TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

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TestAmerica Job ID: 580-81308-1
Client Project/Site: Swan Island Lagoon SedimentInvestigation

For:
Pacific Groundwater Group
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Attn: Ms. Inger Jackson

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Authorized for release by:
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Narrative

CASE NARRATIVE
Client: Pacific Groundwater Group
Project: Swan Island Lagoon Sediment Investigation
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This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

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

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

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

RECEIPT

Twenty-six samples were received on 10/24/2018 2:10 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 13 coolers at receipt time were 0.7º C, 0.8º C, 1.0º C, 1.2º C, 1.6º C, 2.3º C, 2.8º C, 2.9º C, 3.1º C, 3.4º C, 3.5º C, 4.1º C and 4.6º C.

The container label for the following samples did not match the information listed on the Chain-of-Custody (COC): J5-SC-20to40-102218 (580-81308-11) and J5-SC-80to95-102218 (580-81308-12). We did not receive 2 container for samples 11 and 12. COC list 2 containers, but we received 1-4oz soil jar per sample.

The following samples indicate 'frozen archive' on the COC, however an archive container was not received: J3-SC-20to36-102218 (580-81308-4), J3-SC-36to45-102218 (580-81308-6), J3-SC-10to20-102218 (580-81308-7), J3-SC-00to10-102218 (580-81308-8), J5-SC-95to110-102218 (580-81308-14), J6-SC-80to96-102218 (580-81308-17), J6-SC-111to121-102218 (580-81308-18), J6-SC-96to111-102218 (580-81308-20), J5-SC-00to10-102218 (580-81308-23), L3-SC-00to10-102218 (580-81308-26) and E-9.02-SC-10to20-102318 (580-81308-29)

Sample 580-81308-41 was listed on the COC but was not received with the shipment.

The following sample was canceled for NWTPH-Dx analysis by the client on 10/30/18: 611-102318 (580-81308-61).

The client requested a sample ID be changed from the original COC. A revised COC was submitted. D-9.09-SC-100to117-102318 (580-81308-36).

The following sample was placed on hold by the client on 10/31/18: E-9.02-0to26-102418 (580-81308-59).

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 J3-SC-55to76-102218 (580-81308-2), J3-SC-45to55-102218 (580-81308-3), J3-SC-20to36-102218 (580-81308-4), J3-SC-76to98-102218 (580-81308-5), J3-SC-36to45-102218 (580-81308-6), J3-SC-10to20-102218 (580-81308-7), J3-SC-00to10-102218 (580-81308-8), L3-SC-10to20-102218 (580-81308-9), L3-SC-20to40-102218 (580-81308-10), J5-SC-20to40-102218 (580-81308-11), J5-SC-80to95-102218 (580-81308-12), J5-SC-60to80-102218 (580-81308-13),

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J5-SC-95to110-102218 (580-81308-14), J5-SC-10to20-102218 (580-81308-15), J6-SC-60to80-102218 (580-81308-16), J6-SC-80to96-102218 (580-81308-17), J6-SC-111to121-102218 (580-81308-18), J6-SC-40to60-102218 (580-81308-19), J6-SC-96to111-102218 (580-81308-20), J5-SC-40to60-102218 (580-81308-21), J6-SC-20to40-102218 (580-81308-22), J5-SC-00to10-102218 (580-81308-23), J6-SC-00to10-102218 (580-81308-24), J6-SC-10to20-102218 (580-81308-25) and L3-SC-00to10-102218 (580-81308-26) were analyzed for Dioxin/ Furan in accordance with 1613B. The samples were prepared on 11/12/2018 and 11/14/2018 and analyzed on 11/17/2018, 11/19/2018, 11/20/2018 and 11/21/2018.

Several analytes were detected in method blank MB 320-258637/1-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 320-259167/1-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 and 13C-1,2,3,7,8,9-HxCDD associated with the following samples run on instrument 10D5 exceeded this criteria: J3-SC-55to76-102218 (580-81308-2) and J3-SC-45to55-102218 (580-81308-3). 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.

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: J3-SC-76to98-102218 (580-81308-5), L3-SC-10to20-102218 (580-81308-9), L3-SC-20to40-102218 (580-81308-10), J5-SC-60to80-102218 (580-81308-13), J5-SC-10to20-102218 (580-81308-15), J6-SC-60to80-102218 (580-81308-16), J6-SC-40to60-102218 (580-81308-19), J5-SC-40to60-102218 (580-81308-21), J6-SC-20to40-102218 (580-81308-22), J6-SC-00to10-102218 (580-81308-24), J6-SC-10to20-102218 (580-81308-25), (CCV 320-260268/16), (WDM 320-260268/17), (CCV 320-260266/3) and (WDM 320-260266/1). 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.

The concentration of one or more analytes associated with the following samples exceeded the instrument calibration range: J3-SC-20to36-102218 (580-81308-4), J5-SC-20to40-102218 (580-81308-11), J5-SC-60to80-102218 (580-81308-13), J5-SC-10to20-102218 (580-81308-15), J6-SC-40to60-102218 (580-81308-19), J6-SC-20to40-102218 (580-81308-22), J6-SC-00to10-102218 (580-81308-24) and J6-SC-10to20-102218 (580-81308-25). 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.

The following sample exhibited elevated noise or matrix interferences for one or more analytes causing elevation of the detection limit (EDL): J3-SC-45to55-102218 (580-81308-3), J3-SC-20to36-102218 (580-81308-4), J5-SC-60to80-102218 (580-81308-13), J5-SC-10to20-102218 (580-81308-15), J6-SC-40to60-102218 (580-81308-19), J5-SC-40to60-102218 (580-81308-21), J5-SC-00to10-102218 (580-81308-23), J6-SC-00to10-102218 (580-81308-24) and J6-SC-10to20-102218 (580-81308-25). The reporting limit (RL) for the affected analytes has been raised to be equal to the EDL, and a "G" qualifier applied.

The ion abundance ratio is outside criteria for the Internal Standard 13C-1,2,3,4-TCDD associated with the following sample: J6-SC-80to96-102218 (580-81308-17). The theoretical area for the Internal Standard(s) was used to quantitate the related Isotope Dilution Analytes (IDA) recoveries.

The automated resolution check scheduled to be performed on 11/20/2018 at 0425 hrs. did not print due to a data system malfunction causing the SIOS (acquisition system) to go off line. Upon arrival to work the next morning the analyst rebooted the data system and without tuning performed a manual ending resolution check at 0731 hrs. which indicated the instrument maintained greater than 10,000 resolution. The 3 hour and 6 minute delay in printing the ending resolution check has no impact on the data. J3-SC-20to36-102218 (580-81308-4), J3-SC-36to45-102218 (580-81308-6), J3-SC-10to20-102218 (580-81308-7), J3-SC-00to10-102218 (580-81308-8), J5-SC-20to40-102218 (580-81308-11), J5-SC-80to95-102218 (580-81308-12), J5-SC-95to110-102218 (580-81308-14), J6-SC-80to96-102218 (580-81308-17), J6-SC-111to121-102218 (580-81308-18), J6-SC-96to111-102218 (580-81308-20),

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J5-SC-00to10-102218 (580-81308-23), L3-SC-00to10-102218 (580-81308-26), (CCV 320-260264/2) and (CPS 320-260264/1).

Due to the matrix, the initial volumes used for the following samples deviated from the standard procedure: J3-SC-55to76-102218 (580-81308-2), J3-SC-45to55-102218 (580-81308-3), J3-SC-20to36-102218 (580-81308-4), J3-SC-76to98-102218 (580-81308-5), J3-SC-36to45-102218 (580-81308-6), J3-SC-10to20-102218 (580-81308-7), J3-SC-00to10-102218 (580-81308-8), L3-SC-10to20-102218 (580-81308-9), L3-SC-20to40-102218 (580-81308-10), J5-SC-20to40-102218 (580-81308-11), J5-SC-80to95-102218 (580-81308-12), J5-SC-60to80-102218 (580-81308-13), J5-SC-95to110-102218 (580-81308-14), J5-SC-10to20-102218 (580-81308-15), J6-SC-60to80-102218 (580-81308-16), J6-SC-80to96-102218 (580-81308-17), J6-SC-111to121-102218 (580-81308-18), J6-SC-40to60-102218 (580-81308-19), J6-SC-96to111-102218 (580-81308-20), J5-SC-40to60-102218 (580-81308-21), J6-SC-20to40-102218 (580-81308-22), J5-SC-00to10-102218 (580-81308-23), J6-SC-00to10-102218 (580-81308-24), J6-SC-10to20-102218 (580-81308-25), and L3-SC-00to10-102218 (580-81308-26). The reporting limits (RLs) have been adjusted proportionately.

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

DIOXIN/ FURAN - WATER

Sample 613-102218 (580-81308-1) was analyzed for Dioxin/ Furan in accordance with 1613B. The sample was prepared on 10/31/2018 and analyzed on 11/06/2018.

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 and/or 13C-1,2,3,7,8,9-HxCDD associated with the following samples run on instrument 12D5 exceeded this criteria: 613-102218 (580-81308-1), (CCV 320-257187/13), (LCS 320-256030/2-A), (LCSD 320-256030/3-A) and (MB 320-256030/1-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.

Several analytes were detected in method blank MB 320-256030/1-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.

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

POLYCHLORINATED BIPHENYLS (PCBS)

Samples J3-SC-55to76-102218 (580-81308-2), J3-SC-45to55-102218 (580-81308-3), J3-SC-20to36-102218 (580-81308-4), J3-SC-76to98-102218 (580-81308-5), J3-SC-36to45-102218 (580-81308-6), J3-SC-10to20-102218 (580-81308-7), J3-SC-00to10-102218 (580-81308-8), L3-SC-10to20-102218 (580-81308-9), L3-SC-20to40-102218 (580-81308-10), J5-SC-20to40-102218 (580-81308-11), J5-SC-80to95-102218 (580-81308-12), J5-SC-60to80-102218 (580-81308-13), J5-SC-95to110-102218 (580-81308-14), J5-SC-10to20-102218 (580-81308-15), J6-SC-60to80-102218 (580-81308-16), J6-SC-80to96-102218 (580-81308-17), J6-SC-111to121-102218 (580-81308-18), J6-SC-40to60-102218 (580-81308-19), J6-SC-96to111-102218 (580-81308-20), J5-SC-40to60-102218 (580-81308-21), J6-SC-20to40-102218 (580-81308-22), J5-SC-00to10-102218 (580-81308-23), J6-SC-00to10-102218 (580-81308-24), J6-SC-10to20-102218 (580-81308-25) and L3-SC-00to10-102218 (580-81308-26) were analyzed for polychlorinated biphenyls (PCBs) in accordance with EPA sw-846 method 8082A. The samples were prepared on 11/10/2018 and 11/13/2018 and analyzed on 11/12/2018 and 11/14/2018.

Surrogate recovery for the following samples were outside control limits: J3-SC-45to55-102218 (580-81308-3), J3-SC-36to45-102218 (580-81308-6), J5-SC-20to40-102218 (580-81308-11), J5-SC-10to20-102218 (580-81308-15), J6-SC-60to80-102218 (580-81308-16), J5-SC-40to60-102218 (580-81308-21), J5-SC-40to60-102218 MS (580-81308-21 MS), J5-SC-40to60-102218 MSD (580-81308-21 MSD), J5-SC-00to10-102218 (580-81308-23), J6-SC-00to10-102218 (580-81308-24), J6-SC-10to20-102218 (580-81308-25), and L3-SC-00to10-102218 (580-81308-26). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis were not performed.

The laboratory control sample (LCS) associated with 580-288647 recovered outside the control limits for PCB-1016 and PCB-1260 on the confirmation column only. Results are confirmed on both columns and reported from the passing column. The following samples are impacted: J3-SC-55to76-102218 (580-81308-2), J3-SC-45to55-102218 (580-81308-3), J3-SC-20to36-102218 (580-81308-4), J3-SC-76to98-102218 (580-81308-5), J3-SC-10to20-102218 (580-81308-7), J3-SC-00to10-102218 (580-81308-8),

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L3-SC-10to20-102218 (580-81308-9), L3-SC-20to40-102218 (580-81308-10), J5-SC-20to40-102218 (580-81308-11), J6-SC-20to40-102218 (580-81308-22) and (LCS 580-288588/2-A).

PCB-1016 and PCB-1260 failed the recovery criteria high for the MS of sample J5-SC-40to60-102218MS (580-81308-21) in batch 580-288686. PCB-1016 and PCB-1260 failed the recovery criteria high for the MSD of sample J5-SC-40to60-102218MSD (580-81308-21) in batch 580-288686. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

The continuing calibration verification (CCV) associated with 580-288647 recovered high and outside the control limits for PCB-1232, PCB-1248, PCB-1242, PCB-1254, PCB-1016 and PCB-1260 on the confirmation column only. Results are confirmed on both columns and reported from the passing column. The following samples are impacted: J3-SC-55to76-102218 (580-81308-2), J3-SC-45to55-102218 (580-81308-3), J3-SC-20to36-102218 (580-81308-4), J3-SC-76to98-102218 (580-81308-5), J3-SC-10to20-102218 (580-81308-7), J3-SC-00to10-102218 (580-81308-8), L3-SC-10to20-102218 (580-81308-9), L3-SC-20to40-102218 (580-81308-10), J5-SC-20to40-102218 (580-81308-11), J6-SC-20to40-102218 (580-81308-22), (CCV 580-288647/4), (CCV 580-288647/5), (CCV 580-288647/6), (CCV 580-288647/7) and (CCVIS 580-288647/8).

The continuing calibration verification (CCV) standard associated with batch 580-288647 recovered outside acceptance criteria for %D for surrogate DCB Decachlorobiphenyl. Since all the other surrogates were within %D criteria; therefore, the data have been reported.

The continuing calibration verification (CCV) associated with 580-288686 recovered high and outside the control limits for PCB-1232, PCB-1248, PCB-1242, PCB-1254, PCB-1016 and PCB-1260 on the confirmation column only. Results are confirmed on both columns and reported from the passing column. The following samples are impacted: J5-SC-80to95-102218 (580-81308-12), J5-SC-60to80-102218 (580-81308-13), J5-SC-95to110-102218 (580-81308-14), J5-SC-10to20-102218 (580-81308-15), J6-SC-60to80-102218 (580-81308-16), J6-SC-80to96-102218 (580-81308-17), J6-SC-111to121-102218 (580-81308-18), J6-SC-40to60-102218 (580-81308-19), J6-SC-96to111-102218 (580-81308-20), J5-SC-40to60-102218 (580-81308-21), (CCV 580-288686/4), (CCV 580-288686/5), (CCV 580-288686/6), (CCV 580-288686/7), (CCVIS 580-288686/8), J5-SC-40to60-102218 MS (580-81308-21 MS) and J5-SC-40to60-102218 MSD (580-81308-21 MSD).

The continuing calibration verification (CCV) standard associated with batch 580-288686 recovered outside acceptance criteria for %D for surrogate DCB Decachlorobiphenyl and Tetrachloro-m-xylene on the confirmation column only. Since all the other surrogates were within %D criteria; therefore, the data have been reported.

The continuing calibration verification (CCV) associated with batch 580-288911 recovered above the upper control limit for PCB-1242. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: J3-SC-36to45-102218 (580-81308-6), J5-SC-00to10-102218 (580-81308-23), J6-SC-00to10-102218 (580-81308-24), J6-SC-10to20-102218 (580-81308-25), L3-SC-00to10-102218 (580-81308-26), and (CCV 580-288911/5).

The continuing calibration verification (CCV) associated with 580-288911 recovered low and outside the control limits for PCB-1232 on the confirmation column. Results are confirmed on both columns and reported from the passing column. The following samples are impacted: J3-SC-36to45-102218 (580-81308-6), J5-SC-00to10-102218 (580-81308-23), J6-SC-00to10-102218 (580-81308-24), J6-SC-10to20-102218 (580-81308-25), L3-SC-00to10-102218 (580-81308-26), and (CCV 580-288911/3).

The continuing calibration verification (CCV) standard associated with batch 580-288911 recovered outside acceptance criteria for %D for surrogate DCB Decachlorobiphenyl. Since the %Rec is within the acceptance criteria for the surrogate in the CCV and associated samples, the data have been reported. The following sample is impacted: (CCVIS 580-288911/7).

The following samples required a copper clean-up to reduce matrix interferences caused by sulfur: J3-SC-55to76-102218 (580-81308-2), J3-SC-45to55-102218 (580-81308-3), J3-SC-20to36-102218 (580-81308-4), J3-SC-76to98-102218 (580-81308-5), J3-SC-36to45-102218 (580-81308-6), J3-SC-10to20-102218 (580-81308-7), J3-SC-00to10-102218 (580-81308-8), L3-SC-10to20-102218 (580-81308-9), L3-SC-20to40-102218 (580-81308-10), J5-SC-20to40-102218 (580-81308-11), J5-SC-80to95-102218 (580-81308-12), J5-SC-60to80-102218 (580-81308-13), J5-SC-95to110-102218 (580-81308-14), J5-SC-10to20-102218 (580-81308-15), J6-SC-60to80-102218 (580-81308-16), J6-SC-80to96-102218 (580-81308-17), J6-SC-111to121-102218 (580-81308-18), J6-SC-40to60-102218 (580-81308-19), J6-SC-96to111-102218 (580-81308-20), J5-SC-40to60-102218 (580-81308-21), J5-SC-40to60-102218 MS (580-81308-21 MS), J5-SC-40to60-102218 MSD (580-81308-21 MSD), J6-SC-20to40-102218 (580-81308-22),

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J5-SC-00to10-102218 (580-81308-23), J6-SC-00to10-102218 (580-81308-24), J6-SC-10to20-102218 (580-81308-25), and L3-SC-00to10-102218 (580-81308-26).

Due to the matrix, the following samples could not be concentrated to the final method required volume of 2mL: J3-SC-36to45-102218 (580-81308-6), J5-SC-00to10-102218 (580-81308-23), J6-SC-00to10-102218 (580-81308-24), J6-SC-10to20-102218 (580-81308-25), and L3-SC-00to10-102218 (580-81308-26). The reporting limits (RLs) are elevated proportionately.

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

POLYCHLORINATED BIPHENYLS (PCBS) - WATER

Sample 613-102218 (580-81308-1) was analyzed for polychlorinated biphenyls (PCBs) in accordance with EPA SW-846 Method 8082A. The sample was prepared on 11/14/2018 and analyzed on 11/15/2018.

The continuing calibration verification (CCV) associated with 580-288986 recovered outside the control limits for PCB-1232, PCB-1016, PCB-1242, PCB-1248, PCB-1254 and PCB-1260 on one column. Results are confirmed on both columns and reported from the passing column. The following samples are impacted: 613-102218 (580-81308-1), (CCV 580-288986/4), (CCV 580-288986/5), (CCV 580-288986/6), (CCV 580-288986/7) and (CCVIS 580-288986/8).

The following continuing calibration verification (CCV) standard associated with batch 580-288986 recovered outside acceptance criteria for %D for surrogate DCB Decachlorobiphenyl and the %D and %rec for Tetrachloro-m-xylene on the confirmation column only. Since the %Rec is within the acceptance criteria for the surrogate in the associated samples, the data have been reported. The following samples are impacted: 613-102218 (580-81308-1) and (CCVIS 580-288986/8).

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

PCB CONGENERS - WATER

Sample 613-102218 (580-81308-1) was analyzed for PCB Congeners in accordance with 1668A. The sample was prepared on 11/01/2018 and analyzed on 11/12/2018.

Polychlorinated biphenyls, Total and Total Heptachlorobiphenyls were detected in method blank MB 140-25006/5-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 140-25006/5-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.

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 J3-SC-55to76-102218 (580-81308-2), J3-SC-45to55-102218 (580-81308-3), J3-SC-20to36-102218 (580-81308-4), J3-SC-76to98-102218 (580-81308-5), J3-SC-36to45-102218 (580-81308-6), J3-SC-10to20-102218 (580-81308-7), J3-SC-00to10-102218 (580-81308-8), L3-SC-10to20-102218 (580-81308-9), L3-SC-20to40-102218 (580-81308-10), J5-SC-20to40-102218 (580-81308-11), J5-SC-80to95-102218 (580-81308-12), J5-SC-60to80-102218 (580-81308-13), J5-SC-95to110-102218 (580-81308-14), J5-SC-10to20-102218 (580-81308-15), J6-SC-60to80-102218 (580-81308-16), J6-SC-80to96-102218 (580-81308-17), J6-SC-111to121-102218 (580-81308-18), J6-SC-40to60-102218 (580-81308-19), J6-SC-96to111-102218 (580-81308-20), J5-SC-40to60-102218 (580-81308-21), J6-SC-20to40-102218 (580-81308-22), J5-SC-00to10-102218 (580-81308-23), J6-SC-00to10-102218 (580-81308-24), J6-SC-10to20-102218 (580-81308-25) and L3-SC-00to10-102218 (580-81308-26) were analyzed for diesel and extended range organics in accordance with Method NWTPH-Dx. The samples were prepared on 11/09/2018 and analyzed on 11/12/2018, 11/14/2018 and 11/15/2018.

The following samples were frozen in hold. Sample were removed from freezer on 11/08/18 at 19:45 and thawed. Therefore the H-flags have been removed: J3-SC-55to76-102218 (580-81308-2), J3-SC-45to55-102218 (580-81308-3), J3-SC-20to36-102218 (580-81308-4), J3-SC-76to98-102218 (580-81308-5), J3-SC-36to45-102218 (580-81308-6), J3-SC-10to20-102218 (580-81308-7), J3-SC-00to10-102218 (580-81308-8), L3-SC-10to20-102218 (580-81308-9), L3-SC-20to40-102218 (580-81308-10), J5-SC-20to40-102218 (580-81308-11), J5-SC-80to95-102218 (580-81308-12), J5-SC-60to80-102218 (580-81308-13), J5-SC-95to110-102218 (580-81308-14),

Job ID: 580-81308-1 (Continued)

Laboratory: TestAmerica Seattle (Continued)

J5-SC-10to20-102218 (580-81308-15), J6-SC-60to80-102218 (580-81308-16), (580-81308-B-2-B DU), J5-SC-40to60-102218 (580-81308-21), J6-SC-20to40-102218 (580-81308-22), J5-SC-00to10-102218 (580-81308-23), J6-SC-00to10-102218 (580-81308-24), J6-SC-10to20-102218 (580-81308-25), L3-SC-00to10-102218 (580-81308-26) and L3-SC-00to10-102218 DU (580-81308-26 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: J3-SC-45to55-102218 (580-81308-3), J3-SC-20to36-102218 (580-81308-4), J3-SC-76to98-102218 (580-81308-5), J3-SC-36to45-102218 (580-81308-6), J3-SC-10to20-102218 (580-81308-7), J3-SC-00to10-102218 (580-81308-8), L3-SC-10to20-102218 (580-81308-9), L3-SC-20to40-102218 (580-81308-10), J5-SC-20to40-102218 (580-81308-11), J5-SC-80to95-102218 (580-81308-12), J5-SC-60to80-102218 (580-81308-13), J5-SC-95to110-102218 (580-81308-14), J5-SC-10to20-102218 (580-81308-15), J6-SC-60to80-102218 (580-81308-16), J6-SC-80to96-102218 (580-81308-17), J6-SC-111to121-102218 (580-81308-18), J6-SC-40to60-102218 (580-81308-19), J6-SC-96to111-102218 (580-81308-20), J6-SC-96to111-102218 DU (580-81308-20 DU), J5-SC-40to60-102218 (580-81308-21), J6-SC-20to40-102218 (580-81308-22), J5-SC-00to10-102218 (580-81308-23), J6-SC-00to10-102218 (580-81308-24), J6-SC-10to20-102218 (580-81308-25), L3-SC-00to10-102218 (580-81308-26) and L3-SC-00to10-102218 DU (580-81308-26 DU).

o-Terphenyl failed the surrogate recovery criteria high for J5-SC-20to40-102218 (580-81308-11). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis were not performed.

Samples J3-SC-45to55-102218 (580-81308-3)[5X], J3-SC-20to36-102218 (580-81308-4)[5X], J3-SC-36to45-102218 (580-81308-6)[5X], J3-SC-00to10-102218 (580-81308-8)[5X], J5-SC-20to40-102218 (580-81308-11)[5X], J5-SC-60to80-102218 (580-81308-13)[5X], J5-SC-10to20-102218 (580-81308-15)[5X], J6-SC-60to80-102218 (580-81308-16)[5X] and J6-SC-40to60-102218 (580-81308-19)[5X] required dilution prior to analysis due to the nature of the sample matrix. 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.

DIESEL AND MOTOR OIL RANGE ORGANICS - WATER

Sample 613-102218 (580-81308-1) was analyzed for diesel and motor oil range organics in accordance with Method NWTPH-Dx. The sample was prepared on 11/05/2018 and analyzed on 11/06/2018.

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

METALS (ICPMS)

Samples J3-SC-55to76-102218 (580-81308-2), J3-SC-45to55-102218 (580-81308-3), J3-SC-20to36-102218 (580-81308-4), J3-SC-76to98-102218 (580-81308-5), J3-SC-36to45-102218 (580-81308-6), J3-SC-10to20-102218 (580-81308-7), J3-SC-00to10-102218 (580-81308-8), L3-SC-10to20-102218 (580-81308-9), L3-SC-20to40-102218 (580-81308-10), J5-SC-20to40-102218 (580-81308-11), J5-SC-80to95-102218 (580-81308-12), J5-SC-60to80-102218 (580-81308-13), J5-SC-95to110-102218 (580-81308-14), J5-SC-10to20-102218 (580-81308-15), J6-SC-60to80-102218 (580-81308-16), J6-SC-80to96-102218 (580-81308-17), J6-SC-111to121-102218 (580-81308-18), J6-SC-40to60-102218 (580-81308-19), J6-SC-96to111-102218 (580-81308-20), J5-SC-40to60-102218 (580-81308-21), J6-SC-20to40-102218 (580-81308-22), J5-SC-00to10-102218 (580-81308-23), J6-SC-00to10-102218 (580-81308-24), J6-SC-10to20-102218 (580-81308-25) and L3-SC-00to10-102218 (580-81308-26) were analyzed for Metals (ICPMS) in accordance with 6020A_LL. The samples were prepared on 11/09/2018 and analyzed on 11/12/2018.

Cadmium and Lead exceeded the RPD limit for the duplicate of sample J3-SC-55to76-102218DU (580-81308-2).

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

TOTAL MERCURY

Samples J3-SC-55to76-102218 (580-81308-2), J3-SC-45to55-102218 (580-81308-3), J3-SC-20to36-102218 (580-81308-4), J3-SC-76to98-102218 (580-81308-5), J3-SC-36to45-102218 (580-81308-6), J3-SC-10to20-102218 (580-81308-7), J3-SC-00to10-102218 (580-81308-8), L3-SC-10to20-102218 (580-81308-9), L3-SC-20to40-102218 (580-81308-10), J5-SC-20to40-102218 (580-81308-11), J5-SC-80to95-102218 (580-81308-12), J5-SC-60to80-102218 (580-81308-13), J5-SC-95to110-102218 (580-81308-14), J5-SC-10to20-102218 (580-81308-15), J6-SC-60to80-102218 (580-81308-16), J6-SC-80to96-102218 (580-81308-17), J6-SC-111to121-102218 (580-81308-18), J6-SC-40to60-102218 (580-81308-19), J6-SC-96to111-102218 (580-81308-20), J5-SC-40to60-102218 (580-81308-21), J6-SC-20to40-102218 (580-81308-22),

Job ID: 580-81308-1 (Continued)

Laboratory: TestAmerica Seattle (Continued)

J5-SC-00to10-102218 (580-81308-23), J6-SC-00to10-102218 (580-81308-24), J6-SC-10to20-102218 (580-81308-25) and L3-SC-00to10-102218 (580-81308-26) were analyzed for total mercury in accordance with EPA SW-846 Method 7471A. The samples were prepared on 11/08/2018 and 11/09/2018 and analyzed on 11/09/2018.

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

METALS (ICPMS) - WATER

Sample 613-102218 (580-81308-1) was analyzed for metals (ICPMS) in accordance with 6020A. The sample was prepared on 11/06/2018 and analyzed on 11/07/2018.

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

TOTAL MERCURY - WATER

Sample 613-102218 (580-81308-1) was analyzed for total mercury in accordance with EPA SW-846 Methods 7470A. The sample was prepared on 11/08/2018 and analyzed on 11/09/2018.

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

TOTAL SUSPENDED SOLIDS

Sample 613-102218 (580-81308-1) was analyzed for total suspended solids in accordance with SM20 2540D. The sample was analyzed on 10/26/2018.

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

TOTAL ORGANIC CARBON

Samples J3-SC-55to76-102218 (580-81308-2), J3-SC-45to55-102218 (580-81308-3), J3-SC-20to36-102218 (580-81308-4), J3-SC-76to98-102218 (580-81308-5), J3-SC-36to45-102218 (580-81308-6), J3-SC-10to20-102218 (580-81308-7), J3-SC-00to10-102218 (580-81308-8), L3-SC-10to20-102218 (580-81308-9), L3-SC-20to40-102218 (580-81308-10), J5-SC-20to40-102218 (580-81308-11), J5-SC-80to95-102218 (580-81308-12), J5-SC-60to80-102218 (580-81308-13), J5-SC-95to110-102218 (580-81308-14), J5-SC-10to20-102218 (580-81308-15), J6-SC-60to80-102218 (580-81308-16), J6-SC-80to96-102218 (580-81308-17), J6-SC-111to121-102218 (580-81308-18), J6-SC-40to60-102218 (580-81308-19), J6-SC-96to111-102218 (580-81308-20), J5-SC-40to60-102218 (580-81308-21), J6-SC-20to40-102218 (580-81308-22), J5-SC-00to10-102218 (580-81308-23), J6-SC-00to10-102218 (580-81308-24), J6-SC-10to20-102218 (580-81308-25) and L3-SC-00to10-102218 (580-81308-26) were analyzed for total organic carbon in accordance with EPA SW-846 Method 9060. The samples were analyzed on 11/02/2018 and 11/05/2018.

Total Organic Carbon - Duplicates exceeded the RPD limit for the duplicate of sample J3-SC-55to76-102218DU (580-81308-2). Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory control sample duplicate (LCS/LCSD) precision was within acceptance limits.

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

TOTAL ORGANIC CARBON - WATER

Sample 613-102218 (580-81308-1) was analyzed for total organic carbon in accordance with SM 5310B. The sample was analyzed on 11/07/2018.

Total Organic Carbon was detected in method blank MB 580-288449/3 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.

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

GRAIN SIZE

Samples J3-SC-55to76-102218 (580-81308-2), J3-SC-45to55-102218 (580-81308-3), J3-SC-20to36-102218 (580-81308-4), J3-SC-76to98-102218 (580-81308-5), J3-SC-36to45-102218 (580-81308-6), J3-SC-10to20-102218 (580-81308-7),

Job ID: 580-81308-1 (Continued)

Laboratory: TestAmerica Seattle (Continued)

J3-SC-00to10-102218 (580-81308-8), L3-SC-10to20-102218 (580-81308-9), L3-SC-20to40-102218 (580-81308-10), J5-SC-20to40-102218 (580-81308-11), J5-SC-80to95-102218 (580-81308-12), J5-SC-60to80-102218 (580-81308-13), J5-SC-95to110-102218 (580-81308-14), J5-SC-10to20-102218 (580-81308-15), J6-SC-60to80-102218 (580-81308-16), J6-SC-80to96-102218 (580-81308-17), J6-SC-111to121-102218 (580-81308-18), J6-SC-40to60-102218 (580-81308-19), J6-SC-96to111-102218 (580-81308-20), J5-SC-40to60-102218 (580-81308-21), J6-SC-20to40-102218 (580-81308-22), J5-SC-00to10-102218 (580-81308-23), J6-SC-00to10-102218 (580-81308-24), J6-SC-10to20-

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.
X	Surrogate is outside control limits
F1	MS and/or MSD Recovery is outside acceptance limits.

Dioxin

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
C93	The compound co-eluted with PCB-93
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.
C90	The compound co-eluted with PCB-90
C98	The compound co-eluted with PCB-98
C	The compound co-eluted with other compounds
C86	The compound co-eluted with PCB-86
C110	The compound co-eluted with PCB-110
C85	The compound co-eluted with PCB-85
C108	The compound co-eluted with PCB-108
C12	The compound co-eluted with PCB-12
C129	The compound co-eluted with PCB-129
C139	The compound co-eluted with PCB-139
C134	The compound co-eluted with PCB-134
C147	The compound co-eluted with PCB-147
C135	The compound co-eluted with PCB-135
C156	The compound co-eluted with PCB-156
C128	The compound co-eluted with PCB-128
C153	The compound co-eluted with PCB-153
C171	The compound co-eluted with PCB-171
C183	The compound co-eluted with PCB-183
C180	The compound co-eluted with PCB-180
C198	The compound co-eluted with PCB-198
C20	The compound co-eluted with PCB-20
C26	The compound co-eluted with PCB-26
C18	The compound co-eluted with PCB-18
C21	The compound co-eluted with PCB-21
C40	The compound co-eluted with PCB-40
C44	The compound co-eluted with PCB-44
C45	The compound co-eluted with PCB-45
C50	The compound co-eluted with PCB-50
C59	The compound co-eluted with PCB-59
C49	The compound co-eluted with PCB-49
C61	The compound co-eluted with PCB-61
C43	The compound co-eluted with PCB-43
C88	The compound co-eluted with PCB-88
C83	The compound co-eluted with PCB-83
E	Result exceeded calibration range.
G	The reported quantitation limit has been raised due to an exhibited elevated noise or matrix interference

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.
F5	Duplicate RPD exceeds limit, and one or both sample results are less than 5 times RL. The data are considered valid because the absolute difference is less than the RL.

Qualifiers (Continued)

Metals (Continued)

Qualifier	Qualifier Description
F3	Duplicate RPD exceeds the control limit

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
F5	Duplicate RPD exceeds limit, and one or both sample results are less than 5 times RL. The data are considered valid because the absolute difference is less than the RL.

Geotechnical

Qualifier	Qualifier Description
F3	Duplicate RPD exceeds the control limit

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: 613-102218

Date Collected: 10/22/18 09:45
Date Received: 10/24/18 14:10

Lab Sample ID: 580-81308-1

Matrix: Water

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.43	0.058	ug/L		11/14/18 07:52	11/15/18 12:50	1
PCB-1221	ND		0.43	0.072	ug/L		11/14/18 07:52	11/15/18 12:50	1
PCB-1232	ND		0.43	0.060	ug/L		11/14/18 07:52	11/15/18 12:50	1
PCB-1242	ND		0.43	0.056	ug/L		11/14/18 07:52	11/15/18 12:50	1
PCB-1248	ND		0.43	0.050	ug/L		11/14/18 07:52	11/15/18 12:50	1
PCB-1254	ND		0.43	0.072	ug/L		11/14/18 07:52	11/15/18 12:50	1
PCB-1260	ND		0.43	0.058	ug/L		11/14/18 07:52	11/15/18 12:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*60*		*38 - 140*	*11/14/18 07:52*	*11/15/18 12:50*	*1*
Tetrachloro-m-xylene	*72*		*40 - 120*	*11/14/18 07:52*	*11/15/18 12:50*	*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)	**0.39**		0.12	0.071	mg/L		11/05/18 07:59	11/06/18 16:01	1
Motor Oil (>C24-C36)	**0.14**	**J**	0.38	0.10	mg/L		11/05/18 07:59	11/06/18 16:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*79*		*50 - 150*	*11/05/18 07:59*	*11/06/18 16:01*	*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	**0.47**	**J q B**	52	0.11	pg/L		10/31/18 07:35	11/06/18 11:19	1
1,2,3,4,6,7,8-HpCDF	**0.80**	**J q B**	52	0.25	pg/L		10/31/18 07:35	11/06/18 11:19	1
1,2,3,4,7,8,9-HpCDF	**3.9**	**J B**	52	0.39	pg/L		10/31/18 07:35	11/06/18 11:19	1
1,2,3,4,7,8-HxCDD	**1.8**	**J q B**	52	0.20	pg/L		10/31/18 07:35	11/06/18 11:19	1
1,2,3,4,7,8-HxCDF	**0.50**	**J q B**	52	0.20	pg/L		10/31/18 07:35	11/06/18 11:19	1
1,2,3,6,7,8-HxCDD	ND		52	0.20	pg/L		10/31/18 07:35	11/06/18 11:19	1
1,2,3,6,7,8-HxCDF	**0.36**	**J q B**	52	0.21	pg/L		10/31/18 07:35	11/06/18 11:19	1
1,2,3,7,8,9-HxCDD	ND		52	0.18	pg/L		10/31/18 07:35	11/06/18 11:19	1
1,2,3,7,8,9-HxCDF	**3.2**	**J B**	52	0.17	pg/L		10/31/18 07:35	11/06/18 11:19	1
1,2,3,7,8-PeCDD	ND		52	0.21	pg/L		10/31/18 07:35	11/06/18 11:19	1
1,2,3,7,8-PeCDF	ND		52	0.35	pg/L		10/31/18 07:35	11/06/18 11:19	1
2,3,4,6,7,8-HxCDF	ND		52	0.16	pg/L		10/31/18 07:35	11/06/18 11:19	1
2,3,4,7,8-PeCDF	ND		52	0.38	pg/L		10/31/18 07:35	11/06/18 11:19	1
2,3,7,8-TCDD	**1.2**	**J q B**	10	0.27	pg/L		10/31/18 07:35	11/06/18 11:19	1
2,3,7,8-TCDF	ND		10	0.18	pg/L		10/31/18 07:35	11/06/18 11:19	1
OCDD	**3.3**	**J q B**	100	0.14	pg/L		10/31/18 07:35	11/06/18 11:19	1
OCDF	**1.4**	**J q B**	100	0.14	pg/L		10/31/18 07:35	11/06/18 11:19	1
Total HpCDD	**1.5**	**J q B**	52	0.11	pg/L		10/31/18 07:35	11/06/18 11:19	1
Total HpCDF	**5.5**	**J q B**	52	0.32	pg/L		10/31/18 07:35	11/06/18 11:19	1
Total HxCDD	**2.4**	**J q B**	52	0.19	pg/L		10/31/18 07:35	11/06/18 11:19	1
Total HxCDF	**5.4**	**J q B**	52	0.19	pg/L		10/31/18 07:35	11/06/18 11:19	1
Total PeCDD	ND		52	0.21	pg/L		10/31/18 07:35	11/06/18 11:19	1
Total PeCDF	ND		52	0.38	pg/L		10/31/18 07:35	11/06/18 11:19	1
Total TCDF	ND		10	0.18	pg/L		10/31/18 07:35	11/06/18 11:19	1
Total TCDD	**1.2**	**J q B**	10	0.27	pg/L		10/31/18 07:35	11/06/18 11:19	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-1,2,3,4,6,7,8-HpCDD	*127*		*23 - 140*	*10/31/18 07:35*	*11/06/18 11:19*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*110*		*28 - 143*	*10/31/18 07:35*	*11/06/18 11:19*	*1*

Client Sample ID: 613-102218
Date Collected: 10/22/18 09:45
Date Received: 10/24/18 14:10

Lab Sample ID: 580-81308-1
Matrix: Water

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-1,2,3,4,7,8,9-HpCDF	106		26 - 138	10/31/18 07:35	11/06/18 11:19	1
13C-1,2,3,4,7,8-HxCDD	107		32 - 141	10/31/18 07:35	11/06/18 11:19	1
13C-1,2,3,4,7,8-HxCDF	104		26 - 152	10/31/18 07:35	11/06/18 11:19	1
13C-1,2,3,6,7,8-HxCDD	96		28 - 130	10/31/18 07:35	11/06/18 11:19	1
13C-1,2,3,6,7,8-HxCDF	87		26 - 123	10/31/18 07:35	11/06/18 11:19	1
13C-1,2,3,7,8,9-HxCDF	100		29 - 147	10/31/18 07:35	11/06/18 11:19	1
13C-1,2,3,7,8-PeCDD	104		25 - 181	10/31/18 07:35	11/06/18 11:19	1
13C-1,2,3,7,8-PeCDF	100		24 - 185	10/31/18 07:35	11/06/18 11:19	1
13C-2,3,4,6,7,8-HxCDF	98		28 - 136	10/31/18 07:35	11/06/18 11:19	1
13C-2,3,4,7,8-PeCDF	100		21 - 178	10/31/18 07:35	11/06/18 11:19	1
13C-2,3,7,8-TCDD	102		25 - 164	10/31/18 07:35	11/06/18 11:19	1
13C-2,3,7,8-TCDF	96		24 - 169	10/31/18 07:35	11/06/18 11:19	1
13C-OCDD	116		17 - 157	10/31/18 07:35	11/06/18 11:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
37Cl4-2,3,7,8-TCDD	106		35 - 197	10/31/18 07:35	11/06/18 11:19	1

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	**0.0019**	**J B**	0.044	0.00013	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-2	**0.0026**	**J B q**	0.044	0.00014	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-3	**0.0024**	**J B**	0.044	0.00014	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-4	**0.0027**	**J q**	0.066	0.0018	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-5	ND		0.044	0.0015	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-6	**0.0016**	**J q**	0.044	0.0013	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-7	**0.0018**	**J q**	0.044	0.0014	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-8	**0.0031**	**J B q**	0.066	0.0012	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-9	ND		0.044	0.0014	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-10	ND		0.044	0.0015	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-11	**0.013**	**J B q**	0.066	0.0013	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-12	**0.0019**	**J C q**	0.088	0.0013	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-13	**0.0019**	**J C12 q**	0.088	0.0013	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-14	ND		0.044	0.0011	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-15	**0.0015**	**J B q**	0.044	0.0014	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-16	**0.0012**	**J**	0.044	0.000088	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-17	**0.0011**	**J q**	0.044	0.000079	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-18	**0.0036**	**J C B**	0.088	0.000069	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-19	**0.00060**	**J q**	0.044	0.000096	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-20	**0.0030**	**J C B**	0.088	0.00017	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-21	**0.0019**	**J C B q**	0.088	0.00017	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-22	**0.0010**	**J B q**	0.044	0.00017	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-23	ND		0.044	0.00017	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-24	ND		0.044	0.000066	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-25	ND		0.044	0.00016	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-26	**0.00089**	**J C B**	0.088	0.00017	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-27	ND		0.044	0.000057	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-28	**0.0030**	**J B C20**	0.088	0.00017	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-29	**0.00089**	**J C26 B**	0.088	0.00017	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-30	**0.0036**	**J C18 B**	0.088	0.000069	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-31	**0.0023**	**J B**	0.044	0.00017	ng/L		11/01/18 12:40	11/12/18 14:22	1

Client Sample ID: 613-102218
Date Collected: 10/22/18 09:45
Date Received: 10/24/18 14:10

Lab Sample ID: 580-81308-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-32	0.0016	J B q	0.044	0.000055	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-33	0.0019	J B C21 q	0.088	0.00017	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-34	ND		0.044	0.00018	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-35	0.00028	J B q	0.044	0.00017	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-36	ND		0.044	0.00017	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-37	0.00071	J B	0.044	0.00017	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-38	ND		0.044	0.00018	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-39	ND		0.044	0.00016	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-40	0.0017	J C B	0.13	0.00030	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-41	0.0017	J B C40	0.13	0.00030	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-42	0.00062	J q	0.044	0.00030	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-43	0.00056	J C B	0.088	0.00028	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-44	0.023	J C B	0.13	0.00026	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-45	0.0050	J C B q	0.088	0.00031	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-46	ND		0.044	0.00038	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-47	0.023	J B C44	0.13	0.00026	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-48	0.00070	J B	0.044	0.00030	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-49	0.0022	J C	0.088	0.00024	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-50	0.00052	J C q	0.088	0.00029	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-51	0.0050	J C45 B q	0.088	0.00031	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-52	0.0027	J B q	0.044	0.00030	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-53	0.00052	J C50 q	0.088	0.00029	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-54	ND		0.044	0.000063	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-55	ND		0.044	0.00022	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-56	0.0014	J B	0.044	0.00022	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-57	ND		0.044	0.00022	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-58	ND		0.044	0.00022	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-59	0.00055	J C B q	0.13	0.00021	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-60	0.00072	J B q	0.044	0.00022	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-61	0.0024	J C B q	0.18	0.00021	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-62	0.00055	J B C59 q	0.13	0.00021	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-63	ND		0.044	0.00020	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-64	0.0011	J B q	0.044	0.00020	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-65	0.023	J B C44	0.13	0.00026	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-66	0.0016	J B q	0.044	0.00021	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-67	ND		0.044	0.00019	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-68	0.0039	J B	0.044	0.00020	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-69	0.0022	J C49	0.088	0.00024	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-70	0.0024	J C61 B q	0.18	0.00021	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-71	0.0017	J B C40	0.13	0.00030	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-72	ND		0.044	0.00022	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-73	0.00056	J C43 B	0.088	0.00028	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-74	0.0024	J C61 B q	0.18	0.00021	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-75	0.00055	J B C59 q	0.13	0.00021	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-76	0.0024	J C61 B q	0.18	0.00021	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-77	0.00075	J B	0.044	0.00021	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-78	ND		0.044	0.00022	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-79	ND		0.044	0.00019	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-80	ND		0.044	0.00019	ng/L		11/01/18 12:40	11/12/18 14:22	1

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

TestAmerica Job ID: 580-81308-1

Client Sample ID: 613-102218
Date Collected: 10/22/18 09:45
Date Received: 10/24/18 14:10

Lab Sample ID: 580-81308-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-81	ND		0.044	0.00020	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-82	ND		0.044	0.000089	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-83	**0.0016**	**J C B q**	0.088	0.000082	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-84	**0.0013**	**J B q**	0.044	0.000090	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-85	**0.00037**	**J C B q**	0.13	0.000066	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-86	**0.0032**	**J C B**	0.26	0.000067	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-87	**0.0032**	**J B C86**	0.26	0.000067	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-88	**0.00052**	**J C B q**	0.088	0.000081	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-89	ND		0.044	0.000087	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-90	**0.0042**	**J C B**	0.13	0.000068	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-91	**0.00052**	**J C88 B q**	0.088	0.000081	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-92	**0.00040**	**J B q**	0.044	0.000077	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-93	**0.00020**	**J C q**	0.088	0.000077	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-94	ND		0.044	0.000087	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-95	**0.0025**	**J B q**	0.044	0.000084	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-96	**0.00053**	**J B q**	0.044	0.000066	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-97	**0.0032**	**J B C86**	0.26	0.000067	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-98	**0.00049**	**J C B**	0.088	0.000075	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-99	**0.0016**	**J C83 B q**	0.088	0.000082	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-100	**0.00020**	**J C93 q**	0.088	0.000077	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-101	**0.0042**	**J B C90**	0.13	0.000068	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-102	**0.00049**	**J C98 B**	0.088	0.000075	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-103	ND		0.044	0.000077	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-104	**0.00064**	**J q**	0.044	0.000059	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-105	**0.0012**	**J B**	0.044	0.00011	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-106	ND		0.044	0.00011	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-107	ND		0.044	0.00012	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-108	ND	C	0.088	0.00012	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-109	**0.0032**	**J B C86**	0.26	0.000067	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-110	**0.0034**	**J C B**	0.088	0.000056	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-111	ND		0.044	0.000054	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-112	ND		0.044	0.000057	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-113	**0.0042**	**J B C90**	0.13	0.000068	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-114	**0.00036**	**J B**	0.044	0.00011	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-115	**0.0034**	**J B C110**	0.088	0.000056	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-116	**0.00037**	**J C85 B q**	0.13	0.000066	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-117	**0.00037**	**J C85 B q**	0.13	0.000066	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-118	**0.0020**	**J B q**	0.044	0.00011	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-119	**0.0032**	**J B C86**	0.26	0.000067	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-120	ND		0.044	0.000055	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-121	ND		0.044	0.000057	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-122	ND		0.044	0.00013	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-123	ND		0.044	0.00011	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-124	ND	C108	0.088	0.00012	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-125	**0.0032**	**J B C86**	0.26	0.000067	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-126	ND		0.044	0.00012	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-127	ND		0.044	0.00011	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-128	**0.00096**	**J C B**	0.088	0.00029	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-129	**0.0082**	**J C B**	0.18	0.00030	ng/L		11/01/18 12:40	11/12/18 14:22	1

Client Sample ID: 613-102218
Date Collected: 10/22/18 09:45
Date Received: 10/24/18 14:10

Lab Sample ID: 580-81308-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-130	ND		0.044	0.00040	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-131	ND		0.044	0.00041	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-132	**0.0018**	**J q**	0.044	0.00039	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-133	ND		0.044	0.00037	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-134	ND	C	0.088	0.00039	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-135	**0.0033**	**J C B**	0.088	0.000052	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-136	**0.0012**	**J**	0.044	0.000037	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-137	ND		0.044	0.00034	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-138	**0.0082**	**J B C129**	0.18	0.00030	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-139	ND	C	0.088	0.00033	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-140	ND	C139	0.088	0.00033	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-141	**0.0023**	**J B**	0.044	0.00035	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-142	ND		0.044	0.00037	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-143	ND	C134	0.088	0.00039	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-144	**0.00032**	**J q**	0.044	0.000047	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-145	ND		0.044	0.000035	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-146	**0.0015**	**J B**	0.044	0.00033	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-147	**0.0062**	**J C B**	0.088	0.00038	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-148	ND		0.044	0.000050	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-149	**0.0062**	**J B C147**	0.088	0.00038	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-150	ND		0.044	0.000034	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-151	**0.0033**	**J C135 B**	0.088	0.000052	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-152	ND		0.044	0.000037	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-153	**0.0063**	**J C B**	0.088	0.00026	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-154	**0.00054**	**J B q**	0.044	0.000040	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-155	**0.00036**	**J q**	0.044	0.000034	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-156	**0.00055**	**J C B q**	0.088	0.00034	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-157	**0.00055**	**J C156 B q**	0.088	0.00034	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-158	**0.00066**	**J B**	0.044	0.00024	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-159	ND		0.044	0.00025	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-160	**0.0082**	**J B C129**	0.18	0.00030	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-161	ND		0.044	0.00025	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-162	ND		0.044	0.00025	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-163	**0.0082**	**J B C129**	0.18	0.00030	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-164	ND		0.044	0.00026	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-165	ND		0.044	0.00028	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-166	**0.00096**	**J C128 B**	0.088	0.00029	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-167	**0.00048**	**J B q**	0.044	0.00019	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-168	**0.0063**	**J B C153**	0.088	0.00026	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-169	ND		0.044	0.00018	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-170	**0.0033**	**J B**	0.044	0.00013	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-171	**0.00090**	**J C q**	0.088	0.00013	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-172	ND		0.044	0.00013	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-173	**0.00090**	**J C171 q**	0.088	0.00013	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-174	**0.0031**	**J B q**	0.044	0.00012	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-175	ND		0.044	0.00011	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-176	ND		0.044	0.000086	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-177	**0.0011**	**J B**	0.044	0.00012	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-178	**0.00054**	**J B q**	0.044	0.00012	ng/L		11/01/18 12:40	11/12/18 14:22	1

Client Sample ID: 613-102218
Date Collected: 10/22/18 09:45
Date Received: 10/24/18 14:10

Lab Sample ID: 580-81308-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-179	**0.00088**	**J B q**	0.044	0.000091	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-180	**0.0071**	**J C B**	0.088	0.000096	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-181	ND		0.044	0.00011	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-182	ND		0.044	0.00011	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-183	**0.0041**	**J C B**	0.088	0.00011	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-184	ND		0.044	0.000093	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-185	**0.0041**	**J B C183**	0.088	0.00011	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-186	ND		0.044	0.000091	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-187	**0.0029**	**J B q**	0.044	0.00011	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-188	ND		0.044	0.000081	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-189	ND		0.044	0.00013	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-190	**0.00076**	**J B q**	0.044	0.000082	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-191	ND		0.044	0.000086	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-192	ND		0.044	0.000096	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-193	**0.0071**	**J C180 B**	0.088	0.000096	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-194	**0.0011**	**J B q**	0.044	0.000079	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-195	**0.00048**	**J B q**	0.044	0.000087	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-196	ND		0.044	0.000040	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-197	ND		0.044	0.000030	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-198	**0.0011**	**J C B q**	0.088	0.000040	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-199	**0.0011**	**J C198 B q**	0.088	0.000040	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-200	**0.00025**	**J B q**	0.044	0.000027	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-201	**0.00033**	**J B q**	0.044	0.000028	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-202	ND		0.044	0.000031	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-203	ND		0.044	0.000036	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-204	ND		0.044	0.000030	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-205	ND		0.044	0.000067	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-206	ND		0.044	0.00053	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-207	ND		0.044	0.00038	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-208	ND		0.044	0.00040	ng/L		11/01/18 12:40	11/12/18 14:22	1
PCB-209	**0.00055**	**J B**	0.044	0.000096	ng/L		11/01/18 12:40	11/12/18 14:22	1
Total Monochlorobiphenyls	**0.0069**	**J B q**	0.044	0.00000014	ng/L		11/01/18 12:40	11/12/18 14:22	1
Total Dichlorobiphenyls	**0.026**	**J B q**	0.088	0.0000014	ng/L		11/01/18 12:40	11/12/18 14:22	1
Total Trichlorobiphenyls	**0.018**	**J B q**	0.088	0.00000014	ng/L		11/01/18 12:40	11/12/18 14:22	1
Total Tetrachlorobiphenyls	**0.049**	**J B q**	0.18	0.00000023	ng/L		11/01/18 12:40	11/12/18 14:22	1
Total Pentachlorobiphenyls	**0.023**	**J B q**	0.26	0.00000086	ng/L		11/01/18 12:40	11/12/18 14:22	1
Total Hexachlorobiphenyls	**0.035**	**J B q**	0.18	0.00000023	ng/L		11/01/18 12:40	11/12/18 14:22	1
Total Heptachlorobiphenyls	**0.025**	**J B q**	0.088	0.00000011	ng/L		11/01/18 12:40	11/12/18 14:22	1
Total Octachlorobiphenyls	**0.0033**	**J B q**	0.088	0.00000045	ng/L		11/01/18 12:40	11/12/18 14:22	1
Total Nonachlorobiphenyls	ND		0.044	0.00000053	ng/L		11/01/18 12:40	11/12/18 14:22	1
Polychlorinated biphenyls, Total	**0.19**	**J B q**	0.26	0.00000032	ng/L		11/01/18 12:40	11/12/18 14:22	1

Client Sample ID: 613-102218
Date Collected: 10/22/18 09:45
Date Received: 10/24/18 14:10

Lab Sample ID: 580-81308-1
Matrix: Water

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	66		30 - 140	11/01/18 12:40	11/12/18 14:22	1
PCB-3L	68		30 - 140	11/01/18 12:40	11/12/18 14:22	1
PCB-4L	78		30 - 140	11/01/18 12:40	11/12/18 14:22	1
PCB-15L	75		30 - 140	11/01/18 12:40	11/12/18 14:22	1
PCB-19L	83		30 - 140	11/01/18 12:40	11/12/18 14:22	1
PCB-37L	85		30 - 140	11/01/18 12:40	11/12/18 14:22	1
PCB-54L	59		30 - 140	11/01/18 12:40	11/12/18 14:22	1
PCB-77L	79		30 - 140	11/01/18 12:40	11/12/18 14:22	1
PCB-81L	78		30 - 140	11/01/18 12:40	11/12/18 14:22	1
PCB-104L	73		30 - 140	11/01/18 12:40	11/12/18 14:22	1
PCB-105L	86		30 - 140	11/01/18 12:40	11/12/18 14:22	1
PCB-114L	84		30 - 140	11/01/18 12:40	11/12/18 14:22	1
PCB-118L	82		30 - 140	11/01/18 12:40	11/12/18 14:22	1
PCB-123L	81		30 - 140	11/01/18 12:40	11/12/18 14:22	1
PCB-126L	80		30 - 140	11/01/18 12:40	11/12/18 14:22	1
PCB-155L	74		30 - 140	11/01/18 12:40	11/12/18 14:22	1
PCB-156L	79	C	30 - 140	11/01/18 12:40	11/12/18 14:22	1
PCB-157L	79	C156	30 - 140	11/01/18 12:40	11/12/18 14:22	1
PCB-167L	79		30 - 140	11/01/18 12:40	11/12/18 14:22	1
PCB-169L	86		30 - 140	11/01/18 12:40	11/12/18 14:22	1
PCB-170L	76		30 - 140	11/01/18 12:40	11/12/18 14:22	1
PCB-188L	78		30 - 140	11/01/18 12:40	11/12/18 14:22	1
PCB-189L	69		30 - 140	11/01/18 12:40	11/12/18 14:22	1
PCB-202L	89		30 - 140	11/01/18 12:40	11/12/18 14:22	1
PCB-205L	66		30 - 140	11/01/18 12:40	11/12/18 14:22	1
PCB-206L	75		30 - 140	11/01/18 12:40	11/12/18 14:22	1
PCB-208L	73		30 - 140	11/01/18 12:40	11/12/18 14:22	1
PCB-209L	75		30 - 140	11/01/18 12:40	11/12/18 14:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	89		40 - 125	11/01/18 12:40	11/12/18 14:22	1
PCB-111L	84		40 - 125	11/01/18 12:40	11/12/18 14:22	1
PCB-178L	93		40 - 125	11/01/18 12:40	11/12/18 14:22	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		11/06/18 10:19	11/07/18 15:22	1
Cadmium	ND		0.00040	0.00010	mg/L		11/06/18 10:19	11/07/18 15:22	1
Copper	ND		0.0020	0.00060	mg/L		11/06/18 10:19	11/07/18 15:22	1
Lead	ND		0.00080	0.00020	mg/L		11/06/18 10:19	11/07/18 15:22	1
Zinc	ND		0.0070	0.0019	mg/L		11/06/18 10:19	11/07/18 15:22	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00030	0.00015	mg/L		11/08/18 09:22	11/09/18 16:16	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		2.0	2.0	mg/L			10/26/18 10:30	1
Total Organic Carbon	**0.48**	**J B**	1.0	0.19	mg/L			11/07/18 15:21	1

