB105L (30-140)	P114L (30-140)	PCB118L (30-140)	PCB123L (30-140)	PCB126L (30-140)	PCB155L (30-140)	PCB156L (30-140)
580-81081-2	H1-0to24-101418	83	93	88	87	87	88	90	87 C
580-81081-4	F1-0to23-101418	79	89	88	88	86	86	83	88 C
580-81081-6	B1-0to20-101418	70	79	78	78	78	77	75	79 C
580-81081-12	J1-0to20-101318	76	81	85	81	82	82	83	82 C
580-81081-15	J5-0to29-101318	84	92	94	90	92	90	92	91 C
580-81081-18	513-0to26-101318	84	88	90	87	87	83	93	91 C
580-81081-19	J3-0to26-101318	84	94	93	89	90	88	89	89 C
580-81081-21	L3-0to20-101318	84	93	92	91	90	91	93	91 C
580-81081-23	L5-0to26-101318	84	86	89	90	91	84	92	97 C
580-81081-24	L7-0to29-101318	82	91	88	89	87	88	89	88 C

Isotope Dilution Summary

Client: Pacific Groundwater Group
Project/Site: Swan Island Lagoon SedimentInvestigation

TestAmerica Job ID: 580-81081-1

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	PCB104L (30-140)	PCB105L (30-140)	P114L (30-140)	PCB118L (30-140)	PCB123L (30-140)	PCB126L (30-140)	PCB155L (30-140)	PCB156L (30-140)
580-81081-26	H7-0to24-101218	85	92	92	93	90	88	90	89 C
580-81081-28	J7-0to26-101218	80	93	92	92	90	89	92	90 C
580-81081-33	H5-0to29-101118	80	91	91	89	87	89	91	88 C
580-81081-37	F7-0to27-101118	80	95	95	95	92	90	94	89 C
580-81081-39	512-0to28-101118	83	91	95	90	93	90	93	87 C
580-81081-41	F5-0to28-101118	83	87	83	78	79	83	90	88 C
580-81081-42	F3-0to27-101118	85	92	93	89	89	88	92	90 C
580-81081-43	H3-0to28-101118	78	85	85	83	83	83	78	84 C
LCS 140-24629/20-B	Lab Control Sample	75	90	84	84	82	82	83	84 C
LCS 140-24993/4-B	Lab Control Sample	77	89	85	83	82	81	81	82 C
LCS 140-25210/4-B	Lab Control Sample	75	89	87	86	85	83	83	85 C
LCSD 140-24629/21-B	Lab Control Sample Dup	76	93	88	87	86	86	87	86 C
LCSD 140-24993/5-B	Lab Control Sample Dup	78	90	85	86	84	82	79	82 C
MB 140-24629/19-B	Method Blank	77	87	83	84	81	80	85	82 C
MB 140-24993/3-B	Method Blank	80	93	88	86	84	85	84	84 C
MB 140-25210/3-B	Method Blank	79	89	89	87	85	82	87	88 C

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PCB157L (30-140)	PCB15L (30-140)	PCB167L (30-140)	PCB169L (30-140)	PCB170L (30-140)	PCB188L (30-140)	PCB189L (30-140)	PCB19L (30-140)
580-81081-2	H1-0to24-101418	87 C156	80	88	94	88	92	77	103
580-81081-4	F1-0to23-101418	88 C156	78	89	92	86	87	80	88
580-81081-6	B1-0to20-101418	79 C156	71	79	85	76	78	72	77
580-81081-12	J1-0to20-101318	82 C156	64 q	83	89	78	80	73	83
580-81081-15	J5-0to29-101318	91 C156	79	90	95	88	96	84	93
580-81081-18	513-0to26-101318	91 C156	81	92	97	84	88	78	91
580-81081-19	J3-0to26-101318	89 C156	79	90	97	83	88	84	94
580-81081-21	L3-0to20-101318	91 C156	81	93	95	88	88	80	88
580-81081-23	L5-0to26-101318	97 C156	82	95	95	29 q *	85	80	87
580-81081-24	L7-0to29-101318	88 C156	78	89	96	87	89	79	85
580-81081-26	H7-0to24-101218	89 C156	70	90	93	81	87	82	85
580-81081-28	J7-0to26-101218	90 C156	73	93	95	89	89	86	83
580-81081-33	H5-0to29-101118	88 C156	79	89	95	84	89	78	90
580-81081-37	F7-0to27-101118	89 C156	71	90	92	86	89	75	77 q
580-81081-39	512-0to28-101118	87 C156	77	92	94	83	91	78	79 q
580-81081-41	F5-0to28-101118	88 C156	75	90	101	84	80	77	97
580-81081-42	F3-0to27-101118	90 C156	81	90	96	86	91	82	90
580-81081-43	H3-0to28-101118	84 C156	80	84	88	81	83	76	89
LCS 140-24629/20-B	Lab Control Sample	84 C156	71	84	91	83	84	75	81
LCS 140-24993/4-B	Lab Control Sample	82 C156	72	81	88	80	85	74	81
LCS 140-25210/4-B	Lab Control Sample	85 C156	75	85	89	84	85	78	91
LCSD 140-24629/21-B	Lab Control Sample Dup	86 C156	69	84	91	85	85	77	84
LCSD 140-24993/5-B	Lab Control Sample Dup	82 C156	71	82	88	79	86	73	85
MB 140-24629/19-B	Method Blank	82 C156	69	84	90	83	83	72	82
MB 140-24993/3-B	Method Blank	84 C156	77	87	91	84	87	76	87
MB 140-25210/3-B	Method Blank	88 C156	71	88	93	85	85	79	91

