TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

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TestAmerica Job ID: 580-80167-1
Client Project/Site: Portland Harbor Pre-Remedial Design

For:
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Authorized for release by:
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Narrative

CASE NARRATIVE
Client: AECOM
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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

Thirty-six samples were received on 9/7/2018 12:35 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 6 coolers at receipt time were 0.9º C, 1.3º C, 1.7º C, 2.0º C, 2.2º C and 3.2º C.

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

This report contains results of all analyses performed by TestAmerica Seattle.

Samples were placed in freezers at -10 degrees Celsius to extend holding time. Samples were placed in the freezer on September 12, 2018.

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.

SEMIVOLATILE ORGANIC COMPOUNDS - SELECTED ION MODE (SIM)

Samples PDI-SC-S129-0to2 (580-80167-1), PDI-SC-S129-2to4 (580-80167-2), PDI-SC-S129-4to5.3 (580-80167-3), PDI-SC-S155-0to2.1 (580-80167-4), PDI-SC-S155-2.1to4.2 (580-80167-5), PDI-SC-S155-4.2to5.3 (580-80167-6), PDI-SC-S121-0to1.8 (580-80167-7), PDI-SC-S121-1.8to3.4 (580-80167-8), PDI-SC-S255-0to2.1 (580-80167-9), PDI-SC-S255-0to2.1D (580-80167-10), PDI-SC-S255-2.1to4.3 (580-80167-11), PDI-SC-S112-0to2 (580-80167-12), PDI-SC-S112-2to4 (580-80167-13), PDI-SC-S112-4to6 (580-80167-14), PDI-SC-S113C-0to1.1 (580-80167-16), PDI-SC-S113C-1.1to3.1 (580-80167-17), PDI-SC-S113C-3.1to5.6 (580-80167-18), PDI-SC-S113C-5.6to6.6 (580-80167-19), PDI-SC-S260-0to1.3 (580-80167-20), PDI-SC-S260-1.3to2.6 (580-80167-21), PDI-SC-S260-2.6to4.2 (580-80167-22), PDI-SC-S260-4.2to6 (580-80167-23), PDI-SC-S260-6to7 (580-80167-24), PDI-SC-S019-0to2 (580-80167-25), PDI-SC-S019-2to4 (580-80167-26), PDI-SC-S019-4to6 (580-80167-27), PDI-SC-S019-6to8 (580-80167-28), PDI-SC-S019-8to10 (580-80167-29), PDI-SC-S019-10to12 (580-80167-30), PDI-SC-S019-12to13.7 (580-80167-31), PDI-SC-S019-13.7to14.7 (580-80167-32) and PDI-SC-S019-10to12D (580-80167-36) were analyzed for semivolatile organic compounds - Selected Ion Mode (SIM) in accordance with SW846 8270D_SIM. The samples were prepared on 10/05/2018, 10/12/2018 and 10/14/2018 and analyzed on 10/09/2018, 10/10/2018, 10/15/2018 and 10/16/2018.

The affected samples were placed in the freezer to extend holding time. They were removed on 10/04/18 and thawed overnight to be extracted on 10/05/18. The following samples are affected: PDI-SC-S129-0to2 (580-80167-1), PDI-SC-S129-0to2 MS (580-80167-1 MS), PDI-SC-S129-0to2 MSD (580-80167-1 MSD), PDI-SC-S129-2to4 (580-80167-2), PDI-SC-S129-4to5.3 (580-80167-3), PDI-SC-S155-0to2.1 (580-80167-4), PDI-SC-S155-2.1to4.2 (580-80167-5), PDI-SC-S155-4.2to5.3 (580-80167-6), PDI-SC-S121-0to1.8 (580-80167-7),

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PDI-SC-S121-1.8to3.4 (580-80167-8), PDI-SC-S255-0to2.1 (580-80167-9), PDI-SC-S255-0to2.1D (580-80167-10), PDI-SC-S255-2.1to4.3 (580-80167-11), PDI-SC-S112-0to2 (580-80167-12), PDI-SC-S112-2to4 (580-80167-13), and PDI-SC-S112-4to6 (580-80167-14).

Samples were frozen after initial extraction to extend holding time. Samples were removed from freezer for re-extraction on 10/11/18 at 19:00 and thawed. The following samples were affected: PDI-SC-S113C-0to1.1 (580-80167-16), PDI-SC-S113C-1.1to3.1 (580-80167-17), PDI-SC-S113C-3.1to5.6 (580-80167-18), PDI-SC-S113C-3.1to5.6 (580-80167-18[MS]), PDI-SC-S113C-3.1to5.6 (580-80167-18[MSD]), PDI-SC-S113C-5.6to6.6 (580-80167-19), PDI-SC-S260-0to1.3 (580-80167-20), PDI-SC-S260-1.3to2.6 (580-80167-21), PDI-SC-S260-2.6to4.2 (580-80167-22), PDI-SC-S260-4.2to6 (580-80167-23), PDI-SC-S260-6to7 (580-80167-24), PDI-SC-S019-0to2 (580-80167-25), PDI-SC-S019-4to6 (580-80167-27), PDI-SC-S019-6to8 (580-80167-28), PDI-SC-S019-8to10 (580-80167-29), PDI-SC-S019-10to12 (580-80167-30), PDI-SC-S019-12to13.7 (580-80167-31), PDI-SC-S019-13.7to14.7 (580-80167-32) and PDI-SC-S019-10to12D (580-80167-36).

Sample was frozen after initial extraction to extend hold. Sample was removed from freezer for re-extraction on 10/13/18 at 20:15 and thawed. The following samples are affected: PDI-SC-S019-2to4 (580-80167-26), PDI-SC-S019-2to4 (580-80167-26[MS]) and PDI-SC-S019-2to4 (580-80167-26[MSD]).

Benzo[a]anthracene, Fluoranthene, Phenanthrene and Pyrene were detected in method blank MB 580-285753/1-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. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples were not performed.

2-Methylnaphthalene, Naphthalene and Phenanthrene were detected in method blank MB 580-286334/1-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. This target analyte concentration was less than half the reporting limit (1/2RL); therefore, re-extraction and/or re-analysis of samples were not performed.

Fluoranthene, Phenanthrene and Pyrene were detected in method blank MB 580-286471/1-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. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples were not performed.

Terphenyl-d14 failed the surrogate recovery criteria low for PDI-SC-S113C-0to1.1 (580-80167-16). Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

Anthracene failed the recovery criteria low by 1% for LCS 580-286471/2-A. This is not indicative of a systematic control problem because these were random marginal exceedances. Qualified results have been reported.

Phenanthrene failed the recovery criteria low for the MS of sample PDI-SC-S113C-3.1to5.6MS (580-80167-18) in batch 580-286568. Indeno[1,2,3-cd]pyrene failed the recovery criteria high. Several analytes failed the recovery criteria high for the MSD of sample PDI-SC-S113C-3.1to5.6MSD (580-80167-18) in batch 580-286568. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits. The presence of the '4' qualifier indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount.

Dibenz(a,h)anthracene exceeded the RPD limit for the MSD of sample PDI-SC-S129-0to2MSD (580-80167-1) in batch 580-286033. Sample matrix interference and/or non-homogeneity are suspected. Sample matrix interference and/or non-homogeneity are suspected because the MS/MSD and associated laboratory control sample (LCS) recoveries were within acceptance limits.

Several analytes failed the recovery criteria low for the MS of sample PDI-SC-S019-2to4MS (580-80167-26) in batch 580-286592. Several analytes failed the recovery criteria high. For the MSD of sample PDI-SC-S019-2to4MSD (580-80167-26) in batch 580-286592, several analytes failed the recovery criteria low. Benzo[a]anthracene failed the recovery criteria high. Also, Dibenz(a,h)anthracene exceeded the RPD limit. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits. The presence of the '4' qualifier indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount.

Internal standard (ISTD) response for the following method blank (prep batch 286334) was outside of acceptance limits for Perylene-d12:

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(MB 580-286334/1-A). Since the affected samples and the LCS/LCSD pair all met acceptance criteria for this ISTD, the MB was ND for all the affected analytes, the data is qualified and reported.

The following samples were diluted due to the nature of the sample matrix: PDI-SC-S129-0to2 (580-80167-1), PDI-SC-S129-0to2 MS (580-80167-1 MS), PDI-SC-S129-0to2 MSD (580-80167-1 MSD), PDI-SC-S129-2to4 (580-80167-2), PDI-SC-S129-4to5.3 (580-80167-3), PDI-SC-S155-0to2.1 (580-80167-4), PDI-SC-S155-2.1to4.2 (580-80167-5), PDI-SC-S121-0to1.8 (580-80167-7), PDI-SC-S121-1.8to3.4 (580-80167-8), PDI-SC-S255-0to2.1 (580-80167-9), PDI-SC-S255-0to2.1D (580-80167-10), PDI-SC-S255-2.1to4.3 (580-80167-11), PDI-SC-S112-0to2 (580-80167-12), PDI-SC-S112-2to4 (580-80167-13), PDI-SC-S112-4to6 (580-80167-14), PDI-SC-S113C-0to1.1 (580-80167-16), PDI-SC-S113C-1.1to3.1 (580-80167-17), PDI-SC-S260-0to1.3 (580-80167-20), PDI-SC-S019-4to6 (580-80167-27), PDI-SC-S019-6to8 (580-80167-28), PDI-SC-S019-8to10 (580-80167-29), PDI-SC-S019-10to12 (580-80167-30), PDI-SC-S019-12to13.7 (580-80167-31), PDI-SC-S019-13.7to14.7 (580-80167-32) and PDI-SC-S019-10to12D (580-80167-36). Elevated reporting limits (RLs) are provided.

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

SEMIVOLATILE ORGANIC COMPOUNDS - SELECTED ION MODE (SIM) - RINSE BLANK

Samples PDI-RB-SS-180905 (580-80167-15), PDI-RB-SS-180906 (580-80167-33), PDI-RB-LL-180907 (580-80167-34) and PDI-RB-AL-180905 (580-80167-35) were analyzed for semivolatile organic compounds - Selected Ion Mode (SIM) in accordance with 8270D SIM. The samples were prepared on 09/12/2018 and analyzed on 09/14/2018.

The continuing calibration verification (CCV) associated with batch 580-284016 recovered above the upper control limit for Benzo[k]fluoranthene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: PDI-RB-SS-180905 (580-80167-15), PDI-RB-SS-180906 (580-80167-33), PDI-RB-LL-180907 (580-80167-34), PDI-RB-AL-180905 (580-80167-35) and (CCVIS 580-284016/3).

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

POLYCHLORINATED BIPHENYLS (PCBS)

Samples PDI-SC-S129-0to2 (580-80167-1), PDI-SC-S129-2to4 (580-80167-2), PDI-SC-S129-4to5.3 (580-80167-3), PDI-SC-S155-0to2.1 (580-80167-4), PDI-SC-S155-2.1to4.2 (580-80167-5), PDI-SC-S155-4.2to5.3 (580-80167-6), PDI-SC-S121-0to1.8 (580-80167-7), PDI-SC-S121-1.8to3.4 (580-80167-8), PDI-SC-S255-0to2.1 (580-80167-9), PDI-SC-S255-0to2.1D (580-80167-10), PDI-SC-S255-2.1to4.3 (580-80167-11), PDI-SC-S112-0to2 (580-80167-12), PDI-SC-S112-2to4 (580-80167-13), PDI-SC-S112-4to6 (580-80167-14), PDI-SC-S113C-0to1.1 (580-80167-16), PDI-SC-S113C-1.1to3.1 (580-80167-17), PDI-SC-S113C-3.1to5.6 (580-80167-18), PDI-SC-S113C-5.6to6.6 (580-80167-19), PDI-SC-S260-0to1.3 (580-80167-20), PDI-SC-S260-1.3to2.6 (580-80167-21), PDI-SC-S260-2.6to4.2 (580-80167-22), PDI-SC-S260-4.2to6 (580-80167-23), PDI-SC-S260-6to7 (580-80167-24), PDI-SC-S019-0to2 (580-80167-25), PDI-SC-S019-2to4 (580-80167-26), PDI-SC-S019-4to6 (580-80167-27), PDI-SC-S019-6to8 (580-80167-28), PDI-SC-S019-8to10 (580-80167-29), PDI-SC-S019-10to12 (580-80167-30), PDI-SC-S019-12to13.7 (580-80167-31), PDI-SC-S019-13.7to14.7 (580-80167-32) and PDI-SC-S019-10to12D (580-80167-36) were analyzed for polychlorinated biphenyls (PCBs) in accordance with EPA sw-846 method 8082A. The samples were prepared on 10/06/2018 and analyzed on 10/08/2018 and 10/10/2018.

Surrogate recovery for the following samples were outside control limits: PDI-SC-S129-2to4 (580-80167-2), PDI-SC-S129-4to5.3 (580-80167-3), PDI-SC-S155-0to2.1 (580-80167-4), PDI-SC-S155-2.1to4.2 (580-80167-5), PDI-SC-S155-4.2to5.3 (580-80167-6), PDI-SC-S121-0to1.8 (580-80167-7), PDI-SC-S121-1.8to3.4 (580-80167-8), PDI-SC-S255-0to2.1 (580-80167-9), PDI-SC-S255-0to2.1D (580-80167-10), PDI-SC-S255-2.1to4.3 (580-80167-11), PDI-SC-S112-0to2 (580-80167-12), PDI-SC-S112-2to4 (580-80167-13), PDI-SC-S112-4to6 (580-80167-14), PDI-SC-S113C-3.1to5.6 (580-80167-18), PDI-SC-S113C-3.1to5.6 (580-80167-18[MS]), PDI-SC-S113C-3.1to5.6 (580-80167-18[MSD]), PDI-SC-S113C-5.6to6.6 (580-80167-19), PDI-SC-S260-2.6to4.2 (580-80167-22), PDI-SC-S260-4.2to6 (580-80167-23), PDI-SC-S260-6to7 (580-80167-24), PDI-SC-S019-0to2 (580-80167-25), PDI-SC-S019-2to4 (580-80167-26), PDI-SC-S019-2to4 (580-80167-26[MS]), PDI-SC-S019-2to4 (580-80167-26[MSD]), PDI-SC-S019-4to6 (580-80167-27), PDI-SC-S019-6to8 (580-80167-28), PDI-SC-S019-8to10 (580-80167-29), PDI-SC-S019-10to12 (580-80167-30), PDI-SC-S019-12to13.7 (580-80167-31), PDI-SC-S019-13.7to14.7 (580-80167-32), and PDI-SC-S019-10to12D (580-80167-36). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis were not performed.

The %RPD between the primary and confirmation column exceeded 40% for PCB-1260 for the following sample: PDI-SC-S121-1.8to3.4 (580-80167-8). The lower value(s) has been reported and qualified in accordance with the laboratory's SOP.

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The %RPD between the primary and confirmation column exceeded 40% for PCB-1016 for the following sample: PDI-SC-S019-0to2 (580-80167-25). The lower value(s) has been reported and qualified in accordance with the laboratory's SOP.

Sample PDI-SC-S113C-0to1.1 (580-80167-16) is being reported as PCB-1260 with peak three being non-detect due to having an uncharacteristically high recovery compared to the other four peaks. Per SOP standards, only three peaks are needed to positively identify a PCB Aroclor.

PCB-1016 and PCB-1260 failed the recovery criteria low for the MS of sample PDI-SC-S113C-3.1to5.6MS (580-80167-18) in batch 580-285967. PCB-1016 and PCB-1260 failed the recovery criteria low for the MSD of sample PDI-SC-S113C-3.1to5.6MSD (580-80167-18) in batch 580-285967. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample/laboratory control sample duplicate (LCS/LCSD) recoveries were within acceptance limits.

PCB-1016 failed the recovery criteria high for the MS of sample PDI-SC-S019-2to4MS (580-80167-26) in batch 580-286074. PCB-1016 failed the recovery criteria high for the MSD of sample PDI-SC-S019-2to4MSD (580-80167-26) in batch 580-286074. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample/laboratory control sample duplicate (LCS/LCSD) recoveries were within acceptance limits.

The continuing calibration verification (CCV) associated with batch 580-286074 recovered above the upper control limit for PCB-1254 on both columns. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: PDI-SC-S260-1.3to2.6 (580-80167-21), PDI-SC-S260-2.6to4.2 (580-80167-22), PDI-SC-S260-4.2to6 (580-80167-23), PDI-SC-S260-6to7 (580-80167-24), PDI-SC-S019-0to2 (580-80167-25), PDI-SC-S019-2to4 (580-80167-26), PDI-SC-S019-4to6 (580-80167-27), PDI-SC-S019-6to8 (580-80167-28), PDI-SC-S019-8to10 (580-80167-29), PDI-SC-S019-10to12 (580-80167-30), PDI-SC-S019-12to13.7 (580-80167-31), PDI-SC-S019-13.7to14.7 (580-80167-32), PDI-SC-S019-10to12D (580-80167-36), (CCV 580-286074/4), (CCV 580-286074/7) and (CCVIS 580-286074/8).

The continuing calibration verification (CCV) associated with 580-286074 recovered low and outside the control limits for PCB-1232, PCB-1248, PCB-1242 and PCB-1260 on the confirmation column. Results are confirmed on both columns and reported from the passing column. The following samples are impacted: PDI-SC-S260-1.3to2.6 (580-80167-21), PDI-SC-S260-2.6to4.2 (580-80167-22), PDI-SC-S260-4.2to6 (580-80167-23), PDI-SC-S260-6to7 (580-80167-24), PDI-SC-S019-0to2 (580-80167-25), PDI-SC-S019-2to4 (580-80167-26), PDI-SC-S019-4to6 (580-80167-27), PDI-SC-S019-6to8 (580-80167-28), PDI-SC-S019-8to10 (580-80167-29), PDI-SC-S019-10to12 (580-80167-30), PDI-SC-S019-12to13.7 (580-80167-31), PDI-SC-S019-13.7to14.7 (580-80167-32), PDI-SC-S019-10to12D (580-80167-36), (CCV 580-286074/5), (CCV 580-286074/6), (CCV 580-286074/7) and (CCVIS 580-286074/8).

The continuing calibration verification (CCV) associated with 580-285909 recovered high and outside the control limits for PCB-1232, PCB-1248, PCB-1242, 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: PDI-SC-S129-0to2 (580-80167-1), PDI-SC-S129-2to4 (580-80167-2), PDI-SC-S129-4to5.3 (580-80167-3), PDI-SC-S155-0to2.1 (580-80167-4), PDI-SC-S155-2.1to4.2 (580-80167-5), PDI-SC-S155-4.2to5.3 (580-80167-6), PDI-SC-S121-0to1.8 (580-80167-7), PDI-SC-S121-1.8to3.4 (580-80167-8), PDI-SC-S255-0to2.1 (580-80167-9), PDI-SC-S255-0to2.1D (580-80167-10), PDI-SC-S255-2.1to4.3 (580-80167-11), PDI-SC-S112-0to2 (580-80167-12), PDI-SC-S112-2to4 (580-80167-13), PDI-SC-S112-4to6 (580-80167-14), PDI-SC-S113C-0to1.1 (580-80167-16), PDI-SC-S113C-1.1to3.1 (580-80167-17), (CCV 580-285909/4), (CCV 580-285909/5), (CCV 580-285909/6), (CCV 580-285909/7), (CCVIS 580-285909/8), (LCS 580-285846/2-A) and (LCSD 580-285846/3-A).

The following continuing calibration verification (CCV) standard associated with batch 580-285909 recovered high and 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: PDI-SC-S129-0to2 (580-80167-1), PDI-SC-S129-2to4 (580-80167-2), PDI-SC-S129-4to5.3 (580-80167-3), PDI-SC-S155-0to2.1 (580-80167-4), PDI-SC-S155-2.1to4.2 (580-80167-5), PDI-SC-S155-4.2to5.3 (580-80167-6), PDI-SC-S121-0to1.8 (580-80167-7), PDI-SC-S121-1.8to3.4 (580-80167-8), PDI-SC-S255-0to2.1 (580-80167-9), PDI-SC-S255-0to2.1D (580-80167-10), PDI-SC-S255-2.1to4.3 (580-80167-11), PDI-SC-S112-0to2 (580-80167-12), PDI-SC-S112-2to4 (580-80167-13), PDI-SC-S112-4to6 (580-80167-14), PDI-SC-S113C-0to1.1 (580-80167-16), PDI-SC-S113C-1.1to3.1 (580-80167-17), (CCVIS 580-285909/8), (LCS 580-285846/2-A) and (LCSD 580-285846/3-A).

The continuing calibration verification (CCV) associated with 580-285967 recovered high and outside the control limits for PCB-1242, PCB-1260 and PCB-1254 on one column. Results are confirmed on both columns and reported from the passing column. The following

Job ID: 580-80167-1 (Continued)

Laboratory: TestAmerica Seattle (Continued)

samples are impacted: PDI-SC-S113C-3.1to5.6 (580-80167-18), PDI-SC-S113C-3.1to5.6 (580-80167-18[MS]), PDI-SC-S113C-3.1to5.6 (580-80167-18[MSD]), PDI-SC-S113C-5.6to6.6 (580-80167-19), PDI-SC-S260-0to1.3 (580-80167-20), (CCV 580-285967/6), (CCV 580-285967/7) and (CCVIS 580-285967/8).

The continuing calibration verification (CCV) associated with 580-285995 recovered high and outside the control limits for PCB-1232, PCB-1248, PCB-1242, PCB-1260 and PCB-1254 on one column. Results are confirmed on both columns and reported from the passing column. The following samples are impacted: MB580-285843/1-A, (CCV 580-285995/4), (CCV 580-285995/5), (CCV 580-285995/6), (CCV 580-285995/7) and (CCVIS 580-285995/8).

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

POLYCHLORINATED BIPHENYLS (PCBS) - RINSE BLANK

Samples PDI-RB-SS-180905 (580-80167-15), PDI-RB-SS-180906 (580-80167-33), PDI-RB-LL-180907 (580-80167-34) and PDI-RB-AL-180905 (580-80167-35) were analyzed for polychlorinated biphenyls (PCBs) in accordance with EPA SW-846 Method 8082A. The samples were prepared on 09/12/2018 and analyzed on 09/17/2018.

DCB Decachlorobiphenyl failed the surrogate recovery criteria low for PDI-RB-AL-180905 (580-80167-35). All other samples in the prep batch and all the QC were within control for this surrogate, and the other surrogate for this sample was also within control.

The continuing calibration verification (CCV) associated with 580-284114 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: PDI-RB-SS-180905 (580-80167-15), PDI-RB-SS-180906 (580-80167-33), PDI-RB-LL-180907 (580-80167-34), (CCV 580-284114/4), (CCV 580-284114/5), (CCV 580-284114/6), (CCV 580-284114/7) and (CCVIS 580-284114/8).

The following continuing calibration verification (CCV) standard associated with batch 580-284114 recovered high and 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 580-284114/8).

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

TOTAL ORGANIC CARBON

Samples PDI-SC-S129-0to2 (580-80167-1), PDI-SC-S129-2to4 (580-80167-2), PDI-SC-S129-4to5.3 (580-80167-3), PDI-SC-S155-0to2.1 (580-80167-4), PDI-SC-S155-2.1to4.2 (580-80167-5), PDI-SC-S155-4.2to5.3 (580-80167-6), PDI-SC-S121-0to1.8 (580-80167-7), PDI-SC-S121-1.8to3.4 (580-80167-8), PDI-SC-S255-0to2.1 (580-80167-9), PDI-SC-S255-0to2.1D (580-80167-10), PDI-SC-S255-2.1to4.3 (580-80167-11), PDI-SC-S112-0to2 (580-80167-12), PDI-SC-S112-2to4 (580-80167-13), PDI-SC-S112-4to6 (580-80167-14), PDI-SC-S113C-0to1.1 (580-80167-16), PDI-SC-S113C-1.1to3.1 (580-80167-17), PDI-SC-S113C-3.1to5.6 (580-80167-18), PDI-SC-S113C-5.6to6.6 (580-80167-19), PDI-SC-S260-0to1.3 (580-80167-20), PDI-SC-S260-1.3to2.6 (580-80167-21), PDI-SC-S260-2.6to4.2 (580-80167-22), PDI-SC-S260-4.2to6 (580-80167-23), PDI-SC-S260-6to7 (580-80167-24), PDI-SC-S019-0to2 (580-80167-25), PDI-SC-S019-2to4 (580-80167-26), PDI-SC-S019-4to6 (580-80167-27), PDI-SC-S019-6to8 (580-80167-28), PDI-SC-S019-8to10 (580-80167-29), PDI-SC-S019-10to12 (580-80167-30), PDI-SC-S019-12to13.7 (580-80167-31), PDI-SC-S019-13.7to14.7 (580-80167-32) and PDI-SC-S019-10to12D (580-80167-36) were analyzed for total organic carbon in accordance with EPA SW-846 Method 9060. The samples were analyzed on 09/17/2018.

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

TOTAL ORGANIC CARBON - RINSE BLANK

Samples PDI-RB-SS-180905 (580-80167-15), PDI-RB-SS-180906 (580-80167-33), PDI-RB-LL-180907 (580-80167-34) and PDI-RB-AL-180905 (580-80167-35) were analyzed for total organic carbon in accordance with SM 5310B. The samples were analyzed on 09/13/2018 and 09/18/2018.

Total Organic Carbon was detected in method blank MB 580-284316/3 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.

Job ID: 580-80167-1 (Continued)

Laboratory: TestAmerica Seattle (Continued)

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

GRAIN SIZE

Samples PDI-SC-S129-0to2 (580-80167-1), PDI-SC-S129-2to4 (580-80167-2), PDI-SC-S129-4to5.3 (580-80167-3), PDI-SC-S155-0to2.1 (580-80167-4), PDI-SC-S155-2.1to4.2 (580-80167-5), PDI-SC-S155-4.2to5.3 (580-80167-6), PDI-SC-S121-0to1.8 (580-80167-7), PDI-SC-S121-1.8to3.4 (580-80167-8), PDI-SC-S255-0to2.1 (580-80167-9), PDI-SC-S255-2.1to4.3 (580-80167-11), PDI-SC-S112-0to2 (580-80167-12), PDI-SC-S112-2to4 (580-80167-13), PDI-SC-S112-4to6 (580-80167-14), PDI-SC-S113C-0to1.1 (580-80167-16), PDI-SC-S113C-1.1to3.1 (580-80167-17), PDI-SC-S113C-3.1to5.6 (580-80167-18), PDI-SC-S113C-5.6to6.6 (580-80167-19), PDI-SC-S260-0to1.3 (580-80167-20), PDI-SC-S260-1.3to2.6 (580-80167-21), PDI-SC-S260-2.6to4.2 (580-80167-22), PDI-SC-S260-4.2to6 (580-80167-23), PDI-SC-S260-6to7 (580-80167-24), PDI-SC-S019-0to2 (580-80167-25), PDI-SC-S019-2to4 (580-80167-26), PDI-SC-S019-4to6 (580-80167-27), PDI-SC-S019-6to8 (580-80167-28), PDI-SC-S019-8to10 (580-80167-29), PDI-SC-S019-10to12 (580-80167-30), PDI-SC-S019-12to13.7 (580-80167-31) and PDI-SC-S019-13.7to14.7 (580-80167-32) were analyzed for grain size in accordance with ASTM D7928/D6913. The samples were analyzed on 09/12/2018.

Coarse Sand and Gravel exceeded the RPD limit for the duplicate of sample PDI-SC-S260-0to1.3DU (580-80167-20).

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

PERCENT SOLIDS

Samples PDI-SC-S129-0to2 (580-80167-1), PDI-SC-S129-2to4 (580-80167-2), PDI-SC-S129-4to5.3 (580-80167-3), PDI-SC-S155-0to2.1 (580-80167-4), PDI-SC-S155-2.1to4.2 (580-80167-5), PDI-SC-S155-4.2to5.3 (580-80167-6), PDI-SC-S121-0to1.8 (580-80167-7), PDI-SC-S121-1.8to3.4 (580-80167-8), PDI-SC-S255-0to2.1 (580-80167-9), PDI-SC-S255-0to2.1D (580-80167-10), PDI-SC-S255-2.1to4.3 (580-80167-11), PDI-SC-S112-0to2 (580-80167-12), PDI-SC-S112-2to4 (580-80167-13), PDI-SC-S112-4to6 (580-80167-14), PDI-SC-S113C-0to1.1 (580-80167-16), PDI-SC-S113C-1.1to3.1 (580-80167-17), PDI-SC-S113C-3.1to5.6 (580-80167-18), PDI-SC-S113C-5.6to6.6 (580-80167-19), PDI-SC-S260-0to1.3 (580-80167-20), PDI-SC-S260-1.3to2.6 (580-80167-21), PDI-SC-S260-2.6to4.2 (580-80167-22), PDI-SC-S260-4.2to6 (580-80167-23), PDI-SC-S260-6to7 (580-80167-24), PDI-SC-S019-0to2 (580-80167-25), PDI-SC-S019-2to4 (580-80167-26), PDI-SC-S019-4to6 (580-80167-27), PDI-SC-S019-6to8 (580-80167-28), PDI-SC-S019-8to10 (580-80167-29), PDI-SC-S019-10to12 (580-80167-30), PDI-SC-S019-12to13.7 (580-80167-31), PDI-SC-S019-13.7to14.7 (580-80167-32) and PDI-SC-S019-10to12D (580-80167-36) were analyzed for percent solids in accordance with ASTM D2216. The samples were analyzed on 09/19/2018.

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

TOTAL SOLIDS @ 70C

Samples PDI-SC-S129-0to2 (580-80167-1), PDI-SC-S129-2to4 (580-80167-2), PDI-SC-S129-4to5.3 (580-80167-3), PDI-SC-S155-0to2.1 (580-80167-4), PDI-SC-S155-2.1to4.2 (580-80167-5), PDI-SC-S155-4.2to5.3 (580-80167-6), PDI-SC-S121-0to1.8 (580-80167-7), PDI-SC-S121-1.8to3.4 (580-80167-8), PDI-SC-S255-0to2.1 (580-80167-9), PDI-SC-S255-0to2.1D (580-80167-10), PDI-SC-S255-2.1to4.3 (580-80167-11), PDI-SC-S112-0to2 (580-80167-12), PDI-SC-S112-2to4 (580-80167-13), PDI-SC-S112-4to6 (580-80167-14), PDI-SC-S113C-0to1.1 (580-80167-16), PDI-SC-S113C-1.1to3.1 (580-80167-17), PDI-SC-S113C-3.1to5.6 (580-80167-18), PDI-SC-S113C-5.6to6.6 (580-80167-19), PDI-SC-S260-0to1.3 (580-80167-20), PDI-SC-S260-1.3to2.6 (580-80167-21), PDI-SC-S260-2.6to4.2 (580-80167-22), PDI-SC-S260-4.2to6 (580-80167-23), PDI-SC-S260-6to7 (580-80167-24), PDI-SC-S019-0to2 (580-80167-25), PDI-SC-S019-2to4 (580-80167-26), PDI-SC-S019-4to6 (580-80167-27), PDI-SC-S019-6to8 (580-80167-28), PDI-SC-S019-8to10 (580-80167-29), PDI-SC-S019-10to12 (580-80167-30), PDI-SC-S019-12to13.7 (580-80167-31), PDI-SC-S019-13.7to14.7 (580-80167-32) and PDI-SC-S019-10to12D (580-80167-36) were analyzed for total solids @ 70C. The samples were analyzed on 09/12/2018 and 09/13/2018.

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

Qualifiers

GC/MS 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.
B	Compound was found in the blank and sample.
F2	MS/MSD RPD exceeds control limits
X	Surrogate is outside control limits
F1	MS and/or MSD Recovery is outside acceptance limits.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
*	LCS or LCSD is outside acceptance limits.
*	ISTD response or retention time outside acceptable limits

GC Semi VOA

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

General Chemistry

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.