Client Sample ID: J3-SC-55to76-102218

Date Collected: 10/22/18 14:45
Date Received: 10/24/18 14:10

Lab Sample ID: 580-81308-2

Matrix: Solid
Percent Solids: 82.6

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		12	2.1	ug/Kg	☼	11/10/18 09:55	11/12/18 15:34	1
PCB-1221	ND		12	5.7	ug/Kg	☼	11/10/18 09:55	11/12/18 15:34	1
PCB-1232	ND		12	2.8	ug/Kg	☼	11/10/18 09:55	11/12/18 15:34	1
PCB-1242	ND		12	3.0	ug/Kg	☼	11/10/18 09:55	11/12/18 15:34	1
PCB-1248	ND		12	0.97	ug/Kg	☼	11/10/18 09:55	11/12/18 15:34	1
PCB-1254	ND		12	4.8	ug/Kg	☼	11/10/18 09:55	11/12/18 15:34	1
PCB-1260	ND		12	2.1	ug/Kg	☼	11/10/18 09:55	11/12/18 15:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*108*		*54 - 142*	*11/10/18 09:55*	*11/12/18 15:34*	*1*
Tetrachloro-m-xylene	*88*		*58 - 122*	*11/10/18 09:55*	*11/12/18 15:34*	*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)	**14**	**J**	56	14	mg/Kg	☼	11/09/18 09:01	11/14/18 03:59	1
Motor Oil (>C24-C36)	**46**	**J**	56	20	mg/Kg	☼	11/09/18 09:01	11/14/18 03:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*96*		*50 - 150*	*11/09/18 09:01*	*11/14/18 03:59*	*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	**0.0027**	**J B**	0.0030	0.000045	ug/Kg	☼	11/12/18 13:18	11/17/18 05:05	1
1,2,3,4,6,7,8-HpCDF	**0.0024**	**J B**	0.0030	0.000034	ug/Kg	☼	11/12/18 13:18	11/17/18 05:05	1
1,2,3,4,7,8,9-HpCDF	**0.000080**	**J**	0.0030	0.000029	ug/Kg	☼	11/12/18 13:18	11/17/18 05:05	1
1,2,3,4,7,8-HxCDD	**0.000091**	**J q B**	0.0030	0.000059	ug/Kg	☼	11/12/18 13:18	11/17/18 05:05	1
1,2,3,4,7,8-HxCDF	ND		0.0030	0.000043	ug/Kg	☼	11/12/18 13:18	11/17/18 05:05	1
1,2,3,6,7,8-HxCDD	**0.0019**	**J B**	0.0030	0.000059	ug/Kg	☼	11/12/18 13:18	11/17/18 05:05	1
1,2,3,6,7,8-HxCDF	**0.00011**	**J q**	0.0030	0.000043	ug/Kg	☼	11/12/18 13:18	11/17/18 05:05	1
1,2,3,7,8,9-HxCDD	**0.0011**	**J**	0.0030	0.000055	ug/Kg	☼	11/12/18 13:18	11/17/18 05:05	1
1,2,3,7,8,9-HxCDF	ND		0.0030	0.000025	ug/Kg	☼	11/12/18 13:18	11/17/18 05:05	1
1,2,3,7,8-PeCDD	**0.00016**	**J**	0.0030	0.000026	ug/Kg	☼	11/12/18 13:18	11/17/18 05:05	1
1,2,3,7,8-PeCDF	ND		0.0030	0.000020	ug/Kg	☼	11/12/18 13:18	11/17/18 05:05	1
2,3,4,6,7,8-HxCDF	**0.000051**	**J**	0.0030	0.000034	ug/Kg	☼	11/12/18 13:18	11/17/18 05:05	1
2,3,4,7,8-PeCDF	**0.000040**	**J**	0.0030	0.000019	ug/Kg	☼	11/12/18 13:18	11/17/18 05:05	1
2,3,7,8-TCDD	**0.00011**	**J q**	0.00061	0.000026	ug/Kg	☼	11/12/18 13:18	11/17/18 05:05	1
2,3,7,8-TCDF	**0.000050**	**J B**	0.00061	0.000017	ug/Kg	☼	11/12/18 13:18	11/17/18 05:05	1
OCDD	**0.044**	**B**	0.0061	0.000040	ug/Kg	☼	11/12/18 13:18	11/17/18 05:05	1
OCDF	**0.0022**	**J**	0.0061	0.000021	ug/Kg	☼	11/12/18 13:18	11/17/18 05:05	1
Total HpCDD	**0.0062**	**B**	0.0030	0.000045	ug/Kg	☼	11/12/18 13:18	11/17/18 05:05	1
Total HpCDF	**0.0047**	**B**	0.0030	0.000032	ug/Kg	☼	11/12/18 13:18	11/17/18 05:05	1
Total HxCDD	**0.015**	**q B**	0.0030	0.000058	ug/Kg	☼	11/12/18 13:18	11/17/18 05:05	1
Total HxCDF	**0.0025**	**J q**	0.0030	0.000036	ug/Kg	☼	11/12/18 13:18	11/17/18 05:05	1
Total PeCDD	**0.0011**	**J**	0.0030	0.000026	ug/Kg	☼	11/12/18 13:18	11/17/18 05:05	1
Total PeCDF	**0.0011**	**J q**	0.0030	0.000020	ug/Kg	☼	11/12/18 13:18	11/17/18 05:05	1
Total TCDF	**0.00043**	**J q B**	0.00061	0.000017	ug/Kg	☼	11/12/18 13:18	11/17/18 05:05	1
Total TCDD	**0.00027**	**J q**	0.00061	0.000026	ug/Kg	☼	11/12/18 13:18	11/17/18 05:05	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-1,2,3,4,6,7,8-HpCDD	*53*		*23 - 140*	*11/12/18 13:18*	*11/17/18 05:05*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*44*		*28 - 143*	*11/12/18 13:18*	*11/17/18 05:05*	*1*

Client Sample ID: J3-SC-55to76-102218
Date Collected: 10/22/18 14:45
Date Received: 10/24/18 14:10

Lab Sample ID: 580-81308-2
Matrix: Solid
Percent Solids: 82.6

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-1,2,3,4,7,8,9-HpCDF	60		26 - 138	11/12/18 13:18	11/17/18 05:05	1
13C-1,2,3,4,7,8-HxCDD	56		32 - 141	11/12/18 13:18	11/17/18 05:05	1
13C-1,2,3,4,7,8-HxCDF	52		26 - 152	11/12/18 13:18	11/17/18 05:05	1
13C-1,2,3,6,7,8-HxCDD	55		28 - 130	11/12/18 13:18	11/17/18 05:05	1
13C-1,2,3,6,7,8-HxCDF	52		26 - 123	11/12/18 13:18	11/17/18 05:05	1
13C-1,2,3,7,8,9-HxCDF	63		29 - 147	11/12/18 13:18	11/17/18 05:05	1
13C-1,2,3,7,8-PeCDD	58		25 - 181	11/12/18 13:18	11/17/18 05:05	1
13C-1,2,3,7,8-PeCDF	58		24 - 185	11/12/18 13:18	11/17/18 05:05	1
13C-2,3,4,6,7,8-HxCDF	55		28 - 136	11/12/18 13:18	11/17/18 05:05	1
13C-2,3,4,7,8-PeCDF	64		21 - 178	11/12/18 13:18	11/17/18 05:05	1
13C-2,3,7,8-TCDD	64		25 - 164	11/12/18 13:18	11/17/18 05:05	1
13C-2,3,7,8-TCDF	71		24 - 169	11/12/18 13:18	11/17/18 05:05	1
13C-OCDD	51		17 - 157	11/12/18 13:18	11/17/18 05:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
37Cl4-2,3,7,8-TCDD	117		35 - 197	11/12/18 13:18	11/17/18 05:05	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.3		0.19	0.037	mg/Kg	☼	11/09/18 17:03	11/12/18 19:35	5
Cadmium	0.042	J	0.15	0.029	mg/Kg	☼	11/09/18 17:03	11/12/18 19:35	5
Copper	13		0.37	0.082	mg/Kg	☼	11/09/18 17:03	11/12/18 19:35	5
Lead	5.8		0.19	0.018	mg/Kg	☼	11/09/18 17:03	11/12/18 19:35	5
Zinc	44		1.9	0.60	mg/Kg	☼	11/09/18 17:03	11/12/18 19:35	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.058		0.026	0.0077	mg/Kg	☼	11/08/18 11:47	11/09/18 17:56	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	2200		2000	44	mg/Kg			11/02/18 13:04	1
Total Solids	82.6		0.1	0.1	%			11/01/18 18:46	1
Percent Moisture	17	H	0.10	0.10	%			11/01/18 09:41	1
Percent Solids	83	H	0.10	0.10	%			11/01/18 09:41	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Clay	2.3				%			11/01/18 09:41	1
Coarse Sand	0.5				%			11/01/18 09:41	1
Fine Sand	51.3				%			11/01/18 09:41	1
Gravel	0.1				%			11/01/18 09:41	1
Medium Sand	44.5				%			11/01/18 09:41	1
Silt	1.3				%			11/01/18 09:41	1

Method: D854 - Specific Gravity

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Density	1.98		0.0100	0.0100	g/cm3			11/06/18 00:00	1
Specific Gravity	1.99		0.0100	0.0100	NONE			11/06/18 00:00	1

Client Sample ID: J3-SC-45to55-102218

Date Collected: 10/22/18 14:35
Date Received: 10/24/18 14:10

Lab Sample ID: 580-81308-3

Matrix: Solid
Percent Solids: 68.2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		15	2.5	ug/Kg	☼	11/10/18 09:55	11/12/18 15:50	1
PCB-1221	ND		15	7.0	ug/Kg	☼	11/10/18 09:55	11/12/18 15:50	1
PCB-1232	ND		15	3.4	ug/Kg	☼	11/10/18 09:55	11/12/18 15:50	1
PCB-1242	ND		15	3.6	ug/Kg	☼	11/10/18 09:55	11/12/18 15:50	1
PCB-1248	ND		15	1.2	ug/Kg	☼	11/10/18 09:55	11/12/18 15:50	1
PCB-1254	ND		15	5.8	ug/Kg	☼	11/10/18 09:55	11/12/18 15:50	1
PCB-1260	**32**		15	2.5	ug/Kg	☼	11/10/18 09:55	11/12/18 15:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*152*	*X*	*54 - 142*	*11/10/18 09:55*	*11/12/18 15:50*	*1*
Tetrachloro-m-xylene	*57*	*X*	*58 - 122*	*11/10/18 09:55*	*11/12/18 15:50*	*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)	**490**		340	84	mg/Kg	☼	11/09/18 09:01	11/14/18 04:42	5
Motor Oil (>C24-C36)	**1300**		340	120	mg/Kg	☼	11/09/18 09:01	11/14/18 04:42	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*93*		*50 - 150*	*11/09/18 09:01*	*11/14/18 04:42*	*5*

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**	0.0036	0.00026	ug/Kg	☼	11/12/18 13:18	11/17/18 05:51	1
1,2,3,4,6,7,8-HpCDF	**0.17**	**B**	0.0036	0.00061	ug/Kg	☼	11/12/18 13:18	11/17/18 05:51	1
1,2,3,4,7,8,9-HpCDF	ND		0.0036	0.00073	ug/Kg	☼	11/12/18 13:18	11/17/18 05:51	1
1,2,3,4,7,8-HxCDD	**0.00058**	**J B**	0.0036	0.00010	ug/Kg	☼	11/12/18 13:18	11/17/18 05:51	1
1,2,3,4,7,8-HxCDF	**0.0032**	**J**	0.0036	0.00098	ug/Kg	☼	11/12/18 13:18	11/17/18 05:51	1
1,2,3,6,7,8-HxCDD	**0.0030**	**J B**	0.0036	0.000094	ug/Kg	☼	11/12/18 13:18	11/17/18 05:51	1
1,2,3,6,7,8-HxCDF	**0.0099**		0.0036	0.0010	ug/Kg	☼	11/12/18 13:18	11/17/18 05:51	1
1,2,3,7,8,9-HxCDD	**0.0015**	**J**	0.0036	0.000091	ug/Kg	☼	11/12/18 13:18	11/17/18 05:51	1
1,2,3,7,8,9-HxCDF	ND		0.0036	0.00059	ug/Kg	☼	11/12/18 13:18	11/17/18 05:51	1
1,2,3,7,8-PeCDD	**0.00045**	**J**	0.0036	0.00016	ug/Kg	☼	11/12/18 13:18	11/17/18 05:51	1
1,2,3,7,8-PeCDF	ND		0.0036	0.00049	ug/Kg	☼	11/12/18 13:18	11/17/18 05:51	1
2,3,4,6,7,8-HxCDF	**0.0022**	**J**	0.0036	0.00079	ug/Kg	☼	11/12/18 13:18	11/17/18 05:51	1
2,3,4,7,8-PeCDF	**0.0010**	**J**	0.0036	0.00052	ug/Kg	☼	11/12/18 13:18	11/17/18 05:51	1
2,3,7,8-TCDD	**0.00020**	**J q**	0.00073	0.000049	ug/Kg	☼	11/12/18 13:18	11/17/18 05:51	1
OCDD	**0.66**	**B**	0.0073	0.00024	ug/Kg	☼	11/12/18 13:18	11/17/18 05:51	1
OCDF	**0.083**		0.0073	0.000063	ug/Kg	☼	11/12/18 13:18	11/17/18 05:51	1
Total HpCDD	**0.11**	**B**	0.0036	0.00026	ug/Kg	☼	11/12/18 13:18	11/17/18 05:51	1
Total HpCDF	**0.31**	**B**	0.0036	0.00067	ug/Kg	☼	11/12/18 13:18	11/17/18 05:51	1
Total HxCDD	**0.025**	**q B**	0.0036	0.000095	ug/Kg	☼	11/12/18 13:18	11/17/18 05:51	1
Total HxCDF	**0.12**		0.0036	0.00084	ug/Kg	☼	11/12/18 13:18	11/17/18 05:51	1
Total PeCDD	**0.0056**	**q**	0.0036	0.00016	ug/Kg	☼	11/12/18 13:18	11/17/18 05:51	1
Total PeCDF	**0.044**		0.0036	0.00050	ug/Kg	☼	11/12/18 13:18	11/17/18 05:51	1
Total TCDF	**0.015**	**G B**	0.00087	0.00087	ug/Kg	☼	11/12/18 13:18	11/17/18 05:51	1
Total TCDD	**0.0035**	**q**	0.00073	0.000049	ug/Kg	☼	11/12/18 13:18	11/17/18 05:51	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-1,2,3,4,6,7,8-HpCDD	*61*		*23 - 140*	*11/12/18 13:18*	*11/17/18 05:51*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*59*		*28 - 143*	*11/12/18 13:18*	*11/17/18 05:51*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*57*		*26 - 138*	*11/12/18 13:18*	*11/17/18 05:51*	*1*

Client Sample ID: J3-SC-45to55-102218

Date Collected: 10/22/18 14:35
Date Received: 10/24/18 14:10

Lab Sample ID: 580-81308-3

Matrix: Solid
Percent Solids: 68.2

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-1,2,3,4,7,8-HxCDD	60		32 - 141	11/12/18 13:18	11/17/18 05:51	1
13C-1,2,3,4,7,8-HxCDF	60		26 - 152	11/12/18 13:18	11/17/18 05:51	1
13C-1,2,3,6,7,8-HxCDD	57		28 - 130	11/12/18 13:18	11/17/18 05:51	1
13C-1,2,3,6,7,8-HxCDF	56		26 - 123	11/12/18 13:18	11/17/18 05:51	1
13C-1,2,3,7,8,9-HxCDF	65		29 - 147	11/12/18 13:18	11/17/18 05:51	1
13C-1,2,3,7,8-PeCDD	61		25 - 181	11/12/18 13:18	11/17/18 05:51	1
13C-1,2,3,7,8-PeCDF	63		24 - 185	11/12/18 13:18	11/17/18 05:51	1
13C-2,3,4,6,7,8-HxCDF	57		28 - 136	11/12/18 13:18	11/17/18 05:51	1
13C-2,3,4,7,8-PeCDF	64		21 - 178	11/12/18 13:18	11/17/18 05:51	1
13C-2,3,7,8-TCDD	67		25 - 164	11/12/18 13:18	11/17/18 05:51	1
13C-2,3,7,8-TCDF	70		24 - 169	11/12/18 13:18	11/17/18 05:51	1
13C-OCDD	63		17 - 157	11/12/18 13:18	11/17/18 05:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
37Cl4-2,3,7,8-TCDD	118		35 - 197	11/12/18 13:18	11/17/18 05:51	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	0.00073	0.00026	ug/Kg	☼	11/12/18 13:18	11/20/18 19:07	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-2,3,7,8-TCDF	73		24 - 169	11/12/18 13:18	11/20/18 19:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
37Cl4-2,3,7,8-TCDD	88		35 - 197	11/12/18 13:18	11/20/18 19:07	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	5.6		0.34	0.068	mg/Kg	☼	11/09/18 17:03	11/12/18 20:13	5
Cadmium	0.35		0.27	0.052	mg/Kg	☼	11/09/18 17:03	11/12/18 20:13	5
Copper	37		0.68	0.15	mg/Kg	☼	11/09/18 17:03	11/12/18 20:13	5
Lead	38		0.34	0.033	mg/Kg	☼	11/09/18 17:03	11/12/18 20:13	5
Zinc	120		3.4	1.1	mg/Kg	☼	11/09/18 17:03	11/12/18 20:13	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.61		0.030	0.0090	mg/Kg	☼	11/08/18 11:47	11/09/18 17:59	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	14000		2000	44	mg/Kg			11/02/18 13:25	1
Total Solids	68.2		0.1	0.1	%			11/01/18 18:46	1
Percent Moisture	31	H	0.10	0.10	%			11/01/18 09:41	1
Percent Solids	69	H	0.10	0.10	%			11/01/18 09:41	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Clay	11.2				%			11/01/18 09:41	1
Coarse Sand	0.5				%			11/01/18 09:41	1
Fine Sand	38.9				%			11/01/18 09:41	1
Gravel	0.5				%			11/01/18 09:41	1
Medium Sand	15.7				%			11/01/18 09:41	1

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

TestAmerica Job ID: 580-81308-1

Client Sample ID: J3-SC-45to55-102218
Date Collected: 10/22/18 14:35
Date Received: 10/24/18 14:10

Lab Sample ID: 580-81308-3
Matrix: Solid
Percent Solids: 68.2

Method: D7928/D6913 - ASTM D7928/D6913 (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silt	33.1				%			11/01/18 09:41	1

Method: D854 - Specific Gravity

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Density	1.75		0.0100	0.0100	g/cm3			11/06/18 00:00	1
Specific Gravity	1.76		0.0100	0.0100	NONE			11/06/18 00:00	1

Client Sample ID: J3-SC-20to36-102218

Date Collected: 10/22/18 13:00
Date Received: 10/24/18 14:10

Lab Sample ID: 580-81308-4

Matrix: Solid
Percent Solids: 54.4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		18	3.0	ug/Kg	☼	11/10/18 09:55	11/12/18 16:07	1
PCB-1221	ND		18	8.4	ug/Kg	☼	11/10/18 09:55	11/12/18 16:07	1
PCB-1232	ND		18	4.1	ug/Kg	☼	11/10/18 09:55	11/12/18 16:07	1
PCB-1242	ND		18	4.3	ug/Kg	☼	11/10/18 09:55	11/12/18 16:07	1
PCB-1248	ND		18	1.4	ug/Kg	☼	11/10/18 09:55	11/12/18 16:07	1
PCB-1254	**420**		18	7.0	ug/Kg	☼	11/10/18 09:55	11/12/18 16:07	1
PCB-1260	ND		18	3.0	ug/Kg	☼	11/10/18 09:55	11/12/18 16:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*90*		*54 - 142*	*11/10/18 09:55*	*11/12/18 16:07*	*1*
Tetrachloro-m-xylene	*62*		*58 - 122*	*11/10/18 09:55*	*11/12/18 16:07*	*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)	**680**		440	110	mg/Kg	☼	11/09/18 09:01	11/14/18 05:04	5
Motor Oil (>C24-C36)	**1700**		440	150	mg/Kg	☼	11/09/18 09:01	11/14/18 05:04	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*94*		*50 - 150*	*11/09/18 09:01*	*11/14/18 05:04*	*5*

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	**0.60**	**B G**	0.0060	0.0060	ug/Kg	☼	11/14/18 13:54	11/20/18 21:05	1
1,2,3,4,6,7,8-HpCDF	**0.22**	**B**	0.0045	0.0032	ug/Kg	☼	11/14/18 13:54	11/20/18 21:05	1
1,2,3,4,7,8,9-HpCDF	**0.015**	**B**	0.0045	0.0038	ug/Kg	☼	11/14/18 13:54	11/20/18 21:05	1
1,2,3,4,7,8-HxCDD	**0.0066**	**B**	0.0045	0.00023	ug/Kg	☼	11/14/18 13:54	11/20/18 21:05	1
1,2,3,4,7,8-HxCDF	**0.020**	**B**	0.0045	0.00068	ug/Kg	☼	11/14/18 13:54	11/20/18 21:05	1
1,2,3,6,7,8-HxCDD	**0.024**	**B**	0.0045	0.00022	ug/Kg	☼	11/14/18 13:54	11/20/18 21:05	1
1,2,3,6,7,8-HxCDF	**0.013**		0.0045	0.00068	ug/Kg	☼	11/14/18 13:54	11/20/18 21:05	1
1,2,3,7,8,9-HxCDD	**0.012**	**B**	0.0045	0.00019	ug/Kg	☼	11/14/18 13:54	11/20/18 21:05	1
1,2,3,7,8,9-HxCDF	**0.00071**	**J B**	0.0045	0.00050	ug/Kg	☼	11/14/18 13:54	11/20/18 21:05	1
1,2,3,7,8-PeCDD	**0.0034**	**J B**	0.0045	0.00032	ug/Kg	☼	11/14/18 13:54	11/20/18 21:05	1
1,2,3,7,8-PeCDF	**0.0028**	**J**	0.0045	0.00057	ug/Kg	☼	11/14/18 13:54	11/20/18 21:05	1
2,3,4,6,7,8-HxCDF	**0.0047**	**B**	0.0045	0.00052	ug/Kg	☼	11/14/18 13:54	11/20/18 21:05	1
2,3,4,7,8-PeCDF	**0.0032**	**J**	0.0045	0.00065	ug/Kg	☼	11/14/18 13:54	11/20/18 21:05	1
2,3,7,8-TCDD	**0.0011**	**q**	0.00091	0.00013	ug/Kg	☼	11/14/18 13:54	11/20/18 21:05	1
OCDD	**6.8**	**E B**	0.0091	0.0030	ug/Kg	☼	11/14/18 13:54	11/20/18 21:05	1
OCDF	**0.76**	**B**	0.0091	0.00030	ug/Kg	☼	11/14/18 13:54	11/20/18 21:05	1
Total HpCDD	**1.3**	**B G**	0.0060	0.0060	ug/Kg	☼	11/14/18 13:54	11/20/18 21:05	1
Total HpCDF	**0.93**	**B**	0.0045	0.0035	ug/Kg	☼	11/14/18 13:54	11/20/18 21:05	1
Total HxCDD	**0.22**	**B**	0.0045	0.00022	ug/Kg	☼	11/14/18 13:54	11/20/18 21:05	1
Total HxCDF	**0.28**	**B**	0.0045	0.00060	ug/Kg	☼	11/14/18 13:54	11/20/18 21:05	1
Total PeCDD	**0.024**	**B q**	0.0045	0.00032	ug/Kg	☼	11/14/18 13:54	11/20/18 21:05	1
Total PeCDF	**0.052**	**q**	0.0045	0.00061	ug/Kg	☼	11/14/18 13:54	11/20/18 21:05	1
Total TCDF	**0.019**	**q**	0.00091	0.00026	ug/Kg	☼	11/14/18 13:54	11/20/18 21:05	1
Total TCDD	**0.011**	**q**	0.00091	0.00013	ug/Kg	☼	11/14/18 13:54	11/20/18 21:05	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-1,2,3,4,6,7,8-HpCDD	*63*		*23 - 140*	*11/14/18 13:54*	*11/20/18 21:05*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*60*		*28 - 143*	*11/14/18 13:54*	*11/20/18 21:05*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*65*		*26 - 138*	*11/14/18 13:54*	*11/20/18 21:05*	*1*

Client Sample ID: J3-SC-20to36-102218

Date Collected: 10/22/18 13:00
Date Received: 10/24/18 14:10

Lab Sample ID: 580-81308-4

Matrix: Solid
Percent Solids: 54.4

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-1,2,3,4,7,8-HxCDD	70		32 - 141	11/14/18 13:54	11/20/18 21:05	1
13C-1,2,3,4,7,8-HxCDF	69		26 - 152	11/14/18 13:54	11/20/18 21:05	1
13C-1,2,3,6,7,8-HxCDD	70		28 - 130	11/14/18 13:54	11/20/18 21:05	1
13C-1,2,3,6,7,8-HxCDF	68		26 - 123	11/14/18 13:54	11/20/18 21:05	1
13C-1,2,3,7,8,9-HxCDF	65		29 - 147	11/14/18 13:54	11/20/18 21:05	1
13C-1,2,3,7,8-PeCDD	60		25 - 181	11/14/18 13:54	11/20/18 21:05	1
13C-1,2,3,7,8-PeCDF	63		24 - 185	11/14/18 13:54	11/20/18 21:05	1
13C-2,3,4,6,7,8-HxCDF	70		28 - 136	11/14/18 13:54	11/20/18 21:05	1
13C-2,3,4,7,8-PeCDF	62		21 - 178	11/14/18 13:54	11/20/18 21:05	1
13C-2,3,7,8-TCDD	64		25 - 164	11/14/18 13:54	11/20/18 21:05	1
13C-2,3,7,8-TCDF	63		24 - 169	11/14/18 13:54	11/20/18 21:05	1
13C-OCDD	54		17 - 157	11/14/18 13:54	11/20/18 21:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
37Cl4-2,3,7,8-TCDD	94		35 - 197	11/14/18 13:54	11/20/18 21:05	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	0.0019		0.00091	0.00017	ug/Kg	☼	11/14/18 13:54	11/19/18 18:41	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-2,3,7,8-TCDF	69		24 - 169	11/14/18 13:54	11/19/18 18:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
37Cl4-2,3,7,8-TCDD	75		35 - 197	11/14/18 13:54	11/19/18 18:41	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	8.5		0.40	0.080	mg/Kg	☼	11/09/18 17:03	11/12/18 20:17	5
Cadmium	0.66		0.32	0.062	mg/Kg	☼	11/09/18 17:03	11/12/18 20:17	5
Copper	76		0.80	0.18	mg/Kg	☼	11/09/18 17:03	11/12/18 20:17	5
Lead	98		0.40	0.039	mg/Kg	☼	11/09/18 17:03	11/12/18 20:17	5
Zinc	270		4.0	1.3	mg/Kg	☼	11/09/18 17:03	11/12/18 20:17	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.94		0.042	0.012	mg/Kg	☼	11/08/18 11:47	11/09/18 18:01	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	29000		2000	44	mg/Kg			11/02/18 13:37	1
Total Solids	54.4		0.1	0.1	%			11/01/18 18:46	1
Percent Moisture	44	H	0.10	0.10	%			11/01/18 09:41	1
Percent Solids	56	H	0.10	0.10	%			11/01/18 09:41	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Clay	19.9				%			11/01/18 09:41	1
Coarse Sand	0.8				%			11/01/18 09:41	1
Fine Sand	32.8				%			11/01/18 09:41	1
Gravel	0.3				%			11/01/18 09:41	1
Medium Sand	8.5				%			11/01/18 09:41	1

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

TestAmerica Job ID: 580-81308-1

Client Sample ID: J3-SC-20to36-102218
Date Collected: 10/22/18 13:00
Date Received: 10/24/18 14:10

Lab Sample ID: 580-81308-4
Matrix: Solid
Percent Solids: 54.4

Method: D7928/D6913 - ASTM D7928/D6913 (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silt	37.7				%			11/01/18 09:41	1

Method: D854 - Specific Gravity

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Density	1.33		0.0100	0.0100	g/cm3			11/06/18 00:00	1
Specific Gravity	1.34		0.0100	0.0100	NONE			11/06/18 00:00	1

Client Sample ID: J3-SC-76to98-102218

Date Collected: 10/22/18 14:55
Date Received: 10/24/18 14:10

Lab Sample ID: 580-81308-5

Matrix: Solid
Percent Solids: 74.4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		13	2.2	ug/Kg	☼	11/10/18 09:55	11/12/18 16:24	1
PCB-1221	ND		13	6.2	ug/Kg	☼	11/10/18 09:55	11/12/18 16:24	1
PCB-1232	ND		13	3.1	ug/Kg	☼	11/10/18 09:55	11/12/18 16:24	1
PCB-1242	ND		13	3.2	ug/Kg	☼	11/10/18 09:55	11/12/18 16:24	1
PCB-1248	ND		13	1.0	ug/Kg	☼	11/10/18 09:55	11/12/18 16:24	1
PCB-1254	ND		13	5.1	ug/Kg	☼	11/10/18 09:55	11/12/18 16:24	1
PCB-1260	ND		13	2.2	ug/Kg	☼	11/10/18 09:55	11/12/18 16:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*94*		*54 - 142*	*11/10/18 09:55*	*11/12/18 16:24*	*1*
Tetrachloro-m-xylene	*67*		*58 - 122*	*11/10/18 09:55*	*11/12/18 16:24*	*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)	**82**		65	16	mg/Kg	☼	11/09/18 09:01	11/14/18 05:26	1
Motor Oil (>C24-C36)	**240**		65	23	mg/Kg	☼	11/09/18 09:01	11/14/18 05:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*97*		*50 - 150*	*11/09/18 09:01*	*11/14/18 05:26*	*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	**0.012**	**B**	0.0033	0.00011	ug/Kg	☼	11/12/18 13:18	11/20/18 19:34	1
1,2,3,4,6,7,8-HpCDF	**0.054**	**B**	0.0033	0.00044	ug/Kg	☼	11/12/18 13:18	11/20/18 19:34	1
1,2,3,4,7,8,9-HpCDF	ND		0.0033	0.00054	ug/Kg	☼	11/12/18 13:18	11/20/18 19:34	1
1,2,3,4,7,8-HxCDD	**0.00032**	**J B**	0.0033	0.000036	ug/Kg	☼	11/12/18 13:18	11/20/18 19:34	1
1,2,3,4,7,8-HxCDF	**0.00089**	**J**	0.0033	0.00012	ug/Kg	☼	11/12/18 13:18	11/20/18 19:34	1
1,2,3,6,7,8-HxCDD	**0.0010**	**J B**	0.0033	0.000035	ug/Kg	☼	11/12/18 13:18	11/20/18 19:34	1
1,2,3,6,7,8-HxCDF	**0.0030**	**J**	0.0033	0.00012	ug/Kg	☼	11/12/18 13:18	11/20/18 19:34	1
1,2,3,7,8,9-HxCDD	**0.00054**	**J**	0.0033	0.000030	ug/Kg	☼	11/12/18 13:18	11/20/18 19:34	1
1,2,3,7,8,9-HxCDF	ND		0.0033	0.000098	ug/Kg	☼	11/12/18 13:18	11/20/18 19:34	1
1,2,3,7,8-PeCDD	**0.00020**	**J**	0.0033	0.000038	ug/Kg	☼	11/12/18 13:18	11/20/18 19:34	1
1,2,3,7,8-PeCDF	**0.00021**	**J q**	0.0033	0.000096	ug/Kg	☼	11/12/18 13:18	11/20/18 19:34	1
2,3,4,6,7,8-HxCDF	**0.00098**	**J**	0.0033	0.000096	ug/Kg	☼	11/12/18 13:18	11/20/18 19:34	1
2,3,4,7,8-PeCDF	**0.00027**	**J**	0.0033	0.00010	ug/Kg	☼	11/12/18 13:18	11/20/18 19:34	1
2,3,7,8-TCDD	ND		0.00066	0.000051	ug/Kg	☼	11/12/18 13:18	11/20/18 19:34	1
2,3,7,8-TCDF	**0.00021**	**J B q**	0.00066	0.000075	ug/Kg	☼	11/12/18 13:18	11/20/18 19:34	1
OCDD	**0.16**	**B**	0.0066	0.00017	ug/Kg	☼	11/12/18 13:18	11/20/18 19:34	1
OCDF	**0.022**		0.0066	0.000043	ug/Kg	☼	11/12/18 13:18	11/20/18 19:34	1
Total HpCDD	**0.029**	**B**	0.0033	0.00011	ug/Kg	☼	11/12/18 13:18	11/20/18 19:34	1
Total HpCDF	**0.086**	**B q**	0.0033	0.00049	ug/Kg	☼	11/12/18 13:18	11/20/18 19:34	1
Total HxCDD	**0.0077**	**B q**	0.0033	0.000034	ug/Kg	☼	11/12/18 13:18	11/20/18 19:34	1
Total HxCDF	**0.035**		0.0033	0.00011	ug/Kg	☼	11/12/18 13:18	11/20/18 19:34	1
Total PeCDD	**0.0017**	**J q**	0.0033	0.000038	ug/Kg	☼	11/12/18 13:18	11/20/18 19:34	1
Total PeCDF	**0.010**	**q**	0.0033	0.000098	ug/Kg	☼	11/12/18 13:18	11/20/18 19:34	1
Total TCDF	**0.0037**	**B q**	0.00066	0.000075	ug/Kg	☼	11/12/18 13:18	11/20/18 19:34	1
Total TCDD	**0.00035**	**J q**	0.00066	0.000051	ug/Kg	☼	11/12/18 13:18	11/20/18 19:34	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-1,2,3,4,6,7,8-HpCDD	*96*		*23 - 140*	*11/12/18 13:18*	*11/20/18 19:34*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*97*		*28 - 143*	*11/12/18 13:18*	*11/20/18 19:34*	*1*

Client Sample ID: J3-SC-76to98-102218
Date Collected: 10/22/18 14:55
Date Received: 10/24/18 14:10

Lab Sample ID: 580-81308-5
Matrix: Solid
Percent Solids: 74.4

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-1,2,3,4,7,8,9-HpCDF	104		26 - 138	11/12/18 13:18	11/20/18 19:34	1
13C-1,2,3,4,7,8-HxCDD	104		32 - 141	11/12/18 13:18	11/20/18 19:34	1
13C-1,2,3,4,7,8-HxCDF	104		26 - 152	11/12/18 13:18	11/20/18 19:34	1
13C-1,2,3,6,7,8-HxCDD	104		28 - 130	11/12/18 13:18	11/20/18 19:34	1
13C-1,2,3,6,7,8-HxCDF	102		26 - 123	11/12/18 13:18	11/20/18 19:34	1
13C-1,2,3,7,8,9-HxCDF	91		29 - 147	11/12/18 13:18	11/20/18 19:34	1
13C-1,2,3,7,8-PeCDD	81		25 - 181	11/12/18 13:18	11/20/18 19:34	1
13C-1,2,3,7,8-PeCDF	82		24 - 185	11/12/18 13:18	11/20/18 19:34	1
13C-2,3,4,6,7,8-HxCDF	99		28 - 136	11/12/18 13:18	11/20/18 19:34	1
13C-2,3,4,7,8-PeCDF	83		21 - 178	11/12/18 13:18	11/20/18 19:34	1
13C-2,3,7,8-TCDD	84		25 - 164	11/12/18 13:18	11/20/18 19:34	1
13C-2,3,7,8-TCDF	82		24 - 169	11/12/18 13:18	11/20/18 19:34	1
13C-OCDD	80		17 - 157	11/12/18 13:18	11/20/18 19:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
37Cl4-2,3,7,8-TCDD	103		35 - 197	11/12/18 13:18	11/20/18 19:34	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3.3		0.17	0.034	mg/Kg	☼	11/09/18 17:03	11/12/18 20:21	5
Cadmium	0.12	J	0.13	0.026	mg/Kg	☼	11/09/18 17:03	11/12/18 20:21	5
Copper	19		0.34	0.074	mg/Kg	☼	11/09/18 17:03	11/12/18 20:21	5
Lead	16		0.17	0.016	mg/Kg	☼	11/09/18 17:03	11/12/18 20:21	5
Zinc	63		1.7	0.54	mg/Kg	☼	11/09/18 17:03	11/12/18 20:21	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.065		0.034	0.010	mg/Kg	☼	11/08/18 11:47	11/09/18 18:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	3700		2000	44	mg/Kg			11/02/18 13:42	1
Total Solids	74.4		0.1	0.1	%			11/01/18 18:46	1
Percent Moisture	24	H	0.10	0.10	%			11/01/18 09:41	1
Percent Solids	76	H	0.10	0.10	%			11/01/18 09:41	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Clay	3.1				%			11/01/18 09:41	1
Coarse Sand	0.3				%			11/01/18 09:41	1
Fine Sand	59.8				%			11/01/18 09:41	1
Gravel	1.3				%			11/01/18 09:41	1
Medium Sand	29.4				%			11/01/18 09:41	1
Silt	6.3				%			11/01/18 09:41	1

Method: D854 - Specific Gravity

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Density	1.92		0.0100	0.0100	g/cm3			11/08/18 00:00	1
Specific Gravity	1.93		0.0100	0.0100	NONE			11/08/18 00:00	1

Client Sample ID: J3-SC-36to45-102218

Date Collected: 10/22/18 14:25
Date Received: 10/24/18 14:10

Lab Sample ID: 580-81308-6

Matrix: Solid
Percent Solids: 53.0

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		18	3.1	ug/Kg	☼	11/13/18 10:12	11/14/18 17:12	1
PCB-1221	ND		18	8.7	ug/Kg	☼	11/13/18 10:12	11/14/18 17:12	1
PCB-1232	ND		18	4.3	ug/Kg	☼	11/13/18 10:12	11/14/18 17:12	1
PCB-1242	ND		18	4.5	ug/Kg	☼	11/13/18 10:12	11/14/18 17:12	1
PCB-1248	ND		18	1.5	ug/Kg	☼	11/13/18 10:12	11/14/18 17:12	1
PCB-1254	ND		18	7.2	ug/Kg	☼	11/13/18 10:12	11/14/18 17:12	1
PCB-1260	**190**		18	3.1	ug/Kg	☼	11/13/18 10:12	11/14/18 17:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*132*		*54 - 142*	*11/13/18 10:12*	*11/14/18 17:12*	*1*
Tetrachloro-m-xylene	*50*	*X*	*58 - 122*	*11/13/18 10:12*	*11/14/18 17:12*	*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)	**880**		450	110	mg/Kg	☼	11/09/18 09:01	11/14/18 05:48	5
Motor Oil (>C24-C36)	**2900**		450	160	mg/Kg	☼	11/09/18 09:01	11/14/18 05:48	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*86*		*50 - 150*	*11/09/18 09:01*	*11/14/18 05:48*	*5*

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	**0.17**	**B**	0.0047	0.00092	ug/Kg	☼	11/14/18 13:54	11/20/18 21:51	1
1,2,3,4,6,7,8-HpCDF	**0.10**	**B**	0.0047	0.00084	ug/Kg	☼	11/14/18 13:54	11/20/18 21:51	1
1,2,3,4,7,8,9-HpCDF	**0.0049**	**B**	0.0047	0.0011	ug/Kg	☼	11/14/18 13:54	11/20/18 21:51	1
1,2,3,4,7,8-HxCDD	**0.0019**	**J B**	0.0047	0.00016	ug/Kg	☼	11/14/18 13:54	11/20/18 21:51	1
1,2,3,4,7,8-HxCDF	**0.0057**	**B**	0.0047	0.00034	ug/Kg	☼	11/14/18 13:54	11/20/18 21:51	1
1,2,3,6,7,8-HxCDD	**0.0092**	**B**	0.0047	0.00016	ug/Kg	☼	11/14/18 13:54	11/20/18 21:51	1
1,2,3,6,7,8-HxCDF	**0.0071**		0.0047	0.00033	ug/Kg	☼	11/14/18 13:54	11/20/18 21:51	1
1,2,3,7,8,9-HxCDD	**0.0044**	**J B**	0.0047	0.00014	ug/Kg	☼	11/14/18 13:54	11/20/18 21:51	1
1,2,3,7,8,9-HxCDF	**0.00044**	**J B**	0.0047	0.00025	ug/Kg	☼	11/14/18 13:54	11/20/18 21:51	1
1,2,3,7,8-PeCDD	**0.0016**	**J B**	0.0047	0.00019	ug/Kg	☼	11/14/18 13:54	11/20/18 21:51	1
1,2,3,7,8-PeCDF	**0.0013**	**J**	0.0047	0.00028	ug/Kg	☼	11/14/18 13:54	11/20/18 21:51	1
2,3,4,6,7,8-HxCDF	**0.0028**	**J B**	0.0047	0.00026	ug/Kg	☼	11/14/18 13:54	11/20/18 21:51	1
2,3,4,7,8-PeCDF	**0.0019**	**J**	0.0047	0.00029	ug/Kg	☼	11/14/18 13:54	11/20/18 21:51	1
2,3,7,8-TCDD	**0.00068**	**J**	0.00093	0.00011	ug/Kg	☼	11/14/18 13:54	11/20/18 21:51	1
OCDD	**2.1**	**B**	0.0093	0.00079	ug/Kg	☼	11/14/18 13:54	11/20/18 21:51	1
OCDF	**0.21**	**B**	0.0093	0.00013	ug/Kg	☼	11/14/18 13:54	11/20/18 21:51	1
Total HpCDD	**0.41**	**B**	0.0047	0.00092	ug/Kg	☼	11/14/18 13:54	11/20/18 21:51	1
Total HpCDF	**0.34**	**B**	0.0047	0.00096	ug/Kg	☼	11/14/18 13:54	11/20/18 21:51	1
Total HxCDD	**0.068**	**B**	0.0047	0.00015	ug/Kg	☼	11/14/18 13:54	11/20/18 21:51	1
Total HxCDF	**0.13**	**B**	0.0047	0.00030	ug/Kg	☼	11/14/18 13:54	11/20/18 21:51	1
Total PeCDD	**0.014**	**B q**	0.0047	0.00019	ug/Kg	☼	11/14/18 13:54	11/20/18 21:51	1
Total PeCDF	**0.043**	**q**	0.0047	0.00029	ug/Kg	☼	11/14/18 13:54	11/20/18 21:51	1
Total TCDF	**0.021**		0.00093	0.00029	ug/Kg	☼	11/14/18 13:54	11/20/18 21:51	1
Total TCDD	**0.0078**	**q**	0.00093	0.00011	ug/Kg	☼	11/14/18 13:54	11/20/18 21:51	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-1,2,3,4,6,7,8-HpCDD	*56*		*23 - 140*	*11/14/18 13:54*	*11/20/18 21:51*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*54*		*28 - 143*	*11/14/18 13:54*	*11/20/18 21:51*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*56*		*26 - 138*	*11/14/18 13:54*	*11/20/18 21:51*	*1*

Client Sample ID: J3-SC-36to45-102218

Date Collected: 10/22/18 14:25
Date Received: 10/24/18 14:10

Lab Sample ID: 580-81308-6

Matrix: Solid
Percent Solids: 53.0

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-1,2,3,4,7,8-HxCDD	71		32 - 141	11/14/18 13:54	11/20/18 21:51	1
13C-1,2,3,4,7,8-HxCDF	70		26 - 152	11/14/18 13:54	11/20/18 21:51	1
13C-1,2,3,6,7,8-HxCDD	66		28 - 130	11/14/18 13:54	11/20/18 21:51	1
13C-1,2,3,6,7,8-HxCDF	65		26 - 123	11/14/18 13:54	11/20/18 21:51	1
13C-1,2,3,7,8,9-HxCDF	66		29 - 147	11/14/18 13:54	11/20/18 21:51	1
13C-1,2,3,7,8-PeCDD	62		25 - 181	11/14/18 13:54	11/20/18 21:51	1
13C-1,2,3,7,8-PeCDF	65		24 - 185	11/14/18 13:54	11/20/18 21:51	1
13C-2,3,4,6,7,8-HxCDF	68		28 - 136	11/14/18 13:54	11/20/18 21:51	1
13C-2,3,4,7,8-PeCDF	67		21 - 178	11/14/18 13:54	11/20/18 21:51	1
13C-2,3,7,8-TCDD	68		25 - 164	11/14/18 13:54	11/20/18 21:51	1
13C-2,3,7,8-TCDF	69		24 - 169	11/14/18 13:54	11/20/18 21:51	1
13C-OCDD	45		17 - 157	11/14/18 13:54	11/20/18 21:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
37Cl4-2,3,7,8-TCDD	104		35 - 197	11/14/18 13:54	11/20/18 21:51	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		0.00093	0.00037	ug/Kg	☼	11/14/18 13:54	11/19/18 19:19	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-2,3,7,8-TCDF	74		24 - 169	11/14/18 13:54	11/19/18 19:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
37Cl4-2,3,7,8-TCDD	83		35 - 197	11/14/18 13:54	11/19/18 19:19	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	6.9		0.25	0.049	mg/Kg	☼	11/09/18 17:03	11/12/18 20:25	5
Cadmium	0.72		0.20	0.038	mg/Kg	☼	11/09/18 17:03	11/12/18 20:25	5
Copper	69		0.49	0.11	mg/Kg	☼	11/09/18 17:03	11/12/18 20:25	5
Lead	74		0.25	0.024	mg/Kg	☼	11/09/18 17:03	11/12/18 20:25	5
Zinc	230		2.5	0.79	mg/Kg	☼	11/09/18 17:03	11/12/18 20:25	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	1.2		0.049	0.015	mg/Kg	☼	11/08/18 11:47	11/09/18 18:06	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	33000		2000	44	mg/Kg			11/02/18 13:47	1
Total Solids	53.0		0.1	0.1	%			11/01/18 18:46	1
Percent Moisture	45	H	0.10	0.10	%			11/01/18 09:41	1
Percent Solids	55	H	0.10	0.10	%			11/01/18 09:41	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Clay	21.6				%			11/01/18 09:41	1
Coarse Sand	0.8				%			11/01/18 09:41	1
Fine Sand	20.0				%			11/01/18 09:41	1
Gravel	0.8				%			11/01/18 09:41	1
Medium Sand	4.7				%			11/01/18 09:41	1

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

TestAmerica Job ID: 580-81308-1

Client Sample ID: J3-SC-36to45-102218
Date Collected: 10/22/18 14:25
Date Received: 10/24/18 14:10

Lab Sample ID: 580-81308-6
Matrix: Solid
Percent Solids: 53.0

Method: D7928/D6913 - ASTM D7928/D6913 (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silt	52.1				%			11/01/18 09:41	1

Method: D854 - Specific Gravity

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Density	1.49		0.0100	0.0100	g/cm3			11/08/18 00:00	1
Specific Gravity	1.50		0.0100	0.0100	NONE			11/08/18 00:00	1

Client Sample ID: J3-SC-10to20-102218
Date Collected: 10/22/18 12:50
Date Received: 10/24/18 14:10

Lab Sample ID: 580-81308-7
Matrix: Solid
Percent Solids: 77.6

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		13	2.1	ug/Kg	☼	11/10/18 09:55	11/12/18 16:57	1
PCB-1221	ND		13	6.0	ug/Kg	☼	11/10/18 09:55	11/12/18 16:57	1
PCB-1232	ND		13	3.0	ug/Kg	☼	11/10/18 09:55	11/12/18 16:57	1
PCB-1242	ND		13	3.1	ug/Kg	☼	11/10/18 09:55	11/12/18 16:57	1
PCB-1248	ND		13	1.0	ug/Kg	☼	11/10/18 09:55	11/12/18 16:57	1
PCB-1254	ND		13	5.0	ug/Kg	☼	11/10/18 09:55	11/12/18 16:57	1
PCB-1260	**8.1**	**J**	13	2.1	ug/Kg	☼	11/10/18 09:55	11/12/18 16:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*98*		*54 - 142*	*11/10/18 09:55*	*11/12/18 16:57*	*1*
Tetrachloro-m-xylene	*69*		*58 - 122*	*11/10/18 09:55*	*11/12/18 16:57*	*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)	**34**	**J**	64	16	mg/Kg	☼	11/09/18 09:01	11/14/18 06:10	1
Motor Oil (>C24-C36)	**120**		64	22	mg/Kg	☼	11/09/18 09:01	11/14/18 06:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*93*		*50 - 150*	*11/09/18 09:01*	*11/14/18 06:10*	*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	**0.032**	**B**	0.0032	0.00029	ug/Kg	☼	11/14/18 13:54	11/21/18 04:25	1
1,2,3,4,6,7,8-HpCDF	**0.014**	**B**	0.0032	0.00023	ug/Kg	☼	11/14/18 13:54	11/21/18 04:25	1
1,2,3,4,7,8,9-HpCDF	**0.00095**	**J B**	0.0032	0.00026	ug/Kg	☼	11/14/18 13:54	11/21/18 04:25	1
1,2,3,4,7,8-HxCDD	**0.00044**	**J B**	0.0032	0.000056	ug/Kg	☼	11/14/18 13:54	11/21/18 04:25	1
1,2,3,4,7,8-HxCDF	**0.0011**	**J B**	0.0032	0.000092	ug/Kg	☼	11/14/18 13:54	11/21/18 04:25	1
1,2,3,6,7,8-HxCDD	**0.0013**	**J B**	0.0032	0.000056	ug/Kg	☼	11/14/18 13:54	11/21/18 04:25	1
1,2,3,6,7,8-HxCDF	**0.00074**	**J**	0.0032	0.000087	ug/Kg	☼	11/14/18 13:54	11/21/18 04:25	1
1,2,3,7,8,9-HxCDD	**0.00074**	**J B**	0.0032	0.000047	ug/Kg	☼	11/14/18 13:54	11/21/18 04:25	1
1,2,3,7,8,9-HxCDF	**0.00015**	**J B**	0.0032	0.000073	ug/Kg	☼	11/14/18 13:54	11/21/18 04:25	1
1,2,3,7,8-PeCDD	**0.00024**	**J B**	0.0032	0.000074	ug/Kg	☼	11/14/18 13:54	11/21/18 04:25	1
1,2,3,7,8-PeCDF	ND		0.0032	0.000081	ug/Kg	☼	11/14/18 13:54	11/21/18 04:25	1
2,3,4,6,7,8-HxCDF	**0.00030**	**J B**	0.0032	0.000072	ug/Kg	☼	11/14/18 13:54	11/21/18 04:25	1
2,3,4,7,8-PeCDF	**0.00027**	**J**	0.0032	0.000087	ug/Kg	☼	11/14/18 13:54	11/21/18 04:25	1
2,3,7,8-TCDD	**0.00014**	**J q**	0.00065	0.000060	ug/Kg	☼	11/14/18 13:54	11/21/18 04:25	1
2,3,7,8-TCDF	**0.00035**	**J q**	0.00065	0.000052	ug/Kg	☼	11/14/18 13:54	11/21/18 04:25	1
OCDD	**0.36**	**B**	0.0065	0.00064	ug/Kg	☼	11/14/18 13:54	11/21/18 04:25	1
OCDF	**0.045**	**B**	0.0065	0.00011	ug/Kg	☼	11/14/18 13:54	11/21/18 04:25	1
Total HpCDD	**0.065**	**B**	0.0032	0.00029	ug/Kg	☼	11/14/18 13:54	11/21/18 04:25	1
Total HpCDF	**0.050**	**B**	0.0032	0.00024	ug/Kg	☼	11/14/18 13:54	11/21/18 04:25	1
Total HxCDD	**0.0097**	**B q**	0.0032	0.000053	ug/Kg	☼	11/14/18 13:54	11/21/18 04:25	1
Total HxCDF	**0.016**	**B q**	0.0032	0.000081	ug/Kg	☼	11/14/18 13:54	11/21/18 04:25	1
Total PeCDD	**0.00090**	**J B q**	0.0032	0.000074	ug/Kg	☼	11/14/18 13:54	11/21/18 04:25	1
Total PeCDF	**0.0040**	**q**	0.0032	0.000084	ug/Kg	☼	11/14/18 13:54	11/21/18 04:25	1
Total TCDF	**0.0011**	**q**	0.00065	0.000052	ug/Kg	☼	11/14/18 13:54	11/21/18 04:25	1
Total TCDD	**0.00064**	**J q**	0.00065	0.000060	ug/Kg	☼	11/14/18 13:54	11/21/18 04:25	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-1,2,3,4,6,7,8-HpCDD	*58*		*23 - 140*	*11/14/18 13:54*	*11/21/18 04:25*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*61*		*28 - 143*	*11/14/18 13:54*	*11/21/18 04:25*	*1*

Client Sample ID: J3-SC-10to20-102218
Date Collected: 10/22/18 12:50
Date Received: 10/24/18 14:10

Lab Sample ID: 580-81308-7
Matrix: Solid
Percent Solids: 77.6

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-1,2,3,4,7,8,9-HpCDF	68		26 - 138	11/14/18 13:54	11/21/18 04:25	1
13C-1,2,3,4,7,8-HxCDD	73		32 - 141	11/14/18 13:54	11/21/18 04:25	1
13C-1,2,3,4,7,8-HxCDF	81		26 - 152	11/14/18 13:54	11/21/18 04:25	1
13C-1,2,3,6,7,8-HxCDD	71		28 - 130	11/14/18 13:54	11/21/18 04:25	1
13C-1,2,3,6,7,8-HxCDF	78		26 - 123	11/14/18 13:54	11/21/18 04:25	1
13C-1,2,3,7,8,9-HxCDF	71		29 - 147	11/14/18 13:54	11/21/18 04:25	1
13C-1,2,3,7,8-PeCDD	58		25 - 181	11/14/18 13:54	11/21/18 04:25	1
13C-1,2,3,7,8-PeCDF	66		24 - 185	11/14/18 13:54	11/21/18 04:25	1
13C-2,3,4,6,7,8-HxCDF	78		28 - 136	11/14/18 13:54	11/21/18 04:25	1
13C-2,3,4,7,8-PeCDF	68		21 - 178	11/14/18 13:54	11/21/18 04:25	1
13C-2,3,7,8-TCDD	67		25 - 164	11/14/18 13:54	11/21/18 04:25	1
13C-2,3,7,8-TCDF	77		24 - 169	11/14/18 13:54	11/21/18 04:25	1
13C-OCDD	42		17 - 157	11/14/18 13:54	11/21/18 04:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
37Cl4-2,3,7,8-TCDD	103		35 - 197	11/14/18 13:54	11/21/18 04:25	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.7		0.21	0.043	mg/Kg	☼	11/09/18 17:03	11/12/18 20:29	5
Cadmium	0.24		0.17	0.033	mg/Kg	☼	11/09/18 17:03	11/12/18 20:29	5
Copper	27		0.43	0.094	mg/Kg	☼	11/09/18 17:03	11/12/18 20:29	5
Lead	11		0.21	0.020	mg/Kg	☼	11/09/18 17:03	11/12/18 20:29	5
Zinc	91		2.1	0.69	mg/Kg	☼	11/09/18 17:03	11/12/18 20:29	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.056		0.030	0.0089	mg/Kg	☼	11/08/18 11:47	11/09/18 18:08	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	1500	J	2000	44	mg/Kg			11/02/18 13:51	1
Total Solids	77.6		0.1	0.1	%			11/01/18 18:46	1
Percent Moisture	21	H	0.10	0.10	%			11/01/18 09:41	1
Percent Solids	79	H	0.10	0.10	%			11/01/18 09:41	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Clay	1.5				%			11/01/18 09:41	1
Coarse Sand	1.1				%			11/01/18 09:41	1
Fine Sand	56.2				%			11/01/18 09:41	1
Gravel	0.4				%			11/01/18 09:41	1
Medium Sand	37.3				%			11/01/18 09:41	1
Silt	3.4				%			11/01/18 09:41	1

Method: D854 - Specific Gravity

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Density	1.93		0.0100	0.0100	g/cm3			11/08/18 00:00	1
Specific Gravity	1.93		0.0100	0.0100	NONE			11/08/18 00:00	1

Client Sample ID: J3-SC-00to10-102218

Date Collected: 10/22/18 12:40
Date Received: 10/24/18 14:10

Lab Sample ID: 580-81308-8

Matrix: Solid
Percent Solids: 67.5

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		15	2.5	ug/Kg	☼	11/10/18 09:55	11/12/18 17:14	1
PCB-1221	ND		15	7.0	ug/Kg	☼	11/10/18 09:55	11/12/18 17:14	1
PCB-1232	ND		15	3.5	ug/Kg	☼	11/10/18 09:55	11/12/18 17:14	1
PCB-1242	ND		15	3.6	ug/Kg	☼	11/10/18 09:55	11/12/18 17:14	1
PCB-1248	ND		15	1.2	ug/Kg	☼	11/10/18 09:55	11/12/18 17:14	1
PCB-1254	**110**		15	5.8	ug/Kg	☼	11/10/18 09:55	11/12/18 17:14	1
PCB-1260	ND		15	2.5	ug/Kg	☼	11/10/18 09:55	11/12/18 17:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*100*		*54 - 142*	*11/10/18 09:55*	*11/12/18 17:14*	*1*
Tetrachloro-m-xylene	*67*		*58 - 122*	*11/10/18 09:55*	*11/12/18 17:14*	*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)	**180**	**J**	360	90	mg/Kg	☼	11/09/18 09:01	11/15/18 13:11	5
Motor Oil (>C24-C36)	**550**		360	130	mg/Kg	☼	11/09/18 09:01	11/15/18 13:11	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*99*		*50 - 150*	*11/09/18 09:01*	*11/15/18 13:11*	*5*

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	**0.10**	**B**	0.0037	0.00079	ug/Kg	☼	11/14/18 13:54	11/21/18 05:11	1
1,2,3,4,6,7,8-HpCDF	**0.13**	**B**	0.0037	0.0010	ug/Kg	☼	11/14/18 13:54	11/21/18 05:11	1
1,2,3,4,7,8,9-HpCDF	**0.0035**	**J B**	0.0037	0.0012	ug/Kg	☼	11/14/18 13:54	11/21/18 05:11	1
1,2,3,4,7,8-HxCDD	**0.0010**	**J B**	0.0037	0.000095	ug/Kg	☼	11/14/18 13:54	11/21/18 05:11	1
1,2,3,4,7,8-HxCDF	**0.0071**	**B**	0.0037	0.00025	ug/Kg	☼	11/14/18 13:54	11/21/18 05:11	1
1,2,3,6,7,8-HxCDD	**0.0043**	**B**	0.0037	0.000098	ug/Kg	☼	11/14/18 13:54	11/21/18 05:11	1
1,2,3,6,7,8-HxCDF	**0.0035**	**J**	0.0037	0.00024	ug/Kg	☼	11/14/18 13:54	11/21/18 05:11	1
1,2,3,7,8,9-HxCDD	**0.0021**	**J B**	0.0037	0.000081	ug/Kg	☼	11/14/18 13:54	11/21/18 05:11	1
1,2,3,7,8,9-HxCDF	**0.00019**	**J B q**	0.0037	0.00018	ug/Kg	☼	11/14/18 13:54	11/21/18 05:11	1
1,2,3,7,8-PeCDD	**0.00057**	**J B**	0.0037	0.00013	ug/Kg	☼	11/14/18 13:54	11/21/18 05:11	1
1,2,3,7,8-PeCDF	**0.00060**	**J**	0.0037	0.00016	ug/Kg	☼	11/14/18 13:54	11/21/18 05:11	1
2,3,4,6,7,8-HxCDF	**0.0012**	**J B**	0.0037	0.00018	ug/Kg	☼	11/14/18 13:54	11/21/18 05:11	1
2,3,4,7,8-PeCDF	**0.00074**	**J**	0.0037	0.00016	ug/Kg	☼	11/14/18 13:54	11/21/18 05:11	1
2,3,7,8-TCDD	**0.00022**	**J q**	0.00074	0.000065	ug/Kg	☼	11/14/18 13:54	11/21/18 05:11	1
2,3,7,8-TCDF	**0.00066**	**J**	0.00074	0.000091	ug/Kg	☼	11/14/18 13:54	11/21/18 05:11	1
OCDD	**1.1**	**B**	0.0074	0.00061	ug/Kg	☼	11/14/18 13:54	11/21/18 05:11	1
OCDF	**0.21**	**B**	0.0074	0.00014	ug/Kg	☼	11/14/18 13:54	11/21/18 05:11	1
Total HpCDD	**0.20**	**B q**	0.0037	0.00079	ug/Kg	☼	11/14/18 13:54	11/21/18 05:11	1
Total HpCDF	**0.24**	**B**	0.0037	0.0011	ug/Kg	☼	11/14/18 13:54	11/21/18 05:11	1
Total HxCDD	**0.031**	**B q**	0.0037	0.000092	ug/Kg	☼	11/14/18 13:54	11/21/18 05:11	1
Total HxCDF	**0.055**	**B q**	0.0037	0.00021	ug/Kg	☼	11/14/18 13:54	11/21/18 05:11	1
Total PeCDD	**0.0037**	**B q**	0.0037	0.00013	ug/Kg	☼	11/14/18 13:54	11/21/18 05:11	1
Total PeCDF	**0.010**		0.0037	0.00016	ug/Kg	☼	11/14/18 13:54	11/21/18 05:11	1
Total TCDF	**0.0034**	**q**	0.00074	0.000091	ug/Kg	☼	11/14/18 13:54	11/21/18 05:11	1
Total TCDD	**0.0018**	**q**	0.00074	0.000065	ug/Kg	☼	11/14/18 13:54	11/21/18 05:11	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-1,2,3,4,6,7,8-HpCDD	*55*		*23 - 140*	*11/14/18 13:54*	*11/21/18 05:11*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*56*		*28 - 143*	*11/14/18 13:54*	*11/21/18 05:11*	*1*

Client Sample ID: J3-SC-00to10-102218
Date Collected: 10/22/18 12:40
Date Received: 10/24/18 14:10