Isotope Dilution Summary

Client: Pacific Groundwater Group
Project/Site: Swan Island Lagoon SedimentInvestigation

TestAmerica Job ID: 580-81081-1

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	PCB1L (30-140)	PCB202L (30-140)	PCB205L (30-140)	PCB206L (30-140)	PCB208L (30-140)	PCB209L (30-140)	PCB37L (30-140)	PCB3L (30-140)
580-81081-2	H1-0to24-101418	66	110	74	88	86	90	88	66
580-81081-4	F1-0to23-101418	66	100	76	88	87	90	88	67
580-81081-6	B1-0to20-101418	56	90	67	79	77	80	78	57
580-81081-12	J1-0to20-101318	60	96	69	82	82	84	85	59
580-81081-15	J5-0to29-101318	64	112	79	101	94	98	92	63
580-81081-18	513-0to26-101318	68	106	73	99	88	91	91	65
580-81081-19	J3-0to26-101318	64	102	75	95	92	95	93	64
580-81081-21	L3-0to20-101318	65	109	77	92	91	96	90	65
580-81081-23	L5-0to26-101318	67	102	79	102	87	111 q	89	64
580-81081-24	L7-0to29-101318	64	104	77	99	90	94	90	62
580-81081-26	H7-0to24-101218	66	104	75	91	87	92	85	62
580-81081-28	J7-0to26-101218	67	110	78	98	90	97	91	63
580-81081-33	H5-0to29-101118	65	106	72	95	87	87	91	63
580-81081-37	F7-0to27-101118	63	109	76	94	88	95	91	62
580-81081-39	512-0to28-101118	60	106	74	95	88	95	86	61
580-81081-41	F5-0to28-101118	64	102	70	85	76	75	78	61
580-81081-42	F3-0to27-101118	63	110	78	98	88	93	93	64
580-81081-43	H3-0to28-101118	65	94	71	84	81	83	86	63
LCS 140-24629/20-B	Lab Control Sample	62	103	72	87	85	92	80	61
LCS 140-24993/4-B	Lab Control Sample	66	99	71	85	83	87	79	64
LCS 140-25210/4-B	Lab Control Sample	73	100	74	86	85	90	88	68
LCSD 140-24629/21-B	Lab Control Sample Dup	64	105	75	91	87	95	79	60
LCSD 140-24993/5-B	Lab Control Sample Dup	67	98	73	85	83	87	80	63
MB 140-24629/19-B	Method Blank	61	103	72	86	83	92	79	60
MB 140-24993/3-B	Method Blank	68	102	73	86	85	89	82	66
MB 140-25210/3-B	Method Blank	71	101	74	89	87	93	83	67