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)

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client Sample ID: PDI-SC-S129-0to2

Date Collected: 09/05/18 14:20
Date Received: 09/07/18 12:35

Lab Sample ID: 580-80167-1
Matrix: Solid
Percent Solids: 47.6

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	31		19	1.7	ug/Kg	☼	10/05/18 09:49	10/09/18 17:46	10
Acenaphthene	49		19	2.2	ug/Kg	☼	10/05/18 09:49	10/09/18 17:46	10
Acenaphthylene	9.1	J	19	1.9	ug/Kg	☼	10/05/18 09:49	10/09/18 17:46	10
Anthracene	46		19	2.2	ug/Kg	☼	10/05/18 09:49	10/09/18 17:46	10
Benzo[a]anthracene	63	B	19	2.8	ug/Kg	☼	10/05/18 09:49	10/09/18 17:46	10
Benzo[a]pyrene	47		19	1.5	ug/Kg	☼	10/05/18 09:49	10/09/18 17:46	10
Benzo[b]fluoranthene	78		19	2.2	ug/Kg	☼	10/05/18 09:49	10/09/18 17:46	10
Benzo[g,h,i]perylene	35		19	1.9	ug/Kg	☼	10/05/18 09:49	10/09/18 17:46	10
Benzo[k]fluoranthene	31		19	2.2	ug/Kg	☼	10/05/18 09:49	10/09/18 17:46	10
Chrysene	87		19	5.6	ug/Kg	☼	10/05/18 09:49	10/09/18 17:46	10
Dibenz(a,h)anthracene	ND	F2	19	2.7	ug/Kg	☼	10/05/18 09:49	10/09/18 17:46	10
Fluoranthene	220	B	19	5.2	ug/Kg	☼	10/05/18 09:49	10/09/18 17:46	10
Fluorene	55		19	1.9	ug/Kg	☼	10/05/18 09:49	10/09/18 17:46	10
Indeno[1,2,3-cd]pyrene	51		19	2.2	ug/Kg	☼	10/05/18 09:49	10/09/18 17:46	10
Naphthalene	44		19	3.0	ug/Kg	☼	10/05/18 09:49	10/09/18 17:46	10
Phenanthrene	150	B	19	2.6	ug/Kg	☼	10/05/18 09:49	10/09/18 17:46	10
Pyrene	200	B	19	3.6	ug/Kg	☼	10/05/18 09:49	10/09/18 17:46	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*87*		*57 - 120*	*10/05/18 09:49*	*10/09/18 17:46*	*10*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		4.1	0.70	ug/Kg	☼	10/06/18 09:59	10/08/18 16:29	1
PCB-1221	ND		4.1	2.0	ug/Kg	☼	10/06/18 09:59	10/08/18 16:29	1
PCB-1232	ND		4.1	0.97	ug/Kg	☼	10/06/18 09:59	10/08/18 16:29	1
PCB-1242	ND		4.1	1.0	ug/Kg	☼	10/06/18 09:59	10/08/18 16:29	1
PCB-1248	ND		4.1	0.33	ug/Kg	☼	10/06/18 09:59	10/08/18 16:29	1
PCB-1254	ND		4.1	1.6	ug/Kg	☼	10/06/18 09:59	10/08/18 16:29	1
PCB-1260	ND		4.1	0.70	ug/Kg	☼	10/06/18 09:59	10/08/18 16:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*65*		*54 - 142*	*10/06/18 09:59*	*10/08/18 16:29*	*1*
Tetrachloro-m-xylene	*60*		*58 - 122*	*10/06/18 09:59*	*10/08/18 16:29*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	31000		2000	44	mg/Kg			09/17/18 10:39	1
Total Solids	47.6	H	0.1	0.1	%			09/19/18 09:39	1
Total Solids @ 70°C	50		0.10	0.10	%			09/12/18 16:18	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gravel	0.0				%			09/12/18 16:18	1
Coarse Sand	0.0				%			09/12/18 16:18	1
Medium Sand	0.1				%			09/12/18 16:18	1
Fine Sand	21.7				%			09/12/18 16:18	1
Silt	64.1				%			09/12/18 16:18	1
Clay	14.1				%			09/12/18 16:18	1

Client Sample ID: PDI-SC-S129-2to4

Date Collected: 09/05/18 14:25
Date Received: 09/07/18 12:35

Lab Sample ID: 580-80167-2
Matrix: Solid
Percent Solids: 51.8

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	95		19	1.7	ug/Kg	☼	10/05/18 09:49	10/09/18 19:03	10
Acenaphthene	170		19	2.3	ug/Kg	☼	10/05/18 09:49	10/09/18 19:03	10
Acenaphthylene	41		19	1.9	ug/Kg	☼	10/05/18 09:49	10/09/18 19:03	10
Anthracene	120		19	2.3	ug/Kg	☼	10/05/18 09:49	10/09/18 19:03	10
Benzo[a]anthracene	210	B	19	2.9	ug/Kg	☼	10/05/18 09:49	10/09/18 19:03	10
Benzo[a]pyrene	150		19	1.5	ug/Kg	☼	10/05/18 09:49	10/09/18 19:03	10
Benzo[b]fluoranthene	270		19	2.3	ug/Kg	☼	10/05/18 09:49	10/09/18 19:03	10
Benzo[g,h,i]perylene	92		19	1.9	ug/Kg	☼	10/05/18 09:49	10/09/18 19:03	10
Benzo[k]fluoranthene	64		19	2.3	ug/Kg	☼	10/05/18 09:49	10/09/18 19:03	10
Chrysene	310		19	5.8	ug/Kg	☼	10/05/18 09:49	10/09/18 19:03	10
Dibenz(a,h)anthracene	47		19	2.8	ug/Kg	☼	10/05/18 09:49	10/09/18 19:03	10
Fluoranthene	610	B	19	5.4	ug/Kg	☼	10/05/18 09:49	10/09/18 19:03	10
Fluorene	190		19	1.9	ug/Kg	☼	10/05/18 09:49	10/09/18 19:03	10
Indeno[1,2,3-cd]pyrene	180		19	2.3	ug/Kg	☼	10/05/18 09:49	10/09/18 19:03	10
Naphthalene	260		19	3.1	ug/Kg	☼	10/05/18 09:49	10/09/18 19:03	10
Phenanthrene	510	B	19	2.6	ug/Kg	☼	10/05/18 09:49	10/09/18 19:03	10
Pyrene	600	B	19	3.7	ug/Kg	☼	10/05/18 09:49	10/09/18 19:03	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*77*		*57 - 120*	*10/05/18 09:49*	*10/09/18 19:03*	*10*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		3.7	0.63	ug/Kg	☼	10/06/18 09:59	10/08/18 16:46	1
PCB-1221	ND		3.7	1.8	ug/Kg	☼	10/06/18 09:59	10/08/18 16:46	1
PCB-1232	ND		3.7	0.87	ug/Kg	☼	10/06/18 09:59	10/08/18 16:46	1
PCB-1242	ND		3.7	0.91	ug/Kg	☼	10/06/18 09:59	10/08/18 16:46	1
PCB-1248	ND		3.7	0.30	ug/Kg	☼	10/06/18 09:59	10/08/18 16:46	1
PCB-1254	ND		3.7	1.5	ug/Kg	☼	10/06/18 09:59	10/08/18 16:46	1
PCB-1260	5.4		3.7	0.63	ug/Kg	☼	10/06/18 09:59	10/08/18 16:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*66*		*54 - 142*	*10/06/18 09:59*	*10/08/18 16:46*	*1*
Tetrachloro-m-xylene	*56*	*X*	*58 - 122*	*10/06/18 09:59*	*10/08/18 16:46*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	38000		2000	44	mg/Kg			09/17/18 10:59	1
Total Solids	51.8	H	0.1	0.1	%			09/19/18 09:39	1
Total Solids @ 70°C	52		0.10	0.10	%			09/12/18 16:18	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gravel	0.0				%			09/12/18 16:18	1
Coarse Sand	0.2				%			09/12/18 16:18	1
Medium Sand	0.1				%			09/12/18 16:18	1
Fine Sand	12.1				%			09/12/18 16:18	1
Silt	68.9				%			09/12/18 16:18	1
Clay	18.7				%			09/12/18 16:18	1

Client Sample ID: PDI-SC-S129-4to5.3

Date Collected: 09/05/18 14:30
Date Received: 09/07/18 12:35

Lab Sample ID: 580-80167-3

Matrix: Solid
Percent Solids: 54.7

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	110		18	1.6	ug/Kg	☼	10/05/18 09:49	10/09/18 19:29	10
Acenaphthene	140		18	2.1	ug/Kg	☼	10/05/18 09:49	10/09/18 19:29	10
Acenaphthylene	17	J	18	1.8	ug/Kg	☼	10/05/18 09:49	10/09/18 19:29	10
Anthracene	120		18	2.1	ug/Kg	☼	10/05/18 09:49	10/09/18 19:29	10
Benzo[a]anthracene	180	B	18	2.7	ug/Kg	☼	10/05/18 09:49	10/09/18 19:29	10
Benzo[a]pyrene	110		18	1.4	ug/Kg	☼	10/05/18 09:49	10/09/18 19:29	10
Benzo[b]fluoranthene	220		18	2.1	ug/Kg	☼	10/05/18 09:49	10/09/18 19:29	10
Benzo[g,h,i]perylene	66		18	1.8	ug/Kg	☼	10/05/18 09:49	10/09/18 19:29	10
Benzo[k]fluoranthene	49		18	2.1	ug/Kg	☼	10/05/18 09:49	10/09/18 19:29	10
Chrysene	230		18	5.3	ug/Kg	☼	10/05/18 09:49	10/09/18 19:29	10
Dibenz(a,h)anthracene	37		18	2.6	ug/Kg	☼	10/05/18 09:49	10/09/18 19:29	10
Fluoranthene	530	B	18	5.0	ug/Kg	☼	10/05/18 09:49	10/09/18 19:29	10
Fluorene	150		18	1.8	ug/Kg	☼	10/05/18 09:49	10/09/18 19:29	10
Indeno[1,2,3-cd]pyrene	140		18	2.1	ug/Kg	☼	10/05/18 09:49	10/09/18 19:29	10
Naphthalene	190		18	2.8	ug/Kg	☼	10/05/18 09:49	10/09/18 19:29	10
Phenanthrene	460	B	18	2.5	ug/Kg	☼	10/05/18 09:49	10/09/18 19:29	10
Pyrene	490	B	18	3.5	ug/Kg	☼	10/05/18 09:49	10/09/18 19:29	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*81*		*57 - 120*	*10/05/18 09:49*	*10/09/18 19:29*	*10*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		3.5	0.59	ug/Kg	☼	10/06/18 09:59	10/08/18 17:03	1
PCB-1221	ND		3.5	1.7	ug/Kg	☼	10/06/18 09:59	10/08/18 17:03	1
PCB-1232	ND		3.5	0.82	ug/Kg	☼	10/06/18 09:59	10/08/18 17:03	1
PCB-1242	ND		3.5	0.85	ug/Kg	☼	10/06/18 09:59	10/08/18 17:03	1
PCB-1248	ND		3.5	0.28	ug/Kg	☼	10/06/18 09:59	10/08/18 17:03	1
PCB-1254	ND		3.5	1.4	ug/Kg	☼	10/06/18 09:59	10/08/18 17:03	1
PCB-1260	10		3.5	0.59	ug/Kg	☼	10/06/18 09:59	10/08/18 17:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*60*		*54 - 142*	*10/06/18 09:59*	*10/08/18 17:03*	*1*
Tetrachloro-m-xylene	*48*	*X*	*58 - 122*	*10/06/18 09:59*	*10/08/18 17:03*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	33000		2000	44	mg/Kg			09/17/18 11:05	1
Total Solids	54.7	H	0.1	0.1	%			09/19/18 09:39	1
Total Solids @ 70°C	56		0.10	0.10	%			09/12/18 16:18	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gravel	0.0				%			09/12/18 16:18	1
Coarse Sand	0.0				%			09/12/18 16:18	1
Medium Sand	0.1				%			09/12/18 16:18	1
Fine Sand	10.8				%			09/12/18 16:18	1
Silt	67.6				%			09/12/18 16:18	1
Clay	21.6				%			09/12/18 16:18	1

Client Sample ID: PDI-SC-S155-0to2.1

Date Collected: 09/05/18 16:00
Date Received: 09/07/18 12:35

Lab Sample ID: 580-80167-4

Matrix: Solid
Percent Solids: 54.4

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	9.1	J	18	1.6	ug/Kg	☼	10/05/18 09:49	10/09/18 19:55	10
Acenaphthene	9.7	J	18	2.1	ug/Kg	☼	10/05/18 09:49	10/09/18 19:55	10
Acenaphthylene	5.3	J	18	1.8	ug/Kg	☼	10/05/18 09:49	10/09/18 19:55	10
Anthracene	15	J	18	2.1	ug/Kg	☼	10/05/18 09:49	10/09/18 19:55	10
Benzo[a]anthracene	32	B	18	2.7	ug/Kg	☼	10/05/18 09:49	10/09/18 19:55	10
Benzo[a]pyrene	32		18	1.4	ug/Kg	☼	10/05/18 09:49	10/09/18 19:55	10
Benzo[b]fluoranthene	49		18	2.1	ug/Kg	☼	10/05/18 09:49	10/09/18 19:55	10
Benzo[g,h,i]perylene	26		18	1.8	ug/Kg	☼	10/05/18 09:49	10/09/18 19:55	10
Benzo[k]fluoranthene	15	J	18	2.1	ug/Kg	☼	10/05/18 09:49	10/09/18 19:55	10
Chrysene	58		18	5.3	ug/Kg	☼	10/05/18 09:49	10/09/18 19:55	10
Dibenz(a,h)anthracene	7.0	J	18	2.5	ug/Kg	☼	10/05/18 09:49	10/09/18 19:55	10
Fluoranthene	100	B	18	4.9	ug/Kg	☼	10/05/18 09:49	10/09/18 19:55	10
Fluorene	21		18	1.8	ug/Kg	☼	10/05/18 09:49	10/09/18 19:55	10
Indeno[1,2,3-cd]pyrene	45		18	2.1	ug/Kg	☼	10/05/18 09:49	10/09/18 19:55	10
Naphthalene	14	J	18	2.8	ug/Kg	☼	10/05/18 09:49	10/09/18 19:55	10
Phenanthrene	61	B	18	2.4	ug/Kg	☼	10/05/18 09:49	10/09/18 19:55	10
Pyrene	120	B	18	3.4	ug/Kg	☼	10/05/18 09:49	10/09/18 19:55	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*78*		*57 - 120*	*10/05/18 09:49*	*10/09/18 19:55*	*10*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		3.5	0.60	ug/Kg	☼	10/06/18 09:59	10/08/18 17:19	1
PCB-1221	ND		3.5	1.7	ug/Kg	☼	10/06/18 09:59	10/08/18 17:19	1
PCB-1232	ND		3.5	0.83	ug/Kg	☼	10/06/18 09:59	10/08/18 17:19	1
PCB-1242	ND		3.5	0.86	ug/Kg	☼	10/06/18 09:59	10/08/18 17:19	1
PCB-1248	ND		3.5	0.28	ug/Kg	☼	10/06/18 09:59	10/08/18 17:19	1
PCB-1254	ND		3.5	1.4	ug/Kg	☼	10/06/18 09:59	10/08/18 17:19	1
PCB-1260	1.6	J	3.5	0.60	ug/Kg	☼	10/06/18 09:59	10/08/18 17:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*64*		*54 - 142*	*10/06/18 09:59*	*10/08/18 17:19*	*1*
Tetrachloro-m-xylene	*57*	*X*	*58 - 122*	*10/06/18 09:59*	*10/08/18 17:19*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	29000		2000	44	mg/Kg			09/17/18 11:10	1
Total Solids	54.4	H	0.1	0.1	%			09/19/18 09:39	1
Total Solids @ 70°C	56		0.10	0.10	%			09/12/18 16:18	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gravel	2.6				%			09/12/18 16:18	1
Coarse Sand	0.5				%			09/12/18 16:18	1
Medium Sand	5.5				%			09/12/18 16:18	1
Fine Sand	33.6				%			09/12/18 16:18	1
Silt	45.7				%			09/12/18 16:18	1
Clay	12.1				%			09/12/18 16:18	1

Client Sample ID: PDI-SC-S155-2.1to4.2

Date Collected: 09/05/18 16:05
Date Received: 09/07/18 12:35

Lab Sample ID: 580-80167-5

Matrix: Solid
Percent Solids: 73.9

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	11	J	13	1.1	ug/Kg	☼	10/05/18 09:49	10/09/18 20:20	10
Acenaphthene	5.1	J	13	1.5	ug/Kg	☼	10/05/18 09:49	10/09/18 20:20	10
Acenaphthylene	ND		13	1.3	ug/Kg	☼	10/05/18 09:49	10/09/18 20:20	10
Anthracene	13		13	1.5	ug/Kg	☼	10/05/18 09:49	10/09/18 20:20	10
Benzo[a]anthracene	38	B	13	1.9	ug/Kg	☼	10/05/18 09:49	10/09/18 20:20	10
Benzo[a]pyrene	28		13	1.0	ug/Kg	☼	10/05/18 09:49	10/09/18 20:20	10
Benzo[b]fluoranthene	38		13	1.5	ug/Kg	☼	10/05/18 09:49	10/09/18 20:20	10
Benzo[g,h,i]perylene	21		13	1.3	ug/Kg	☼	10/05/18 09:49	10/09/18 20:20	10
Benzo[k]fluoranthene	9.2	J	13	1.5	ug/Kg	☼	10/05/18 09:49	10/09/18 20:20	10
Chrysene	66		13	3.8	ug/Kg	☼	10/05/18 09:49	10/09/18 20:20	10
Dibenz(a,h)anthracene	ND		13	1.8	ug/Kg	☼	10/05/18 09:49	10/09/18 20:20	10
Fluoranthene	84	B	13	3.5	ug/Kg	☼	10/05/18 09:49	10/09/18 20:20	10
Fluorene	ND		13	1.3	ug/Kg	☼	10/05/18 09:49	10/09/18 20:20	10
Indeno[1,2,3-cd]pyrene	51		13	1.5	ug/Kg	☼	10/05/18 09:49	10/09/18 20:20	10
Naphthalene	12	J	13	2.0	ug/Kg	☼	10/05/18 09:49	10/09/18 20:20	10
Phenanthrene	27	B	13	1.7	ug/Kg	☼	10/05/18 09:49	10/09/18 20:20	10
Pyrene	140	B	13	2.5	ug/Kg	☼	10/05/18 09:49	10/09/18 20:20	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*87*		*57 - 120*	*10/05/18 09:49*	*10/09/18 20:20*	*10*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		2.7	0.46	ug/Kg	☼	10/06/18 09:59	10/08/18 17:36	1
PCB-1221	ND		2.7	1.3	ug/Kg	☼	10/06/18 09:59	10/08/18 17:36	1
PCB-1232	ND		2.7	0.63	ug/Kg	☼	10/06/18 09:59	10/08/18 17:36	1
PCB-1242	ND		2.7	0.66	ug/Kg	☼	10/06/18 09:59	10/08/18 17:36	1
PCB-1248	ND		2.7	0.22	ug/Kg	☼	10/06/18 09:59	10/08/18 17:36	1
PCB-1254	ND		2.7	1.1	ug/Kg	☼	10/06/18 09:59	10/08/18 17:36	1
PCB-1260	19		2.7	0.46	ug/Kg	☼	10/06/18 09:59	10/08/18 17:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*58*		*54 - 142*	*10/06/18 09:59*	*10/08/18 17:36*	*1*
Tetrachloro-m-xylene	*55*	*X*	*58 - 122*	*10/06/18 09:59*	*10/08/18 17:36*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	8900		2000	44	mg/Kg			09/17/18 11:15	1
Total Solids	73.9	H	0.1	0.1	%			09/19/18 09:39	1
Total Solids @ 70°C	74		0.10	0.10	%			09/12/18 16:18	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gravel	0.3				%			09/12/18 16:18	1
Coarse Sand	0.4				%			09/12/18 16:18	1
Medium Sand	28.6				%			09/12/18 16:18	1
Fine Sand	59.2				%			09/12/18 16:18	1
Silt	7.8				%			09/12/18 16:18	1
Clay	3.7				%			09/12/18 16:18	1

Client Sample ID: PDI-SC-S155-4.2to5.3

Date Collected: 09/05/18 16:10
Date Received: 09/07/18 12:35

Lab Sample ID: 580-80167-6

Matrix: Solid
Percent Solids: 73.8

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	2.2		1.2	0.11	ug/Kg	☼	10/05/18 09:49	10/09/18 20:46	1
Acenaphthene	3.8		1.2	0.15	ug/Kg	☼	10/05/18 09:49	10/09/18 20:46	1
Acenaphthylene	1.9		1.2	0.12	ug/Kg	☼	10/05/18 09:49	10/09/18 20:46	1
Anthracene	4.6		1.2	0.15	ug/Kg	☼	10/05/18 09:49	10/09/18 20:46	1
Benzo[a]anthracene	5.9	B	1.2	0.19	ug/Kg	☼	10/05/18 09:49	10/09/18 20:46	1
Benzo[a]pyrene	15		1.2	0.10	ug/Kg	☼	10/05/18 09:49	10/09/18 20:46	1
Benzo[b]fluoranthene	13		1.2	0.15	ug/Kg	☼	10/05/18 09:49	10/09/18 20:46	1
Benzo[g,h,i]perylene	17		1.2	0.12	ug/Kg	☼	10/05/18 09:49	10/09/18 20:46	1
Benzo[k]fluoranthene	3.7		1.2	0.15	ug/Kg	☼	10/05/18 09:49	10/09/18 20:46	1
Chrysene	6.5		1.2	0.37	ug/Kg	☼	10/05/18 09:49	10/09/18 20:46	1
Dibenz(a,h)anthracene	2.4		1.2	0.18	ug/Kg	☼	10/05/18 09:49	10/09/18 20:46	1
Fluoranthene	15	B	1.2	0.35	ug/Kg	☼	10/05/18 09:49	10/09/18 20:46	1
Fluorene	3.3		1.2	0.12	ug/Kg	☼	10/05/18 09:49	10/09/18 20:46	1
Indeno[1,2,3-cd]pyrene	24		1.2	0.15	ug/Kg	☼	10/05/18 09:49	10/09/18 20:46	1
Naphthalene	8.2		1.2	0.20	ug/Kg	☼	10/05/18 09:49	10/09/18 20:46	1
Phenanthrene	18	B	1.2	0.17	ug/Kg	☼	10/05/18 09:49	10/09/18 20:46	1
Pyrene	32	B	1.2	0.24	ug/Kg	☼	10/05/18 09:49	10/09/18 20:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*84*		*57 - 120*	*10/05/18 09:49*	*10/09/18 20:46*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		2.6	0.44	ug/Kg	☼	10/06/18 09:59	10/08/18 17:53	1
PCB-1221	ND		2.6	1.2	ug/Kg	☼	10/06/18 09:59	10/08/18 17:53	1
PCB-1232	ND		2.6	0.61	ug/Kg	☼	10/06/18 09:59	10/08/18 17:53	1
PCB-1242	ND		2.6	0.64	ug/Kg	☼	10/06/18 09:59	10/08/18 17:53	1
PCB-1248	ND		2.6	0.21	ug/Kg	☼	10/06/18 09:59	10/08/18 17:53	1
PCB-1254	ND		2.6	1.0	ug/Kg	☼	10/06/18 09:59	10/08/18 17:53	1
PCB-1260	ND		2.6	0.44	ug/Kg	☼	10/06/18 09:59	10/08/18 17:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*61*		*54 - 142*	*10/06/18 09:59*	*10/08/18 17:53*	*1*
Tetrachloro-m-xylene	*53*	*X*	*58 - 122*	*10/06/18 09:59*	*10/08/18 17:53*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	1200	J	2000	44	mg/Kg			09/17/18 11:20	1
Total Solids	73.8	H	0.1	0.1	%			09/19/18 09:39	1
Total Solids @ 70°C	74		0.10	0.10	%			09/12/18 16:18	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gravel	3.4				%			09/12/18 16:18	1
Coarse Sand	1.1				%			09/12/18 16:18	1
Medium Sand	10.0				%			09/12/18 16:18	1
Fine Sand	43.7				%			09/12/18 16:18	1
Silt	36.4				%			09/12/18 16:18	1
Clay	5.4				%			09/12/18 16:18	1

Client Sample ID: PDI-SC-S121-0to1.8
Date Collected: 09/05/18 17:25
Date Received: 09/07/18 12:35

Lab Sample ID: 580-80167-7
Matrix: Solid
Percent Solids: 80.4

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	21		5.4	0.49	ug/Kg	☼	10/05/18 09:49	10/09/18 21:12	5
Acenaphthene	1.8	J	5.4	0.65	ug/Kg	☼	10/05/18 09:49	10/09/18 21:12	5
Acenaphthylene	15		5.4	0.54	ug/Kg	☼	10/05/18 09:49	10/09/18 21:12	5
Anthracene	14		5.4	0.65	ug/Kg	☼	10/05/18 09:49	10/09/18 21:12	5
Benzo[a]anthracene	57	B	5.4	0.82	ug/Kg	☼	10/05/18 09:49	10/09/18 21:12	5
Benzo[a]pyrene	70		5.4	0.43	ug/Kg	☼	10/05/18 09:49	10/09/18 21:12	5
Benzo[b]fluoranthene	67		5.4	0.64	ug/Kg	☼	10/05/18 09:49	10/09/18 21:12	5
Benzo[g,h,i]perylene	54		5.4	0.54	ug/Kg	☼	10/05/18 09:49	10/09/18 21:12	5
Benzo[k]fluoranthene	20		5.4	0.65	ug/Kg	☼	10/05/18 09:49	10/09/18 21:12	5
Chrysene	74		5.4	1.6	ug/Kg	☼	10/05/18 09:49	10/09/18 21:12	5
Dibenz(a,h)anthracene	17		5.4	0.78	ug/Kg	☼	10/05/18 09:49	10/09/18 21:12	5
Fluoranthene	48	B	5.4	1.5	ug/Kg	☼	10/05/18 09:49	10/09/18 21:12	5
Fluorene	4.7	J	5.4	0.54	ug/Kg	☼	10/05/18 09:49	10/09/18 21:12	5
Indeno[1,2,3-cd]pyrene	87		5.4	0.65	ug/Kg	☼	10/05/18 09:49	10/09/18 21:12	5
Naphthalene	33		5.4	0.86	ug/Kg	☼	10/05/18 09:49	10/09/18 21:12	5
Phenanthrene	35	B	5.4	0.74	ug/Kg	☼	10/05/18 09:49	10/09/18 21:12	5
Pyrene	100	B	5.4	1.0	ug/Kg	☼	10/05/18 09:49	10/09/18 21:12	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*90*		*57 - 120*	*10/05/18 09:49*	*10/09/18 21:12*	*5*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		2.4	0.40	ug/Kg	☼	10/06/18 09:59	10/08/18 18:10	1
PCB-1221	ND		2.4	1.1	ug/Kg	☼	10/06/18 09:59	10/08/18 18:10	1
PCB-1232	ND		2.4	0.56	ug/Kg	☼	10/06/18 09:59	10/08/18 18:10	1
PCB-1242	ND		2.4	0.58	ug/Kg	☼	10/06/18 09:59	10/08/18 18:10	1
PCB-1248	ND		2.4	0.19	ug/Kg	☼	10/06/18 09:59	10/08/18 18:10	1
PCB-1254	ND		2.4	0.94	ug/Kg	☼	10/06/18 09:59	10/08/18 18:10	1
PCB-1260	ND		2.4	0.40	ug/Kg	☼	10/06/18 09:59	10/08/18 18:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*69*		*54 - 142*	*10/06/18 09:59*	*10/08/18 18:10*	*1*
Tetrachloro-m-xylene	*57*	*X*	*58 - 122*	*10/06/18 09:59*	*10/08/18 18:10*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	1100	J	2000	44	mg/Kg			09/17/18 11:25	1
Total Solids	80.4	H	0.1	0.1	%			09/19/18 09:39	1
Total Solids @ 70°C	79		0.10	0.10	%			09/12/18 16:18	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gravel	1.0				%			09/12/18 16:18	1
Coarse Sand	1.5				%			09/12/18 16:18	1
Medium Sand	32.4				%			09/12/18 16:18	1
Fine Sand	63.5				%			09/12/18 16:18	1
Silt	1.6				%			09/12/18 16:18	1
Clay	0.0				%			09/12/18 16:18	1

Client Sample ID: PDI-SC-S121-1.8to3.4

Date Collected: 09/05/18 17:30
Date Received: 09/07/18 12:35

Lab Sample ID: 580-80167-8

Matrix: Solid
Percent Solids: 77.5

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	13		12	1.1	ug/Kg	☼	10/05/18 09:49	10/09/18 21:37	10
Acenaphthene	28		12	1.5	ug/Kg	☼	10/05/18 09:49	10/09/18 21:37	10
Acenaphthylene	14		12	1.2	ug/Kg	☼	10/05/18 09:49	10/09/18 21:37	10
Anthracene	28		12	1.5	ug/Kg	☼	10/05/18 09:49	10/09/18 21:37	10
Benzo[a]anthracene	63	B	12	1.9	ug/Kg	☼	10/05/18 09:49	10/09/18 21:37	10
Benzo[a]pyrene	70		12	0.99	ug/Kg	☼	10/05/18 09:49	10/09/18 21:37	10
Benzo[b]fluoranthene	87		12	1.5	ug/Kg	☼	10/05/18 09:49	10/09/18 21:37	10
Benzo[g,h,i]perylene	51		12	1.2	ug/Kg	☼	10/05/18 09:49	10/09/18 21:37	10
Benzo[k]fluoranthene	20		12	1.5	ug/Kg	☼	10/05/18 09:49	10/09/18 21:37	10
Chrysene	93		12	3.7	ug/Kg	☼	10/05/18 09:49	10/09/18 21:37	10
Dibenz(a,h)anthracene	24		12	1.8	ug/Kg	☼	10/05/18 09:49	10/09/18 21:37	10
Fluoranthene	120	B	12	3.5	ug/Kg	☼	10/05/18 09:49	10/09/18 21:37	10
Fluorene	15		12	1.2	ug/Kg	☼	10/05/18 09:49	10/09/18 21:37	10
Indeno[1,2,3-cd]pyrene	97		12	1.5	ug/Kg	☼	10/05/18 09:49	10/09/18 21:37	10
Naphthalene	29		12	2.0	ug/Kg	☼	10/05/18 09:49	10/09/18 21:37	10
Phenanthrene	120	B	12	1.7	ug/Kg	☼	10/05/18 09:49	10/09/18 21:37	10
Pyrene	200	B	12	2.4	ug/Kg	☼	10/05/18 09:49	10/09/18 21:37	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*91*		*57 - 120*	*10/05/18 09:49*	*10/09/18 21:37*	*10*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		2.6	0.44	ug/Kg	☼	10/06/18 09:59	10/08/18 18:26	1
PCB-1221	ND		2.6	1.2	ug/Kg	☼	10/06/18 09:59	10/08/18 18:26	1
PCB-1232	ND		2.6	0.60	ug/Kg	☼	10/06/18 09:59	10/08/18 18:26	1
PCB-1242	ND		2.6	0.63	ug/Kg	☼	10/06/18 09:59	10/08/18 18:26	1
PCB-1248	ND		2.6	0.21	ug/Kg	☼	10/06/18 09:59	10/08/18 18:26	1
PCB-1254	ND		2.6	1.0	ug/Kg	☼	10/06/18 09:59	10/08/18 18:26	1
PCB-1260	1.6	J	2.6	0.44	ug/Kg	☼	10/06/18 09:59	10/08/18 18:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*48*	*X*	*54 - 142*	*10/06/18 09:59*	*10/08/18 18:26*	*1*
Tetrachloro-m-xylene	*46*	*X*	*58 - 122*	*10/06/18 09:59*	*10/08/18 18:26*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	9200		2000	44	mg/Kg			09/17/18 11:29	1
Total Solids	77.5	H	0.1	0.1	%			09/19/18 09:39	1
Total Solids @ 70°C	78		0.10	0.10	%			09/12/18 16:18	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gravel	16.9				%			09/12/18 16:18	1
Coarse Sand	2.3				%			09/12/18 16:18	1
Medium Sand	31.2				%			09/12/18 16:18	1
Fine Sand	46.5				%			09/12/18 16:18	1
Silt	3.1				%			09/12/18 16:18	1
Clay	0.0				%			09/12/18 16:18	1