Lab Sample ID: 580-81308-8
Matrix: Solid
Percent Solids: 67.5

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-1,2,3,4,7,8,9-HpCDF	67		26 - 138	11/14/18 13:54	11/21/18 05:11	1
13C-1,2,3,4,7,8-HxCDD	69		32 - 141	11/14/18 13:54	11/21/18 05:11	1
13C-1,2,3,4,7,8-HxCDF	75		26 - 152	11/14/18 13:54	11/21/18 05:11	1
13C-1,2,3,6,7,8-HxCDD	65		28 - 130	11/14/18 13:54	11/21/18 05:11	1
13C-1,2,3,6,7,8-HxCDF	72		26 - 123	11/14/18 13:54	11/21/18 05:11	1
13C-1,2,3,7,8,9-HxCDF	70		29 - 147	11/14/18 13:54	11/21/18 05:11	1
13C-1,2,3,7,8-PeCDD	57		25 - 181	11/14/18 13:54	11/21/18 05:11	1
13C-1,2,3,7,8-PeCDF	63		24 - 185	11/14/18 13:54	11/21/18 05:11	1
13C-2,3,4,6,7,8-HxCDF	75		28 - 136	11/14/18 13:54	11/21/18 05:11	1
13C-2,3,4,7,8-PeCDF	66		21 - 178	11/14/18 13:54	11/21/18 05:11	1
13C-2,3,7,8-TCDD	67		25 - 164	11/14/18 13:54	11/21/18 05:11	1
13C-2,3,7,8-TCDF	74		24 - 169	11/14/18 13:54	11/21/18 05:11	1
13C-OCDD	42		17 - 157	11/14/18 13:54	11/21/18 05:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
37Cl4-2,3,7,8-TCDD	104		35 - 197	11/14/18 13:54	11/21/18 05:11	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3.7		0.19	0.039	mg/Kg	☼	11/09/18 17:03	11/12/18 20:34	5
Cadmium	0.29		0.15	0.030	mg/Kg	☼	11/09/18 17:03	11/12/18 20:34	5
Copper	32		0.39	0.085	mg/Kg	☼	11/09/18 17:03	11/12/18 20:34	5
Lead	25		0.19	0.019	mg/Kg	☼	11/09/18 17:03	11/12/18 20:34	5
Zinc	120		1.9	0.62	mg/Kg	☼	11/09/18 17:03	11/12/18 20:34	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.18		0.032	0.0096	mg/Kg	☼	11/08/18 11:47	11/09/18 18:11	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	8700		2000	44	mg/Kg			11/02/18 13:57	1
Total Solids	67.5		0.1	0.1	%			11/01/18 18:46	1
Percent Moisture	34	H	0.10	0.10	%			11/05/18 15:52	1
Percent Solids	66	H	0.10	0.10	%			11/05/18 15:52	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Clay	6.6				%			11/05/18 15:52	1
Coarse Sand	0.2				%			11/05/18 15:52	1
Fine Sand	66.2				%			11/05/18 15:52	1
Gravel	0.0				%			11/05/18 15:52	1
Medium Sand	17.6				%			11/05/18 15:52	1
Silt	9.4				%			11/05/18 15:52	1

Method: D854 - Specific Gravity

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Density	1.77		0.0100	0.0100	g/cm3			11/08/18 00:00	1
Specific Gravity	1.77		0.0100	0.0100	NONE			11/08/18 00:00	1

Client Sample ID: L3-SC-10to20-102218

Date Collected: 10/22/18 10:45
Date Received: 10/24/18 14:10

Lab Sample ID: 580-81308-9

Matrix: Solid
Percent Solids: 69.0

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		14	2.4	ug/Kg	☼	11/10/18 09:55	11/12/18 17:31	1
PCB-1221	ND		14	6.7	ug/Kg	☼	11/10/18 09:55	11/12/18 17:31	1
PCB-1232	ND		14	3.3	ug/Kg	☼	11/10/18 09:55	11/12/18 17:31	1
PCB-1242	ND		14	3.5	ug/Kg	☼	11/10/18 09:55	11/12/18 17:31	1
PCB-1248	ND		14	1.1	ug/Kg	☼	11/10/18 09:55	11/12/18 17:31	1
PCB-1254	**18**		14	5.6	ug/Kg	☼	11/10/18 09:55	11/12/18 17:31	1
PCB-1260	ND		14	2.4	ug/Kg	☼	11/10/18 09:55	11/12/18 17:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*108*		*54 - 142*	*11/10/18 09:55*	*11/12/18 17:31*	*1*
Tetrachloro-m-xylene	*67*		*58 - 122*	*11/10/18 09:55*	*11/12/18 17:31*	*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)	**38**	**J**	72	18	mg/Kg	☼	11/09/18 09:01	11/15/18 13:33	1
Motor Oil (>C24-C36)	**100**		72	25	mg/Kg	☼	11/09/18 09:01	11/15/18 13:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*97*		*50 - 150*	*11/09/18 09:01*	*11/15/18 13:33*	*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	**0.023**	**B**	0.0035	0.00052	ug/Kg	☼	11/12/18 13:18	11/19/18 21:32	1
1,2,3,4,6,7,8-HpCDF	**0.010**	**B**	0.0035	0.00023	ug/Kg	☼	11/12/18 13:18	11/19/18 21:32	1
1,2,3,4,7,8,9-HpCDF	ND		0.0035	0.00034	ug/Kg	☼	11/12/18 13:18	11/19/18 21:32	1
1,2,3,4,7,8-HxCDD	ND		0.0035	0.00012	ug/Kg	☼	11/12/18 13:18	11/19/18 21:32	1
1,2,3,4,7,8-HxCDF	**0.00090**	**J**	0.0035	0.00018	ug/Kg	☼	11/12/18 13:18	11/19/18 21:32	1
1,2,3,6,7,8-HxCDD	**0.00084**	**J B q**	0.0035	0.00011	ug/Kg	☼	11/12/18 13:18	11/19/18 21:32	1
1,2,3,6,7,8-HxCDF	ND		0.0035	0.00020	ug/Kg	☼	11/12/18 13:18	11/19/18 21:32	1
1,2,3,7,8,9-HxCDD	**0.00054**	**J q**	0.0035	0.000098	ug/Kg	☼	11/12/18 13:18	11/19/18 21:32	1
1,2,3,7,8,9-HxCDF	ND		0.0035	0.00013	ug/Kg	☼	11/12/18 13:18	11/19/18 21:32	1
1,2,3,7,8-PeCDD	ND		0.0035	0.00013	ug/Kg	☼	11/12/18 13:18	11/19/18 21:32	1
1,2,3,7,8-PeCDF	**0.00019**	**J**	0.0035	0.000092	ug/Kg	☼	11/12/18 13:18	11/19/18 21:32	1
2,3,4,6,7,8-HxCDF	ND		0.0035	0.00011	ug/Kg	☼	11/12/18 13:18	11/19/18 21:32	1
2,3,4,7,8-PeCDF	**0.00020**	**J**	0.0035	0.00010	ug/Kg	☼	11/12/18 13:18	11/19/18 21:32	1
2,3,7,8-TCDD	ND		0.00071	0.000062	ug/Kg	☼	11/12/18 13:18	11/19/18 21:32	1
2,3,7,8-TCDF	**0.00029**	**J B**	0.00071	0.000062	ug/Kg	☼	11/12/18 13:18	11/19/18 21:32	1
OCDD	**0.25**	**B**	0.0071	0.00034	ug/Kg	☼	11/12/18 13:18	11/19/18 21:32	1
OCDF	**0.028**		0.0071	0.00012	ug/Kg	☼	11/12/18 13:18	11/19/18 21:32	1
Total HpCDD	**0.050**	**B**	0.0035	0.00052	ug/Kg	☼	11/12/18 13:18	11/19/18 21:32	1
Total HpCDF	**0.036**	**B**	0.0035	0.00028	ug/Kg	☼	11/12/18 13:18	11/19/18 21:32	1
Total HxCDD	**0.0076**	**B q**	0.0035	0.00011	ug/Kg	☼	11/12/18 13:18	11/19/18 21:32	1
Total HxCDF	**0.011**		0.0035	0.00016	ug/Kg	☼	11/12/18 13:18	11/19/18 21:32	1
Total PeCDD	**0.00041**	**J q**	0.0035	0.00013	ug/Kg	☼	11/12/18 13:18	11/19/18 21:32	1
Total PeCDF	**0.0028**	**J q**	0.0035	0.000097	ug/Kg	☼	11/12/18 13:18	11/19/18 21:32	1
Total TCDF	**0.00090**	**B q**	0.00071	0.000062	ug/Kg	☼	11/12/18 13:18	11/19/18 21:32	1
Total TCDD	**0.00010**	**J q**	0.00071	0.000062	ug/Kg	☼	11/12/18 13:18	11/19/18 21:32	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-1,2,3,4,6,7,8-HpCDD	*73*		*23 - 140*	*11/12/18 13:18*	*11/19/18 21:32*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*77*		*28 - 143*	*11/12/18 13:18*	*11/19/18 21:32*	*1*

Client Sample ID: L3-SC-10to20-102218
Date Collected: 10/22/18 10:45
Date Received: 10/24/18 14:10

Lab Sample ID: 580-81308-9
Matrix: Solid
Percent Solids: 69.0

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-1,2,3,4,7,8,9-HpCDF	66		26 - 138	11/12/18 13:18	11/19/18 21:32	1
13C-1,2,3,4,7,8-HxCDD	69		32 - 141	11/12/18 13:18	11/19/18 21:32	1
13C-1,2,3,4,7,8-HxCDF	87		26 - 152	11/12/18 13:18	11/19/18 21:32	1
13C-1,2,3,6,7,8-HxCDD	73		28 - 130	11/12/18 13:18	11/19/18 21:32	1
13C-1,2,3,6,7,8-HxCDF	76		26 - 123	11/12/18 13:18	11/19/18 21:32	1
13C-1,2,3,7,8,9-HxCDF	67		29 - 147	11/12/18 13:18	11/19/18 21:32	1
13C-1,2,3,7,8-PeCDD	64		25 - 181	11/12/18 13:18	11/19/18 21:32	1
13C-1,2,3,7,8-PeCDF	66		24 - 185	11/12/18 13:18	11/19/18 21:32	1
13C-2,3,4,6,7,8-HxCDF	84		28 - 136	11/12/18 13:18	11/19/18 21:32	1
13C-2,3,4,7,8-PeCDF	65		21 - 178	11/12/18 13:18	11/19/18 21:32	1
13C-2,3,7,8-TCDD	69		25 - 164	11/12/18 13:18	11/19/18 21:32	1
13C-2,3,7,8-TCDF	69		24 - 169	11/12/18 13:18	11/19/18 21:32	1
13C-OCDD	78		17 - 157	11/12/18 13:18	11/19/18 21:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
37Cl4-2,3,7,8-TCDD	109		35 - 197	11/12/18 13:18	11/19/18 21:32	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3.1		0.18	0.037	mg/Kg	☼	11/09/18 17:03	11/12/18 20:38	5
Cadmium	0.13	J	0.15	0.028	mg/Kg	☼	11/09/18 17:03	11/12/18 20:38	5
Copper	18		0.37	0.081	mg/Kg	☼	11/09/18 17:03	11/12/18 20:38	5
Lead	27		0.18	0.018	mg/Kg	☼	11/09/18 17:03	11/12/18 20:38	5
Zinc	88		1.8	0.59	mg/Kg	☼	11/09/18 17:03	11/12/18 20:38	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.083		0.027	0.0080	mg/Kg	☼	11/08/18 11:47	11/09/18 18:13	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	1200	J	2000	44	mg/Kg			11/02/18 14:01	1
Total Solids	69.0		0.1	0.1	%			11/01/18 18:46	1
Percent Moisture	27	H	0.10	0.10	%			11/05/18 15:52	1
Percent Solids	73	H	0.10	0.10	%			11/05/18 15:52	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Clay	3.5				%			11/05/18 15:52	1
Coarse Sand	0.1				%			11/05/18 15:52	1
Fine Sand	58.8				%			11/05/18 15:52	1
Gravel	0.0				%			11/05/18 15:52	1
Medium Sand	36.5				%			11/05/18 15:52	1
Silt	1.0				%			11/05/18 15:52	1

Method: D854 - Specific Gravity

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Density	1.92		0.0100	0.0100	g/cm3			11/08/18 00:00	1
Specific Gravity	1.92		0.0100	0.0100	NONE			11/08/18 00:00	1

Client Sample ID: L3-SC-20to40-102218

Date Collected: 10/22/18 11:00
Date Received: 10/24/18 14:10

Lab Sample ID: 580-81308-10

Matrix: Solid
Percent Solids: 80.1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		12	2.0	ug/Kg	☼	11/10/18 09:55	11/12/18 17:47	1
PCB-1221	ND		12	5.7	ug/Kg	☼	11/10/18 09:55	11/12/18 17:47	1
PCB-1232	ND		12	2.8	ug/Kg	☼	11/10/18 09:55	11/12/18 17:47	1
PCB-1242	ND		12	2.9	ug/Kg	☼	11/10/18 09:55	11/12/18 17:47	1
PCB-1248	ND		12	0.95	ug/Kg	☼	11/10/18 09:55	11/12/18 17:47	1
PCB-1254	**13**		12	4.7	ug/Kg	☼	11/10/18 09:55	11/12/18 17:47	1
PCB-1260	ND		12	2.0	ug/Kg	☼	11/10/18 09:55	11/12/18 17:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*100*		*54 - 142*	*11/10/18 09:55*	*11/12/18 17:47*	*1*
Tetrachloro-m-xylene	*64*		*58 - 122*	*11/10/18 09:55*	*11/12/18 17:47*	*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)	**34**	**J**	55	14	mg/Kg	☼	11/09/18 09:01	11/15/18 13:55	1
Motor Oil (>C24-C36)	**100**		55	19	mg/Kg	☼	11/09/18 09:01	11/15/18 13:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*97*		*50 - 150*	*11/09/18 09:01*	*11/15/18 13:55*	*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	**0.044**	**B**	0.0031	0.00072	ug/Kg	☼	11/12/18 13:18	11/19/18 22:20	1
1,2,3,4,6,7,8-HpCDF	**0.012**	**B**	0.0031	0.00030	ug/Kg	☼	11/12/18 13:18	11/19/18 22:20	1
1,2,3,4,7,8,9-HpCDF	ND		0.0031	0.00039	ug/Kg	☼	11/12/18 13:18	11/19/18 22:20	1
1,2,3,4,7,8-HxCDD	**0.00058**	**J B**	0.0031	0.00013	ug/Kg	☼	11/12/18 13:18	11/19/18 22:20	1
1,2,3,4,7,8-HxCDF	**0.0012**	**J**	0.0031	0.00031	ug/Kg	☼	11/12/18 13:18	11/19/18 22:20	1
1,2,3,6,7,8-HxCDD	**0.0018**	**J B**	0.0031	0.00012	ug/Kg	☼	11/12/18 13:18	11/19/18 22:20	1
1,2,3,6,7,8-HxCDF	**0.00096**	**J**	0.0031	0.00030	ug/Kg	☼	11/12/18 13:18	11/19/18 22:20	1
1,2,3,7,8,9-HxCDD	**0.00097**	**J q**	0.0031	0.00011	ug/Kg	☼	11/12/18 13:18	11/19/18 22:20	1
1,2,3,7,8,9-HxCDF	ND		0.0031	0.00016	ug/Kg	☼	11/12/18 13:18	11/19/18 22:20	1
1,2,3,7,8-PeCDD	ND		0.0031	0.00014	ug/Kg	☼	11/12/18 13:18	11/19/18 22:20	1
1,2,3,7,8-PeCDF	ND		0.0031	0.00013	ug/Kg	☼	11/12/18 13:18	11/19/18 22:20	1
2,3,4,6,7,8-HxCDF	ND		0.0031	0.00020	ug/Kg	☼	11/12/18 13:18	11/19/18 22:20	1
2,3,4,7,8-PeCDF	**0.00033**	**J**	0.0031	0.00015	ug/Kg	☼	11/12/18 13:18	11/19/18 22:20	1
2,3,7,8-TCDD	ND		0.00062	0.000065	ug/Kg	☼	11/12/18 13:18	11/19/18 22:20	1
2,3,7,8-TCDF	**0.00042**	**J B**	0.00062	0.00012	ug/Kg	☼	11/12/18 13:18	11/19/18 22:20	1
OCDD	**0.41**	**B**	0.0062	0.00058	ug/Kg	☼	11/12/18 13:18	11/19/18 22:20	1
OCDF	**0.035**		0.0062	0.00015	ug/Kg	☼	11/12/18 13:18	11/19/18 22:20	1
Total HpCDD	**0.095**	**B**	0.0031	0.00072	ug/Kg	☼	11/12/18 13:18	11/19/18 22:20	1
Total HpCDF	**0.045**	**B**	0.0031	0.00034	ug/Kg	☼	11/12/18 13:18	11/19/18 22:20	1
Total HxCDD	**0.013**	**B q**	0.0031	0.00012	ug/Kg	☼	11/12/18 13:18	11/19/18 22:20	1
Total HxCDF	**0.016**	**q**	0.0031	0.00024	ug/Kg	☼	11/12/18 13:18	11/19/18 22:20	1
Total PeCDD	**0.00082**	**J q**	0.0031	0.00014	ug/Kg	☼	11/12/18 13:18	11/19/18 22:20	1
Total PeCDF	**0.0058**		0.0031	0.00014	ug/Kg	☼	11/12/18 13:18	11/19/18 22:20	1
Total TCDF	**0.0016**	**B**	0.00062	0.00012	ug/Kg	☼	11/12/18 13:18	11/19/18 22:20	1
Total TCDD	**0.00042**	**J**	0.00062	0.000065	ug/Kg	☼	11/12/18 13:18	11/19/18 22:20	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-1,2,3,4,6,7,8-HpCDD	*55*		*23 - 140*	*11/12/18 13:18*	*11/19/18 22:20*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*53*		*28 - 143*	*11/12/18 13:18*	*11/19/18 22:20*	*1*

Client Sample ID: L3-SC-20to40-102218

Lab Sample ID: 580-81308-10
Date Collected: 10/22/18 11:00
Matrix: Solid
Date Received: 10/24/18 14:10
Percent Solids: 80.1

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-1,2,3,4,7,8,9-HpCDF	54		26 - 138	11/12/18 13:18	11/19/18 22:20	1
13C-1,2,3,4,7,8-HxCDD	65		32 - 141	11/12/18 13:18	11/19/18 22:20	1
13C-1,2,3,4,7,8-HxCDF	62		26 - 152	11/12/18 13:18	11/19/18 22:20	1
13C-1,2,3,6,7,8-HxCDD	63		28 - 130	11/12/18 13:18	11/19/18 22:20	1
13C-1,2,3,6,7,8-HxCDF	59		26 - 123	11/12/18 13:18	11/19/18 22:20	1
13C-1,2,3,7,8,9-HxCDF	65		29 - 147	11/12/18 13:18	11/19/18 22:20	1
13C-1,2,3,7,8-PeCDD	60		25 - 181	11/12/18 13:18	11/19/18 22:20	1
13C-1,2,3,7,8-PeCDF	56		24 - 185	11/12/18 13:18	11/19/18 22:20	1
13C-2,3,4,6,7,8-HxCDF	61		28 - 136	11/12/18 13:18	11/19/18 22:20	1
13C-2,3,4,7,8-PeCDF	55		21 - 178	11/12/18 13:18	11/19/18 22:20	1
13C-2,3,7,8-TCDD	63		25 - 164	11/12/18 13:18	11/19/18 22:20	1
13C-2,3,7,8-TCDF	64		24 - 169	11/12/18 13:18	11/19/18 22:20	1
13C-OCDD	56		17 - 157	11/12/18 13:18	11/19/18 22:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
37Cl4-2,3,7,8-TCDD	111		35 - 197	11/12/18 13:18	11/19/18 22:20	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.9		0.17	0.033	mg/Kg	☼	11/09/18 17:03	11/12/18 20:42	5
Cadmium	0.13		0.13	0.026	mg/Kg	☼	11/09/18 17:03	11/12/18 20:42	5
Copper	19		0.33	0.073	mg/Kg	☼	11/09/18 17:03	11/12/18 20:42	5
Lead	12		0.17	0.016	mg/Kg	☼	11/09/18 17:03	11/12/18 20:42	5
Zinc	87		1.7	0.54	mg/Kg	☼	11/09/18 17:03	11/12/18 20:42	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.070		0.023	0.0070	mg/Kg	☼	11/08/18 11:47	11/09/18 18:15	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	1400	J	2000	44	mg/Kg			11/02/18 14:06	1
Total Solids	80.1		0.1	0.1	%			11/01/18 18:46	1
Percent Moisture	20	H	0.10	0.10	%			11/05/18 15:52	1
Percent Solids	80	H	0.10	0.10	%			11/05/18 15:52	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Clay	3.6				%			11/05/18 15:52	1
Coarse Sand	0.6				%			11/05/18 15:52	1
Fine Sand	60.0				%			11/05/18 15:52	1
Gravel	1.9				%			11/05/18 15:52	1
Medium Sand	33.6				%			11/05/18 15:52	1
Silt	0.4				%			11/05/18 15:52	1

Method: D854 - Specific Gravity

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Density	1.78		0.0100	0.0100	g/cm3			11/08/18 00:00	1
Specific Gravity	1.78		0.0100	0.0100	NONE			11/08/18 00:00	1

Client Sample ID: J5-SC-20to40-102218

Date Collected: 10/22/18 16:30
Date Received: 10/24/18 14:10

Lab Sample ID: 580-81308-11

Matrix: Solid
Percent Solids: 47.6

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		20	3.4	ug/Kg	☼	11/10/18 09:55	11/12/18 18:04	1
PCB-1221	ND		20	9.4	ug/Kg	☼	11/10/18 09:55	11/12/18 18:04	1
PCB-1232	ND		20	4.6	ug/Kg	☼	11/10/18 09:55	11/12/18 18:04	1
PCB-1242	ND		20	4.8	ug/Kg	☼	11/10/18 09:55	11/12/18 18:04	1
PCB-1248	ND		20	1.6	ug/Kg	☼	11/10/18 09:55	11/12/18 18:04	1
PCB-1254	ND		20	7.8	ug/Kg	☼	11/10/18 09:55	11/12/18 18:04	1
PCB-1260	**130**		20	3.4	ug/Kg	☼	11/10/18 09:55	11/12/18 18:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*64*		*54 - 142*	*11/10/18 09:55*	*11/12/18 18:04*	*1*
Tetrachloro-m-xylene	*55*	*X*	*58 - 122*	*11/10/18 09:55*	*11/12/18 18:04*	*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)	**430**	**J**	470	120	mg/Kg	☼	11/09/18 09:01	11/15/18 14:17	5
Motor Oil (>C24-C36)	**1400**		470	160	mg/Kg	☼	11/09/18 09:01	11/15/18 14:17	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*188*	*X*	*50 - 150*	*11/09/18 09:01*	*11/15/18 14:17*	*5*

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	**0.47**	**B**	0.0052	0.0041	ug/Kg	☼	11/14/18 13:54	11/21/18 05:56	1
1,2,3,4,6,7,8-HpCDF	**0.12**	**B**	0.0052	0.0017	ug/Kg	☼	11/14/18 13:54	11/21/18 05:56	1
1,2,3,4,7,8,9-HpCDF	**0.0076**	**B**	0.0052	0.0019	ug/Kg	☼	11/14/18 13:54	11/21/18 05:56	1
1,2,3,4,7,8-HxCDD	**0.0042**	**J B**	0.0052	0.00018	ug/Kg	☼	11/14/18 13:54	11/21/18 05:56	1
1,2,3,4,7,8-HxCDF	**0.0088**	**B**	0.0052	0.00046	ug/Kg	☼	11/14/18 13:54	11/21/18 05:56	1
1,2,3,6,7,8-HxCDD	**0.023**	**B**	0.0052	0.00019	ug/Kg	☼	11/14/18 13:54	11/21/18 05:56	1
1,2,3,6,7,8-HxCDF	**0.010**		0.0052	0.00049	ug/Kg	☼	11/14/18 13:54	11/21/18 05:56	1
1,2,3,7,8,9-HxCDD	**0.0096**	**B**	0.0052	0.00016	ug/Kg	☼	11/14/18 13:54	11/21/18 05:56	1
1,2,3,7,8,9-HxCDF	**0.00079**	**J B q**	0.0052	0.00038	ug/Kg	☼	11/14/18 13:54	11/21/18 05:56	1
1,2,3,7,8-PeCDD	**0.0029**	**J B**	0.0052	0.00031	ug/Kg	☼	11/14/18 13:54	11/21/18 05:56	1
1,2,3,7,8-PeCDF	**0.0028**	**J**	0.0052	0.00035	ug/Kg	☼	11/14/18 13:54	11/21/18 05:56	1
2,3,4,6,7,8-HxCDF	**0.0027**	**J B**	0.0052	0.00036	ug/Kg	☼	11/14/18 13:54	11/21/18 05:56	1
2,3,4,7,8-PeCDF	**0.0026**	**J**	0.0052	0.00038	ug/Kg	☼	11/14/18 13:54	11/21/18 05:56	1
2,3,7,8-TCDD	**0.0016**		0.0010	0.00014	ug/Kg	☼	11/14/18 13:54	11/21/18 05:56	1
OCDD	**5.9**	**E B**	0.010	0.0043	ug/Kg	☼	11/14/18 13:54	11/21/18 05:56	1
OCDF	**0.39**	**B**	0.010	0.00022	ug/Kg	☼	11/14/18 13:54	11/21/18 05:56	1
Total HpCDD	**1.1**	**B**	0.0052	0.0041	ug/Kg	☼	11/14/18 13:54	11/21/18 05:56	1
Total HpCDF	**0.43**	**B**	0.0052	0.0018	ug/Kg	☼	11/14/18 13:54	11/21/18 05:56	1
Total HxCDD	**0.18**	**B**	0.0052	0.00018	ug/Kg	☼	11/14/18 13:54	11/21/18 05:56	1
Total HxCDF	**0.16**	**B q**	0.0052	0.00042	ug/Kg	☼	11/14/18 13:54	11/21/18 05:56	1
Total PeCDD	**0.022**	**B q**	0.0052	0.00031	ug/Kg	☼	11/14/18 13:54	11/21/18 05:56	1
Total PeCDF	**0.034**	**q**	0.0052	0.00036	ug/Kg	☼	11/14/18 13:54	11/21/18 05:56	1
Total TCDF	**0.023**	**q**	0.0010	0.00026	ug/Kg	☼	11/14/18 13:54	11/21/18 05:56	1
Total TCDD	**0.011**	**q**	0.0010	0.00014	ug/Kg	☼	11/14/18 13:54	11/21/18 05:56	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-1,2,3,4,6,7,8-HpCDD	*56*		*23 - 140*	*11/14/18 13:54*	*11/21/18 05:56*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*61*		*28 - 143*	*11/14/18 13:54*	*11/21/18 05:56*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*68*		*26 - 138*	*11/14/18 13:54*	*11/21/18 05:56*	*1*

Client Sample ID: J5-SC-20to40-102218

Date Collected: 10/22/18 16:30
Date Received: 10/24/18 14:10

Lab Sample ID: 580-81308-11

Matrix: Solid
Percent Solids: 47.6

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-1,2,3,4,7,8-HxCDD	70		32 - 141	11/14/18 13:54	11/21/18 05:56	1
13C-1,2,3,4,7,8-HxCDF	77		26 - 152	11/14/18 13:54	11/21/18 05:56	1
13C-1,2,3,6,7,8-HxCDD	67		28 - 130	11/14/18 13:54	11/21/18 05:56	1
13C-1,2,3,6,7,8-HxCDF	72		26 - 123	11/14/18 13:54	11/21/18 05:56	1
13C-1,2,3,7,8,9-HxCDF	68		29 - 147	11/14/18 13:54	11/21/18 05:56	1
13C-1,2,3,7,8-PeCDD	58		25 - 181	11/14/18 13:54	11/21/18 05:56	1
13C-1,2,3,7,8-PeCDF	65		24 - 185	11/14/18 13:54	11/21/18 05:56	1
13C-2,3,4,6,7,8-HxCDF	74		28 - 136	11/14/18 13:54	11/21/18 05:56	1
13C-2,3,4,7,8-PeCDF	66		21 - 178	11/14/18 13:54	11/21/18 05:56	1
13C-2,3,7,8-TCDD	64		25 - 164	11/14/18 13:54	11/21/18 05:56	1
13C-2,3,7,8-TCDF	70		24 - 169	11/14/18 13:54	11/21/18 05:56	1
13C-OCDD	45		17 - 157	11/14/18 13:54	11/21/18 05:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
37Cl4-2,3,7,8-TCDD	105		35 - 197	11/14/18 13:54	11/21/18 05:56	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	0.0026		0.0010	0.00028	ug/Kg	☼	11/14/18 13:54	11/19/18 21:12	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-2,3,7,8-TCDF	68		24 - 169	11/14/18 13:54	11/19/18 21:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
37Cl4-2,3,7,8-TCDD	78		35 - 197	11/14/18 13:54	11/19/18 21:12	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	6.9		0.31	0.063	mg/Kg	☼	11/09/18 17:03	11/12/18 20:46	5
Cadmium	0.48		0.25	0.048	mg/Kg	☼	11/09/18 17:03	11/12/18 20:46	5
Copper	66		0.63	0.14	mg/Kg	☼	11/09/18 17:03	11/12/18 20:46	5
Lead	58		0.31	0.030	mg/Kg	☼	11/09/18 17:03	11/12/18 20:46	5
Zinc	250		3.1	1.0	mg/Kg	☼	11/09/18 17:03	11/12/18 20:46	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.38		0.047	0.014	mg/Kg	☼	11/08/18 11:47	11/09/18 18:18	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	41000		2000	44	mg/Kg			11/02/18 14:11	1
Total Solids	47.6		0.1	0.1	%			11/01/18 18:46	1
Percent Moisture	51	H	0.10	0.10	%			11/05/18 15:52	1
Percent Solids	49	H	0.10	0.10	%			11/05/18 15:52	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Clay	26.4				%			11/05/18 15:52	1
Coarse Sand	0.1				%			11/05/18 15:52	1
Fine Sand	4.6				%			11/05/18 15:52	1
Gravel	0.0				%			11/05/18 15:52	1
Medium Sand	0.3				%			11/05/18 15:52	1

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

TestAmerica Job ID: 580-81308-1

Client Sample ID: J5-SC-20to40-102218
Date Collected: 10/22/18 16:30
Date Received: 10/24/18 14:10

Lab Sample ID: 580-81308-11
Matrix: Solid
Percent Solids: 47.6

Method: D7928/D6913 - ASTM D7928/D6913 (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silt	68.6				%			11/05/18 15:52	1

Method: D854 - Specific Gravity

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Density	1.44		0.0100	0.0100	g/cm3			11/08/18 00:00	1
Specific Gravity	1.44		0.0100	0.0100	NONE			11/08/18 00:00	1

Client Sample ID: J5-SC-80to95-102218

Date Collected: 10/22/18 17:10
Date Received: 10/24/18 14:10

Lab Sample ID: 580-81308-12

Matrix: Solid
Percent Solids: 66.3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		15	2.5	ug/Kg	☼	11/10/18 09:55	11/12/18 20:35	1
PCB-1221	ND		15	6.9	ug/Kg	☼	11/10/18 09:55	11/12/18 20:35	1
PCB-1232	ND		15	3.4	ug/Kg	☼	11/10/18 09:55	11/12/18 20:35	1
PCB-1242	ND		15	3.6	ug/Kg	☼	11/10/18 09:55	11/12/18 20:35	1
PCB-1248	ND		15	1.2	ug/Kg	☼	11/10/18 09:55	11/12/18 20:35	1
PCB-1254	**62**		15	5.8	ug/Kg	☼	11/10/18 09:55	11/12/18 20:35	1
PCB-1260	ND		15	2.5	ug/Kg	☼	11/10/18 09:55	11/12/18 20:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*95*		*54 - 142*	*11/10/18 09:55*	*11/12/18 20:35*	*1*
Tetrachloro-m-xylene	*63*		*58 - 122*	*11/10/18 09:55*	*11/12/18 20:35*	*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)	**91**		65	16	mg/Kg	☼	11/09/18 09:01	11/15/18 14:39	1
Motor Oil (>C24-C36)	**270**		65	23	mg/Kg	☼	11/09/18 09:01	11/15/18 14:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*93*		*50 - 150*	*11/09/18 09:01*	*11/15/18 14:39*	*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	**0.042**	**B**	0.0037	0.00034	ug/Kg	☼	11/14/18 13:54	11/21/18 06:42	1
1,2,3,4,6,7,8-HpCDF	**0.029**	**B**	0.0037	0.00035	ug/Kg	☼	11/14/18 13:54	11/21/18 06:42	1
1,2,3,4,7,8,9-HpCDF	**0.0015**	**J B**	0.0037	0.00043	ug/Kg	☼	11/14/18 13:54	11/21/18 06:42	1
1,2,3,4,7,8-HxCDD	**0.00069**	**J B**	0.0037	0.000098	ug/Kg	☼	11/14/18 13:54	11/21/18 06:42	1
1,2,3,4,7,8-HxCDF	**0.0018**	**J B**	0.0037	0.00016	ug/Kg	☼	11/14/18 13:54	11/21/18 06:42	1
1,2,3,6,7,8-HxCDD	**0.0019**	**J B**	0.0037	0.000097	ug/Kg	☼	11/14/18 13:54	11/21/18 06:42	1
1,2,3,6,7,8-HxCDF	**0.0017**	**J**	0.0037	0.00015	ug/Kg	☼	11/14/18 13:54	11/21/18 06:42	1
1,2,3,7,8,9-HxCDD	**0.00087**	**J B q**	0.0037	0.000082	ug/Kg	☼	11/14/18 13:54	11/21/18 06:42	1
1,2,3,7,8,9-HxCDF	**0.00018**	**J B q**	0.0037	0.00012	ug/Kg	☼	11/14/18 13:54	11/21/18 06:42	1
1,2,3,7,8-PeCDD	ND		0.0037	0.000097	ug/Kg	☼	11/14/18 13:54	11/21/18 06:42	1
1,2,3,7,8-PeCDF	ND		0.0037	0.00013	ug/Kg	☼	11/14/18 13:54	11/21/18 06:42	1
2,3,4,6,7,8-HxCDF	**0.00056**	**J B**	0.0037	0.00012	ug/Kg	☼	11/14/18 13:54	11/21/18 06:42	1
2,3,4,7,8-PeCDF	**0.00031**	**J**	0.0037	0.00014	ug/Kg	☼	11/14/18 13:54	11/21/18 06:42	1
2,3,7,8-TCDD	**0.00049**	**J**	0.00075	0.00010	ug/Kg	☼	11/14/18 13:54	11/21/18 06:42	1
2,3,7,8-TCDF	**0.00026**	**J q**	0.00075	0.000096	ug/Kg	☼	11/14/18 13:54	11/21/18 06:42	1
OCDD	**0.50**	**B**	0.0075	0.00049	ug/Kg	☼	11/14/18 13:54	11/21/18 06:42	1
OCDF	**0.080**	**B**	0.0075	0.00013	ug/Kg	☼	11/14/18 13:54	11/21/18 06:42	1
Total HpCDD	**0.097**	**B**	0.0037	0.00034	ug/Kg	☼	11/14/18 13:54	11/21/18 06:42	1
Total HpCDF	**0.092**	**B**	0.0037	0.00039	ug/Kg	☼	11/14/18 13:54	11/21/18 06:42	1
Total HxCDD	**0.016**	**B q**	0.0037	0.000093	ug/Kg	☼	11/14/18 13:54	11/21/18 06:42	1
Total HxCDF	**0.027**	**B q**	0.0037	0.00014	ug/Kg	☼	11/14/18 13:54	11/21/18 06:42	1
Total PeCDD	**0.0016**	**J B q**	0.0037	0.000097	ug/Kg	☼	11/14/18 13:54	11/21/18 06:42	1
Total PeCDF	**0.0053**	**q**	0.0037	0.00014	ug/Kg	☼	11/14/18 13:54	11/21/18 06:42	1
Total TCDF	**0.0021**	**q**	0.00075	0.000096	ug/Kg	☼	11/14/18 13:54	11/21/18 06:42	1
Total TCDD	**0.0015**	**q**	0.00075	0.00010	ug/Kg	☼	11/14/18 13:54	11/21/18 06:42	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-1,2,3,4,6,7,8-HpCDD	*53*		*23 - 140*	*11/14/18 13:54*	*11/21/18 06:42*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*57*		*28 - 143*	*11/14/18 13:54*	*11/21/18 06:42*	*1*

Client Sample ID: J5-SC-80to95-102218

Date Collected: 10/22/18 17:10
Date Received: 10/24/18 14:10

Lab Sample ID: 580-81308-12

Matrix: Solid
Percent Solids: 66.3

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-1,2,3,4,7,8,9-HpCDF	62		26 - 138	11/14/18 13:54	11/21/18 06:42	1
13C-1,2,3,4,7,8-HxCDD	65		32 - 141	11/14/18 13:54	11/21/18 06:42	1
13C-1,2,3,4,7,8-HxCDF	74		26 - 152	11/14/18 13:54	11/21/18 06:42	1
13C-1,2,3,6,7,8-HxCDD	64		28 - 130	11/14/18 13:54	11/21/18 06:42	1
13C-1,2,3,6,7,8-HxCDF	70		26 - 123	11/14/18 13:54	11/21/18 06:42	1
13C-1,2,3,7,8,9-HxCDF	68		29 - 147	11/14/18 13:54	11/21/18 06:42	1
13C-1,2,3,7,8-PeCDD	52		25 - 181	11/14/18 13:54	11/21/18 06:42	1
13C-1,2,3,7,8-PeCDF	59		24 - 185	11/14/18 13:54	11/21/18 06:42	1
13C-2,3,4,6,7,8-HxCDF	74		28 - 136	11/14/18 13:54	11/21/18 06:42	1
13C-2,3,4,7,8-PeCDF	60		21 - 178	11/14/18 13:54	11/21/18 06:42	1
13C-2,3,7,8-TCDD	59		25 - 164	11/14/18 13:54	11/21/18 06:42	1
13C-2,3,7,8-TCDF	67		24 - 169	11/14/18 13:54	11/21/18 06:42	1
13C-OCDD	39		17 - 157	11/14/18 13:54	11/21/18 06:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
37Cl4-2,3,7,8-TCDD	103		35 - 197	11/14/18 13:54	11/21/18 06:42	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.1		0.20	0.040	mg/Kg	☼	11/09/18 17:03	11/12/18 18:36	5
Cadmium	0.15	J	0.16	0.031	mg/Kg	☼	11/09/18 17:03	11/12/18 18:36	5
Copper	34		0.40	0.089	mg/Kg	☼	11/09/18 17:03	11/12/18 18:36	5
Lead	15		0.20	0.019	mg/Kg	☼	11/09/18 17:03	11/12/18 18:36	5
Zinc	82		2.0	0.65	mg/Kg	☼	11/09/18 17:03	11/12/18 18:36	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.17		0.032	0.0095	mg/Kg	☼	11/08/18 11:47	11/09/18 18:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	7500		2000	44	mg/Kg			11/02/18 14:15	1
Total Solids	66.3		0.1	0.1	%			11/01/18 18:46	1
Percent Moisture	32	H	0.10	0.10	%			11/05/18 15:52	1
Percent Solids	68	H	0.10	0.10	%			11/05/18 15:52	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Clay	12.0				%			11/05/18 15:52	1
Coarse Sand	0.0				%			11/05/18 15:52	1
Fine Sand	32.3				%			11/05/18 15:52	1
Gravel	0.0				%			11/05/18 15:52	1
Medium Sand	0.2				%			11/05/18 15:52	1
Silt	55.5				%			11/05/18 15:52	1

Method: D854 - Specific Gravity

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Density	1.75		0.0100	0.0100	g/cm3			11/08/18 00:00	1
Specific Gravity	1.76		0.0100	0.0100	NONE			11/08/18 00:00	1

Client Sample ID: J5-SC-60to80-102218

Date Collected: 10/22/18 16:50
Date Received: 10/24/18 14:10

Lab Sample ID: 580-81308-13

Matrix: Solid
Percent Solids: 49.9

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		19	3.2	ug/Kg	☼	11/10/18 09:55	11/12/18 20:52	1
PCB-1221	ND		19	9.0	ug/Kg	☼	11/10/18 09:55	11/12/18 20:52	1
PCB-1232	ND		19	4.4	ug/Kg	☼	11/10/18 09:55	11/12/18 20:52	1
PCB-1242	ND		19	4.6	ug/Kg	☼	11/10/18 09:55	11/12/18 20:52	1
PCB-1248	ND		19	1.5	ug/Kg	☼	11/10/18 09:55	11/12/18 20:52	1
PCB-1254	**370**		19	7.5	ug/Kg	☼	11/10/18 09:55	11/12/18 20:52	1
PCB-1260	ND		19	3.2	ug/Kg	☼	11/10/18 09:55	11/12/18 20:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*93*		*54 - 142*	*11/10/18 09:55*	*11/12/18 20:52*	*1*
Tetrachloro-m-xylene	*63*		*58 - 122*	*11/10/18 09:55*	*11/12/18 20:52*	*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)	**690**		440	110	mg/Kg	☼	11/09/18 09:01	11/15/18 15:00	5
Motor Oil (>C24-C36)	**2100**		440	160	mg/Kg	☼	11/09/18 09:01	11/15/18 15:00	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*96*		*50 - 150*	*11/09/18 09:01*	*11/15/18 15:00*	*5*

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	**0.63**	**B G**	0.0084	0.0084	ug/Kg	☼	11/12/18 13:18	11/19/18 23:08	1
1,2,3,4,6,7,8-HpCDF	**0.18**	**B**	0.0050	0.0036	ug/Kg	☼	11/12/18 13:18	11/19/18 23:08	1
1,2,3,4,7,8,9-HpCDF	**0.010**		0.0050	0.0049	ug/Kg	☼	11/12/18 13:18	11/19/18 23:08	1
1,2,3,4,7,8-HxCDD	**0.0048**	**J B**	0.0050	0.00085	ug/Kg	☼	11/12/18 13:18	11/19/18 23:08	1
1,2,3,4,7,8-HxCDF	**0.016**		0.0050	0.0015	ug/Kg	☼	11/12/18 13:18	11/19/18 23:08	1
1,2,3,6,7,8-HxCDD	**0.028**	**B**	0.0050	0.00084	ug/Kg	☼	11/12/18 13:18	11/19/18 23:08	1
1,2,3,6,7,8-HxCDF	**0.0099**		0.0050	0.0014	ug/Kg	☼	11/12/18 13:18	11/19/18 23:08	1
1,2,3,7,8,9-HxCDD	**0.011**		0.0050	0.00075	ug/Kg	☼	11/12/18 13:18	11/19/18 23:08	1
1,2,3,7,8,9-HxCDF	ND		0.0050	0.00092	ug/Kg	☼	11/12/18 13:18	11/19/18 23:08	1
1,2,3,7,8-PeCDD	**0.0024**	**J**	0.0050	0.00051	ug/Kg	☼	11/12/18 13:18	11/19/18 23:08	1
1,2,3,7,8-PeCDF	**0.0044**	**J**	0.0050	0.00064	ug/Kg	☼	11/12/18 13:18	11/19/18 23:08	1
2,3,4,6,7,8-HxCDF	**0.0035**	**J**	0.0050	0.0011	ug/Kg	☼	11/12/18 13:18	11/19/18 23:08	1
2,3,4,7,8-PeCDF	**0.0038**	**J**	0.0050	0.00064	ug/Kg	☼	11/12/18 13:18	11/19/18 23:08	1
2,3,7,8-TCDD	**0.0015**		0.0010	0.00012	ug/Kg	☼	11/12/18 13:18	11/19/18 23:08	1
OCDD	**6.6**	**E B**	0.010	0.0055	ug/Kg	☼	11/12/18 13:18	11/19/18 23:08	1
OCDF	**0.61**		0.010	0.00046	ug/Kg	☼	11/12/18 13:18	11/19/18 23:08	1
Total HpCDD	**1.2**	**B G**	0.0084	0.0084	ug/Kg	☼	11/12/18 13:18	11/19/18 23:08	1
Total HpCDF	**0.81**	**B**	0.0050	0.0043	ug/Kg	☼	11/12/18 13:18	11/19/18 23:08	1
Total HxCDD	**0.20**	**B**	0.0050	0.00081	ug/Kg	☼	11/12/18 13:18	11/19/18 23:08	1
Total HxCDF	**0.28**		0.0050	0.0012	ug/Kg	☼	11/12/18 13:18	11/19/18 23:08	1
Total PeCDD	**0.023**	**q**	0.0050	0.00051	ug/Kg	☼	11/12/18 13:18	11/19/18 23:08	1
Total PeCDF	**0.062**		0.0050	0.00064	ug/Kg	☼	11/12/18 13:18	11/19/18 23:08	1
Total TCDF	**0.039**	**B**	0.0010	0.00054	ug/Kg	☼	11/12/18 13:18	11/19/18 23:08	1
Total TCDD	**0.011**	**q**	0.0010	0.00012	ug/Kg	☼	11/12/18 13:18	11/19/18 23:08	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-1,2,3,4,6,7,8-HpCDD	*62*		*23 - 140*	*11/12/18 13:18*	*11/19/18 23:08*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*51*		*28 - 143*	*11/12/18 13:18*	*11/19/18 23:08*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*52*		*26 - 138*	*11/12/18 13:18*	*11/19/18 23:08*	*1*

Client Sample ID: J5-SC-60to80-102218

Date Collected: 10/22/18 16:50
Date Received: 10/24/18 14:10

Lab Sample ID: 580-81308-13

Matrix: Solid
Percent Solids: 49.9

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

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-1,2,3,4,7,8-HxCDD	*68*		*32 - 141*	*11/12/18 13:18*	*11/19/18 23:08*	*1*
13C-1,2,3,4,7,8-HxCDF	*75*		*26 - 152*	*11/12/18 13:18*	*11/19/18 23:08*	*1*
13C-1,2,3,6,7,8-HxCDD	*66*		*28 - 130*	*11/12/18 13:18*	*11/19/18 23:08*	*1*
13C-1,2,3,6,7,8-HxCDF	*78*		*26 - 123*	*11/12/18 13:18*	*11/19/18 23:08*	*1*
13C-1,2,3,7,8,9-HxCDF	*70*		*29 - 147*	*11/12/18 13:18*	*11/19/18 23:08*	*1*
13C-1,2,3,7,8-PeCDD	*59*		*25 - 181*	*11/12/18 13:18*	*11/19/18 23:08*	*1*
13C-1,2,3,7,8-PeCDF	*60*		*24 - 185*	*11/12/18 13:18*	*11/19/18 23:08*	*1*
13C-2,3,4,6,7,8-HxCDF	*68*		*28 - 136*	*11/12/18 13:18*	*11/19/18 23:08*	*1*
13C-2,3,4,7,8-PeCDF	*65*		*21 - 178*	*11/12/18 13:18*	*11/19/18 23:08*	*1*
13C-2,3,7,8-TCDD	*69*		*25 - 164*	*11/12/18 13:18*	*11/19/18 23:08*	*1*
13C-2,3,7,8-TCDF	*63*		*24 - 169*	*11/12/18 13:18*	*11/19/18 23:08*	*1*
13C-OCDD	*66*		*17 - 157*	*11/12/18 13:18*	*11/19/18 23:08*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
37Cl4-2,3,7,8-TCDD	*109*		*35 - 197*	*11/12/18 13:18*	*11/19/18 23:08*	*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	0.0046	B	0.0010	0.00028	ug/Kg	☼	11/12/18 13:18	11/20/18 19:45	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-2,3,7,8-TCDF	*68*		*24 - 169*	*11/12/18 13:18*	*11/20/18 19:45*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
37Cl4-2,3,7,8-TCDD	*87*		*35 - 197*	*11/12/18 13:18*	*11/20/18 19:45*	*1*

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	7.2		0.38	0.075	mg/Kg	☼	11/09/18 17:03	11/12/18 18:40	5
Cadmium	0.66		0.30	0.058	mg/Kg	☼	11/09/18 17:03	11/12/18 18:40	5
Copper	93		0.75	0.17	mg/Kg	☼	11/09/18 17:03	11/12/18 18:40	5
Lead	190		0.38	0.036	mg/Kg	☼	11/09/18 17:03	11/12/18 18:40	5
Zinc	340		3.8	1.2	mg/Kg	☼	11/09/18 17:03	11/12/18 18:40	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.68		0.041	0.012	mg/Kg	☼	11/08/18 11:47	11/09/18 18:27	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	30000		2000	44	mg/Kg			11/02/18 14:30	1
Total Solids	49.9		0.1	0.1	%			11/01/18 18:46	1
Percent Moisture	49	H	0.10	0.10	%			11/05/18 15:52	1
Percent Solids	51	H	0.10	0.10	%			11/05/18 15:52	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Clay	35.3				%			11/05/18 15:52	1
Coarse Sand	0.0				%			11/05/18 15:52	1
Fine Sand	7.2				%			11/05/18 15:52	1
Gravel	0.0				%			11/05/18 15:52	1
Medium Sand	0.2				%			11/05/18 15:52	1

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

TestAmerica Job ID: 580-81308-1

Client Sample ID: J5-SC-60to80-102218
Date Collected: 10/22/18 16:50
Date Received: 10/24/18 14:10

Lab Sample ID: 580-81308-13
Matrix: Solid
Percent Solids: 49.9

Method: D7928/D6913 - ASTM D7928/D6913 (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silt	57.2				%			11/05/18 15:52	1

Method: D854 - Specific Gravity

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Density	1.42		0.0100	0.0100	g/cm3			11/08/18 00:00	1
Specific Gravity	1.43		0.0100	0.0100	NONE			11/08/18 00:00	1

Client Sample ID: J5-SC-95to110-102218

Date Collected: 10/22/18 17:20
Date Received: 10/24/18 14:10

Lab Sample ID: 580-81308-14

Matrix: Solid
Percent Solids: 64.4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		15	2.5	ug/Kg	☼	11/10/18 09:55	11/12/18 21:08	1
PCB-1221	ND		15	6.9	ug/Kg	☼	11/10/18 09:55	11/12/18 21:08	1
PCB-1232	ND		15	3.4	ug/Kg	☼	11/10/18 09:55	11/12/18 21:08	1
PCB-1242	ND		15	3.6	ug/Kg	☼	11/10/18 09:55	11/12/18 21:08	1
PCB-1248	ND		15	1.2	ug/Kg	☼	11/10/18 09:55	11/12/18 21:08	1
PCB-1254	ND		15	5.8	ug/Kg	☼	11/10/18 09:55	11/12/18 21:08	1
PCB-1260	ND		15	2.5	ug/Kg	☼	11/10/18 09:55	11/12/18 21:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*87*		*54 - 142*	*11/10/18 09:55*	*11/12/18 21:08*	*1*
Tetrachloro-m-xylene	*63*		*58 - 122*	*11/10/18 09:55*	*11/12/18 21:08*	*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)	**26**	**J**	72	18	mg/Kg	☼	11/09/18 09:01	11/15/18 15:22	1
Motor Oil (>C24-C36)	**140**		72	25	mg/Kg	☼	11/09/18 09:01	11/15/18 15:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*95*		*50 - 150*	*11/09/18 09:01*	*11/15/18 15:22*	*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	**0.0064**	**B**	0.0038	0.00012	ug/Kg	☼	11/14/18 13:54	11/21/18 07:27	1
1,2,3,4,6,7,8-HpCDF	**0.0031**	**J B**	0.0038	0.00011	ug/Kg	☼	11/14/18 13:54	11/21/18 07:27	1
1,2,3,4,7,8,9-HpCDF	**0.00055**	**J B q**	0.0038	0.00012	ug/Kg	☼	11/14/18 13:54	11/21/18 07:27	1
1,2,3,4,7,8-HxCDD	**0.00029**	**J B q**	0.0038	0.000066	ug/Kg	☼	11/14/18 13:54	11/21/18 07:27	1
1,2,3,4,7,8-HxCDF	ND		0.0038	0.000094	ug/Kg	☼	11/14/18 13:54	11/21/18 07:27	1
1,2,3,6,7,8-HxCDD	**0.00029**	**J B q**	0.0038	0.000059	ug/Kg	☼	11/14/18 13:54	11/21/18 07:27	1
1,2,3,6,7,8-HxCDF	**0.00023**	**J q**	0.0038	0.000082	ug/Kg	☼	11/14/18 13:54	11/21/18 07:27	1
1,2,3,7,8,9-HxCDD	**0.00038**	**J B q**	0.0038	0.000052	ug/Kg	☼	11/14/18 13:54	11/21/18 07:27	1
1,2,3,7,8,9-HxCDF	**0.00027**	**J B q**	0.0038	0.000061	ug/Kg	☼	11/14/18 13:54	11/21/18 07:27	1
1,2,3,7,8-PeCDD	**0.00010**	**J B q**	0.0038	0.000046	ug/Kg	☼	11/14/18 13:54	11/21/18 07:27	1
1,2,3,7,8-PeCDF	**0.00011**	**J**	0.0038	0.000062	ug/Kg	☼	11/14/18 13:54	11/21/18 07:27	1
2,3,4,6,7,8-HxCDF	**0.00012**	**J B**	0.0038	0.000058	ug/Kg	☼	11/14/18 13:54	11/21/18 07:27	1
2,3,4,7,8-PeCDF	ND		0.0038	0.000079	ug/Kg	☼	11/14/18 13:54	11/21/18 07:27	1
2,3,7,8-TCDD	ND		0.00076	0.000079	ug/Kg	☼	11/14/18 13:54	11/21/18 07:27	1
2,3,7,8-TCDF	**0.000080**	**J**	0.00076	0.000043	ug/Kg	☼	11/14/18 13:54	11/21/18 07:27	1
OCDD	**0.089**	**B**	0.0076	0.00021	ug/Kg	☼	11/14/18 13:54	11/21/18 07:27	1
OCDF	**0.0073**	**J B**	0.0076	0.000089	ug/Kg	☼	11/14/18 13:54	11/21/18 07:27	1
Total HpCDD	**0.015**	**B q**	0.0038	0.00012	ug/Kg	☼	11/14/18 13:54	11/21/18 07:27	1
Total HpCDF	**0.011**	**B q**	0.0038	0.00012	ug/Kg	☼	11/14/18 13:54	11/21/18 07:27	1
Total HxCDD	**0.0032**	**J B q**	0.0038	0.000059	ug/Kg	☼	11/14/18 13:54	11/21/18 07:27	1
Total HxCDF	**0.0024**	**J B q**	0.0038	0.000074	ug/Kg	☼	11/14/18 13:54	11/21/18 07:27	1
Total PeCDD	**0.00036**	**J B q**	0.0038	0.000046	ug/Kg	☼	11/14/18 13:54	11/21/18 07:27	1
Total PeCDF	**0.00011**	**J**	0.0038	0.000070	ug/Kg	☼	11/14/18 13:54	11/21/18 07:27	1
Total TCDF	**0.000080**	**J**	0.00076	0.000043	ug/Kg	☼	11/14/18 13:54	11/21/18 07:27	1
Total TCDD	**0.00045**	**J q**	0.00076	0.000079	ug/Kg	☼	11/14/18 13:54	11/21/18 07:27	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-1,2,3,4,6,7,8-HpCDD	*53*		*23 - 140*	*11/14/18 13:54*	*11/21/18 07:27*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*52*		*28 - 143*	*11/14/18 13:54*	*11/21/18 07:27*	*1*

Client Sample ID: J5-SC-95to110-102218
Date Collected: 10/22/18 17:20
Date Received: 10/24/18 14:10

Lab Sample ID: 580-81308-14
Matrix: Solid
Percent Solids: 64.4

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-1,2,3,4,7,8,9-HpCDF	64		26 - 138	11/14/18 13:54	11/21/18 07:27	1
13C-1,2,3,4,7,8-HxCDD	54		32 - 141	11/14/18 13:54	11/21/18 07:27	1
13C-1,2,3,4,7,8-HxCDF	65		26 - 152	11/14/18 13:54	11/21/18 07:27	1
13C-1,2,3,6,7,8-HxCDD	59		28 - 130	11/14/18 13:54	11/21/18 07:27	1
13C-1,2,3,6,7,8-HxCDF	67		26 - 123	11/14/18 13:54	11/21/18 07:27	1
13C-1,2,3,7,8,9-HxCDF	68		29 - 147	11/14/18 13:54	11/21/18 07:27	1
13C-1,2,3,7,8-PeCDD	52		25 - 181	11/14/18 13:54	11/21/18 07:27	1
13C-1,2,3,7,8-PeCDF	61		24 - 185	11/14/18 13:54	11/21/18 07:27	1
13C-2,3,4,6,7,8-HxCDF	75		28 - 136	11/14/18 13:54	11/21/18 07:27	1
13C-2,3,4,7,8-PeCDF	51		21 - 178	11/14/18 13:54	11/21/18 07:27	1
13C-2,3,7,8-TCDD	63		25 - 164	11/14/18 13:54	11/21/18 07:27	1
13C-2,3,7,8-TCDF	68		24 - 169	11/14/18 13:54	11/21/18 07:27	1
13C-OCDD	37		17 - 157	11/14/18 13:54	11/21/18 07:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
37Cl4-2,3,7,8-TCDD	100		35 - 197	11/14/18 13:54	11/21/18 07:27	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.1		0.25	0.050	mg/Kg	☼	11/09/18 17:03	11/12/18 18:44	5
Cadmium	0.098	J	0.20	0.038	mg/Kg	☼	11/09/18 17:03	11/12/18 18:44	5
Copper	32		0.50	0.11	mg/Kg	☼	11/09/18 17:03	11/12/18 18:44	5
Lead	8.5		0.25	0.024	mg/Kg	☼	11/09/18 17:03	11/12/18 18:44	5
Zinc	68		2.5	0.80	mg/Kg	☼	11/09/18 17:03	11/12/18 18:44	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.057		0.040	0.012	mg/Kg	☼	11/08/18 11:47	11/09/18 18:29	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	7800		2000	44	mg/Kg			11/02/18 14:34	1
Total Solids	64.4		0.1	0.1	%			11/01/18 18:46	1
Percent Moisture	34	H	0.10	0.10	%			11/05/18 15:52	1
Percent Solids	66	H	0.10	0.10	%			11/05/18 15:52	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Clay	11.7				%			11/05/18 15:52	1
Coarse Sand	0.0				%			11/05/18 15:52	1
Fine Sand	36.1				%			11/05/18 15:52	1
Gravel	0.0				%			11/05/18 15:52	1
Medium Sand	0.1				%			11/05/18 15:52	1
Silt	52.1				%			11/05/18 15:52	1

Method: D854 - Specific Gravity

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Density	1.78		0.0100	0.0100	g/cm3			11/08/18 00:00	1
Specific Gravity	1.79		0.0100	0.0100	NONE			11/08/18 00:00	1

Client Sample ID: J5-SC-10to20-102218

Date Collected: 10/22/18 16:10
Date Received: 10/24/18 14:10

Lab Sample ID: 580-81308-15

Matrix: Solid
Percent Solids: 44.8

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		21	3.5	ug/Kg	☼	11/10/18 09:55	11/12/18 21:25	1
PCB-1221	ND		21	9.9	ug/Kg	☼	11/10/18 09:55	11/12/18 21:25	1
PCB-1232	ND		21	4.9	ug/Kg	☼	11/10/18 09:55	11/12/18 21:25	1
PCB-1242	ND		21	5.1	ug/Kg	☼	11/10/18 09:55	11/12/18 21:25	1
PCB-1248	ND		21	1.7	ug/Kg	☼	11/10/18 09:55	11/12/18 21:25	1
PCB-1254	**1000**		21	8.2	ug/Kg	☼	11/10/18 09:55	11/12/18 21:25	1
PCB-1260	ND		21	3.5	ug/Kg	☼	11/10/18 09:55	11/12/18 21:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*68*		*54 - 142*	*11/10/18 09:55*	*11/12/18 21:25*	*1*
Tetrachloro-m-xylene	*51*	*X*	*58 - 122*	*11/10/18 09:55*	*11/12/18 21:25*	*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)	**620**		530	130	mg/Kg	☼	11/09/18 09:01	11/15/18 15:44	5
Motor Oil (>C24-C36)	**2100**		530	190	mg/Kg	☼	11/09/18 09:01	11/15/18 15:44	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*98*		*50 - 150*	*11/09/18 09:01*	*11/15/18 15:44*	*5*