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PCB4L (30-140)	PCB54L (30-140)	PCB77L (30-140)	PCB81L (30-140)				
580-81081-2	H1-0to24-101418	79	75	91	88				
580-81081-4	F1-0to23-101418	79	58	88	86				
580-81081-6	B1-0to20-101418	70	56	79	78				
580-81081-12	J1-0to20-101318	73	68	81	83				
580-81081-15	J5-0to29-101318	82	76	90	92				
580-81081-18	513-0to26-101318	80	80	85	88				
580-81081-19	J3-0to26-101318	80	70	88	90				
580-81081-21	L3-0to20-101318	82	75	90	88				
580-81081-23	L5-0to26-101318	85	70	87	85				
580-81081-24	L7-0to29-101318	80	73	90	89				
580-81081-26	H7-0to24-101218	78	63 q	84	87				
580-81081-28	J7-0to26-101218	80	66	87	86				
580-81081-33	H5-0to29-101118	80	71	88	88				
580-81081-37	F7-0to27-101118	77	66	86	83				
580-81081-39	512-0to28-101118	76	77	89	87				
580-81081-41	F5-0to28-101118	73	78	88	90				
580-81081-42	F3-0to27-101118	81	71	88	89				
580-81081-43	H3-0to28-101118	78	56	80	81				
LCS 140-24629/20-B	Lab Control Sample	75	68	80	80				
LCS 140-24993/4-B	Lab Control Sample	79	59	75	75				

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	PCB4L (30-140)	PCB54L (30-140)	PCB77L (30-140)	PCB81L (30-140)
LCS 140-25210/4-B	Lab Control Sample	84	63	84	84
LCSD 140-24629/21-B	Lab Control Sample Dup	77	66	78	78
LCSD 140-24993/5-B	Lab Control Sample Dup	78	59	77	76
MB 140-24629/19-B	Method Blank	76	71	77	76
MB 140-24993/3-B	Method Blank	82	62	78	77
MB 140-25210/3-B	Method Blank	84	66	82	82

Surrogate Legend

PCB104L = PCB-104L
PCB105L = PCB-105L
P114L = PCB-114L
PCB118L = PCB-118L
PCB123L = PCB-123L
PCB126L = PCB-126L
PCB155L = PCB-155L
PCB156L = PCB-156L
PCB157L = PCB-157L
PCB15L = PCB-15L
PCB167L = PCB-167L
PCB169L = PCB-169L
PCB170L = PCB-170L
PCB188L = PCB-188L
PCB189L = PCB-189L
PCB19L = PCB-19L
PCB1L = PCB-1L
PCB202L = PCB-202L
PCB205L = PCB-205L
PCB206L = PCB-206L
PCB208L = PCB-208L
PCB209L = PCB-209L
PCB37L = PCB-37L
PCB3L = PCB-3L
PCB4L = PCB-4L
PCB54L = PCB-54L
PCB77L = PCB-77L
PCB81L = PCB-81L

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)
580-81081-1	611-101118	67	68	82	83	85	94	68	96
LCS 140-24630/4-A	Lab Control Sample	61	61	74	73	78	85	60	86
MB 140-24630/3-A	Method Blank	65	65	79	78	87	88	68	90

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

Matrix: Water **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)
580-81081-1	611-101118	93	81	94	97	92	93	92	90
LCS 140-24630/4-A	Lab Control Sample	84	63	90	86	85	82	87	69
MB 140-24630/3-A	Method Blank	86	73	97	90	91	89	92	83

		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)
580-81081-1	611-101118	94 C	94 C156	94	101	92	95	87	110
LCS 140-24630/4-A	Lab Control Sample	90 C	90 C156	90	96	86	77	80	102
MB 140-24630/3-A	Method Blank	94 C	94 C156	93	101	89	86	85	106

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PCB205L (30-140)	PCB206L (30-140)	PCB208L (30-140)	PCB209L (30-140)				
580-81081-1	611-101118	82	97	95	101				
LCS 140-24630/4-A	Lab Control Sample	76	90	88	92				
MB 140-24630/3-A	Method Blank	79	94	91	93				

Surrogate Legend

PCB1L = PCB-1L
PCB3L = PCB-3L
PCB4L = PCB-4L
PCB15L = PCB-15L
PCB19L = PCB-19L
PCB37L = PCB-37L
PCB54L = PCB-54L
PCB77L = PCB-77L
PCB81L = PCB-81L
PCB104L = PCB-104L
PCB105L = PCB-105L
P114L = PCB-114L
PCB118L = PCB-118L
PCB123L = PCB-123L
PCB126L = PCB-126L
PCB155L = PCB-155L
PCB156L = PCB-156L
PCB157L = PCB-157L
PCB167L = PCB-167L
PCB169L = PCB-169L
PCB170L = PCB-170L
PCB188L = PCB-188L
PCB189L = PCB-189L
PCB202L = PCB-202L
PCB205L = PCB-205L
PCB206L = PCB-206L
PCB208L = PCB-208L
PCB209L = PCB-209L