Client Sample ID: PDI-SC-S255-0to2.1
Date Collected: 09/05/18 19:45
Date Received: 09/07/18 12:35

Lab Sample ID: 580-80167-9
Matrix: Solid
Percent Solids: 66.2

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	2.4	J	7.1	0.63	ug/Kg	☼	10/05/18 09:49	10/09/18 22:03	5
Acenaphthene	5.1	J	7.1	0.85	ug/Kg	☼	10/05/18 09:49	10/09/18 22:03	5
Acenaphthylene	15		7.1	0.71	ug/Kg	☼	10/05/18 09:49	10/09/18 22:03	5
Anthracene	11		7.1	0.85	ug/Kg	☼	10/05/18 09:49	10/09/18 22:03	5
Benzo[a]anthracene	71	B	7.1	1.1	ug/Kg	☼	10/05/18 09:49	10/09/18 22:03	5
Benzo[a]pyrene	110		7.1	0.56	ug/Kg	☼	10/05/18 09:49	10/09/18 22:03	5
Benzo[b]fluoranthene	110		7.1	0.83	ug/Kg	☼	10/05/18 09:49	10/09/18 22:03	5
Benzo[g,h,i]perylene	100		7.1	0.71	ug/Kg	☼	10/05/18 09:49	10/09/18 22:03	5
Benzo[k]fluoranthene	32		7.1	0.85	ug/Kg	☼	10/05/18 09:49	10/09/18 22:03	5
Chrysene	94		7.1	2.1	ug/Kg	☼	10/05/18 09:49	10/09/18 22:03	5
Dibenz(a,h)anthracene	20		7.1	1.0	ug/Kg	☼	10/05/18 09:49	10/09/18 22:03	5
Fluoranthene	200	B	7.1	2.0	ug/Kg	☼	10/05/18 09:49	10/09/18 22:03	5
Fluorene	11		7.1	0.71	ug/Kg	☼	10/05/18 09:49	10/09/18 22:03	5
Indeno[1,2,3-cd]pyrene	150		7.1	0.85	ug/Kg	☼	10/05/18 09:49	10/09/18 22:03	5
Naphthalene	7.8		7.1	1.1	ug/Kg	☼	10/05/18 09:49	10/09/18 22:03	5
Phenanthrene	79	B	7.1	0.97	ug/Kg	☼	10/05/18 09:49	10/09/18 22:03	5
Pyrene	270	B	7.1	1.4	ug/Kg	☼	10/05/18 09:49	10/09/18 22:03	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*70*		*57 - 120*	*10/05/18 09:49*	*10/09/18 22:03*	*5*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		3.0	0.50	ug/Kg	☼	10/06/18 09:59	10/08/18 18:43	1
PCB-1221	ND		3.0	1.4	ug/Kg	☼	10/06/18 09:59	10/08/18 18:43	1
PCB-1232	ND		3.0	0.69	ug/Kg	☼	10/06/18 09:59	10/08/18 18:43	1
PCB-1242	ND		3.0	0.72	ug/Kg	☼	10/06/18 09:59	10/08/18 18:43	1
PCB-1248	ND		3.0	0.24	ug/Kg	☼	10/06/18 09:59	10/08/18 18:43	1
PCB-1254	ND		3.0	1.2	ug/Kg	☼	10/06/18 09:59	10/08/18 18:43	1
PCB-1260	4.8		3.0	0.50	ug/Kg	☼	10/06/18 09:59	10/08/18 18:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*54*		*54 - 142*	*10/06/18 09:59*	*10/08/18 18:43*	*1*
Tetrachloro-m-xylene	*51*	*X*	*58 - 122*	*10/06/18 09:59*	*10/08/18 18:43*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	21000		2000	44	mg/Kg			09/17/18 11:50	1
Total Solids	66.2	H	0.1	0.1	%			09/19/18 09:39	1
Total Solids @ 70°C	67		0.10	0.10	%			09/12/18 16:18	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gravel	0.0				%			09/12/18 16:18	1
Coarse Sand	0.3				%			09/12/18 16:18	1
Medium Sand	1.5				%			09/12/18 16:18	1
Fine Sand	34.4				%			09/12/18 16:18	1
Silt	58.4				%			09/12/18 16:18	1
Clay	5.4				%			09/12/18 16:18	1

Client Sample ID: PDI-SC-S255-0to2.1D

Date Collected: 09/05/18 19:45
Date Received: 09/07/18 12:35

Lab Sample ID: 580-80167-10

Matrix: Solid
Percent Solids: 65.6

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	3.4	J	7.6	0.68	ug/Kg	☼	10/05/18 09:49	10/09/18 22:29	5
Acenaphthene	3.8	J	7.6	0.91	ug/Kg	☼	10/05/18 09:49	10/09/18 22:29	5
Acenaphthylene	8.9		7.6	0.76	ug/Kg	☼	10/05/18 09:49	10/09/18 22:29	5
Anthracene	13		7.6	0.91	ug/Kg	☼	10/05/18 09:49	10/09/18 22:29	5
Benzo[a]anthracene	51	B	7.6	1.2	ug/Kg	☼	10/05/18 09:49	10/09/18 22:29	5
Benzo[a]pyrene	71		7.6	0.61	ug/Kg	☼	10/05/18 09:49	10/09/18 22:29	5
Benzo[b]fluoranthene	78		7.6	0.90	ug/Kg	☼	10/05/18 09:49	10/09/18 22:29	5
Benzo[g,h,i]perylene	64		7.6	0.76	ug/Kg	☼	10/05/18 09:49	10/09/18 22:29	5
Benzo[k]fluoranthene	22		7.6	0.91	ug/Kg	☼	10/05/18 09:49	10/09/18 22:29	5
Chrysene	71		7.6	2.3	ug/Kg	☼	10/05/18 09:49	10/09/18 22:29	5
Dibenz(a,h)anthracene	15		7.6	1.1	ug/Kg	☼	10/05/18 09:49	10/09/18 22:29	5
Fluoranthene	160	B	7.6	2.1	ug/Kg	☼	10/05/18 09:49	10/09/18 22:29	5
Fluorene	13		7.6	0.76	ug/Kg	☼	10/05/18 09:49	10/09/18 22:29	5
Indeno[1,2,3-cd]pyrene	100		7.6	0.91	ug/Kg	☼	10/05/18 09:49	10/09/18 22:29	5
Naphthalene	8.2		7.6	1.2	ug/Kg	☼	10/05/18 09:49	10/09/18 22:29	5
Phenanthrene	95	B	7.6	1.0	ug/Kg	☼	10/05/18 09:49	10/09/18 22:29	5
Pyrene	200	B	7.6	1.5	ug/Kg	☼	10/05/18 09:49	10/09/18 22:29	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*84*		*57 - 120*	*10/05/18 09:49*	*10/09/18 22:29*	*5*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		3.0	0.52	ug/Kg	☼	10/06/18 09:59	10/08/18 19:00	1
PCB-1221	ND		3.0	1.4	ug/Kg	☼	10/06/18 09:59	10/08/18 19:00	1
PCB-1232	ND		3.0	0.72	ug/Kg	☼	10/06/18 09:59	10/08/18 19:00	1
PCB-1242	ND		3.0	0.75	ug/Kg	☼	10/06/18 09:59	10/08/18 19:00	1
PCB-1248	ND		3.0	0.24	ug/Kg	☼	10/06/18 09:59	10/08/18 19:00	1
PCB-1254	ND		3.0	1.2	ug/Kg	☼	10/06/18 09:59	10/08/18 19:00	1
PCB-1260	3.5		3.0	0.52	ug/Kg	☼	10/06/18 09:59	10/08/18 19:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*49*	*X*	*54 - 142*	*10/06/18 09:59*	*10/08/18 19:00*	*1*
Tetrachloro-m-xylene	*53*	*X*	*58 - 122*	*10/06/18 09:59*	*10/08/18 19:00*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	25000		2000	44	mg/Kg			09/17/18 11:55	1
Total Solids	65.6	H	0.1	0.1	%			09/19/18 09:39	1
Total Solids @ 70°C	66	H	0.10	0.10	%			09/13/18 04:11	1

Client Sample ID: PDI-SC-S255-2.1to4.3

Date Collected: 09/05/18 19:50
Date Received: 09/07/18 12:35

Lab Sample ID: 580-80167-11

Matrix: Solid
Percent Solids: 63.7

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	8.4	J	14	1.3	ug/Kg	☼	10/05/18 09:49	10/09/18 22:54	10
Acenaphthene	12	J	14	1.7	ug/Kg	☼	10/05/18 09:49	10/09/18 22:54	10
Acenaphthylene	17		14	1.4	ug/Kg	☼	10/05/18 09:49	10/09/18 22:54	10
Anthracene	26		14	1.7	ug/Kg	☼	10/05/18 09:49	10/09/18 22:54	10
Benzo[a]anthracene	110	B	14	2.2	ug/Kg	☼	10/05/18 09:49	10/09/18 22:54	10
Benzo[a]pyrene	140		14	1.2	ug/Kg	☼	10/05/18 09:49	10/09/18 22:54	10
Benzo[b]fluoranthene	160		14	1.7	ug/Kg	☼	10/05/18 09:49	10/09/18 22:54	10
Benzo[g,h,i]perylene	120		14	1.4	ug/Kg	☼	10/05/18 09:49	10/09/18 22:54	10
Benzo[k]fluoranthene	34		14	1.7	ug/Kg	☼	10/05/18 09:49	10/09/18 22:54	10
Chrysene	150		14	4.3	ug/Kg	☼	10/05/18 09:49	10/09/18 22:54	10
Dibenz(a,h)anthracene	25		14	2.1	ug/Kg	☼	10/05/18 09:49	10/09/18 22:54	10
Fluoranthene	320	B	14	4.0	ug/Kg	☼	10/05/18 09:49	10/09/18 22:54	10
Fluorene	22		14	1.4	ug/Kg	☼	10/05/18 09:49	10/09/18 22:54	10
Indeno[1,2,3-cd]pyrene	200		14	1.7	ug/Kg	☼	10/05/18 09:49	10/09/18 22:54	10
Naphthalene	18		14	2.3	ug/Kg	☼	10/05/18 09:49	10/09/18 22:54	10
Phenanthrene	150	B	14	2.0	ug/Kg	☼	10/05/18 09:49	10/09/18 22:54	10
Pyrene	400	B	14	2.8	ug/Kg	☼	10/05/18 09:49	10/09/18 22:54	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*87*		*57 - 120*	*10/05/18 09:49*	*10/09/18 22:54*	*10*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		3.1	0.52	ug/Kg	☼	10/06/18 09:59	10/08/18 19:17	1
PCB-1221	ND		3.1	1.4	ug/Kg	☼	10/06/18 09:59	10/08/18 19:17	1
PCB-1232	ND		3.1	0.72	ug/Kg	☼	10/06/18 09:59	10/08/18 19:17	1
PCB-1242	ND		3.1	0.75	ug/Kg	☼	10/06/18 09:59	10/08/18 19:17	1
PCB-1248	ND		3.1	0.24	ug/Kg	☼	10/06/18 09:59	10/08/18 19:17	1
PCB-1254	ND		3.1	1.2	ug/Kg	☼	10/06/18 09:59	10/08/18 19:17	1
PCB-1260	120		3.1	0.52	ug/Kg	☼	10/06/18 09:59	10/08/18 19:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*47*	*X*	*54 - 142*	*10/06/18 09:59*	*10/08/18 19:17*	*1*
Tetrachloro-m-xylene	*41*	*X*	*58 - 122*	*10/06/18 09:59*	*10/08/18 19:17*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	33000		2000	44	mg/Kg			09/17/18 15:15	1
Total Solids	63.7	H	0.1	0.1	%			09/19/18 09:39	1
Total Solids @ 70°C	65		0.10	0.10	%			09/12/18 16:18	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gravel	0.1				%			09/12/18 16:18	1
Coarse Sand	0.6				%			09/12/18 16:18	1
Medium Sand	3.2				%			09/12/18 16:18	1
Fine Sand	35.8				%			09/12/18 16:18	1
Silt	56.1				%			09/12/18 16:18	1
Clay	4.3				%			09/12/18 16:18	1

Client Sample ID: PDI-SC-S112-0to2

Date Collected: 09/05/18 21:00
Date Received: 09/07/18 12:35

Lab Sample ID: 580-80167-12

Matrix: Solid
Percent Solids: 44.3

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	470		22	2.0	ug/Kg	☼	10/05/18 09:49	10/09/18 23:20	10
Acenaphthene	430		22	2.6	ug/Kg	☼	10/05/18 09:49	10/09/18 23:20	10
Acenaphthylene	76		22	2.2	ug/Kg	☼	10/05/18 09:49	10/09/18 23:20	10
Anthracene	410		22	2.6	ug/Kg	☼	10/05/18 09:49	10/09/18 23:20	10
Benzo[a]anthracene	1100	B	22	3.3	ug/Kg	☼	10/05/18 09:49	10/09/18 23:20	10
Benzo[a]pyrene	920		22	1.7	ug/Kg	☼	10/05/18 09:49	10/09/18 23:20	10
Benzo[b]fluoranthene	1200		22	2.6	ug/Kg	☼	10/05/18 09:49	10/09/18 23:20	10
Benzo[g,h,i]perylene	550		22	2.2	ug/Kg	☼	10/05/18 09:49	10/09/18 23:20	10
Benzo[k]fluoranthene	370		22	2.6	ug/Kg	☼	10/05/18 09:49	10/09/18 23:20	10
Chrysene	1200		22	6.5	ug/Kg	☼	10/05/18 09:49	10/09/18 23:20	10
Dibenz(a,h)anthracene	180		22	3.1	ug/Kg	☼	10/05/18 09:49	10/09/18 23:20	10
Fluoranthene	2500	B	22	6.1	ug/Kg	☼	10/05/18 09:49	10/09/18 23:20	10
Fluorene	390		22	2.2	ug/Kg	☼	10/05/18 09:49	10/09/18 23:20	10
Indeno[1,2,3-cd]pyrene	1000		22	2.6	ug/Kg	☼	10/05/18 09:49	10/09/18 23:20	10
Naphthalene	2300		22	3.5	ug/Kg	☼	10/05/18 09:49	10/09/18 23:20	10
Phenanthrene	1200	B	22	3.0	ug/Kg	☼	10/05/18 09:49	10/09/18 23:20	10
Pyrene	3000	B	22	4.2	ug/Kg	☼	10/05/18 09:49	10/09/18 23:20	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*79*		*57 - 120*	*10/05/18 09:49*	*10/09/18 23:20*	*10*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		4.4	0.74	ug/Kg	☼	10/06/18 09:59	10/08/18 19:34	1
PCB-1221	ND		4.4	2.1	ug/Kg	☼	10/06/18 09:59	10/08/18 19:34	1
PCB-1232	ND		4.4	1.0	ug/Kg	☼	10/06/18 09:59	10/08/18 19:34	1
PCB-1242	ND		4.4	1.1	ug/Kg	☼	10/06/18 09:59	10/08/18 19:34	1
PCB-1248	ND		4.4	0.35	ug/Kg	☼	10/06/18 09:59	10/08/18 19:34	1
PCB-1254	ND		4.4	1.7	ug/Kg	☼	10/06/18 09:59	10/08/18 19:34	1
PCB-1260	16		4.4	0.74	ug/Kg	☼	10/06/18 09:59	10/08/18 19:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*54*		*54 - 142*	*10/06/18 09:59*	*10/08/18 19:34*	*1*
Tetrachloro-m-xylene	*49*	*X*	*58 - 122*	*10/06/18 09:59*	*10/08/18 19:34*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	110000		2000	44	mg/Kg			09/17/18 15:19	1
Total Solids	44.3	H	0.1	0.1	%			09/19/18 09:39	1
Total Solids @ 70°C	45		0.10	0.10	%			09/12/18 16:18	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gravel	15.8				%			09/12/18 16:18	1
Coarse Sand	1.8				%			09/12/18 16:18	1
Medium Sand	3.5				%			09/12/18 16:18	1
Fine Sand	29.0				%			09/12/18 16:18	1
Silt	42.5				%			09/12/18 16:18	1
Clay	7.3				%			09/12/18 16:18	1

Client Sample ID: PDI-SC-S112-2to4

Date Collected: 09/05/18 21:05
Date Received: 09/07/18 12:35

Lab Sample ID: 580-80167-13

Matrix: Solid
Percent Solids: 41.9

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	520		22	2.0	ug/Kg	☼	10/05/18 09:49	10/09/18 23:46	10
Acenaphthene	540		22	2.6	ug/Kg	☼	10/05/18 09:49	10/09/18 23:46	10
Acenaphthylene	98		22	2.2	ug/Kg	☼	10/05/18 09:49	10/09/18 23:46	10
Anthracene	420		22	2.6	ug/Kg	☼	10/05/18 09:49	10/09/18 23:46	10
Benzo[a]anthracene	1100	B	22	3.3	ug/Kg	☼	10/05/18 09:49	10/09/18 23:46	10
Benzo[a]pyrene	1000		22	1.8	ug/Kg	☼	10/05/18 09:49	10/09/18 23:46	10
Benzo[b]fluoranthene	1400		22	2.6	ug/Kg	☼	10/05/18 09:49	10/09/18 23:46	10
Benzo[g,h,i]perylene	630		22	2.2	ug/Kg	☼	10/05/18 09:49	10/09/18 23:46	10
Benzo[k]fluoranthene	300		22	2.6	ug/Kg	☼	10/05/18 09:49	10/09/18 23:46	10
Chrysene	1100		22	6.6	ug/Kg	☼	10/05/18 09:49	10/09/18 23:46	10
Dibenz(a,h)anthracene	190		22	3.2	ug/Kg	☼	10/05/18 09:49	10/09/18 23:46	10
Fluoranthene	2200	B	22	6.2	ug/Kg	☼	10/05/18 09:49	10/09/18 23:46	10
Fluorene	460		22	2.2	ug/Kg	☼	10/05/18 09:49	10/09/18 23:46	10
Indeno[1,2,3-cd]pyrene	1100		22	2.6	ug/Kg	☼	10/05/18 09:49	10/09/18 23:46	10
Naphthalene	2500		22	3.5	ug/Kg	☼	10/05/18 09:49	10/09/18 23:46	10
Phenanthrene	1300	B	22	3.0	ug/Kg	☼	10/05/18 09:49	10/09/18 23:46	10
Pyrene	3000	B	22	4.3	ug/Kg	☼	10/05/18 09:49	10/09/18 23:46	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*90*		*57 - 120*	*10/05/18 09:49*	*10/09/18 23:46*	*10*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		4.6	0.78	ug/Kg	☼	10/06/18 09:59	10/08/18 19:50	1
PCB-1221	ND		4.6	2.2	ug/Kg	☼	10/06/18 09:59	10/08/18 19:50	1
PCB-1232	ND		4.6	1.1	ug/Kg	☼	10/06/18 09:59	10/08/18 19:50	1
PCB-1242	ND		4.6	1.1	ug/Kg	☼	10/06/18 09:59	10/08/18 19:50	1
PCB-1248	ND		4.6	0.36	ug/Kg	☼	10/06/18 09:59	10/08/18 19:50	1
PCB-1254	ND		4.6	1.8	ug/Kg	☼	10/06/18 09:59	10/08/18 19:50	1
PCB-1260	16		4.6	0.78	ug/Kg	☼	10/06/18 09:59	10/08/18 19:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*58*		*54 - 142*	*10/06/18 09:59*	*10/08/18 19:50*	*1*
Tetrachloro-m-xylene	*49*	*X*	*58 - 122*	*10/06/18 09:59*	*10/08/18 19:50*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	130000		2000	44	mg/Kg			09/17/18 12:11	1
Total Solids	41.9	H	0.1	0.1	%			09/19/18 09:39	1
Total Solids @ 70°C	43		0.10	0.10	%			09/12/18 16:18	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gravel	5.7				%			09/12/18 16:18	1
Coarse Sand	1.0				%			09/12/18 16:18	1
Medium Sand	3.3				%			09/12/18 16:18	1
Fine Sand	24.1				%			09/12/18 16:18	1
Silt	62.8				%			09/12/18 16:18	1
Clay	3.1				%			09/12/18 16:18	1

Client Sample ID: PDI-SC-S112-4to6

Date Collected: 09/05/18 21:10
Date Received: 09/07/18 12:35

Lab Sample ID: 580-80167-14

Matrix: Solid
Percent Solids: 46.3

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	690		21	1.8	ug/Kg	☼	10/05/18 09:49	10/10/18 00:11	10
Acenaphthene	610		21	2.5	ug/Kg	☼	10/05/18 09:49	10/10/18 00:11	10
Acenaphthylene	90		21	2.1	ug/Kg	☼	10/05/18 09:49	10/10/18 00:11	10
Anthracene	400		21	2.5	ug/Kg	☼	10/05/18 09:49	10/10/18 00:11	10
Benzo[a]anthracene	1000	B	21	3.1	ug/Kg	☼	10/05/18 09:49	10/10/18 00:11	10
Benzo[a]pyrene	790		21	1.6	ug/Kg	☼	10/05/18 09:49	10/10/18 00:11	10
Benzo[b]fluoranthene	1100		21	2.4	ug/Kg	☼	10/05/18 09:49	10/10/18 00:11	10
Benzo[g,h,i]perylene	450		21	2.1	ug/Kg	☼	10/05/18 09:49	10/10/18 00:11	10
Benzo[k]fluoranthene	230		21	2.5	ug/Kg	☼	10/05/18 09:49	10/10/18 00:11	10
Chrysene	1100		21	6.2	ug/Kg	☼	10/05/18 09:49	10/10/18 00:11	10
Dibenz(a,h)anthracene	140		21	3.0	ug/Kg	☼	10/05/18 09:49	10/10/18 00:11	10
Fluoranthene	1900	B	21	5.7	ug/Kg	☼	10/05/18 09:49	10/10/18 00:11	10
Fluorene	500		21	2.1	ug/Kg	☼	10/05/18 09:49	10/10/18 00:11	10
Indeno[1,2,3-cd]pyrene	790		21	2.5	ug/Kg	☼	10/05/18 09:49	10/10/18 00:11	10
Naphthalene	2300		21	3.3	ug/Kg	☼	10/05/18 09:49	10/10/18 00:11	10
Phenanthrene	1100	B	21	2.8	ug/Kg	☼	10/05/18 09:49	10/10/18 00:11	10
Pyrene	3900	B	21	4.0	ug/Kg	☼	10/05/18 09:49	10/10/18 00:11	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*84*		*57 - 120*	*10/05/18 09:49*	*10/10/18 00:11*	*10*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		4.3	0.73	ug/Kg	☼	10/06/18 09:59	10/08/18 20:07	1
PCB-1221	ND		4.3	2.0	ug/Kg	☼	10/06/18 09:59	10/08/18 20:07	1
PCB-1232	ND		4.3	1.0	ug/Kg	☼	10/06/18 09:59	10/08/18 20:07	1
PCB-1242	ND		4.3	1.0	ug/Kg	☼	10/06/18 09:59	10/08/18 20:07	1
PCB-1248	ND		4.3	0.34	ug/Kg	☼	10/06/18 09:59	10/08/18 20:07	1
PCB-1254	ND		4.3	1.7	ug/Kg	☼	10/06/18 09:59	10/08/18 20:07	1
PCB-1260	18		4.3	0.73	ug/Kg	☼	10/06/18 09:59	10/08/18 20:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*63*		*54 - 142*	*10/06/18 09:59*	*10/08/18 20:07*	*1*
Tetrachloro-m-xylene	*46*	*X*	*58 - 122*	*10/06/18 09:59*	*10/08/18 20:07*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	140000		2000	44	mg/Kg			09/17/18 12:18	1
Total Solids	46.3	H	0.1	0.1	%			09/19/18 09:39	1
Total Solids @ 70°C	47		0.10	0.10	%			09/12/18 16:18	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gravel	9.2				%			09/12/18 16:18	1
Coarse Sand	2.9				%			09/12/18 16:18	1
Medium Sand	5.0				%			09/12/18 16:18	1
Fine Sand	34.6				%			09/12/18 16:18	1
Silt	41.5				%			09/12/18 16:18	1
Clay	6.8				%			09/12/18 16:18	1

Client Sample ID: PDI-RB-SS-180905

Date Collected: 09/05/18 20:00
Date Received: 09/07/18 12:35

Lab Sample ID: 580-80167-15

Matrix: Water

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.097	0.017	ug/L		09/12/18 11:48	09/14/18 19:52	1
2-Methylnaphthalene	ND		0.097	0.019	ug/L		09/12/18 11:48	09/14/18 19:52	1
Acenaphthylene	ND		0.19	0.042	ug/L		09/12/18 11:48	09/14/18 19:52	1
Acenaphthene	ND		0.097	0.0058	ug/L		09/12/18 11:48	09/14/18 19:52	1
Fluorene	ND		0.097	0.013	ug/L		09/12/18 11:48	09/14/18 19:52	1
Phenanthrene	ND		0.097	0.018	ug/L		09/12/18 11:48	09/14/18 19:52	1
Anthracene	ND		0.097	0.0068	ug/L		09/12/18 11:48	09/14/18 19:52	1
Fluoranthene	ND		0.097	0.013	ug/L		09/12/18 11:48	09/14/18 19:52	1
Pyrene	ND		0.097	0.0087	ug/L		09/12/18 11:48	09/14/18 19:52	1
Benzo[a]anthracene	ND		0.097	0.0058	ug/L		09/12/18 11:48	09/14/18 19:52	1
Chrysene	ND		0.097	0.0058	ug/L		09/12/18 11:48	09/14/18 19:52	1
Benzo[b]fluoranthene	ND		0.097	0.0058	ug/L		09/12/18 11:48	09/14/18 19:52	1
Benzo[k]fluoranthene	ND		0.097	0.013	ug/L		09/12/18 11:48	09/14/18 19:52	1
Benzo[a]pyrene	ND		0.097	0.034	ug/L		09/12/18 11:48	09/14/18 19:52	1
Indeno[1,2,3-cd]pyrene	ND		0.097	0.0058	ug/L		09/12/18 11:48	09/14/18 19:52	1
Dibenz(a,h)anthracene	ND		0.097	0.0058	ug/L		09/12/18 11:48	09/14/18 19:52	1
Benzo[g,h,i]perylene	ND		0.19	0.073	ug/L		09/12/18 11:48	09/14/18 19:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*85*		*54 - 120*	*09/12/18 11:48*	*09/14/18 19:52*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.43	0.059	ug/L		09/12/18 10:26	09/17/18 18:39	1
PCB-1221	ND		0.43	0.072	ug/L		09/12/18 10:26	09/17/18 18:39	1
PCB-1232	ND		0.43	0.061	ug/L		09/12/18 10:26	09/17/18 18:39	1
PCB-1242	ND		0.43	0.057	ug/L		09/12/18 10:26	09/17/18 18:39	1
PCB-1248	ND		0.43	0.050	ug/L		09/12/18 10:26	09/17/18 18:39	1
PCB-1254	ND		0.43	0.072	ug/L		09/12/18 10:26	09/17/18 18:39	1
PCB-1260	ND		0.43	0.059	ug/L		09/12/18 10:26	09/17/18 18:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*48*		*38 - 140*	*09/12/18 10:26*	*09/17/18 18:39*	*1*
Tetrachloro-m-xylene	*69*		*40 - 120*	*09/12/18 10:26*	*09/17/18 18:39*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**0.32**	**J**	1.0	0.19	mg/L			09/13/18 15:11	1

Client Sample ID: PDI-SC-S113C-0to1.1

Date Collected: 09/06/18 14:40
Date Received: 09/07/18 12:35

Lab Sample ID: 580-80167-16

Matrix: Solid
Percent Solids: 50.8

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	200000	B	9500	860	ug/Kg	☼	10/12/18 10:29	10/16/18 04:08	1000
Acenaphthene	330000		9500	1100	ug/Kg	☼	10/12/18 10:29	10/16/18 04:08	1000
Acenaphthylene	9400	J	9500	950	ug/Kg	☼	10/12/18 10:29	10/16/18 04:08	1000
Anthracene	140000		9500	1100	ug/Kg	☼	10/12/18 10:29	10/16/18 04:08	1000
Benzo[a]anthracene	70000		9500	1500	ug/Kg	☼	10/12/18 10:29	10/16/18 04:08	1000
Benzo[a]pyrene	84000		9500	760	ug/Kg	☼	10/12/18 10:29	10/16/18 04:08	1000
Benzo[b]fluoranthene	76000		9500	1100	ug/Kg	☼	10/12/18 10:29	10/16/18 04:08	1000
Benzo[g,h,i]perylene	71000		9500	950	ug/Kg	☼	10/12/18 10:29	10/16/18 04:08	1000
Benzo[k]fluoranthene	26000		9500	1100	ug/Kg	☼	10/12/18 10:29	10/16/18 04:08	1000
Chrysene	89000		9500	2900	ug/Kg	☼	10/12/18 10:29	10/16/18 04:08	1000
Dibenz(a,h)anthracene	8500	J	9500	1400	ug/Kg	☼	10/12/18 10:29	10/16/18 04:08	1000
Fluoranthene	330000		9500	2700	ug/Kg	☼	10/12/18 10:29	10/16/18 04:08	1000
Fluorene	120000		9500	950	ug/Kg	☼	10/12/18 10:29	10/16/18 04:08	1000
Indeno[1,2,3-cd]pyrene	71000		9500	1100	ug/Kg	☼	10/12/18 10:29	10/16/18 04:08	1000
Naphthalene	290000	B	9500	1500	ug/Kg	☼	10/12/18 10:29	10/16/18 04:08	1000
Phenanthrene	620000	B	9500	1300	ug/Kg	☼	10/12/18 10:29	10/16/18 04:08	1000
Pyrene	390000		9500	1900	ug/Kg	☼	10/12/18 10:29	10/16/18 04:08	1000

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*0*	*X*	*57 - 120*	*10/12/18 10:29*	*10/16/18 04:08*	*1000*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		3.9	0.66	ug/Kg	☼	10/06/18 09:59	10/08/18 20:24	1
PCB-1221	ND		3.9	1.8	ug/Kg	☼	10/06/18 09:59	10/08/18 20:24	1
PCB-1232	ND		3.9	0.91	ug/Kg	☼	10/06/18 09:59	10/08/18 20:24	1
PCB-1242	ND		3.9	0.95	ug/Kg	☼	10/06/18 09:59	10/08/18 20:24	1
PCB-1248	ND		3.9	0.31	ug/Kg	☼	10/06/18 09:59	10/08/18 20:24	1
PCB-1254	ND		3.9	1.5	ug/Kg	☼	10/06/18 09:59	10/08/18 20:24	1
PCB-1260	14		3.9	0.66	ug/Kg	☼	10/06/18 09:59	10/08/18 20:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*66*		*54 - 142*	*10/06/18 09:59*	*10/08/18 20:24*	*1*
Tetrachloro-m-xylene	*83*		*58 - 122*	*10/06/18 09:59*	*10/08/18 20:24*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	130000		2000	44	mg/Kg			09/17/18 12:24	1
Total Solids	50.8	H	0.1	0.1	%			09/19/18 09:39	1
Total Solids @ 70°C	51		0.10	0.10	%			09/12/18 16:18	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gravel	9.5				%			09/12/18 16:18	1
Coarse Sand	0.9				%			09/12/18 16:18	1
Medium Sand	3.9				%			09/12/18 16:18	1
Fine Sand	36.1				%			09/12/18 16:18	1
Silt	41.2				%			09/12/18 16:18	1
Clay	8.4				%			09/12/18 16:18	1