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**	**B G**	0.0069	0.0069	ug/Kg	☼	11/12/18 13:18	11/19/18 23:55	1
1,2,3,4,6,7,8-HpCDF	**0.18**	**B**	0.0055	0.0031	ug/Kg	☼	11/12/18 13:18	11/19/18 23:55	1
1,2,3,4,7,8,9-HpCDF	ND		0.0055	0.0046	ug/Kg	☼	11/12/18 13:18	11/19/18 23:55	1
1,2,3,4,7,8-HxCDD	**0.0041**	**J B**	0.0055	0.00089	ug/Kg	☼	11/12/18 13:18	11/19/18 23:55	1
1,2,3,4,7,8-HxCDF	**0.017**		0.0055	0.0018	ug/Kg	☼	11/12/18 13:18	11/19/18 23:55	1
1,2,3,6,7,8-HxCDD	**0.027**	**B**	0.0055	0.00084	ug/Kg	☼	11/12/18 13:18	11/19/18 23:55	1
1,2,3,6,7,8-HxCDF	**0.0095**		0.0055	0.0015	ug/Kg	☼	11/12/18 13:18	11/19/18 23:55	1
1,2,3,7,8,9-HxCDD	**0.0092**		0.0055	0.00077	ug/Kg	☼	11/12/18 13:18	11/19/18 23:55	1
1,2,3,7,8,9-HxCDF	ND		0.0055	0.0010	ug/Kg	☼	11/12/18 13:18	11/19/18 23:55	1
1,2,3,7,8-PeCDD	**0.0023**	**J**	0.0055	0.00046	ug/Kg	☼	11/12/18 13:18	11/19/18 23:55	1
1,2,3,7,8-PeCDF	**0.0036**	**J**	0.0055	0.00060	ug/Kg	☼	11/12/18 13:18	11/19/18 23:55	1
2,3,4,6,7,8-HxCDF	**0.0036**	**J**	0.0055	0.0011	ug/Kg	☼	11/12/18 13:18	11/19/18 23:55	1
2,3,4,7,8-PeCDF	**0.0032**	**J**	0.0055	0.00057	ug/Kg	☼	11/12/18 13:18	11/19/18 23:55	1
2,3,7,8-TCDD	**0.00088**	**J q**	0.0011	0.00015	ug/Kg	☼	11/12/18 13:18	11/19/18 23:55	1
OCDD	**6.0**	**E B**	0.011	0.0050	ug/Kg	☼	11/12/18 13:18	11/19/18 23:55	1
OCDF	**0.65**		0.011	0.00045	ug/Kg	☼	11/12/18 13:18	11/19/18 23:55	1
Total HpCDD	**1.2**	**B G**	0.0069	0.0069	ug/Kg	☼	11/12/18 13:18	11/19/18 23:55	1
Total HpCDF	**0.77**	**B**	0.0055	0.0038	ug/Kg	☼	11/12/18 13:18	11/19/18 23:55	1
Total HxCDD	**0.17**	**B**	0.0055	0.00083	ug/Kg	☼	11/12/18 13:18	11/19/18 23:55	1
Total HxCDF	**0.24**	**q**	0.0055	0.0013	ug/Kg	☼	11/12/18 13:18	11/19/18 23:55	1
Total PeCDD	**0.017**	**q**	0.0055	0.00046	ug/Kg	☼	11/12/18 13:18	11/19/18 23:55	1
Total PeCDF	**0.041**		0.0055	0.00059	ug/Kg	☼	11/12/18 13:18	11/19/18 23:55	1
Total TCDF	**0.022**	**B**	0.0011	0.00033	ug/Kg	☼	11/12/18 13:18	11/19/18 23:55	1
Total TCDD	**0.0071**	**q**	0.0011	0.00015	ug/Kg	☼	11/12/18 13:18	11/19/18 23:55	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-1,2,3,4,6,7,8-HpCDD	*55*		*23 - 140*	*11/12/18 13:18*	*11/19/18 23:55*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*46*		*28 - 143*	*11/12/18 13:18*	*11/19/18 23:55*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*45*		*26 - 138*	*11/12/18 13:18*	*11/19/18 23:55*	*1*

Client Sample ID: J5-SC-10to20-102218

Date Collected: 10/22/18 16:10
Date Received: 10/24/18 14:10

Lab Sample ID: 580-81308-15

Matrix: Solid
Percent Solids: 44.8

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-1,2,3,4,7,8-HxCDD	72		32 - 141	11/12/18 13:18	11/19/18 23:55	1
13C-1,2,3,4,7,8-HxCDF	71		26 - 152	11/12/18 13:18	11/19/18 23:55	1
13C-1,2,3,6,7,8-HxCDD	69		28 - 130	11/12/18 13:18	11/19/18 23:55	1
13C-1,2,3,6,7,8-HxCDF	75		26 - 123	11/12/18 13:18	11/19/18 23:55	1
13C-1,2,3,7,8,9-HxCDF	67		29 - 147	11/12/18 13:18	11/19/18 23:55	1
13C-1,2,3,7,8-PeCDD	57		25 - 181	11/12/18 13:18	11/19/18 23:55	1
13C-1,2,3,7,8-PeCDF	53		24 - 185	11/12/18 13:18	11/19/18 23:55	1
13C-2,3,4,6,7,8-HxCDF	71		28 - 136	11/12/18 13:18	11/19/18 23:55	1
13C-2,3,4,7,8-PeCDF	61		21 - 178	11/12/18 13:18	11/19/18 23:55	1
13C-2,3,7,8-TCDD	65		25 - 164	11/12/18 13:18	11/19/18 23:55	1
13C-2,3,7,8-TCDF	58		24 - 169	11/12/18 13:18	11/19/18 23:55	1
13C-OCDD	67		17 - 157	11/12/18 13:18	11/19/18 23:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
37Cl4-2,3,7,8-TCDD	110		35 - 197	11/12/18 13:18	11/19/18 23:55	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	0.0050	B	0.0011	0.00022	ug/Kg	☼	11/12/18 13:18	11/20/18 20:22	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-2,3,7,8-TCDF	66		24 - 169	11/12/18 13:18	11/20/18 20:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
37Cl4-2,3,7,8-TCDD	89		35 - 197	11/12/18 13:18	11/20/18 20:22	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	8.8		0.54	0.11	mg/Kg	☼	11/09/18 17:03	11/12/18 18:48	5
Cadmium	0.96		0.43	0.083	mg/Kg	☼	11/09/18 17:03	11/12/18 18:48	5
Copper	130		1.1	0.24	mg/Kg	☼	11/09/18 17:03	11/12/18 18:48	5
Lead	86		0.54	0.052	mg/Kg	☼	11/09/18 17:03	11/12/18 18:48	5
Zinc	360		5.4	1.7	mg/Kg	☼	11/09/18 17:03	11/12/18 18:48	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.44		0.041	0.012	mg/Kg	☼	11/08/18 11:47	11/09/18 18:31	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	32000		2000	44	mg/Kg			11/02/18 14:39	1
Total Solids	44.8		0.1	0.1	%			11/01/18 18:46	1
Percent Moisture	53	H	0.10	0.10	%			11/05/18 15:52	1
Percent Solids	47	H	0.10	0.10	%			11/05/18 15:52	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Clay	28.1				%			11/05/18 15:52	1
Coarse Sand	0.0				%			11/05/18 15:52	1
Fine Sand	11.5				%			11/05/18 15:52	1
Gravel	0.0				%			11/05/18 15:52	1
Medium Sand	0.6				%			11/05/18 15:52	1

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

TestAmerica Job ID: 580-81308-1

Client Sample ID: J5-SC-10to20-102218
Date Collected: 10/22/18 16:10
Date Received: 10/24/18 14:10

Lab Sample ID: 580-81308-15
Matrix: Solid
Percent Solids: 44.8

Method: D7928/D6913 - ASTM D7928/D6913 (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silt	59.8				%			11/05/18 15:52	1

Method: D854 - Specific Gravity

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Density	1.40		0.0100	0.0100	g/cm3			11/08/18 00:00	1
Specific Gravity	1.41		0.0100	0.0100	NONE			11/08/18 00:00	1

Client Sample ID: J6-SC-60to80-102218

Date Collected: 10/22/18 19:00
Date Received: 10/24/18 14:10

Lab Sample ID: 580-81308-16

Matrix: Solid
Percent Solids: 60.2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		16	2.7	ug/Kg	☼	11/10/18 09:55	11/12/18 21:42	1
PCB-1221	ND		16	7.5	ug/Kg	☼	11/10/18 09:55	11/12/18 21:42	1
PCB-1232	ND		16	3.7	ug/Kg	☼	11/10/18 09:55	11/12/18 21:42	1
PCB-1242	ND		16	3.9	ug/Kg	☼	11/10/18 09:55	11/12/18 21:42	1
PCB-1248	ND		16	1.3	ug/Kg	☼	11/10/18 09:55	11/12/18 21:42	1
PCB-1254	**180**		16	6.2	ug/Kg	☼	11/10/18 09:55	11/12/18 21:42	1
PCB-1260	ND		16	2.7	ug/Kg	☼	11/10/18 09:55	11/12/18 21:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*76*		*54 - 142*	*11/10/18 09:55*	*11/12/18 21:42*	*1*
Tetrachloro-m-xylene	*47*	*X*	*58 - 122*	*11/10/18 09:55*	*11/12/18 21:42*	*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)	**340**	**J**	400	99	mg/Kg	☼	11/09/18 09:01	11/15/18 16:06	5
Motor Oil (>C24-C36)	**930**		400	140	mg/Kg	☼	11/09/18 09:01	11/15/18 16:06	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*94*		*50 - 150*	*11/09/18 09:01*	*11/15/18 16:06*	*5*

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	**0.21**	**B**	0.0041	0.0026	ug/Kg	☼	11/12/18 13:18	11/20/18 00:43	1
1,2,3,4,6,7,8-HpCDF	**0.066**	**B**	0.0041	0.0013	ug/Kg	☼	11/12/18 13:18	11/20/18 00:43	1
1,2,3,4,7,8,9-HpCDF	**0.0038**	**J**	0.0041	0.0018	ug/Kg	☼	11/12/18 13:18	11/20/18 00:43	1
1,2,3,4,7,8-HxCDD	**0.0021**	**J B q**	0.0041	0.00056	ug/Kg	☼	11/12/18 13:18	11/20/18 00:43	1
1,2,3,4,7,8-HxCDF	**0.0057**		0.0041	0.0012	ug/Kg	☼	11/12/18 13:18	11/20/18 00:43	1
1,2,3,6,7,8-HxCDD	**0.011**	**B**	0.0041	0.00052	ug/Kg	☼	11/12/18 13:18	11/20/18 00:43	1
1,2,3,6,7,8-HxCDF	**0.0048**		0.0041	0.0011	ug/Kg	☼	11/12/18 13:18	11/20/18 00:43	1
1,2,3,7,8,9-HxCDD	**0.0041**		0.0041	0.00048	ug/Kg	☼	11/12/18 13:18	11/20/18 00:43	1
1,2,3,7,8,9-HxCDF	ND		0.0041	0.00073	ug/Kg	☼	11/12/18 13:18	11/20/18 00:43	1
1,2,3,7,8-PeCDD	**0.0011**	**J q**	0.0041	0.00048	ug/Kg	☼	11/12/18 13:18	11/20/18 00:43	1
1,2,3,7,8-PeCDF	ND		0.0041	0.00047	ug/Kg	☼	11/12/18 13:18	11/20/18 00:43	1
2,3,4,6,7,8-HxCDF	ND		0.0041	0.00070	ug/Kg	☼	11/12/18 13:18	11/20/18 00:43	1
2,3,4,7,8-PeCDF	**0.0011**	**J**	0.0041	0.00047	ug/Kg	☼	11/12/18 13:18	11/20/18 00:43	1
2,3,7,8-TCDD	**0.00084**		0.00082	0.00038	ug/Kg	☼	11/12/18 13:18	11/20/18 00:43	1
OCDD	**2.2**	**B**	0.0082	0.0022	ug/Kg	☼	11/12/18 13:18	11/20/18 00:43	1
OCDF	**0.20**		0.0082	0.00057	ug/Kg	☼	11/12/18 13:18	11/20/18 00:43	1
Total HpCDD	**0.43**	**B**	0.0041	0.0026	ug/Kg	☼	11/12/18 13:18	11/20/18 00:43	1
Total HpCDF	**0.31**	**B**	0.0041	0.0016	ug/Kg	☼	11/12/18 13:18	11/20/18 00:43	1
Total HxCDD	**0.080**	**B q**	0.0041	0.00052	ug/Kg	☼	11/12/18 13:18	11/20/18 00:43	1
Total HxCDF	**0.11**		0.0041	0.00094	ug/Kg	☼	11/12/18 13:18	11/20/18 00:43	1
Total PeCDD	**0.0092**	**q**	0.0041	0.00048	ug/Kg	☼	11/12/18 13:18	11/20/18 00:43	1
Total PeCDF	**0.021**	**q**	0.0041	0.00047	ug/Kg	☼	11/12/18 13:18	11/20/18 00:43	1
Total TCDF	**0.010**	**q B**	0.00082	0.00047	ug/Kg	☼	11/12/18 13:18	11/20/18 00:43	1
Total TCDD	**0.0038**	**q**	0.00082	0.00038	ug/Kg	☼	11/12/18 13:18	11/20/18 00:43	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-1,2,3,4,6,7,8-HpCDD	*53*		*23 - 140*	*11/12/18 13:18*	*11/20/18 00:43*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*48*		*28 - 143*	*11/12/18 13:18*	*11/20/18 00:43*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*47*		*26 - 138*	*11/12/18 13:18*	*11/20/18 00:43*	*1*

Client Sample ID: J6-SC-60to80-102218
Date Collected: 10/22/18 19:00
Date Received: 10/24/18 14:10

Lab Sample ID: 580-81308-16
Matrix: Solid
Percent Solids: 60.2

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-1,2,3,4,7,8-HxCDD	69		32 - 141	11/12/18 13:18	11/20/18 00:43	1
13C-1,2,3,4,7,8-HxCDF	74		26 - 152	11/12/18 13:18	11/20/18 00:43	1
13C-1,2,3,6,7,8-HxCDD	69		28 - 130	11/12/18 13:18	11/20/18 00:43	1
13C-1,2,3,6,7,8-HxCDF	66		26 - 123	11/12/18 13:18	11/20/18 00:43	1
13C-1,2,3,7,8,9-HxCDF	64		29 - 147	11/12/18 13:18	11/20/18 00:43	1
13C-1,2,3,7,8-PeCDD	70		25 - 181	11/12/18 13:18	11/20/18 00:43	1
13C-1,2,3,7,8-PeCDF	68		24 - 185	11/12/18 13:18	11/20/18 00:43	1
13C-2,3,4,6,7,8-HxCDF	72		28 - 136	11/12/18 13:18	11/20/18 00:43	1
13C-2,3,4,7,8-PeCDF	68		21 - 178	11/12/18 13:18	11/20/18 00:43	1
13C-2,3,7,8-TCDD	62		25 - 164	11/12/18 13:18	11/20/18 00:43	1
13C-2,3,7,8-TCDF	57		24 - 169	11/12/18 13:18	11/20/18 00:43	1
13C-OCDD	56		17 - 157	11/12/18 13:18	11/20/18 00:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
37Cl4-2,3,7,8-TCDD	101		35 - 197	11/12/18 13:18	11/20/18 00:43	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	0.00087	B	0.00082	0.00016	ug/Kg	☼	11/12/18 13:18	11/20/18 21:00	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-2,3,7,8-TCDF	71		24 - 169	11/12/18 13:18	11/20/18 21:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
37Cl4-2,3,7,8-TCDD	91		35 - 197	11/12/18 13:18	11/20/18 21:00	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	5.9		0.32	0.064	mg/Kg	☼	11/09/18 17:03	11/12/18 18:53	5
Cadmium	0.32		0.25	0.049	mg/Kg	☼	11/09/18 17:03	11/12/18 18:53	5
Copper	74		0.64	0.14	mg/Kg	☼	11/09/18 17:03	11/12/18 18:53	5
Lead	62		0.32	0.031	mg/Kg	☼	11/09/18 17:03	11/12/18 18:53	5
Zinc	200		3.2	1.0	mg/Kg	☼	11/09/18 17:03	11/12/18 18:53	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.34		0.040	0.012	mg/Kg	☼	11/09/18 11:42	11/09/18 19:12	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	14000		2000	44	mg/Kg			11/02/18 14:44	1
Total Solids	60.2		0.1	0.1	%			11/01/18 18:46	1
Percent Moisture	39	H	0.10	0.10	%			11/05/18 15:52	1
Percent Solids	61	H	0.10	0.10	%			11/05/18 15:52	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Clay	20.9				%			11/05/18 15:52	1
Coarse Sand	0.0				%			11/05/18 15:52	1
Fine Sand	26.2				%			11/05/18 15:52	1
Gravel	0.0				%			11/05/18 15:52	1
Medium Sand	0.4				%			11/05/18 15:52	1

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

TestAmerica Job ID: 580-81308-1

Client Sample ID: J6-SC-60to80-102218
Date Collected: 10/22/18 19:00
Date Received: 10/24/18 14:10

Lab Sample ID: 580-81308-16
Matrix: Solid
Percent Solids: 60.2

Method: D7928/D6913 - ASTM D7928/D6913 (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silt	52.5				%			11/05/18 15:52	1

Method: D854 - Specific Gravity

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Density	1.58		0.0100	0.0100	g/cm3			11/08/18 00:00	1
Specific Gravity	1.58		0.0100	0.0100	NONE			11/08/18 00:00	1

Client Sample ID: J6-SC-80to96-102218

Date Collected: 10/22/18 19:30
Date Received: 10/24/18 14:10

Lab Sample ID: 580-81308-17

Matrix: Solid
Percent Solids: 65.6

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		15	2.5	ug/Kg	☼	11/10/18 09:55	11/12/18 21:58	1
PCB-1221	ND		15	6.9	ug/Kg	☼	11/10/18 09:55	11/12/18 21:58	1
PCB-1232	ND		15	3.4	ug/Kg	☼	11/10/18 09:55	11/12/18 21:58	1
PCB-1242	ND		15	3.6	ug/Kg	☼	11/10/18 09:55	11/12/18 21:58	1
PCB-1248	ND		15	1.2	ug/Kg	☼	11/10/18 09:55	11/12/18 21:58	1
PCB-1254	**29**		15	5.8	ug/Kg	☼	11/10/18 09:55	11/12/18 21:58	1
PCB-1260	ND		15	2.5	ug/Kg	☼	11/10/18 09:55	11/12/18 21:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*92*		*54 - 142*	*11/10/18 09:55*	*11/12/18 21:58*	*1*
Tetrachloro-m-xylene	*65*		*58 - 122*	*11/10/18 09:55*	*11/12/18 21:58*	*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)	**37**	**J**	72	18	mg/Kg	☼	11/09/18 09:01	11/15/18 16:28	1
Motor Oil (>C24-C36)	**150**		72	25	mg/Kg	☼	11/09/18 09:01	11/15/18 16:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*93*		*50 - 150*	*11/09/18 09:01*	*11/15/18 16:28*	*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	**0.022**	**B**	0.0037	0.00024	ug/Kg	☼	11/14/18 13:54	11/21/18 08:13	1
1,2,3,4,6,7,8-HpCDF	**0.0075**	**B q**	0.0037	0.00017	ug/Kg	☼	11/14/18 13:54	11/21/18 08:13	1
1,2,3,4,7,8,9-HpCDF	**0.00082**	**J B**	0.0037	0.00020	ug/Kg	☼	11/14/18 13:54	11/21/18 08:13	1
1,2,3,4,7,8-HxCDD	**0.00025**	**J B q**	0.0037	0.000066	ug/Kg	☼	11/14/18 13:54	11/21/18 08:13	1
1,2,3,4,7,8-HxCDF	**0.00071**	**J B q**	0.0037	0.00012	ug/Kg	☼	11/14/18 13:54	11/21/18 08:13	1
1,2,3,6,7,8-HxCDD	**0.0011**	**J B**	0.0037	0.000067	ug/Kg	☼	11/14/18 13:54	11/21/18 08:13	1
1,2,3,6,7,8-HxCDF	**0.00047**	**J q**	0.0037	0.00011	ug/Kg	☼	11/14/18 13:54	11/21/18 08:13	1
1,2,3,7,8,9-HxCDD	**0.00062**	**J B q**	0.0037	0.000056	ug/Kg	☼	11/14/18 13:54	11/21/18 08:13	1
1,2,3,7,8,9-HxCDF	**0.00020**	**J B**	0.0037	0.000093	ug/Kg	☼	11/14/18 13:54	11/21/18 08:13	1
1,2,3,7,8-PeCDD	ND		0.0037	0.000079	ug/Kg	☼	11/14/18 13:54	11/21/18 08:13	1
1,2,3,7,8-PeCDF	ND		0.0037	0.000075	ug/Kg	☼	11/14/18 13:54	11/21/18 08:13	1
2,3,4,6,7,8-HxCDF	**0.00026**	**J B q**	0.0037	0.000088	ug/Kg	☼	11/14/18 13:54	11/21/18 08:13	1
2,3,4,7,8-PeCDF	ND		0.0037	0.000082	ug/Kg	☼	11/14/18 13:54	11/21/18 08:13	1
2,3,7,8-TCDD	ND		0.00075	0.000087	ug/Kg	☼	11/14/18 13:54	11/21/18 08:13	1
2,3,7,8-TCDF	**0.00018**	**J**	0.00075	0.000053	ug/Kg	☼	11/14/18 13:54	11/21/18 08:13	1
OCDD	**0.26**	**B**	0.0075	0.00033	ug/Kg	☼	11/14/18 13:54	11/21/18 08:13	1
OCDF	**0.029**	**B**	0.0075	0.00021	ug/Kg	☼	11/14/18 13:54	11/21/18 08:13	1
Total HpCDD	**0.050**	**B**	0.0037	0.00024	ug/Kg	☼	11/14/18 13:54	11/21/18 08:13	1
Total HpCDF	**0.032**	**B q**	0.0037	0.00019	ug/Kg	☼	11/14/18 13:54	11/21/18 08:13	1
Total HxCDD	**0.0081**	**B q**	0.0037	0.000063	ug/Kg	☼	11/14/18 13:54	11/21/18 08:13	1
Total HxCDF	**0.0093**	**B q**	0.0037	0.00010	ug/Kg	☼	11/14/18 13:54	11/21/18 08:13	1
Total PeCDD	**0.00048**	**J B q**	0.0037	0.000079	ug/Kg	☼	11/14/18 13:54	11/21/18 08:13	1
Total PeCDF	**0.00081**	**J q**	0.0037	0.000078	ug/Kg	☼	11/14/18 13:54	11/21/18 08:13	1
Total TCDF	**0.00018**	**J**	0.00075	0.000053	ug/Kg	☼	11/14/18 13:54	11/21/18 08:13	1
Total TCDD	**0.00057**	**J**	0.00075	0.000087	ug/Kg	☼	11/14/18 13:54	11/21/18 08:13	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-1,2,3,4,6,7,8-HpCDD	*58*		*23 - 140*	*11/14/18 13:54*	*11/21/18 08:13*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*62*		*28 - 143*	*11/14/18 13:54*	*11/21/18 08:13*	*1*

Client Sample ID: J6-SC-80to96-102218

Date Collected: 10/22/18 19:30
Date Received: 10/24/18 14:10

Lab Sample ID: 580-81308-17

Matrix: Solid
Percent Solids: 65.6

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-1,2,3,4,7,8,9-HpCDF	69		26 - 138	11/14/18 13:54	11/21/18 08:13	1
13C-1,2,3,4,7,8-HxCDD	71		32 - 141	11/14/18 13:54	11/21/18 08:13	1
13C-1,2,3,4,7,8-HxCDF	80		26 - 152	11/14/18 13:54	11/21/18 08:13	1
13C-1,2,3,6,7,8-HxCDD	71		28 - 130	11/14/18 13:54	11/21/18 08:13	1
13C-1,2,3,6,7,8-HxCDF	81		26 - 123	11/14/18 13:54	11/21/18 08:13	1
13C-1,2,3,7,8,9-HxCDF	74		29 - 147	11/14/18 13:54	11/21/18 08:13	1
13C-1,2,3,7,8-PeCDD	54		25 - 181	11/14/18 13:54	11/21/18 08:13	1
13C-1,2,3,7,8-PeCDF	64		24 - 185	11/14/18 13:54	11/21/18 08:13	1
13C-2,3,4,6,7,8-HxCDF	82		28 - 136	11/14/18 13:54	11/21/18 08:13	1
13C-2,3,4,7,8-PeCDF	64		21 - 178	11/14/18 13:54	11/21/18 08:13	1
13C-2,3,7,8-TCDD	65		25 - 164	11/14/18 13:54	11/21/18 08:13	1
13C-2,3,7,8-TCDF	72		24 - 169	11/14/18 13:54	11/21/18 08:13	1
13C-OCDD	41		17 - 157	11/14/18 13:54	11/21/18 08:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
37Cl4-2,3,7,8-TCDD	99		35 - 197	11/14/18 13:54	11/21/18 08:13	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.2		0.23	0.046	mg/Kg	☼	11/09/18 17:04	11/12/18 18:57	5
Cadmium	0.11	J	0.19	0.036	mg/Kg	☼	11/09/18 17:04	11/12/18 18:57	5
Copper	34		0.46	0.10	mg/Kg	☼	11/09/18 17:04	11/12/18 18:57	5
Lead	12		0.23	0.022	mg/Kg	☼	11/09/18 17:04	11/12/18 18:57	5
Zinc	76		2.3	0.75	mg/Kg	☼	11/09/18 17:04	11/12/18 18:57	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.081		0.033	0.010	mg/Kg	☼	11/09/18 11:42	11/09/18 19:15	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	7500		2000	44	mg/Kg			11/02/18 14:48	1
Total Solids	65.6		0.1	0.1	%			11/01/18 18:46	1
Percent Moisture	32	H	0.10	0.10	%			11/05/18 15:52	1
Percent Solids	68	H	0.10	0.10	%			11/05/18 15:52	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Clay	11.6				%			11/05/18 15:52	1
Coarse Sand	0.0				%			11/05/18 15:52	1
Fine Sand	31.0				%			11/05/18 15:52	1
Gravel	0.0				%			11/05/18 15:52	1
Medium Sand	0.2				%			11/05/18 15:52	1
Silt	57.2				%			11/05/18 15:52	1

Method: D854 - Specific Gravity

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Density	1.79		0.0100	0.0100	g/cm3			11/08/18 00:00	1
Specific Gravity	1.80		0.0100	0.0100	NONE			11/08/18 00:00	1

Client Sample ID: J6-SC-111to121-102218

Date Collected: 10/22/18 19:50
Date Received: 10/24/18 14:10

Lab Sample ID: 580-81308-18

Matrix: Solid
Percent Solids: 72.4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		12	2.1	ug/Kg	☼	11/10/18 09:55	11/12/18 22:15	1
PCB-1221	ND		12	5.8	ug/Kg	☼	11/10/18 09:55	11/12/18 22:15	1
PCB-1232	ND		12	2.8	ug/Kg	☼	11/10/18 09:55	11/12/18 22:15	1
PCB-1242	ND		12	3.0	ug/Kg	☼	11/10/18 09:55	11/12/18 22:15	1
PCB-1248	ND		12	0.97	ug/Kg	☼	11/10/18 09:55	11/12/18 22:15	1
PCB-1254	ND		12	4.8	ug/Kg	☼	11/10/18 09:55	11/12/18 22:15	1
PCB-1260	ND		12	2.1	ug/Kg	☼	11/10/18 09:55	11/12/18 22:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*99*		*54 - 142*	*11/10/18 09:55*	*11/12/18 22:15*	*1*
Tetrachloro-m-xylene	*70*		*58 - 122*	*11/10/18 09:55*	*11/12/18 22:15*	*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)	ND		58	14	mg/Kg	☼	11/09/18 09:01	11/15/18 17:12	1
Motor Oil (>C24-C36)	**57**	**J**	58	20	mg/Kg	☼	11/09/18 09:01	11/15/18 17:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*90*		*50 - 150*	*11/09/18 09:01*	*11/15/18 17:12*	*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	**0.0030**	**J B**	0.0035	0.00010	ug/Kg	☼	11/14/18 13:54	11/21/18 08:59	1
1,2,3,4,6,7,8-HpCDF	**0.00095**	**J B**	0.0035	0.000071	ug/Kg	☼	11/14/18 13:54	11/21/18 08:59	1
1,2,3,4,7,8,9-HpCDF	**0.00051**	**J B**	0.0035	0.000091	ug/Kg	☼	11/14/18 13:54	11/21/18 08:59	1
1,2,3,4,7,8-HxCDD	**0.00019**	**J B q**	0.0035	0.000068	ug/Kg	☼	11/14/18 13:54	11/21/18 08:59	1
1,2,3,4,7,8-HxCDF	**0.00012**	**J B q**	0.0035	0.000041	ug/Kg	☼	11/14/18 13:54	11/21/18 08:59	1
1,2,3,6,7,8-HxCDD	ND		0.0035	0.000065	ug/Kg	☼	11/14/18 13:54	11/21/18 08:59	1
1,2,3,6,7,8-HxCDF	**0.000093**	**J q**	0.0035	0.000037	ug/Kg	☼	11/14/18 13:54	11/21/18 08:59	1
1,2,3,7,8,9-HxCDD	**0.00022**	**J B**	0.0035	0.000056	ug/Kg	☼	11/14/18 13:54	11/21/18 08:59	1
1,2,3,7,8,9-HxCDF	**0.00024**	**J B q**	0.0035	0.000033	ug/Kg	☼	11/14/18 13:54	11/21/18 08:59	1
1,2,3,7,8-PeCDD	ND		0.0035	0.000055	ug/Kg	☼	11/14/18 13:54	11/21/18 08:59	1
1,2,3,7,8-PeCDF	ND		0.0035	0.000063	ug/Kg	☼	11/14/18 13:54	11/21/18 08:59	1
2,3,4,6,7,8-HxCDF	ND		0.0035	0.000029	ug/Kg	☼	11/14/18 13:54	11/21/18 08:59	1
2,3,4,7,8-PeCDF	ND		0.0035	0.000071	ug/Kg	☼	11/14/18 13:54	11/21/18 08:59	1
2,3,7,8-TCDD	ND		0.00069	0.000087	ug/Kg	☼	11/14/18 13:54	11/21/18 08:59	1
2,3,7,8-TCDF	ND		0.00069	0.000035	ug/Kg	☼	11/14/18 13:54	11/21/18 08:59	1
OCDD	**0.040**	**B**	0.0069	0.00015	ug/Kg	☼	11/14/18 13:54	11/21/18 08:59	1
OCDF	**0.0028**	**J B q**	0.0069	0.000072	ug/Kg	☼	11/14/18 13:54	11/21/18 08:59	1
Total HpCDD	**0.0073**	**B**	0.0035	0.00010	ug/Kg	☼	11/14/18 13:54	11/21/18 08:59	1
Total HpCDF	**0.0032**	**J B**	0.0035	0.000081	ug/Kg	☼	11/14/18 13:54	11/21/18 08:59	1
Total HxCDD	**0.00095**	**J B q**	0.0035	0.000063	ug/Kg	☼	11/14/18 13:54	11/21/18 08:59	1
Total HxCDF	**0.0010**	**J B q**	0.0035	0.000035	ug/Kg	☼	11/14/18 13:54	11/21/18 08:59	1
Total PeCDD	**0.000094**	**J B q**	0.0035	0.000055	ug/Kg	☼	11/14/18 13:54	11/21/18 08:59	1
Total PeCDF	ND		0.0035	0.000071	ug/Kg	☼	11/14/18 13:54	11/21/18 08:59	1
Total TCDF	ND		0.00069	0.000035	ug/Kg	☼	11/14/18 13:54	11/21/18 08:59	1
Total TCDD	**0.00035**	**J q**	0.00069	0.000087	ug/Kg	☼	11/14/18 13:54	11/21/18 08:59	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-1,2,3,4,6,7,8-HpCDD	*65*		*23 - 140*	*11/14/18 13:54*	*11/21/18 08:59*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*65*		*28 - 143*	*11/14/18 13:54*	*11/21/18 08:59*	*1*

Client Sample ID: J6-SC-111to121-102218
Date Collected: 10/22/18 19:50
Date Received: 10/24/18 14:10

Lab Sample ID: 580-81308-18
Matrix: Solid
Percent Solids: 72.4

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-1,2,3,4,7,8,9-HpCDF	73		26 - 138	11/14/18 13:54	11/21/18 08:59	1
13C-1,2,3,4,7,8-HxCDD	72		32 - 141	11/14/18 13:54	11/21/18 08:59	1
13C-1,2,3,4,7,8-HxCDF	85		26 - 152	11/14/18 13:54	11/21/18 08:59	1
13C-1,2,3,6,7,8-HxCDD	77		28 - 130	11/14/18 13:54	11/21/18 08:59	1
13C-1,2,3,6,7,8-HxCDF	87		26 - 123	11/14/18 13:54	11/21/18 08:59	1
13C-1,2,3,7,8,9-HxCDF	77		29 - 147	11/14/18 13:54	11/21/18 08:59	1
13C-1,2,3,7,8-PeCDD	60		25 - 181	11/14/18 13:54	11/21/18 08:59	1
13C-1,2,3,7,8-PeCDF	68		24 - 185	11/14/18 13:54	11/21/18 08:59	1
13C-2,3,4,6,7,8-HxCDF	89		28 - 136	11/14/18 13:54	11/21/18 08:59	1
13C-2,3,4,7,8-PeCDF	67		21 - 178	11/14/18 13:54	11/21/18 08:59	1
13C-2,3,7,8-TCDD	68		25 - 164	11/14/18 13:54	11/21/18 08:59	1
13C-2,3,7,8-TCDF	74		24 - 169	11/14/18 13:54	11/21/18 08:59	1
13C-OCDD	45		17 - 157	11/14/18 13:54	11/21/18 08:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
37Cl4-2,3,7,8-TCDD	104		35 - 197	11/14/18 13:54	11/21/18 08:59	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3.2		0.19	0.039	mg/Kg	☼	11/09/18 17:04	11/12/18 19:01	5
Cadmium	0.067	J	0.16	0.030	mg/Kg	☼	11/09/18 17:04	11/12/18 19:01	5
Copper	25		0.39	0.085	mg/Kg	☼	11/09/18 17:04	11/12/18 19:01	5
Lead	5.0		0.19	0.019	mg/Kg	☼	11/09/18 17:04	11/12/18 19:01	5
Zinc	55		1.9	0.62	mg/Kg	☼	11/09/18 17:04	11/12/18 19:01	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.046		0.026	0.0077	mg/Kg	☼	11/09/18 11:42	11/09/18 19:17	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	3000		2000	44	mg/Kg			11/02/18 14:53	1
Total Solids	72.4		0.1	0.1	%			11/01/18 18:46	1
Percent Moisture	27	H	0.10	0.10	%			11/05/18 15:52	1
Percent Solids	73	H	0.10	0.10	%			11/05/18 15:52	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Clay	6.7				%			11/05/18 15:52	1
Coarse Sand	0.0				%			11/05/18 15:52	1
Fine Sand	63.8				%			11/05/18 15:52	1
Gravel	0.0				%			11/05/18 15:52	1
Medium Sand	0.4				%			11/05/18 15:52	1
Silt	29.1				%			11/05/18 15:52	1

Method: D854 - Specific Gravity

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Density	1.82		0.0100	0.0100	g/cm3			11/08/18 00:00	1
Specific Gravity	1.82		0.0100	0.0100	NONE			11/08/18 00:00	1

Client Sample ID: J6-SC-40to60-102218

Date Collected: 10/22/18 18:50
Date Received: 10/24/18 14:10

Lab Sample ID: 580-81308-19

Matrix: Solid
Percent Solids: 53.7

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		17	2.8	ug/Kg	☼	11/10/18 09:55	11/12/18 22:32	1
PCB-1221	ND		17	7.9	ug/Kg	☼	11/10/18 09:55	11/12/18 22:32	1
PCB-1232	ND		17	3.9	ug/Kg	☼	11/10/18 09:55	11/12/18 22:32	1
PCB-1242	ND		17	4.1	ug/Kg	☼	11/10/18 09:55	11/12/18 22:32	1
PCB-1248	ND		17	1.3	ug/Kg	☼	11/10/18 09:55	11/12/18 22:32	1
PCB-1254	**460**		17	6.6	ug/Kg	☼	11/10/18 09:55	11/12/18 22:32	1
PCB-1260	ND		17	2.8	ug/Kg	☼	11/10/18 09:55	11/12/18 22:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*120*		*54 - 142*	*11/10/18 09:55*	*11/12/18 22:32*	*1*
Tetrachloro-m-xylene	*63*		*58 - 122*	*11/10/18 09:55*	*11/12/18 22:32*	*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)	**560**		430	110	mg/Kg	☼	11/09/18 09:01	11/15/18 17:34	5
Motor Oil (>C24-C36)	**1700**		430	150	mg/Kg	☼	11/09/18 09:01	11/15/18 17:34	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*93*		*50 - 150*	*11/09/18 09:01*	*11/15/18 17:34*	*5*

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	**0.53**	**G B**	0.0056	0.0056	ug/Kg	☼	11/12/18 13:18	11/20/18 01:30	1
1,2,3,4,6,7,8-HpCDF	**0.13**	**B**	0.0046	0.0020	ug/Kg	☼	11/12/18 13:18	11/20/18 01:30	1
1,2,3,4,7,8,9-HpCDF	**0.0079**		0.0046	0.0028	ug/Kg	☼	11/12/18 13:18	11/20/18 01:30	1
1,2,3,4,7,8-HxCDD	**0.0042**	**J B**	0.0046	0.00085	ug/Kg	☼	11/12/18 13:18	11/20/18 01:30	1
1,2,3,4,7,8-HxCDF	**0.011**		0.0046	0.0016	ug/Kg	☼	11/12/18 13:18	11/20/18 01:30	1
1,2,3,6,7,8-HxCDD	**0.027**	**B**	0.0046	0.00090	ug/Kg	☼	11/12/18 13:18	11/20/18 01:30	1
1,2,3,6,7,8-HxCDF	**0.0093**		0.0046	0.0014	ug/Kg	☼	11/12/18 13:18	11/20/18 01:30	1
1,2,3,7,8,9-HxCDD	**0.011**		0.0046	0.00077	ug/Kg	☼	11/12/18 13:18	11/20/18 01:30	1
1,2,3,7,8,9-HxCDF	ND		0.0046	0.00085	ug/Kg	☼	11/12/18 13:18	11/20/18 01:30	1
1,2,3,7,8-PeCDD	**0.0023**	**J**	0.0046	0.00039	ug/Kg	☼	11/12/18 13:18	11/20/18 01:30	1
1,2,3,7,8-PeCDF	**0.0029**	**J**	0.0046	0.00053	ug/Kg	☼	11/12/18 13:18	11/20/18 01:30	1
2,3,4,6,7,8-HxCDF	**0.0028**	**J**	0.0046	0.00091	ug/Kg	☼	11/12/18 13:18	11/20/18 01:30	1
2,3,4,7,8-PeCDF	**0.0029**	**J**	0.0046	0.00062	ug/Kg	☼	11/12/18 13:18	11/20/18 01:30	1
2,3,7,8-TCDD	**0.0013**		0.00093	0.00022	ug/Kg	☼	11/12/18 13:18	11/20/18 01:30	1
OCDD	**5.9**	**E B**	0.0093	0.0044	ug/Kg	☼	11/12/18 13:18	11/20/18 01:30	1
OCDF	**0.47**		0.0093	0.00056	ug/Kg	☼	11/12/18 13:18	11/20/18 01:30	1
Total HpCDD	**1.1**	**G B**	0.0056	0.0056	ug/Kg	☼	11/12/18 13:18	11/20/18 01:30	1
Total HpCDF	**0.54**	**B**	0.0046	0.0024	ug/Kg	☼	11/12/18 13:18	11/20/18 01:30	1
Total HxCDD	**0.16**	**B**	0.0046	0.00084	ug/Kg	☼	11/12/18 13:18	11/20/18 01:30	1
Total HxCDF	**0.20**		0.0046	0.0012	ug/Kg	☼	11/12/18 13:18	11/20/18 01:30	1
Total PeCDD	**0.012**	**q**	0.0046	0.00039	ug/Kg	☼	11/12/18 13:18	11/20/18 01:30	1
Total PeCDF	**0.044**	**q**	0.0046	0.00057	ug/Kg	☼	11/12/18 13:18	11/20/18 01:30	1
Total TCDF	**0.023**	**q B**	0.00093	0.00038	ug/Kg	☼	11/12/18 13:18	11/20/18 01:30	1
Total TCDD	**0.0086**	**q**	0.00093	0.00022	ug/Kg	☼	11/12/18 13:18	11/20/18 01:30	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-1,2,3,4,6,7,8-HpCDD	*78*		*23 - 140*	*11/12/18 13:18*	*11/20/18 01:30*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*75*		*28 - 143*	*11/12/18 13:18*	*11/20/18 01:30*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*70*		*26 - 138*	*11/12/18 13:18*	*11/20/18 01:30*	*1*

Client Sample ID: J6-SC-40to60-102218

Date Collected: 10/22/18 18:50
Date Received: 10/24/18 14:10

Lab Sample ID: 580-81308-19

Matrix: Solid
Percent Solids: 53.7

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-1,2,3,4,7,8-HxCDD	99		32 - 141	11/12/18 13:18	11/20/18 01:30	1
13C-1,2,3,4,7,8-HxCDF	101		26 - 152	11/12/18 13:18	11/20/18 01:30	1
13C-1,2,3,6,7,8-HxCDD	88		28 - 130	11/12/18 13:18	11/20/18 01:30	1
13C-1,2,3,6,7,8-HxCDF	102		26 - 123	11/12/18 13:18	11/20/18 01:30	1
13C-1,2,3,7,8,9-HxCDF	95		29 - 147	11/12/18 13:18	11/20/18 01:30	1
13C-1,2,3,7,8-PeCDD	84		25 - 181	11/12/18 13:18	11/20/18 01:30	1
13C-1,2,3,7,8-PeCDF	83		24 - 185	11/12/18 13:18	11/20/18 01:30	1
13C-2,3,4,6,7,8-HxCDF	101		28 - 136	11/12/18 13:18	11/20/18 01:30	1
13C-2,3,4,7,8-PeCDF	79		21 - 178	11/12/18 13:18	11/20/18 01:30	1
13C-2,3,7,8-TCDD	83		25 - 164	11/12/18 13:18	11/20/18 01:30	1
13C-2,3,7,8-TCDF	79		24 - 169	11/12/18 13:18	11/20/18 01:30	1
13C-OCDD	84		17 - 157	11/12/18 13:18	11/20/18 01:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
37Cl4-2,3,7,8-TCDD	107		35 - 197	11/12/18 13:18	11/20/18 01:30	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	0.0030	B	0.00093	0.00016	ug/Kg	☼	11/12/18 13:18	11/20/18 21:38	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-2,3,7,8-TCDF	88		24 - 169	11/12/18 13:18	11/20/18 21:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
37Cl4-2,3,7,8-TCDD	88		35 - 197	11/12/18 13:18	11/20/18 21:38	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	6.7		0.44	0.087	mg/Kg	☼	11/09/18 16:17	11/12/18 17:45	5
Cadmium	0.55		0.35	0.067	mg/Kg	☼	11/09/18 16:17	11/12/18 17:45	5
Copper	81		0.87	0.19	mg/Kg	☼	11/09/18 16:17	11/12/18 17:45	5
Lead	68		0.44	0.042	mg/Kg	☼	11/09/18 16:17	11/12/18 17:45	5
Zinc	290		4.4	1.4	mg/Kg	☼	11/09/18 16:17	11/12/18 17:45	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.58		0.050	0.015	mg/Kg	☼	11/09/18 11:42	11/09/18 19:19	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	31000		2000	44	mg/Kg			11/02/18 14:58	1
Total Solids	53.7		0.1	0.1	%			11/01/18 18:46	1
Percent Moisture	45	H	0.10	0.10	%			11/05/18 15:52	1
Percent Solids	55	H	0.10	0.10	%			11/05/18 15:52	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Clay	30.1				%			11/05/18 15:52	1
Coarse Sand	0.0				%			11/05/18 15:52	1
Fine Sand	8.6				%			11/05/18 15:52	1
Gravel	0.0				%			11/05/18 15:52	1
Medium Sand	0.4				%			11/05/18 15:52	1

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

TestAmerica Job ID: 580-81308-1

Client Sample ID: J6-SC-40to60-102218
Date Collected: 10/22/18 18:50
Date Received: 10/24/18 14:10

Lab Sample ID: 580-81308-19
Matrix: Solid
Percent Solids: 53.7

Method: D7928/D6913 - ASTM D7928/D6913 (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silt	61.0				%			11/05/18 15:52	1

Method: D854 - Specific Gravity

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Density	1.45		0.0100	0.0100	g/cm3			11/08/18 00:00	1
Specific Gravity	1.46		0.0100	0.0100	NONE			11/08/18 00:00	1

Client Sample ID: J6-SC-96to111-102218

Date Collected: 10/22/18 19:40
Date Received: 10/24/18 14:10

Lab Sample ID: 580-81308-20

Matrix: Solid
Percent Solids: 68.4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		14	2.3	ug/Kg	☼	11/10/18 09:55	11/12/18 22:48	1
PCB-1221	ND		14	6.5	ug/Kg	☼	11/10/18 09:55	11/12/18 22:48	1
PCB-1232	ND		14	3.2	ug/Kg	☼	11/10/18 09:55	11/12/18 22:48	1
PCB-1242	ND		14	3.3	ug/Kg	☼	11/10/18 09:55	11/12/18 22:48	1
PCB-1248	ND		14	1.1	ug/Kg	☼	11/10/18 09:55	11/12/18 22:48	1
PCB-1254	ND		14	5.4	ug/Kg	☼	11/10/18 09:55	11/12/18 22:48	1
PCB-1260	ND		14	2.3	ug/Kg	☼	11/10/18 09:55	11/12/18 22:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*90*		*54 - 142*	*11/10/18 09:55*	*11/12/18 22:48*	*1*
Tetrachloro-m-xylene	*66*		*58 - 122*	*11/10/18 09:55*	*11/12/18 22:48*	*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)	**17**	**J**	65	16	mg/Kg	☼	11/09/18 09:01	11/15/18 17:56	1
Motor Oil (>C24-C36)	**79**		65	23	mg/Kg	☼	11/09/18 09:01	11/15/18 17:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*92*		*50 - 150*	*11/09/18 09:01*	*11/15/18 17:56*	*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	**0.0041**	**B**	0.0037	0.00011	ug/Kg	☼	11/14/18 13:54	11/21/18 09:44	1
1,2,3,4,6,7,8-HpCDF	**0.0012**	**J B**	0.0037	0.000061	ug/Kg	☼	11/14/18 13:54	11/21/18 09:44	1
1,2,3,4,7,8,9-HpCDF	**0.00033**	**J B q**	0.0037	0.000084	ug/Kg	☼	11/14/18 13:54	11/21/18 09:44	1
1,2,3,4,7,8-HxCDD	**0.00018**	**J B**	0.0037	0.000055	ug/Kg	☼	11/14/18 13:54	11/21/18 09:44	1
1,2,3,4,7,8-HxCDF	**0.00020**	**J B q**	0.0037	0.000067	ug/Kg	☼	11/14/18 13:54	11/21/18 09:44	1
1,2,3,6,7,8-HxCDD	**0.00021**	**J B q**	0.0037	0.000054	ug/Kg	☼	11/14/18 13:54	11/21/18 09:44	1
1,2,3,6,7,8-HxCDF	ND		0.0037	0.000063	ug/Kg	☼	11/14/18 13:54	11/21/18 09:44	1
1,2,3,7,8,9-HxCDD	**0.00024**	**J B**	0.0037	0.000045	ug/Kg	☼	11/14/18 13:54	11/21/18 09:44	1
1,2,3,7,8,9-HxCDF	**0.00029**	**J B**	0.0037	0.000061	ug/Kg	☼	11/14/18 13:54	11/21/18 09:44	1
1,2,3,7,8-PeCDD	ND		0.0037	0.000059	ug/Kg	☼	11/14/18 13:54	11/21/18 09:44	1
1,2,3,7,8-PeCDF	ND		0.0037	0.000047	ug/Kg	☼	11/14/18 13:54	11/21/18 09:44	1
2,3,4,6,7,8-HxCDF	ND		0.0037	0.000055	ug/Kg	☼	11/14/18 13:54	11/21/18 09:44	1
2,3,4,7,8-PeCDF	ND		0.0037	0.000052	ug/Kg	☼	11/14/18 13:54	11/21/18 09:44	1
2,3,7,8-TCDD	ND		0.00074	0.000070	ug/Kg	☼	11/14/18 13:54	11/21/18 09:44	1
2,3,7,8-TCDF	**0.000089**	**J**	0.00074	0.000032	ug/Kg	☼	11/14/18 13:54	11/21/18 09:44	1
OCDD	**0.051**	**B**	0.0074	0.00018	ug/Kg	☼	11/14/18 13:54	11/21/18 09:44	1
OCDF	**0.0042**	**J B**	0.0074	0.000078	ug/Kg	☼	11/14/18 13:54	11/21/18 09:44	1
Total HpCDD	**0.0090**	**B q**	0.0037	0.00011	ug/Kg	☼	11/14/18 13:54	11/21/18 09:44	1
Total HpCDF	**0.0046**	**B q**	0.0037	0.000072	ug/Kg	☼	11/14/18 13:54	11/21/18 09:44	1
Total HxCDD	**0.0020**	**J B q**	0.0037	0.000051	ug/Kg	☼	11/14/18 13:54	11/21/18 09:44	1
Total HxCDF	**0.0016**	**J B q**	0.0037	0.000062	ug/Kg	☼	11/14/18 13:54	11/21/18 09:44	1
Total PeCDD	**0.00011**	**J B**	0.0037	0.000059	ug/Kg	☼	11/14/18 13:54	11/21/18 09:44	1
Total PeCDF	ND		0.0037	0.000052	ug/Kg	☼	11/14/18 13:54	11/21/18 09:44	1
Total TCDF	**0.000089**	**J**	0.00074	0.000032	ug/Kg	☼	11/14/18 13:54	11/21/18 09:44	1
Total TCDD	ND		0.00074	0.000070	ug/Kg	☼	11/14/18 13:54	11/21/18 09:44	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-1,2,3,4,6,7,8-HpCDD	*51*		*23 - 140*	*11/14/18 13:54*	*11/21/18 09:44*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*57*		*28 - 143*	*11/14/18 13:54*	*11/21/18 09:44*	*1*

Client Sample ID: J6-SC-96to111-102218
Date Collected: 10/22/18 19:40
Date Received: 10/24/18 14:10

Lab Sample ID: 580-81308-20
Matrix: Solid
Percent Solids: 68.4

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-1,2,3,4,7,8,9-HpCDF	60		26 - 138	11/14/18 13:54	11/21/18 09:44	1
13C-1,2,3,4,7,8-HxCDD	69		32 - 141	11/14/18 13:54	11/21/18 09:44	1
13C-1,2,3,4,7,8-HxCDF	82		26 - 152	11/14/18 13:54	11/21/18 09:44	1
13C-1,2,3,6,7,8-HxCDD	69		28 - 130	11/14/18 13:54	11/21/18 09:44	1
13C-1,2,3,6,7,8-HxCDF	82		26 - 123	11/14/18 13:54	11/21/18 09:44	1
13C-1,2,3,7,8,9-HxCDF	69		29 - 147	11/14/18 13:54	11/21/18 09:44	1
13C-1,2,3,7,8-PeCDD	49		25 - 181	11/14/18 13:54	11/21/18 09:44	1
13C-1,2,3,7,8-PeCDF	58		24 - 185	11/14/18 13:54	11/21/18 09:44	1
13C-2,3,4,6,7,8-HxCDF	77		28 - 136	11/14/18 13:54	11/21/18 09:44	1
13C-2,3,4,7,8-PeCDF	58		21 - 178	11/14/18 13:54	11/21/18 09:44	1
13C-2,3,7,8-TCDD	61		25 - 164	11/14/18 13:54	11/21/18 09:44	1
13C-2,3,7,8-TCDF	64		24 - 169	11/14/18 13:54	11/21/18 09:44	1
13C-OCDD	37		17 - 157	11/14/18 13:54	11/21/18 09:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
37Cl4-2,3,7,8-TCDD	102		35 - 197	11/14/18 13:54	11/21/18 09:44	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3.8		0.19	0.039	mg/Kg	☼	11/09/18 16:17	11/12/18 17:50	5
Cadmium	0.084	J	0.16	0.030	mg/Kg	☼	11/09/18 16:17	11/12/18 17:50	5
Copper	29		0.39	0.085	mg/Kg	☼	11/09/18 16:17	11/12/18 17:50	5
Lead	6.2		0.19	0.019	mg/Kg	☼	11/09/18 16:17	11/12/18 17:50	5
Zinc	62		1.9	0.62	mg/Kg	☼	11/09/18 16:17	11/12/18 17:50	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.049		0.035	0.011	mg/Kg	☼	11/09/18 11:42	11/09/18 19:21	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	6300		2000	44	mg/Kg			11/02/18 15:02	1
Total Solids	68.4		0.1	0.1	%			11/01/18 18:46	1
Percent Moisture	31	H	0.10	0.10	%			11/05/18 15:52	1
Percent Solids	69	H	0.10	0.10	%			11/05/18 15:52	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Clay	11.8				%			11/05/18 15:52	1
Coarse Sand	0.0				%			11/05/18 15:52	1
Fine Sand	39.5				%			11/05/18 15:52	1
Gravel	0.0				%			11/05/18 15:52	1
Medium Sand	0.3				%			11/05/18 15:52	1
Silt	48.4				%			11/05/18 15:52	1

Method: D854 - Specific Gravity

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Density	1.76		0.0100	0.0100	g/cm3			11/09/18 00:00	1
Specific Gravity	1.76		0.0100	0.0100	NONE			11/09/18 00:00	1

Client Sample ID: J5-SC-40to60-102218
Date Collected: 10/22/18 16:40
Date Received: 10/24/18 14:10

Lab Sample ID: 580-81308-21
Matrix: Solid
Percent Solids: 57.2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND	F1	17	3.0	ug/Kg	☼	11/10/18 09:55	11/12/18 23:05	1
PCB-1221	ND		17	8.3	ug/Kg	☼	11/10/18 09:55	11/12/18 23:05	1
PCB-1232	ND		17	4.1	ug/Kg	☼	11/10/18 09:55	11/12/18 23:05	1
PCB-1242	ND		17	4.3	ug/Kg	☼	11/10/18 09:55	11/12/18 23:05	1
PCB-1248	ND		17	1.4	ug/Kg	☼	11/10/18 09:55	11/12/18 23:05	1
PCB-1254	**160**		17	6.9	ug/Kg	☼	11/10/18 09:55	11/12/18 23:05	1
PCB-1260	ND	F1	17	3.0	ug/Kg	☼	11/10/18 09:55	11/12/18 23:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*112*		*54 - 142*	*11/10/18 09:55*	*11/12/18 23:05*	*1*
Tetrachloro-m-xylene	*52*	*X*	*58 - 122*	*11/10/18 09:55*	*11/12/18 23:05*	*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)	**520**		84	21	mg/Kg	☼	11/09/18 10:15	11/12/18 20:57	1
Motor Oil (>C24-C36)	**1100**		84	29	mg/Kg	☼	11/09/18 10:15	11/12/18 20:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*94*		*50 - 150*	*11/09/18 10:15*	*11/12/18 20:57*	*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	**0.29**	**B G**	0.0045	0.0045	ug/Kg	☼	11/12/18 13:18	11/20/18 05:59	1
1,2,3,4,6,7,8-HpCDF	**0.12**	**B**	0.0044	0.0024	ug/Kg	☼	11/12/18 13:18	11/20/18 05:59	1
1,2,3,4,7,8,9-HpCDF	**0.0053**		0.0044	0.0034	ug/Kg	☼	11/12/18 13:18	11/20/18 05:59	1
1,2,3,4,7,8-HxCDD	**0.0027**	**J B q**	0.0044	0.00069	ug/Kg	☼	11/12/18 13:18	11/20/18 05:59	1
1,2,3,4,7,8-HxCDF	**0.0060**		0.0044	0.0020	ug/Kg	☼	11/12/18 13:18	11/20/18 05:59	1
1,2,3,6,7,8-HxCDD	**0.014**	**B**	0.0044	0.00070	ug/Kg	☼	11/12/18 13:18	11/20/18 05:59	1
1,2,3,6,7,8-HxCDF	**0.0070**		0.0044	0.0019	ug/Kg	☼	11/12/18 13:18	11/20/18 05:59	1
1,2,3,7,8,9-HxCDD	**0.0074**		0.0044	0.00062	ug/Kg	☼	11/12/18 13:18	11/20/18 05:59	1
1,2,3,7,8,9-HxCDF	**0.0016**	**J**	0.0044	0.0011	ug/Kg	☼	11/12/18 13:18	11/20/18 05:59	1
1,2,3,7,8-PeCDD	**0.0016**	**J**	0.0044	0.00057	ug/Kg	☼	11/12/18 13:18	11/20/18 05:59	1
1,2,3,7,8-PeCDF	**0.0021**	**J**	0.0044	0.00080	ug/Kg	☼	11/12/18 13:18	11/20/18 05:59	1
2,3,4,6,7,8-HxCDF	ND		0.0044	0.0011	ug/Kg	☼	11/12/18 13:18	11/20/18 05:59	1
2,3,4,7,8-PeCDF	**0.0015**	**J**	0.0044	0.00079	ug/Kg	☼	11/12/18 13:18	11/20/18 05:59	1
2,3,7,8-TCDD	**0.0011**	**q**	0.00089	0.00022	ug/Kg	☼	11/12/18 13:18	11/20/18 05:59	1
OCDD	**3.1**	**B**	0.0089	0.0024	ug/Kg	☼	11/12/18 13:18	11/20/18 05:59	1
OCDF	**0.31**		0.0089	0.00071	ug/Kg	☼	11/12/18 13:18	11/20/18 05:59	1
Total HpCDD	**0.63**	**B G**	0.0045	0.0045	ug/Kg	☼	11/12/18 13:18	11/20/18 05:59	1
Total HpCDF	**0.47**	**B**	0.0044	0.0029	ug/Kg	☼	11/12/18 13:18	11/20/18 05:59	1
Total HxCDD	**0.11**	**B q**	0.0044	0.00067	ug/Kg	☼	11/12/18 13:18	11/20/18 05:59	1
Total HxCDF	**0.18**		0.0044	0.0015	ug/Kg	☼	11/12/18 13:18	11/20/18 05:59	1
Total PeCDD	**0.017**	**q**	0.0044	0.00057	ug/Kg	☼	11/12/18 13:18	11/20/18 05:59	1
Total PeCDF	**0.038**		0.0044	0.00080	ug/Kg	☼	11/12/18 13:18	11/20/18 05:59	1
Total TCDF	**0.012**	**B**	0.00089	0.00050	ug/Kg	☼	11/12/18 13:18	11/20/18 05:59	1
Total TCDD	**0.0072**	**q**	0.00089	0.00022	ug/Kg	☼	11/12/18 13:18	11/20/18 05:59	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-1,2,3,4,6,7,8-HpCDD	*47*		*23 - 140*	*11/12/18 13:18*	*11/20/18 05:59*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*44*		*28 - 143*	*11/12/18 13:18*	*11/20/18 05:59*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*42*		*26 - 138*	*11/12/18 13:18*	*11/20/18 05:59*	*1*

Client Sample ID: J5-SC-40to60-102218

Date Collected: 10/22/18 16:40
Date Received: 10/24/18 14:10

Lab Sample ID: 580-81308-21

Matrix: Solid
Percent Solids: 57.2

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-1,2,3,4,7,8-HxCDD	67		32 - 141	11/12/18 13:18	11/20/18 05:59	1
13C-1,2,3,4,7,8-HxCDF	71		26 - 152	11/12/18 13:18	11/20/18 05:59	1
13C-1,2,3,6,7,8-HxCDD	62		28 - 130	11/12/18 13:18	11/20/18 05:59	1
13C-1,2,3,6,7,8-HxCDF	68		26 - 123	11/12/18 13:18	11/20/18 05:59	1
13C-1,2,3,7,8,9-HxCDF	70		29 - 147	11/12/18 13:18	11/20/18 05:59	1
13C-1,2,3,7,8-PeCDD	59		25 - 181	11/12/18 13:18	11/20/18 05:59	1
13C-1,2,3,7,8-PeCDF	62		24 - 185	11/12/18 13:18	11/20/18 05:59	1
13C-2,3,4,6,7,8-HxCDF	76		28 - 136	11/12/18 13:18	11/20/18 05:59	1
13C-2,3,4,7,8-PeCDF	63		21 - 178	11/12/18 13:18	11/20/18 05:59	1
13C-2,3,7,8-TCDD	65		25 - 164	11/12/18 13:18	11/20/18 05:59	1
13C-2,3,7,8-TCDF	64		24 - 169	11/12/18 13:18	11/20/18 05:59	1
13C-OCDD	54		17 - 157	11/12/18 13:18	11/20/18 05:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
37Cl4-2,3,7,8-TCDD	109		35 - 197	11/12/18 13:18	11/20/18 05:59	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	0.0011	B	0.00089	0.00020	ug/Kg	☼	11/12/18 13:18	11/20/18 22:16	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-2,3,7,8-TCDF	68		24 - 169	11/12/18 13:18	11/20/18 22:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
37Cl4-2,3,7,8-TCDD	88		35 - 197	11/12/18 13:18	11/20/18 22:16	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	6.2		0.26	0.052	mg/Kg	☼	11/09/18 16:17	11/12/18 17:54	5
Cadmium	0.50		0.21	0.040	mg/Kg	☼	11/09/18 16:17	11/12/18 17:54	5
Copper	64		0.52	0.11	mg/Kg	☼	11/09/18 16:17	11/12/18 17:54	5
Lead	69		0.26	0.025	mg/Kg	☼	11/09/18 16:17	11/12/18 17:54	5
Zinc	210		2.6	0.84	mg/Kg	☼	11/09/18 16:17	11/12/18 17:54	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.70		0.037	0.011	mg/Kg	☼	11/09/18 11:42	11/09/18 19:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	21000		2000	44	mg/Kg			11/02/18 15:07	1
Total Solids	57.2		0.1	0.1	%			11/01/18 18:46	1
Percent Moisture	42	H	0.10	0.10	%			11/05/18 15:52	1
Percent Solids	58	H	0.10	0.10	%			11/05/18 15:52	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Clay	29.8				%			11/05/18 15:52	1
Coarse Sand	0.1				%			11/05/18 15:52	1
Fine Sand	13.9				%			11/05/18 15:52	1
Gravel	0.4				%			11/05/18 15:52	1
Medium Sand	0.3				%			11/05/18 15:52	1

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

TestAmerica Job ID: 580-81308-1

Client Sample ID: J5-SC-40to60-102218
Date Collected: 10/22/18 16:40
Date Received: 10/24/18 14:10

Lab Sample ID: 580-81308-21
Matrix: Solid
Percent Solids: 57.2

Method: D7928/D6913 - ASTM D7928/D6913 (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silt	55.5				%			11/05/18 15:52	1

Method: D854 - Specific Gravity

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Density	1.53		0.0100	0.0100	g/cm3			11/09/18 00:00	1
Specific Gravity	1.53		0.0100	0.0100	NONE			11/09/18 00:00	1

Client Sample ID: J6-SC-20to40-102218

Date Collected: 10/22/18 18:20
Date Received: 10/24/18 14:10

Lab Sample ID: 580-81308-22

Matrix: Solid
Percent Solids: 46.0

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		21	3.6	ug/Kg	☼	11/10/18 09:55	11/12/18 16:40	1
PCB-1221	ND		21	9.9	ug/Kg	☼	11/10/18 09:55	11/12/18 16:40	1
PCB-1232	ND		21	4.9	ug/Kg	☼	11/10/18 09:55	11/12/18 16:40	1
PCB-1242	ND		21	5.1	ug/Kg	☼	11/10/18 09:55	11/12/18 16:40	1
PCB-1248	ND		21	1.7	ug/Kg	☼	11/10/18 09:55	11/12/18 16:40	1
PCB-1254	ND		21	8.3	ug/Kg	☼	11/10/18 09:55	11/12/18 16:40	1
PCB-1260	**100**		21	3.6	ug/Kg	☼	11/10/18 09:55	11/12/18 16:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*92*		*54 - 142*	*11/10/18 09:55*	*11/12/18 16:40*	*1*
Tetrachloro-m-xylene	*60*		*58 - 122*	*11/10/18 09:55*	*11/12/18 16:40*	*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)	**290**		100	25	mg/Kg	☼	11/09/18 10:15	11/12/18 21:19	1
Motor Oil (>C24-C36)	**900**		100	36	mg/Kg	☼	11/09/18 10:15	11/12/18 21:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*91*		*50 - 150*	*11/09/18 10:15*	*11/12/18 21:19*	*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	**0.35**	**B**	0.0055	0.0050	ug/Kg	☼	11/12/18 13:18	11/20/18 06:46	1
1,2,3,4,6,7,8-HpCDF	**0.097**	**B**	0.0055	0.0022	ug/Kg	☼	11/12/18 13:18	11/20/18 06:46	1
1,2,3,4,7,8,9-HpCDF	**0.0060**		0.0055	0.0028	ug/Kg	☼	11/12/18 13:18	11/20/18 06:46	1
1,2,3,4,7,8-HxCDD	**0.0033**	**J B**	0.0055	0.00075	ug/Kg	☼	11/12/18 13:18	11/20/18 06:46	1
1,2,3,4,7,8-HxCDF	**0.0089**		0.0055	0.0013	ug/Kg	☼	11/12/18 13:18	11/20/18 06:46	1
1,2,3,6,7,8-HxCDD	**0.019**	**B**	0.0055	0.00074	ug/Kg	☼	11/12/18 13:18	11/20/18 06:46	1
1,2,3,6,7,8-HxCDF	**0.0077**	**q**	0.0055	0.0011	ug/Kg	☼	11/12/18 13:18	11/20/18 06:46	1
1,2,3,7,8,9-HxCDD	**0.0084**		0.0055	0.00066	ug/Kg	☼	11/12/18 13:18	11/20/18 06:46	1
1,2,3,7,8,9-HxCDF	ND		0.0055	0.00066	ug/Kg	☼	11/12/18 13:18	11/20/18 06:46	1
1,2,3,7,8-PeCDD	**0.0019**	**J**	0.0055	0.00041	ug/Kg	☼	11/12/18 13:18	11/20/18 06:46	1
1,2,3,7,8-PeCDF	**0.0022**	**J**	0.0055	0.00048	ug/Kg	☼	11/12/18 13:18	11/20/18 06:46	1
2,3,4,6,7,8-HxCDF	**0.0023**	**J**	0.0055	0.00084	ug/Kg	☼	11/12/18 13:18	11/20/18 06:46	1
2,3,4,7,8-PeCDF	**0.0023**	**J**	0.0055	0.00048	ug/Kg	☼	11/12/18 13:18	11/20/18 06:46	1
2,3,7,8-TCDD	**0.0012**		0.0011	0.00031	ug/Kg	☼	11/12/18 13:18	11/20/18 06:46	1
OCDD	**4.6**	**E B**	0.011	0.0042	ug/Kg	☼	11/12/18 13:18	11/20/18 06:46	1
OCDF	**0.29**		0.011	0.00064	ug/Kg	☼	11/12/18 13:18	11/20/18 06:46	1
Total HpCDD	**0.78**	**B**	0.0055	0.0050	ug/Kg	☼	11/12/18 13:18	11/20/18 06:46	1
Total HpCDF	**0.43**	**B**	0.0055	0.0025	ug/Kg	☼	11/12/18 13:18	11/20/18 06:46	1
Total HxCDD	**0.15**	**B**	0.0055	0.00072	ug/Kg	☼	11/12/18 13:18	11/20/18 06:46	1
Total HxCDF	**0.16**	**q**	0.0055	0.00099	ug/Kg	☼	11/12/18 13:18	11/20/18 06:46	1
Total PeCDD	**0.021**	**q**	0.0055	0.00041	ug/Kg	☼	11/12/18 13:18	11/20/18 06:46	1
Total PeCDF	**0.034**		0.0055	0.00048	ug/Kg	☼	11/12/18 13:18	11/20/18 06:46	1
Total TCDF	**0.017**	**q B**	0.0011	0.00043	ug/Kg	☼	11/12/18 13:18	11/20/18 06:46	1
Total TCDD	**0.0071**	**q**	0.0011	0.00031	ug/Kg	☼	11/12/18 13:18	11/20/18 06:46	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-1,2,3,4,6,7,8-HpCDD	*43*		*23 - 140*	*11/12/18 13:18*	*11/20/18 06:46*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*35*		*28 - 143*	*11/12/18 13:18*	*11/20/18 06:46*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*38*		*26 - 138*	*11/12/18 13:18*	*11/20/18 06:46*	*1*

Client Sample ID: J6-SC-20to40-102218
Date Collected: 10/22/18 18:20
Date Received: 10/24/18 14:10

Lab Sample ID: 580-81308-22
Matrix: Solid
Percent Solids: 46.0

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-1,2,3,4,7,8-HxCDD	56		32 - 141	11/12/18 13:18	11/20/18 06:46	1
13C-1,2,3,4,7,8-HxCDF	63		26 - 152	11/12/18 13:18	11/20/18 06:46	1
13C-1,2,3,6,7,8-HxCDD	57		28 - 130	11/12/18 13:18	11/20/18 06:46	1
13C-1,2,3,6,7,8-HxCDF	65		26 - 123	11/12/18 13:18	11/20/18 06:46	1
13C-1,2,3,7,8,9-HxCDF	67		29 - 147	11/12/18 13:18	11/20/18 06:46	1
13C-1,2,3,7,8-PeCDD	63		25 - 181	11/12/18 13:18	11/20/18 06:46	1
13C-1,2,3,7,8-PeCDF	68		24 - 185	11/12/18 13:18	11/20/18 06:46	1
13C-2,3,4,6,7,8-HxCDF	61		28 - 136	11/12/18 13:18	11/20/18 06:46	1
13C-2,3,4,7,8-PeCDF	72		21 - 178	11/12/18 13:18	11/20/18 06:46	1
13C-2,3,7,8-TCDD	62		25 - 164	11/12/18 13:18	11/20/18 06:46	1
13C-2,3,7,8-TCDF	60		24 - 169	11/12/18 13:18	11/20/18 06:46	1
13C-OCDD	43		17 - 157	11/12/18 13:18	11/20/18 06:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
37Cl4-2,3,7,8-TCDD	108		35 - 197	11/12/18 13:18	11/20/18 06:46	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	0.0024	B	0.0011	0.00047	ug/Kg	☼	11/12/18 13:18	11/20/18 22:54	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-2,3,7,8-TCDF	69		24 - 169	11/12/18 13:18	11/20/18 22:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
37Cl4-2,3,7,8-TCDD	84		35 - 197	11/12/18 13:18	11/20/18 22:54	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	7.0		0.32	0.064	mg/Kg	☼	11/09/18 16:17	11/12/18 17:58	5
Cadmium	0.50		0.26	0.050	mg/Kg	☼	11/09/18 16:17	11/12/18 17:58	5
Copper	73		0.64	0.14	mg/Kg	☼	11/09/18 16:17	11/12/18 17:58	5
Lead	120		0.32	0.031	mg/Kg	☼	11/09/18 16:17	11/12/18 17:58	5
Zinc	280		3.2	1.0	mg/Kg	☼	11/09/18 16:17	11/12/18 17:58	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.37		0.052	0.016	mg/Kg	☼	11/09/18 11:42	11/09/18 19:26	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	39000		2000	44	mg/Kg			11/02/18 16:12	1
Total Solids	46.0		0.1	0.1	%			11/01/18 18:46	1
Percent Moisture	53	H	0.10	0.10	%			11/05/18 15:52	1
Percent Solids	47	H	0.10	0.10	%			11/05/18 15:52	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Clay	21.5				%			11/05/18 15:52	1
Coarse Sand	0.0				%			11/05/18 15:52	1
Fine Sand	5.3				%			11/05/18 15:52	1
Gravel	0.0				%			11/05/18 15:52	1
Medium Sand	0.2				%			11/05/18 15:52	1

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

TestAmerica Job ID: 580-81308-1

Client Sample ID: J6-SC-20to40-102218
Date Collected: 10/22/18 18:20
Date Received: 10/24/18 14:10

Lab Sample ID: 580-81308-22
Matrix: Solid
Percent Solids: 46.0

Method: D7928/D6913 - ASTM D7928/D6913 (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silt	72.9				%			11/05/18 15:52	1

Method: D854 - Specific Gravity

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Density	1.42		0.0100	0.0100	g/cm3			11/09/18 00:00	1
Specific Gravity	1.42		0.0100	0.0100	NONE			11/09/18 00:00	1

Client Sample ID: J5-SC-00to10-102218

Date Collected: 10/22/18 16:00
Date Received: 10/24/18 14:10

Lab Sample ID: 580-81308-23

Matrix: Solid
Percent Solids: 38.3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		24	4.1	ug/Kg	☼	11/13/18 10:12	11/14/18 17:29	1
PCB-1221	ND		24	12	ug/Kg	☼	11/13/18 10:12	11/14/18 17:29	1
PCB-1232	ND		24	5.7	ug/Kg	☼	11/13/18 10:12	11/14/18 17:29	1
PCB-1242	ND		24	6.0	ug/Kg	☼	11/13/18 10:12	11/14/18 17:29	1
PCB-1248	ND		24	2.0	ug/Kg	☼	11/13/18 10:12	11/14/18 17:29	1
PCB-1254	ND		24	9.6	ug/Kg	☼	11/13/18 10:12	11/14/18 17:29	1
PCB-1260	**1100**		24	4.1	ug/Kg	☼	11/13/18 10:12	11/14/18 17:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*41*	*X*	*54 - 142*	*11/13/18 10:12*	*11/14/18 17:29*	*1*
Tetrachloro-m-xylene	*59*		*58 - 122*	*11/13/18 10:12*	*11/14/18 17:29*	*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)	**250**		130	32	mg/Kg	☼	11/09/18 10:15	11/12/18 21:40	1
Motor Oil (>C24-C36)	**1200**		130	45	mg/Kg	☼	11/09/18 10:15	11/12/18 21:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*92*		*50 - 150*	*11/09/18 10:15*	*11/12/18 21:40*	*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**	**B**	0.0064	0.0064	ug/Kg	☼	11/14/18 13:54	11/21/18 10:30	1
1,2,3,4,6,7,8-HpCDF	**0.19**	**B**	0.0064	0.0058	ug/Kg	☼	11/14/18 13:54	11/21/18 10:30	1
1,2,3,4,7,8,9-HpCDF	**0.012**	**G B**	0.0069	0.0069	ug/Kg	☼	11/14/18 13:54	11/21/18 10:30	1
1,2,3,4,7,8-HxCDD	**0.0032**	**J q B**	0.0064	0.00028	ug/Kg	☼	11/14/18 13:54	11/21/18 10:30	1
1,2,3,4,7,8-HxCDF	**0.018**	**B**	0.0064	0.00065	ug/Kg	☼	11/14/18 13:54	11/21/18 10:30	1
1,2,3,6,7,8-HxCDD	**0.023**	**B**	0.0064	0.00027	ug/Kg	☼	11/14/18 13:54	11/21/18 10:30	1
1,2,3,6,7,8-HxCDF	**0.0057**	**J**	0.0064	0.00059	ug/Kg	☼	11/14/18 13:54	11/21/18 10:30	1
1,2,3,7,8,9-HxCDD	**0.0069**	**B**	0.0064	0.00023	ug/Kg	☼	11/14/18 13:54	11/21/18 10:30	1
1,2,3,7,8,9-HxCDF	**0.00058**	**J q B**	0.0064	0.00048	ug/Kg	☼	11/14/18 13:54	11/21/18 10:30	1
1,2,3,7,8-PeCDD	**0.0023**	**J B**	0.0064	0.00044	ug/Kg	☼	11/14/18 13:54	11/21/18 10:30	1
1,2,3,7,8-PeCDF	**0.0021**	**J**	0.0064	0.00035	ug/Kg	☼	11/14/18 13:54	11/21/18 10:30	1
2,3,4,6,7,8-HxCDF	**0.0027**	**J B**	0.0064	0.00048	ug/Kg	☼	11/14/18 13:54	11/21/18 10:30	1
2,3,4,7,8-PeCDF	**0.0028**	**J**	0.0064	0.00041	ug/Kg	☼	11/14/18 13:54	11/21/18 10:30	1
2,3,7,8-TCDD	**0.00068**	**J**	0.0013	0.00023	ug/Kg	☼	11/14/18 13:54	11/21/18 10:30	1
OCDD	**4.7**	**B**	0.013	0.0046	ug/Kg	☼	11/14/18 13:54	11/21/18 10:30	1
OCDF	**1.0**	**B**	0.013	0.00055	ug/Kg	☼	11/14/18 13:54	11/21/18 10:30	1
Total HpCDD	**1.2**	**B**	0.0064	0.0064	ug/Kg	☼	11/14/18 13:54	11/21/18 10:30	1
Total HpCDF	**1.0**	**B**	0.0064	0.0063	ug/Kg	☼	11/14/18 13:54	11/21/18 10:30	1
Total HxCDD	**0.13**	**q B**	0.0064	0.00026	ug/Kg	☼	11/14/18 13:54	11/21/18 10:30	1
Total HxCDF	**0.25**	**q B**	0.0064	0.00055	ug/Kg	☼	11/14/18 13:54	11/21/18 10:30	1
Total PeCDD	**0.011**	**q B**	0.0064	0.00044	ug/Kg	☼	11/14/18 13:54	11/21/18 10:30	1
Total PeCDF	**0.023**	**q**	0.0064	0.00038	ug/Kg	☼	11/14/18 13:54	11/21/18 10:30	1
Total TCDF	**0.011**	**q**	0.0013	0.00023	ug/Kg	☼	11/14/18 13:54	11/21/18 10:30	1
Total TCDD	**0.0065**	**q**	0.0013	0.00023	ug/Kg	☼	11/14/18 13:54	11/21/18 10:30	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-1,2,3,4,6,7,8-HpCDD	*59*		*23 - 140*	*11/14/18 13:54*	*11/21/18 10:30*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*65*		*28 - 143*	*11/14/18 13:54*	*11/21/18 10:30*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*72*		*26 - 138*	*11/14/18 13:54*	*11/21/18 10:30*	*1*

Client Sample ID: J5-SC-00to10-102218
Date Collected: 10/22/18 16:00
Date Received: 10/24/18 14:10

Lab Sample ID: 580-81308-23
Matrix: Solid
Percent Solids: 38.3

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-1,2,3,4,7,8-HxCDD	73		32 - 141	11/14/18 13:54	11/21/18 10:30	1
13C-1,2,3,4,7,8-HxCDF	81		26 - 152	11/14/18 13:54	11/21/18 10:30	1
13C-1,2,3,6,7,8-HxCDD	69		28 - 130	11/14/18 13:54	11/21/18 10:30	1
13C-1,2,3,6,7,8-HxCDF	80		26 - 123	11/14/18 13:54	11/21/18 10:30	1
13C-1,2,3,7,8,9-HxCDF	74		29 - 147	11/14/18 13:54	11/21/18 10:30	1
13C-1,2,3,7,8-PeCDD	56		25 - 181	11/14/18 13:54	11/21/18 10:30	1
13C-1,2,3,7,8-PeCDF	65		24 - 185	11/14/18 13:54	11/21/18 10:30	1
13C-2,3,4,6,7,8-HxCDF	80		28 - 136	11/14/18 13:54	11/21/18 10:30	1
13C-2,3,4,7,8-PeCDF	64		21 - 178	11/14/18 13:54	11/21/18 10:30	1
13C-2,3,7,8-TCDD	63		25 - 164	11/14/18 13:54	11/21/18 10:30	1
13C-2,3,7,8-TCDF	71		24 - 169	11/14/18 13:54	11/21/18 10:30	1
13C-OCDD	46		17 - 157	11/14/18 13:54	11/21/18 10:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
37Cl4-2,3,7,8-TCDD	104		35 - 197	11/14/18 13:54	11/21/18 10:30	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	0.0023		0.0013	0.00017	ug/Kg	☼	11/14/18 13:54	11/20/18 01:00	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-2,3,7,8-TCDF	65		24 - 169	11/14/18 13:54	11/20/18 01:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
37Cl4-2,3,7,8-TCDD	79		35 - 197	11/14/18 13:54	11/20/18 01:00	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	9.7		0.57	0.11	mg/Kg	☼	11/09/18 16:17	11/12/18 18:02	5
Cadmium	0.71		0.46	0.088	mg/Kg	☼	11/09/18 16:17	11/12/18 18:02	5
Copper	130		1.1	0.25	mg/Kg	☼	11/09/18 16:17	11/12/18 18:02	5
Lead	63		0.57	0.055	mg/Kg	☼	11/09/18 16:17	11/12/18 18:02	5
Zinc	410		5.7	1.8	mg/Kg	☼	11/09/18 16:17	11/12/18 18:02	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.35		0.048	0.014	mg/Kg	☼	11/09/18 11:42	11/09/18 19:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	34000		2000	44	mg/Kg			11/02/18 16:23	1
Total Solids	38.3		0.1	0.1	%			11/01/18 18:46	1
Percent Moisture	61	H	0.10	0.10	%			11/05/18 15:52	1
Percent Solids	39	H	0.10	0.10	%			11/05/18 15:52	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Clay	28.6				%			11/05/18 15:52	1
Coarse Sand	0.1				%			11/05/18 15:52	1
Fine Sand	10.7				%			11/05/18 15:52	1
Gravel	0.0				%			11/05/18 15:52	1
Medium Sand	0.7				%			11/05/18 15:52	1

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

TestAmerica Job ID: 580-81308-1

Client Sample ID: J5-SC-00to10-102218
Date Collected: 10/22/18 16:00
Date Received: 10/24/18 14:10

Lab Sample ID: 580-81308-23
Matrix: Solid
Percent Solids: 38.3

Method: D7928/D6913 - ASTM D7928/D6913 (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silt	60.0				%			11/05/18 15:52	1

Method: D854 - Specific Gravity

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Density	1.31		0.0100	0.0100	g/cm3			11/09/18 00:00	1
Specific Gravity	1.31		0.0100	0.0100	NONE			11/09/18 00:00	1

Client Sample ID: J6-SC-00to10-102218

Date Collected: 10/22/18 18:00
Date Received: 10/24/18 14:10

Lab Sample ID: 580-81308-24

Matrix: Solid
Percent Solids: 41.7

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		23	3.9	ug/Kg	☼	11/13/18 10:12	11/14/18 17:47	1
PCB-1221	ND		23	11	ug/Kg	☼	11/13/18 10:12	11/14/18 17:47	1
PCB-1232	ND		23	5.4	ug/Kg	☼	11/13/18 10:12	11/14/18 17:47	1
PCB-1242	ND		23	5.6	ug/Kg	☼	11/13/18 10:12	11/14/18 17:47	1
PCB-1248	ND		23	1.8	ug/Kg	☼	11/13/18 10:12	11/14/18 17:47	1
PCB-1254	**340**		23	9.1	ug/Kg	☼	11/13/18 10:12	11/14/18 17:47	1
PCB-1260	ND		23	3.9	ug/Kg	☼	11/13/18 10:12	11/14/18 17:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*38*	*X*	*54 - 142*	*11/13/18 10:12*	*11/14/18 17:47*	*1*
Tetrachloro-m-xylene	*56*	*X*	*58 - 122*	*11/13/18 10:12*	*11/14/18 17:47*	*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)	**360**		110	28	mg/Kg	☼	11/09/18 10:15	11/12/18 22:24	1
Motor Oil (>C24-C36)	**1200**		110	40	mg/Kg	☼	11/09/18 10:15	11/12/18 22:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*86*		*50 - 150*	*11/09/18 10:15*	*11/12/18 22:24*	*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	**0.85**	**G B**	0.0079	0.0079	ug/Kg	☼	11/12/18 13:18	11/20/18 07:34	1
1,2,3,4,6,7,8-HpCDF	**0.28**	**B**	0.0059	0.0051	ug/Kg	☼	11/12/18 13:18	11/20/18 07:34	1
1,2,3,4,7,8,9-HpCDF	**0.019**	**G**	0.010	0.010	ug/Kg	☼	11/12/18 13:18	11/20/18 07:34	1
1,2,3,4,7,8-HxCDD	**0.0042**	**J B**	0.0059	0.0011	ug/Kg	☼	11/12/18 13:18	11/20/18 07:34	1
1,2,3,4,7,8-HxCDF	**0.029**		0.0059	0.0025	ug/Kg	☼	11/12/18 13:18	11/20/18 07:34	1
1,2,3,6,7,8-HxCDD	**0.037**	**B**	0.0059	0.00093	ug/Kg	☼	11/12/18 13:18	11/20/18 07:34	1
1,2,3,6,7,8-HxCDF	**0.0097**		0.0059	0.0022	ug/Kg	☼	11/12/18 13:18	11/20/18 07:34	1
1,2,3,7,8,9-HxCDD	**0.0077**		0.0059	0.00088	ug/Kg	☼	11/12/18 13:18	11/20/18 07:34	1
1,2,3,7,8,9-HxCDF	ND		0.0059	0.0017	ug/Kg	☼	11/12/18 13:18	11/20/18 07:34	1
1,2,3,7,8-PeCDD	**0.0023**	**J q**	0.0059	0.00081	ug/Kg	☼	11/12/18 13:18	11/20/18 07:34	1
1,2,3,7,8-PeCDF	**0.0044**	**J**	0.0059	0.00095	ug/Kg	☼	11/12/18 13:18	11/20/18 07:34	1
2,3,4,6,7,8-HxCDF	**0.0039**	**J**	0.0059	0.0017	ug/Kg	☼	11/12/18 13:18	11/20/18 07:34	1
2,3,4,7,8-PeCDF	**0.0046**	**J q**	0.0059	0.0011	ug/Kg	☼	11/12/18 13:18	11/20/18 07:34	1
2,3,7,8-TCDD	**0.0016**		0.0012	0.00032	ug/Kg	☼	11/12/18 13:18	11/20/18 07:34	1
OCDD	**7.5**	**E B**	0.012	0.0053	ug/Kg	☼	11/12/18 13:18	11/20/18 07:34	1
OCDF	**1.2**		0.012	0.0011	ug/Kg	☼	11/12/18 13:18	11/20/18 07:34	1
Total HpCDD	**1.8**	**G B**	0.0079	0.0079	ug/Kg	☼	11/12/18 13:18	11/20/18 07:34	1
Total HpCDF	**1.6**	**G B**	0.0077	0.0077	ug/Kg	☼	11/12/18 13:18	11/20/18 07:34	1
Total HxCDD	**0.24**	**B**	0.0059	0.00097	ug/Kg	☼	11/12/18 13:18	11/20/18 07:34	1
Total HxCDF	**0.47**		0.0059	0.0020	ug/Kg	☼	11/12/18 13:18	11/20/18 07:34	1
Total PeCDD	**0.020**	**q**	0.0059	0.00081	ug/Kg	☼	11/12/18 13:18	11/20/18 07:34	1
Total PeCDF	**0.057**	**q**	0.0059	0.0010	ug/Kg	☼	11/12/18 13:18	11/20/18 07:34	1
Total TCDF	**0.028**	**q B**	0.0012	0.00042	ug/Kg	☼	11/12/18 13:18	11/20/18 07:34	1
Total TCDD	**0.011**	**q**	0.0012	0.00032	ug/Kg	☼	11/12/18 13:18	11/20/18 07:34	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-1,2,3,4,6,7,8-HpCDD	*52*		*23 - 140*	*11/12/18 13:18*	*11/20/18 07:34*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*52*		*28 - 143*	*11/12/18 13:18*	*11/20/18 07:34*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*40*		*26 - 138*	*11/12/18 13:18*	*11/20/18 07:34*	*1*

Client Sample ID: J6-SC-00to10-102218
Date Collected: 10/22/18 18:00
Date Received: 10/24/18 14:10

Lab Sample ID: 580-81308-24
Matrix: Solid
Percent Solids: 41.7

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-1,2,3,4,7,8-HxCDD	88		32 - 141	11/12/18 13:18	11/20/18 07:34	1
13C-1,2,3,4,7,8-HxCDF	105		26 - 152	11/12/18 13:18	11/20/18 07:34	1
13C-1,2,3,6,7,8-HxCDD	86		28 - 130	11/12/18 13:18	11/20/18 07:34	1
13C-1,2,3,6,7,8-HxCDF	103		26 - 123	11/12/18 13:18	11/20/18 07:34	1
13C-1,2,3,7,8,9-HxCDF	81		29 - 147	11/12/18 13:18	11/20/18 07:34	1
13C-1,2,3,7,8-PeCDD	71		25 - 181	11/12/18 13:18	11/20/18 07:34	1
13C-1,2,3,7,8-PeCDF	75		24 - 185	11/12/18 13:18	11/20/18 07:34	1
13C-2,3,4,6,7,8-HxCDF	91		28 - 136	11/12/18 13:18	11/20/18 07:34	1
13C-2,3,4,7,8-PeCDF	71		21 - 178	11/12/18 13:18	11/20/18 07:34	1
13C-2,3,7,8-TCDD	73		25 - 164	11/12/18 13:18	11/20/18 07:34	1
13C-2,3,7,8-TCDF	68		24 - 169	11/12/18 13:18	11/20/18 07:34	1
13C-OCDD	66		17 - 157	11/12/18 13:18	11/20/18 07:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
37Cl4-2,3,7,8-TCDD	111		35 - 197	11/12/18 13:18	11/20/18 07:34	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	0.0048	B	0.0012	0.00023	ug/Kg	☼	11/12/18 13:18	11/20/18 23:32	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-2,3,7,8-TCDF	77		24 - 169	11/12/18 13:18	11/20/18 23:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
37Cl4-2,3,7,8-TCDD	87		35 - 197	11/12/18 13:18	11/20/18 23:32	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	11		0.48	0.096	mg/Kg	☼	11/09/18 16:17	11/12/18 18:06	5
Cadmium	0.74		0.38	0.074	mg/Kg	☼	11/09/18 16:17	11/12/18 18:06	5
Copper	290		0.96	0.21	mg/Kg	☼	11/09/18 16:17	11/12/18 18:06	5
Lead	120		0.48	0.046	mg/Kg	☼	11/09/18 16:17	11/12/18 18:06	5
Zinc	410		4.8	1.5	mg/Kg	☼	11/09/18 16:17	11/12/18 18:06	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.40		0.062	0.019	mg/Kg	☼	11/09/18 11:42	11/09/18 19:35	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	28000		2000	44	mg/Kg			11/02/18 16:28	1
Total Solids	41.7		0.1	0.1	%			11/01/18 18:46	1
Percent Moisture	58	H	0.10	0.10	%			11/05/18 15:52	1
Percent Solids	42	H	0.10	0.10	%			11/05/18 15:52	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Clay	27.7				%			11/05/18 15:52	1
Coarse Sand	0.5				%			11/05/18 15:52	1
Fine Sand	14.4				%			11/05/18 15:52	1
Gravel	0.0				%			11/05/18 15:52	1
Medium Sand	1.5				%			11/05/18 15:52	1

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

TestAmerica Job ID: 580-81308-1

Client Sample ID: J6-SC-00to10-102218
Date Collected: 10/22/18 18:00
Date Received: 10/24/18 14:10

Lab Sample ID: 580-81308-24
Matrix: Solid
Percent Solids: 41.7

Method: D7928/D6913 - ASTM D7928/D6913 (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silt	56.0				%			11/05/18 15:52	1

Method: D854 - Specific Gravity

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Density	1.34		0.0100	0.0100	g/cm3			11/09/18 00:00	1
Specific Gravity	1.35		0.0100	0.0100	NONE			11/09/18 00:00	1

Client Sample ID: J6-SC-10to20-102218

Date Collected: 10/22/18 18:10
Date Received: 10/24/18 14:10

Lab Sample ID: 580-81308-25

Matrix: Solid
Percent Solids: 46.0

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		21	3.6	ug/Kg	☼	11/13/18 10:12	11/14/18 18:05	1
PCB-1221	ND		21	10	ug/Kg	☼	11/13/18 10:12	11/14/18 18:05	1
PCB-1232	ND		21	4.9	ug/Kg	☼	11/13/18 10:12	11/14/18 18:05	1
PCB-1242	ND		21	5.1	ug/Kg	☼	11/13/18 10:12	11/14/18 18:05	1
PCB-1248	ND		21	1.7	ug/Kg	☼	11/13/18 10:12	11/14/18 18:05	1
PCB-1254	ND		21	8.3	ug/Kg	☼	11/13/18 10:12	11/14/18 18:05	1
PCB-1260	**130**		21	3.6	ug/Kg	☼	11/13/18 10:12	11/14/18 18:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*47*	*X*	*54 - 142*	*11/13/18 10:12*	*11/14/18 18:05*	*1*
Tetrachloro-m-xylene	*63*		*58 - 122*	*11/13/18 10:12*	*11/14/18 18:05*	*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)	**350**		110	27	mg/Kg	☼	11/09/18 10:15	11/12/18 22:46	1
Motor Oil (>C24-C36)	**1100**		110	38	mg/Kg	☼	11/09/18 10:15	11/12/18 22:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*93*		*50 - 150*	*11/09/18 10:15*	*11/12/18 22:46*	*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	**0.68**	**B G**	0.0077	0.0077	ug/Kg	☼	11/12/18 13:18	11/20/18 08:21	1
1,2,3,4,6,7,8-HpCDF	**0.18**	**B**	0.0053	0.0029	ug/Kg	☼	11/12/18 13:18	11/20/18 08:21	1
1,2,3,4,7,8,9-HpCDF	**0.011**		0.0053	0.0036	ug/Kg	☼	11/12/18 13:18	11/20/18 08:21	1
1,2,3,4,7,8-HxCDD	**0.0051**	**J B**	0.0053	0.0011	ug/Kg	☼	11/12/18 13:18	11/20/18 08:21	1
1,2,3,4,7,8-HxCDF	**0.017**		0.0053	0.0016	ug/Kg	☼	11/12/18 13:18	11/20/18 08:21	1
1,2,3,6,7,8-HxCDD	**0.032**	**B**	0.0053	0.0011	ug/Kg	☼	11/12/18 13:18	11/20/18 08:21	1
1,2,3,6,7,8-HxCDF	**0.018**		0.0053	0.0014	ug/Kg	☼	11/12/18 13:18	11/20/18 08:21	1
1,2,3,7,8,9-HxCDD	**0.013**		0.0053	0.00094	ug/Kg	☼	11/12/18 13:18	11/20/18 08:21	1
1,2,3,7,8,9-HxCDF	ND		0.0053	0.00088	ug/Kg	☼	11/12/18 13:18	11/20/18 08:21	1
1,2,3,7,8-PeCDD	ND		0.0053	0.00052	ug/Kg	☼	11/12/18 13:18	11/20/18 08:21	1
1,2,3,7,8-PeCDF	**0.0067**		0.0053	0.00067	ug/Kg	☼	11/12/18 13:18	11/20/18 08:21	1
2,3,4,6,7,8-HxCDF	**0.0040**	**J**	0.0053	0.00098	ug/Kg	☼	11/12/18 13:18	11/20/18 08:21	1
2,3,4,7,8-PeCDF	**0.0042**	**J**	0.0053	0.00069	ug/Kg	☼	11/12/18 13:18	11/20/18 08:21	1
2,3,7,8-TCDD	**0.0014**		0.0011	0.00019	ug/Kg	☼	11/12/18 13:18	11/20/18 08:21	1
OCDD	**9.2**	**E B**	0.011	0.0078	ug/Kg	☼	11/12/18 13:18	11/20/18 08:21	1
OCDF	**0.59**		0.011	0.00071	ug/Kg	☼	11/12/18 13:18	11/20/18 08:21	1
Total HpCDD	**1.5**	**B G**	0.0077	0.0077	ug/Kg	☼	11/12/18 13:18	11/20/18 08:21	1
Total HpCDF	**0.70**	**B**	0.0053	0.0032	ug/Kg	☼	11/12/18 13:18	11/20/18 08:21	1
Total HxCDD	**0.24**	**B**	0.0053	0.0010	ug/Kg	☼	11/12/18 13:18	11/20/18 08:21	1
Total HxCDF	**0.24**		0.0053	0.0012	ug/Kg	☼	11/12/18 13:18	11/20/18 08:21	1
Total PeCDD	**0.026**	**q**	0.0053	0.00052	ug/Kg	☼	11/12/18 13:18	11/20/18 08:21	1
Total PeCDF	**0.071**	**q**	0.0053	0.00068	ug/Kg	☼	11/12/18 13:18	11/20/18 08:21	1
Total TCDF	**0.026**	**B q**	0.0011	0.00039	ug/Kg	☼	11/12/18 13:18	11/20/18 08:21	1
Total TCDD	**0.0099**	**q**	0.0011	0.00019	ug/Kg	☼	11/12/18 13:18	11/20/18 08:21	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-1,2,3,4,6,7,8-HpCDD	*51*		*23 - 140*	*11/12/18 13:18*	*11/20/18 08:21*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*46*		*28 - 143*	*11/12/18 13:18*	*11/20/18 08:21*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*50*		*26 - 138*	*11/12/18 13:18*	*11/20/18 08:21*	*1*

Client Sample ID: J6-SC-10to20-102218
Date Collected: 10/22/18 18:10
Date Received: 10/24/18 14:10

Lab Sample ID: 580-81308-25
Matrix: Solid
Percent Solids: 46.0

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-1,2,3,4,7,8-HxCDD	71		32 - 141	11/12/18 13:18	11/20/18 08:21	1
13C-1,2,3,4,7,8-HxCDF	82		26 - 152	11/12/18 13:18	11/20/18 08:21	1
13C-1,2,3,6,7,8-HxCDD	70		28 - 130	11/12/18 13:18	11/20/18 08:21	1
13C-1,2,3,6,7,8-HxCDF	84		26 - 123	11/12/18 13:18	11/20/18 08:21	1
13C-1,2,3,7,8,9-HxCDF	74		29 - 147	11/12/18 13:18	11/20/18 08:21	1
13C-1,2,3,7,8-PeCDD	51		25 - 181	11/12/18 13:18	11/20/18 08:21	1
13C-1,2,3,7,8-PeCDF	53		24 - 185	11/12/18 13:18	11/20/18 08:21	1
13C-2,3,4,6,7,8-HxCDF	77		28 - 136	11/12/18 13:18	11/20/18 08:21	1
13C-2,3,4,7,8-PeCDF	56		21 - 178	11/12/18 13:18	11/20/18 08:21	1
13C-2,3,7,8-TCDD	76		25 - 164	11/12/18 13:18	11/20/18 08:21	1
13C-2,3,7,8-TCDF	64		24 - 169	11/12/18 13:18	11/20/18 08:21	1
13C-OCDD	54		17 - 157	11/12/18 13:18	11/20/18 08:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
37Cl4-2,3,7,8-TCDD	114		35 - 197	11/12/18 13:18	11/20/18 08:21	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	0.0036	B	0.0011	0.00022	ug/Kg	☼	11/12/18 13:18	11/21/18 00:10	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-2,3,7,8-TCDF	73		24 - 169	11/12/18 13:18	11/21/18 00:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
37Cl4-2,3,7,8-TCDD	85		35 - 197	11/12/18 13:18	11/21/18 00:10	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	7.9		0.50	0.099	mg/Kg	☼	11/09/18 16:17	11/12/18 18:27	5
Cadmium	0.48		0.40	0.076	mg/Kg	☼	11/09/18 16:17	11/12/18 18:27	5
Copper	95		0.99	0.22	mg/Kg	☼	11/09/18 16:17	11/12/18 18:27	5
Lead	67		0.50	0.048	mg/Kg	☼	11/09/18 16:17	11/12/18 18:27	5
Zinc	270		5.0	1.6	mg/Kg	☼	11/09/18 16:17	11/12/18 18:27	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.48		0.045	0.014	mg/Kg	☼	11/09/18 11:42	11/09/18 19:37	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	35000		2000	44	mg/Kg			11/05/18 16:56	1
Total Solids	46.0		0.1	0.1	%			11/01/18 18:46	1
Percent Moisture	53	H	0.10	0.10	%			11/07/18 10:32	1
Percent Solids	47	H	0.10	0.10	%			11/07/18 10:32	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Clay	33.1				%			11/07/18 10:32	1
Coarse Sand	0.0				%			11/07/18 10:32	1
Fine Sand	5.2				%			11/07/18 10:32	1
Gravel	0.0				%			11/07/18 10:32	1
Medium Sand	0.4				%			11/07/18 10:32	1

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

TestAmerica Job ID: 580-81308-1

Client Sample ID: J6-SC-10to20-102218
Date Collected: 10/22/18 18:10
Date Received: 10/24/18 14:10

Lab Sample ID: 580-81308-25
Matrix: Solid
Percent Solids: 46.0

Method: D7928/D6913 - ASTM D7928/D6913 (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silt	61.3				%			11/07/18 10:32	1

Method: D854 - Specific Gravity

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Density	1.71		0.0100	0.0100	g/cm3			11/09/18 00:00	1
Specific Gravity	1.71		0.0100	0.0100	NONE			11/09/18 00:00	1

Client Sample ID: L3-SC-00to10-102218

Date Collected: 10/22/18 10:35
Date Received: 10/24/18 14:10

Lab Sample ID: 580-81308-26

Matrix: Solid
Percent Solids: 69.4

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		12	2.1	ug/Kg	☼	11/13/18 10:12	11/14/18 18:22	1
PCB-1221	ND		12	5.7	ug/Kg	☼	11/13/18 10:12	11/14/18 18:22	1
PCB-1232	ND		12	2.8	ug/Kg	☼	11/13/18 10:12	11/14/18 18:22	1
PCB-1242	ND		12	3.0	ug/Kg	☼	11/13/18 10:12	11/14/18 18:22	1
PCB-1248	ND		12	0.97	ug/Kg	☼	11/13/18 10:12	11/14/18 18:22	1
PCB-1254	ND		12	4.8	ug/Kg	☼	11/13/18 10:12	11/14/18 18:22	1
PCB-1260	**27**		12	2.1	ug/Kg	☼	11/13/18 10:12	11/14/18 18:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*50*	*X*	*54 - 142*	*11/13/18 10:12*	*11/14/18 18:22*	*1*
Tetrachloro-m-xylene	*61*		*58 - 122*	*11/13/18 10:12*	*11/14/18 18:22*	*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)	**85**		71	17	mg/Kg	☼	11/09/18 10:15	11/12/18 23:07	1
Motor Oil (>C24-C36)	**350**		71	25	mg/Kg	☼	11/09/18 10:15	11/12/18 23:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*93*		*50 - 150*	*11/09/18 10:15*	*11/12/18 23:07*	*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	**0.091**	**B**	0.0037	0.00086	ug/Kg	☼	11/14/18 13:54	11/21/18 11:15	1
1,2,3,4,6,7,8-HpCDF	**0.028**	**B**	0.0037	0.00041	ug/Kg	☼	11/14/18 13:54	11/21/18 11:15	1
1,2,3,4,7,8,9-HpCDF	**0.0019**	**J B**	0.0037	0.00049	ug/Kg	☼	11/14/18 13:54	11/21/18 11:15	1
1,2,3,4,7,8-HxCDD	**0.00084**	**J B**	0.0037	0.00011	ug/Kg	☼	11/14/18 13:54	11/21/18 11:15	1
1,2,3,4,7,8-HxCDF	**0.0033**	**J B**	0.0037	0.00014	ug/Kg	☼	11/14/18 13:54	11/21/18 11:15	1
1,2,3,6,7,8-HxCDD	**0.0032**	**J B**	0.0037	0.00010	ug/Kg	☼	11/14/18 13:54	11/21/18 11:15	1
1,2,3,6,7,8-HxCDF	**0.0015**	**J**	0.0037	0.00013	ug/Kg	☼	11/14/18 13:54	11/21/18 11:15	1
1,2,3,7,8,9-HxCDD	**0.0016**	**J B**	0.0037	0.000088	ug/Kg	☼	11/14/18 13:54	11/21/18 11:15	1
1,2,3,7,8,9-HxCDF	**0.00020**	**J B q**	0.0037	0.00010	ug/Kg	☼	11/14/18 13:54	11/21/18 11:15	1
1,2,3,7,8-PeCDD	**0.00041**	**J B**	0.0037	0.00015	ug/Kg	☼	11/14/18 13:54	11/21/18 11:15	1
1,2,3,7,8-PeCDF	**0.00044**	**J q**	0.0037	0.00012	ug/Kg	☼	11/14/18 13:54	11/21/18 11:15	1
2,3,4,6,7,8-HxCDF	**0.00067**	**J B**	0.0037	0.00010	ug/Kg	☼	11/14/18 13:54	11/21/18 11:15	1
2,3,4,7,8-PeCDF	**0.00047**	**J q**	0.0037	0.00013	ug/Kg	☼	11/14/18 13:54	11/21/18 11:15	1
2,3,7,8-TCDD	**0.00022**	**J q**	0.00073	0.000078	ug/Kg	☼	11/14/18 13:54	11/21/18 11:15	1
2,3,7,8-TCDF	**0.00071**	**J**	0.00073	0.000069	ug/Kg	☼	11/14/18 13:54	11/21/18 11:15	1
OCDD	**0.82**	**B**	0.0073	0.00080	ug/Kg	☼	11/14/18 13:54	11/21/18 11:15	1
OCDF	**0.10**	**B**	0.0073	0.00014	ug/Kg	☼	11/14/18 13:54	11/21/18 11:15	1
Total HpCDD	**0.19**	**B**	0.0037	0.00086	ug/Kg	☼	11/14/18 13:54	11/21/18 11:15	1
Total HpCDF	**0.11**	**B**	0.0037	0.00045	ug/Kg	☼	11/14/18 13:54	11/21/18 11:15	1
Total HxCDD	**0.022**	**B q**	0.0037	0.000099	ug/Kg	☼	11/14/18 13:54	11/21/18 11:15	1
Total HxCDF	**0.033**	**B q**	0.0037	0.00012	ug/Kg	☼	11/14/18 13:54	11/21/18 11:15	1
Total PeCDD	**0.0021**	**J B q**	0.0037	0.00015	ug/Kg	☼	11/14/18 13:54	11/21/18 11:15	1
Total PeCDF	**0.0056**	**q**	0.0037	0.00012	ug/Kg	☼	11/14/18 13:54	11/21/18 11:15	1
Total TCDF	**0.0020**	**q**	0.00073	0.000069	ug/Kg	☼	11/14/18 13:54	11/21/18 11:15	1
Total TCDD	**0.0011**	**q**	0.00073	0.000078	ug/Kg	☼	11/14/18 13:54	11/21/18 11:15	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-1,2,3,4,6,7,8-HpCDD	*60*		*23 - 140*	*11/14/18 13:54*	*11/21/18 11:15*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*67*		*28 - 143*	*11/14/18 13:54*	*11/21/18 11:15*	*1*

Client Sample ID: L3-SC-00to10-102218
Date Collected: 10/22/18 10:35
Date Received: 10/24/18 14:10

Lab Sample ID: 580-81308-26
Matrix: Solid
Percent Solids: 69.4

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-1,2,3,4,7,8,9-HpCDF	73		26 - 138	11/14/18 13:54	11/21/18 11:15	1
13C-1,2,3,4,7,8-HxCDD	77		32 - 141	11/14/18 13:54	11/21/18 11:15	1
13C-1,2,3,4,7,8-HxCDF	89		26 - 152	11/14/18 13:54	11/21/18 11:15	1
13C-1,2,3,6,7,8-HxCDD	78		28 - 130	11/14/18 13:54	11/21/18 11:15	1
13C-1,2,3,6,7,8-HxCDF	87		26 - 123	11/14/18 13:54	11/21/18 11:15	1
13C-1,2,3,7,8,9-HxCDF	83		29 - 147	11/14/18 13:54	11/21/18 11:15	1
13C-1,2,3,7,8-PeCDD	62		25 - 181	11/14/18 13:54	11/21/18 11:15	1
13C-1,2,3,7,8-PeCDF	74		24 - 185	11/14/18 13:54	11/21/18 11:15	1
13C-2,3,4,6,7,8-HxCDF	91		28 - 136	11/14/18 13:54	11/21/18 11:15	1
13C-2,3,4,7,8-PeCDF	72		21 - 178	11/14/18 13:54	11/21/18 11:15	1
13C-2,3,7,8-TCDD	74		25 - 164	11/14/18 13:54	11/21/18 11:15	1
13C-2,3,7,8-TCDF	86		24 - 169	11/14/18 13:54	11/21/18 11:15	1
13C-OCDD	44		17 - 157	11/14/18 13:54	11/21/18 11:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
37Cl4-2,3,7,8-TCDD	105		35 - 197	11/14/18 13:54	11/21/18 11:15	1

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3.9		0.25	0.050	mg/Kg	☼	11/09/18 16:17	11/12/18 18:32	5
Cadmium	0.20		0.20	0.039	mg/Kg	☼	11/09/18 16:17	11/12/18 18:32	5
Copper	29		0.50	0.11	mg/Kg	☼	11/09/18 16:17	11/12/18 18:32	5
Lead	21		0.25	0.024	mg/Kg	☼	11/09/18 16:17	11/12/18 18:32	5
Zinc	120		2.5	0.81	mg/Kg	☼	11/09/18 16:17	11/12/18 18:32	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.13		0.027	0.0080	mg/Kg	☼	11/09/18 11:42	11/09/18 19:40	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	5000		2000	44	mg/Kg			11/02/18 16:33	1
Total Solids	69.4		0.1	0.1	%			11/01/18 18:46	1
Percent Moisture	32	H	0.10	0.10	%			11/07/18 10:32	1
Percent Solids	68	H	0.10	0.10	%			11/07/18 10:32	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Clay	5.2				%			11/07/18 10:32	1
Coarse Sand	0.2				%			11/07/18 10:32	1
Fine Sand	62.1				%			11/07/18 10:32	1
Gravel	0.4				%			11/07/18 10:32	1
Medium Sand	26.4				%			11/07/18 10:32	1
Silt	5.8				%			11/07/18 10:32	1

Method: D854 - Specific Gravity

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Density	1.44		0.0100	0.0100	g/cm3			11/09/18 00:00	1
Specific Gravity	1.44		0.0100	0.0100	NONE			11/09/18 00:00	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 580-288588/1-A
Matrix: Solid
Analysis Batch: 288647

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 288588

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		2.0	0.34	ug/Kg		11/10/18 09:55	11/12/18 15:00	1
PCB-1221	ND		2.0	0.95	ug/Kg		11/10/18 09:55	11/12/18 15:00	1
PCB-1232	ND		2.0	0.47	ug/Kg		11/10/18 09:55	11/12/18 15:00	1
PCB-1242	ND		2.0	0.49	ug/Kg		11/10/18 09:55	11/12/18 15:00	1
PCB-1248	ND		2.0	0.16	ug/Kg		11/10/18 09:55	11/12/18 15:00	1
PCB-1254	ND		2.0	0.79	ug/Kg		11/10/18 09:55	11/12/18 15:00	1
PCB-1260	ND		2.0	0.34	ug/Kg		11/10/18 09:55	11/12/18 15:00	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*77*		*54 - 142*	*11/10/18 09:55*	*11/12/18 15:00*	*1*
Tetrachloro-m-xylene	*61*		*58 - 122*	*11/10/18 09:55*	*11/12/18 15:00*	*1*

Lab Sample ID: LCS 580-288588/2-A
Matrix: Solid
Analysis Batch: 288647

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 288588

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	10.0	7.96		ug/Kg		80	64 - 120
PCB-1260	10.0	8.17		ug/Kg		82	63 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*90*		*54 - 142*
Tetrachloro-m-xylene	*68*		*58 - 122*

Lab Sample ID: 580-81308-21 MS
Matrix: Solid
Analysis Batch: 288686

Client Sample ID: J5-SC-40to60-102218
Prep Type: Total/NA
Prep Batch: 288588

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	ND	F1	16.8	181	F1	ug/Kg	☼	1074	64 - 120
PCB-1260	ND	F1	16.8	154	F1	ug/Kg	☼	913	63 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*129*		*54 - 142*
Tetrachloro-m-xylene	*54*	*X*	*58 - 122*

Lab Sample ID: 580-81308-21 MSD
Matrix: Solid
Analysis Batch: 288686

Client Sample ID: J5-SC-40to60-102218
Prep Type: Total/NA
Prep Batch: 288588

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-1016	ND	F1	16.0	172	F1	ug/Kg	☼	1077	64 - 120	5	21
PCB-1260	ND	F1	16.0	152	F1	ug/Kg	☼	952	63 - 130	1	25

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
DCB Decachlorobiphenyl	*123*		*54 - 142*
Tetrachloro-m-xylene	*54*	*X*	*58 - 122*

Lab Sample ID: MB 580-288727/1-A
Matrix: Solid
Analysis Batch: 288911

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 288727

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		2.0	0.34	ug/Kg		11/13/18 10:12	11/14/18 16:37	1
PCB-1221	ND		2.0	0.95	ug/Kg		11/13/18 10:12	11/14/18 16:37	1
PCB-1232	ND		2.0	0.47	ug/Kg		11/13/18 10:12	11/14/18 16:37	1
PCB-1242	ND		2.0	0.49	ug/Kg		11/13/18 10:12	11/14/18 16:37	1
PCB-1248	ND		2.0	0.16	ug/Kg		11/13/18 10:12	11/14/18 16:37	1
PCB-1254	ND		2.0	0.79	ug/Kg		11/13/18 10:12	11/14/18 16:37	1
PCB-1260	ND		2.0	0.34	ug/Kg		11/13/18 10:12	11/14/18 16:37	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*66*		*54 - 142*	*11/13/18 10:12*	*11/14/18 16:37*	*1*
Tetrachloro-m-xylene	*67*		*58 - 122*	*11/13/18 10:12*	*11/14/18 16:37*	*1*

Lab Sample ID: LCS 580-288727/2-A
Matrix: Solid
Analysis Batch: 288911

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 288727

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
PCB-1016			10.0	7.78		ug/Kg		78	64 - 120		
PCB-1260			10.0	8.54		ug/Kg		85	63 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*66*		*54 - 142*
Tetrachloro-m-xylene	*65*		*58 - 122*

Lab Sample ID: MB 580-288836/1-A
Matrix: Water
Analysis Batch: 288986

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 288836

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.45	0.061	ug/L		11/14/18 07:52	11/15/18 12:00	1
PCB-1221	ND		0.45	0.075	ug/L		11/14/18 07:52	11/15/18 12:00	1
PCB-1232	ND		0.45	0.063	ug/L		11/14/18 07:52	11/15/18 12:00	1
PCB-1242	ND		0.45	0.059	ug/L		11/14/18 07:52	11/15/18 12:00	1
PCB-1248	ND		0.45	0.052	ug/L		11/14/18 07:52	11/15/18 12:00	1
PCB-1254	ND		0.45	0.075	ug/L		11/14/18 07:52	11/15/18 12:00	1
PCB-1260	ND		0.45	0.061	ug/L		11/14/18 07:52	11/15/18 12:00	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*98*		*38 - 140*	*11/14/18 07:52*	*11/15/18 12:00*	*1*
Tetrachloro-m-xylene	*79*		*40 - 120*	*11/14/18 07:52*	*11/15/18 12:00*	*1*

Lab Sample ID: LCS 580-288836/2-A
Matrix: Water
Analysis Batch: 288986

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 288836

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
PCB-1016			1.00	0.899		ug/L		90	50 - 121		
PCB-1260			1.00	0.886		ug/L		89	55 - 132		

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: LCS 580-288836/2-A
Matrix: Water
Analysis Batch: 288986

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 288836

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*88*		*38 - 140*
Tetrachloro-m-xylene	*82*		*40 - 120*

Lab Sample ID: LCSD 580-288836/3-A
Matrix: Water
Analysis Batch: 288986

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 288836

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-1016			1.00	0.883		ug/L		88	50 - 121	2	25
PCB-1260			1.00	1.01		ug/L		101	55 - 132	13	22

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
DCB Decachlorobiphenyl	*106*		*38 - 140*
Tetrachloro-m-xylene	*82*		*40 - 120*

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

Lab Sample ID: MB 580-288149/1-A
Matrix: Water
Analysis Batch: 288242

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 288149

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		0.11	0.065	mg/L		11/05/18 07:59	11/06/18 13:00	1
Motor Oil (>C24-C36)	ND		0.35	0.096	mg/L		11/05/18 07:59	11/06/18 13:00	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*88*		*50 - 150*	*11/05/18 07:59*	*11/06/18 13:00*	*1*

Lab Sample ID: LCS 580-288149/2-A
Matrix: Water
Analysis Batch: 288242

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 288149

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
#2 Diesel (C10-C24)			2.00	1.66		mg/L		83	50 - 120
Motor Oil (>C24-C36)			2.00	1.99		mg/L		100	64 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
o-Terphenyl	*100*		*50 - 150*

Lab Sample ID: LCSD 580-288149/3-A
Matrix: Water
Analysis Batch: 288242

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 288149

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
#2 Diesel (C10-C24)			2.00	1.62		mg/L		81	50 - 120	3	26
Motor Oil (>C24-C36)			2.00	1.86		mg/L		93	64 - 120	7	24

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

Lab Sample ID: LCSD 580-288149/3-A
Matrix: Water
Analysis Batch: 288242

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 288149

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
o-Terphenyl	86		50 - 150

Lab Sample ID: MB 580-288491/1-A
Matrix: Solid
Analysis Batch: 288786

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 288491

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		50	12	mg/Kg		11/09/18 09:01	11/13/18 20:01	1
Motor Oil (>C24-C36)	ND		50	18	mg/Kg		11/09/18 09:01	11/13/18 20:01	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	94		50 - 150	11/09/18 09:01	11/13/18 20:01	1

Lab Sample ID: LCS 580-288491/2-A
Matrix: Solid
Analysis Batch: 288786

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 288491

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
#2 Diesel (C10-C24)			500	468		mg/Kg		94	70 - 125		
Motor Oil (>C24-C36)			500	493		mg/Kg		99	70 - 129		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
o-Terphenyl	102		50 - 150

Lab Sample ID: LCSD 580-288491/3-A
Matrix: Solid
Analysis Batch: 288786

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 288491

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
#2 Diesel (C10-C24)			500	469		mg/Kg		94	70 - 125	0	16
Motor Oil (>C24-C36)			500	495		mg/Kg		99	70 - 129	0	16

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
o-Terphenyl	110		50 - 150

Lab Sample ID: 580-81308-2 DU
Matrix: Solid
Analysis Batch: 288786

Client Sample ID: J3-SC-55to76-102218
Prep Type: Total/NA
Prep Batch: 288491

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
#2 Diesel (C10-C24)	14	J		ND		mg/Kg	☼			NC	35
Motor Oil (>C24-C36)	46	J		43.7	J	mg/Kg	☼			4	35

Surrogate	DU %Recovery	DU Qualifier	Limits
o-Terphenyl	96		50 - 150

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

Lab Sample ID: 580-81308-20 DU
Matrix: Solid
Analysis Batch: 289001

Client Sample ID: J6-SC-96to111-102218
Prep Type: Total/NA
Prep Batch: 288491

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
#2 Diesel (C10-C24)	17	J		21.8	J	mg/Kg	☼			27	35
Motor Oil (>C24-C36)	79			104		mg/Kg	☼			27	35

Surrogate	*DU %Recovery*	*DU Qualifier*	*Limits*
o-Terphenyl	*96*		*50 - 150*

Lab Sample ID: MB 580-288508/1-A
Matrix: Solid
Analysis Batch: 288666

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 288508

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		50	12	mg/Kg		11/09/18 10:15	11/12/18 14:22	1
Motor Oil (>C24-C36)	ND		50	18	mg/Kg		11/09/18 10:15	11/12/18 14:22	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*99*		*50 - 150*	*11/09/18 10:15*	*11/12/18 14:22*	*1*

Lab Sample ID: LCS 580-288508/2-A
Matrix: Solid
Analysis Batch: 288666

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 288508

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
#2 Diesel (C10-C24)			500	471		mg/Kg		94	70 - 125		
Motor Oil (>C24-C36)			500	497		mg/Kg		99	70 - 129		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
o-Terphenyl	*115*		*50 - 150*

Lab Sample ID: LCSD 580-288508/3-A
Matrix: Solid
Analysis Batch: 288666

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 288508

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
#2 Diesel (C10-C24)			500	490		mg/Kg		98	70 - 125	4	16
Motor Oil (>C24-C36)			500	516		mg/Kg		103	70 - 129	4	16

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
o-Terphenyl	*97*		*50 - 150*

Lab Sample ID: 580-81308-26 DU
Matrix: Solid
Analysis Batch: 288666

Client Sample ID: L3-SC-00to10-102218
Prep Type: Total/NA
Prep Batch: 288508

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
#2 Diesel (C10-C24)	85			103		mg/Kg	☼			18	35
Motor Oil (>C24-C36)	350			347		mg/Kg	☼			0.2	35