Client Sample ID: PDI-SC-S113C-1.1to3.1

Date Collected: 09/06/18 14:45
Date Received: 09/07/18 12:35

Lab Sample ID: 580-80167-17

Matrix: Solid
Percent Solids: 79.9

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	5500	B	30	2.7	ug/Kg	☼	10/12/18 10:29	10/15/18 20:48	5
Acenaphthene	21000		30	3.6	ug/Kg	☼	10/12/18 10:29	10/15/18 20:48	5
Acenaphthylene	870		30	3.0	ug/Kg	☼	10/12/18 10:29	10/15/18 20:48	5
Anthracene	10000		30	3.6	ug/Kg	☼	10/12/18 10:29	10/15/18 20:48	5
Benzo[a]anthracene	7400		30	4.6	ug/Kg	☼	10/12/18 10:29	10/15/18 20:48	5
Benzo[a]pyrene	7600		30	2.4	ug/Kg	☼	10/12/18 10:29	10/15/18 20:48	5
Benzo[b]fluoranthene	7400		30	3.5	ug/Kg	☼	10/12/18 10:29	10/15/18 20:48	5
Benzo[g,h,i]perylene	6000		30	3.0	ug/Kg	☼	10/12/18 10:29	10/15/18 20:48	5
Benzo[k]fluoranthene	2100		30	3.6	ug/Kg	☼	10/12/18 10:29	10/15/18 20:48	5
Chrysene	8500		30	9.0	ug/Kg	☼	10/12/18 10:29	10/15/18 20:48	5
Dibenz(a,h)anthracene	660		30	4.3	ug/Kg	☼	10/12/18 10:29	10/15/18 20:48	5
Fluoranthene	28000		30	8.4	ug/Kg	☼	10/12/18 10:29	10/15/18 20:48	5
Fluorene	8700		30	3.0	ug/Kg	☼	10/12/18 10:29	10/15/18 20:48	5
Indeno[1,2,3-cd]pyrene	6000		30	3.6	ug/Kg	☼	10/12/18 10:29	10/15/18 20:48	5
Naphthalene	5200	B	30	4.8	ug/Kg	☼	10/12/18 10:29	10/15/18 20:48	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*90*		*57 - 120*	*10/12/18 10:29*	*10/15/18 20:48*	*5*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenanthrene	57000	B	150	21	ug/Kg	☼	10/12/18 10:29	10/16/18 20:32	25
Pyrene	37000		150	29	ug/Kg	☼	10/12/18 10:29	10/16/18 20:32	25

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	☼	10/06/18 09:59	10/08/18 20:41	1
PCB-1221	ND		12	5.8	ug/Kg	☼	10/06/18 09:59	10/08/18 20:41	1
PCB-1232	ND		12	2.9	ug/Kg	☼	10/06/18 09:59	10/08/18 20:41	1
PCB-1242	ND		12	3.0	ug/Kg	☼	10/06/18 09:59	10/08/18 20:41	1
PCB-1248	ND		12	0.98	ug/Kg	☼	10/06/18 09:59	10/08/18 20:41	1
PCB-1254	ND		12	4.8	ug/Kg	☼	10/06/18 09:59	10/08/18 20:41	1
PCB-1260	ND		12	2.1	ug/Kg	☼	10/06/18 09:59	10/08/18 20:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*58*		*54 - 142*	*10/06/18 09:59*	*10/08/18 20:41*	*1*
Tetrachloro-m-xylene	*65*		*58 - 122*	*10/06/18 09:59*	*10/08/18 20:41*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	2200		2000	44	mg/Kg			09/17/18 13:39	1
Total Solids	79.9	H	0.1	0.1	%			09/19/18 09:39	1
Total Solids @ 70°C	79		0.10	0.10	%			09/12/18 16:18	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gravel	1.1				%			09/12/18 16:18	1
Coarse Sand	0.1				%			09/12/18 16:18	1
Medium Sand	21.6				%			09/12/18 16:18	1
Fine Sand	74.2				%			09/12/18 16:18	1
Silt	3.0				%			09/12/18 16:18	1

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

TestAmerica Job ID: 580-80167-1

Client Sample ID: PDI-SC-S113C-1.1to3.1
Date Collected: 09/06/18 14:45
Date Received: 09/07/18 12:35

Lab Sample ID: 580-80167-17
Matrix: Solid
Percent Solids: 79.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Clay	0.0				%			09/12/18 16:18	1

Client Sample ID: PDI-SC-S113C-3.1to5.6

Date Collected: 09/06/18 14:50
Date Received: 09/07/18 12:35

Lab Sample ID: 580-80167-18

Matrix: Solid
Percent Solids: 79.7

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	340	B	5.3	0.48	ug/Kg	☼	10/12/18 10:29	10/15/18 21:12	1
Acenaphthene	1600		5.3	0.64	ug/Kg	☼	10/12/18 10:29	10/15/18 21:12	1
Acenaphthylene	77		5.3	0.53	ug/Kg	☼	10/12/18 10:29	10/15/18 21:12	1
Anthracene	940	F1	5.3	0.64	ug/Kg	☼	10/12/18 10:29	10/15/18 21:12	1
Benzo[a]anthracene	580		5.3	0.81	ug/Kg	☼	10/12/18 10:29	10/15/18 21:12	1
Benzo[a]pyrene	690		5.3	0.43	ug/Kg	☼	10/12/18 10:29	10/15/18 21:12	1
Benzo[b]fluoranthene	570		5.3	0.63	ug/Kg	☼	10/12/18 10:29	10/15/18 21:12	1
Benzo[g,h,i]perylene	570		5.3	0.53	ug/Kg	☼	10/12/18 10:29	10/15/18 21:12	1
Benzo[k]fluoranthene	190		5.3	0.64	ug/Kg	☼	10/12/18 10:29	10/15/18 21:12	1
Chrysene	660		5.3	1.6	ug/Kg	☼	10/12/18 10:29	10/15/18 21:12	1
Dibenz(a,h)anthracene	59		5.3	0.77	ug/Kg	☼	10/12/18 10:29	10/15/18 21:12	1
Fluoranthene	2700		5.3	1.5	ug/Kg	☼	10/12/18 10:29	10/15/18 21:12	1
Fluorene	830	F1	5.3	0.53	ug/Kg	☼	10/12/18 10:29	10/15/18 21:12	1
Indeno[1,2,3-cd]pyrene	560	F1	5.3	0.64	ug/Kg	☼	10/12/18 10:29	10/15/18 21:12	1
Naphthalene	180	B	5.3	0.86	ug/Kg	☼	10/12/18 10:29	10/15/18 21:12	1
Phenanthrene	4800	B	5.3	0.74	ug/Kg	☼	10/12/18 10:29	10/15/18 21:12	1
Pyrene	3200		5.3	1.0	ug/Kg	☼	10/12/18 10:29	10/15/18 21:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*92*		*57 - 120*	*10/12/18 10:29*	*10/15/18 21:12*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND	F1	2.5	0.42	ug/Kg	☼	10/06/18 09:59	10/08/18 22:38	1
PCB-1221	ND		2.5	1.2	ug/Kg	☼	10/06/18 09:59	10/08/18 22:38	1
PCB-1232	ND		2.5	0.59	ug/Kg	☼	10/06/18 09:59	10/08/18 22:38	1
PCB-1242	ND		2.5	0.61	ug/Kg	☼	10/06/18 09:59	10/08/18 22:38	1
PCB-1248	ND		2.5	0.20	ug/Kg	☼	10/06/18 09:59	10/08/18 22:38	1
PCB-1254	ND		2.5	0.98	ug/Kg	☼	10/06/18 09:59	10/08/18 22:38	1
PCB-1260	ND	F1	2.5	0.42	ug/Kg	☼	10/06/18 09:59	10/08/18 22:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*66*		*54 - 142*	*10/06/18 09:59*	*10/08/18 22:38*	*1*
Tetrachloro-m-xylene	*49*	*X*	*58 - 122*	*10/06/18 09:59*	*10/08/18 22:38*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	830	J	2000	44	mg/Kg			09/17/18 10:19	1
Total Solids	79.7	H	0.1	0.1	%			09/19/18 09:39	1
Total Solids @ 70°C	81		0.10	0.10	%			09/12/18 16:18	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gravel	0.0				%			09/12/18 16:18	1
Coarse Sand	0.0				%			09/12/18 16:18	1
Medium Sand	3.6				%			09/12/18 16:18	1
Fine Sand	92.6				%			09/12/18 16:18	1
Silt	3.8				%			09/12/18 16:18	1
Clay	0.0				%			09/12/18 16:18	1

Client Sample ID: PDI-SC-S113C-5.6to6.6

Date Collected: 09/06/18 14:55
Date Received: 09/07/18 12:35

Lab Sample ID: 580-80167-19

Matrix: Solid
Percent Solids: 78.7

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	53	B	6.3	0.57	ug/Kg	☼	10/12/18 10:29	10/15/18 22:26	1
Acenaphthene	390		6.3	0.75	ug/Kg	☼	10/12/18 10:29	10/15/18 22:26	1
Acenaphthylene	19		6.3	0.63	ug/Kg	☼	10/12/18 10:29	10/15/18 22:26	1
Anthracene	260		6.3	0.75	ug/Kg	☼	10/12/18 10:29	10/15/18 22:26	1
Benzo[a]anthracene	130		6.3	0.96	ug/Kg	☼	10/12/18 10:29	10/15/18 22:26	1
Benzo[a]pyrene	140		6.3	0.50	ug/Kg	☼	10/12/18 10:29	10/15/18 22:26	1
Benzo[b]fluoranthene	120		6.3	0.74	ug/Kg	☼	10/12/18 10:29	10/15/18 22:26	1
Benzo[g,h,i]perylene	120		6.3	0.63	ug/Kg	☼	10/12/18 10:29	10/15/18 22:26	1
Benzo[k]fluoranthene	46		6.3	0.75	ug/Kg	☼	10/12/18 10:29	10/15/18 22:26	1
Chrysene	150		6.3	1.9	ug/Kg	☼	10/12/18 10:29	10/15/18 22:26	1
Dibenz(a,h)anthracene	16		6.3	0.91	ug/Kg	☼	10/12/18 10:29	10/15/18 22:26	1
Fluoranthene	600		6.3	1.8	ug/Kg	☼	10/12/18 10:29	10/15/18 22:26	1
Fluorene	230		6.3	0.63	ug/Kg	☼	10/12/18 10:29	10/15/18 22:26	1
Indeno[1,2,3-cd]pyrene	120		6.3	0.75	ug/Kg	☼	10/12/18 10:29	10/15/18 22:26	1
Naphthalene	60	B	6.3	1.0	ug/Kg	☼	10/12/18 10:29	10/15/18 22:26	1
Phenanthrene	1300	B	6.3	0.87	ug/Kg	☼	10/12/18 10:29	10/15/18 22:26	1
Pyrene	710		6.3	1.2	ug/Kg	☼	10/12/18 10:29	10/15/18 22:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*87*		*57 - 120*	*10/12/18 10:29*	*10/15/18 22:26*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		2.5	0.42	ug/Kg	☼	10/06/18 09:59	10/08/18 23:29	1
PCB-1221	ND		2.5	1.2	ug/Kg	☼	10/06/18 09:59	10/08/18 23:29	1
PCB-1232	ND		2.5	0.58	ug/Kg	☼	10/06/18 09:59	10/08/18 23:29	1
PCB-1242	ND		2.5	0.60	ug/Kg	☼	10/06/18 09:59	10/08/18 23:29	1
PCB-1248	ND		2.5	0.20	ug/Kg	☼	10/06/18 09:59	10/08/18 23:29	1
PCB-1254	ND		2.5	0.97	ug/Kg	☼	10/06/18 09:59	10/08/18 23:29	1
PCB-1260	ND		2.5	0.42	ug/Kg	☼	10/06/18 09:59	10/08/18 23:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*3*	*X*	*54 - 142*	*10/06/18 09:59*	*10/08/18 23:29*	*1*
Tetrachloro-m-xylene	*10*	*X*	*58 - 122*	*10/06/18 09:59*	*10/08/18 23:29*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	580	J	2000	44	mg/Kg			09/17/18 13:54	1
Total Solids	78.7	H	0.1	0.1	%			09/19/18 09:39	1
Total Solids @ 70°C	77		0.10	0.10	%			09/12/18 16:18	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gravel	0.0				%			09/12/18 16:18	1
Coarse Sand	0.0				%			09/12/18 16:18	1
Medium Sand	18.2				%			09/12/18 16:18	1
Fine Sand	77.7				%			09/12/18 16:18	1
Silt	4.0				%			09/12/18 16:18	1
Clay	0.0				%			09/12/18 16:18	1

Client Sample ID: PDI-SC-S260-0to1.3

Date Collected: 09/06/18 18:00
Date Received: 09/07/18 12:35

Lab Sample ID: 580-80167-20

Matrix: Solid
Percent Solids: 44.2

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	290	B	52	4.7	ug/Kg	☼	10/12/18 10:29	10/15/18 22:50	5
Acenaphthene	950		52	6.3	ug/Kg	☼	10/12/18 10:29	10/15/18 22:50	5
Acenaphthylene	440		52	5.2	ug/Kg	☼	10/12/18 10:29	10/15/18 22:50	5
Anthracene	1100		52	6.3	ug/Kg	☼	10/12/18 10:29	10/15/18 22:50	5
Benzo[a]anthracene	2100		52	7.9	ug/Kg	☼	10/12/18 10:29	10/15/18 22:50	5
Benzo[a]pyrene	2200		52	4.2	ug/Kg	☼	10/12/18 10:29	10/15/18 22:50	5
Benzo[b]fluoranthene	1900		52	6.2	ug/Kg	☼	10/12/18 10:29	10/15/18 22:50	5
Benzo[g,h,i]perylene	1200		52	5.2	ug/Kg	☼	10/12/18 10:29	10/15/18 22:50	5
Benzo[k]fluoranthene	640		52	6.3	ug/Kg	☼	10/12/18 10:29	10/15/18 22:50	5
Chrysene	2200		52	16	ug/Kg	☼	10/12/18 10:29	10/15/18 22:50	5
Dibenz(a,h)anthracene	240		52	7.5	ug/Kg	☼	10/12/18 10:29	10/15/18 22:50	5
Fluoranthene	4900		52	15	ug/Kg	☼	10/12/18 10:29	10/15/18 22:50	5
Fluorene	510		52	5.2	ug/Kg	☼	10/12/18 10:29	10/15/18 22:50	5
Indeno[1,2,3-cd]pyrene	1300		52	6.3	ug/Kg	☼	10/12/18 10:29	10/15/18 22:50	5
Naphthalene	1200	B	52	8.4	ug/Kg	☼	10/12/18 10:29	10/15/18 22:50	5
Phenanthrene	3200	B	52	7.2	ug/Kg	☼	10/12/18 10:29	10/15/18 22:50	5
Pyrene	6600		52	10	ug/Kg	☼	10/12/18 10:29	10/15/18 22:50	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*82*		*57 - 120*	*10/12/18 10:29*	*10/15/18 22:50*	*5*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		4.4	0.75	ug/Kg	☼	10/06/18 09:59	10/08/18 23:45	1
PCB-1221	ND		4.4	2.1	ug/Kg	☼	10/06/18 09:59	10/08/18 23:45	1
PCB-1232	ND		4.4	1.0	ug/Kg	☼	10/06/18 09:59	10/08/18 23:45	1
PCB-1242	ND		4.4	1.1	ug/Kg	☼	10/06/18 09:59	10/08/18 23:45	1
PCB-1248	ND		4.4	0.35	ug/Kg	☼	10/06/18 09:59	10/08/18 23:45	1
PCB-1254	ND		4.4	1.7	ug/Kg	☼	10/06/18 09:59	10/08/18 23:45	1
PCB-1260	ND		4.4	0.75	ug/Kg	☼	10/06/18 09:59	10/08/18 23:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*126*		*54 - 142*	*10/06/18 09:59*	*10/08/18 23:45*	*1*
Tetrachloro-m-xylene	*87*		*58 - 122*	*10/06/18 09:59*	*10/08/18 23:45*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	100000		2000	44	mg/Kg			09/17/18 13:58	1
Total Solids	44.2	H	0.1	0.1	%			09/19/18 09:39	1
Total Solids @ 70°C	45		0.10	0.10	%			09/12/18 16:40	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gravel	6.6				%			09/12/18 16:40	1
Coarse Sand	2.0				%			09/12/18 16:40	1
Medium Sand	2.6				%			09/12/18 16:40	1
Fine Sand	28.8				%			09/12/18 16:40	1
Silt	51.9				%			09/12/18 16:40	1
Clay	8.1				%			09/12/18 16:40	1

Client Sample ID: PDI-SC-S260-1.3to2.6

Date Collected: 09/06/18 18:05
Date Received: 09/07/18 12:35

Lab Sample ID: 580-80167-21

Matrix: Solid
Percent Solids: 53.9

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	450	B	8.9	0.80	ug/Kg	☼	10/12/18 10:29	10/15/18 23:15	1
Acenaphthene	290		8.9	1.1	ug/Kg	☼	10/12/18 10:29	10/15/18 23:15	1
Acenaphthylene	92		8.9	0.89	ug/Kg	☼	10/12/18 10:29	10/15/18 23:15	1
Anthracene	440		8.9	1.1	ug/Kg	☼	10/12/18 10:29	10/15/18 23:15	1
Benzo[a]anthracene	700		8.9	1.4	ug/Kg	☼	10/12/18 10:29	10/15/18 23:15	1
Benzo[a]pyrene	640		8.9	0.71	ug/Kg	☼	10/12/18 10:29	10/15/18 23:15	1
Benzo[b]fluoranthene	750		8.9	1.0	ug/Kg	☼	10/12/18 10:29	10/15/18 23:15	1
Benzo[g,h,i]perylene	580		8.9	0.89	ug/Kg	☼	10/12/18 10:29	10/15/18 23:15	1
Benzo[k]fluoranthene	240		8.9	1.1	ug/Kg	☼	10/12/18 10:29	10/15/18 23:15	1
Chrysene	840		8.9	2.7	ug/Kg	☼	10/12/18 10:29	10/15/18 23:15	1
Dibenz(a,h)anthracene	70		8.9	1.3	ug/Kg	☼	10/12/18 10:29	10/15/18 23:15	1
Fluoranthene	2600		8.9	2.5	ug/Kg	☼	10/12/18 10:29	10/15/18 23:15	1
Fluorene	320		8.9	0.89	ug/Kg	☼	10/12/18 10:29	10/15/18 23:15	1
Indeno[1,2,3-cd]pyrene	580		8.9	1.1	ug/Kg	☼	10/12/18 10:29	10/15/18 23:15	1
Naphthalene	2000	B	8.9	1.4	ug/Kg	☼	10/12/18 10:29	10/15/18 23:15	1
Phenanthrene	1400	B	8.9	1.2	ug/Kg	☼	10/12/18 10:29	10/15/18 23:15	1
Pyrene	2900		8.9	1.7	ug/Kg	☼	10/12/18 10:29	10/15/18 23:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*84*		*57 - 120*	*10/12/18 10:29*	*10/15/18 23:15*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		3.7	0.62	ug/Kg	☼	10/06/18 10:17	10/10/18 12:03	1
PCB-1221	ND		3.7	1.7	ug/Kg	☼	10/06/18 10:17	10/10/18 12:03	1
PCB-1232	ND		3.7	0.86	ug/Kg	☼	10/06/18 10:17	10/10/18 12:03	1
PCB-1242	ND		3.7	0.90	ug/Kg	☼	10/06/18 10:17	10/10/18 12:03	1
PCB-1248	ND		3.7	0.29	ug/Kg	☼	10/06/18 10:17	10/10/18 12:03	1
PCB-1254	ND		3.7	1.5	ug/Kg	☼	10/06/18 10:17	10/10/18 12:03	1
PCB-1260	ND		3.7	0.62	ug/Kg	☼	10/06/18 10:17	10/10/18 12:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*73*		*54 - 142*	*10/06/18 10:17*	*10/10/18 12:03*	*1*
Tetrachloro-m-xylene	*89*		*58 - 122*	*10/06/18 10:17*	*10/10/18 12:03*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	54000		2000	44	mg/Kg			09/17/18 14:04	1
Total Solids	53.9	H	0.1	0.1	%			09/19/18 09:39	1
Total Solids @ 70°C	55		0.10	0.10	%			09/12/18 16:40	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gravel	6.4				%			09/12/18 16:40	1
Coarse Sand	0.9				%			09/12/18 16:40	1
Medium Sand	1.6				%			09/12/18 16:40	1
Fine Sand	40.6				%			09/12/18 16:40	1
Silt	44.1				%			09/12/18 16:40	1
Clay	6.3				%			09/12/18 16:40	1

Client Sample ID: PDI-SC-S260-2.6to4.2
Date Collected: 09/06/18 18:10
Date Received: 09/07/18 12:35

Lab Sample ID: 580-80167-22
Matrix: Solid
Percent Solids: 70.8

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	59	B	7.0	0.63	ug/Kg	☼	10/12/18 10:29	10/15/18 23:39	1
Acenaphthene	170		7.0	0.84	ug/Kg	☼	10/12/18 10:29	10/15/18 23:39	1
Acenaphthylene	120		7.0	0.70	ug/Kg	☼	10/12/18 10:29	10/15/18 23:39	1
Anthracene	250		7.0	0.84	ug/Kg	☼	10/12/18 10:29	10/15/18 23:39	1
Benzo[a]anthracene	430		7.0	1.1	ug/Kg	☼	10/12/18 10:29	10/15/18 23:39	1
Benzo[a]pyrene	420		7.0	0.56	ug/Kg	☼	10/12/18 10:29	10/15/18 23:39	1
Benzo[b]fluoranthene	370		7.0	0.83	ug/Kg	☼	10/12/18 10:29	10/15/18 23:39	1
Benzo[g,h,i]perylene	310		7.0	0.70	ug/Kg	☼	10/12/18 10:29	10/15/18 23:39	1
Benzo[k]fluoranthene	120		7.0	0.84	ug/Kg	☼	10/12/18 10:29	10/15/18 23:39	1
Chrysene	390		7.0	2.1	ug/Kg	☼	10/12/18 10:29	10/15/18 23:39	1
Dibenz(a,h)anthracene	42		7.0	1.0	ug/Kg	☼	10/12/18 10:29	10/15/18 23:39	1
Fluoranthene	1000		7.0	2.0	ug/Kg	☼	10/12/18 10:29	10/15/18 23:39	1
Fluorene	120		7.0	0.70	ug/Kg	☼	10/12/18 10:29	10/15/18 23:39	1
Indeno[1,2,3-cd]pyrene	310		7.0	0.84	ug/Kg	☼	10/12/18 10:29	10/15/18 23:39	1
Naphthalene	260	B	7.0	1.1	ug/Kg	☼	10/12/18 10:29	10/15/18 23:39	1
Phenanthrene	820	B	7.0	0.97	ug/Kg	☼	10/12/18 10:29	10/15/18 23:39	1
Pyrene	1400		7.0	1.4	ug/Kg	☼	10/12/18 10:29	10/15/18 23:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*87*		*57 - 120*	*10/12/18 10:29*	*10/15/18 23:39*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		2.8	0.47	ug/Kg	☼	10/06/18 10:17	10/10/18 12:20	1
PCB-1221	ND		2.8	1.3	ug/Kg	☼	10/06/18 10:17	10/10/18 12:20	1
PCB-1232	ND		2.8	0.65	ug/Kg	☼	10/06/18 10:17	10/10/18 12:20	1
PCB-1242	ND		2.8	0.68	ug/Kg	☼	10/06/18 10:17	10/10/18 12:20	1
PCB-1248	ND		2.8	0.22	ug/Kg	☼	10/06/18 10:17	10/10/18 12:20	1
PCB-1254	ND		2.8	1.1	ug/Kg	☼	10/06/18 10:17	10/10/18 12:20	1
PCB-1260	ND		2.8	0.47	ug/Kg	☼	10/06/18 10:17	10/10/18 12:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*56*		*54 - 142*	*10/06/18 10:17*	*10/10/18 12:20*	*1*
Tetrachloro-m-xylene	*51*	*X*	*58 - 122*	*10/06/18 10:17*	*10/10/18 12:20*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	13000		2000	44	mg/Kg			09/17/18 15:24	1
Total Solids	70.8	H	0.1	0.1	%			09/19/18 09:39	1
Total Solids @ 70°C	72		0.10	0.10	%			09/12/18 16:40	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gravel	0.1				%			09/12/18 16:40	1
Coarse Sand	0.1				%			09/12/18 16:40	1
Medium Sand	1.0				%			09/12/18 16:40	1
Fine Sand	77.8				%			09/12/18 16:40	1
Silt	17.4				%			09/12/18 16:40	1
Clay	3.6				%			09/12/18 16:40	1

Client Sample ID: PDI-SC-S260-4.2to6

Date Collected: 09/06/18 18:15
Date Received: 09/07/18 12:35

Lab Sample ID: 580-80167-23

Matrix: Solid
Percent Solids: 79.1

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	56	B	6.2	0.56	ug/Kg	☼	10/12/18 10:29	10/16/18 00:04	1
Acenaphthene	360		6.2	0.74	ug/Kg	☼	10/12/18 10:29	10/16/18 00:04	1
Acenaphthylene	110		6.2	0.62	ug/Kg	☼	10/12/18 10:29	10/16/18 00:04	1
Anthracene	400		6.2	0.74	ug/Kg	☼	10/12/18 10:29	10/16/18 00:04	1
Benzo[a]anthracene	540		6.2	0.94	ug/Kg	☼	10/12/18 10:29	10/16/18 00:04	1
Benzo[a]pyrene	460		6.2	0.50	ug/Kg	☼	10/12/18 10:29	10/16/18 00:04	1
Benzo[b]fluoranthene	390		6.2	0.73	ug/Kg	☼	10/12/18 10:29	10/16/18 00:04	1
Benzo[g,h,i]perylene	230		6.2	0.62	ug/Kg	☼	10/12/18 10:29	10/16/18 00:04	1
Benzo[k]fluoranthene	140		6.2	0.74	ug/Kg	☼	10/12/18 10:29	10/16/18 00:04	1
Chrysene	480		6.2	1.9	ug/Kg	☼	10/12/18 10:29	10/16/18 00:04	1
Dibenz(a,h)anthracene	49		6.2	0.89	ug/Kg	☼	10/12/18 10:29	10/16/18 00:04	1
Fluoranthene	1000		6.2	1.7	ug/Kg	☼	10/12/18 10:29	10/16/18 00:04	1
Fluorene	200		6.2	0.62	ug/Kg	☼	10/12/18 10:29	10/16/18 00:04	1
Indeno[1,2,3-cd]pyrene	270		6.2	0.74	ug/Kg	☼	10/12/18 10:29	10/16/18 00:04	1
Naphthalene	220	B	6.2	0.99	ug/Kg	☼	10/12/18 10:29	10/16/18 00:04	1
Phenanthrene	970	B	6.2	0.85	ug/Kg	☼	10/12/18 10:29	10/16/18 00:04	1
Pyrene	1600		6.2	1.2	ug/Kg	☼	10/12/18 10:29	10/16/18 00:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*84*		*57 - 120*	*10/12/18 10:29*	*10/16/18 00:04*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		2.5	0.42	ug/Kg	☼	10/06/18 10:17	10/10/18 12:36	1
PCB-1221	ND		2.5	1.2	ug/Kg	☼	10/06/18 10:17	10/10/18 12:36	1
PCB-1232	ND		2.5	0.58	ug/Kg	☼	10/06/18 10:17	10/10/18 12:36	1
PCB-1242	ND		2.5	0.60	ug/Kg	☼	10/06/18 10:17	10/10/18 12:36	1
PCB-1248	ND		2.5	0.20	ug/Kg	☼	10/06/18 10:17	10/10/18 12:36	1
PCB-1254	ND		2.5	0.97	ug/Kg	☼	10/06/18 10:17	10/10/18 12:36	1
PCB-1260	ND		2.5	0.42	ug/Kg	☼	10/06/18 10:17	10/10/18 12:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*55*		*54 - 142*	*10/06/18 10:17*	*10/10/18 12:36*	*1*
Tetrachloro-m-xylene	*53*	*X*	*58 - 122*	*10/06/18 10:17*	*10/10/18 12:36*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	970	J	2000	44	mg/Kg			09/17/18 14:15	1
Total Solids	79.1	H	0.1	0.1	%			09/19/18 09:39	1
Total Solids @ 70°C	81		0.10	0.10	%			09/12/18 16:40	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gravel	0.0				%			09/12/18 16:40	1
Coarse Sand	0.1				%			09/12/18 16:40	1
Medium Sand	3.3				%			09/12/18 16:40	1
Fine Sand	88.6				%			09/12/18 16:40	1
Silt	7.3				%			09/12/18 16:40	1
Clay	0.9				%			09/12/18 16:40	1

Client Sample ID: PDI-SC-S260-6to7

Date Collected: 09/06/18 18:20
Date Received: 09/07/18 12:35

Lab Sample ID: 580-80167-24

Matrix: Solid
Percent Solids: 78.5

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	37	B	6.3	0.57	ug/Kg	☼	10/12/18 10:29	10/16/18 00:28	1
Acenaphthene	120		6.3	0.76	ug/Kg	☼	10/12/18 10:29	10/16/18 00:28	1
Acenaphthylene	99		6.3	0.63	ug/Kg	☼	10/12/18 10:29	10/16/18 00:28	1
Anthracene	220		6.3	0.76	ug/Kg	☼	10/12/18 10:29	10/16/18 00:28	1
Benzo[a]anthracene	510		6.3	0.96	ug/Kg	☼	10/12/18 10:29	10/16/18 00:28	1
Benzo[a]pyrene	980		6.3	0.50	ug/Kg	☼	10/12/18 10:29	10/16/18 00:28	1
Benzo[b]fluoranthene	820		6.3	0.74	ug/Kg	☼	10/12/18 10:29	10/16/18 00:28	1
Benzo[g,h,i]perylene	1200		6.3	0.63	ug/Kg	☼	10/12/18 10:29	10/16/18 00:28	1
Benzo[k]fluoranthene	220		6.3	0.76	ug/Kg	☼	10/12/18 10:29	10/16/18 00:28	1
Chrysene	560		6.3	1.9	ug/Kg	☼	10/12/18 10:29	10/16/18 00:28	1
Dibenz(a,h)anthracene	78		6.3	0.91	ug/Kg	☼	10/12/18 10:29	10/16/18 00:28	1
Fluoranthene	1300		6.3	1.8	ug/Kg	☼	10/12/18 10:29	10/16/18 00:28	1
Fluorene	73		6.3	0.63	ug/Kg	☼	10/12/18 10:29	10/16/18 00:28	1
Indeno[1,2,3-cd]pyrene	940		6.3	0.76	ug/Kg	☼	10/12/18 10:29	10/16/18 00:28	1
Naphthalene	230	B	6.3	1.0	ug/Kg	☼	10/12/18 10:29	10/16/18 00:28	1
Phenanthrene	770	B	6.3	0.87	ug/Kg	☼	10/12/18 10:29	10/16/18 00:28	1
Pyrene	2500		6.3	1.2	ug/Kg	☼	10/12/18 10:29	10/16/18 00:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*88*		*57 - 120*	*10/12/18 10:29*	*10/16/18 00:28*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		2.4	0.42	ug/Kg	☼	10/06/18 10:17	10/10/18 12:53	1
PCB-1221	ND		2.4	1.2	ug/Kg	☼	10/06/18 10:17	10/10/18 12:53	1
PCB-1232	ND		2.4	0.57	ug/Kg	☼	10/06/18 10:17	10/10/18 12:53	1
PCB-1242	ND		2.4	0.60	ug/Kg	☼	10/06/18 10:17	10/10/18 12:53	1
PCB-1248	ND		2.4	0.20	ug/Kg	☼	10/06/18 10:17	10/10/18 12:53	1
PCB-1254	ND		2.4	0.97	ug/Kg	☼	10/06/18 10:17	10/10/18 12:53	1
PCB-1260	ND		2.4	0.42	ug/Kg	☼	10/06/18 10:17	10/10/18 12:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*65*		*54 - 142*	*10/06/18 10:17*	*10/10/18 12:53*	*1*
Tetrachloro-m-xylene	*47*	*X*	*58 - 122*	*10/06/18 10:17*	*10/10/18 12:53*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	4400		2000	44	mg/Kg			09/17/18 14:19	1
Total Solids	78.5	H	0.1	0.1	%			09/19/18 09:39	1
Total Solids @ 70°C	77		0.10	0.10	%			09/12/18 16:40	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gravel	0.0				%			09/12/18 16:40	1
Coarse Sand	0.0				%			09/12/18 16:40	1
Medium Sand	4.6				%			09/12/18 16:40	1
Fine Sand	86.0				%			09/12/18 16:40	1
Silt	7.7				%			09/12/18 16:40	1
Clay	1.7				%			09/12/18 16:40	1