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

Lab Sample ID: 580-81308-26 DU
Matrix: Solid
Analysis Batch: 288666

Client Sample ID: L3-SC-00to10-102218
Prep Type: Total/NA
Prep Batch: 288508

Surrogate	DU %Recovery	DU Qualifier	Limits
o-Terphenyl	*93*		*50 - 150*

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

Lab Sample ID: MB 320-256030/1-A
Matrix: Water
Analysis Batch: 257187

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 256030

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3,4,6,7,8-HpCDD	1.21	J	50	0.16	pg/L		10/31/18 07:35	11/06/18 06:00	1
1,2,3,4,6,7,8-HpCDF	1.57	J q	50	0.30	pg/L		10/31/18 07:35	11/06/18 06:00	1
1,2,3,4,7,8,9-HpCDF	4.73	J q	50	0.47	pg/L		10/31/18 07:35	11/06/18 06:00	1
1,2,3,4,7,8-HxCDD	1.45	J q	50	0.31	pg/L		10/31/18 07:35	11/06/18 06:00	1
1,2,3,4,7,8-HxCDF	0.810	J	50	0.24	pg/L		10/31/18 07:35	11/06/18 06:00	1
1,2,3,6,7,8-HxCDD	ND		50	0.32	pg/L		10/31/18 07:35	11/06/18 06:00	1
1,2,3,6,7,8-HxCDF	0.734	J	50	0.24	pg/L		10/31/18 07:35	11/06/18 06:00	1
1,2,3,7,8,9-HxCDD	0.794	J q	50	0.28	pg/L		10/31/18 07:35	11/06/18 06:00	1
1,2,3,7,8,9-HxCDF	4.64	J	50	0.19	pg/L		10/31/18 07:35	11/06/18 06:00	1
1,2,3,7,8-PeCDD	0.640	J	50	0.31	pg/L		10/31/18 07:35	11/06/18 06:00	1
1,2,3,7,8-PeCDF	ND		50	0.46	pg/L		10/31/18 07:35	11/06/18 06:00	1
2,3,4,6,7,8-HxCDF	ND		50	0.18	pg/L		10/31/18 07:35	11/06/18 06:00	1
2,3,4,7,8-PeCDF	ND		50	0.52	pg/L		10/31/18 07:35	11/06/18 06:00	1
2,3,7,8-TCDD	3.14	J	10	0.37	pg/L		10/31/18 07:35	11/06/18 06:00	1
2,3,7,8-TCDF	ND		10	0.20	pg/L		10/31/18 07:35	11/06/18 06:00	1
OCDD	6.60	J	100	0.18	pg/L		10/31/18 07:35	11/06/18 06:00	1
OCDF	2.31	J	100	0.14	pg/L		10/31/18 07:35	11/06/18 06:00	1
Total HpCDD	2.64	J	50	0.16	pg/L		10/31/18 07:35	11/06/18 06:00	1
Total HpCDF	7.55	J q	50	0.38	pg/L		10/31/18 07:35	11/06/18 06:00	1
Total HxCDD	3.51	J q	50	0.30	pg/L		10/31/18 07:35	11/06/18 06:00	1
Total HxCDF	7.69	J q	50	0.21	pg/L		10/31/18 07:35	11/06/18 06:00	1
Total PeCDD	0.640	J	50	0.31	pg/L		10/31/18 07:35	11/06/18 06:00	1
Total PeCDF	ND		50	0.52	pg/L		10/31/18 07:35	11/06/18 06:00	1
Total TCDF	ND		10	0.20	pg/L		10/31/18 07:35	11/06/18 06:00	1
Total TCDD	3.14	J	10	0.37	pg/L		10/31/18 07:35	11/06/18 06:00	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-1,2,3,4,6,7,8-HpCDD	*115*		*23 - 140*	*10/31/18 07:35*	*11/06/18 06:00*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*98*		*28 - 143*	*10/31/18 07:35*	*11/06/18 06:00*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*93*		*26 - 138*	*10/31/18 07:35*	*11/06/18 06:00*	*1*
13C-1,2,3,4,7,8-HxCDD	*95*		*32 - 141*	*10/31/18 07:35*	*11/06/18 06:00*	*1*
13C-1,2,3,4,7,8-HxCDF	*89*		*26 - 152*	*10/31/18 07:35*	*11/06/18 06:00*	*1*
13C-1,2,3,6,7,8-HxCDD	*83*		*28 - 130*	*10/31/18 07:35*	*11/06/18 06:00*	*1*
13C-1,2,3,6,7,8-HxCDF	*76*		*26 - 123*	*10/31/18 07:35*	*11/06/18 06:00*	*1*
13C-1,2,3,7,8,9-HxCDF	*87*		*29 - 147*	*10/31/18 07:35*	*11/06/18 06:00*	*1*
13C-1,2,3,7,8-PeCDD	*91*		*25 - 181*	*10/31/18 07:35*	*11/06/18 06:00*	*1*
13C-1,2,3,7,8-PeCDF	*86*		*24 - 185*	*10/31/18 07:35*	*11/06/18 06:00*	*1*
13C-2,3,4,6,7,8-HxCDF	*85*		*28 - 136*	*10/31/18 07:35*	*11/06/18 06:00*	*1*
13C-2,3,4,7,8-PeCDF	*82*		*21 - 178*	*10/31/18 07:35*	*11/06/18 06:00*	*1*

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

Lab Sample ID: MB 320-256030/1-A
Matrix: Water
Analysis Batch: 257187

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 256030

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-2,3,7,8-TCDD	92		25 - 164	10/31/18 07:35	11/06/18 06:00	1
13C-2,3,7,8-TCDF	86		24 - 169	10/31/18 07:35	11/06/18 06:00	1
13C-OCDD	111		17 - 157	10/31/18 07:35	11/06/18 06:00	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
37Cl4-2,3,7,8-TCDD	105		35 - 197	10/31/18 07:35	11/06/18 06:00	1

Lab Sample ID: LCS 320-256030/2-A
Matrix: Water
Analysis Batch: 257187

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 256030

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,3,4,6,7,8-HpCDD	1000	1040		pg/L		104	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	1030		pg/L		103	78 - 138
1,2,3,4,7,8-HxCDD	1000	983		pg/L		98	70 - 164
1,2,3,4,7,8-HxCDF	1000	941		pg/L		94	72 - 134
1,2,3,6,7,8-HxCDD	1000	990		pg/L		99	76 - 134
1,2,3,6,7,8-HxCDF	1000	937		pg/L		94	84 - 130
1,2,3,7,8,9-HxCDD	1000	1010		pg/L		101	64 - 162
1,2,3,7,8,9-HxCDF	1000	928		pg/L		93	78 - 130
1,2,3,7,8-PeCDD	1000	998		pg/L		100	70 - 142
1,2,3,7,8-PeCDF	1000	958		pg/L		96	80 - 134
2,3,4,6,7,8-HxCDF	1000	936		pg/L		94	70 - 156
2,3,4,7,8-PeCDF	1000	945		pg/L		94	68 - 160
2,3,7,8-TCDD	200	190		pg/L		95	67 - 158
2,3,7,8-TCDF	200	178		pg/L		89	75 - 158
OCDD	2000	2200		pg/L		110	78 - 144
OCDF	2000	2000		pg/L		100	63 - 170

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C-1,2,3,4,6,7,8-HpCDD	118		26 - 166
13C-1,2,3,4,6,7,8-HpCDF	94		21 - 158
13C-1,2,3,4,7,8,9-HpCDF	95		20 - 186
13C-1,2,3,4,7,8-HxCDD	97		21 - 193
13C-1,2,3,4,7,8-HxCDF	89		19 - 202
13C-1,2,3,6,7,8-HxCDD	86		25 - 163
13C-1,2,3,6,7,8-HxCDF	77		21 - 159
13C-1,2,3,7,8,9-HxCDF	93		17 - 205
13C-1,2,3,7,8-PeCDD	97		21 - 227
13C-1,2,3,7,8-PeCDF	90		21 - 192
13C-2,3,4,6,7,8-HxCDF	89		22 - 176
13C-2,3,4,7,8-PeCDF	88		13 - 328
13C-2,3,7,8-TCDD	97		20 - 175
13C-2,3,7,8-TCDF	90		22 - 152
13C-OCDD	118		13 - 199

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

Lab Sample ID: LCS 320-256030/2-A
Matrix: Water
Analysis Batch: 257187

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 256030

Surrogate	LCS %Recovery	LCS Qualifier	Limits
37Cl4-2,3,7,8-TCDD	106		31 - 191

Lab Sample ID: LCSD 320-256030/3-A
Matrix: Water
Analysis Batch: 257187

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 256030

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,3,4,6,7,8-HpCDD			1000	959		pg/L		96	70 - 140	8	50
1,2,3,4,6,7,8-HpCDF			1000	964		pg/L		96	82 - 122	8	50
1,2,3,4,7,8,9-HpCDF			1000	980		pg/L		98	78 - 138	5	50
1,2,3,4,7,8-HxCDD			1000	947		pg/L		95	70 - 164	4	50
1,2,3,4,7,8-HxCDF			1000	927		pg/L		93	72 - 134	1	50
1,2,3,6,7,8-HxCDD			1000	967		pg/L		97	76 - 134	2	50
1,2,3,6,7,8-HxCDF			1000	906		pg/L		91	84 - 130	3	50
1,2,3,7,8,9-HxCDD			1000	970		pg/L		97	64 - 162	4	50
1,2,3,7,8,9-HxCDF			1000	910		pg/L		91	78 - 130	2	50
1,2,3,7,8-PeCDD			1000	986		pg/L		99	70 - 142	1	50
1,2,3,7,8-PeCDF			1000	937		pg/L		94	80 - 134	2	50
2,3,4,6,7,8-HxCDF			1000	918		pg/L		92	70 - 156	2	50
2,3,4,7,8-PeCDF			1000	921		pg/L		92	68 - 160	3	50
2,3,7,8-TCDD			200	189		pg/L		94	67 - 158	1	50
2,3,7,8-TCDF			200	178		pg/L		89	75 - 158	0	50
OCDD			2000	2050		pg/L		103	78 - 144	7	50
OCDF			2000	1890		pg/L		94	63 - 170	6	50

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	Limits
13C-1,2,3,4,6,7,8-HpCDD	115		26 - 166
13C-1,2,3,4,6,7,8-HpCDF	97		21 - 158
13C-1,2,3,4,7,8,9-HpCDF	97		20 - 186
13C-1,2,3,4,7,8-HxCDD	90		21 - 193
13C-1,2,3,4,7,8-HxCDF	82		19 - 202
13C-1,2,3,6,7,8-HxCDD	78		25 - 163
13C-1,2,3,6,7,8-HxCDF	70		21 - 159
13C-1,2,3,7,8,9-HxCDF	84		17 - 205
13C-1,2,3,7,8-PeCDD	85		21 - 227
13C-1,2,3,7,8-PeCDF	80		21 - 192
13C-2,3,4,6,7,8-HxCDF	81		22 - 176
13C-2,3,4,7,8-PeCDF	79		13 - 328
13C-2,3,7,8-TCDD	85		20 - 175
13C-2,3,7,8-TCDF	82		22 - 152
13C-OCDD	122		13 - 199

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
37Cl4-2,3,7,8-TCDD	100		31 - 191

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

Lab Sample ID: MB 320-258637/1-A
Matrix: Solid
Analysis Batch: 260207

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 258637

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3,4,6,7,8-HpCDD	0.000182	J q	0.0050	0.000045	ug/Kg		11/12/18 13:18	11/20/18 16:32	1
1,2,3,4,6,7,8-HpCDF	0.000136	J	0.0050	0.000029	ug/Kg		11/12/18 13:18	11/20/18 16:32	1
1,2,3,4,7,8,9-HpCDF	ND		0.0050	0.000039	ug/Kg		11/12/18 13:18	11/20/18 16:32	1
1,2,3,4,7,8-HxCDD	0.000165	J q	0.0050	0.000036	ug/Kg		11/12/18 13:18	11/20/18 16:32	1
1,2,3,4,7,8-HxCDF	ND		0.0050	0.000040	ug/Kg		11/12/18 13:18	11/20/18 16:32	1
1,2,3,6,7,8-HxCDD	0.0000879	J q	0.0050	0.000037	ug/Kg		11/12/18 13:18	11/20/18 16:32	1
1,2,3,6,7,8-HxCDF	ND		0.0050	0.000038	ug/Kg		11/12/18 13:18	11/20/18 16:32	1
1,2,3,7,8,9-HxCDD	ND		0.0050	0.000031	ug/Kg		11/12/18 13:18	11/20/18 16:32	1
1,2,3,7,8,9-HxCDF	ND		0.0050	0.000033	ug/Kg		11/12/18 13:18	11/20/18 16:32	1
1,2,3,7,8-PeCDD	ND		0.0050	0.000040	ug/Kg		11/12/18 13:18	11/20/18 16:32	1
1,2,3,7,8-PeCDF	ND		0.0050	0.000064	ug/Kg		11/12/18 13:18	11/20/18 16:32	1
2,3,4,6,7,8-HxCDF	ND		0.0050	0.000032	ug/Kg		11/12/18 13:18	11/20/18 16:32	1
2,3,4,7,8-PeCDF	ND		0.0050	0.000067	ug/Kg		11/12/18 13:18	11/20/18 16:32	1
2,3,7,8-TCDD	ND		0.0010	0.000080	ug/Kg		11/12/18 13:18	11/20/18 16:32	1
2,3,7,8-TCDF	0.000139	J	0.0010	0.000055	ug/Kg		11/12/18 13:18	11/20/18 16:32	1
OCDD	0.00193	J q	0.010	0.000049	ug/Kg		11/12/18 13:18	11/20/18 16:32	1
OCDF	ND		0.010	0.000050	ug/Kg		11/12/18 13:18	11/20/18 16:32	1
Total HpCDD	0.000497	J q	0.0050	0.000045	ug/Kg		11/12/18 13:18	11/20/18 16:32	1
Total HpCDF	0.000136	J	0.0050	0.000034	ug/Kg		11/12/18 13:18	11/20/18 16:32	1
Total HxCDD	0.000253	J q	0.0050	0.000035	ug/Kg		11/12/18 13:18	11/20/18 16:32	1
Total HxCDF	ND		0.0050	0.000040	ug/Kg		11/12/18 13:18	11/20/18 16:32	1
Total PeCDD	ND		0.0050	0.000040	ug/Kg		11/12/18 13:18	11/20/18 16:32	1
Total PeCDF	ND		0.0050	0.000067	ug/Kg		11/12/18 13:18	11/20/18 16:32	1
Total TCDF	0.000139	J	0.0010	0.000055	ug/Kg		11/12/18 13:18	11/20/18 16:32	1
Total TCDD	ND		0.0010	0.000080	ug/Kg		11/12/18 13:18	11/20/18 16:32	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-1,2,3,4,6,7,8-HpCDD	*84*		*23 - 140*	*11/12/18 13:18*	*11/20/18 16:32*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*84*		*28 - 143*	*11/12/18 13:18*	*11/20/18 16:32*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*85*		*26 - 138*	*11/12/18 13:18*	*11/20/18 16:32*	*1*
13C-1,2,3,4,7,8-HxCDD	*93*		*32 - 141*	*11/12/18 13:18*	*11/20/18 16:32*	*1*
13C-1,2,3,4,7,8-HxCDF	*91*		*26 - 152*	*11/12/18 13:18*	*11/20/18 16:32*	*1*
13C-1,2,3,6,7,8-HxCDD	*91*		*28 - 130*	*11/12/18 13:18*	*11/20/18 16:32*	*1*
13C-1,2,3,6,7,8-HxCDF	*92*		*26 - 123*	*11/12/18 13:18*	*11/20/18 16:32*	*1*
13C-1,2,3,7,8,9-HxCDF	*80*		*29 - 147*	*11/12/18 13:18*	*11/20/18 16:32*	*1*
13C-1,2,3,7,8-PeCDD	*73*		*25 - 181*	*11/12/18 13:18*	*11/20/18 16:32*	*1*
13C-1,2,3,7,8-PeCDF	*73*		*24 - 185*	*11/12/18 13:18*	*11/20/18 16:32*	*1*
13C-2,3,4,6,7,8-HxCDF	*87*		*28 - 136*	*11/12/18 13:18*	*11/20/18 16:32*	*1*
13C-2,3,4,7,8-PeCDF	*74*		*21 - 178*	*11/12/18 13:18*	*11/20/18 16:32*	*1*
13C-2,3,7,8-TCDD	*77*		*25 - 164*	*11/12/18 13:18*	*11/20/18 16:32*	*1*
13C-2,3,7,8-TCDF	*70*		*24 - 169*	*11/12/18 13:18*	*11/20/18 16:32*	*1*
13C-OCDD	*74*		*17 - 157*	*11/12/18 13:18*	*11/20/18 16:32*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
37Cl4-2,3,7,8-TCDD	*104*		*35 - 197*	*11/12/18 13:18*	*11/20/18 16:32*	*1*

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

Lab Sample ID: LCS 320-258637/2-A
Matrix: Solid
Analysis Batch: 260207

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 258637

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,3,4,6,7,8-HpCDD	0.100	0.109		ug/Kg		109	70 - 140
1,2,3,4,6,7,8-HpCDF	0.100	0.110		ug/Kg		110	82 - 122
1,2,3,4,7,8,9-HpCDF	0.100	0.108		ug/Kg		108	78 - 138
1,2,3,4,7,8-HxCDD	0.100	0.107		ug/Kg		107	70 - 164
1,2,3,4,7,8-HxCDF	0.100	0.108		ug/Kg		108	72 - 134
1,2,3,6,7,8-HxCDD	0.100	0.110		ug/Kg		110	76 - 134
1,2,3,6,7,8-HxCDF	0.100	0.112		ug/Kg		112	84 - 130
1,2,3,7,8,9-HxCDD	0.100	0.0981		ug/Kg		98	64 - 162
1,2,3,7,8,9-HxCDF	0.100	0.112		ug/Kg		112	78 - 130
1,2,3,7,8-PeCDD	0.100	0.110		ug/Kg		110	70 - 142
1,2,3,7,8-PeCDF	0.100	0.107		ug/Kg		107	80 - 134
2,3,4,6,7,8-HxCDF	0.100	0.113		ug/Kg		113	70 - 156
2,3,4,7,8-PeCDF	0.100	0.104		ug/Kg		104	68 - 160
2,3,7,8-TCDD	0.0200	0.0216		ug/Kg		108	67 - 158
2,3,7,8-TCDF	0.0200	0.0222		ug/Kg		111	75 - 158
OCDD	0.200	0.219		ug/Kg		109	78 - 144
OCDF	0.200	0.226		ug/Kg		113	63 - 170

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C-1,2,3,4,6,7,8-HpCDD	*84*		*26 - 166*
13C-1,2,3,4,6,7,8-HpCDF	*87*		*21 - 158*
13C-1,2,3,4,7,8,9-HpCDF	*86*		*20 - 186*
13C-1,2,3,4,7,8-HxCDD	*93*		*21 - 193*
13C-1,2,3,4,7,8-HxCDF	*91*		*19 - 202*
13C-1,2,3,6,7,8-HxCDD	*89*		*25 - 163*
13C-1,2,3,6,7,8-HxCDF	*90*		*21 - 159*
13C-1,2,3,7,8,9-HxCDF	*78*		*17 - 205*
13C-1,2,3,7,8-PeCDD	*70*		*21 - 227*
13C-1,2,3,7,8-PeCDF	*70*		*21 - 192*
13C-2,3,4,6,7,8-HxCDF	*86*		*22 - 176*
13C-2,3,4,7,8-PeCDF	*71*		*13 - 328*
13C-2,3,7,8-TCDD	*73*		*20 - 175*
13C-2,3,7,8-TCDF	*68*		*22 - 152*
13C-OCDD	*75*		*13 - 199*

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
37Cl4-2,3,7,8-TCDD	*102*		*31 - 191*

Lab Sample ID: LCSD 320-258637/3-A
Matrix: Solid
Analysis Batch: 260207

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 258637

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	0.112		ug/Kg		112	70 - 140	3	50
1,2,3,4,6,7,8-HpCDF	0.100	0.111		ug/Kg		111	82 - 122	1	50
1,2,3,4,7,8,9-HpCDF	0.100	0.111		ug/Kg		111	78 - 138	2	50
1,2,3,4,7,8-HxCDD	0.100	0.107		ug/Kg		107	70 - 164	0	50
1,2,3,4,7,8-HxCDF	0.100	0.110		ug/Kg		110	72 - 134	2	50

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

Lab Sample ID: LCSD 320-258637/3-A
Matrix: Solid
Analysis Batch: 260207

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 258637

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,3,6,7,8-HxCDD			0.100	0.110		ug/Kg		110	76 - 134	1	50
1,2,3,6,7,8-HxCDF			0.100	0.113		ug/Kg		113	84 - 130	1	50
1,2,3,7,8,9-HxCDD			0.100	0.109		ug/Kg		109	64 - 162	10	50
1,2,3,7,8,9-HxCDF			0.100	0.113		ug/Kg		113	78 - 130	1	50
1,2,3,7,8-PeCDD			0.100	0.111		ug/Kg		111	70 - 142	1	50
1,2,3,7,8-PeCDF			0.100	0.107		ug/Kg		107	80 - 134	0	50
2,3,4,6,7,8-HxCDF			0.100	0.113		ug/Kg		113	70 - 156	0	50
2,3,4,7,8-PeCDF			0.100	0.106		ug/Kg		106	68 - 160	2	50
2,3,7,8-TCDD			0.0200	0.0218		ug/Kg		109	67 - 158	0	50
2,3,7,8-TCDF			0.0200	0.0222		ug/Kg		111	75 - 158	0	50
OCDD			0.200	0.221		ug/Kg		111	78 - 144	1	50
OCDF			0.200	0.230		ug/Kg		115	63 - 170	2	50

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
13C-1,2,3,4,6,7,8-HpCDD	*84*		*26 - 166*
13C-1,2,3,4,6,7,8-HpCDF	*83*		*21 - 158*
13C-1,2,3,4,7,8,9-HpCDF	*86*		*20 - 186*
13C-1,2,3,4,7,8-HxCDD	*82*		*21 - 193*
13C-1,2,3,4,7,8-HxCDF	*82*		*19 - 202*
13C-1,2,3,6,7,8-HxCDD	*83*		*25 - 163*
13C-1,2,3,6,7,8-HxCDF	*84*		*21 - 159*
13C-1,2,3,7,8,9-HxCDF	*79*		*17 - 205*
13C-1,2,3,7,8-PeCDD	*75*		*21 - 227*
13C-1,2,3,7,8-PeCDF	*75*		*21 - 192*
13C-2,3,4,6,7,8-HxCDF	*86*		*22 - 176*
13C-2,3,4,7,8-PeCDF	*70*		*13 - 328*
13C-2,3,7,8-TCDD	*78*		*20 - 175*
13C-2,3,7,8-TCDF	*72*		*22 - 152*
13C-OCDD	*76*		*13 - 199*

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
37Cl4-2,3,7,8-TCDD	*106*		*31 - 191*

Lab Sample ID: MB 320-259167/1-A
Matrix: Solid
Analysis Batch: 260207

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 259167

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3,4,6,7,8-HpCDD	0.000309	J	0.0050	0.000043	ug/Kg		11/14/18 13:54	11/21/18 00:08	1
1,2,3,4,6,7,8-HpCDF	0.000163	J q	0.0050	0.000041	ug/Kg		11/14/18 13:54	11/21/18 00:08	1
1,2,3,4,7,8,9-HpCDF	0.000410	J	0.0050	0.000052	ug/Kg		11/14/18 13:54	11/21/18 00:08	1
1,2,3,4,7,8-HxCDD	0.000257	J	0.0050	0.000036	ug/Kg		11/14/18 13:54	11/21/18 00:08	1
1,2,3,4,7,8-HxCDF	0.000147	J	0.0050	0.000054	ug/Kg		11/14/18 13:54	11/21/18 00:08	1
1,2,3,6,7,8-HxCDD	0.000275	J	0.0050	0.000034	ug/Kg		11/14/18 13:54	11/21/18 00:08	1
1,2,3,6,7,8-HxCDF	ND		0.0050	0.000048	ug/Kg		11/14/18 13:54	11/21/18 00:08	1
1,2,3,7,8,9-HxCDD	0.000302	J	0.0050	0.000030	ug/Kg		11/14/18 13:54	11/21/18 00:08	1
1,2,3,7,8,9-HxCDF	0.000250	J q	0.0050	0.000038	ug/Kg		11/14/18 13:54	11/21/18 00:08	1
1,2,3,7,8-PeCDD	0.0000936	J	0.0050	0.000044	ug/Kg		11/14/18 13:54	11/21/18 00:08	1

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

Lab Sample ID: MB 320-259167/1-A
Matrix: Solid
Analysis Batch: 260207

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 259167

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3,7,8-PeCDF	ND		0.0050	0.000044	ug/Kg		11/14/18 13:54	11/21/18 00:08	1
2,3,4,6,7,8-HxCDF	0.000112	J	0.0050	0.000037	ug/Kg		11/14/18 13:54	11/21/18 00:08	1
2,3,4,7,8-PeCDF	ND		0.0050	0.000057	ug/Kg		11/14/18 13:54	11/21/18 00:08	1
2,3,7,8-TCDD	ND		0.0010	0.000062	ug/Kg		11/14/18 13:54	11/21/18 00:08	1
2,3,7,8-TCDF	ND		0.0010	0.000039	ug/Kg		11/14/18 13:54	11/21/18 00:08	1
OCDD	0.00275	J	0.010	0.000040	ug/Kg		11/14/18 13:54	11/21/18 00:08	1
OCDF	0.000533	J	0.010	0.000040	ug/Kg		11/14/18 13:54	11/21/18 00:08	1
Total HpCDD	0.000634	J q	0.0050	0.000043	ug/Kg		11/14/18 13:54	11/21/18 00:08	1
Total HpCDF	0.000573	J q	0.0050	0.000046	ug/Kg		11/14/18 13:54	11/21/18 00:08	1
Total HxCDD	0.00138	J q	0.0050	0.000033	ug/Kg		11/14/18 13:54	11/21/18 00:08	1
Total HxCDF	0.000509	J q	0.0050	0.000044	ug/Kg		11/14/18 13:54	11/21/18 00:08	1
Total PeCDD	0.0000936	J	0.0050	0.000044	ug/Kg		11/14/18 13:54	11/21/18 00:08	1
Total PeCDF	ND		0.0050	0.000057	ug/Kg		11/14/18 13:54	11/21/18 00:08	1
Total TCDF	ND		0.0010	0.000039	ug/Kg		11/14/18 13:54	11/21/18 00:08	1
Total TCDD	ND		0.0010	0.000062	ug/Kg		11/14/18 13:54	11/21/18 00:08	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C-1,2,3,4,6,7,8-HpCDD	*96*		*23 - 140*	*11/14/18 13:54*	*11/21/18 00:08*	*1*
13C-1,2,3,4,6,7,8-HpCDF	*93*		*28 - 143*	*11/14/18 13:54*	*11/21/18 00:08*	*1*
13C-1,2,3,4,7,8,9-HpCDF	*102*		*26 - 138*	*11/14/18 13:54*	*11/21/18 00:08*	*1*
13C-1,2,3,4,7,8-HxCDD	*89*		*32 - 141*	*11/14/18 13:54*	*11/21/18 00:08*	*1*
13C-1,2,3,4,7,8-HxCDF	*91*		*26 - 152*	*11/14/18 13:54*	*11/21/18 00:08*	*1*
13C-1,2,3,6,7,8-HxCDD	*90*		*28 - 130*	*11/14/18 13:54*	*11/21/18 00:08*	*1*
13C-1,2,3,6,7,8-HxCDF	*95*		*26 - 123*	*11/14/18 13:54*	*11/21/18 00:08*	*1*
13C-1,2,3,7,8,9-HxCDF	*92*		*29 - 147*	*11/14/18 13:54*	*11/21/18 00:08*	*1*
13C-1,2,3,7,8-PeCDD	*78*		*25 - 181*	*11/14/18 13:54*	*11/21/18 00:08*	*1*
13C-1,2,3,7,8-PeCDF	*82*		*24 - 185*	*11/14/18 13:54*	*11/21/18 00:08*	*1*
13C-2,3,4,6,7,8-HxCDF	*100*		*28 - 136*	*11/14/18 13:54*	*11/21/18 00:08*	*1*
13C-2,3,4,7,8-PeCDF	*70*		*21 - 178*	*11/14/18 13:54*	*11/21/18 00:08*	*1*
13C-2,3,7,8-TCDD	*84*		*25 - 164*	*11/14/18 13:54*	*11/21/18 00:08*	*1*
13C-2,3,7,8-TCDF	*81*		*24 - 169*	*11/14/18 13:54*	*11/21/18 00:08*	*1*
13C-OCDD	*85*		*17 - 157*	*11/14/18 13:54*	*11/21/18 00:08*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
37Cl4-2,3,7,8-TCDD	*105*		*35 - 197*	*11/14/18 13:54*	*11/21/18 00:08*	*1*

Lab Sample ID: LCS 320-259167/2-A
Matrix: Solid
Analysis Batch: 260207

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 259167

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,3,4,6,7,8-HpCDD	0.100	0.118		ug/Kg		118	70 - 140
1,2,3,4,6,7,8-HpCDF	0.100	0.116		ug/Kg		116	82 - 122
1,2,3,4,7,8,9-HpCDF	0.100	0.114		ug/Kg		114	78 - 138
1,2,3,4,7,8-HxCDD	0.100	0.111		ug/Kg		111	70 - 164
1,2,3,4,7,8-HxCDF	0.100	0.116		ug/Kg		116	72 - 134
1,2,3,6,7,8-HxCDD	0.100	0.113		ug/Kg		113	76 - 134
1,2,3,6,7,8-HxCDF	0.100	0.116		ug/Kg		116	84 - 130

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

Lab Sample ID: LCS 320-259167/2-A
Matrix: Solid
Analysis Batch: 260207

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 259167

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,2,3,7,8,9-HxCDD			0.100	0.109		ug/Kg		109	64 - 162		
1,2,3,7,8,9-HxCDF			0.100	0.117		ug/Kg		117	78 - 130		
1,2,3,7,8-PeCDD			0.100	0.115		ug/Kg		115	70 - 142		
1,2,3,7,8-PeCDF			0.100	0.111		ug/Kg		111	80 - 134		
2,3,4,6,7,8-HxCDF			0.100	0.118		ug/Kg		118	70 - 156		
2,3,4,7,8-PeCDF			0.100	0.111		ug/Kg		111	68 - 160		
2,3,7,8-TCDD			0.0200	0.0229		ug/Kg		114	67 - 158		
2,3,7,8-TCDF			0.0200	0.0232		ug/Kg		116	75 - 158		
OCDD			0.200	0.235		ug/Kg		117	78 - 144		
OCDF			0.200	0.240		ug/Kg		120	63 - 170		

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C-1,2,3,4,6,7,8-HpCDD	*84*		*26 - 166*
13C-1,2,3,4,6,7,8-HpCDF	*84*		*21 - 158*
13C-1,2,3,4,7,8,9-HpCDF	*87*		*20 - 186*
13C-1,2,3,4,7,8-HxCDD	*89*		*21 - 193*
13C-1,2,3,4,7,8-HxCDF	*86*		*19 - 202*
13C-1,2,3,6,7,8-HxCDD	*84*		*25 - 163*
13C-1,2,3,6,7,8-HxCDF	*85*		*21 - 159*
13C-1,2,3,7,8,9-HxCDF	*79*		*17 - 205*
13C-1,2,3,7,8-PeCDD	*74*		*21 - 227*
13C-1,2,3,7,8-PeCDF	*75*		*21 - 192*
13C-2,3,4,6,7,8-HxCDF	*84*		*22 - 176*
13C-2,3,4,7,8-PeCDF	*74*		*13 - 328*
13C-2,3,7,8-TCDD	*74*		*20 - 175*
13C-2,3,7,8-TCDF	*72*		*22 - 152*
13C-OCDD	*76*		*13 - 199*

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
37Cl4-2,3,7,8-TCDD	*100*		*31 - 191*

Lab Sample ID: LCSD 320-259167/3-A
Matrix: Solid
Analysis Batch: 260207

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 259167

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	0.118		ug/Kg		118	70 - 140	0	50
1,2,3,4,6,7,8-HpCDF			0.100	0.114		ug/Kg		114	82 - 122	1	50
1,2,3,4,7,8,9-HpCDF			0.100	0.119		ug/Kg		119	78 - 138	4	50
1,2,3,4,7,8-HxCDD			0.100	0.112		ug/Kg		112	70 - 164	1	50
1,2,3,4,7,8-HxCDF			0.100	0.114		ug/Kg		114	72 - 134	2	50
1,2,3,6,7,8-HxCDD			0.100	0.115		ug/Kg		115	76 - 134	2	50
1,2,3,6,7,8-HxCDF			0.100	0.118		ug/Kg		118	84 - 130	1	50
1,2,3,7,8,9-HxCDD			0.100	0.109		ug/Kg		109	64 - 162	0	50
1,2,3,7,8,9-HxCDF			0.100	0.118		ug/Kg		118	78 - 130	1	50
1,2,3,7,8-PeCDD			0.100	0.116		ug/Kg		116	70 - 142	1	50
1,2,3,7,8-PeCDF			0.100	0.113		ug/Kg		113	80 - 134	1	50
2,3,4,6,7,8-HxCDF			0.100	0.116		ug/Kg		116	70 - 156	2	50

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

Lab Sample ID: LCSD 320-259167/3-A
Matrix: Solid
Analysis Batch: 260207

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 259167

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2,3,4,7,8-PeCDF			0.100	0.112		ug/Kg		112	68 - 160	1	50
2,3,7,8-TCDD			0.0200	0.0232		ug/Kg		116	67 - 158	1	50
2,3,7,8-TCDF			0.0200	0.0231		ug/Kg		116	75 - 158	1	50
OCDD			0.200	0.239		ug/Kg		119	78 - 144	2	50
OCDF			0.200	0.240		ug/Kg		120	63 - 170	0	50

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
13C-1,2,3,4,6,7,8-HpCDD	*90*		*26 - 166*
13C-1,2,3,4,6,7,8-HpCDF	*91*		*21 - 158*
13C-1,2,3,4,7,8,9-HpCDF	*91*		*20 - 186*
13C-1,2,3,4,7,8-HxCDD	*93*		*21 - 193*
13C-1,2,3,4,7,8-HxCDF	*96*		*19 - 202*
13C-1,2,3,6,7,8-HxCDD	*94*		*25 - 163*
13C-1,2,3,6,7,8-HxCDF	*94*		*21 - 159*
13C-1,2,3,7,8,9-HxCDF	*86*		*17 - 205*
13C-1,2,3,7,8-PeCDD	*76*		*21 - 227*
13C-1,2,3,7,8-PeCDF	*79*		*21 - 192*
13C-2,3,4,6,7,8-HxCDF	*94*		*22 - 176*
13C-2,3,4,7,8-PeCDF	*76*		*13 - 328*
13C-2,3,7,8-TCDD	*80*		*20 - 175*
13C-2,3,7,8-TCDF	*77*		*22 - 152*
13C-OCDD	*79*		*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 140-25006/5-A
Matrix: Water
Analysis Batch: 25281

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 25006

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1	0.00183	J q	0.040	0.00035	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-2	0.00313	J	0.040	0.00039	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-3	0.00212	J q	0.040	0.00041	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-4	ND		0.060	0.0044	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-5	ND		0.040	0.0037	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-6	ND		0.040	0.0032	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-7	ND		0.040	0.0033	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-8	0.00309	J q	0.060	0.0030	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-9	ND		0.040	0.0034	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-10	ND		0.040	0.0036	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-11	0.0200	J q	0.060	0.0032	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-12	ND	C	0.080	0.0033	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-13	ND	C12	0.080	0.0033	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-14	ND		0.040	0.0028	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-15	0.00433	J q	0.040	0.0035	ng/L		11/01/18 12:40	11/10/18 00:17	1

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

Lab Sample ID: MB 140-25006/5-A
Matrix: Water
Analysis Batch: 25281

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 25006

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-16	ND		0.040	0.00064	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-17	ND		0.040	0.00057	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-18	0.00344	J C	0.080	0.00050	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-19	ND		0.040	0.00070	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-20	0.00399	J C q	0.080	0.00062	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-21	0.00315	J C q	0.080	0.00061	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-22	0.00309	J	0.040	0.00063	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-23	ND		0.040	0.00063	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-24	ND		0.040	0.00048	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-25	ND		0.040	0.00057	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-26	0.00255	J C	0.080	0.00061	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-27	ND		0.040	0.00042	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-28	0.00399	J C20 q	0.080	0.00062	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-29	0.00255	J C26	0.080	0.00061	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-30	0.00344	J C18	0.080	0.00050	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-31	0.00398	J	0.040	0.00060	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-32	0.00352	J	0.040	0.00040	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-33	0.00315	J C21 q	0.080	0.00061	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-34	ND		0.040	0.00065	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-35	0.00307	J	0.040	0.00064	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-36	ND		0.040	0.00061	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-37	0.00356	J q	0.040	0.00063	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-38	0.00166	J q	0.040	0.00066	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-39	0.00152	J q	0.040	0.00059	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-40	0.00615	J C	0.12	0.00091	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-41	0.00615	J C40	0.12	0.00091	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-42	ND		0.040	0.00091	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-43	0.00191	J C	0.080	0.00085	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-44	0.0262	J C	0.12	0.00080	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-45	0.00763	J C	0.080	0.00096	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-46	ND		0.040	0.0012	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-47	0.0262	J C44	0.12	0.00080	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-48	0.00206	J	0.040	0.00091	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-49	ND	C	0.080	0.00074	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-50	ND	C	0.080	0.00088	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-51	0.00763	J C45	0.080	0.00096	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-52	0.00349	J	0.040	0.00090	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-53	ND	C50	0.080	0.00088	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-54	0.00125	J q	0.040	0.000097	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-55	0.00176	J q	0.040	0.00066	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-56	0.00440	J q	0.040	0.00066	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-57	ND		0.040	0.00067	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-58	0.00189	J	0.040	0.00068	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-59	0.00442	J C	0.12	0.00064	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-60	0.00330	J q	0.040	0.00068	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-61	0.00859	J C q	0.16	0.00063	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-62	0.00442	J C59	0.12	0.00064	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-63	0.00291	J	0.040	0.00062	ng/L		11/01/18 12:40	11/10/18 00:17	1

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

Lab Sample ID: MB 140-25006/5-A
Matrix: Water
Analysis Batch: 25281

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 25006

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-64	0.00296	J q	0.040	0.00061	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-65	0.0262	J C44	0.12	0.00080	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-66	0.00455	J q	0.040	0.00063	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-67	ND		0.040	0.00058	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-68	0.00362	J q	0.040	0.00060	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-69	ND	C49	0.080	0.00074	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-70	0.00859	J C61 q	0.16	0.00063	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-71	0.00615	J C40	0.12	0.00091	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-72	0.00215	J	0.040	0.00066	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-73	0.00191	J C43	0.080	0.00085	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-74	0.00859	J C61 q	0.16	0.00063	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-75	0.00442	J C59	0.12	0.00064	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-76	0.00859	J C61 q	0.16	0.00063	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-77	0.00474	J	0.040	0.00066	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-78	0.00210	J q	0.040	0.00068	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-79	0.00139	J q	0.040	0.00059	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-80	0.00260	J	0.040	0.00058	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-81	ND		0.040	0.00061	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-82	0.00257	J q	0.040	0.00040	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-83	0.00471	J C q	0.080	0.00037	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-84	0.00173	J q	0.040	0.00041	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-85	0.00639	J C q	0.12	0.00030	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-86	0.0193	J C	0.24	0.00030	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-87	0.0193	J C86	0.24	0.00030	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-88	0.00473	J C q	0.080	0.00036	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-89	ND		0.040	0.00040	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-90	0.00937	J C	0.12	0.00031	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-91	0.00473	J C88 q	0.080	0.00036	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-92	0.00162	J q	0.040	0.00035	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-93	ND	C	0.080	0.00035	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-94	ND		0.040	0.00040	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-95	0.00413	J q	0.040	0.00038	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-96	0.00149	J	0.040	0.00030	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-97	0.0193	J C86	0.24	0.00030	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-98	0.00278	J C q	0.080	0.00034	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-99	0.00471	J C83 q	0.080	0.00037	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-100	ND	C93	0.080	0.00035	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-101	0.00937	J C90	0.12	0.00031	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-102	0.00278	J C98 q	0.080	0.00034	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-103	ND		0.040	0.00035	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-104	ND		0.040	0.00027	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-105	0.00502	J	0.040	0.00045	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-106	0.00234	J q	0.040	0.00047	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-107	0.00305	J q	0.040	0.00051	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-108	0.00593	J C q	0.080	0.00049	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-109	0.0193	J C86	0.24	0.00030	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-110	0.00781	J C	0.080	0.00025	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-111	ND		0.040	0.00025	ng/L		11/01/18 12:40	11/10/18 00:17	1

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

Lab Sample ID: MB 140-25006/5-A
Matrix: Water
Analysis Batch: 25281

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 25006

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-112	0.00140	J q	0.040	0.00026	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-113	0.00937	J C90	0.12	0.00031	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-114	0.00329	J q	0.040	0.00044	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-115	0.00781	J C110	0.080	0.00025	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-116	0.00639	J C85 q	0.12	0.00030	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-117	0.00639	J C85 q	0.12	0.00030	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-118	0.00761	J	0.040	0.00044	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-119	0.0193	J C86	0.24	0.00030	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-120	0.00168	J	0.040	0.00025	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-121	0.00121	J q	0.040	0.00026	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-122	0.00268	J q	0.040	0.00055	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-123	0.00304	J q	0.040	0.00048	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-124	0.00593	J q C108	0.080	0.00049	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-125	0.0193	J C86	0.24	0.00030	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-126	0.00675	J	0.040	0.00051	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-127	0.00418	J q	0.040	0.00047	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-128	0.00786	J C	0.080	0.00067	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-129	0.0190	J C	0.16	0.00069	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-130	0.00481	J	0.040	0.00092	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-131	ND		0.040	0.00095	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-132	ND		0.040	0.00089	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-133	0.00178	J q	0.040	0.00087	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-134	0.00356	J C q	0.080	0.00090	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-135	0.00600	J C q	0.080	0.00033	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-136	ND		0.040	0.00024	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-137	0.00421	J	0.040	0.00078	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-138	0.0190	J C129	0.16	0.00069	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-139	0.00388	J C q	0.080	0.00077	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-140	0.00388	J C139 q	0.080	0.00077	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-141	0.00367	J q	0.040	0.00081	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-142	ND		0.040	0.00086	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-143	0.00356	J C134 q	0.080	0.00090	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-144	ND		0.040	0.00030	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-145	0.000880	J q	0.040	0.00023	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-146	0.00472	J	0.040	0.00076	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-147	0.00776	J C q	0.080	0.00087	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-148	0.00206	J q	0.040	0.00032	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-149	0.00776	J C147 q	0.080	0.00087	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-150	ND		0.040	0.00022	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-151	0.00600	J C135 q	0.080	0.00033	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-152	ND		0.040	0.00023	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-153	0.00869	J C	0.080	0.00061	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-154	0.00118	J q	0.040	0.00026	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-155	ND		0.040	0.00022	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-156	0.0122	J C	0.080	0.00077	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-157	0.0122	J C156	0.080	0.00077	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-158	0.00441	J	0.040	0.00055	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-159	0.00487	J	0.040	0.00058	ng/L		11/01/18 12:40	11/10/18 00:17	1

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

Lab Sample ID: MB 140-25006/5-A
Matrix: Water
Analysis Batch: 25281

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 25006

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-160	0.0190	J C129	0.16	0.00069	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-161	0.00297	J q	0.040	0.00057	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-162	0.00280	J q	0.040	0.00057	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-163	0.0190	J C129	0.16	0.00069	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-164	0.00256	J q	0.040	0.00061	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-165	ND		0.040	0.00065	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-166	0.00786	J C128	0.080	0.00067	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-167	0.00480	J q	0.040	0.00044	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-168	0.00869	J C153	0.080	0.00061	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-169	0.00857	J	0.040	0.00042	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-170	0.00518	J q	0.040	0.00072	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-171	ND	C	0.080	0.00070	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-172	0.00501	J	0.040	0.00070	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-173	ND	C171	0.080	0.00070	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-174	0.00340	J q	0.040	0.00066	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-175	0.00262	J q	0.040	0.00063	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-176	0.00171	J q	0.040	0.00048	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-177	0.00458	J q	0.040	0.00067	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-178	0.00219	J q	0.040	0.00069	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-179	0.00320	J q	0.040	0.00051	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-180	0.0109	J C q	0.080	0.00053	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-181	0.00409	J q	0.040	0.00063	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-182	0.00253	J q	0.040	0.00061	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-183	0.00738	J C q	0.080	0.00062	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-184	0.00216	J q	0.040	0.00052	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-185	0.00738	J C183 q	0.080	0.00062	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-186	0.00267	J	0.040	0.00050	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-187	0.00541	J	0.040	0.00059	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-188	0.00246	J	0.040	0.00045	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-189	0.00729	J q	0.040	0.00022	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-190	0.00514	J	0.040	0.00046	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-191	0.00601	J	0.040	0.00048	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-192	0.00545	J	0.040	0.00053	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-193	0.0109	J C180 q	0.080	0.00053	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-194	0.0132	J	0.040	0.00045	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-195	0.00538	J	0.040	0.00050	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-196	0.00485	J q	0.040	0.00020	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-197	0.00327	J	0.040	0.00015	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-198	0.00829	J C q	0.080	0.00020	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-199	0.00829	J C198 q	0.080	0.00020	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-200	0.00222	J q	0.040	0.00014	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-201	0.00276	J	0.040	0.00014	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-202	0.00291	J	0.040	0.00016	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-203	0.00585	J	0.040	0.00018	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-204	0.00293	J q	0.040	0.00015	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-205	0.0115	J	0.040	0.00038	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-206	0.00678	J q	0.040	0.0019	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-207	0.00335	J q	0.040	0.0014	ng/L		11/01/18 12:40	11/10/18 00:17	1

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

Lab Sample ID: MB 140-25006/5-A
Matrix: Water
Analysis Batch: 25281

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 25006

Analyte	MB Result	MB Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-208	0.00358	J q	0.040	0.0015	ng/L		11/01/18 12:40	11/10/18 00:17	1
PCB-209	0.00938	J	0.040	0.000077	ng/L		11/01/18 12:40	11/10/18 00:17	1
Total Monochlorobiphenyls	0.00708	J q	0.040	0.00000038	ng/L		11/01/18 12:40	11/10/18 00:17	1
Total Dichlorobiphenyls	0.0274	J q	0.080	0.0000034	ng/L		11/01/18 12:40	11/10/18 00:17	1
Total Trichlorobiphenyls	0.0335	J q	0.080	0.00000059	ng/L		11/01/18 12:40	11/10/18 00:17	1
Total Tetrachlorobiphenyls	0.100	J q	0.16	0.00000071	ng/L		11/01/18 12:40	11/10/18 00:17	1
Total Pentachlorobiphenyls	0.115	J q	0.24	0.00000038	ng/L		11/01/18 12:40	11/10/18 00:17	1
Total Hexachlorobiphenyls	0.123	J q	0.16	0.00000059	ng/L		11/01/18 12:40	11/10/18 00:17	1
Total Heptachlorobiphenyls	0.0894	q	0.080	0.00000057	ng/L		11/01/18 12:40	11/10/18 00:17	1
Total Octachlorobiphenyls	0.0632	J q	0.080	0.00000024	ng/L		11/01/18 12:40	11/10/18 00:17	1
Total Nonachlorobiphenyls	0.0137	J q	0.040	0.0000016	ng/L		11/01/18 12:40	11/10/18 00:17	1
Polychlorinated biphenyls, Total	0.582	q	0.24	0.00000091	ng/L		11/01/18 12:40	11/10/18 00:17	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
PCB-1L	*63*		*30 - 140*	*11/01/18 12:40*	*11/10/18 00:17*	*1*
PCB-3L	*61*		*30 - 140*	*11/01/18 12:40*	*11/10/18 00:17*	*1*
PCB-4L	*77*		*30 - 140*	*11/01/18 12:40*	*11/10/18 00:17*	*1*
PCB-15L	*74*		*30 - 140*	*11/01/18 12:40*	*11/10/18 00:17*	*1*
PCB-19L	*82*		*30 - 140*	*11/01/18 12:40*	*11/10/18 00:17*	*1*
PCB-37L	*83*		*30 - 140*	*11/01/18 12:40*	*11/10/18 00:17*	*1*
PCB-54L	*70*		*30 - 140*	*11/01/18 12:40*	*11/10/18 00:17*	*1*
PCB-77L	*79*		*30 - 140*	*11/01/18 12:40*	*11/10/18 00:17*	*1*
PCB-81L	*78*		*30 - 140*	*11/01/18 12:40*	*11/10/18 00:17*	*1*
PCB-104L	*72*		*30 - 140*	*11/01/18 12:40*	*11/10/18 00:17*	*1*
PCB-105L	*88*		*30 - 140*	*11/01/18 12:40*	*11/10/18 00:17*	*1*
PCB-114L	*83*		*30 - 140*	*11/01/18 12:40*	*11/10/18 00:17*	*1*
PCB-118L	*83*		*30 - 140*	*11/01/18 12:40*	*11/10/18 00:17*	*1*
PCB-123L	*82*		*30 - 140*	*11/01/18 12:40*	*11/10/18 00:17*	*1*
PCB-126L	*82*		*30 - 140*	*11/01/18 12:40*	*11/10/18 00:17*	*1*
PCB-155L	*75*		*30 - 140*	*11/01/18 12:40*	*11/10/18 00:17*	*1*
PCB-156L	*80*	*C*	*30 - 140*	*11/01/18 12:40*	*11/10/18 00:17*	*1*
PCB-157L	*80*	*C156*	*30 - 140*	*11/01/18 12:40*	*11/10/18 00:17*	*1*
PCB-167L	*81*		*30 - 140*	*11/01/18 12:40*	*11/10/18 00:17*	*1*
PCB-169L	*87*		*30 - 140*	*11/01/18 12:40*	*11/10/18 00:17*	*1*
PCB-170L	*76*		*30 - 140*	*11/01/18 12:40*	*11/10/18 00:17*	*1*
PCB-188L	*78*		*30 - 140*	*11/01/18 12:40*	*11/10/18 00:17*	*1*
PCB-189L	*69*		*30 - 140*	*11/01/18 12:40*	*11/10/18 00:17*	*1*
PCB-202L	*95*		*30 - 140*	*11/01/18 12:40*	*11/10/18 00:17*	*1*
PCB-205L	*65*		*30 - 140*	*11/01/18 12:40*	*11/10/18 00:17*	*1*
PCB-206L	*76*		*30 - 140*	*11/01/18 12:40*	*11/10/18 00:17*	*1*
PCB-208L	*73*		*30 - 140*	*11/01/18 12:40*	*11/10/18 00:17*	*1*
PCB-209L	*78*		*30 - 140*	*11/01/18 12:40*	*11/10/18 00:17*	*1*

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

Lab Sample ID: MB 140-25006/5-A
Matrix: Water
Analysis Batch: 25281

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 25006

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	86		40 - 125	11/01/18 12:40	11/10/18 00:17	1
PCB-111L	83		40 - 125	11/01/18 12:40	11/10/18 00:17	1
PCB-178L	91		40 - 125	11/01/18 12:40	11/10/18 00:17	1

Lab Sample ID: LCS 140-25006/6-A
Matrix: Water
Analysis Batch: 25243

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 25006

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1	1.00	0.793		ng/L		79	50 - 150
PCB-3	1.00	0.826		ng/L		83	50 - 150
PCB-4	1.00	0.898		ng/L		90	50 - 150
PCB-15	1.00	0.962		ng/L		96	50 - 150
PCB-19	1.00	1.12		ng/L		112	50 - 150
PCB-37	1.00	0.968		ng/L		97	50 - 150
PCB-54	1.00	1.05		ng/L		105	50 - 150
PCB-77	1.00	0.943		ng/L		94	50 - 150
PCB-81	1.00	0.899		ng/L		90	50 - 150
PCB-104	1.00	1.00		ng/L		100	50 - 150
PCB-105	1.00	0.986		ng/L		99	50 - 150
PCB-114	1.00	1.04		ng/L		104	50 - 150
PCB-118	1.00	0.994		ng/L		99	50 - 150
PCB-123	1.00	1.11		ng/L		111	50 - 150
PCB-126	1.00	1.07		ng/L		107	50 - 150
PCB-155	1.00	0.990		ng/L		99	50 - 150
PCB-156	2.00	1.99	C	ng/L		100	50 - 150
PCB-157	2.00	1.99	C156	ng/L		100	50 - 150
PCB-167	1.00	0.998		ng/L		100	50 - 150
PCB-169	1.00	0.910		ng/L		91	50 - 150
PCB-188	1.00	0.991		ng/L		99	50 - 150
PCB-189	1.00	1.01		ng/L		101	50 - 150
PCB-202	1.00	0.868		ng/L		87	50 - 150
PCB-205	1.00	1.10		ng/L		110	50 - 150
PCB-206	1.00	0.940		ng/L		94	50 - 150
PCB-208	1.00	0.975		ng/L		98	50 - 150
PCB-209	1.00	0.975		ng/L		98	50 - 150

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
PCB-1L	65		30 - 140
PCB-3L	64		30 - 140
PCB-4L	80		30 - 140
PCB-15L	74		30 - 140
PCB-19L	83		30 - 140
PCB-37L	84		30 - 140
PCB-54L	69		30 - 140
PCB-77L	80		30 - 140
PCB-81L	79		30 - 140
PCB-104L	74		30 - 140

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

Lab Sample ID: LCS 140-25006/6-A
Matrix: Water
Analysis Batch: 25243

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 25006

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
PCB-105L	*87*		*30 - 140*
PCB-114L	*83*		*30 - 140*
PCB-118L	*83*		*30 - 140*
PCB-123L	*81*		*30 - 140*
PCB-126L	*82*		*30 - 140*
PCB-155L	*78*		*30 - 140*
PCB-156L	*80*	*C*	*30 - 140*
PCB-157L	*80*	*C156*	*30 - 140*
PCB-167L	*81*		*30 - 140*
PCB-169L	*87*		*30 - 140*
PCB-170L	*76*		*30 - 140*
PCB-188L	*76*		*30 - 140*
PCB-189L	*69*		*30 - 140*
PCB-202L	*92*		*30 - 140*
PCB-205L	*65*		*30 - 140*
PCB-206L	*77*		*30 - 140*
PCB-208L	*74*		*30 - 140*
PCB-209L	*80*		*30 - 140*

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
PCB-28L	*90*		*40 - 125*
PCB-111L	*88*		*40 - 125*
PCB-178L	*94*		*40 - 125*

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 580-288256/22-A
Matrix: Water
Analysis Batch: 288418

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 288256

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.0010	0.00020	mg/L		11/06/18 10:19	11/07/18 15:11	1
Cadmium	ND		0.00040	0.00010	mg/L		11/06/18 10:19	11/07/18 15:11	1
Copper	ND		0.0020	0.00060	mg/L		11/06/18 10:19	11/07/18 15:11	1
Lead	ND		0.00080	0.00020	mg/L		11/06/18 10:19	11/07/18 15:11	1
Zinc	ND		0.0070	0.0019	mg/L		11/06/18 10:19	11/07/18 15:11	1

Lab Sample ID: LCS 580-288256/23-A
Matrix: Water
Analysis Batch: 288418

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 288256

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	1.00	0.940		mg/L		94	80 - 120
Cadmium	1.00	0.924		mg/L		92	80 - 120
Copper	1.00	0.953		mg/L		95	80 - 120
Lead	1.00	0.936		mg/L		94	80 - 120
Zinc	1.00	0.967		mg/L		97	80 - 120

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

Lab Sample ID: LCSD 580-288256/24-A
Matrix: Water
Analysis Batch: 288418

Client Sample ID: Lab Control Sample Dup
Prep Type: Total Recoverable
Prep Batch: 288256

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	1.00	0.960		mg/L		96	80 - 120	2	20
Cadmium	1.00	0.963		mg/L		96	80 - 120	4	20
Copper	1.00	0.973		mg/L		97	80 - 120	2	20
Lead	1.00	0.943		mg/L		94	80 - 120	1	20
Zinc	1.00	0.974		mg/L		97	80 - 120	1	20

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 580-288564/16-A
Matrix: Solid
Analysis Batch: 288722

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 288564

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.25	0.050	mg/Kg		11/09/18 16:17	11/12/18 16:42	5
Cadmium	ND		0.20	0.039	mg/Kg		11/09/18 16:17	11/12/18 16:42	5
Copper	ND		0.50	0.11	mg/Kg		11/09/18 16:17	11/12/18 16:42	5
Lead	ND		0.25	0.024	mg/Kg		11/09/18 16:17	11/12/18 16:42	5
Zinc	ND		2.5	0.81	mg/Kg		11/09/18 16:17	11/12/18 16:42	5

Lab Sample ID: LCS 580-288564/17-A
Matrix: Solid
Analysis Batch: 288722

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 288564

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	50.0	46.9		mg/Kg		94	80 - 120
Cadmium	50.0	47.2		mg/Kg		94	80 - 120
Copper	50.0	47.1		mg/Kg		94	80 - 120
Lead	50.0	49.3		mg/Kg		99	80 - 120
Zinc	50.0	50.2		mg/Kg		100	80 - 120

Lab Sample ID: LCSD 580-288564/18-A
Matrix: Solid
Analysis Batch: 288722

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 288564

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	50.0	47.5		mg/Kg		95	80 - 120	1	20
Cadmium	50.0	46.5		mg/Kg		93	80 - 120	1	20
Copper	50.0	46.7		mg/Kg		93	80 - 120	1	20
Lead	50.0	49.6		mg/Kg		99	80 - 120	1	20
Zinc	50.0	48.3		mg/Kg		97	80 - 120	4	20

Lab Sample ID: MB 580-288570/22-A
Matrix: Solid
Analysis Batch: 288722

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 288570

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.25	0.050	mg/Kg		11/09/18 17:04	11/12/18 19:22	5
Cadmium	ND		0.20	0.039	mg/Kg		11/09/18 17:04	11/12/18 19:22	5
Copper	ND		0.50	0.11	mg/Kg		11/09/18 17:04	11/12/18 19:22	5

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

Lab Sample ID: MB 580-288570/22-A
Matrix: Solid
Analysis Batch: 288722

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 288570

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.25	0.024	mg/Kg		11/09/18 17:04	11/12/18 19:22	5
Zinc	ND		2.5	0.81	mg/Kg		11/09/18 17:04	11/12/18 19:22	5

Lab Sample ID: LCS 580-288570/23-A
Matrix: Solid
Analysis Batch: 288722

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 288570

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	50.0	47.5		mg/Kg		95	80 - 120
Cadmium	50.0	46.2		mg/Kg		92	80 - 120
Copper	50.0	46.4		mg/Kg		93	80 - 120
Lead	50.0	54.3		mg/Kg		109	80 - 120
Zinc	50.0	48.7		mg/Kg		97	80 - 120

Lab Sample ID: LCSD 580-288570/24-A
Matrix: Solid
Analysis Batch: 288722

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 288570

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	50.0	47.7		mg/Kg		95	80 - 120	1	20
Cadmium	50.0	45.8		mg/Kg		92	80 - 120	1	20
Copper	50.0	46.5		mg/Kg		93	80 - 120	0	20
Lead	50.0	53.6		mg/Kg		107	80 - 120	1	20
Zinc	50.0	48.9		mg/Kg		98	80 - 120	0	20

Lab Sample ID: 580-81308-2 MS
Matrix: Solid
Analysis Batch: 288722

Client Sample ID: J3-SC-55to76-102218
Prep Type: Total/NA
Prep Batch: 288570

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	2.3		37.5	38.2		mg/Kg	☼	96	80 - 120
Cadmium	0.042	J	37.5	35.7		mg/Kg	☼	95	80 - 120
Copper	13		37.5	48.2		mg/Kg	☼	93	80 - 120
Lead	5.8		37.5	45.7		mg/Kg	☼	107	80 - 120
Zinc	44		37.5	81.1		mg/Kg	☼	99	80 - 120

Lab Sample ID: 580-81308-2 MSD
Matrix: Solid
Analysis Batch: 288722

Client Sample ID: J3-SC-55to76-102218
Prep Type: Total/NA
Prep Batch: 288570

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	2.3		37.5	38.5		mg/Kg	☼	97	80 - 120	1	20
Cadmium	0.042	J	37.5	35.3		mg/Kg	☼	94	80 - 120	1	20
Copper	13		37.5	48.0		mg/Kg	☼	92	80 - 120	0	20
Lead	5.8		37.5	45.2		mg/Kg	☼	105	80 - 120	1	20
Zinc	44		37.5	82.3		mg/Kg	☼	102	80 - 120	1	20

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

Lab Sample ID: 580-81308-2 DU
Matrix: Solid
Analysis Batch: 288722

Client Sample ID: J3-SC-55to76-102218
Prep Type: Total/NA
Prep Batch: 288570

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Arsenic	2.3		2.35		mg/Kg	☼	3	20
Cadmium	0.042	J	0.0329	J F5	mg/Kg	☼	24	20
Copper	13		12.7		mg/Kg	☼	5	20
Lead	5.8		4.46	F3	mg/Kg	☼	25	20
Zinc	44		43.5		mg/Kg	☼	1	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 580-288410/22-A
Matrix: Water
Analysis Batch: 288572

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 288410

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00030	0.00015	mg/L		11/08/18 09:22	11/09/18 15:13	1

Lab Sample ID: LCS 580-288410/23-A
Matrix: Water
Analysis Batch: 288572

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 288410

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00200	0.00192		mg/L		96	80 - 120

Lab Sample ID: LCSD 580-288410/24-A
Matrix: Water
Analysis Batch: 288572

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 288410

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.00200	0.00207		mg/L		103	80 - 120	7	20

Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 580-288441/22-A
Matrix: Solid
Analysis Batch: 288615

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 288441

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.030	0.0090	mg/Kg		11/08/18 11:47	11/09/18 17:29	1

Lab Sample ID: LCS 580-288441/23-A
Matrix: Solid
Analysis Batch: 288615

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 288441

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.167	0.182		mg/Kg		109	80 - 120

Method: 7471A - Mercury (CVAA) (Continued)

Lab Sample ID: LCSD 580-288441/24-A
Matrix: Solid
Analysis Batch: 288615

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 288441

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	3	20

Lab Sample ID: MB 580-288516/22-A
Matrix: Solid
Analysis Batch: 288615

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 288516

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.030	0.0090	mg/Kg		11/09/18 11:42	11/09/18 18:38	1

Lab Sample ID: LCS 580-288516/23-A
Matrix: Solid
Analysis Batch: 288615

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 288516

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.167	0.174		mg/Kg		104	80 - 120

Lab Sample ID: LCSD 580-288516/24-A
Matrix: Solid
Analysis Batch: 288615

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 288516

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.167	0.170		mg/Kg		102	80 - 120	2	20

Method: 9060_PSEP - TOC (Puget Sound)

Lab Sample ID: MB 580-288093/5
Matrix: Solid
Analysis Batch: 288093

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			11/02/18 12:54	1

Lab Sample ID: LCS 580-288093/6
Matrix: Solid
Analysis Batch: 288093

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	3460		mg/Kg		81	68 - 149

Lab Sample ID: LCSD 580-288093/7
Matrix: Solid
Analysis Batch: 288093

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	3300		mg/Kg		77	68 - 149	5	32

Method: 9060_PSEP - TOC (Puget Sound) (Continued)

Lab Sample ID: 580-81308-2 MS
Matrix: Solid
Analysis Batch: 288093

Client Sample ID: J3-SC-55to76-102218
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon - Duplicates	2200		120000	102000		mg/Kg		83	68 - 149

Lab Sample ID: 580-81308-2 MSD
Matrix: Solid
Analysis Batch: 288093

Client Sample ID: J3-SC-55to76-102218
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	2200		120000	106000		mg/Kg		86	68 - 149	4	32

Lab Sample ID: 580-81308-2 DU
Matrix: Solid
Analysis Batch: 288093

Client Sample ID: J3-SC-55to76-102218
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Organic Carbon - Duplicates	2200		1310	J F5	mg/Kg		52	50

Lab Sample ID: 580-81308-2 TRL
Matrix: Solid
Analysis Batch: 288093

Client Sample ID: J3-SC-55to76-102218
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	TRL Result	TRL Qualifier	Unit	D	RSD	RSD Limit
Total Organic Carbon - Duplicates	2200		1490	J	mg/Kg		29	20

Lab Sample ID: MB 580-288153/5
Matrix: Solid
Analysis Batch: 288153

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			11/02/18 15:40	1

Lab Sample ID: LCS 580-288153/6
Matrix: Solid
Analysis Batch: 288153

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	3450		mg/Kg		81	68 - 149

Lab Sample ID: LCSD 580-288153/7
Matrix: Solid
Analysis Batch: 288153

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	3730		mg/Kg		87	68 - 149	8	32

Method: 9060_PSEP - TOC (Puget Sound) (Continued)

Lab Sample ID: MB 580-288234/5
Matrix: Solid
Analysis Batch: 288234

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			11/05/18 14:07	1

Lab Sample ID: LCS 580-288234/6
Matrix: Solid
Analysis Batch: 288234

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	3640		mg/Kg		85	68 - 149		

Lab Sample ID: LCSD 580-288234/7
Matrix: Solid
Analysis Batch: 288234

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	3350		mg/Kg		78	68 - 149	8	32

Method: D 2216 - Percent Moisture

Lab Sample ID: 580-81308-7 DU
Matrix: Solid
Analysis Batch: 288013

Client Sample ID: J3-SC-10to20-102218
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Solids	77.6			77.3		%				0.4	20

Lab Sample ID: 580-81308-8 DU
Matrix: Solid
Analysis Batch: 288013

Client Sample ID: J3-SC-00to10-102218
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Solids	67.5			65.9		%				2	20

Method: Moisture 70C - Percent Moisture, 70 C

Lab Sample ID: 580-81308-25 DU
Matrix: Solid
Analysis Batch: 288882

Client Sample ID: J6-SC-10to20-102218
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Percent Moisture	53	H		53		%				0	20
Percent Solids	47	H		47		%				0	20

Method: Moisture 70C - Percent Moisture, 70 C (Continued)

Lab Sample ID: 580-81308-8 DU
Matrix: Solid
Analysis Batch: 289004

Client Sample ID: J3-SC-00to10-102218
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Percent Moisture	34	H	33		%		5	20
Percent Solids	66	H	67		%		2	20

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

Lab Sample ID: MB 580-288449/3
Matrix: Water
Analysis Batch: 288449

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	0.640	J	1.0	0.19	mg/L			11/07/18 15:21	1

Lab Sample ID: LCS 580-288449/4
Matrix: Water
Analysis Batch: 288449

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	10.9		mg/L		109	85 - 115

Method: D7928/D6913 - ASTM D7928/D6913

Lab Sample ID: 580-81308-8 DU
Matrix: Solid
Analysis Batch: 288206

Client Sample ID: J3-SC-00to10-102218
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Clay	6.6		6.4		%		3	20
Coarse Sand	0.2		0.1	F3	%		67	20
Fine Sand	66.2		65.5		%		1	20
Gravel	0.0		0.0		%		NC	20
Medium Sand	17.6		16.7		%		5	20
Silt	9.4		11.4		%		19	20

Lab Sample ID: 580-81308-25 DU
Matrix: Solid
Analysis Batch: 288352

Client Sample ID: J6-SC-10to20-102218
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Clay	33.1		32.8		%		0.9	20
Coarse Sand	0.0		0.0		%		NC	20
Fine Sand	5.2		5.3		%		2	20
Gravel	0.0		0.0		%		NC	20
Medium Sand	0.4		0.5	F3	%		22	20
Silt	61.3		61.4		%		0.2	20

Method: D854 - Specific Gravity

Lab Sample ID: LCS 140-25134/1
Matrix: Solid
Analysis Batch: 25134

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	0.9970		g/cm3		100	99 - 101

Lab Sample ID: LCS 140-25170/1
Matrix: Solid
Analysis Batch: 25170

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Specific Gravity	1.00	0.9999		NONE		100	99 - 101

Lab Sample ID: LCS 140-25215/1
Matrix: Solid
Analysis Batch: 25215

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	0.9969		g/cm3		100	99 - 101

Lab Sample ID: 580-81308-5 DU
Matrix: Solid
Analysis Batch: 25215

Client Sample ID: J3-SC-76to98-102218
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Density	1.92		1.914		g/cm3		0.5	10

Lab Sample ID: LCS 140-25227/1
Matrix: Solid
Analysis Batch: 25227

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Specific Gravity	1.00	0.9998		NONE		100	99 - 101

Lab Sample ID: 580-81308-5 DU
Matrix: Solid
Analysis Batch: 25227

Client Sample ID: J3-SC-76to98-102218
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Specific Gravity	1.93		1.920		NONE		0.5	10

Lab Sample ID: LCS 140-25247/1
Matrix: Solid
Analysis Batch: 25247

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	0.9972		g/cm3		100	99 - 101

Lab Sample ID: 580-81308-20 DU
Matrix: Solid
Analysis Batch: 25247

Client Sample ID: J6-SC-96to111-102218
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Density	1.76		1.774		g/cm3		1	10

Lab Sample ID: LCS 140-25250/1
Matrix: Solid
Analysis Batch: 25250

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

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: 580-81308-20 DU
Matrix: Solid
Analysis Batch: 25250

Client Sample ID: J6-SC-96to111-102218
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Specific Gravity	1.76			1.780		NONE				1	10

Lab Sample ID: LCS 140-25297/1
Matrix: Solid
Analysis Batch: 25297

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Specific Gravity			1.00	1.000		NONE		100	99 - 101		

Lab Chronicle

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

TestAmerica Job ID: 580-81308-1

Client Sample ID: 613-102218
Date Collected: 10/22/18 09:45
Date Received: 10/24/18 14:10

Lab Sample ID: 580-81308-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			288836	11/14/18 07:52	KO	TAL SEA
Total/NA	Analysis	8082A		1	288986	11/15/18 12:50	APR	TAL SEA
Total/NA	Prep	3510C			288149	11/05/18 07:59	KO	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	288242	11/06/18 16:01	Z1R	TAL SEA
Total/NA	Prep	1613B			256030	10/31/18 07:35	ITH	TAL SAC
Total/NA	Analysis	1613B		1	257187	11/06/18 11:19	KSS	TAL SAC
Total/NA	Prep	HRMS-Sepf			25006	11/01/18 12:40	SMA	TAL KNX
Total/NA	Analysis	1668A		1	25300	11/12/18 14:22	JMN	TAL KNX
Total Recoverable	Prep	3005A			288256	11/06/18 10:19	T1H	TAL SEA
Total Recoverable	Analysis	6020A		1	288418	11/07/18 15:22	FCW	TAL SEA
Total/NA	Prep	7470A			288410	11/08/18 09:22	T1H	TAL SEA
Total/NA	Analysis	7470A		1	288572	11/09/18 16:16	T1H	TAL SEA
Total/NA	Analysis	SM 2540D		1	287497	10/26/18 10:30	TTN	TAL SEA
Total/NA	Analysis	SM 5310B		1	288449	11/07/18 15:21	HJM	TAL SEA

Client Sample ID: J3-SC-55to76-102218
Date Collected: 10/22/18 14:45
Date Received: 10/24/18 14:10

Lab Sample ID: 580-81308-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	288093	11/02/18 13:04	A1K	TAL SEA
Total/NA	Analysis	D 2216		1	288013	11/01/18 18:46	BAH	TAL SEA
Total/NA	Analysis	Moisture 70C		1	288757	11/01/18 09:41	HJM	TAL SEA
Total/NA	Analysis	D7928/D6913		1	287935	11/01/18 09:41	JKM	TAL SEA
Total/NA	Analysis	D854		1	25134	11/06/18 00:00	JAH	TAL KNX
Total/NA	Analysis	D854		1	25170	11/06/18 00:00	JAH	TAL KNX

Client Sample ID: J3-SC-55to76-102218
Date Collected: 10/22/18 14:45
Date Received: 10/24/18 14:10

Lab Sample ID: 580-81308-2
Matrix: Solid
Percent Solids: 82.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			288588	11/10/18 09:55	BAH	TAL SEA
Total/NA	Analysis	8082A		1	288647	11/12/18 15:34	TL1	TAL SEA
Total/NA	Prep	3546			288491	11/09/18 09:01	BAH	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	288786	11/14/18 03:59	ERZ	TAL SEA
Total/NA	Prep	HRMS-Sox			258637	11/12/18 13:18	SR1	TAL SAC
Total/NA	Analysis	1613B		1	259786	11/17/18 05:05	AS	TAL SAC
Total/NA	Prep	3050B			288570	11/09/18 17:03	T1H	TAL SEA
Total/NA	Analysis	6020B		5	288722	11/12/18 19:35	FCW	TAL SEA
Total/NA	Prep	7471A			288441	11/08/18 11:47	T1H	TAL SEA
Total/NA	Analysis	7471A		1	288615	11/09/18 17:56	T1H	TAL SEA

Client Sample ID: J3-SC-45to55-102218

Lab Sample ID: 580-81308-3

Date Collected: 10/22/18 14:35

Matrix: Solid

Date Received: 10/24/18 14:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	288093	11/02/18 13:25	A1K	TAL SEA
Total/NA	Analysis	D 2216		1	288013	11/01/18 18:46	BAH	TAL SEA
Total/NA	Analysis	Moisture 70C		1	288757	11/01/18 09:41	HJM	TAL SEA
Total/NA	Analysis	D7928/D6913		1	287935	11/01/18 09:41	JKM	TAL SEA
Total/NA	Analysis	D854		1	25134	11/06/18 00:00	JAH	TAL KNX
Total/NA	Analysis	D854		1	25170	11/06/18 00:00	JAH	TAL KNX

Client Sample ID: J3-SC-45to55-102218

Lab Sample ID: 580-81308-3

Date Collected: 10/22/18 14:35

Matrix: Solid

Date Received: 10/24/18 14:10

Percent Solids: 68.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			288588	11/10/18 09:55	BAH	TAL SEA
Total/NA	Analysis	8082A		1	288647	11/12/18 15:50	TL1	TAL SEA
Total/NA	Prep	3546			288491	11/09/18 09:01	BAH	TAL SEA
Total/NA	Analysis	NWTPH-Dx		5	288786	11/14/18 04:42	ERZ	TAL SEA
Total/NA	Prep	HRMS-Sox			258637	11/12/18 13:18	SR1	TAL SAC
Total/NA	Analysis	1613B		1	259786	11/17/18 05:51	AS	TAL SAC
Total/NA	Prep	HRMS-Sox	RA		258637	11/12/18 13:18	SR1	TAL SAC
Total/NA	Analysis	1613B	RA	1	260540	11/20/18 19:07	KSS	TAL SAC
Total/NA	Prep	3050B			288570	11/09/18 17:03	T1H	TAL SEA
Total/NA	Analysis	6020B		5	288722	11/12/18 20:13	FCW	TAL SEA
Total/NA	Prep	7471A			288441	11/08/18 11:47	T1H	TAL SEA
Total/NA	Analysis	7471A		1	288615	11/09/18 17:59	T1H	TAL SEA

Client Sample ID: J3-SC-20to36-102218

Lab Sample ID: 580-81308-4

Date Collected: 10/22/18 13:00

Matrix: Solid

Date Received: 10/24/18 14:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	288093	11/02/18 13:37	A1K	TAL SEA
Total/NA	Analysis	D 2216		1	288013	11/01/18 18:46	BAH	TAL SEA
Total/NA	Analysis	Moisture 70C		1	288757	11/01/18 09:41	HJM	TAL SEA
Total/NA	Analysis	D7928/D6913		1	287935	11/01/18 09:41	JKM	TAL SEA
Total/NA	Analysis	D854		1	25134	11/06/18 00:00	JAH	TAL KNX
Total/NA	Analysis	D854		1	25170	11/06/18 00:00	JAH	TAL KNX

Client Sample ID: J3-SC-20to36-102218

Lab Sample ID: 580-81308-4

Date Collected: 10/22/18 13:00

Matrix: Solid

Date Received: 10/24/18 14:10

Percent Solids: 54.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			288588	11/10/18 09:55	BAH	TAL SEA
Total/NA	Analysis	8082A		1	288647	11/12/18 16:07	TL1	TAL SEA
Total/NA	Prep	3546			288491	11/09/18 09:01	BAH	TAL SEA
Total/NA	Analysis	NWTPH-Dx		5	288786	11/14/18 05:04	ERZ	TAL SEA
Total/NA	Prep	HRMS-Sox	RA		259167	11/14/18 13:54	SR1	TAL SAC
Total/NA	Analysis	1613B	RA	1	260264	11/19/18 18:41	KSS	TAL SAC
Total/NA	Prep	HRMS-Sox			259167	11/14/18 13:54	SR1	TAL SAC
Total/NA	Analysis	1613B		1	260207	11/20/18 21:05	KSS	TAL SAC
Total/NA	Prep	3050B			288570	11/09/18 17:03	T1H	TAL SEA
Total/NA	Analysis	6020B		5	288722	11/12/18 20:17	FCW	TAL SEA
Total/NA	Prep	7471A			288441	11/08/18 11:47	T1H	TAL SEA
Total/NA	Analysis	7471A		1	288615	11/09/18 18:01	T1H	TAL SEA

Client Sample ID: J3-SC-76to98-102218

Lab Sample ID: 580-81308-5

Date Collected: 10/22/18 14:55

Matrix: Solid

Date Received: 10/24/18 14:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	288093	11/02/18 13:42	A1K	TAL SEA
Total/NA	Analysis	D 2216		1	288013	11/01/18 18:46	BAH	TAL SEA
Total/NA	Analysis	Moisture 70C		1	288757	11/01/18 09:41	HJM	TAL SEA
Total/NA	Analysis	D7928/D6913		1	287935	11/01/18 09:41	JKM	TAL SEA
Total/NA	Analysis	D854		1	25215	11/08/18 00:00	JAH	TAL KNX
Total/NA	Analysis	D854		1	25227	11/08/18 00:00	JAH	TAL KNX

Client Sample ID: J3-SC-76to98-102218

Lab Sample ID: 580-81308-5

Date Collected: 10/22/18 14:55

Matrix: Solid

Date Received: 10/24/18 14:10

Percent Solids: 74.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			288588	11/10/18 09:55	BAH	TAL SEA
Total/NA	Analysis	8082A		1	288647	11/12/18 16:24	TL1	TAL SEA
Total/NA	Prep	3546			288491	11/09/18 09:01	BAH	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	288786	11/14/18 05:26	ERZ	TAL SEA
Total/NA	Prep	HRMS-Sox			258637	11/12/18 13:18	SR1	TAL SAC
Total/NA	Analysis	1613B		1	260207	11/20/18 19:34	KSS	TAL SAC
Total/NA	Prep	3050B			288570	11/09/18 17:03	T1H	TAL SEA
Total/NA	Analysis	6020B		5	288722	11/12/18 20:21	FCW	TAL SEA
Total/NA	Prep	7471A			288441	11/08/18 11:47	T1H	TAL SEA
Total/NA	Analysis	7471A		1	288615	11/09/18 18:03	T1H	TAL SEA

Client Sample ID: J3-SC-36to45-102218
Lab Sample ID: 580-81308-6
Date Collected: 10/22/18 14:25
Matrix: Solid
Date Received: 10/24/18 14:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	288093	11/02/18 13:47	A1K	TAL SEA
Total/NA	Analysis	D 2216		1	288013	11/01/18 18:46	BAH	TAL SEA
Total/NA	Analysis	Moisture 70C		1	288757	11/01/18 09:41	HJM	TAL SEA
Total/NA	Analysis	D7928/D6913		1	287935	11/01/18 09:41	JKM	TAL SEA
Total/NA	Analysis	D854		1	25215	11/08/18 00:00	JAH	TAL KNX
Total/NA	Analysis	D854		1	25227	11/08/18 00:00	JAH	TAL KNX

Client Sample ID: J3-SC-36to45-102218
Lab Sample ID: 580-81308-6
Date Collected: 10/22/18 14:25
Matrix: Solid
Date Received: 10/24/18 14:10
Percent Solids: 53.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			288727	11/13/18 10:12	BAH	TAL SEA
Total/NA	Analysis	8082A		1	288911	11/14/18 17:12	TL1	TAL SEA
Total/NA	Prep	3546			288491	11/09/18 09:01	BAH	TAL SEA
Total/NA	Analysis	NWTPH-Dx		5	288786	11/14/18 05:48	ERZ	TAL SEA
Total/NA	Prep	HRMS-Sox	RA		259167	11/14/18 13:54	SR1	TAL SAC
Total/NA	Analysis	1613B	RA	1	260264	11/19/18 19:19	KSS	TAL SAC
Total/NA	Prep	HRMS-Sox			259167	11/14/18 13:54	SR1	TAL SAC
Total/NA	Analysis	1613B		1	260207	11/20/18 21:51	KSS	TAL SAC
Total/NA	Prep	3050B			288570	11/09/18 17:03	T1H	TAL SEA
Total/NA	Analysis	6020B		5	288722	11/12/18 20:25	FCW	TAL SEA
Total/NA	Prep	7471A			288441	11/08/18 11:47	T1H	TAL SEA
Total/NA	Analysis	7471A		1	288615	11/09/18 18:06	T1H	TAL SEA

Client Sample ID: J3-SC-10to20-102218
Lab Sample ID: 580-81308-7
Date Collected: 10/22/18 12:50
Matrix: Solid
Date Received: 10/24/18 14:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	288093	11/02/18 13:51	A1K	TAL SEA
Total/NA	Analysis	D 2216		1	288013	11/01/18 18:46	BAH	TAL SEA
Total/NA	Analysis	Moisture 70C		1	288757	11/01/18 09:41	HJM	TAL SEA
Total/NA	Analysis	D7928/D6913		1	287935	11/01/18 09:41	JKM	TAL SEA
Total/NA	Analysis	D854		1	25215	11/08/18 00:00	JAH	TAL KNX
Total/NA	Analysis	D854		1	25227	11/08/18 00:00	JAH	TAL KNX

Client Sample ID: J3-SC-10to20-102218

Lab Sample ID: 580-81308-7
Date Collected: 10/22/18 12:50
Matrix: Solid
Date Received: 10/24/18 14:10
Percent Solids: 77.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			288588	11/10/18 09:55	BAH	TAL SEA
Total/NA	Analysis	8082A		1	288647	11/12/18 16:57	TL1	TAL SEA
Total/NA	Prep	3546			288491	11/09/18 09:01	BAH	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	288786	11/14/18 06:10	ERZ	TAL SEA
Total/NA	Prep	HRMS-Sox			259167	11/14/18 13:54	SR1	TAL SAC
Total/NA	Analysis	1613B		1	260471	11/21/18 04:25	KSS	TAL SAC
Total/NA	Prep	3050B			288570	11/09/18 17:03	T1H	TAL SEA
Total/NA	Analysis	6020B		5	288722	11/12/18 20:29	FCW	TAL SEA
Total/NA	Prep	7471A			288441	11/08/18 11:47	T1H	TAL SEA
Total/NA	Analysis	7471A		1	288615	11/09/18 18:08	T1H	TAL SEA

Client Sample ID: J3-SC-00to10-102218

Lab Sample ID: 580-81308-8
Date Collected: 10/22/18 12:40
Matrix: Solid
Date Received: 10/24/18 14:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	288093	11/02/18 13:57	A1K	TAL SEA
Total/NA	Analysis	D 2216		1	288013	11/01/18 18:46	BAH	TAL SEA
Total/NA	Analysis	Moisture 70C		1	289004	11/05/18 15:52	HJM	TAL SEA
Total/NA	Analysis	D7928/D6913		1	288206	11/05/18 15:52	A1K	TAL SEA
Total/NA	Analysis	D854		1	25215	11/08/18 00:00	JAH	TAL KNX
Total/NA	Analysis	D854		1	25227	11/08/18 00:00	JAH	TAL KNX

Client Sample ID: J3-SC-00to10-102218

Lab Sample ID: 580-81308-8
Date Collected: 10/22/18 12:40
Matrix: Solid
Date Received: 10/24/18 14:10
Percent Solids: 67.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			288588	11/10/18 09:55	BAH	TAL SEA
Total/NA	Analysis	8082A		1	288647	11/12/18 17:14	TL1	TAL SEA
Total/NA	Prep	3546			288491	11/09/18 09:01	BAH	TAL SEA
Total/NA	Analysis	NWTPH-Dx		5	289001	11/15/18 13:11	CJ	TAL SEA
Total/NA	Prep	HRMS-Sox			259167	11/14/18 13:54	SR1	TAL SAC
Total/NA	Analysis	1613B		1	260471	11/21/18 05:11	KSS	TAL SAC
Total/NA	Prep	3050B			288570	11/09/18 17:03	T1H	TAL SEA
Total/NA	Analysis	6020B		5	288722	11/12/18 20:34	FCW	TAL SEA
Total/NA	Prep	7471A			288441	11/08/18 11:47	T1H	TAL SEA
Total/NA	Analysis	7471A		1	288615	11/09/18 18:11	T1H	TAL SEA

Client Sample ID: L3-SC-10to20-102218

Lab Sample ID: 580-81308-9

Date Collected: 10/22/18 10:45

Matrix: Solid

Date Received: 10/24/18 14:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	288093	11/02/18 14:01	A1K	TAL SEA
Total/NA	Analysis	D 2216		1	288013	11/01/18 18:46	BAH	TAL SEA
Total/NA	Analysis	Moisture 70C		1	289004	11/05/18 15:52	HJM	TAL SEA
Total/NA	Analysis	D7928/D6913		1	288206	11/05/18 15:52	A1K	TAL SEA
Total/NA	Analysis	D854		1	25215	11/08/18 00:00	JAH	TAL KNX
Total/NA	Analysis	D854		1	25227	11/08/18 00:00	JAH	TAL KNX

Client Sample ID: L3-SC-10to20-102218

Lab Sample ID: 580-81308-9

Date Collected: 10/22/18 10:45

Matrix: Solid

Date Received: 10/24/18 14:10

Percent Solids: 69.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			288588	11/10/18 09:55	BAH	TAL SEA
Total/NA	Analysis	8082A		1	288647	11/12/18 17:31	TL1	TAL SEA
Total/NA	Prep	3546			288491	11/09/18 09:01	BAH	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	289001	11/15/18 13:33	CJ	TAL SEA
Total/NA	Prep	HRMS-Sox			258637	11/12/18 13:18	SR1	TAL SAC
Total/NA	Analysis	1613B		1	260266	11/19/18 21:32	ALM	TAL SAC
Total/NA	Prep	3050B			288570	11/09/18 17:03	T1H	TAL SEA
Total/NA	Analysis	6020B		5	288722	11/12/18 20:38	FCW	TAL SEA
Total/NA	Prep	7471A			288441	11/08/18 11:47	T1H	TAL SEA
Total/NA	Analysis	7471A		1	288615	11/09/18 18:13	T1H	TAL SEA

Client Sample ID: L3-SC-20to40-102218

Lab Sample ID: 580-81308-10

Date Collected: 10/22/18 11:00

Matrix: Solid

Date Received: 10/24/18 14:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	288093	11/02/18 14:06	A1K	TAL SEA
Total/NA	Analysis	D 2216		1	288013	11/01/18 18:46	BAH	TAL SEA
Total/NA	Analysis	Moisture 70C		1	289004	11/05/18 15:52	HJM	TAL SEA
Total/NA	Analysis	D7928/D6913		1	288206	11/05/18 15:52	A1K	TAL SEA
Total/NA	Analysis	D854		1	25215	11/08/18 00:00	JAH	TAL KNX
Total/NA	Analysis	D854		1	25227	11/08/18 00:00	JAH	TAL KNX

Client Sample ID: L3-SC-20to40-102218

Lab Sample ID: 580-81308-10

Date Collected: 10/22/18 11:00

Matrix: Solid

Date Received: 10/24/18 14:10

Percent Solids: 80.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			288588	11/10/18 09:55	BAH	TAL SEA
Total/NA	Analysis	8082A		1	288647	11/12/18 17:47	TL1	TAL SEA

Client Sample ID: L3-SC-20to40-102218

Lab Sample ID: 580-81308-10

Date Collected: 10/22/18 11:00

Matrix: Solid

Date Received: 10/24/18 14:10

Percent Solids: 80.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			288491	11/09/18 09:01	BAH	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	289001	11/15/18 13:55	CJ	TAL SEA
Total/NA	Prep	HRMS-Sox			258637	11/12/18 13:18	SR1	TAL SAC
Total/NA	Analysis	1613B		1	260266	11/19/18 22:20	ALM	TAL SAC
Total/NA	Prep	3050B			288570	11/09/18 17:03	T1H	TAL SEA
Total/NA	Analysis	6020B		5	288722	11/12/18 20:42	FCW	TAL SEA
Total/NA	Prep	7471A			288441	11/08/18 11:47	T1H	TAL SEA
Total/NA	Analysis	7471A		1	288615	11/09/18 18:15	T1H	TAL SEA

Client Sample ID: J5-SC-20to40-102218

Lab Sample ID: 580-81308-11

Date Collected: 10/22/18 16:30

Matrix: Solid

Date Received: 10/24/18 14:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	288093	11/02/18 14:11	A1K	TAL SEA
Total/NA	Analysis	D 2216		1	288013	11/01/18 18:46	BAH	TAL SEA
Total/NA	Analysis	Moisture 70C		1	289004	11/05/18 15:52	HJM	TAL SEA
Total/NA	Analysis	D7928/D6913		1	288206	11/05/18 15:52	A1K	TAL SEA
Total/NA	Analysis	D854		1	25215	11/08/18 00:00	JAH	TAL KNX
Total/NA	Analysis	D854		1	25227	11/08/18 00:00	JAH	TAL KNX

Client Sample ID: J5-SC-20to40-102218

Lab Sample ID: 580-81308-11

Date Collected: 10/22/18 16:30

Matrix: Solid

Date Received: 10/24/18 14:10

Percent Solids: 47.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			288588	11/10/18 09:55	BAH	TAL SEA
Total/NA	Analysis	8082A		1	288647	11/12/18 18:04	TL1	TAL SEA
Total/NA	Prep	3546			288491	11/09/18 09:01	BAH	TAL SEA
Total/NA	Analysis	NWTPH-Dx		5	289001	11/15/18 14:17	CJ	TAL SEA
Total/NA	Prep	HRMS-Sox	RA		259167	11/14/18 13:54	SR1	TAL SAC
Total/NA	Analysis	1613B	RA	1	260264	11/19/18 21:12	KSS	TAL SAC
Total/NA	Prep	HRMS-Sox			259167	11/14/18 13:54	SR1	TAL SAC
Total/NA	Analysis	1613B		1	260471	11/21/18 05:56	KSS	TAL SAC
Total/NA	Prep	3050B			288570	11/09/18 17:03	T1H	TAL SEA
Total/NA	Analysis	6020B		5	288722	11/12/18 20:46	FCW	TAL SEA
Total/NA	Prep	7471A			288441	11/08/18 11:47	T1H	TAL SEA
Total/NA	Analysis	7471A		1	288615	11/09/18 18:18	T1H	TAL SEA

Client Sample ID: J5-SC-80to95-102218

Lab Sample ID: 580-81308-12

Date Collected: 10/22/18 17:10

Matrix: Solid

Date Received: 10/24/18 14:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	288093	11/02/18 14:15	A1K	TAL SEA
Total/NA	Analysis	D 2216		1	288013	11/01/18 18:46	BAH	TAL SEA
Total/NA	Analysis	Moisture 70C		1	289004	11/05/18 15:52	HJM	TAL SEA
Total/NA	Analysis	D7928/D6913		1	288206	11/05/18 15:52	A1K	TAL SEA
Total/NA	Analysis	D854		1	25215	11/08/18 00:00	JAH	TAL KNX
Total/NA	Analysis	D854		1	25227	11/08/18 00:00	JAH	TAL KNX

Client Sample ID: J5-SC-80to95-102218

Lab Sample ID: 580-81308-12

Date Collected: 10/22/18 17:10

Matrix: Solid

Date Received: 10/24/18 14:10

Percent Solids: 66.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			288588	11/10/18 09:55	BAH	TAL SEA
Total/NA	Analysis	8082A		1	288686	11/12/18 20:35	TL1	TAL SEA
Total/NA	Prep	3546			288491	11/09/18 09:01	BAH	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	289001	11/15/18 14:39	CJ	TAL SEA
Total/NA	Prep	HRMS-Sox			259167	11/14/18 13:54	SR1	TAL SAC
Total/NA	Analysis	1613B		1	260471	11/21/18 06:42	KSS	TAL SAC
Total/NA	Prep	3050B			288570	11/09/18 17:03	T1H	TAL SEA
Total/NA	Analysis	6020B		5	288722	11/12/18 18:36	FCW	TAL SEA
Total/NA	Prep	7471A			288441	11/08/18 11:47	T1H	TAL SEA
Total/NA	Analysis	7471A		1	288615	11/09/18 18:24	T1H	TAL SEA

Client Sample ID: J5-SC-60to80-102218

Lab Sample ID: 580-81308-13

Date Collected: 10/22/18 16:50

Matrix: Solid

Date Received: 10/24/18 14:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	288093	11/02/18 14:30	A1K	TAL SEA
Total/NA	Analysis	D 2216		1	288013	11/01/18 18:46	BAH	TAL SEA
Total/NA	Analysis	Moisture 70C		1	289004	11/05/18 15:52	HJM	TAL SEA
Total/NA	Analysis	D7928/D6913		1	288206	11/05/18 15:52	A1K	TAL SEA
Total/NA	Analysis	D854		1	25215	11/08/18 00:00	JAH	TAL KNX
Total/NA	Analysis	D854		1	25227	11/08/18 00:00	JAH	TAL KNX

Client Sample ID: J5-SC-60to80-102218

Lab Sample ID: 580-81308-13

Date Collected: 10/22/18 16:50

Matrix: Solid

Date Received: 10/24/18 14:10

Percent Solids: 49.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			288588	11/10/18 09:55	BAH	TAL SEA
Total/NA	Analysis	8082A		1	288686	11/12/18 20:52	TL1	TAL SEA

Client Sample ID: J5-SC-60to80-102218

Lab Sample ID: 580-81308-13

Date Collected: 10/22/18 16:50
Matrix: Solid
Date Received: 10/24/18 14:10
Percent Solids: 49.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			288491	11/09/18 09:01	BAH	TAL SEA
Total/NA	Analysis	NWTPH-Dx		5	289001	11/15/18 15:00	CJ	TAL SEA
Total/NA	Prep	HRMS-Sox	RA		258637	11/12/18 13:18	SR1	TAL SAC
Total/NA	Analysis	1613B	RA	1	260540	11/20/18 19:45	KSS	TAL SAC
Total/NA	Prep	HRMS-Sox			258637	11/12/18 13:18	SR1	TAL SAC
Total/NA	Analysis	1613B		1	260266	11/19/18 23:08	ALM	TAL SAC
Total/NA	Prep	3050B			288570	11/09/18 17:03	T1H	TAL SEA
Total/NA	Analysis	6020B		5	288722	11/12/18 18:40	FCW	TAL SEA
Total/NA	Prep	7471A			288441	11/08/18 11:47	T1H	TAL SEA
Total/NA	Analysis	7471A		1	288615	11/09/18 18:27	T1H	TAL SEA

Client Sample ID: J5-SC-95to110-102218

Lab Sample ID: 580-81308-14

Date Collected: 10/22/18 17:20
Matrix: Solid
Date Received: 10/24/18 14:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	288093	11/02/18 14:34	A1K	TAL SEA
Total/NA	Analysis	D 2216		1	288013	11/01/18 18:46	BAH	TAL SEA
Total/NA	Analysis	Moisture 70C		1	289004	11/05/18 15:52	HJM	TAL SEA
Total/NA	Analysis	D7928/D6913		1	288206	11/05/18 15:52	A1K	TAL SEA
Total/NA	Analysis	D854		1	25215	11/08/18 00:00	JAH	TAL KNX
Total/NA	Analysis	D854		1	25227	11/08/18 00:00	JAH	TAL KNX

Client Sample ID: J5-SC-95to110-102218

Lab Sample ID: 580-81308-14

Date Collected: 10/22/18 17:20
Matrix: Solid
Date Received: 10/24/18 14:10
Percent Solids: 64.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			288588	11/10/18 09:55	BAH	TAL SEA
Total/NA	Analysis	8082A		1	288686	11/12/18 21:08	TL1	TAL SEA
Total/NA	Prep	3546			288491	11/09/18 09:01	BAH	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	289001	11/15/18 15:22	CJ	TAL SEA
Total/NA	Prep	HRMS-Sox			259167	11/14/18 13:54	SR1	TAL SAC
Total/NA	Analysis	1613B		1	260471	11/21/18 07:27	KSS	TAL SAC
Total/NA	Prep	3050B			288570	11/09/18 17:03	T1H	TAL SEA
Total/NA	Analysis	6020B		5	288722	11/12/18 18:44	FCW	TAL SEA
Total/NA	Prep	7471A			288441	11/08/18 11:47	T1H	TAL SEA
Total/NA	Analysis	7471A		1	288615	11/09/18 18:29	T1H	TAL SEA

Client Sample ID: J5-SC-10to20-102218

Lab Sample ID: 580-81308-15

Date Collected: 10/22/18 16:10

Matrix: Solid

Date Received: 10/24/18 14:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	288093	11/02/18 14:39	A1K	TAL SEA
Total/NA	Analysis	D 2216		1	288013	11/01/18 18:46	BAH	TAL SEA
Total/NA	Analysis	Moisture 70C		1	289004	11/05/18 15:52	HJM	TAL SEA
Total/NA	Analysis	D7928/D6913		1	288206	11/05/18 15:52	A1K	TAL SEA
Total/NA	Analysis	D854		1	25215	11/08/18 00:00	JAH	TAL KNX
Total/NA	Analysis	D854		1	25227	11/08/18 00:00	JAH	TAL KNX

Client Sample ID: J5-SC-10to20-102218

Lab Sample ID: 580-81308-15

Date Collected: 10/22/18 16:10

Matrix: Solid

Date Received: 10/24/18 14:10

Percent Solids: 44.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			288588	11/10/18 09:55	BAH	TAL SEA
Total/NA	Analysis	8082A		1	288686	11/12/18 21:25	TL1	TAL SEA
Total/NA	Prep	3546			288491	11/09/18 09:01	BAH	TAL SEA
Total/NA	Analysis	NWTPH-Dx		5	289001	11/15/18 15:44	CJ	TAL SEA
Total/NA	Prep	HRMS-Sox	RA		258637	11/12/18 13:18	SR1	TAL SAC
Total/NA	Analysis	1613B	RA	1	260540	11/20/18 20:22	KSS	TAL SAC
Total/NA	Prep	HRMS-Sox			258637	11/12/18 13:18	SR1	TAL SAC
Total/NA	Analysis	1613B		1	260266	11/19/18 23:55	ALM	TAL SAC
Total/NA	Prep	3050B			288570	11/09/18 17:03	T1H	TAL SEA
Total/NA	Analysis	6020B		5	288722	11/12/18 18:48	FCW	TAL SEA
Total/NA	Prep	7471A			288441	11/08/18 11:47	T1H	TAL SEA
Total/NA	Analysis	7471A		1	288615	11/09/18 18:31	T1H	TAL SEA

Client Sample ID: J6-SC-60to80-102218

Lab Sample ID: 580-81308-16

Date Collected: 10/22/18 19:00

Matrix: Solid

Date Received: 10/24/18 14:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	288093	11/02/18 14:44	A1K	TAL SEA
Total/NA	Analysis	D 2216		1	288013	11/01/18 18:46	BAH	TAL SEA
Total/NA	Analysis	Moisture 70C		1	289004	11/05/18 15:52	HJM	TAL SEA
Total/NA	Analysis	D7928/D6913		1	288206	11/05/18 15:52	A1K	TAL SEA
Total/NA	Analysis	D854		1	25215	11/08/18 00:00	JAH	TAL KNX
Total/NA	Analysis	D854		1	25227	11/08/18 00:00	JAH	TAL KNX

Client Sample ID: J6-SC-60to80-102218

Lab Sample ID: 580-81308-16
Date Collected: 10/22/18 19:00
Matrix: Solid
Date Received: 10/24/18 14:10
Percent Solids: 60.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			288588	11/10/18 09:55	BAH	TAL SEA
Total/NA	Analysis	8082A		1	288686	11/12/18 21:42	TL1	TAL SEA
Total/NA	Prep	3546			288491	11/09/18 09:01	BAH	TAL SEA
Total/NA	Analysis	NWTPH-Dx		5	289001	11/15/18 16:06	CJ	TAL SEA
Total/NA	Prep	HRMS-Sox	RA		258637	11/12/18 13:18	SR1	TAL SAC
Total/NA	Analysis	1613B	RA	1	260540	11/20/18 21:00	KSS	TAL SAC
Total/NA	Prep	HRMS-Sox			258637	11/12/18 13:18	SR1	TAL SAC
Total/NA	Analysis	1613B		1	260266	11/20/18 00:43	ALM	TAL SAC
Total/NA	Prep	3050B			288570	11/09/18 17:03	T1H	TAL SEA
Total/NA	Analysis	6020B		5	288722	11/12/18 18:53	FCW	TAL SEA
Total/NA	Prep	7471A			288516	11/09/18 11:42	T1H	TAL SEA
Total/NA	Analysis	7471A		1	288615	11/09/18 19:12	T1H	TAL SEA

Client Sample ID: J6-SC-80to96-102218

Lab Sample ID: 580-81308-17
Date Collected: 10/22/18 19:30
Matrix: Solid
Date Received: 10/24/18 14:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	288093	11/02/18 14:48	A1K	TAL SEA
Total/NA	Analysis	D 2216		1	288013	11/01/18 18:46	BAH	TAL SEA
Total/NA	Analysis	Moisture 70C		1	289004	11/05/18 15:52	HJM	TAL SEA
Total/NA	Analysis	D7928/D6913		1	288206	11/05/18 15:52	A1K	TAL SEA
Total/NA	Analysis	D854		1	25215	11/08/18 00:00	JAH	TAL KNX
Total/NA	Analysis	D854		1	25227	11/08/18 00:00	JAH	TAL KNX

Client Sample ID: J6-SC-80to96-102218

Lab Sample ID: 580-81308-17
Date Collected: 10/22/18 19:30
Matrix: Solid
Date Received: 10/24/18 14:10
Percent Solids: 65.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			288588	11/10/18 09:55	BAH	TAL SEA
Total/NA	Analysis	8082A		1	288686	11/12/18 21:58	TL1	TAL SEA
Total/NA	Prep	3546			288491	11/09/18 09:01	BAH	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	289001	11/15/18 16:28	CJ	TAL SEA
Total/NA	Prep	HRMS-Sox			259167	11/14/18 13:54	SR1	TAL SAC
Total/NA	Analysis	1613B		1	260471	11/21/18 08:13	KSS	TAL SAC
Total/NA	Prep	3050B			288570	11/09/18 17:04	T1H	TAL SEA
Total/NA	Analysis	6020B		5	288722	11/12/18 18:57	FCW	TAL SEA
Total/NA	Prep	7471A			288516	11/09/18 11:42	T1H	TAL SEA
Total/NA	Analysis	7471A		1	288615	11/09/18 19:15	T1H	TAL SEA

Client Sample ID: J6-SC-111to121-102218

Lab Sample ID: 580-81308-18

Date Collected: 10/22/18 19:50

Matrix: Solid

Date Received: 10/24/18 14:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	288093	11/02/18 14:53	A1K	TAL SEA
Total/NA	Analysis	D 2216		1	288013	11/01/18 18:46	BAH	TAL SEA
Total/NA	Analysis	Moisture 70C		1	289004	11/05/18 15:52	HJM	TAL SEA
Total/NA	Analysis	D7928/D6913		1	288206	11/05/18 15:52	A1K	TAL SEA
Total/NA	Analysis	D854		1	25215	11/08/18 00:00	JAH	TAL KNX
Total/NA	Analysis	D854		1	25227	11/08/18 00:00	JAH	TAL KNX

Client Sample ID: J6-SC-111to121-102218

Lab Sample ID: 580-81308-18

Date Collected: 10/22/18 19:50

Matrix: Solid

Date Received: 10/24/18 14:10

Percent Solids: 72.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			288588	11/10/18 09:55	BAH	TAL SEA
Total/NA	Analysis	8082A		1	288686	11/12/18 22:15	TL1	TAL SEA
Total/NA	Prep	3546			288491	11/09/18 09:01	BAH	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	289001	11/15/18 17:12	CJ	TAL SEA
Total/NA	Prep	HRMS-Sox			259167	11/14/18 13:54	SR1	TAL SAC
Total/NA	Analysis	1613B		1	260471	11/21/18 08:59	KSS	TAL SAC
Total/NA	Prep	3050B			288570	11/09/18 17:04	T1H	TAL SEA
Total/NA	Analysis	6020B		5	288722	11/12/18 19:01	FCW	TAL SEA
Total/NA	Prep	7471A			288516	11/09/18 11:42	T1H	TAL SEA
Total/NA	Analysis	7471A		1	288615	11/09/18 19:17	T1H	TAL SEA

Client Sample ID: J6-SC-40to60-102218

Lab Sample ID: 580-81308-19

Date Collected: 10/22/18 18:50

Matrix: Solid

Date Received: 10/24/18 14:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	288093	11/02/18 14:58	A1K	TAL SEA
Total/NA	Analysis	D 2216		1	288013	11/01/18 18:46	BAH	TAL SEA
Total/NA	Analysis	Moisture 70C		1	289004	11/05/18 15:52	HJM	TAL SEA
Total/NA	Analysis	D7928/D6913		1	288206	11/05/18 15:52	A1K	TAL SEA
Total/NA	Analysis	D854		1	25215	11/08/18 00:00	JAH	TAL KNX
Total/NA	Analysis	D854		1	25227	11/08/18 00:00	JAH	TAL KNX

Client Sample ID: J6-SC-40to60-102218

Lab Sample ID: 580-81308-19

Date Collected: 10/22/18 18:50

Matrix: Solid

Date Received: 10/24/18 14:10

Percent Solids: 53.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			288588	11/10/18 09:55	BAH	TAL SEA
Total/NA	Analysis	8082A		1	288686	11/12/18 22:32	TL1	TAL SEA

Client Sample ID: J6-SC-40to60-102218

Lab Sample ID: 580-81308-19

Date Collected: 10/22/18 18:50

Matrix: Solid

Date Received: 10/24/18 14:10

Percent Solids: 53.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			288491	11/09/18 09:01	BAH	TAL SEA
Total/NA	Analysis	NWTPH-Dx		5	289001	11/15/18 17:34	CJ	TAL SEA
Total/NA	Prep	HRMS-Sox	RA		258637	11/12/18 13:18	SR1	TAL SAC
Total/NA	Analysis	1613B	RA	1	260540	11/20/18 21:38	KSS	TAL SAC
Total/NA	Prep	HRMS-Sox			258637	11/12/18 13:18	SR1	TAL SAC
Total/NA	Analysis	1613B		1	260266	11/20/18 01:30	ALM	TAL SAC
Total/NA	Prep	3050B			288564	11/09/18 16:17	T1H	TAL SEA
Total/NA	Analysis	6020B		5	288722	11/12/18 17:45	FCW	TAL SEA
Total/NA	Prep	7471A			288516	11/09/18 11:42	T1H	TAL SEA
Total/NA	Analysis	7471A		1	288615	11/09/18 19:19	T1H	TAL SEA

Client Sample ID: J6-SC-96to111-102218

Lab Sample ID: 580-81308-20

Date Collected: 10/22/18 19:40

Matrix: Solid

Date Received: 10/24/18 14:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	288093	11/02/18 15:02	A1K	TAL SEA
Total/NA	Analysis	D 2216		1	288013	11/01/18 18:46	BAH	TAL SEA
Total/NA	Analysis	Moisture 70C		1	289004	11/05/18 15:52	HJM	TAL SEA
Total/NA	Analysis	D7928/D6913		1	288206	11/05/18 15:52	A1K	TAL SEA
Total/NA	Analysis	D854		1	25247	11/09/18 00:00	JAH	TAL KNX
Total/NA	Analysis	D854		1	25250	11/09/18 00:00	JAH	TAL KNX

Client Sample ID: J6-SC-96to111-102218

Lab Sample ID: 580-81308-20

Date Collected: 10/22/18 19:40

Matrix: Solid

Date Received: 10/24/18 14:10

Percent Solids: 68.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			288588	11/10/18 09:55	BAH	TAL SEA
Total/NA	Analysis	8082A		1	288686	11/12/18 22:48	TL1	TAL SEA
Total/NA	Prep	3546			288491	11/09/18 09:01	BAH	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	289001	11/15/18 17:56	CJ	TAL SEA
Total/NA	Prep	HRMS-Sox			259167	11/14/18 13:54	SR1	TAL SAC
Total/NA	Analysis	1613B		1	260471	11/21/18 09:44	KSS	TAL SAC
Total/NA	Prep	3050B			288564	11/09/18 16:17	T1H	TAL SEA
Total/NA	Analysis	6020B		5	288722	11/12/18 17:50	FCW	TAL SEA
Total/NA	Prep	7471A			288516	11/09/18 11:42	T1H	TAL SEA
Total/NA	Analysis	7471A		1	288615	11/09/18 19:21	T1H	TAL SEA

Client Sample ID: J5-SC-40to60-102218
Lab Sample ID: 580-81308-21
Date Collected: 10/22/18 16:40
Matrix: Solid
Date Received: 10/24/18 14:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	288093	11/02/18 15:07	A1K	TAL SEA
Total/NA	Analysis	D 2216		1	288013	11/01/18 18:46	BAH	TAL SEA
Total/NA	Analysis	Moisture 70C		1	289004	11/05/18 15:52	HJM	TAL SEA
Total/NA	Analysis	D7928/D6913		1	288206	11/05/18 15:52	A1K	TAL SEA
Total/NA	Analysis	D854		1	25247	11/09/18 00:00	JAH	TAL KNX
Total/NA	Analysis	D854		1	25250	11/09/18 00:00	JAH	TAL KNX

Client Sample ID: J5-SC-40to60-102218
Lab Sample ID: 580-81308-21
Date Collected: 10/22/18 16:40
Matrix: Solid
Date Received: 10/24/18 14:10
Percent Solids: 57.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			288588	11/10/18 09:55	BAH	TAL SEA
Total/NA	Analysis	8082A		1	288686	11/12/18 23:05	TL1	TAL SEA
Total/NA	Prep	3546			288508	11/09/18 10:15	BAH	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	288666	11/12/18 20:57	T1W	TAL SEA
Total/NA	Prep	HRMS-Sox	RA		258637	11/12/18 13:18	SR1	TAL SAC
Total/NA	Analysis	1613B	RA	1	260540	11/20/18 22:16	KSS	TAL SAC
Total/NA	Prep	HRMS-Sox			258637	11/12/18 13:18	SR1	TAL SAC
Total/NA	Analysis	1613B		1	260268	11/20/18 05:59	ALM	TAL SAC
Total/NA	Prep	3050B			288564	11/09/18 16:17	T1H	TAL SEA
Total/NA	Analysis	6020B		5	288722	11/12/18 17:54	FCW	TAL SEA
Total/NA	Prep	7471A			288516	11/09/18 11:42	T1H	TAL SEA
Total/NA	Analysis	7471A		1	288615	11/09/18 19:24	T1H	TAL SEA

Client Sample ID: J6-SC-20to40-102218
Lab Sample ID: 580-81308-22
Date Collected: 10/22/18 18:20
Matrix: Solid
Date Received: 10/24/18 14:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	288153	11/02/18 16:12	A1K	TAL SEA
Total/NA	Analysis	D 2216		1	288013	11/01/18 18:46	BAH	TAL SEA
Total/NA	Analysis	Moisture 70C		1	289004	11/05/18 15:52	HJM	TAL SEA
Total/NA	Analysis	D7928/D6913		1	288206	11/05/18 15:52	A1K	TAL SEA
Total/NA	Analysis	D854		1	25247	11/09/18 00:00	JAH	TAL KNX
Total/NA	Analysis	D854		1	25250	11/09/18 00:00	JAH	TAL KNX

Client Sample ID: J6-SC-20to40-102218

Lab Sample ID: 580-81308-22
Date Collected: 10/22/18 18:20
Matrix: Solid
Date Received: 10/24/18 14:10
Percent Solids: 46.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			288588	11/10/18 09:55	BAH	TAL SEA
Total/NA	Analysis	8082A		1	288647	11/12/18 16:40	TL1	TAL SEA
Total/NA	Prep	3546			288508	11/09/18 10:15	BAH	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	288666	11/12/18 21:19	T1W	TAL SEA
Total/NA	Prep	HRMS-Sox	RA		258637	11/12/18 13:18	SR1	TAL SAC
Total/NA	Analysis	1613B	RA	1	260540	11/20/18 22:54	KSS	TAL SAC
Total/NA	Prep	HRMS-Sox			258637	11/12/18 13:18	SR1	TAL SAC
Total/NA	Analysis	1613B		1	260268	11/20/18 06:46	ALM	TAL SAC
Total/NA	Prep	3050B			288564	11/09/18 16:17	T1H	TAL SEA
Total/NA	Analysis	6020B		5	288722	11/12/18 17:58	FCW	TAL SEA
Total/NA	Prep	7471A			288516	11/09/18 11:42	T1H	TAL SEA
Total/NA	Analysis	7471A		1	288615	11/09/18 19:26	T1H	TAL SEA

Client Sample ID: J5-SC-00to10-102218

Lab Sample ID: 580-81308-23
Date Collected: 10/22/18 16:00
Matrix: Solid
Date Received: 10/24/18 14:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	288153	11/02/18 16:23	A1K	TAL SEA
Total/NA	Analysis	D 2216		1	288013	11/01/18 18:46	BAH	TAL SEA
Total/NA	Analysis	Moisture 70C		1	289004	11/05/18 15:52	HJM	TAL SEA
Total/NA	Analysis	D7928/D6913		1	288206	11/05/18 15:52	A1K	TAL SEA
Total/NA	Analysis	D854		1	25247	11/09/18 00:00	JAH	TAL KNX
Total/NA	Analysis	D854		1	25250	11/09/18 00:00	JAH	TAL KNX

Client Sample ID: J5-SC-00to10-102218

Lab Sample ID: 580-81308-23
Date Collected: 10/22/18 16:00
Matrix: Solid
Date Received: 10/24/18 14:10
Percent Solids: 38.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			288727	11/13/18 10:12	BAH	TAL SEA
Total/NA	Analysis	8082A		1	288911	11/14/18 17:29	TL1	TAL SEA
Total/NA	Prep	3546			288508	11/09/18 10:15	BAH	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	288666	11/12/18 21:40	T1W	TAL SEA
Total/NA	Prep	HRMS-Sox	RA		259167	11/14/18 13:54	SR1	TAL SAC
Total/NA	Analysis	1613B	RA	1	260264	11/20/18 01:00	KSS	TAL SAC
Total/NA	Prep	HRMS-Sox			259167	11/14/18 13:54	SR1	TAL SAC
Total/NA	Analysis	1613B		1	260471	11/21/18 10:30	KSS	TAL SAC
Total/NA	Prep	3050B			288564	11/09/18 16:17	T1H	TAL SEA
Total/NA	Analysis	6020B		5	288722	11/12/18 18:02	FCW	TAL SEA
Total/NA	Prep	7471A			288516	11/09/18 11:42	T1H	TAL SEA
Total/NA	Analysis	7471A		1	288615	11/09/18 19:33	T1H	TAL SEA

Client Sample ID: J6-SC-00to10-102218
Lab Sample ID: 580-81308-24
Date Collected: 10/22/18 18:00
Matrix: Solid
Date Received: 10/24/18 14:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	288153	11/02/18 16:28	A1K	TAL SEA
Total/NA	Analysis	D 2216		1	288013	11/01/18 18:46	BAH	TAL SEA
Total/NA	Analysis	Moisture 70C		1	289004	11/05/18 15:52	HJM	TAL SEA
Total/NA	Analysis	D7928/D6913		1	288206	11/05/18 15:52	A1K	TAL SEA
Total/NA	Analysis	D854		1	25247	11/09/18 00:00	JAH	TAL KNX
Total/NA	Analysis	D854		1	25250	11/09/18 00:00	JAH	TAL KNX

Client Sample ID: J6-SC-00to10-102218
Lab Sample ID: 580-81308-24
Date Collected: 10/22/18 18:00
Matrix: Solid
Date Received: 10/24/18 14:10
Percent Solids: 41.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			288727	11/13/18 10:12	BAH	TAL SEA
Total/NA	Analysis	8082A		1	288911	11/14/18 17:47	TL1	TAL SEA
Total/NA	Prep	3546			288508	11/09/18 10:15	BAH	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	288666	11/12/18 22:24	T1W	TAL SEA
Total/NA	Prep	HRMS-Sox	RA		258637	11/12/18 13:18	SR1	TAL SAC
Total/NA	Analysis	1613B	RA	1	260540	11/20/18 23:32	KSS	TAL SAC
Total/NA	Prep	HRMS-Sox			258637	11/12/18 13:18	SR1	TAL SAC
Total/NA	Analysis	1613B		1	260268	11/20/18 07:34	ALM	TAL SAC
Total/NA	Prep	3050B			288564	11/09/18 16:17	T1H	TAL SEA
Total/NA	Analysis	6020B		5	288722	11/12/18 18:06	FCW	TAL SEA
Total/NA	Prep	7471A			288516	11/09/18 11:42	T1H	TAL SEA
Total/NA	Analysis	7471A		1	288615	11/09/18 19:35	T1H	TAL SEA

Client Sample ID: J6-SC-10to20-102218
Lab Sample ID: 580-81308-25
Date Collected: 10/22/18 18:10
Matrix: Solid
Date Received: 10/24/18 14:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	288234	11/05/18 16:56	A1K	TAL SEA
Total/NA	Analysis	D 2216		1	288013	11/01/18 18:46	BAH	TAL SEA
Total/NA	Analysis	Moisture 70C		1	288882	11/07/18 10:32	HJM	TAL SEA
Total/NA	Analysis	D7928/D6913		1	288352	11/07/18 10:32	A1K	TAL SEA
Total/NA	Analysis	D854		1	25247	11/09/18 00:00	JAH	TAL KNX
Total/NA	Analysis	D854		1	25250	11/09/18 00:00	JAH	TAL KNX

Client Sample ID: J6-SC-10to20-102218

Lab Sample ID: 580-81308-25

Date Collected: 10/22/18 18:10

Matrix: Solid

Date Received: 10/24/18 14:10

Percent Solids: 46.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			288727	11/13/18 10:12	BAH	TAL SEA
Total/NA	Analysis	8082A		1	288911	11/14/18 18:05	TL1	TAL SEA
Total/NA	Prep	3546			288508	11/09/18 10:15	BAH	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	288666	11/12/18 22:46	T1W	TAL SEA
Total/NA	Prep	HRMS-Sox	RA		258637	11/12/18 13:18	SR1	TAL SAC
Total/NA	Analysis	1613B	RA	1	260540	11/21/18 00:10	KSS	TAL SAC
Total/NA	Prep	HRMS-Sox			258637	11/12/18 13:18	SR1	TAL SAC
Total/NA	Analysis	1613B		1	260268	11/20/18 08:21	ALM	TAL SAC
Total/NA	Prep	3050B			288564	11/09/18 16:17	T1H	TAL SEA
Total/NA	Analysis	6020B		5	288722	11/12/18 18:27	FCW	TAL SEA
Total/NA	Prep	7471A			288516	11/09/18 11:42	T1H	TAL SEA
Total/NA	Analysis	7471A		1	288615	11/09/18 19:37	T1H	TAL SEA

Client Sample ID: L3-SC-00to10-102218

Lab Sample ID: 580-81308-26

Date Collected: 10/22/18 10:35

Matrix: Solid

Date Received: 10/24/18 14:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	288153	11/02/18 16:33	A1K	TAL SEA
Total/NA	Analysis	D 2216		1	288013	11/01/18 18:46	BAH	TAL SEA
Total/NA	Analysis	Moisture 70C		1	288882	11/07/18 10:32	HJM	TAL SEA
Total/NA	Analysis	D7928/D6913		1	288352	11/07/18 10:32	A1K	TAL SEA
Total/NA	Analysis	D854		1	25247	11/09/18 00:00	JAH	TAL KNX
Total/NA	Analysis	D854		1	25250	11/09/18 00:00	JAH	TAL KNX