Client Sample ID: PDI-SC-S019-0to2

Date Collected: 09/06/18 20:20
Date Received: 09/07/18 12:35

Lab Sample ID: 580-80167-25

Matrix: Solid
Percent Solids: 56.4

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	300	B	8.0	0.72	ug/Kg	☼	10/12/18 10:29	10/16/18 00:53	1
Acenaphthene	440		8.0	0.96	ug/Kg	☼	10/12/18 10:29	10/16/18 00:53	1
Acenaphthylene	43		8.0	0.80	ug/Kg	☼	10/12/18 10:29	10/16/18 00:53	1
Anthracene	190		8.0	0.96	ug/Kg	☼	10/12/18 10:29	10/16/18 00:53	1
Benzo[a]anthracene	180		8.0	1.2	ug/Kg	☼	10/12/18 10:29	10/16/18 00:53	1
Benzo[a]pyrene	160		8.0	0.64	ug/Kg	☼	10/12/18 10:29	10/16/18 00:53	1
Benzo[b]fluoranthene	170		8.0	0.95	ug/Kg	☼	10/12/18 10:29	10/16/18 00:53	1
Benzo[g,h,i]perylene	130		8.0	0.80	ug/Kg	☼	10/12/18 10:29	10/16/18 00:53	1
Benzo[k]fluoranthene	55		8.0	0.96	ug/Kg	☼	10/12/18 10:29	10/16/18 00:53	1
Chrysene	200		8.0	2.4	ug/Kg	☼	10/12/18 10:29	10/16/18 00:53	1
Dibenz(a,h)anthracene	19		8.0	1.2	ug/Kg	☼	10/12/18 10:29	10/16/18 00:53	1
Fluoranthene	760		8.0	2.2	ug/Kg	☼	10/12/18 10:29	10/16/18 00:53	1
Fluorene	300		8.0	0.80	ug/Kg	☼	10/12/18 10:29	10/16/18 00:53	1
Indeno[1,2,3-cd]pyrene	130		8.0	0.96	ug/Kg	☼	10/12/18 10:29	10/16/18 00:53	1
Naphthalene	500	B	8.0	1.3	ug/Kg	☼	10/12/18 10:29	10/16/18 00:53	1
Phenanthrene	1100	B	8.0	1.1	ug/Kg	☼	10/12/18 10:29	10/16/18 00:53	1
Pyrene	830		8.0	1.6	ug/Kg	☼	10/12/18 10:29	10/16/18 00:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*87*		*57 - 120*	*10/12/18 10:29*	*10/16/18 00:53*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	22		3.4	0.58	ug/Kg	☼	10/06/18 10:17	10/10/18 13:10	1
PCB-1221	ND		3.4	1.6	ug/Kg	☼	10/06/18 10:17	10/10/18 13:10	1
PCB-1232	ND		3.4	0.80	ug/Kg	☼	10/06/18 10:17	10/10/18 13:10	1
PCB-1242	ND		3.4	0.83	ug/Kg	☼	10/06/18 10:17	10/10/18 13:10	1
PCB-1248	ND		3.4	0.27	ug/Kg	☼	10/06/18 10:17	10/10/18 13:10	1
PCB-1254	ND		3.4	1.3	ug/Kg	☼	10/06/18 10:17	10/10/18 13:10	1
PCB-1260	18		3.4	0.58	ug/Kg	☼	10/06/18 10:17	10/10/18 13:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*69*		*54 - 142*	*10/06/18 10:17*	*10/10/18 13:10*	*1*
Tetrachloro-m-xylene	*42*	*X*	*58 - 122*	*10/06/18 10:17*	*10/10/18 13:10*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	29000		2000	44	mg/Kg			09/17/18 14:24	1
Total Solids	56.4	H	0.1	0.1	%			09/19/18 09:39	1
Total Solids @ 70°C	56		0.10	0.10	%			09/12/18 16:40	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gravel	0.3				%			09/12/18 16:40	1
Coarse Sand	0.4				%			09/12/18 16:40	1
Medium Sand	0.3				%			09/12/18 16:40	1
Fine Sand	15.0				%			09/12/18 16:40	1
Silt	67.3				%			09/12/18 16:40	1
Clay	16.7				%			09/12/18 16:40	1

Client Sample ID: PDI-SC-S019-2to4

Date Collected: 09/06/18 20:25
Date Received: 09/07/18 12:35

Lab Sample ID: 580-80167-26

Matrix: Solid
Percent Solids: 54.7

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	8500		85	7.7	ug/Kg	☼	10/14/18 11:47	10/16/18 19:18	50
Acenaphthene	6400		85	10	ug/Kg	☼	10/14/18 11:47	10/16/18 19:18	50
Acenaphthylene	570		85	8.5	ug/Kg	☼	10/14/18 11:47	10/16/18 19:18	50
Anthracene	6400	*	85	10	ug/Kg	☼	10/14/18 11:47	10/16/18 19:18	50
Benzo[a]anthracene	3400		85	13	ug/Kg	☼	10/14/18 11:47	10/16/18 19:18	50
Benzo[a]pyrene	2900		85	6.8	ug/Kg	☼	10/14/18 11:47	10/16/18 19:18	50
Benzo[b]fluoranthene	2800		85	10	ug/Kg	☼	10/14/18 11:47	10/16/18 19:18	50
Benzo[g,h,i]perylene	1400	F1	85	8.5	ug/Kg	☼	10/14/18 11:47	10/16/18 19:18	50
Benzo[k]fluoranthene	1000	F1	85	10	ug/Kg	☼	10/14/18 11:47	10/16/18 19:18	50
Chrysene	4200		85	26	ug/Kg	☼	10/14/18 11:47	10/16/18 19:18	50
Dibenz(a,h)anthracene	300	F1 F2	85	12	ug/Kg	☼	10/14/18 11:47	10/16/18 19:18	50
Fluoranthene	11000	B	85	24	ug/Kg	☼	10/14/18 11:47	10/16/18 19:18	50
Fluorene	4900		85	8.5	ug/Kg	☼	10/14/18 11:47	10/16/18 19:18	50
Indeno[1,2,3-cd]pyrene	1600		85	10	ug/Kg	☼	10/14/18 11:47	10/16/18 19:18	50
Naphthalene	1500		85	14	ug/Kg	☼	10/14/18 11:47	10/16/18 19:18	50
Phenanthrene	32000	B	85	12	ug/Kg	☼	10/14/18 11:47	10/16/18 19:18	50
Pyrene	16000	B	85	17	ug/Kg	☼	10/14/18 11:47	10/16/18 19:18	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*88*		*57 - 120*	*10/14/18 11:47*	*10/16/18 19:18*	*50*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND	F1	3.6	0.62	ug/Kg	☼	10/06/18 10:17	10/10/18 13:27	1
PCB-1221	ND		3.6	1.7	ug/Kg	☼	10/06/18 10:17	10/10/18 13:27	1
PCB-1232	ND		3.6	0.85	ug/Kg	☼	10/06/18 10:17	10/10/18 13:27	1
PCB-1242	ND		3.6	0.89	ug/Kg	☼	10/06/18 10:17	10/10/18 13:27	1
PCB-1248	ND		3.6	0.29	ug/Kg	☼	10/06/18 10:17	10/10/18 13:27	1
PCB-1254	ND		3.6	1.4	ug/Kg	☼	10/06/18 10:17	10/10/18 13:27	1
PCB-1260	22		3.6	0.62	ug/Kg	☼	10/06/18 10:17	10/10/18 13:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*78*		*54 - 142*	*10/06/18 10:17*	*10/10/18 13:27*	*1*
Tetrachloro-m-xylene	*55*	*X*	*58 - 122*	*10/06/18 10:17*	*10/10/18 13:27*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	40000		2000	44	mg/Kg			09/17/18 13:15	1
Total Solids	54.7	H	0.1	0.1	%			09/19/18 09:39	1
Total Solids @ 70°C	55		0.10	0.10	%			09/12/18 16:40	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gravel	0.0				%			09/12/18 16:40	1
Coarse Sand	0.1				%			09/12/18 16:40	1
Medium Sand	0.2				%			09/12/18 16:40	1
Fine Sand	11.4				%			09/12/18 16:40	1
Silt	69.6				%			09/12/18 16:40	1
Clay	18.8				%			09/12/18 16:40	1

Client Sample ID: PDI-SC-S019-4to6

Date Collected: 09/06/18 20:30
Date Received: 09/07/18 12:35

Lab Sample ID: 580-80167-27

Matrix: Solid
Percent Solids: 55.0

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	6600	B	41	3.7	ug/Kg	☼	10/12/18 10:29	10/16/18 01:17	5
Acenaphthene	3300		41	4.9	ug/Kg	☼	10/12/18 10:29	10/16/18 01:17	5
Acenaphthylene	300		41	4.1	ug/Kg	☼	10/12/18 10:29	10/16/18 01:17	5
Anthracene	3000		41	4.9	ug/Kg	☼	10/12/18 10:29	10/16/18 01:17	5
Benzo[a]anthracene	1900		41	6.3	ug/Kg	☼	10/12/18 10:29	10/16/18 01:17	5
Benzo[a]pyrene	1500		41	3.3	ug/Kg	☼	10/12/18 10:29	10/16/18 01:17	5
Benzo[b]fluoranthene	1400		41	4.9	ug/Kg	☼	10/12/18 10:29	10/16/18 01:17	5
Benzo[g,h,i]perylene	1000		41	4.1	ug/Kg	☼	10/12/18 10:29	10/16/18 01:17	5
Benzo[k]fluoranthene	430		41	4.9	ug/Kg	☼	10/12/18 10:29	10/16/18 01:17	5
Chrysene	2200		41	12	ug/Kg	☼	10/12/18 10:29	10/16/18 01:17	5
Dibenz(a,h)anthracene	150		41	5.9	ug/Kg	☼	10/12/18 10:29	10/16/18 01:17	5
Fluoranthene	7000		41	12	ug/Kg	☼	10/12/18 10:29	10/16/18 01:17	5
Fluorene	2900		41	4.1	ug/Kg	☼	10/12/18 10:29	10/16/18 01:17	5
Indeno[1,2,3-cd]pyrene	1000		41	4.9	ug/Kg	☼	10/12/18 10:29	10/16/18 01:17	5
Naphthalene	1300	B	41	6.6	ug/Kg	☼	10/12/18 10:29	10/16/18 01:17	5
Phenanthrene	17000	B	41	5.7	ug/Kg	☼	10/12/18 10:29	10/16/18 01:17	5
Pyrene	8500		41	8.0	ug/Kg	☼	10/12/18 10:29	10/16/18 01:17	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*85*		*57 - 120*	*10/12/18 10:29*	*10/16/18 01:17*	*5*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		3.5	0.59	ug/Kg	☼	10/06/18 10:17	10/10/18 14:17	1
PCB-1221	ND		3.5	1.7	ug/Kg	☼	10/06/18 10:17	10/10/18 14:17	1
PCB-1232	ND		3.5	0.82	ug/Kg	☼	10/06/18 10:17	10/10/18 14:17	1
PCB-1242	ND		3.5	0.85	ug/Kg	☼	10/06/18 10:17	10/10/18 14:17	1
PCB-1248	ND		3.5	0.28	ug/Kg	☼	10/06/18 10:17	10/10/18 14:17	1
PCB-1254	ND		3.5	1.4	ug/Kg	☼	10/06/18 10:17	10/10/18 14:17	1
PCB-1260	21		3.5	0.59	ug/Kg	☼	10/06/18 10:17	10/10/18 14:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*67*		*54 - 142*	*10/06/18 10:17*	*10/10/18 14:17*	*1*
Tetrachloro-m-xylene	*42*	*X*	*58 - 122*	*10/06/18 10:17*	*10/10/18 14:17*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	39000		2000	44	mg/Kg			09/17/18 14:35	1
Total Solids	55.0	H	0.1	0.1	%			09/19/18 09:39	1
Total Solids @ 70°C	57		0.10	0.10	%			09/12/18 16:40	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gravel	0.2				%			09/12/18 16:40	1
Coarse Sand	0.4				%			09/12/18 16:40	1
Medium Sand	0.3				%			09/12/18 16:40	1
Fine Sand	11.6				%			09/12/18 16:40	1
Silt	70.9				%			09/12/18 16:40	1
Clay	16.6				%			09/12/18 16:40	1

Client Sample ID: PDI-SC-S019-6to8

Date Collected: 09/06/18 20:35
Date Received: 09/07/18 12:35

Lab Sample ID: 580-80167-28

Matrix: Solid
Percent Solids: 55.5

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	2600	B	45	4.0	ug/Kg	☼	10/12/18 10:29	10/16/18 01:42	5
Acenaphthene	1900		45	5.4	ug/Kg	☼	10/12/18 10:29	10/16/18 01:42	5
Acenaphthylene	190		45	4.5	ug/Kg	☼	10/12/18 10:29	10/16/18 01:42	5
Anthracene	1800		45	5.4	ug/Kg	☼	10/12/18 10:29	10/16/18 01:42	5
Benzo[a]anthracene	1300		45	6.8	ug/Kg	☼	10/12/18 10:29	10/16/18 01:42	5
Benzo[a]pyrene	1000		45	3.6	ug/Kg	☼	10/12/18 10:29	10/16/18 01:42	5
Benzo[b]fluoranthene	940		45	5.3	ug/Kg	☼	10/12/18 10:29	10/16/18 01:42	5
Benzo[g,h,i]perylene	740		45	4.5	ug/Kg	☼	10/12/18 10:29	10/16/18 01:42	5
Benzo[k]fluoranthene	350		45	5.4	ug/Kg	☼	10/12/18 10:29	10/16/18 01:42	5
Chrysene	1400		45	13	ug/Kg	☼	10/12/18 10:29	10/16/18 01:42	5
Dibenz(a,h)anthracene	120		45	6.4	ug/Kg	☼	10/12/18 10:29	10/16/18 01:42	5
Fluoranthene	4300		45	12	ug/Kg	☼	10/12/18 10:29	10/16/18 01:42	5
Fluorene	1600		45	4.5	ug/Kg	☼	10/12/18 10:29	10/16/18 01:42	5
Indeno[1,2,3-cd]pyrene	750		45	5.4	ug/Kg	☼	10/12/18 10:29	10/16/18 01:42	5
Naphthalene	1100	B	45	7.1	ug/Kg	☼	10/12/18 10:29	10/16/18 01:42	5
Phenanthrene	8900	B	45	6.2	ug/Kg	☼	10/12/18 10:29	10/16/18 01:42	5
Pyrene	5400		45	8.6	ug/Kg	☼	10/12/18 10:29	10/16/18 01:42	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*82*		*57 - 120*	*10/12/18 10:29*	*10/16/18 01:42*	*5*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		3.5	0.60	ug/Kg	☼	10/06/18 10:17	10/10/18 14:34	1
PCB-1221	ND		3.5	1.7	ug/Kg	☼	10/06/18 10:17	10/10/18 14:34	1
PCB-1232	ND		3.5	0.83	ug/Kg	☼	10/06/18 10:17	10/10/18 14:34	1
PCB-1242	ND		3.5	0.86	ug/Kg	☼	10/06/18 10:17	10/10/18 14:34	1
PCB-1248	ND		3.5	0.28	ug/Kg	☼	10/06/18 10:17	10/10/18 14:34	1
PCB-1254	ND		3.5	1.4	ug/Kg	☼	10/06/18 10:17	10/10/18 14:34	1
PCB-1260	11		3.5	0.60	ug/Kg	☼	10/06/18 10:17	10/10/18 14:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*60*		*54 - 142*	*10/06/18 10:17*	*10/10/18 14:34*	*1*
Tetrachloro-m-xylene	*42*	*X*	*58 - 122*	*10/06/18 10:17*	*10/10/18 14:34*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	38000		2000	44	mg/Kg			09/17/18 14:40	1
Total Solids	55.5	H	0.1	0.1	%			09/19/18 09:39	1
Total Solids @ 70°C	58		0.10	0.10	%			09/12/18 16:40	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gravel	0.1				%			09/12/18 16:40	1
Coarse Sand	0.1				%			09/12/18 16:40	1
Medium Sand	0.2				%			09/12/18 16:40	1
Fine Sand	11.6				%			09/12/18 16:40	1
Silt	68.8				%			09/12/18 16:40	1
Clay	19.2				%			09/12/18 16:40	1

Client Sample ID: PDI-SC-S019-8to10

Date Collected: 09/06/18 20:40
Date Received: 09/07/18 12:35

Lab Sample ID: 580-80167-29

Matrix: Solid
Percent Solids: 58.4

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	3100	B	41	3.7	ug/Kg	☼	10/12/18 10:29	10/16/18 02:06	5
Acenaphthene	1000		41	4.9	ug/Kg	☼	10/12/18 10:29	10/16/18 02:06	5
Acenaphthylene	120		41	4.1	ug/Kg	☼	10/12/18 10:29	10/16/18 02:06	5
Anthracene	960		41	4.9	ug/Kg	☼	10/12/18 10:29	10/16/18 02:06	5
Benzo[a]anthracene	510		41	6.2	ug/Kg	☼	10/12/18 10:29	10/16/18 02:06	5
Benzo[a]pyrene	410		41	3.3	ug/Kg	☼	10/12/18 10:29	10/16/18 02:06	5
Benzo[b]fluoranthene	430		41	4.8	ug/Kg	☼	10/12/18 10:29	10/16/18 02:06	5
Benzo[g,h,i]perylene	360		41	4.1	ug/Kg	☼	10/12/18 10:29	10/16/18 02:06	5
Benzo[k]fluoranthene	130		41	4.9	ug/Kg	☼	10/12/18 10:29	10/16/18 02:06	5
Chrysene	710		41	12	ug/Kg	☼	10/12/18 10:29	10/16/18 02:06	5
Dibenz(a,h)anthracene	54		41	5.9	ug/Kg	☼	10/12/18 10:29	10/16/18 02:06	5
Fluoranthene	1700		41	11	ug/Kg	☼	10/12/18 10:29	10/16/18 02:06	5
Fluorene	850		41	4.1	ug/Kg	☼	10/12/18 10:29	10/16/18 02:06	5
Indeno[1,2,3-cd]pyrene	320		41	4.9	ug/Kg	☼	10/12/18 10:29	10/16/18 02:06	5
Naphthalene	2100	B	41	6.6	ug/Kg	☼	10/12/18 10:29	10/16/18 02:06	5
Phenanthrene	3200	B	41	5.7	ug/Kg	☼	10/12/18 10:29	10/16/18 02:06	5
Pyrene	2200		41	8.0	ug/Kg	☼	10/12/18 10:29	10/16/18 02:06	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*84*		*57 - 120*	*10/12/18 10:29*	*10/16/18 02:06*	*5*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		3.4	0.57	ug/Kg	☼	10/06/18 10:17	10/10/18 14:51	1
PCB-1221	ND		3.4	1.6	ug/Kg	☼	10/06/18 10:17	10/10/18 14:51	1
PCB-1232	ND		3.4	0.79	ug/Kg	☼	10/06/18 10:17	10/10/18 14:51	1
PCB-1242	ND		3.4	0.82	ug/Kg	☼	10/06/18 10:17	10/10/18 14:51	1
PCB-1248	ND		3.4	0.27	ug/Kg	☼	10/06/18 10:17	10/10/18 14:51	1
PCB-1254	ND		3.4	1.3	ug/Kg	☼	10/06/18 10:17	10/10/18 14:51	1
PCB-1260	46		3.4	0.57	ug/Kg	☼	10/06/18 10:17	10/10/18 14:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*88*		*54 - 142*	*10/06/18 10:17*	*10/10/18 14:51*	*1*
Tetrachloro-m-xylene	*49*	*X*	*58 - 122*	*10/06/18 10:17*	*10/10/18 14:51*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	40000		2000	44	mg/Kg			09/17/18 14:45	1
Total Solids	58.4	H	0.1	0.1	%			09/19/18 09:39	1
Total Solids @ 70°C	59		0.10	0.10	%			09/12/18 16:40	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gravel	0.2				%			09/12/18 16:40	1
Coarse Sand	0.0				%			09/12/18 16:40	1
Medium Sand	0.2				%			09/12/18 16:40	1
Fine Sand	10.2				%			09/12/18 16:40	1
Silt	71.9				%			09/12/18 16:40	1
Clay	17.4				%			09/12/18 16:40	1

Client Sample ID: PDI-SC-S019-10to12

Date Collected: 09/06/18 20:45
Date Received: 09/07/18 12:35

Lab Sample ID: 580-80167-30

Matrix: Solid
Percent Solids: 56.9

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	1200	B	42	3.8	ug/Kg	☼	10/12/18 10:29	10/16/18 02:30	5
Acenaphthene	650		42	5.1	ug/Kg	☼	10/12/18 10:29	10/16/18 02:30	5
Acenaphthylene	74		42	4.2	ug/Kg	☼	10/12/18 10:29	10/16/18 02:30	5
Anthracene	430		42	5.1	ug/Kg	☼	10/12/18 10:29	10/16/18 02:30	5
Benzo[a]anthracene	330		42	6.4	ug/Kg	☼	10/12/18 10:29	10/16/18 02:30	5
Benzo[a]pyrene	370		42	3.4	ug/Kg	☼	10/12/18 10:29	10/16/18 02:30	5
Benzo[b]fluoranthene	400		42	5.0	ug/Kg	☼	10/12/18 10:29	10/16/18 02:30	5
Benzo[g,h,i]perylene	380		42	4.2	ug/Kg	☼	10/12/18 10:29	10/16/18 02:30	5
Benzo[k]fluoranthene	140		42	5.1	ug/Kg	☼	10/12/18 10:29	10/16/18 02:30	5
Chrysene	450		42	13	ug/Kg	☼	10/12/18 10:29	10/16/18 02:30	5
Dibenz(a,h)anthracene	51		42	6.1	ug/Kg	☼	10/12/18 10:29	10/16/18 02:30	5
Fluoranthene	1600		42	12	ug/Kg	☼	10/12/18 10:29	10/16/18 02:30	5
Fluorene	410		42	4.2	ug/Kg	☼	10/12/18 10:29	10/16/18 02:30	5
Indeno[1,2,3-cd]pyrene	350		42	5.1	ug/Kg	☼	10/12/18 10:29	10/16/18 02:30	5
Naphthalene	2100	B	42	6.8	ug/Kg	☼	10/12/18 10:29	10/16/18 02:30	5
Phenanthrene	2000	B	42	5.8	ug/Kg	☼	10/12/18 10:29	10/16/18 02:30	5
Pyrene	1800		42	8.2	ug/Kg	☼	10/12/18 10:29	10/16/18 02:30	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*82*		*57 - 120*	*10/12/18 10:29*	*10/16/18 02:30*	*5*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		3.4	0.57	ug/Kg	☼	10/06/18 10:17	10/10/18 15:07	1
PCB-1221	ND		3.4	1.6	ug/Kg	☼	10/06/18 10:17	10/10/18 15:07	1
PCB-1232	ND		3.4	0.79	ug/Kg	☼	10/06/18 10:17	10/10/18 15:07	1
PCB-1242	ND		3.4	0.83	ug/Kg	☼	10/06/18 10:17	10/10/18 15:07	1
PCB-1248	ND		3.4	0.27	ug/Kg	☼	10/06/18 10:17	10/10/18 15:07	1
PCB-1254	ND		3.4	1.3	ug/Kg	☼	10/06/18 10:17	10/10/18 15:07	1
PCB-1260	140		3.4	0.57	ug/Kg	☼	10/06/18 10:17	10/10/18 15:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*59*		*54 - 142*	*10/06/18 10:17*	*10/10/18 15:07*	*1*
Tetrachloro-m-xylene	*38*	*X*	*58 - 122*	*10/06/18 10:17*	*10/10/18 15:07*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	41000		2000	44	mg/Kg			09/17/18 14:50	1
Total Solids	56.9	H	0.1	0.1	%			09/19/18 09:39	1
Total Solids @ 70°C	59		0.10	0.10	%			09/12/18 16:40	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gravel	0.3				%			09/12/18 16:40	1
Coarse Sand	0.3				%			09/12/18 16:40	1
Medium Sand	0.2				%			09/12/18 16:40	1
Fine Sand	9.0				%			09/12/18 16:40	1
Silt	73.4				%			09/12/18 16:40	1
Clay	16.7				%			09/12/18 16:40	1

Client Sample ID: PDI-SC-S019-12to13.7

Date Collected: 09/06/18 20:50
Date Received: 09/07/18 12:35

Lab Sample ID: 580-80167-31

Matrix: Solid
Percent Solids: 58.7

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	780	B	40	3.6	ug/Kg	☼	10/12/18 10:29	10/16/18 02:55	5
Acenaphthene	950		40	4.8	ug/Kg	☼	10/12/18 10:29	10/16/18 02:55	5
Acenaphthylene	190		40	4.0	ug/Kg	☼	10/12/18 10:29	10/16/18 02:55	5
Anthracene	960		40	4.8	ug/Kg	☼	10/12/18 10:29	10/16/18 02:55	5
Benzo[a]anthracene	1100		40	6.1	ug/Kg	☼	10/12/18 10:29	10/16/18 02:55	5
Benzo[a]pyrene	1300		40	3.2	ug/Kg	☼	10/12/18 10:29	10/16/18 02:55	5
Benzo[b]fluoranthene	1300		40	4.7	ug/Kg	☼	10/12/18 10:29	10/16/18 02:55	5
Benzo[g,h,i]perylene	1400		40	4.0	ug/Kg	☼	10/12/18 10:29	10/16/18 02:55	5
Benzo[k]fluoranthene	470		40	4.8	ug/Kg	☼	10/12/18 10:29	10/16/18 02:55	5
Chrysene	1400		40	12	ug/Kg	☼	10/12/18 10:29	10/16/18 02:55	5
Dibenz(a,h)anthracene	150		40	5.8	ug/Kg	☼	10/12/18 10:29	10/16/18 02:55	5
Fluoranthene	4800		40	11	ug/Kg	☼	10/12/18 10:29	10/16/18 02:55	5
Fluorene	590		40	4.0	ug/Kg	☼	10/12/18 10:29	10/16/18 02:55	5
Indeno[1,2,3-cd]pyrene	1200		40	4.8	ug/Kg	☼	10/12/18 10:29	10/16/18 02:55	5
Naphthalene	1600	B	40	6.4	ug/Kg	☼	10/12/18 10:29	10/16/18 02:55	5
Phenanthrene	4600	B	40	5.5	ug/Kg	☼	10/12/18 10:29	10/16/18 02:55	5
Pyrene	6000		40	7.8	ug/Kg	☼	10/12/18 10:29	10/16/18 02:55	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*82*		*57 - 120*	*10/12/18 10:29*	*10/16/18 02:55*	*5*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		3.4	0.57	ug/Kg	☼	10/06/18 10:17	10/10/18 15:24	1
PCB-1221	ND		3.4	1.6	ug/Kg	☼	10/06/18 10:17	10/10/18 15:24	1
PCB-1232	ND		3.4	0.79	ug/Kg	☼	10/06/18 10:17	10/10/18 15:24	1
PCB-1242	ND		3.4	0.82	ug/Kg	☼	10/06/18 10:17	10/10/18 15:24	1
PCB-1248	ND		3.4	0.27	ug/Kg	☼	10/06/18 10:17	10/10/18 15:24	1
PCB-1254	ND		3.4	1.3	ug/Kg	☼	10/06/18 10:17	10/10/18 15:24	1
PCB-1260	8.6		3.4	0.57	ug/Kg	☼	10/06/18 10:17	10/10/18 15:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*65*		*54 - 142*	*10/06/18 10:17*	*10/10/18 15:24*	*1*
Tetrachloro-m-xylene	*44*	*X*	*58 - 122*	*10/06/18 10:17*	*10/10/18 15:24*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	43000		2000	44	mg/Kg			09/17/18 14:54	1
Total Solids	58.7	H	0.1	0.1	%			09/19/18 09:39	1
Total Solids @ 70°C	59		0.10	0.10	%			09/12/18 16:40	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gravel	0.0				%			09/12/18 16:40	1
Coarse Sand	0.0				%			09/12/18 16:40	1
Medium Sand	0.3				%			09/12/18 16:40	1
Fine Sand	14.9				%			09/12/18 16:40	1
Silt	64.8				%			09/12/18 16:40	1
Clay	20.0				%			09/12/18 16:40	1

Client Sample ID: PDI-SC-S019-13.7to14.7

Date Collected: 09/06/18 20:55
Date Received: 09/07/18 12:35

Lab Sample ID: 580-80167-32

Matrix: Solid
Percent Solids: 60.3

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	770	B	39	3.5	ug/Kg	☼	10/12/18 10:29	10/16/18 03:19	5
Acenaphthene	700		39	4.7	ug/Kg	☼	10/12/18 10:29	10/16/18 03:19	5
Acenaphthylene	140		39	3.9	ug/Kg	☼	10/12/18 10:29	10/16/18 03:19	5
Anthracene	700		39	4.7	ug/Kg	☼	10/12/18 10:29	10/16/18 03:19	5
Benzo[a]anthracene	690		39	6.0	ug/Kg	☼	10/12/18 10:29	10/16/18 03:19	5
Benzo[a]pyrene	790		39	3.1	ug/Kg	☼	10/12/18 10:29	10/16/18 03:19	5
Benzo[b]fluoranthene	800		39	4.6	ug/Kg	☼	10/12/18 10:29	10/16/18 03:19	5
Benzo[g,h,i]perylene	770		39	3.9	ug/Kg	☼	10/12/18 10:29	10/16/18 03:19	5
Benzo[k]fluoranthene	280		39	4.7	ug/Kg	☼	10/12/18 10:29	10/16/18 03:19	5
Chrysene	880		39	12	ug/Kg	☼	10/12/18 10:29	10/16/18 03:19	5
Dibenz(a,h)anthracene	110		39	5.6	ug/Kg	☼	10/12/18 10:29	10/16/18 03:19	5
Fluoranthene	2800		39	11	ug/Kg	☼	10/12/18 10:29	10/16/18 03:19	5
Fluorene	470		39	3.9	ug/Kg	☼	10/12/18 10:29	10/16/18 03:19	5
Indeno[1,2,3-cd]pyrene	720		39	4.7	ug/Kg	☼	10/12/18 10:29	10/16/18 03:19	5
Naphthalene	2000	B	39	6.3	ug/Kg	☼	10/12/18 10:29	10/16/18 03:19	5
Phenanthrene	3200	B	39	5.4	ug/Kg	☼	10/12/18 10:29	10/16/18 03:19	5
Pyrene	3600		39	7.6	ug/Kg	☼	10/12/18 10:29	10/16/18 03:19	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*82*		*57 - 120*	*10/12/18 10:29*	*10/16/18 03:19*	*5*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		3.2	0.55	ug/Kg	☼	10/06/18 10:17	10/10/18 15:41	1
PCB-1221	ND		3.2	1.5	ug/Kg	☼	10/06/18 10:17	10/10/18 15:41	1
PCB-1232	ND		3.2	0.76	ug/Kg	☼	10/06/18 10:17	10/10/18 15:41	1
PCB-1242	ND		3.2	0.79	ug/Kg	☼	10/06/18 10:17	10/10/18 15:41	1
PCB-1248	ND		3.2	0.26	ug/Kg	☼	10/06/18 10:17	10/10/18 15:41	1
PCB-1254	ND		3.2	1.3	ug/Kg	☼	10/06/18 10:17	10/10/18 15:41	1
PCB-1260	9.1		3.2	0.55	ug/Kg	☼	10/06/18 10:17	10/10/18 15:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*72*		*54 - 142*	*10/06/18 10:17*	*10/10/18 15:41*	*1*
Tetrachloro-m-xylene	*42*	*X*	*58 - 122*	*10/06/18 10:17*	*10/10/18 15:41*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	36000		2000	44	mg/Kg			09/17/18 14:59	1
Total Solids	60.3	H	0.1	0.1	%			09/19/18 09:39	1
Total Solids @ 70°C	61		0.10	0.10	%			09/12/18 16:40	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gravel	0.0				%			09/12/18 16:40	1
Coarse Sand	0.0				%			09/12/18 16:40	1
Medium Sand	0.2				%			09/12/18 16:40	1
Fine Sand	21.2				%			09/12/18 16:40	1
Silt	62.5				%			09/12/18 16:40	1
Clay	16.1				%			09/12/18 16:40	1