Client Sample ID: L3-SC-00to10-102218

Lab Sample ID: 580-81308-26

Date Collected: 10/22/18 10:35

Matrix: Solid

Date Received: 10/24/18 14:10

Percent Solids: 69.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			288727	11/13/18 10:12	BAH	TAL SEA
Total/NA	Analysis	8082A		1	288911	11/14/18 18:22	TL1	TAL SEA
Total/NA	Prep	3546			288508	11/09/18 10:15	BAH	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	288666	11/12/18 23:07	T1W	TAL SEA
Total/NA	Prep	HRMS-Sox			259167	11/14/18 13:54	SR1	TAL SAC
Total/NA	Analysis	1613B		1	260471	11/21/18 11:15	KSS	TAL SAC
Total/NA	Prep	3050B			288564	11/09/18 16:17	T1H	TAL SEA
Total/NA	Analysis	6020B		5	288722	11/12/18 18:32	FCW	TAL SEA
Total/NA	Prep	7471A			288516	11/09/18 11:42	T1H	TAL SEA
Total/NA	Analysis	7471A		1	288615	11/09/18 19:40	T1H	TAL SEA

Lab Chronicle

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

TestAmerica Job ID: 580-81308-1

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
TestAmerica Job ID: 580-81308-1
Project/Site: Swan Island Lagoon SedimentInvestigation

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
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

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Accreditation/Certification Summary

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

TestAmerica Job ID: 580-81308-1

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: 580-81308-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-81308-1	613-102218	Water	10/22/18 09:45	10/24/18 14:10
580-81308-2	J3-SC-55to76-102218	Solid	10/22/18 14:45	10/24/18 14:10
580-81308-3	J3-SC-45to55-102218	Solid	10/22/18 14:35	10/24/18 14:10
580-81308-4	J3-SC-20to36-102218	Solid	10/22/18 13:00	10/24/18 14:10
580-81308-5	J3-SC-76to98-102218	Solid	10/22/18 14:55	10/24/18 14:10
580-81308-6	J3-SC-36to45-102218	Solid	10/22/18 14:25	10/24/18 14:10
580-81308-7	J3-SC-10to20-102218	Solid	10/22/18 12:50	10/24/18 14:10
580-81308-8	J3-SC-00to10-102218	Solid	10/22/18 12:40	10/24/18 14:10
580-81308-9	L3-SC-10to20-102218	Solid	10/22/18 10:45	10/24/18 14:10
580-81308-10	L3-SC-20to40-102218	Solid	10/22/18 11:00	10/24/18 14:10
580-81308-11	J5-SC-20to40-102218	Solid	10/22/18 16:30	10/24/18 14:10
580-81308-12	J5-SC-80to95-102218	Solid	10/22/18 17:10	10/24/18 14:10
580-81308-13	J5-SC-60to80-102218	Solid	10/22/18 16:50	10/24/18 14:10
580-81308-14	J5-SC-95to110-102218	Solid	10/22/18 17:20	10/24/18 14:10
580-81308-15	J5-SC-10to20-102218	Solid	10/22/18 16:10	10/24/18 14:10
580-81308-16	J6-SC-60to80-102218	Solid	10/22/18 19:00	10/24/18 14:10
580-81308-17	J6-SC-80to96-102218	Solid	10/22/18 19:30	10/24/18 14:10
580-81308-18	J6-SC-111to121-102218	Solid	10/22/18 19:50	10/24/18 14:10
580-81308-19	J6-SC-40to60-102218	Solid	10/22/18 18:50	10/24/18 14:10
580-81308-20	J6-SC-96to111-102218	Solid	10/22/18 19:40	10/24/18 14:10
580-81308-21	J5-SC-40to60-102218	Solid	10/22/18 16:40	10/24/18 14:10
580-81308-22	J6-SC-20to40-102218	Solid	10/22/18 18:20	10/24/18 14:10
580-81308-23	J5-SC-00to10-102218	Solid	10/22/18 16:00	10/24/18 14:10
580-81308-24	J6-SC-00to10-102218	Solid	10/22/18 18:00	10/24/18 14:10
580-81308-25	J6-SC-10to20-102218	Solid	10/22/18 18:10	10/24/18 14:10
580-81308-26	L3-SC-00to10-102218	Solid	10/22/18 10:35	10/24/18 14:10

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 __ of __
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:																	
GB-102218	102218	945	G	W	N	N	X		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: 10/24/18 1310	Company: PGG	Received by: Date/Time: 10-24-18 1310 Company: M.E
Relinquished by:	Date/Time: 10-24-18 / 1345	Company: M.E	Received by: Date/Time: 10/24/18 1345 Company: TAPOR
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: 0.4, 4.6, 1.2, 3.5, 1.6, 2.3, 3.1, 2.8, 0.8, 1.0, 4.1, 3.4, 2.9

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 __ of __
Job #: 200G-0015

Due Date Requested:
TAT Requested (days): Standard
PO #: Purchase Order Requested
WO #:
Project #: 58013007
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:																	
* J3-SC-55to76-102218	10/22/18	1415	G	S	N	N	X		X	X	X	X	X	X	X	X		X		
* J3-SC-45to55-102218	10/22/18	1435	G	S	N	N	X		X	X	X	X	X	X	X	X		X		
J3-SC-20to36-102218	10/22/18	1300	G	S	N	N	X		X	X	X	X	X	X	X	X		X		
J3-SC-76to98-102218	10/22/18	1455	G	S	N	N	X		X	X	X	X	X	X	X	X		X		
J3-SC-36to45-102218	10/22/18	1425	G	S	N	N	X		X	X	X	X	X	X	X	X		X		
					N	N														
					N															

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:

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:	10/24/18 1310	PGG	Received by:	10-24-18 / 1310	M.E
Relinquished by:	10-24-18 / 1345	M.E	Received by:	10/24/18 1345	TAPOR
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 __ of __
Company: Pacific Groundwater Group				Job #: 2006-0015
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	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:																		
✓ J3-SC-10TO20-102218	10/22/18	1250	G	S	N	N	X		X	X	X	X	X	X	X	X		X			
J3-SC-00TO10-102218	10/22/18	1240	G	S	N	N	X		X	X	X	X	X	X	X	X		X			
L3-SC-10TO20-102218	10/22/18	1045	G	S	N	N	X		X	X	X	X	X	X	X	X		X			
L3-SC-20TO40-102218	10/22/18	1600	G	S	N	N	X		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:

	Date/Time:	Company		Date/Time:	Company
Relinquished by:	10/24/18 1310	POB	Received by:	10-24-18 / 1310	ME
Relinquished by:	10-24-18 / 1345	ME	Received by:	10/24/18 1345	TAMOR
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:

11/26/2018

TestAmerica Seattle
5755 8th Street East
Tacoma, WA 98424
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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 __ of __
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:																	
JS-SC-20to40-102218	10/22/18	1630	G	S	N	N	X		X	X	X	X	X	X	X	X		X		
JS-SC-80to95-102218	10/22/18	1710	G	S	N	N	X		X	X	X	X	X	X	X	X		X		
JS-SC-40to80-102218	10/22/18	1650	G	S	N	N	X		X	X	X	X	X	X	X	X		X		
JS-SC-95to110-102218	10/22/18	1720	G	S	N	N	X		X	X	X	X	X	X	X	X		X		
JS-SC-10to20-102218	10/22/18	1610	G	S	N	N	X		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		10/24/18 1310	PGG		10-24-18 1310	ME
2		10-24-18 1345			10/24/18 1345	TAMOR
3		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
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Tacoma, WA 98424
Phone (253) 922-2310 Fax (253) 922-5047

Chain of Custody Record

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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 __ of __
Company: Pacific Groundwater Group				Job #: 2006-0015
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:																		
JG-SC-60to80-102218	102218	1900	G	S			X		X	X	X	X	X	X	X	X		X			
JG-SC-80to96-102218	102218	1930	G	S			X		X	X	X	X	X	X	X	X		X			
JG-SC-111to121-102218	102218	1950	G	S			X		X	X	X	X	X	X	X	X		X			
JG-SC-40to60-102218	102218	1850	G	S			X		X	X	X	X	X	X	X	X		X			
JG-SC-96-111-102218	102218	1940	G	S			X		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		10/24/18 1310			10-24-18 / 1310	M.E
2	Relinquished by:	Date/Time: 10-24-18 / 1345	Company	Received by:	Date/Time: 10/24/18 1345	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:

11/26/2018

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	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 __ of __
Company: Pacific Groundwater Group				Job #: 200 (0-00115
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:																	
J5-SC-40to60-102218	10/22/18	1640	G	S	N	N	X		X	X	X	X	X	X	X	X		X		
J6-SC-20to40-102218	10/22/18	1820	G	S	N	N	X		X	X	X	X	X	X	X	X		X		
J5-SC-00to10-102218	10/22/18	1600	G	S	N	N	X		X	X	X	X	X	X	X	X		X		
J6-SC-00to10-102218	10/22/18	1800	G	S	N	N	X		X	X	X	X	X	X	X	X		X		
J6-SC-10to20-102218	10/22/18	1810	G	S	N	N	X		X	X	X	X	X	X	X	X		X		
L3-SC-00to10-102218	10/22/18	1035	G	S	N	N	X		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		10/24/18	PGG		10-24-18 / 1310	M.E
2	Relinquished by:	Date/Time: 10/24/18 / 1345	Company	Received by:	Date/Time: 10/24/18 1345	Company TAPOK
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: ~~500-30854-10094.1~~
Client Contact: Jeff Parker & Janet Knox	Phone: (360) 296-6712	E-Mail: elaine.walker@testamericainc.com		Page: Page __ of __
Company: Pacific Groundwater Group				Job #:
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: Head of Swan Island Lagoon Sediment Investigation	Project #: ~~58013007~~ JK1807			
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 * see comments	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:																		
E-9.02-SC-20to40-102318	10/23/18	1042	G	S	N	N	X	X	X			X	X	X		X		X		6	
E-9.02-SC-00to10-102318	10/23/18	1022	G	S	N	N	X	X	X			X	X	X		X		X		6	
E-9.02-SC-10to20-102318	10/23/18	1032	G	S	N	N	X	X	X			X	X	X		X				5	
E-9.02-SC-60to80-102318	10/23/18	1120	G	S	N	N	X	X	X			X	X	X		X		X		6	
D-8.90-SC-62to80-102318	10/23/18	1730	G	S	N	N	X	X	X			X	X	X		X		X		6	
~~D-8.90-SC-20to40-102318~~		~~1700~~	~~G~~	~~S~~	~~N~~	~~N~~														6	
~~D-8.90-SC-40to62-102318~~		~~1720~~	~~G~~	~~S~~	~~N~~	~~N~~														6	

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: * D/F → 12378-PeCDD 23478-PeCDF 2378-TCDD

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		10/24/18 1310	POR		10-24-18 / 1310	M.E
2		10-28-18 / 1345			10/24/18 1345	TAOR
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

de Maximus

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: ~~580-30854-10004.1~~
Client Contact: Jeff Parker & Janet Knox	Phone: (360) 296-6712	E-Mail: elaine.walker@testamericainc.com		Page: Page __ of __
Company: Pacific Groundwater Group				Job #:
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: Head of Swan Island Lagoon Sediment Investigation	Project #: ~~58013007~~ JK 1807.01			
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 * see comments	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:																	
D-8.90-SC-40to62-102318	10/23/18	1720	G	S	N	N	X	X	X			X	X	X		X		X	6	
D-8.90-SC-00to10-102318	10/23/18	1640	G	S	N	N	X	X	X			X	X	X		X		X	6	5 no archive jar
D-8.90-SC-20to40-102318	10/23/18	1700	G	S	N	N	X	X	X			X	X	X		X		X	6	
D-8.90-SC-10to20-102318	10/23/18	1650	G	S	N	N	X	X	X			X	X	X		X		X	6	
D-8.90-SC-103to120-102318	10/23/18	1810	G	S	N	N	X	X	X			X	X	X		X		X	6	
D-8.90-SC-80to103-102318	10/23/18	1800	G	S	N	N	X	X	X			X	X	X		X		X	6	
D-8.90-SC-120to140-102318	10/23/18	1400	G	S	N	N	X	X	X			X	X	X		X		X	6	
D-8.90-SC-140to160-102318	10/23/18	1910	G	S	N	N												X	6	hold
D-8.90-SC-160to164-102318	10/23/18	1970	G	S	N	N												X	1	hold

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: D/Fs → 12378 PeCDD, 23478 PeCDF 2378 TCDD

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:
Relinquished by:	Date/Time: 10/24/18 1320	Company: PGG	Received by:	Date/Time: 10/24/18 1320	Company: M.E.
Relinquished by:	Date/Time: 10/24/18 1450	Company: M.E.	Received by:	Date/Time: 10/24/18 1450	Company: TAFOL
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 __ of __
Company: Pacific Groundwater Group				Job #:
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: Head of Swan Island Lagoon Sediment Investigation	Project #: ~~58013007~~ JK1807.01			
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:																	
D-8.83-0to25-102418	10/24/18	833	G	S			X	X	X			X	X	X		X		✓		Archive 6 jars
D-8.90-0to27-102418	10/24/18	910	G	S			X	X	X			X	X	X		X		✓		" " "
C-8.94-0to27-102418	10/24/18	955	G	S			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: * DFS → 12378-PeCDD, 23478-PeCDF 2378-TCDD

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		10/24/18 1320			10/24/18 1320	M.E.
2		10/24/18 1450	M.E.		10/24/18 1450	
3						

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

de MaximUS

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: ~~680-30854-10094.1~~
Client Contact: Jeff Parker & Janet Knox	Phone: (360) 296-6712	E-Mail: elaine.walker@testamericainc.com		Page: Page __ of __
Company: Pacific Groundwater Group				Job #:
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: ~~Head of~~ Swan Island Lagoon Sediment Investigation	Project #: ~~58013007~~ JK1807.01			
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:																		
D-9.09-SC-60 to 80-102318	10/23/18	1440	G	S	N	N	X	X	X			X	X	X		X		X		6	
D-9.09-SC-80 to 100-102318	10/23/18	1510	G	S	N	N	X	X	X			X	X	X		X		X		6	
D-9.09-SC-40 to 60-102318	10/23/18	1430	G	S	N	N	X	X	X			X	X	X		X		X		6	
D-9.09-SC-10 to 20-102318	10/23/18	1340	G	S	N	N	X	X	X			X	X	X		X				5	NO ARCHIVE JAR
D-9.09-SC-20 to 40-102318	10/23/18	1350	G	S	N	Y	X	X	X			X	X	X		X		X		6	MS/MSD
511-20to40-102318	10/23/18	1350	G	S	N	N	X	X	X			X	X	X		X		X		6	
D-9.09-SC-00 to 10-102318	10/23/18	1330	G	S	N	N	X	X	X			X	X	X		X		X		6	
D-9.09-SC-117 to 121-102318	10/23/18	1540	G	S	N	N												X		1	hold

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: * 0/Fs = 12378-PeCDD; 23478-PeCDF

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Jeff	10/24/18 1320	POG	Jessica Mu	10/24/18 1320	M.E.
Jessica Mu	10/24/18 1450	M.E.		10/24/18 1450	MAYOR
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:

11/26/2018

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

demaxmus

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 __ of __
Company: Pacific Groundwater Group				Job #:
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 Head of	Project #: ~~58013007~~ JK1807.01			
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:																	
E-9.02-SC-100to115-102318	10/23/18	1220	G	S	N	N	X	X	X			X	X	X		X		X	6	
E-9.02-SC-80to100-102318	10/23/18	1210	G	S	N	N	X	X	X			X	X	X		X		X	6	
E-9.02-SC-115to130-102318	10/23/18	1240	G	S	N	N	X	X	X			X	X	X		X		X	6	
E-9.02-SC-40to60-102318	10/23/18	1110	G	S	N	N	X	X	X			X	X	X		X		X	6	
D-9.02-SC-100to117-102318	10/23/18	1520	G	B	N	N	X	X	X			X	X	X		X		X	6	
E-9.02-SC-130to133-102318	10/23/18	1250	G	S	N	N												X	1	hold

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:
* DFs → 2378 TCDD; 12378 PeCDD ; 23478-PeCDF

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		10/24/18 1320	P66		10/24/18 1320	M.E.
2		10/24/18 1450	M.E.		10/24/18 1450	TAR
3		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 __ of __
Company: Pacific Groundwater Group				Job #:
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: Head of Swan Island Lagoon Sediment Investigation	Project #: ~~58013007~~ JK1807.01			
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:																	
E-8.99-0to28-102418	10/24/18	1040	G	S			X	X	X			X	X	X		X		✓		Archive 6 jars
E-9.02-0to26-102418	10/24/18	1207	G	S			X	X	X			X	X	X		X		✓		" " "
B-9.00-0to29-102418	10/24/18	1119	G	S			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: * D/F's - 12378-PeCDD, 23478-PeCDF, 2378-TCDD

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:
Relinquished by:	Date/Time: 10/24/18 1320	Company: PGG	Received by:	Date/Time: 10/24/18 1320	Company: M.E.
Relinquished by:	Date/Time: 10/24/18 1450	Company: M.E.	Received by:	Date/Time: 10/24/18 1450	Company: NAEA
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: ~~580-30854-10694.1~~
Client Contact: Jeff Parker & Janet Knox	Phone: (360) 296-6712	E-Mail: elaine.walker@testamericainc.com		Page: Page __ of __
Company: Pacific Groundwater Group				Job #: JK1807.01
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: Head of Swan Island Lagoon Sediment Investigation	Project #: ~~58013007~~ JK1807.01			
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:				4		4											
611-102318	102318	1655	G	W	N	N	4	X	X	~~X~~	X	X	X	X	X	X	X	0	13	no metals

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: P/Es – 1234B-PeCDF, 2378-TCDF, 23478-PeCDF

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		10/24/18 1320	PGG		10/24/18 1320	M.E.
2		10/24/18 1450	M.E.		10/24/18 1650	PGG
3						

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 __ of __
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:																	
GB-102218	10/22/18	945	G	W	N	N	X		X	X	X	X	X	X	X	X		X		Per PGG No Solids 10/29/18

580-81308 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: 10/24/18 1310	Company PGG	Received by:	Date/Time: 10-24-18 1310	Company M.E.
Relinquished by:	Date/Time: 10-24-18 1345	Company M.E.	Received by:	Date/Time: 10/24/18 1345	Company TAPOR
Relinquished by:	Date/Time: 10/24/18 1710	Company TAPOR	Received by:	Date/Time:	Company

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 0.7, 4.6, 1.2, 3.5, 1.6, 2.3, 3.1, 2.8, 0.8, 1.0, 4.1, 3.4, 2.9
10-25-18 900 4=3.1 4=4.4 1.4 2.4

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 __ of __
Company: Pacific Groundwater Group				Job #: 200G-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:																				
* J3-SC-55to76-102218	10/22/18	1445	G	S	N	N	X		X	X	X	X	X	X	X	X		X		
* J3-SC-45to55-102218	10/22/18	1435	G	S	N	N	X		X	X	X	X	X	X	X	X		X		
J3-SC-20to36-102218	10/22/18	1300	G	S	N	N	X		X	X	X	X	X	X	X	X		X		
J3-SC-76to98 -102218	10/22/18	1455	G	S	N	N	X		X	X	X	X	X	X	X	X		X		
J3-SC-36to45 -102218	10/22/18	1425	G	S	N	N	X		X	X	X	X	X	X	X	X		X		
					N	N														
					N															

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
1		10/24/18 1310	PGG		10-24-18 / 1310	M.E
2	Relinquished by:	Date/Time: 10-24-18 / 1345	Company M.E	Received by:	Date/Time: 10/24/18 1345	Company PGG
3	Relinquished by:	Date/Time: 10/24/18 1710	Company	Received by:	Date/Time: 10/25/18 900	Company TAES

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

11/26/2018

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	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 __ of __
Company: Pacific Groundwater Group				Job #: 2026-00115
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:																	
✓ J3-SC-10to20-102218	10/22/18	1250	G	S	N	N	X		X	X	X	X	X	X	X	X		X		
J3-SC-00to10-102218	10/22/18	1240	G	S	N	N	X		X	X	X	X	X	X	X	X		X		
L3-SC-10to20-102218	10/22/18	1045	G	S	N	N	X		X	X	X	X	X	X	X	X		X		
L3-SC-20to40-102218	10/22/18	1600	G	S	N	N	X		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: 10/24/18 1310	Company: PGG	Received by: Date/Time: 10-24-18 1310 Company: ME
Relinquished by:	Date/Time: 10-24-18 1345	Company: ME	Received by: Date/Time: 10/24/18 1345 Company: Fedex
Relinquished by:	Date/Time: 10/24/18 1700	Company: Fedex	Received by: Date/Time: 10-25-18 900 Company: TASea

Custody Seals Intact: △ Yes △ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 4/-7.1

11/26/2018

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	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 __ of __
Company: Pacific Groundwater Group				Job #: 20QG-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:																	
JS-SC-20to40-102218	10/22/18	1630	G	S	N	N	X		X	X	X	X	X	X	X	X		X		
JS-SC-80to95-102218	10/22/18	1710	G	S	N	N	X		X	X	X	X	X	X	X	X		X		
JS-SC-60to80-102218	10/22/18	1650	G	S	N	N	X		X	X	X	X	X	X	X	X		X		
JS-SC-95to110-102218	10/22/18	1720	G	S	N	N	X		X	X	X	X	X	X	X	X		X		
JS-SC-0to20-102218	10/22/18	1600	G	S	N	N	X		X	X	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: 10/24/18 1310	Company PGG	Received by:	Date/Time: 10-24-18 1310	Company ALS
Relinquished by:	Date/Time: 10-24-18 1345	Company	Received by:	Date/Time: 10/24/18 1345	Company TAMW
Relinquished by:	Date/Time: 10/24/18 1710	Company ALS	Received by:	Date/Time: 10-25-18 0900	Company TAMW
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 __ of __
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:																				
JG-SC-60 to 80-102218	102218	1900	G	S			X		X	X	X	X	X	X	X	X		X		
JG-SC-80 to 96-102218	102218	1930	G	S			X		X	X	X	X	X	X	X	X		X		
JG-SC-111 to 121-102218	102218	1950	G	S			X		X	X	X	X	X	X	X	X		X		
JG-SC-40 to 60-102218	102218	1850	G	S			X		X	X	X	X	X	X	X	X		X		
JG-SC-96-111-102218	102218	1940	G	S			X		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: 10/24/18 1510	Company: TAL	Received by: Date/Time: 10-24-18 1810 Company: M-E
Relinquished by:	Date/Time: 10-24-18 / 1845	Company	Received by: Date/Time: 10/24/18 1845 Company: TAL
Relinquished by:	Date/Time: 10/24/18 1920	Company: TAL	Received by: Date/Time: 10-25-18 900 Company: TAL

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 __ of __
Company: Pacific Groundwater Group				Job #: 200 (6-00115
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:					X	X														
JS-SC-40to60-102218	10/22/18	1640	G	S	N	N	X		X	X	X	X	X	X	X	X		X		
J6-SC-20to40-102218	10/22/18	1820	G	S	N	N	X		X	X	X	X	X	X	X	X		X		
JS-SC-00to10-102218	10/22/18	1600	G	S	N	N	X		X	X	X	X	X	X	X	X		X		
J6-SC-00to10-102218	10/22/18	1800	G	S	N	N	X		X	X	X	X	X	X	X	X		X		
J6-SC-10to20-102218	10/22/18	1810	G	S	N	N	X		X	X	X	X	X	X	X	X		X		
L3-SC-00to10-102218	10/22/18	1035	G	S	N	MN	X		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		10/24/18	PGG		10-24-18 / 1310	M.E
2		10/24/18 / 1345			10/24/18 1345	TAPOK
3		10/24/18 1710	TAPOK		10-25-18 900	TAEA

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

580-8130

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

Chain of Custody Record

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
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:

Due Date Requested:
TAT Requested (days): Standard
PO #: Purchase Order Requested
WO #:
Project #: 58013007
SSOW#:

Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=wastefoil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1665A - 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
			Preservation Code:																
GB-102218	102218	945	G	W	N	N	X	X	X	X	X	X	X	X	X	X	X	X	

580-81308 Chain of

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retai
☐ Return To Client ☐ Disposal By Lab ☒ Ar

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: 10/24/18	Company:	Received by:	Date/Time:
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:

580-8130

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

Chain of Custody Record

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#:		

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	
			Preservation Code:		X	X													
* J3-SC-550076-102218	10/22/18	1445	G	S	N	N	X	X	X	X	X	X	X	X	X	X		X	
* J3-SC-450055-102218	10/22/18	1435	G	S	N	N	X	X	X	X	X	X	X	X	X	X		X	
J3-SC-200360-102218	10/22/18	1300	G	S	N	N	X	X	X	X	X	X	X	X	X	X		X	
J3-SC-760098-102218	10/22/18	1455	G	S	N	N	X	X	X	X	X	X	X	X	X	X		X	
J3-SC-360045-102218	10/22/18	1425	G	S	N	N	X	X	X	X	X	X	X	X	X	X		X	
					N	N	08	08											
					N														

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 retai
☐ Return To Client ☐ Disposal By Lab ☒ Arc

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:
Relinquished by:	Date/Time: 10/24/18 1310	Company:	Received by:
Relinquished by:	Date/Time:	Company:	Received by:
			Date/Time: 10-24-18

580-8130

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

Chain of Custody Record

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#:		

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
			Preservation Code:																
J3-SC-10to20-102218	10/22/18	1250	G	S	N	N	X	X	X	X	X	X	X	X	X	X		X	
J3-SC-00to10-102218	10/22/18	1240	G	S	N	N	X	X	X	X	X	X	X	X	X	X		X	
J3-SC-10to20-102218	10/22/18	1045	G	S	N	N	X	X	X	X	X	X	X	X	X	X		X	
J3-SC-20to40-102218	10/22/18	~~1100~~ 1100 JP	G	S	N	N	X	X	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 retai
☐ Return To Client ☐ Disposal By Lab ☒ Ar

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: 10/24/18 1310	Company:	Received by: Date/Time:
Relinquished by:	Date/Time:	Company:	Received by: Date/Time:

580-8130

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

Chain of Custody Record

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#:		

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	
			Preservation Code:																
JS-SC-20to40-102218	10/22/18	1630	G	S	N	N	X	X	X	X	X	X	X	X	X	X		X	
JS-SC-80to95-102218	10/22/18	1710	G	S	N	N	X	X	X	X	X	X	X	X	X	X		X	
JS-SC-40to80-102218	10/22/18	1650	G	S	N	N	X	X	X	X	X	X	X	X	X	X		X	
JS-SC-95to110-102218	10/22/18	1720	G	S	N	N	X	X	X	X	X	X	X	X	X	X		X	
JS-SC-0to20-102218	10/22/18	1610	G	S	N	N	X	X	X	X	X	X	X	X	X	X		X	
							48												

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retai
☐ Return To Client ☐ Disposal By Lab ☒ Ar

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: 10/24/18 1310	Company: PSS	Received by:
Relinquished by:	Date/Time:	Company:	Received by:

S40

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

Chain of Custody Record

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):

Due Date Requested:
TAT Requested (days): Standard
PO #: Purchase Order Requested
WO #:
Project #: 58013007
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
			Preservation Code:																
JG-SC-60to80-102218	102218	1900	G	S			X	X	X	X	X	X	X	X	X	X		X	
JG-SC-80to90-102218	102218	1930	G	S			X	X	X	X	X	X	X	X	X	X		X	
JG-SC-111to121-102218	102218	1950	G	S			X	X	X	X	X	X	X	X	X	X		X	
JG-SC-40to60-102218	102218	1850	G	S			X	X	X	X	X	X	X	X	X	X		X	
JG-SC-96-111-102218	102218	1940	G	S			X	X	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 retai
☐ Return To Client ☐ Disposal By Lab ☒ Ar

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: 10/24/18 1510 Company: Received by: Date/Time:

Relinquished by: Date/Time: Company: Received by: Date/Time:

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

Chain of Custody Record

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) 206-329-6966(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
			Preservation Code:		X	X													
J5-SC-40to60-102218	10/22/18	1640	G	S	N	N	X	X	X	X	X	X	X	X	X	X		X	
J6-SC-20to40-102218	10/22/18	1820	G	S	N	N	X	X	X	X	X	X	X	X	X	X		X	
J5-SC-00to10-102218	10/22/18	1600	G	S	N	N	X	X	X	X	X	X	X	X	X	X		X	
J6-SC-00to10-102218	10/22/18	1800	G	S	N	N	X	X	X	X	X	X	X	X	X	X		X	
J6-SC-10to20-102218	10/22/18	1810	G	S	N	N	X	X	X	X	X	X	X	X	X	X		X	
L3-SC-00to10-102218	10/22/18	1035	G	S	N	N	X	X	X	X	X	X	X	X	X	X		X	
							10												

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retai
☐ Return To Client ☐ Disposal By Lab ☒ Ar

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: 10/24/18	Company: PSS	Received by:	Date/Time:
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:

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: 580-60647.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: elaine.walker@testamericainc.com	State of Origin: Oregon	Page: Page 1 of 7
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 580-81308-1
Address: 5815 Middlebrook Pike, ,	Due Date Requested: 11/12/2018			Preservation Codes: A - HCL, M - Hexane
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#:			Other:

580-81308 Chain of Custody

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 conta	Special Instructions/Note:
			Preservation Code:																
613-102218 (580-81308-1)	10/22/18	09:45 Pacific		Water			X	X					RC/ND					2	CUSTODY SEALS INTACT
J3-SC-55to76-102218 (580-81308-2)	10/22/18	14:45 Pacific		Solid					X	X	X	X						2	RECEIVED AT RT 0.4, 0.2c
J3-SC-45to55-102218 (580-81308-3)	10/22/18	14:35 Pacific		Solid					X	X	X	X						2	CT 0.5, 0.3c
J3-SC-20to36-102218 (580-81308-4)	10/22/18	13:00 Pacific		Solid					X	X	X	X						2	DXD 10-26-18
J3-SC-76to98-102218 (580-81308-5)	10/22/18	14:55 Pacific		Solid					X	X	X	X						2	2 COOLERS FED X
J3-SC-36to45-102218 (580-81308-6)	10/22/18	14:25 Pacific		Solid					X	X	X	X						2	461151676 4362m PO
J3-SC-10to20-102218 (580-81308-7)	10/22/18	12:50 Pacific		Solid					X	X	X	X						2	
J3-SC-00to10-102218 (580-81308-8)	10/22/18	12:40 Pacific		Solid					X	X	X	X						2	
L3-SC-10to20-102218 (580-81308-9)	10/22/18	10:45 Pacific		Solid					X	X	X	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:	Company	Received by:	Date/Time:	Company
1		10/25/18 1510	TAL SEA			
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
					10-26-18 10:15	TA KNX
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: 580-60647.2
Client Contact: Shipping/Receiving	Phone:	E-Mail: elaine.walker@testamericainc.com	State of Origin: Oregon	Page: Page 2 of 7
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 580-81308-1
Address: 5815 Middlebrook Pike, ,	Due Date Requested: 11/12/2018			
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:		X	X														
L3-SC-20to40-102218 (580-81308-10)	10/22/18	16:00 Pacific		Solid					X	X	X	X							1	
J5-SC-20to40-102218 (580-81308-11)	10/22/18	16:30 Pacific		Solid					X	X	X	X							1	
J5-SC-80to95-102218 (580-81308-12)	10/22/18	17:10 Pacific		Solid					X	X	X	X							1	
J5-SC-60to80-102218 (580-81308-13)	10/22/18	16:50 Pacific		Solid					X	X	X	X							1	
J5-SC-95to110-102218 (580-81308-14)	10/22/18	17:20 Pacific		Solid					X	X	X	X							1	
J5-SC-10to20-102218 (580-81308-15)	10/22/18	16:10 Pacific		Solid					X	X	X	X							1	
J6-SC-60to80-102218 (580-81308-16)	10/22/18	19:00 Pacific		Solid					X	X	X	X							1	
J6-SC-80to96-102218 (580-81308-17)	10/22/18	19:30 Pacific		Solid					X	X	X	X							1	
J6-SC-111to121-102218 (580-81308-18)	10/22/18	19:50 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		10/25/18 1510	TA		10-26-18 10:15	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: 580-60647.3
Client Contact: Shipping/Receiving	Phone:	E-Mail: elaine.walker@testamericainc.com	State of Origin: Oregon	Page: Page 3 of 7
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 580-81308-1
Address: 5815 Middlebrook Pike, ,	Due Date Requested: 11/12/2018			
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:											
J6-SC-40to60-102218 (580-81308-19)	10/22/18	18:50 Pacific		Solid					X	X	X	X	1	
J6-SC-96to111-102218 (580-81308-20)	10/22/18	19:40 Pacific		Solid					X	X	X	X	1	
J5-SC-40to60-102218 (580-81308-21)	10/22/18	16:40 Pacific		Solid					X	X	X	X	1	
J6-SC-20to40-102218 (580-81308-22)	10/22/18	18:20 Pacific		Solid					X	X	X	X	1	
J5-SC-00to10-102218 (580-81308-23)	10/22/18	16:00 Pacific		Solid					X	X	X	X	1	
J6-SC-00to10-102218 (580-81308-24)	10/22/18	18:00 Pacific		Solid					X	X	X	X	1	
J6-SC-10to20-102218 (580-81308-25)	10/22/18	18:10 Pacific		Solid					X	X	X	X	1	
L3-SC-00to10-102218 (580-81308-26)	10/22/18	10:35 Pacific		Solid					X	X	X	X	1	
E-9.02-SC-20to40-102318 (580-81308-27)	10/23/18	10:42 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:

	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	10/25/18 1510	TAL			
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 10-26-18 10:15	Company TA KNX
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: 580-60647.4
Client Contact: Shipping/Receiving	Phone:	E-Mail: elaine.walker@testamericainc.com	State of Origin: Oregon	Page: Page 4 of 7
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 580-81308-1
Address: 5815 Middlebrook Pike, ,	Due Date Requested: 11/12/2018			
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											
E-9.02-SC-00to10-102318 (580-81308-28)	10/23/18	10:22 Pacific		Solid					X	X	X	X	1	
E-9.02-SC-10to20-102318 (580-81308-29)	10/23/18	10:32 Pacific		Solid					X	X	X	X	1	
E-9.02-SC-60to80-102318 (580-81308-30)	10/23/18	11:20 Pacific		Solid					X	X	X	X	1	
D-8.90-SC-62to80-102318 (580-81308-31)	10/23/18	17:30 Pacific		Solid					X	X	X	X	1	
E-9.02-SC-100to115-102318 (580-81308-32)	10/23/18	12:20 Pacific		Solid					X	X	X	X	1	
E-9.02-SC-80to100-102318 (580-81308-33)	10/23/18	12:10 Pacific		Solid					X	X	X	X	1	
E-9.02-SC-115to130-102318 (580-81308-34)	10/23/18	12:40 Pacific		Solid					X	X	X	X	1	
E-9.02-SC-40to60-102318 (580-81308-35)	10/23/18	11:10 Pacific		Solid					X	X	X	X	1	
D-9.02-SC-100to117-102318 (580-81308-36)	10/23/18	15:20 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:

	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	10/25/18 1510	TAOK		10-26-18 10:25	TA KW X
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: 580-60647.5
Client Contact: Shipping/Receiving	Phone:	E-Mail: elaine.walker@testamericainc.com	State of Origin: Oregon	Page: Page 5 of 7
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 580-81308-1
Address: 5815 Middlebrook Pike, ,	Due Date Requested: 11/12/2018			
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:																	
D-9.09-SC-60to80-102318 (580-81308-38)	10/23/18	14:40 Pacific		Solid					X	X	X	X							1	
D-9.09-SC-80to100-102318 (580-81308-39)	10/23/18	15:10 Pacific		Solid					X	X	X	X							1	
D-9.09-SC-40to60-102318 (580-81308-40)	10/23/18	14:30 Pacific		Solid					X	X	X	X							1	
D-9.09-SC-10to20-102318 (580-81308-41)	10/23/18	13:40 Pacific		Solid					X	X	X	X							1	
D-9.09-SC-20to40-102318 (580-81308-42)	10/23/18	13:50 Pacific		Solid					X	X	X	X							1	
511-20to40-102318 (580-81308-43)	10/23/18	13:50 Pacific		Solid					X	X	X	X							1	
D-9.09-SC-00to10-102318 (580-81308-44)	10/23/18	13:30 Pacific		Solid					X	X	X	X							1	
D-8.90-SC-40to62-102318 (580-81308-46)	10/23/18	17:20 Pacific		Solid					X	X	X	X							1	
D-8.90-SC-00to10-102318 (580-81308-47)	10/23/18	16:40 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:

	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	10/25/18 1510	TAK		10-26-18 10:15	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: 580-60647.6
Client Contact: Shipping/Receiving	Phone:	E-Mail: elaine.walker@testamericainc.com	State of Origin: Oregon	Page: Page 6 of 7
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 580-81308-1
Address: 5815 Middlebrook Pike, ,	Due Date Requested: 11/12/2018			
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:											
D-8.90-SC-20to40-102318 (580-81308-48)	10/23/18	17:00 Pacific		Solid					X	X	X	X	1	
D-8.90-SC-10to20-102318 (580-81308-49)	10/23/18	16:50 Pacific		Solid					X	X	X	X	1	
D-8.90-SC-103to120-102318 (580-81308-50)	10/23/18	18:10 Pacific		Solid					X	X	X	X	1	
D-8.90-SC-80to103-102318 (580-81308-51)	10/23/18	18:00 Pacific		Solid					X	X	X	X	1	
D-8.90-SC-120to140-102318 (580-81308-52)	10/23/18	19:00 Pacific		Solid					X	X	X	X	1	
D-8.90-SC-140to160-102318 (580-81308-53)	10/23/18	19:10 Pacific		Solid					X	X	X	X	1	
D-8.83-0to25-102418 (580-81308-55)	10/24/18	08:33 Pacific		Solid					X	X	X	X	1	
D-8.90-0to27-102418 (580-81308-56)	10/24/18	09:10 Pacific		Solid					X	X	X	X	1	
C-8.94-0to27-102418 (580-81308-57)	10/24/18	09:55 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		10/25/18 1510	TAOL		10-26-18 10:15	TAKNX
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: 580-60647.7
Client Contact: Shipping/Receiving	Phone:	E-Mail: elaine.walker@testamericainc.com	State of Origin: Oregon	Page: Page 7 of 7
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 580-81308-1
Address: 5815 Middlebrook Pike, ,	Due Date Requested: 11/12/2018			
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:																	
E-8.99-0to28-102418 (580-81308-58)	10/24/18	10:40 Pacific		Solid					X	X	X	X							1	
E-9.02-0to26-102418 (580-81308-59)	10/24/18	12:07 Pacific		Solid					X	X	X	X							1	
B-9.00-0to29-102418 (580-81308-60)	10/24/18	11:19 Pacific		Solid					X	X	X	X							1	
611-102318 (580-81308-61)	10/23/18	16:55 Pacific		Water			X	X						RU/ND					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		10/25/18 1510			10-26-18 10:25	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 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 : 5668 Correction factor: +0.1°C	✓			☐ **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: 7194 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, S80-81308-41

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: _____ Date: 10-26-18

QA026R30.doc, 080916

TestAmerica Sacramento
880 Riverside Parkway
West Sacramento, CA 95605
Phone (916) 373-5600 Fax (916) 372-1059

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: 320-133481.1
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 #: 580-81308-2
Address: 5815 Middlebrook Pike, ,	Due Date Requested: 11/12/2018			
City: Knoxville	TAT Requested (days):			
State, Zip: TN, 37921				
Phone: 865-291-3000(Tel) 865-584-4315(Fax)	PO #:			
Email:	WO #:			
Project Name: Head of Swan Island Lagoon Sediment	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_Sox (MOD) 209 PCBs plus Totals	Screen_1668/Screen_PCB_P_S	D854/ Specific Gravity	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
D-9.09-SC-10to20-102318 (580-81308-41)	10/23/18	13:40 Pacific		Solid			X	X	X		

CUSTODY SEALS INTACT
RECEIVED AT AT 1.3/CT1.4°C
ON 11-2-18
1 COOLER FEDEX# 4895 5410 0388 PO

580-81308 Chain of Custody

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample 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		10-31-18 1630			11-2-18 09:30	TAKX
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

TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST

Log In Number: 81308

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 : SCb8 Correction factor: +0.1°C	✓			☐ **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:			✓	☐ **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

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: Amy Dawson Date: 11-2-18

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: 580-60651.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: elaine.walker@testamericainc.com	State of Origin: Oregon	Page: Page 1 of 7
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 580-81308-1
Address: 880 Riverside Parkway, ,	Due Date Requested: 11/9/2018			
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	AutoOP/ PH Frozen Archive Container billed @ $0.	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
613-102218 (580-81308-1)	10/22/18	09:45 Pacific		Water			X			2	
J3-SC-55to76-102218 (580-81308-2)	10/22/18	14:45 Pacific		Solid				X	X	2	
J3-SC-45to55-102218 (580-81308-3)	10/22/18	14:35 Pacific		Solid				X	X	2	
J3-SC-20to36-102218 (580-81308-4)	10/22/18	13:00 Pacific		Solid				X	X	1	
J3-SC-76to98-102218 (580-81308-5)	10/22/18	14:55 Pacific		Solid				X	X	2	
J3-SC-36to45-102218 (580-81308-6)	10/22/18	14:25 Pacific		Solid				X	X	1	
J3-SC-10to20-102218 (580-81308-7)	10/22/18	12:50 Pacific		Solid				X	X	1	
J3-SC-00to10-102218 (580-81308-8)	10/22/18	12:40 Pacific		Solid				X	X	1	
L3-SC-10to20-102218 (580-81308-9)	10/22/18	10:45 Pacific		Solid				X	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:	Company	Received by:	Date/Time:	Company
1		10/25/18 1630	TAOR		10/26/18 945	
2						
3						

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 0.5, 4.0, 2.9

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: 580-60651.2
Client Contact: Shipping/Receiving	Phone:	E-Mail: elaine.walker@testamericainc.com	State of Origin: Oregon	Page: Page 2 of 7
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 580-81308-1
Address: 880 Riverside Parkway, ,	Due Date Requested: 11/9/2018			
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	AutoOP/ PH Frozen Archive Container billed @ $0.	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
L3-SC-20to40-102218 (580-81308-10)	10/22/18	16:00 Pacific		Solid				X	X	2	
J5-SC-20to40-102218 (580-81308-11)	10/22/18	16:30 Pacific		Solid				X	X	2	
J5-SC-80to95-102218 (580-81308-12)	10/22/18	17:10 Pacific		Solid				X	X	2	
J5-SC-60to80-102218 (580-81308-13)	10/22/18	16:50 Pacific		Solid				X	X	2	
J5-SC-95to110-102218 (580-81308-14)	10/22/18	17:20 Pacific		Solid				X	X	1	
J5-SC-10to20-102218 (580-81308-15)	10/22/18	16:10 Pacific		Solid				X	X	2	
J6-SC-60to80-102218 (580-81308-16)	10/22/18	19:00 Pacific		Solid				X	X	2	
J6-SC-80to96-102218 (580-81308-17)	10/22/18	19:30 Pacific		Solid				X	X	1	
J6-SC-111to121-102218 (580-81308-18)	10/22/18	19:50 Pacific		Solid				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: 10/25/18 1630	Company: TAL	Received by: Tammy Jacobs
Relinquished by:	Date/Time:	Company	Received by:
Relinquished by:	Date/Time:	Company	Received by:

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 0.3, 4.0, 2.9

Ver: 09/20/2016

* Missing 8oz Soil Jar.

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: 580-60651.3
Client Contact: Shipping/Receiving	Phone:	E-Mail: elaine.walker@testamericainc.com	State of Origin: Oregon	Page: Page 3 of 7
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 580-81308-1
Address: 880 Riverside Parkway, ,	Due Date Requested: 11/9/2018			
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	AutoOP/ PH Frozen Archive Container billed @ $0.	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
J6-SC-40to60-102218 (580-81308-19)	10/22/18	18:50 Pacific		Solid				X	X	2	
J6-SC-96to111-102218 (580-81308-20)	10/22/18	19:40 Pacific		Solid				X	X	1	
J5-SC-40to60-102218 (580-81308-21)	10/22/18	16:40 Pacific		Solid				X	X	2	
J6-SC-20to40-102218 (580-81308-22)	10/22/18	18:20 Pacific		Solid				X	X	2	
J5-SC-00to10-102218 (580-81308-23)	10/22/18	16:00 Pacific		Solid				X	X	1	
J6-SC-00to10-102218 (580-81308-24)	10/22/18	18:00 Pacific		Solid				X	X	2	
J6-SC-10to20-102218 (580-81308-25)	10/22/18	18:10 Pacific		Solid				X	X	2	
L3-SC-00to10-102218 (580-81308-26)	10/22/18	10:35 Pacific		Solid				X	X	1	
E-9.02-SC-20to40-102318 (580-81308-27)	10/23/18	10:42 Pacific		Solid				X	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:	10/25/18 1630	TAL SEA		10/26/18 945	TAL 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: 0.3, 4.0, 2.9

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: 580-60651.4
Client Contact: Shipping/Receiving	Phone:	E-Mail: elaine.walker@testamericainc.com	State of Origin: Oregon	Page: Page 4 of 7
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 580-81308-1
Address: 880 Riverside Parkway, ,	Due Date Requested: 11/9/2018			
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	AutoOP/ PH Frozen Archive Container billed @ $0.	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
E-9.02-SC-00to10-102318 (580-81308-28)	10/23/18	10:22 Pacific		Solid				X	X	2	
E-9.02-SC-10to20-102318 (580-81308-29)	10/23/18	10:32 Pacific		Solid				X	X	1	
E-9.02-SC-60to80-102318 (580-81308-30)	10/23/18	11:20 Pacific		Solid				X	X	2	
D-8.90-SC-62to80-102318 (580-81308-31)	10/23/18	17:30 Pacific		Solid				X	X	2	
E-9.02-SC-100to115-102318 (580-81308-32)	10/23/18	12:20 Pacific		Solid				X		2	
E-9.02-SC-80to100-102318 (580-81308-33)	10/23/18	12:10 Pacific		Solid				X		2	
E-9.02-SC-115to130-102318 (580-81308-34)	10/23/18	12:40 Pacific		Solid				X		2	
E-9.02-SC-40to60-102318 (580-81308-35)	10/23/18	11:10 Pacific		Solid				X		2	
D-9.02-SC-100to117-102318 (580-81308-36)	10/23/18	15:20 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: 10/25/18 1630	Company: TAL SEA	Received by: Sammy Fleehas	Date/Time: 10/26/18 745	Company: TAL SEA
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: 0.3, 4.0, 2.9

602 Jar Received With Cracked Lid. Taped in Lab. DK 10/26/18

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: 580-60651.5
Client Contact: Shipping/Receiving	Phone:	E-Mail: elaine.walker@testamericainc.com	State of Origin: Oregon	Page: Page 5 of 7
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 580-81308-1
Address: 880 Riverside Parkway, ,	Due Date Requested: 11/9/2018			
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 (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	AutoOP/ PH Frozen Archive Container billed @ $0.	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
D-9.09-SC-60to80-102318 (580-81308-38)	10/23/18	14:40 Pacific		Solid				X		2	
D-9.09-SC-80to100-102318 (580-81308-39)	10/23/18	15:10 Pacific		Solid				X		2	
D-9.09-SC-40to60-102318 (580-81308-40)	10/23/18	14:30 Pacific		Solid				X		2	
D-9.09-SC-10to20-102318 (580-81308-41)	10/23/18	13:40 Pacific		Solid				X		1	
D-9.09-SC-20to40-102318 (580-81308-42)	10/23/18	13:50 Pacific		Solid				X		2	
511-20to40-102318 (580-81308-43)	10/23/18	13:50 Pacific		Solid				X		2	
D-9.09-SC-00to10-102318 (580-81308-44)	10/23/18	13:30 Pacific		Solid				X		2	
D-8.90-SC-40to62-102318 (580-81308-46)	10/23/18	17:20 Pacific		Solid				X		2	
D-8.90-SC-00to10-102318 (580-81308-47)	10/23/18	16:40 Pacific		Solid				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:

	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	10/25/18 1630	TAL		10/26/18 945	TAL 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: 0.3, 4.0, 2.9

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: 580-60651.6
Client Contact: Shipping/Receiving	Phone:	E-Mail: elaine.walker@testamericainc.com	State of Origin: Oregon	Page: Page 6 of 7
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 580-81308-1
Address: 880 Riverside Parkway, ,	Due Date Requested: 11/9/2018			
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_Sop_P (MOD) Full List w/o Totals	1613B/HRMS_Sox_P (MOD) Full List w/o Totals	AutoOP/ PH Frozen Archive Container billed @ $0.	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
D-8.90-SC-20to40-102318 (580-81308-48)	10/23/18	17:00 Pacific		Solid				X		2	
D-8.90-SC-10to20-102318 (580-81308-49)	10/23/18	16:50 Pacific		Solid				X		2	
D-8.90-SC-103to120-102318 (580-81308-50)	10/23/18	18:10 Pacific		Solid				X		2	
D-8.90-SC-80to103-102318 (580-81308-51)	10/23/18	18:00 Pacific		Solid				X		2	
D-8.90-SC-120to140-102318 (580-81308-52)	10/23/18	19:00 Pacific		Solid				X		2	
D-8.90-SC-140to160-102318 (580-81308-53)	10/23/18	19:10 Pacific		Solid				X		2	
D-8.83-0to25-102418 (580-81308-55)	10/24/18	08:33 Pacific		Solid				X		2	
D-8.90-0to27-102418 (580-81308-56)	10/24/18	09:10 Pacific		Solid				X		2	
C-8.94-0to27-102418 (580-81308-57)	10/24/18	09:55 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
	[signature]	10/25/18 1630	TAL SEA	[signature]	10/26/18 945	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: 0.3, 4.0, 2.9

Received 802 Jar with Cracked Lid. Taped in Lab. DH 10/26/18

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: 580-60651.7
Client Contact: Shipping/Receiving	Phone:	E-Mail: e'aine.walker@testamericainc.com	State of Origin: Oregon	Page: Page 7 of 7
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #: 580-81308-1
Address: 880 Riverside Parkway, ,	Due Date Requested: 11/9/2018			
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 (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	AutoOP/ PH Frozen Archive Container billed @ $0.	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
E-8.99-0to28-102418 (580-81308-58)	10/24/18	10:40 Pacific		Solid				X		2	
E-9.02-0to26-102418 (580-81308-59)	10/24/18	12:07 Pacific		Solid				X		2	
B-9.00-0to29-102418 (580-81308-60)	10/24/18	11:19 Pacific		Solid				X		2	
611-102318 (580-81308-61)	10/23/18	16:55 Pacific		Water			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:

	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	10/25/18 1700			10/26/18 945	
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

Login Sample Receipt Checklist

Client: Pacific Groundwater Group

Job Number: 580-81308-1

Login Number: 81308
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: 580-81308-1

Login Number: 81308
List Number: 2
Creator: Her, David A

List Source: TestAmerica Sacramento

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.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	0.3c 4.0c 2.9c
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?	False	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	False	Refer to Job Narrative for details.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	False	Refer to Job Narrative for details.
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	False	Refer to Job Narrative for details.
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

580-81308 Field Sheet

Job: _____

Tracking # 4611 5676 4384 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: 492533

Sample Custody Seal: _____

Cooler ID: 10.3

Temp: Observed 0.3 Corrected 0.3

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: TG Date: 10/26/18

*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 5478 4000 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: 492534

Sample Custody Seal: _____

Cooler ID: 3 of 3

Temp: Observed 4.0 Corrected 4.0

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: RS Date: 10/26/18

*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 4395 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: 492535

Sample Custody Seal: _____

Cooler ID: 2 of 3

Temp: Observed 2.9 Corrected 2.9

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: TG Date: 10/26/18

*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: 580-81308-1

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)
580-81308-2	J3-SC-55to76-102218	53	44	60	56	52	55	52	63
580-81308-3	J3-SC-45to55-102218	61	59	57	60	60	57	56	65
580-81308-3 - RA	J3-SC-45to55-102218								
580-81308-4	J3-SC-20to36-102218	63	60	65	70	69	70	68	65
580-81308-4 - RA	J3-SC-20to36-102218								
580-81308-5	J3-SC-76to98-102218	96	97	104	104	104	104	102	91
580-81308-6	J3-SC-36to45-102218	56	54	56	71	70	66	65	66
580-81308-6 - RA	J3-SC-36to45-102218								
580-81308-7	J3-SC-10to20-102218	58	61	68	73	81	71	78	71
580-81308-8	J3-SC-00to10-102218	55	56	67	69	75	65	72	70
580-81308-9	L3-SC-10to20-102218	73	77	66	69	87	73	76	67
580-81308-10	L3-SC-20to40-102218	55	53	54	65	62	63	59	65
580-81308-11 - RA	J5-SC-20to40-102218								
580-81308-11	J5-SC-20to40-102218	56	61	68	70	77	67	72	68
580-81308-12	J5-SC-80to95-102218	53	57	62	65	74	64	70	68
580-81308-13	J5-SC-60to80-102218	62	51	52	68	75	66	78	70
580-81308-13 - RA	J5-SC-60to80-102218								
580-81308-14	J5-SC-95to110-102218	53	52	64	54	65	59	67	68
580-81308-15	J5-SC-10to20-102218	55	46	45	72	71	69	75	67
580-81308-15 - RA	J5-SC-10to20-102218								
580-81308-16	J6-SC-60to80-102218	53	48	47	69	74	69	66	64
580-81308-16 - RA	J6-SC-60to80-102218								
580-81308-17	J6-SC-80to96-102218	58	62	69	71	80	71	81	74
580-81308-18	J6-SC-111to121-102218	65	65	73	72	85	77	87	77
580-81308-19	J6-SC-40to60-102218	78	75	70	99	101	88	102	95
580-81308-19 - RA	J6-SC-40to60-102218								
580-81308-20	J6-SC-96to111-102218	51	57	60	69	82	69	82	69
580-81308-21	J5-SC-40to60-102218	47	44	42	67	71	62	68	70
580-81308-21 - RA	J5-SC-40to60-102218								
580-81308-22	J6-SC-20to40-102218	43	35	38	56	63	57	65	67
580-81308-22 - RA	J6-SC-20to40-102218								
580-81308-23 - RA	J5-SC-00to10-102218								
580-81308-23	J5-SC-00to10-102218	59	65	72	73	81	69	80	74
580-81308-24	J6-SC-00to10-102218	52	52	40	88	105	86	103	81
580-81308-24 - RA	J6-SC-00to10-102218								
580-81308-25	J6-SC-10to20-102218	51	46	50	71	82	70	84	74
580-81308-25 - RA	J6-SC-10to20-102218								
580-81308-26	L3-SC-00to10-102218	60	67	73	77	89	78	87	83
MB 320-258637/1-A	Method Blank	84	84	85	93	91	91	92	80
MB 320-259167/1-A	Method Blank	96	93	102	89	91	90	95	92

		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)	
580-81308-2	J3-SC-55to76-102218	58	58	55	64	64	71	51	
580-81308-3	J3-SC-45to55-102218	61	63	57	64	67	70	63	
580-81308-3 - RA	J3-SC-45to55-102218						73		
580-81308-4	J3-SC-20to36-102218	60	63	70	62	64	63	54	
580-81308-4 - RA	J3-SC-20to36-102218						69		
580-81308-5	J3-SC-76to98-102218	81	82	99	83	84	82	80	

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)
580-81308-6	J3-SC-36to45-102218	62	65	68	67	68	69	45
580-81308-6 - RA	J3-SC-36to45-102218						74	
580-81308-7	J3-SC-10to20-102218	58	66	78	68	67	77	42
580-81308-8	J3-SC-00to10-102218	57	63	75	66	67	74	42
580-81308-9	L3-SC-10to20-102218	64	66	84	65	69	69	78
580-81308-10	L3-SC-20to40-102218	60	56	61	55	63	64	56
580-81308-11 - RA	J5-SC-20to40-102218						68	
580-81308-11	J5-SC-20to40-102218	58	65	74	66	64	70	45
580-81308-12	J5-SC-80to95-102218	52	59	74	60	59	67	39
580-81308-13	J5-SC-60to80-102218	59	60	68	65	69	63	66
580-81308-13 - RA	J5-SC-60to80-102218						68	
580-81308-14	J5-SC-95to110-102218	52	61	75	51	63	68	37
580-81308-15	J5-SC-10to20-102218	57	53	71	61	65	58	67
580-81308-15 - RA	J5-SC-10to20-102218						66	
580-81308-16	J6-SC-60to80-102218	70	68	72	68	62	57	56
580-81308-16 - RA	J6-SC-60to80-102218						71	
580-81308-17	J6-SC-80to96-102218	54	64	82	64	65	72	41
580-81308-18	J6-SC-111to121-102218	60	68	89	67	68	74	45
580-81308-19	J6-SC-40to60-102218	84	83	101	79	83	79	84
580-81308-19 - RA	J6-SC-40to60-102218						88	
580-81308-20	J6-SC-96to111-102218	49	58	77	58	61	64	37
580-81308-21	J5-SC-40to60-102218	59	62	76	63	65	64	54
580-81308-21 - RA	J5-SC-40to60-102218						68	
580-81308-22	J6-SC-20to40-102218	63	68	61	72	62	60	43
580-81308-22 - RA	J6-SC-20to40-102218						69	
580-81308-23 - RA	J5-SC-00to10-102218						65	
580-81308-23	J5-SC-00to10-102218	56	65	80	64	63	71	46
580-81308-24	J6-SC-00to10-102218	71	75	91	71	73	68	66
580-81308-24 - RA	J6-SC-00to10-102218						77	
580-81308-25	J6-SC-10to20-102218	51	53	77	56	76	64	54
580-81308-25 - RA	J6-SC-10to20-102218						73	
580-81308-26	L3-SC-00to10-102218	62	74	91	72	74	86	44
MB 320-258637/1-A	Method Blank	73	73	87	74	77	70	74
MB 320-259167/1-A	Method Blank	78	82	100	70	84	81	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: 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 320-258637/2-A	Lab Control Sample	84	87	86	93	91	89	90	78
LCS 320-259167/2-A	Lab Control Sample	84	84	87	89	86	84	85	79
LCSD 320-258637/3-A	Lab Control Sample Dup	84	83	86	82	82	83	84	79
LCSD 320-259167/3-A	Lab Control Sample Dup	90	91	91	93	96	94	94	86

		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 320-258637/2-A	Lab Control Sample	70	70	86	71	73	68	75
LCS 320-259167/2-A	Lab Control Sample	74	75	84	74	74	72	76
LCSD 320-258637/3-A	Lab Control Sample Dup	75	75	86	70	78	72	76
LCSD 320-259167/3-A	Lab Control Sample Dup	76	79	94	76	80	77	79

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)
580-81308-1	613-102218	127	110	106	107	104	96	87	100
MB 320-256030/1-A	Method Blank	115	98	93	95	89	83	76	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)
580-81308-1	613-102218	104	100	98	100	102	96	116
MB 320-256030/1-A	Method Blank	91	86	85	82	92	86	111

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 320-256030/2-A	Lab Control Sample	118	94	95	97	89	86	77	93
LCSD 320-256030/3-A	Lab Control Sample Dup	115	97	97	90	82	78	70	84

		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 320-256030/2-A	Lab Control Sample	97	90	89	88	97	90	118	
LCSD 320-256030/3-A	Lab Control Sample Dup	85	80	81	79	85	82	122	

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: 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)
580-81308-1	613-102218	66	68	78	75	83	85	59	79
LCS 140-25006/6-A	Lab Control Sample	65	64	80	74	83	84	69	80
MB 140-25006/5-A	Method Blank	63	61	77	74	82	83	70	79

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)
580-81308-1	613-102218	78	73	86	84	82	81	80	74
LCS 140-25006/6-A	Lab Control Sample	79	74	87	83	83	81	82	78
MB 140-25006/5-A	Method Blank	78	72	88	83	83	82	82	75

		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)
580-81308-1	613-102218	79 C	79 C156	79	86	76	78	69	89
LCS 140-25006/6-A	Lab Control Sample	80 C	80 C156	81	87	76	76	69	92
MB 140-25006/5-A	Method Blank	80 C	80 C156	81	87	76	78	69	95

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PCB205L (30-140)	PCB206L (30-140)	PCB208L (30-140)	PCB209L (30-140)				
580-81308-1	613-102218	66	75	73	75				
LCS 140-25006/6-A	Lab Control Sample	65	77	74	80				
MB 140-25006/5-A	Method Blank	65	76	73	78				

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