Client Sample ID: PDI-RB-SS-180906

Date Collected: 09/06/18 21:00
Date Received: 09/07/18 12:35

Lab Sample ID: 580-80167-33

Matrix: Water

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	**0.018**	**J**	0.097	0.017	ug/L		09/12/18 11:48	09/14/18 20:18	1
2-Methylnaphthalene	ND		0.097	0.019	ug/L		09/12/18 11:48	09/14/18 20:18	1
Acenaphthylene	ND		0.19	0.042	ug/L		09/12/18 11:48	09/14/18 20:18	1
Acenaphthene	ND		0.097	0.0058	ug/L		09/12/18 11:48	09/14/18 20:18	1
Fluorene	ND		0.097	0.013	ug/L		09/12/18 11:48	09/14/18 20:18	1
Phenanthrene	ND		0.097	0.018	ug/L		09/12/18 11:48	09/14/18 20:18	1
Anthracene	ND		0.097	0.0068	ug/L		09/12/18 11:48	09/14/18 20:18	1
Fluoranthene	ND		0.097	0.013	ug/L		09/12/18 11:48	09/14/18 20:18	1
Pyrene	ND		0.097	0.0087	ug/L		09/12/18 11:48	09/14/18 20:18	1
Benzo[a]anthracene	ND		0.097	0.0058	ug/L		09/12/18 11:48	09/14/18 20:18	1
Chrysene	ND		0.097	0.0058	ug/L		09/12/18 11:48	09/14/18 20:18	1
Benzo[b]fluoranthene	ND		0.097	0.0058	ug/L		09/12/18 11:48	09/14/18 20:18	1
Benzo[k]fluoranthene	ND		0.097	0.013	ug/L		09/12/18 11:48	09/14/18 20:18	1
Benzo[a]pyrene	ND		0.097	0.034	ug/L		09/12/18 11:48	09/14/18 20:18	1
Indeno[1,2,3-cd]pyrene	ND		0.097	0.0058	ug/L		09/12/18 11:48	09/14/18 20:18	1
Dibenz(a,h)anthracene	ND		0.097	0.0058	ug/L		09/12/18 11:48	09/14/18 20:18	1
Benzo[g,h,i]perylene	ND		0.19	0.073	ug/L		09/12/18 11:48	09/14/18 20:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*77*		*54 - 120*	*09/12/18 11:48*	*09/14/18 20:18*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.44	0.060	ug/L		09/12/18 10:26	09/17/18 17:48	1
PCB-1221	ND		0.44	0.073	ug/L		09/12/18 10:26	09/17/18 17:48	1
PCB-1232	ND		0.44	0.062	ug/L		09/12/18 10:26	09/17/18 17:48	1
PCB-1242	ND		0.44	0.058	ug/L		09/12/18 10:26	09/17/18 17:48	1
PCB-1248	ND		0.44	0.051	ug/L		09/12/18 10:26	09/17/18 17:48	1
PCB-1254	ND		0.44	0.073	ug/L		09/12/18 10:26	09/17/18 17:48	1
PCB-1260	ND		0.44	0.060	ug/L		09/12/18 10:26	09/17/18 17:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*58*		*38 - 140*	*09/12/18 10:26*	*09/17/18 17:48*	*1*
Tetrachloro-m-xylene	*67*		*40 - 120*	*09/12/18 10:26*	*09/17/18 17:48*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**0.85**	**J B**	1.0	0.19	mg/L			09/18/18 14:56	1

Client Sample ID: PDI-RB-LL-180907

Date Collected: 09/07/18 10:00
Date Received: 09/07/18 12:35

Lab Sample ID: 580-80167-34

Matrix: Water

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	**0.019**	**J**	0.095	0.017	ug/L		09/12/18 11:48	09/14/18 20:44	1
2-Methylnaphthalene	ND		0.095	0.019	ug/L		09/12/18 11:48	09/14/18 20:44	1
Acenaphthylene	ND		0.19	0.042	ug/L		09/12/18 11:48	09/14/18 20:44	1
Acenaphthene	ND		0.095	0.0057	ug/L		09/12/18 11:48	09/14/18 20:44	1
Fluorene	ND		0.095	0.012	ug/L		09/12/18 11:48	09/14/18 20:44	1
Phenanthrene	ND		0.095	0.018	ug/L		09/12/18 11:48	09/14/18 20:44	1
Anthracene	ND		0.095	0.0066	ug/L		09/12/18 11:48	09/14/18 20:44	1
Fluoranthene	ND		0.095	0.012	ug/L		09/12/18 11:48	09/14/18 20:44	1
Pyrene	ND		0.095	0.0085	ug/L		09/12/18 11:48	09/14/18 20:44	1
Benzo[a]anthracene	ND		0.095	0.0057	ug/L		09/12/18 11:48	09/14/18 20:44	1
Chrysene	ND		0.095	0.0057	ug/L		09/12/18 11:48	09/14/18 20:44	1
Benzo[b]fluoranthene	ND		0.095	0.0057	ug/L		09/12/18 11:48	09/14/18 20:44	1
Benzo[k]fluoranthene	ND		0.095	0.012	ug/L		09/12/18 11:48	09/14/18 20:44	1
Benzo[a]pyrene	ND		0.095	0.033	ug/L		09/12/18 11:48	09/14/18 20:44	1
Indeno[1,2,3-cd]pyrene	ND		0.095	0.0057	ug/L		09/12/18 11:48	09/14/18 20:44	1
Dibenz(a,h)anthracene	ND		0.095	0.0057	ug/L		09/12/18 11:48	09/14/18 20:44	1
Benzo[g,h,i]perylene	ND		0.19	0.072	ug/L		09/12/18 11:48	09/14/18 20:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*77*		*54 - 120*	*09/12/18 11:48*	*09/14/18 20:44*	*1*

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		09/12/18 10:26	09/17/18 18:05	1
PCB-1221	ND		0.43	0.071	ug/L		09/12/18 10:26	09/17/18 18:05	1
PCB-1232	ND		0.43	0.060	ug/L		09/12/18 10:26	09/17/18 18:05	1
PCB-1242	ND		0.43	0.056	ug/L		09/12/18 10:26	09/17/18 18:05	1
PCB-1248	ND		0.43	0.049	ug/L		09/12/18 10:26	09/17/18 18:05	1
PCB-1254	ND		0.43	0.071	ug/L		09/12/18 10:26	09/17/18 18:05	1
PCB-1260	ND		0.43	0.058	ug/L		09/12/18 10:26	09/17/18 18:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*56*		*38 - 140*	*09/12/18 10:26*	*09/17/18 18:05*	*1*
Tetrachloro-m-xylene	*60*		*40 - 120*	*09/12/18 10:26*	*09/17/18 18:05*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**0.77**	**J B**	1.0	0.19	mg/L			09/18/18 14:56	1

Client Sample ID: PDI-RB-AL-180905

Date Collected: 09/07/18 10:15
Date Received: 09/07/18 12:35

Lab Sample ID: 580-80167-35

Matrix: Water

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.095	0.017	ug/L		09/12/18 11:48	09/14/18 21:10	1
2-Methylnaphthalene	ND		0.095	0.019	ug/L		09/12/18 11:48	09/14/18 21:10	1
Acenaphthylene	ND		0.19	0.042	ug/L		09/12/18 11:48	09/14/18 21:10	1
Acenaphthene	ND		0.095	0.0057	ug/L		09/12/18 11:48	09/14/18 21:10	1
Fluorene	ND		0.095	0.012	ug/L		09/12/18 11:48	09/14/18 21:10	1
Phenanthrene	ND		0.095	0.018	ug/L		09/12/18 11:48	09/14/18 21:10	1
Anthracene	ND		0.095	0.0067	ug/L		09/12/18 11:48	09/14/18 21:10	1
Fluoranthene	ND		0.095	0.012	ug/L		09/12/18 11:48	09/14/18 21:10	1
Pyrene	ND		0.095	0.0086	ug/L		09/12/18 11:48	09/14/18 21:10	1
Benzo[a]anthracene	ND		0.095	0.0057	ug/L		09/12/18 11:48	09/14/18 21:10	1
Chrysene	ND		0.095	0.0057	ug/L		09/12/18 11:48	09/14/18 21:10	1
Benzo[b]fluoranthene	ND		0.095	0.0057	ug/L		09/12/18 11:48	09/14/18 21:10	1
Benzo[k]fluoranthene	ND		0.095	0.012	ug/L		09/12/18 11:48	09/14/18 21:10	1
Benzo[a]pyrene	ND		0.095	0.033	ug/L		09/12/18 11:48	09/14/18 21:10	1
Indeno[1,2,3-cd]pyrene	ND		0.095	0.0057	ug/L		09/12/18 11:48	09/14/18 21:10	1
Dibenz(a,h)anthracene	ND		0.095	0.0057	ug/L		09/12/18 11:48	09/14/18 21:10	1
Benzo[g,h,i]perylene	ND		0.19	0.072	ug/L		09/12/18 11:48	09/14/18 21:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*80*		*54 - 120*	*09/12/18 11:48*	*09/14/18 21:10*	*1*

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		09/12/18 10:26	09/17/18 18:22	1
PCB-1221	ND		0.43	0.071	ug/L		09/12/18 10:26	09/17/18 18:22	1
PCB-1232	ND		0.43	0.060	ug/L		09/12/18 10:26	09/17/18 18:22	1
PCB-1242	ND		0.43	0.056	ug/L		09/12/18 10:26	09/17/18 18:22	1
PCB-1248	ND		0.43	0.049	ug/L		09/12/18 10:26	09/17/18 18:22	1
PCB-1254	ND		0.43	0.071	ug/L		09/12/18 10:26	09/17/18 18:22	1
PCB-1260	ND		0.43	0.058	ug/L		09/12/18 10:26	09/17/18 18:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*25*	*X*	*38 - 140*	*09/12/18 10:26*	*09/17/18 18:22*	*1*
Tetrachloro-m-xylene	*55*		*40 - 120*	*09/12/18 10:26*	*09/17/18 18:22*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	**0.99**	**J B**	1.0	0.19	mg/L			09/18/18 14:56	1

Client Sample ID: PDI-SC-S019-10to12D

Date Collected: 09/06/18 20:45
Date Received: 09/07/18 12:35

Lab Sample ID: 580-80167-36

Matrix: Solid
Percent Solids: 57.1

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	1000	B	43	3.9	ug/Kg	☼	10/12/18 10:29	10/16/18 03:44	5
Acenaphthene	620		43	5.2	ug/Kg	☼	10/12/18 10:29	10/16/18 03:44	5
Acenaphthylene	79		43	4.3	ug/Kg	☼	10/12/18 10:29	10/16/18 03:44	5
Anthracene	500		43	5.2	ug/Kg	☼	10/12/18 10:29	10/16/18 03:44	5
Benzo[a]anthracene	590		43	6.6	ug/Kg	☼	10/12/18 10:29	10/16/18 03:44	5
Benzo[a]pyrene	660		43	3.5	ug/Kg	☼	10/12/18 10:29	10/16/18 03:44	5
Benzo[b]fluoranthene	670		43	5.1	ug/Kg	☼	10/12/18 10:29	10/16/18 03:44	5
Benzo[g,h,i]perylene	630		43	4.3	ug/Kg	☼	10/12/18 10:29	10/16/18 03:44	5
Benzo[k]fluoranthene	230		43	5.2	ug/Kg	☼	10/12/18 10:29	10/16/18 03:44	5
Chrysene	750		43	13	ug/Kg	☼	10/12/18 10:29	10/16/18 03:44	5
Dibenz(a,h)anthracene	100		43	6.3	ug/Kg	☼	10/12/18 10:29	10/16/18 03:44	5
Fluoranthene	2100		43	12	ug/Kg	☼	10/12/18 10:29	10/16/18 03:44	5
Fluorene	450		43	4.3	ug/Kg	☼	10/12/18 10:29	10/16/18 03:44	5
Indeno[1,2,3-cd]pyrene	590		43	5.2	ug/Kg	☼	10/12/18 10:29	10/16/18 03:44	5
Naphthalene	1900	B	43	7.0	ug/Kg	☼	10/12/18 10:29	10/16/18 03:44	5
Phenanthrene	2100	B	43	6.0	ug/Kg	☼	10/12/18 10:29	10/16/18 03:44	5
Pyrene	2500		43	8.4	ug/Kg	☼	10/12/18 10:29	10/16/18 03:44	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*83*		*57 - 120*	*10/12/18 10:29*	*10/16/18 03:44*	*5*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		3.4	0.57	ug/Kg	☼	10/06/18 10:23	10/10/18 15:58	1
PCB-1221	ND		3.4	1.6	ug/Kg	☼	10/06/18 10:23	10/10/18 15:58	1
PCB-1232	ND		3.4	0.79	ug/Kg	☼	10/06/18 10:23	10/10/18 15:58	1
PCB-1242	ND		3.4	0.82	ug/Kg	☼	10/06/18 10:23	10/10/18 15:58	1
PCB-1248	ND		3.4	0.27	ug/Kg	☼	10/06/18 10:23	10/10/18 15:58	1
PCB-1254	ND		3.4	1.3	ug/Kg	☼	10/06/18 10:23	10/10/18 15:58	1
PCB-1260	96		3.4	0.57	ug/Kg	☼	10/06/18 10:23	10/10/18 15:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*56*		*54 - 142*	*10/06/18 10:23*	*10/10/18 15:58*	*1*
Tetrachloro-m-xylene	*35*	*X*	*58 - 122*	*10/06/18 10:23*	*10/10/18 15:58*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	41000		2000	44	mg/Kg			09/17/18 15:04	1
Total Solids	57.1	H	0.1	0.1	%			09/19/18 09:39	1
Total Solids @ 70°C	59		0.10	0.10	%			09/13/18 04:11	1

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 580-283783/1-A
Matrix: Water
Analysis Batch: 284016

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 283783

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	ND		0.10	0.020	ug/L		09/12/18 11:48	09/14/18 18:35	1
Acenaphthylene	ND		0.20	0.044	ug/L		09/12/18 11:48	09/14/18 18:35	1
Acenaphthene	ND		0.10	0.0060	ug/L		09/12/18 11:48	09/14/18 18:35	1
Anthracene	ND		0.10	0.0070	ug/L		09/12/18 11:48	09/14/18 18:35	1
Benzo[a]anthracene	ND		0.10	0.0060	ug/L		09/12/18 11:48	09/14/18 18:35	1
Chrysene	ND		0.10	0.0060	ug/L		09/12/18 11:48	09/14/18 18:35	1
Fluoranthene	ND		0.10	0.013	ug/L		09/12/18 11:48	09/14/18 18:35	1
Benzo[b]fluoranthene	ND		0.10	0.0060	ug/L		09/12/18 11:48	09/14/18 18:35	1
Fluorene	ND		0.10	0.013	ug/L		09/12/18 11:48	09/14/18 18:35	1
Benzo[k]fluoranthene	ND		0.10	0.013	ug/L		09/12/18 11:48	09/14/18 18:35	1
Benzo[a]pyrene	ND		0.10	0.035	ug/L		09/12/18 11:48	09/14/18 18:35	1
Naphthalene	ND		0.10	0.018	ug/L		09/12/18 11:48	09/14/18 18:35	1
Indeno[1,2,3-cd]pyrene	ND		0.10	0.0060	ug/L		09/12/18 11:48	09/14/18 18:35	1
Phenanthrene	ND		0.10	0.019	ug/L		09/12/18 11:48	09/14/18 18:35	1
Dibenz(a,h)anthracene	ND		0.10	0.0060	ug/L		09/12/18 11:48	09/14/18 18:35	1
Pyrene	ND		0.10	0.0090	ug/L		09/12/18 11:48	09/14/18 18:35	1
Benzo[g,h,i]perylene	ND		0.20	0.076	ug/L		09/12/18 11:48	09/14/18 18:35	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*73*		*54 - 120*	*09/12/18 11:48*	*09/14/18 18:35*	*1*

Lab Sample ID: LCS 580-283783/2-A
Matrix: Water
Analysis Batch: 284016

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 283783

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Methylnaphthalene	2.00	1.37		ug/L		69	53 - 120
Acenaphthylene	2.00	1.46		ug/L		73	33 - 130
Acenaphthene	2.00	1.44		ug/L		72	64 - 120
Anthracene	2.00	1.37		ug/L		68	46 - 127
Benzo[a]anthracene	2.00	1.57		ug/L		78	70 - 120
Chrysene	2.00	1.50		ug/L		75	65 - 120
Fluoranthene	2.00	1.55		ug/L		77	72 - 120
Benzo[b]fluoranthene	2.00	1.66		ug/L		83	57 - 132
Fluorene	2.00	1.50		ug/L		75	67 - 120
Benzo[k]fluoranthene	2.00	1.82		ug/L		91	61 - 132
Benzo[a]pyrene	2.00	1.32		ug/L		66	23 - 141
Naphthalene	2.00	1.29		ug/L		64	58 - 120
Indeno[1,2,3-cd]pyrene	2.00	1.58		ug/L		79	53 - 133
Phenanthrene	2.00	1.50		ug/L		75	69 - 120
Dibenz(a,h)anthracene	2.00	1.74		ug/L		87	57 - 132
Pyrene	2.00	1.53		ug/L		77	57 - 133
Benzo[g,h,i]perylene	2.00	1.75		ug/L		87	52 - 129

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Terphenyl-d14	*74*		*54 - 120*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCSD 580-283783/3-A
Matrix: Water
Analysis Batch: 284016

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 283783

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2-Methylnaphthalene			2.00	1.65		ug/L		83	53 - 120	19	23
Acenaphthylene			2.00	1.74		ug/L		87	33 - 130	18	34
Acenaphthene			2.00	1.70		ug/L		85	64 - 120	17	20
Anthracene			2.00	1.53		ug/L		76	46 - 127	11	19
Benzo[a]anthracene			2.00	1.68		ug/L		84	70 - 120	7	17
Chrysene			2.00	1.78		ug/L		89	65 - 120	17	19
Fluoranthene			2.00	1.80		ug/L		90	72 - 120	15	21
Benzo[b]fluoranthene			2.00	1.95		ug/L		98	57 - 132	16	25
Fluorene			2.00	1.77		ug/L		89	67 - 120	16	20
Benzo[k]fluoranthene			2.00	2.04		ug/L		102	61 - 132	11	22
Benzo[a]pyrene			2.00	1.43		ug/L		72	23 - 141	8	35
Naphthalene			2.00	1.58		ug/L		79	58 - 120	20	23
Indeno[1,2,3-cd]pyrene			2.00	1.84		ug/L		92	53 - 133	15	25
Phenanthrene			2.00	1.73		ug/L		87	69 - 120	15	21
Dibenz(a,h)anthracene			2.00	2.02		ug/L		101	57 - 132	15	24
Pyrene			2.00	1.76		ug/L		88	57 - 133	14	21
Benzo[g,h,i]perylene			2.00	1.99		ug/L		100	52 - 129	13	24

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Terphenyl-d14	*84*		*54 - 120*

Lab Sample ID: MB 580-285753/1-A
Matrix: Solid
Analysis Batch: 286033

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 285753

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	ND		1.0	0.090	ug/Kg		10/05/18 09:49	10/09/18 16:54	1
Acenaphthylene	ND		1.0	0.10	ug/Kg		10/05/18 09:49	10/09/18 16:54	1
Acenaphthene	ND		1.0	0.12	ug/Kg		10/05/18 09:49	10/09/18 16:54	1
Anthracene	ND		1.0	0.12	ug/Kg		10/05/18 09:49	10/09/18 16:54	1
Benzo[a]anthracene	0.185	J	1.0	0.15	ug/Kg		10/05/18 09:49	10/09/18 16:54	1
Chrysene	ND		1.0	0.30	ug/Kg		10/05/18 09:49	10/09/18 16:54	1
Fluoranthene	0.777	J	1.0	0.28	ug/Kg		10/05/18 09:49	10/09/18 16:54	1
Benzo[b]fluoranthene	ND		1.0	0.12	ug/Kg		10/05/18 09:49	10/09/18 16:54	1
Fluorene	ND		1.0	0.10	ug/Kg		10/05/18 09:49	10/09/18 16:54	1
Benzo[k]fluoranthene	ND		1.0	0.12	ug/Kg		10/05/18 09:49	10/09/18 16:54	1
Benzo[a]pyrene	ND		1.0	0.080	ug/Kg		10/05/18 09:49	10/09/18 16:54	1
Naphthalene	ND		1.0	0.16	ug/Kg		10/05/18 09:49	10/09/18 16:54	1
Indeno[1,2,3-cd]pyrene	ND		1.0	0.12	ug/Kg		10/05/18 09:49	10/09/18 16:54	1
Phenanthrene	0.531	J	1.0	0.14	ug/Kg		10/05/18 09:49	10/09/18 16:54	1
Dibenz(a,h)anthracene	ND		1.0	0.14	ug/Kg		10/05/18 09:49	10/09/18 16:54	1
Pyrene	0.815	J	1.0	0.19	ug/Kg		10/05/18 09:49	10/09/18 16:54	1
Benzo[g,h,i]perylene	ND		1.0	0.10	ug/Kg		10/05/18 09:49	10/09/18 16:54	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*98*		*57 - 120*	*10/05/18 09:49*	*10/09/18 16:54*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCS 580-285753/2-A
Matrix: Solid
Analysis Batch: 286033

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 285753

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Methylnaphthalene	200	165		ug/Kg		83	68 - 120
Acenaphthylene	200	155		ug/Kg		78	68 - 120
Acenaphthene	200	156		ug/Kg		78	68 - 120
Anthracene	200	175		ug/Kg		87	73 - 125
Benzo[a]anthracene	200	187		ug/Kg		93	66 - 120
Chrysene	200	188		ug/Kg		94	69 - 120
Fluoranthene	200	187		ug/Kg		93	74 - 125
Benzo[b]fluoranthene	200	202		ug/Kg		101	63 - 121
Fluorene	200	165		ug/Kg		82	73 - 120
Benzo[k]fluoranthene	200	192		ug/Kg		96	63 - 123
Benzo[a]pyrene	200	195		ug/Kg		98	72 - 124
Naphthalene	200	156		ug/Kg		78	70 - 120
Indeno[1,2,3-cd]pyrene	200	200		ug/Kg		100	65 - 121
Phenanthrene	200	164		ug/Kg		82	73 - 120
Dibenz(a,h)anthracene	200	206		ug/Kg		103	70 - 125
Pyrene	200	178		ug/Kg		89	70 - 120
Benzo[g,h,i]perylene	200	189		ug/Kg		94	63 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Terphenyl-d14	*86*		*57 - 120*

Lab Sample ID: 580-80167-1 MS
Matrix: Solid
Analysis Batch: 286033

Client Sample ID: PDI-SC-S129-0to2
Prep Type: Total/NA
Prep Batch: 285753

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Methylnaphthalene	31		401	334		ug/Kg	☼	76	68 - 120
Acenaphthylene	9.1	J	401	318		ug/Kg	☼	77	68 - 120
Acenaphthene	49		401	355		ug/Kg	☼	76	68 - 120
Anthracene	46		401	396		ug/Kg	☼	87	73 - 125
Benzo[a]anthracene	63	B	401	445		ug/Kg	☼	95	66 - 120
Chrysene	87		401	468		ug/Kg	☼	95	69 - 120
Fluoranthene	220	B	401	561		ug/Kg	☼	86	74 - 125
Benzo[b]fluoranthene	78		401	411		ug/Kg	☼	83	63 - 121
Fluorene	55		401	383		ug/Kg	☼	82	73 - 120
Benzo[k]fluoranthene	31		401	359		ug/Kg	☼	82	63 - 123
Benzo[a]pyrene	47		401	385		ug/Kg	☼	84	72 - 124
Naphthalene	44		401	326		ug/Kg	☼	71	70 - 120
Indeno[1,2,3-cd]pyrene	51		401	450		ug/Kg	☼	99	65 - 121
Phenanthrene	150	B	401	440		ug/Kg	☼	73	73 - 120
Dibenz(a,h)anthracene	ND	F2	401	384		ug/Kg	☼	96	70 - 125
Pyrene	200	B	401	539		ug/Kg	☼	84	70 - 120
Benzo[g,h,i]perylene	35		401	353		ug/Kg	☼	79	63 - 120

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Terphenyl-d14	*78*		*57 - 120*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: 580-80167-1 MSD
Matrix: Solid
Analysis Batch: 286033

Client Sample ID: PDI-SC-S129-0to2
Prep Type: Total/NA
Prep Batch: 285753

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2-Methylnaphthalene	31		414	352		ug/Kg	☼	78	68 - 120	5	12
Acenaphthylene	9.1	J	414	348		ug/Kg	☼	82	68 - 120	9	12
Acenaphthene	49		414	379		ug/Kg	☼	80	68 - 120	7	12
Anthracene	46		414	426		ug/Kg	☼	92	73 - 125	7	12
Benzo[a]anthracene	63	B	414	486		ug/Kg	☼	102	66 - 120	9	14
Chrysene	87		414	464		ug/Kg	☼	91	69 - 120	1	10
Fluoranthene	220	B	414	598		ug/Kg	☼	92	74 - 125	6	13
Benzo[b]fluoranthene	78		414	435		ug/Kg	☼	86	63 - 121	6	10
Fluorene	55		414	407		ug/Kg	☼	85	73 - 120	6	13
Benzo[k]fluoranthene	31		414	371		ug/Kg	☼	82	63 - 123	3	15
Benzo[a]pyrene	47		414	413		ug/Kg	☼	88	72 - 124	7	12
Naphthalene	44		414	347		ug/Kg	☼	73	70 - 120	6	12
Indeno[1,2,3-cd]pyrene	51		414	523		ug/Kg	☼	114	65 - 121	15	15
Phenanthrene	150	B	414	469		ug/Kg	☼	78	73 - 120	6	11
Dibenz(a,h)anthracene	ND	F2	414	449	F2	ug/Kg	☼	108	70 - 125	16	13
Pyrene	200	B	414	567		ug/Kg	☼	88	70 - 120	5	12
Benzo[g,h,i]perylene	35		414	393		ug/Kg	☼	86	63 - 120	11	14

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Terphenyl-d14	*84*		*57 - 120*

Lab Sample ID: MB 580-286334/1-A
Matrix: Solid
Analysis Batch: 286568

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 286334

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	0.136	J	1.0	0.090	ug/Kg		10/12/18 10:29	10/15/18 19:58	1
Acenaphthylene	ND		1.0	0.10	ug/Kg		10/12/18 10:29	10/15/18 19:58	1
Acenaphthene	ND		1.0	0.12	ug/Kg		10/12/18 10:29	10/15/18 19:58	1
Anthracene	ND		1.0	0.12	ug/Kg		10/12/18 10:29	10/15/18 19:58	1
Benzo[a]anthracene	ND		1.0	0.15	ug/Kg		10/12/18 10:29	10/15/18 19:58	1
Chrysene	ND		1.0	0.30	ug/Kg		10/12/18 10:29	10/15/18 19:58	1
Fluoranthene	ND		1.0	0.28	ug/Kg		10/12/18 10:29	10/15/18 19:58	1
Benzo[b]fluoranthene	ND	*	1.0	0.12	ug/Kg		10/12/18 10:29	10/15/18 19:58	1
Fluorene	ND		1.0	0.10	ug/Kg		10/12/18 10:29	10/15/18 19:58	1
Benzo[k]fluoranthene	ND	*	1.0	0.12	ug/Kg		10/12/18 10:29	10/15/18 19:58	1
Benzo[a]pyrene	ND	*	1.0	0.080	ug/Kg		10/12/18 10:29	10/15/18 19:58	1
Naphthalene	0.221	J	1.0	0.16	ug/Kg		10/12/18 10:29	10/15/18 19:58	1
Indeno[1,2,3-cd]pyrene	ND	*	1.0	0.12	ug/Kg		10/12/18 10:29	10/15/18 19:58	1
Phenanthrene	0.278	J	1.0	0.14	ug/Kg		10/12/18 10:29	10/15/18 19:58	1
Dibenz(a,h)anthracene	ND	*	1.0	0.14	ug/Kg		10/12/18 10:29	10/15/18 19:58	1
Pyrene	ND		1.0	0.19	ug/Kg		10/12/18 10:29	10/15/18 19:58	1
Benzo[g,h,i]perylene	ND	*	1.0	0.10	ug/Kg		10/12/18 10:29	10/15/18 19:58	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*95*		*57 - 120*	*10/12/18 10:29*	*10/15/18 19:58*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCS 580-286334/2-A
Matrix: Solid
Analysis Batch: 286568

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 286334

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Methylnaphthalene	200	163		ug/Kg		81	68 - 120
Acenaphthylene	200	170		ug/Kg		85	68 - 120
Acenaphthene	200	174		ug/Kg		87	68 - 120
Anthracene	200	153		ug/Kg		77	73 - 125
Benzo[a]anthracene	200	162		ug/Kg		81	66 - 120
Chrysene	200	155		ug/Kg		78	69 - 120
Fluoranthene	200	192		ug/Kg		96	74 - 125
Benzo[b]fluoranthene	200	217		ug/Kg		108	63 - 121
Fluorene	200	174		ug/Kg		87	73 - 120
Benzo[k]fluoranthene	200	198		ug/Kg		99	63 - 123
Benzo[a]pyrene	200	154		ug/Kg		77	72 - 124
Naphthalene	200	161		ug/Kg		80	70 - 120
Indeno[1,2,3-cd]pyrene	200	216		ug/Kg		108	65 - 121
Phenanthrene	200	170		ug/Kg		85	73 - 120
Dibenz(a,h)anthracene	200	218		ug/Kg		109	70 - 125
Pyrene	200	183		ug/Kg		92	70 - 120
Benzo[g,h,i]perylene	200	205		ug/Kg		103	63 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Terphenyl-d14	*92*		*57 - 120*

Lab Sample ID: 580-80167-18 MS
Matrix: Solid
Analysis Batch: 286568

Client Sample ID: PDI-SC-S113C-3.1to5.6
Prep Type: Total/NA
Prep Batch: 286334

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Methylnaphthalene	340	B	245	588		ug/Kg	☼	102	68 - 120
Acenaphthene	1600		245	1910	4	ug/Kg	☼	117	68 - 120
Acenaphthylene	77		245	304		ug/Kg	☼	93	68 - 120
Anthracene	940	F1	245	1170		ug/Kg	☼	95	73 - 125
Benzo[a]anthracene	580		245	856		ug/Kg	☼	112	66 - 120
Benzo[a]pyrene	690		245	912		ug/Kg	☼	91	72 - 124
Benzo[b]fluoranthene	570		245	840		ug/Kg	☼	112	63 - 121
Benzo[g,h,i]perylene	570		245	806		ug/Kg	☼	98	63 - 120
Benzo[k]fluoranthene	190		245	448		ug/Kg	☼	105	63 - 123
Chrysene	660		245	919		ug/Kg	☼	105	69 - 120
Dibenz(a,h)anthracene	59		245	290		ug/Kg	☼	94	70 - 125
Fluoranthene	2700		245	2860	4	ug/Kg	☼	83	74 - 125
Fluorene	830	F1	245	1080		ug/Kg	☼	102	73 - 120
Indeno[1,2,3-cd]pyrene	560	F1	245	882	F1	ug/Kg	☼	132	65 - 121
Naphthalene	180	B	245	415		ug/Kg	☼	95	70 - 120
Phenanthrene	4800	B	245	4950	4	ug/Kg	☼	72	73 - 120
Pyrene	3200		245	3360	4	ug/Kg	☼	72	70 - 120

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Terphenyl-d14	*87*		*57 - 120*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: 580-80167-18 MSD
Matrix: Solid
Analysis Batch: 286568

Client Sample ID: PDI-SC-S113C-3.1to5.6
Prep Type: Total/NA
Prep Batch: 286334

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2-Methylnaphthalene	340	B	242	622		ug/Kg	☼	117	68 - 120	6	12
Acenaphthene	1600		242	2080	4	ug/Kg	☼	188	68 - 120	8	12
Acenaphthylene	77		242	318		ug/Kg	☼	99	68 - 120	4	12
Anthracene	940	F1	242	1260	F1	ug/Kg	☼	134	73 - 125	8	12
Benzo[a]anthracene	580		242	870		ug/Kg	☼	119	66 - 120	2	14
Benzo[a]pyrene	690		242	943		ug/Kg	☼	105	72 - 124	3	12
Benzo[b]fluoranthene	570		242	846		ug/Kg	☼	116	63 - 121	1	10
Benzo[g,h,i]perylene	570		242	830		ug/Kg	☼	109	63 - 120	3	14
Benzo[k]fluoranthene	190		242	479		ug/Kg	☼	119	63 - 123	7	15
Chrysene	660		242	952		ug/Kg	☼	120	69 - 120	3	10
Dibenz(a,h)anthracene	59		242	289		ug/Kg	☼	95	70 - 125	0	13
Fluoranthene	2700		242	3050	4	ug/Kg	☼	162	74 - 125	6	13
Fluorene	830	F1	242	1150	F1	ug/Kg	☼	133	73 - 120	6	13
Indeno[1,2,3-cd]pyrene	560	F1	242	914	F1	ug/Kg	☼	147	65 - 121	4	15
Naphthalene	180	B	242	466		ug/Kg	☼	117	70 - 120	12	12
Phenanthrene	4800	B	242	5440	4	ug/Kg	☼	274	73 - 120	9	11
Pyrene	3200		242	3610	4	ug/Kg	☼	173	70 - 120	7	12

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Terphenyl-d14	*94*		*57 - 120*

Lab Sample ID: MB 580-286471/1-A
Matrix: Solid
Analysis Batch: 286592

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 286471

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	ND		1.0	0.090	ug/Kg		10/14/18 11:47	10/16/18 18:05	1
Acenaphthylene	ND		1.0	0.10	ug/Kg		10/14/18 11:47	10/16/18 18:05	1
Acenaphthene	ND		1.0	0.12	ug/Kg		10/14/18 11:47	10/16/18 18:05	1
Anthracene	ND		1.0	0.12	ug/Kg		10/14/18 11:47	10/16/18 18:05	1
Benzo[a]anthracene	ND		1.0	0.15	ug/Kg		10/14/18 11:47	10/16/18 18:05	1
Chrysene	ND		1.0	0.30	ug/Kg		10/14/18 11:47	10/16/18 18:05	1
Fluoranthene	0.471	J	1.0	0.28	ug/Kg		10/14/18 11:47	10/16/18 18:05	1
Benzo[b]fluoranthene	ND		1.0	0.12	ug/Kg		10/14/18 11:47	10/16/18 18:05	1
Fluorene	ND		1.0	0.10	ug/Kg		10/14/18 11:47	10/16/18 18:05	1
Benzo[k]fluoranthene	ND		1.0	0.12	ug/Kg		10/14/18 11:47	10/16/18 18:05	1
Benzo[a]pyrene	ND		1.0	0.080	ug/Kg		10/14/18 11:47	10/16/18 18:05	1
Naphthalene	ND		1.0	0.16	ug/Kg		10/14/18 11:47	10/16/18 18:05	1
Indeno[1,2,3-cd]pyrene	ND		1.0	0.12	ug/Kg		10/14/18 11:47	10/16/18 18:05	1
Phenanthrene	0.411	J	1.0	0.14	ug/Kg		10/14/18 11:47	10/16/18 18:05	1
Dibenz(a,h)anthracene	ND		1.0	0.14	ug/Kg		10/14/18 11:47	10/16/18 18:05	1
Pyrene	0.567	J	1.0	0.19	ug/Kg		10/14/18 11:47	10/16/18 18:05	1
Benzo[g,h,i]perylene	ND		1.0	0.10	ug/Kg		10/14/18 11:47	10/16/18 18:05	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*91*		*57 - 120*	*10/14/18 11:47*	*10/16/18 18:05*	*1*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCS 580-286471/2-A
Matrix: Solid
Analysis Batch: 286776

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 286471

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Methylnaphthalene	200	148		ug/Kg		74	68 - 120
Acenaphthylene	200	146		ug/Kg		73	68 - 120
Acenaphthene	200	150		ug/Kg		75	68 - 120
Anthracene	200	144	*	ug/Kg		72	73 - 125
Benzo[a]anthracene	200	170		ug/Kg		85	66 - 120
Chrysene	200	177		ug/Kg		88	69 - 120
Fluoranthene	200	177		ug/Kg		88	74 - 125
Benzo[b]fluoranthene	200	188		ug/Kg		94	63 - 121
Fluorene	200	163		ug/Kg		82	73 - 120
Benzo[k]fluoranthene	200	176		ug/Kg		88	63 - 123
Benzo[a]pyrene	200	152		ug/Kg		76	72 - 124
Naphthalene	200	146		ug/Kg		73	70 - 120
Indeno[1,2,3-cd]pyrene	200	178		ug/Kg		89	65 - 121
Phenanthrene	200	157		ug/Kg		78	73 - 120
Dibenz(a,h)anthracene	200	186		ug/Kg		93	70 - 125
Pyrene	200	168		ug/Kg		84	70 - 120
Benzo[g,h,i]perylene	200	165		ug/Kg		83	63 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Terphenyl-d14	*49*	*X*	*57 - 120*

Lab Sample ID: 580-80167-26 MS
Matrix: Solid
Analysis Batch: 286592

Client Sample ID: PDI-SC-S019-2to4
Prep Type: Total/NA
Prep Batch: 286471

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Methylnaphthalene	8500		361	8580	4	ug/Kg	☼	14	68 - 120
Acenaphthene	6400		361	6650	4	ug/Kg	☼	58	68 - 120
Acenaphthylene	570		361	857		ug/Kg	☼	81	68 - 120
Anthracene	6400	*	361	6910	4	ug/Kg	☼	128	73 - 125
Benzo[a]anthracene	3400		361	3770	4	ug/Kg	☼	93	66 - 120
Benzo[a]pyrene	2900		361	3020	4	ug/Kg	☼	32	72 - 124
Benzo[b]fluoranthene	2800		361	2940	4	ug/Kg	☼	47	63 - 121
Benzo[g,h,i]perylene	1400	F1	361	1300	F1	ug/Kg	☼	-19	63 - 120
Benzo[k]fluoranthene	1000	F1	361	1140	F1	ug/Kg	☼	40	63 - 123
Chrysene	4200		361	4700	4	ug/Kg	☼	147	69 - 120
Dibenz(a,h)anthracene	300	F1 F2	361	480	F1	ug/Kg	☼	50	70 - 125
Fluoranthene	11000	B	361	11800	4	ug/Kg	☼	197	74 - 125
Fluorene	4900		361	5000	4	ug/Kg	☼	29	73 - 120
Indeno[1,2,3-cd]pyrene	1600		361	1590	4	ug/Kg	☼	-16	65 - 121
Naphthalene	1500		361	1700	4	ug/Kg	☼	50	70 - 120
Phenanthrene	32000	B	361	32600	4	ug/Kg	☼	217	73 - 120
Pyrene	16000	B	361	16100	4	ug/Kg	☼	152	70 - 120

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Terphenyl-d14	*90*		*57 - 120*

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: 580-80167-26 MSD
Matrix: Solid
Analysis Batch: 286592

Client Sample ID: PDI-SC-S019-2to4
Prep Type: Total/NA
Prep Batch: 286471

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2-Methylnaphthalene	8500		338	8850	4	ug/Kg	☼	93	68 - 120	3	12
Acenaphthene	6400		338	6600	4	ug/Kg	☼	46	68 - 120	1	12
Acenaphthylene	570		338	822		ug/Kg	☼	76	68 - 120	4	12
Anthracene	6400	*	338	6500	4	ug/Kg	☼	17	73 - 125	6	12
Benzo[a]anthracene	3400		338	4010	4	ug/Kg	☼	171	66 - 120	6	14
Benzo[a]pyrene	2900		338	2900	4	ug/Kg	☼	-4	72 - 124	4	12
Benzo[b]fluoranthene	2800		338	2810	4	ug/Kg	☼	12	63 - 121	4	10
Benzo[g,h,i]perylene	1400	F1	338	1460	4	ug/Kg	☼	28	63 - 120	12	14
Benzo[k]fluoranthene	1000	F1	338	1060	F1	ug/Kg	☼	18	63 - 123	8	15
Chrysene	4200		338	4260	4	ug/Kg	☼	27	69 - 120	10	10
Dibenz(a,h)anthracene	300	F1 F2	338	578	F2	ug/Kg	☼	83	70 - 125	19	13
Fluoranthene	11000	B	338	11100	4	ug/Kg	☼	-5	74 - 125	6	13
Fluorene	4900		338	4850	4	ug/Kg	☼	-13	73 - 120	3	13
Indeno[1,2,3-cd]pyrene	1600		338	1770	4	ug/Kg	☼	38	65 - 121	11	15
Naphthalene	1500		338	1630	4	ug/Kg	☼	31	70 - 120	5	12
Phenanthrene	32000	B	338	31000	4	ug/Kg	☼	-225	73 - 120	5	11
Pyrene	16000	B	338	15000	4	ug/Kg	☼	-141	70 - 120	7	12

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Terphenyl-d14	*89*		*57 - 120*

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

Lab Sample ID: MB 580-283780/1-A
Matrix: Water
Analysis Batch: 284114

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 283780

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.45	0.061	ug/L		09/12/18 10:26	09/17/18 16:08	1
PCB-1221	ND		0.45	0.075	ug/L		09/12/18 10:26	09/17/18 16:08	1
PCB-1232	ND		0.45	0.063	ug/L		09/12/18 10:26	09/17/18 16:08	1
PCB-1242	ND		0.45	0.059	ug/L		09/12/18 10:26	09/17/18 16:08	1
PCB-1248	ND		0.45	0.052	ug/L		09/12/18 10:26	09/17/18 16:08	1
PCB-1254	ND		0.45	0.075	ug/L		09/12/18 10:26	09/17/18 16:08	1
PCB-1260	ND		0.45	0.061	ug/L		09/12/18 10:26	09/17/18 16:08	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*94*		*38 - 140*	*09/12/18 10:26*	*09/17/18 16:08*	*1*
Tetrachloro-m-xylene	*75*		*40 - 120*	*09/12/18 10:26*	*09/17/18 16:08*	*1*

Lab Sample ID: LCS 580-283780/6-A
Matrix: Water
Analysis Batch: 284114

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 283780

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	1.00	0.911		ug/L		91	50 - 121
PCB-1260	1.00	1.01		ug/L		101	55 - 132

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

Lab Sample ID: LCS 580-283780/6-A
Matrix: Water
Analysis Batch: 284114

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 283780

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*100*		*38 - 140*
Tetrachloro-m-xylene	*75*		*40 - 120*

Lab Sample ID: LCSD 580-283780/7-A
Matrix: Water
Analysis Batch: 284114

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 283780

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-1016			1.00	0.847		ug/L		85	50 - 121	7	25
PCB-1260			1.00	0.955		ug/L		96	55 - 132	5	22

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
DCB Decachlorobiphenyl	*92*		*38 - 140*
Tetrachloro-m-xylene	*71*		*40 - 120*

Lab Sample ID: MB 580-285846/1-A
Matrix: Solid
Analysis Batch: 285995

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 285846

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		2.0	0.34	ug/Kg		10/06/18 09:59	10/09/18 12:45	1
PCB-1221	ND		2.0	0.95	ug/Kg		10/06/18 09:59	10/09/18 12:45	1
PCB-1232	ND		2.0	0.47	ug/Kg		10/06/18 09:59	10/09/18 12:45	1
PCB-1242	ND		2.0	0.49	ug/Kg		10/06/18 09:59	10/09/18 12:45	1
PCB-1248	ND		2.0	0.16	ug/Kg		10/06/18 09:59	10/09/18 12:45	1
PCB-1254	ND		2.0	0.79	ug/Kg		10/06/18 09:59	10/09/18 12:45	1
PCB-1260	ND		2.0	0.34	ug/Kg		10/06/18 09:59	10/09/18 12:45	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*107*		*54 - 142*	*10/06/18 09:59*	*10/09/18 12:45*	*1*
Tetrachloro-m-xylene	*82*		*58 - 122*	*10/06/18 09:59*	*10/09/18 12:45*	*1*

Lab Sample ID: LCS 580-285846/2-A
Matrix: Solid
Analysis Batch: 285909

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 285846

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016			10.0	8.31		ug/Kg		83	64 - 120
PCB-1260			10.0	8.32		ug/Kg		83	63 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*98*		*54 - 142*
Tetrachloro-m-xylene	*80*		*58 - 122*

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

Lab Sample ID: LCSD 580-285846/3-A
Matrix: Solid
Analysis Batch: 285909

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 285846

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-1016			10.0	7.54		ug/Kg		75	64 - 120	10	21
PCB-1260			10.0	7.84		ug/Kg		78	63 - 130	6	25

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
DCB Decachlorobiphenyl	*91*		*54 - 142*
Tetrachloro-m-xylene	*73*		*58 - 122*

Lab Sample ID: 580-80167-18 MS
Matrix: Solid
Analysis Batch: 285967

Client Sample ID: PDI-SC-S113C-3.1to5.6
Prep Type: Total/NA
Prep Batch: 285846

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
PCB-1016	ND	F1	12.1	6.45	F1	ug/Kg	☼	53	64 - 120		
PCB-1260	ND	F1	12.1	6.15	F1	ug/Kg	☼	51	63 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*61*		*54 - 142*
Tetrachloro-m-xylene	*44*	*X*	*58 - 122*

Lab Sample ID: 580-80167-18 MSD
Matrix: Solid
Analysis Batch: 285967

Client Sample ID: PDI-SC-S113C-3.1to5.6
Prep Type: Total/NA
Prep Batch: 285846

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-1016	ND	F1	12.5	7.04	F1	ug/Kg	☼	56	64 - 120	9	21
PCB-1260	ND	F1	12.5	7.02	F1	ug/Kg	☼	56	63 - 130	13	25

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
DCB Decachlorobiphenyl	*68*		*54 - 142*
Tetrachloro-m-xylene	*48*	*X*	*58 - 122*

Lab Sample ID: MB 580-285847/1-A
Matrix: Solid
Analysis Batch: 286074

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 285847

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		2.0	0.34	ug/Kg		10/06/18 10:17	10/10/18 11:13	1
PCB-1221	ND		2.0	0.95	ug/Kg		10/06/18 10:17	10/10/18 11:13	1
PCB-1232	ND		2.0	0.47	ug/Kg		10/06/18 10:17	10/10/18 11:13	1
PCB-1242	ND		2.0	0.49	ug/Kg		10/06/18 10:17	10/10/18 11:13	1
PCB-1248	ND		2.0	0.16	ug/Kg		10/06/18 10:17	10/10/18 11:13	1
PCB-1254	ND		2.0	0.79	ug/Kg		10/06/18 10:17	10/10/18 11:13	1
PCB-1260	ND		2.0	0.34	ug/Kg		10/06/18 10:17	10/10/18 11:13	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*118*		*54 - 142*	*10/06/18 10:17*	*10/10/18 11:13*	*1*
Tetrachloro-m-xylene	*76*		*58 - 122*	*10/06/18 10:17*	*10/10/18 11:13*	*1*

Lab Sample ID: LCS 580-285847/2-A
Matrix: Solid
Analysis Batch: 286074

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 285847

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
PCB-1016			10.0	9.99		ug/Kg		100	64 - 120		
PCB-1260			10.0	8.45		ug/Kg		85	63 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*131*		*54 - 142*
Tetrachloro-m-xylene	*95*		*58 - 122*

Lab Sample ID: LCSD 580-285847/3-A
Matrix: Solid
Analysis Batch: 286074

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 285847

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-1016			10.0	10.8		ug/Kg		108	64 - 120	8	21
PCB-1260			10.0	8.43		ug/Kg		84	63 - 130	0	25

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
DCB Decachlorobiphenyl	*125*		*54 - 142*
Tetrachloro-m-xylene	*91*		*58 - 122*

Lab Sample ID: 580-80167-26 MS
Matrix: Solid
Analysis Batch: 286074

Client Sample ID: PDI-SC-S019-2to4
Prep Type: Total/NA
Prep Batch: 285847

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
PCB-1016	ND	F1	18.0	24.1	F1	ug/Kg	☼	134	64 - 120		
PCB-1260	22		18.0	35.4		ug/Kg	☼	75	63 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*75*		*54 - 142*
Tetrachloro-m-xylene	*53*	*X*	*58 - 122*

Lab Sample ID: 580-80167-26 MSD
Matrix: Solid
Analysis Batch: 286074

Client Sample ID: PDI-SC-S019-2to4
Prep Type: Total/NA
Prep Batch: 285847

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-1016	ND	F1	17.5	21.8	F1	ug/Kg	☼	124	64 - 120	10	21
PCB-1260	22		17.5	33.3		ug/Kg	☼	65	63 - 130	6	25

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
DCB Decachlorobiphenyl	*66*		*54 - 142*
Tetrachloro-m-xylene	*45*	*X*	*58 - 122*

Method: 9060_PSEP - TOC (Puget Sound)

Lab Sample ID: MB 580-284215/3
Matrix: Solid
Analysis Batch: 284215

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			09/17/18 10:04	1

Lab Sample ID: LCS 580-284215/4
Matrix: Solid
Analysis Batch: 284215

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	5360		mg/Kg		125	68 - 149		

Lab Sample ID: LCSD 580-284215/5
Matrix: Solid
Analysis Batch: 284215

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	4680		mg/Kg		109	68 - 149	14	32

Lab Sample ID: 580-80167-18 MS
Matrix: Solid
Analysis Batch: 284215

Client Sample ID: PDI-SC-S113C-3.1to5.6
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Organic Carbon - Duplicates	830	J	120000	146000		mg/Kg		121	68 - 149		

Lab Sample ID: 580-80167-18 MSD
Matrix: Solid
Analysis Batch: 284215

Client Sample ID: PDI-SC-S113C-3.1to5.6
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	830	J	120000	140000		mg/Kg		116	68 - 149	4	32

Lab Sample ID: 580-80167-18 DU
Matrix: Solid
Analysis Batch: 284215

Client Sample ID: PDI-SC-S113C-3.1to5.6
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Organic Carbon - Duplicates	830	J		702	J	mg/Kg				17	50

Lab Sample ID: 580-80167-18 TRL
Matrix: Solid
Analysis Batch: 284215

Client Sample ID: PDI-SC-S113C-3.1to5.6
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		TRL Result	TRL Qualifier	Unit	D			RSD	RSD Limit
Total Organic Carbon - Duplicates	830	J		742	J	mg/Kg				9	20

Method: 9060_PSEP - TOC (Puget Sound) (Continued)

Lab Sample ID: MB 580-284222/5
Matrix: Solid
Analysis Batch: 284222

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			09/17/18 13:07	1

Lab Sample ID: LCS 580-284222/6
Matrix: Solid
Analysis Batch: 284222

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	3900		mg/Kg		91	68 - 149		

Lab Sample ID: LCSD 580-284222/7
Matrix: Solid
Analysis Batch: 284222

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	3910		mg/Kg		92	68 - 149	0	32

Lab Sample ID: 580-80167-26 MS
Matrix: Solid
Analysis Batch: 284222

Client Sample ID: PDI-SC-S019-2to4
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Organic Carbon - Duplicates	40000		120000	127000		mg/Kg		73	68 - 149		

Lab Sample ID: 580-80167-26 MSD
Matrix: Solid
Analysis Batch: 284222

Client Sample ID: PDI-SC-S019-2to4
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	40000		120000	161000		mg/Kg		101	68 - 149	23	32

Lab Sample ID: 580-80167-26 DU
Matrix: Solid
Analysis Batch: 284222

Client Sample ID: PDI-SC-S019-2to4
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Organic Carbon - Duplicates	40000			39300		mg/Kg				2	50

Lab Sample ID: 580-80167-26 TRL
Matrix: Solid
Analysis Batch: 284222

Client Sample ID: PDI-SC-S019-2to4
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		TRL Result	TRL Qualifier	Unit	D			RSD	RSD Limit
Total Organic Carbon - Duplicates	40000			39500		mg/Kg				0.8	20

Method: D 2216 - Percent Moisture

Lab Sample ID: 580-80167-10 DU
Matrix: Solid
Analysis Batch: 284312

Client Sample ID: PDI-SC-S255-0to2.1D
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Solids	65.6	H		65.2		%				0.6	20

Lab Sample ID: 580-80167-36 DU
Matrix: Solid
Analysis Batch: 284312

Client Sample ID: PDI-SC-S019-10to12D
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Solids	57.1	H		57.1		%				0	20

Method: Moisture 70C - Percent Moisture, 70 C

Lab Sample ID: 580-80167-1 DU
Matrix: Solid
Analysis Batch: 283859

Client Sample ID: PDI-SC-S129-0to2
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Solids @ 70°C	50			51		%				2	20

Lab Sample ID: 580-80167-20 DU
Matrix: Solid
Analysis Batch: 283860

Client Sample ID: PDI-SC-S260-0to1.3
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Solids @ 70°C	45			45		%				0.9	20

Method: SM 5310B - Organic Carbon, Total (TOC)

Lab Sample ID: MB 580-284002/5
Matrix: Water
Analysis Batch: 284002

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	ND		1.0	0.19	mg/L			09/13/18 15:11	1

Lab Sample ID: LCS 580-284002/6
Matrix: Water
Analysis Batch: 284002

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	9.84		mg/L		98	85 - 115		

Lab Sample ID: MB 580-284316/3
Matrix: Water
Analysis Batch: 284316

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	0.520	J	1.0	0.19	mg/L			09/18/18 14:56	1

Method: SM 5310B - Organic Carbon, Total (TOC) (Continued)

Lab Sample ID: LCS 580-284316/4
Matrix: Water
Analysis Batch: 284316

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	10.6		mg/L		106	85 - 115

Method: D7928/D6913 - ASTM D7928/D6913

Lab Sample ID: 580-80167-1 DU
Matrix: Solid
Analysis Batch: 283819

Client Sample ID: PDI-SC-S129-0to2
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Gravel	0.0		0.0		%		NC	20
Coarse Sand	0.0		0.0		%		NC	20
Medium Sand	0.1		0.1		%		0	20
Fine Sand	21.7		21.1		%		3	20
Silt	64.1		65.2		%		2	20
Clay	14.1		13.5		%		4	20

Lab Sample ID: 580-80167-20 DU
Matrix: Solid
Analysis Batch: 283824

Client Sample ID: PDI-SC-S260-0to1.3
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Gravel	6.6		4.5	F3	%		38	20
Coarse Sand	2.0		1.4	F3	%		35	20
Medium Sand	2.6		2.5		%		4	20
Fine Sand	28.8		31.3		%		8	20
Silt	51.9		52.0		%		0.2	20
Clay	8.1		8.3		%		2	20

Client Sample ID: PDI-SC-S129-0to2

Lab Sample ID: 580-80167-1
Date Collected: 09/05/18 14:20
Matrix: Solid
Date Received: 09/07/18 12:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	284215	09/17/18 10:39	A1K	TAL SEA
Total/NA	Analysis	D 2216		1	284312	09/19/18 09:39	KMS	TAL SEA
Total/NA	Analysis	Moisture 70C		1	283859	09/12/18 16:18	HJM	TAL SEA
Total/NA	Analysis	D7928/D6913		1	283819	09/12/18 16:18	JKM	TAL SEA

Client Sample ID: PDI-SC-S129-0to2

Lab Sample ID: 580-80167-1
Date Collected: 09/05/18 14:20
Matrix: Solid
Date Received: 09/07/18 12:35
Percent Solids: 47.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			285753	10/05/18 09:49	BAH	TAL SEA
Total/NA	Analysis	8270D SIM		10	286033	10/09/18 17:46	W1T	TAL SEA
Total/NA	Prep	3550B			285846	10/06/18 09:59	KMS	TAL SEA
Total/NA	Analysis	8082A		1	285909	10/08/18 16:29	APR	TAL SEA

Client Sample ID: PDI-SC-S129-2to4

Lab Sample ID: 580-80167-2
Date Collected: 09/05/18 14:25
Matrix: Solid
Date Received: 09/07/18 12:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	284215	09/17/18 10:59	A1K	TAL SEA
Total/NA	Analysis	D 2216		1	284312	09/19/18 09:39	KMS	TAL SEA
Total/NA	Analysis	Moisture 70C		1	283859	09/12/18 16:18	HJM	TAL SEA
Total/NA	Analysis	D7928/D6913		1	283819	09/12/18 16:18	JKM	TAL SEA

Client Sample ID: PDI-SC-S129-2to4

Lab Sample ID: 580-80167-2
Date Collected: 09/05/18 14:25
Matrix: Solid
Date Received: 09/07/18 12:35
Percent Solids: 51.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			285753	10/05/18 09:49	BAH	TAL SEA
Total/NA	Analysis	8270D SIM		10	286033	10/09/18 19:03	W1T	TAL SEA
Total/NA	Prep	3550B			285846	10/06/18 09:59	KMS	TAL SEA
Total/NA	Analysis	8082A		1	285909	10/08/18 16:46	APR	TAL SEA

Client Sample ID: PDI-SC-S129-4to5.3

Lab Sample ID: 580-80167-3
Date Collected: 09/05/18 14:30
Matrix: Solid
Date Received: 09/07/18 12:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	284215	09/17/18 11:05	A1K	TAL SEA
Total/NA	Analysis	D 2216		1	284312	09/19/18 09:39	KMS	TAL SEA

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture 70C		1	283859	09/12/18 16:18	HJM	TAL SEA
Total/NA	Analysis	D7928/D6913		1	283819	09/12/18 16:18	JKM	TAL SEA

Client Sample ID: PDI-SC-S129-4to5.3
Lab Sample ID: 580-80167-3
Date Collected: 09/05/18 14:30
Matrix: Solid
Date Received: 09/07/18 12:35
Percent Solids: 54.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			285753	10/05/18 09:49	BAH	TAL SEA
Total/NA	Analysis	8270D SIM		10	286033	10/09/18 19:29	W1T	TAL SEA
Total/NA	Prep	3550B			285846	10/06/18 09:59	KMS	TAL SEA
Total/NA	Analysis	8082A		1	285909	10/08/18 17:03	APR	TAL SEA

Client Sample ID: PDI-SC-S155-0to2.1
Lab Sample ID: 580-80167-4
Date Collected: 09/05/18 16:00
Matrix: Solid
Date Received: 09/07/18 12:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	284215	09/17/18 11:10	A1K	TAL SEA
Total/NA	Analysis	D 2216		1	284312	09/19/18 09:39	KMS	TAL SEA
Total/NA	Analysis	Moisture 70C		1	283859	09/12/18 16:18	HJM	TAL SEA
Total/NA	Analysis	D7928/D6913		1	283819	09/12/18 16:18	JKM	TAL SEA

Client Sample ID: PDI-SC-S155-0to2.1
Lab Sample ID: 580-80167-4
Date Collected: 09/05/18 16:00
Matrix: Solid
Date Received: 09/07/18 12:35
Percent Solids: 54.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			285753	10/05/18 09:49	BAH	TAL SEA
Total/NA	Analysis	8270D SIM		10	286033	10/09/18 19:55	W1T	TAL SEA
Total/NA	Prep	3550B			285846	10/06/18 09:59	KMS	TAL SEA
Total/NA	Analysis	8082A		1	285909	10/08/18 17:19	APR	TAL SEA

Client Sample ID: PDI-SC-S155-2.1to4.2
Lab Sample ID: 580-80167-5
Date Collected: 09/05/18 16:05
Matrix: Solid
Date Received: 09/07/18 12:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	284215	09/17/18 11:15	A1K	TAL SEA
Total/NA	Analysis	D 2216		1	284312	09/19/18 09:39	KMS	TAL SEA
Total/NA	Analysis	Moisture 70C		1	283859	09/12/18 16:18	HJM	TAL SEA
Total/NA	Analysis	D7928/D6913		1	283819	09/12/18 16:18	JKM	TAL SEA

Client Sample ID: PDI-SC-S155-2.1to4.2

Lab Sample ID: 580-80167-5
Date Collected: 09/05/18 16:05
Matrix: Solid
Date Received: 09/07/18 12:35
Percent Solids: 73.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			285753	10/05/18 09:49	BAH	TAL SEA
Total/NA	Analysis	8270D SIM		10	286033	10/09/18 20:20	W1T	TAL SEA
Total/NA	Prep	3550B			285846	10/06/18 09:59	KMS	TAL SEA
Total/NA	Analysis	8082A		1	285909	10/08/18 17:36	APR	TAL SEA

Client Sample ID: PDI-SC-S155-4.2to5.3

Lab Sample ID: 580-80167-6
Date Collected: 09/05/18 16:10
Matrix: Solid
Date Received: 09/07/18 12:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	284215	09/17/18 11:20	A1K	TAL SEA
Total/NA	Analysis	D 2216		1	284312	09/19/18 09:39	KMS	TAL SEA
Total/NA	Analysis	Moisture 70C		1	283859	09/12/18 16:18	HJM	TAL SEA
Total/NA	Analysis	D7928/D6913		1	283819	09/12/18 16:18	JKM	TAL SEA

Client Sample ID: PDI-SC-S155-4.2to5.3

Lab Sample ID: 580-80167-6
Date Collected: 09/05/18 16:10
Matrix: Solid
Date Received: 09/07/18 12:35
Percent Solids: 73.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			285753	10/05/18 09:49	BAH	TAL SEA
Total/NA	Analysis	8270D SIM		1	286033	10/09/18 20:46	W1T	TAL SEA
Total/NA	Prep	3550B			285846	10/06/18 09:59	KMS	TAL SEA
Total/NA	Analysis	8082A		1	285909	10/08/18 17:53	APR	TAL SEA

Client Sample ID: PDI-SC-S121-0to1.8

Lab Sample ID: 580-80167-7
Date Collected: 09/05/18 17:25
Matrix: Solid
Date Received: 09/07/18 12:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	284215	09/17/18 11:25	A1K	TAL SEA
Total/NA	Analysis	D 2216		1	284312	09/19/18 09:39	KMS	TAL SEA
Total/NA	Analysis	Moisture 70C		1	283859	09/12/18 16:18	HJM	TAL SEA
Total/NA	Analysis	D7928/D6913		1	283819	09/12/18 16:18	JKM	TAL SEA

Client Sample ID: PDI-SC-S121-0to1.8

Lab Sample ID: 580-80167-7
Date Collected: 09/05/18 17:25
Matrix: Solid
Date Received: 09/07/18 12:35
Percent Solids: 80.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			285753	10/05/18 09:49	BAH	TAL SEA
Total/NA	Analysis	8270D SIM		5	286033	10/09/18 21:12	W1T	TAL SEA

Client Sample ID: PDI-SC-S121-0to1.8
Date Collected: 09/05/18 17:25
Date Received: 09/07/18 12:35

Lab Sample ID: 580-80167-7
Matrix: Solid
Percent Solids: 80.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			285846	10/06/18 09:59	KMS	TAL SEA
Total/NA	Analysis	8082A		1	285909	10/08/18 18:10	APR	TAL SEA

Client Sample ID: PDI-SC-S121-1.8to3.4
Date Collected: 09/05/18 17:30
Date Received: 09/07/18 12:35

Lab Sample ID: 580-80167-8
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	284215	09/17/18 11:29	A1K	TAL SEA
Total/NA	Analysis	D 2216		1	284312	09/19/18 09:39	KMS	TAL SEA
Total/NA	Analysis	Moisture 70C		1	283859	09/12/18 16:18	HJM	TAL SEA
Total/NA	Analysis	D7928/D6913		1	283819	09/12/18 16:18	JKM	TAL SEA

Client Sample ID: PDI-SC-S121-1.8to3.4
Date Collected: 09/05/18 17:30
Date Received: 09/07/18 12:35

Lab Sample ID: 580-80167-8
Matrix: Solid
Percent Solids: 77.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			285753	10/05/18 09:49	BAH	TAL SEA
Total/NA	Analysis	8270D SIM		10	286033	10/09/18 21:37	W1T	TAL SEA
Total/NA	Prep	3550B			285846	10/06/18 09:59	KMS	TAL SEA
Total/NA	Analysis	8082A		1	285909	10/08/18 18:26	APR	TAL SEA

Client Sample ID: PDI-SC-S255-0to2.1
Date Collected: 09/05/18 19:45
Date Received: 09/07/18 12:35

Lab Sample ID: 580-80167-9
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	284215	09/17/18 11:50	A1K	TAL SEA
Total/NA	Analysis	D 2216		1	284312	09/19/18 09:39	KMS	TAL SEA
Total/NA	Analysis	Moisture 70C		1	283859	09/12/18 16:18	HJM	TAL SEA
Total/NA	Analysis	D7928/D6913		1	283819	09/12/18 16:18	JKM	TAL SEA

Client Sample ID: PDI-SC-S255-0to2.1
Date Collected: 09/05/18 19:45
Date Received: 09/07/18 12:35

Lab Sample ID: 580-80167-9
Matrix: Solid
Percent Solids: 66.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			285753	10/05/18 09:49	BAH	TAL SEA
Total/NA	Analysis	8270D SIM		5	286033	10/09/18 22:03	W1T	TAL SEA
Total/NA	Prep	3550B			285846	10/06/18 09:59	KMS	TAL SEA
Total/NA	Analysis	8082A		1	285909	10/08/18 18:43	APR	TAL SEA

Client Sample ID: PDI-SC-S255-0to2.1D
Lab Sample ID: 580-80167-10
Date Collected: 09/05/18 19:45
Matrix: Solid
Date Received: 09/07/18 12:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	284215	09/17/18 11:55	A1K	TAL SEA
Total/NA	Analysis	D 2216		1	284312	09/19/18 09:39	KMS	TAL SEA
Total/NA	Analysis	Moisture 70C		1	283855	09/13/18 04:11	HJM	TAL SEA

Client Sample ID: PDI-SC-S255-0to2.1D
Lab Sample ID: 580-80167-10
Date Collected: 09/05/18 19:45
Matrix: Solid
Date Received: 09/07/18 12:35
Percent Solids: 65.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			285753	10/05/18 09:49	BAH	TAL SEA
Total/NA	Analysis	8270D SIM		5	286033	10/09/18 22:29	W1T	TAL SEA
Total/NA	Prep	3550B			285846	10/06/18 09:59	KMS	TAL SEA
Total/NA	Analysis	8082A		1	285909	10/08/18 19:00	APR	TAL SEA

Client Sample ID: PDI-SC-S255-2.1to4.3
Lab Sample ID: 580-80167-11
Date Collected: 09/05/18 19:50
Matrix: Solid
Date Received: 09/07/18 12:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	284215	09/17/18 15:15	A1K	TAL SEA
Total/NA	Analysis	D 2216		1	284312	09/19/18 09:39	KMS	TAL SEA
Total/NA	Analysis	Moisture 70C		1	283859	09/12/18 16:18	HJM	TAL SEA
Total/NA	Analysis	D7928/D6913		1	283819	09/12/18 16:18	JKM	TAL SEA

Client Sample ID: PDI-SC-S255-2.1to4.3
Lab Sample ID: 580-80167-11
Date Collected: 09/05/18 19:50
Matrix: Solid
Date Received: 09/07/18 12:35
Percent Solids: 63.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			285753	10/05/18 09:49	BAH	TAL SEA
Total/NA	Analysis	8270D SIM		10	286033	10/09/18 22:54	W1T	TAL SEA
Total/NA	Prep	3550B			285846	10/06/18 09:59	KMS	TAL SEA
Total/NA	Analysis	8082A		1	285909	10/08/18 19:17	APR	TAL SEA

Client Sample ID: PDI-SC-S112-0to2
Lab Sample ID: 580-80167-12
Date Collected: 09/05/18 21:00
Matrix: Solid
Date Received: 09/07/18 12:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	284215	09/17/18 15:19	A1K	TAL SEA
Total/NA	Analysis	D 2216		1	284312	09/19/18 09:39	KMS	TAL SEA
Total/NA	Analysis	Moisture 70C		1	283859	09/12/18 16:18	HJM	TAL SEA

Client Sample ID: PDI-SC-S112-0to2
Lab Sample ID: 580-80167-12
Date Collected: 09/05/18 21:00
Matrix: Solid
Date Received: 09/07/18 12:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D7928/D6913		1	283819	09/12/18 16:18	JKM	TAL SEA

Client Sample ID: PDI-SC-S112-0to2
Lab Sample ID: 580-80167-12
Date Collected: 09/05/18 21:00
Matrix: Solid
Date Received: 09/07/18 12:35
Percent Solids: 44.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			285753	10/05/18 09:49	BAH	TAL SEA
Total/NA	Analysis	8270D SIM		10	286033	10/09/18 23:20	W1T	TAL SEA
Total/NA	Prep	3550B			285846	10/06/18 09:59	KMS	TAL SEA
Total/NA	Analysis	8082A		1	285909	10/08/18 19:34	APR	TAL SEA

Client Sample ID: PDI-SC-S112-2to4
Lab Sample ID: 580-80167-13
Date Collected: 09/05/18 21:05
Matrix: Solid
Date Received: 09/07/18 12:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	284215	09/17/18 12:11	A1K	TAL SEA
Total/NA	Analysis	D 2216		1	284312	09/19/18 09:39	KMS	TAL SEA
Total/NA	Analysis	Moisture 70C		1	283859	09/12/18 16:18	HJM	TAL SEA
Total/NA	Analysis	D7928/D6913		1	283819	09/12/18 16:18	JKM	TAL SEA

Client Sample ID: PDI-SC-S112-2to4
Lab Sample ID: 580-80167-13
Date Collected: 09/05/18 21:05
Matrix: Solid
Date Received: 09/07/18 12:35
Percent Solids: 41.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			285753	10/05/18 09:49	BAH	TAL SEA
Total/NA	Analysis	8270D SIM		10	286033	10/09/18 23:46	W1T	TAL SEA
Total/NA	Prep	3550B			285846	10/06/18 09:59	KMS	TAL SEA
Total/NA	Analysis	8082A		1	285909	10/08/18 19:50	APR	TAL SEA

Client Sample ID: PDI-SC-S112-4to6
Lab Sample ID: 580-80167-14
Date Collected: 09/05/18 21:10
Matrix: Solid
Date Received: 09/07/18 12:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	284215	09/17/18 12:18	A1K	TAL SEA
Total/NA	Analysis	D 2216		1	284312	09/19/18 09:39	KMS	TAL SEA
Total/NA	Analysis	Moisture 70C		1	283859	09/12/18 16:18	HJM	TAL SEA
Total/NA	Analysis	D7928/D6913		1	283819	09/12/18 16:18	JKM	TAL SEA

Client Sample ID: PDI-SC-S112-4to6

Lab Sample ID: 580-80167-14
Date Collected: 09/05/18 21:10
Matrix: Solid
Date Received: 09/07/18 12:35
Percent Solids: 46.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			285753	10/05/18 09:49	BAH	TAL SEA
Total/NA	Analysis	8270D SIM		10	286033	10/10/18 00:11	W1T	TAL SEA
Total/NA	Prep	3550B			285846	10/06/18 09:59	KMS	TAL SEA
Total/NA	Analysis	8082A		1	285909	10/08/18 20:07	APR	TAL SEA

Client Sample ID: PDI-RB-SS-180905

Lab Sample ID: 580-80167-15
Date Collected: 09/05/18 20:00
Matrix: Water
Date Received: 09/07/18 12:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			283783	09/12/18 11:48	JSM	TAL SEA
Total/NA	Analysis	8270D SIM		1	284016	09/14/18 19:52	CJ	TAL SEA
Total/NA	Prep	3510C			283780	09/12/18 10:26	KO	TAL SEA
Total/NA	Analysis	8082A		1	284114	09/17/18 18:39	CJB	TAL SEA
Total/NA	Analysis	SM 5310B		1	284002	09/13/18 15:11	TTN	TAL SEA

Client Sample ID: PDI-SC-S113C-0to1.1

Lab Sample ID: 580-80167-16
Date Collected: 09/06/18 14:40
Matrix: Solid
Date Received: 09/07/18 12:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	284215	09/17/18 12:24	A1K	TAL SEA
Total/NA	Analysis	D 2216		1	284312	09/19/18 09:39	KMS	TAL SEA
Total/NA	Analysis	Moisture 70C		1	283859	09/12/18 16:18	HJM	TAL SEA
Total/NA	Analysis	D7928/D6913		1	283819	09/12/18 16:18	JKM	TAL SEA

Client Sample ID: PDI-SC-S113C-0to1.1

Lab Sample ID: 580-80167-16
Date Collected: 09/06/18 14:40
Matrix: Solid
Date Received: 09/07/18 12:35
Percent Solids: 50.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			286334	10/12/18 10:29	BAH	TAL SEA
Total/NA	Analysis	8270D SIM		1000	286568	10/16/18 04:08	ERZ	TAL SEA
Total/NA	Prep	3550B			285846	10/06/18 09:59	KMS	TAL SEA
Total/NA	Analysis	8082A		1	285909	10/08/18 20:24	APR	TAL SEA

Client Sample ID: PDI-SC-S113C-1.1to3.1

Lab Sample ID: 580-80167-17
Date Collected: 09/06/18 14:45
Matrix: Solid
Date Received: 09/07/18 12:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	284222	09/17/18 13:39	A1K	TAL SEA

Client Sample ID: PDI-SC-S113C-1.1to3.1
Lab Sample ID: 580-80167-17
Date Collected: 09/06/18 14:45
Matrix: Solid
Date Received: 09/07/18 12:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	284312	09/19/18 09:39	KMS	TAL SEA
Total/NA	Analysis	Moisture 70C		1	283859	09/12/18 16:18	HJM	TAL SEA
Total/NA	Analysis	D7928/D6913		1	283819	09/12/18 16:18	JKM	TAL SEA

Client Sample ID: PDI-SC-S113C-1.1to3.1
Lab Sample ID: 580-80167-17
Date Collected: 09/06/18 14:45
Matrix: Solid
Date Received: 09/07/18 12:35
Percent Solids: 79.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			286334	10/12/18 10:29	BAH	TAL SEA
Total/NA	Analysis	8270D SIM		5	286568	10/15/18 20:48	ERZ	TAL SEA
Total/NA	Prep	3546	DL		286334	10/12/18 10:29	BAH	TAL SEA
Total/NA	Analysis	8270D SIM	DL	25	286592	10/16/18 20:32	ADB	TAL SEA
Total/NA	Prep	3550B			285846	10/06/18 09:59	KMS	TAL SEA
Total/NA	Analysis	8082A		1	285909	10/08/18 20:41	APR	TAL SEA

Client Sample ID: PDI-SC-S113C-3.1to5.6
Lab Sample ID: 580-80167-18
Date Collected: 09/06/18 14:50
Matrix: Solid
Date Received: 09/07/18 12:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	284215	09/17/18 10:19	A1K	TAL SEA
Total/NA	Analysis	D 2216		1	284312	09/19/18 09:39	KMS	TAL SEA
Total/NA	Analysis	Moisture 70C		1	283859	09/12/18 16:18	HJM	TAL SEA
Total/NA	Analysis	D7928/D6913		1	283819	09/12/18 16:18	JKM	TAL SEA

Client Sample ID: PDI-SC-S113C-3.1to5.6
Lab Sample ID: 580-80167-18
Date Collected: 09/06/18 14:50
Matrix: Solid
Date Received: 09/07/18 12:35
Percent Solids: 79.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			286334	10/12/18 10:29	BAH	TAL SEA
Total/NA	Analysis	8270D SIM		1	286568	10/15/18 21:12	ERZ	TAL SEA
Total/NA	Prep	3550B			285846	10/06/18 09:59	KMS	TAL SEA
Total/NA	Analysis	8082A		1	285967	10/08/18 22:38	CJB	TAL SEA

Client Sample ID: PDI-SC-S113C-5.6to6.6
Lab Sample ID: 580-80167-19
Date Collected: 09/06/18 14:55
Matrix: Solid
Date Received: 09/07/18 12:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	284222	09/17/18 13:54	A1K	TAL SEA

Client Sample ID: PDI-SC-S113C-5.6to6.6

Lab Sample ID: 580-80167-19
Date Collected: 09/06/18 14:55
Matrix: Solid
Date Received: 09/07/18 12:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	284312	09/19/18 09:39	KMS	TAL SEA
Total/NA	Analysis	Moisture 70C		1	283859	09/12/18 16:18	HJM	TAL SEA
Total/NA	Analysis	D7928/D6913		1	283819	09/12/18 16:18	JKM	TAL SEA

Client Sample ID: PDI-SC-S113C-5.6to6.6

Lab Sample ID: 580-80167-19
Date Collected: 09/06/18 14:55
Matrix: Solid
Date Received: 09/07/18 12:35
Percent Solids: 78.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			286334	10/12/18 10:29	BAH	TAL SEA
Total/NA	Analysis	8270D SIM		1	286568	10/15/18 22:26	ERZ	TAL SEA
Total/NA	Prep	3550B			285846	10/06/18 09:59	KMS	TAL SEA
Total/NA	Analysis	8082A		1	285967	10/08/18 23:29	CJB	TAL SEA

Client Sample ID: PDI-SC-S260-0to1.3

Lab Sample ID: 580-80167-20
Date Collected: 09/06/18 18:00
Matrix: Solid
Date Received: 09/07/18 12:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	284222	09/17/18 13:58	A1K	TAL SEA
Total/NA	Analysis	D 2216		1	284312	09/19/18 09:39	KMS	TAL SEA
Total/NA	Analysis	Moisture 70C		1	283860	09/12/18 16:40	HJM	TAL SEA
Total/NA	Analysis	D7928/D6913		1	283824	09/12/18 16:40	A1K	TAL SEA

Client Sample ID: PDI-SC-S260-0to1.3

Lab Sample ID: 580-80167-20
Date Collected: 09/06/18 18:00
Matrix: Solid
Date Received: 09/07/18 12:35
Percent Solids: 44.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			286334	10/12/18 10:29	BAH	TAL SEA
Total/NA	Analysis	8270D SIM		5	286568	10/15/18 22:50	ERZ	TAL SEA
Total/NA	Prep	3550B			285846	10/06/18 09:59	KMS	TAL SEA
Total/NA	Analysis	8082A		1	285967	10/08/18 23:45	CJB	TAL SEA

Client Sample ID: PDI-SC-S260-1.3to2.6

Lab Sample ID: 580-80167-21
Date Collected: 09/06/18 18:05
Matrix: Solid
Date Received: 09/07/18 12:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	284222	09/17/18 14:04	A1K	TAL SEA
Total/NA	Analysis	D 2216		1	284312	09/19/18 09:39	KMS	TAL SEA
Total/NA	Analysis	Moisture 70C		1	283860	09/12/18 16:40	HJM	TAL SEA

Client Sample ID: PDI-SC-S260-1.3to2.6

Lab Sample ID: 580-80167-21
Date Collected: 09/06/18 18:05
Matrix: Solid
Date Received: 09/07/18 12:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D7928/D6913		1	283824	09/12/18 16:40	A1K	TAL SEA

Client Sample ID: PDI-SC-S260-1.3to2.6

Lab Sample ID: 580-80167-21
Date Collected: 09/06/18 18:05
Matrix: Solid
Date Received: 09/07/18 12:35
Percent Solids: 53.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			286334	10/12/18 10:29	BAH	TAL SEA
Total/NA	Analysis	8270D SIM		1	286568	10/15/18 23:15	ERZ	TAL SEA
Total/NA	Prep	3550B			285847	10/06/18 10:17	KMS	TAL SEA
Total/NA	Analysis	8082A		1	286074	10/10/18 12:03	TL1	TAL SEA

Client Sample ID: PDI-SC-S260-2.6to4.2

Lab Sample ID: 580-80167-22
Date Collected: 09/06/18 18:10
Matrix: Solid
Date Received: 09/07/18 12:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	284222	09/17/18 15:24	A1K	TAL SEA
Total/NA	Analysis	D 2216		1	284312	09/19/18 09:39	KMS	TAL SEA
Total/NA	Analysis	Moisture 70C		1	283860	09/12/18 16:40	HJM	TAL SEA
Total/NA	Analysis	D7928/D6913		1	283824	09/12/18 16:40	A1K	TAL SEA

Client Sample ID: PDI-SC-S260-2.6to4.2

Lab Sample ID: 580-80167-22
Date Collected: 09/06/18 18:10
Matrix: Solid
Date Received: 09/07/18 12:35
Percent Solids: 70.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			286334	10/12/18 10:29	BAH	TAL SEA
Total/NA	Analysis	8270D SIM		1	286568	10/15/18 23:39	ERZ	TAL SEA
Total/NA	Prep	3550B			285847	10/06/18 10:17	KMS	TAL SEA
Total/NA	Analysis	8082A		1	286074	10/10/18 12:20	TL1	TAL SEA

Client Sample ID: PDI-SC-S260-4.2to6

Lab Sample ID: 580-80167-23
Date Collected: 09/06/18 18:15
Matrix: Solid
Date Received: 09/07/18 12:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	284222	09/17/18 14:15	A1K	TAL SEA
Total/NA	Analysis	D 2216		1	284312	09/19/18 09:39	KMS	TAL SEA
Total/NA	Analysis	Moisture 70C		1	283860	09/12/18 16:40	HJM	TAL SEA
Total/NA	Analysis	D7928/D6913		1	283824	09/12/18 16:40	A1K	TAL SEA

Client Sample ID: PDI-SC-S260-4.2to6

Lab Sample ID: 580-80167-23
Date Collected: 09/06/18 18:15
Matrix: Solid
Date Received: 09/07/18 12:35
Percent Solids: 79.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			286334	10/12/18 10:29	BAH	TAL SEA
Total/NA	Analysis	8270D SIM		1	286568	10/16/18 00:04	ERZ	TAL SEA
Total/NA	Prep	3550B			285847	10/06/18 10:17	KMS	TAL SEA
Total/NA	Analysis	8082A		1	286074	10/10/18 12:36	TL1	TAL SEA

Client Sample ID: PDI-SC-S260-6to7

Lab Sample ID: 580-80167-24
Date Collected: 09/06/18 18:20
Matrix: Solid
Date Received: 09/07/18 12:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	284222	09/17/18 14:19	A1K	TAL SEA
Total/NA	Analysis	D 2216		1	284312	09/19/18 09:39	KMS	TAL SEA
Total/NA	Analysis	Moisture 70C		1	283860	09/12/18 16:40	HJM	TAL SEA
Total/NA	Analysis	D7928/D6913		1	283824	09/12/18 16:40	A1K	TAL SEA

Client Sample ID: PDI-SC-S260-6to7

Lab Sample ID: 580-80167-24
Date Collected: 09/06/18 18:20
Matrix: Solid
Date Received: 09/07/18 12:35
Percent Solids: 78.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			286334	10/12/18 10:29	BAH	TAL SEA
Total/NA	Analysis	8270D SIM		1	286568	10/16/18 00:28	ERZ	TAL SEA
Total/NA	Prep	3550B			285847	10/06/18 10:17	KMS	TAL SEA
Total/NA	Analysis	8082A		1	286074	10/10/18 12:53	TL1	TAL SEA

Client Sample ID: PDI-SC-S019-0to2

Lab Sample ID: 580-80167-25
Date Collected: 09/06/18 20:20
Matrix: Solid
Date Received: 09/07/18 12:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	284222	09/17/18 14:24	A1K	TAL SEA
Total/NA	Analysis	D 2216		1	284312	09/19/18 09:39	KMS	TAL SEA
Total/NA	Analysis	Moisture 70C		1	283860	09/12/18 16:40	HJM	TAL SEA
Total/NA	Analysis	D7928/D6913		1	283824	09/12/18 16:40	A1K	TAL SEA

Client Sample ID: PDI-SC-S019-0to2

Lab Sample ID: 580-80167-25
Date Collected: 09/06/18 20:20
Matrix: Solid
Date Received: 09/07/18 12:35
Percent Solids: 56.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			286334	10/12/18 10:29	BAH	TAL SEA
Total/NA	Analysis	8270D SIM		1	286568	10/16/18 00:53	ERZ	TAL SEA

Client Sample ID: PDI-SC-S019-0to2

Lab Sample ID: 580-80167-25
Date Collected: 09/06/18 20:20
Matrix: Solid
Date Received: 09/07/18 12:35
Percent Solids: 56.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			285847	10/06/18 10:17	KMS	TAL SEA
Total/NA	Analysis	8082A		1	286074	10/10/18 13:10	TL1	TAL SEA

Client Sample ID: PDI-SC-S019-2to4

Lab Sample ID: 580-80167-26
Date Collected: 09/06/18 20:25
Matrix: Solid
Date Received: 09/07/18 12:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	284222	09/17/18 13:15	A1K	TAL SEA
Total/NA	Analysis	D 2216		1	284312	09/19/18 09:39	KMS	TAL SEA
Total/NA	Analysis	Moisture 70C		1	283860	09/12/18 16:40	HJM	TAL SEA
Total/NA	Analysis	D7928/D6913		1	283824	09/12/18 16:40	A1K	TAL SEA

Client Sample ID: PDI-SC-S019-2to4

Lab Sample ID: 580-80167-26
Date Collected: 09/06/18 20:25
Matrix: Solid
Date Received: 09/07/18 12:35
Percent Solids: 54.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			286471	10/14/18 11:47	BAH	TAL SEA
Total/NA	Analysis	8270D SIM		50	286592	10/16/18 19:18	ADB	TAL SEA
Total/NA	Prep	3550B			285847	10/06/18 10:17	KMS	TAL SEA
Total/NA	Analysis	8082A		1	286074	10/10/18 13:27	TL1	TAL SEA

Client Sample ID: PDI-SC-S019-4to6

Lab Sample ID: 580-80167-27
Date Collected: 09/06/18 20:30
Matrix: Solid
Date Received: 09/07/18 12:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	284222	09/17/18 14:35	A1K	TAL SEA
Total/NA	Analysis	D 2216		1	284312	09/19/18 09:39	KMS	TAL SEA
Total/NA	Analysis	Moisture 70C		1	283860	09/12/18 16:40	HJM	TAL SEA
Total/NA	Analysis	D7928/D6913		1	283824	09/12/18 16:40	A1K	TAL SEA

Client Sample ID: PDI-SC-S019-4to6

Lab Sample ID: 580-80167-27
Date Collected: 09/06/18 20:30
Matrix: Solid
Date Received: 09/07/18 12:35
Percent Solids: 55.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			286334	10/12/18 10:29	BAH	TAL SEA
Total/NA	Analysis	8270D SIM		5	286568	10/16/18 01:17	ERZ	TAL SEA
Total/NA	Prep	3550B			285847	10/06/18 10:17	KMS	TAL SEA
Total/NA	Analysis	8082A		1	286074	10/10/18 14:17	TL1	TAL SEA

Client Sample ID: PDI-SC-S019-6to8

Lab Sample ID: 580-80167-28
Date Collected: 09/06/18 20:35
Matrix: Solid
Date Received: 09/07/18 12:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	284222	09/17/18 14:40	A1K	TAL SEA
Total/NA	Analysis	D 2216		1	284312	09/19/18 09:39	KMS	TAL SEA
Total/NA	Analysis	Moisture 70C		1	283860	09/12/18 16:40	HJM	TAL SEA
Total/NA	Analysis	D7928/D6913		1	283824	09/12/18 16:40	A1K	TAL SEA

Client Sample ID: PDI-SC-S019-6to8

Lab Sample ID: 580-80167-28
Date Collected: 09/06/18 20:35
Matrix: Solid
Date Received: 09/07/18 12:35
Percent Solids: 55.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			286334	10/12/18 10:29	BAH	TAL SEA
Total/NA	Analysis	8270D SIM		5	286568	10/16/18 01:42	ERZ	TAL SEA
Total/NA	Prep	3550B			285847	10/06/18 10:17	KMS	TAL SEA
Total/NA	Analysis	8082A		1	286074	10/10/18 14:34	TL1	TAL SEA

Client Sample ID: PDI-SC-S019-8to10

Lab Sample ID: 580-80167-29
Date Collected: 09/06/18 20:40
Matrix: Solid
Date Received: 09/07/18 12:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	284222	09/17/18 14:45	A1K	TAL SEA
Total/NA	Analysis	D 2216		1	284312	09/19/18 09:39	KMS	TAL SEA
Total/NA	Analysis	Moisture 70C		1	283860	09/12/18 16:40	HJM	TAL SEA
Total/NA	Analysis	D7928/D6913		1	283824	09/12/18 16:40	A1K	TAL SEA

Client Sample ID: PDI-SC-S019-8to10

Lab Sample ID: 580-80167-29
Date Collected: 09/06/18 20:40
Matrix: Solid
Date Received: 09/07/18 12:35
Percent Solids: 58.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			286334	10/12/18 10:29	BAH	TAL SEA
Total/NA	Analysis	8270D SIM		5	286568	10/16/18 02:06	ERZ	TAL SEA
Total/NA	Prep	3550B			285847	10/06/18 10:17	KMS	TAL SEA
Total/NA	Analysis	8082A		1	286074	10/10/18 14:51	TL1	TAL SEA

Client Sample ID: PDI-SC-S019-10to12

Lab Sample ID: 580-80167-30
Date Collected: 09/06/18 20:45
Matrix: Solid
Date Received: 09/07/18 12:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	284222	09/17/18 14:50	A1K	TAL SEA
Total/NA	Analysis	D 2216		1	284312	09/19/18 09:39	KMS	TAL SEA

Client Sample ID: PDI-SC-S019-10to12
Lab Sample ID: 580-80167-30
Date Collected: 09/06/18 20:45
Matrix: Solid
Date Received: 09/07/18 12:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture 70C		1	283860	09/12/18 16:40	HJM	TAL SEA
Total/NA	Analysis	D7928/D6913		1	283824	09/12/18 16:40	A1K	TAL SEA

Client Sample ID: PDI-SC-S019-10to12
Lab Sample ID: 580-80167-30
Date Collected: 09/06/18 20:45
Matrix: Solid
Date Received: 09/07/18 12:35
Percent Solids: 56.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			286334	10/12/18 10:29	BAH	TAL SEA
Total/NA	Analysis	8270D SIM		5	286568	10/16/18 02:30	ERZ	TAL SEA
Total/NA	Prep	3550B			285847	10/06/18 10:17	KMS	TAL SEA
Total/NA	Analysis	8082A		1	286074	10/10/18 15:07	TL1	TAL SEA

Client Sample ID: PDI-SC-S019-12to13.7
Lab Sample ID: 580-80167-31
Date Collected: 09/06/18 20:50
Matrix: Solid
Date Received: 09/07/18 12:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	284222	09/17/18 14:54	A1K	TAL SEA
Total/NA	Analysis	D 2216		1	284312	09/19/18 09:39	KMS	TAL SEA
Total/NA	Analysis	Moisture 70C		1	283860	09/12/18 16:40	HJM	TAL SEA
Total/NA	Analysis	D7928/D6913		1	283824	09/12/18 16:40	A1K	TAL SEA

Client Sample ID: PDI-SC-S019-12to13.7
Lab Sample ID: 580-80167-31
Date Collected: 09/06/18 20:50
Matrix: Solid
Date Received: 09/07/18 12:35
Percent Solids: 58.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			286334	10/12/18 10:29	BAH	TAL SEA
Total/NA	Analysis	8270D SIM		5	286568	10/16/18 02:55	ERZ	TAL SEA
Total/NA	Prep	3550B			285847	10/06/18 10:17	KMS	TAL SEA
Total/NA	Analysis	8082A		1	286074	10/10/18 15:24	TL1	TAL SEA

Client Sample ID: PDI-SC-S019-13.7to14.7
Lab Sample ID: 580-80167-32
Date Collected: 09/06/18 20:55
Matrix: Solid
Date Received: 09/07/18 12:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	284222	09/17/18 14:59	A1K	TAL SEA
Total/NA	Analysis	D 2216		1	284312	09/19/18 09:39	KMS	TAL SEA
Total/NA	Analysis	Moisture 70C		1	283860	09/12/18 16:40	HJM	TAL SEA
Total/NA	Analysis	D7928/D6913		1	283824	09/12/18 16:40	A1K	TAL SEA

Client Sample ID: PDI-SC-S019-13.7to14.7

Lab Sample ID: 580-80167-32
Date Collected: 09/06/18 20:55
Matrix: Solid
Date Received: 09/07/18 12:35
Percent Solids: 60.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			286334	10/12/18 10:29	BAH	TAL SEA
Total/NA	Analysis	8270D SIM		5	286568	10/16/18 03:19	ERZ	TAL SEA
Total/NA	Prep	3550B			285847	10/06/18 10:17	KMS	TAL SEA
Total/NA	Analysis	8082A		1	286074	10/10/18 15:41	TL1	TAL SEA

Client Sample ID: PDI-RB-SS-180906

Lab Sample ID: 580-80167-33
Date Collected: 09/06/18 21:00
Matrix: Water
Date Received: 09/07/18 12:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			283783	09/12/18 11:48	JSM	TAL SEA
Total/NA	Analysis	8270D SIM		1	284016	09/14/18 20:18	CJ	TAL SEA
Total/NA	Prep	3510C			283780	09/12/18 10:26	KO	TAL SEA
Total/NA	Analysis	8082A		1	284114	09/17/18 17:48	CJB	TAL SEA
Total/NA	Analysis	SM 5310B		1	284316	09/18/18 14:56	TTN	TAL SEA

Client Sample ID: PDI-RB-LL-180907

Lab Sample ID: 580-80167-34
Date Collected: 09/07/18 10:00
Matrix: Water
Date Received: 09/07/18 12:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			283783	09/12/18 11:48	JSM	TAL SEA
Total/NA	Analysis	8270D SIM		1	284016	09/14/18 20:44	CJ	TAL SEA
Total/NA	Prep	3510C			283780	09/12/18 10:26	KO	TAL SEA
Total/NA	Analysis	8082A		1	284114	09/17/18 18:05	CJB	TAL SEA
Total/NA	Analysis	SM 5310B		1	284316	09/18/18 14:56	TTN	TAL SEA

Client Sample ID: PDI-RB-AL-180905

Lab Sample ID: 580-80167-35
Date Collected: 09/07/18 10:15
Matrix: Water
Date Received: 09/07/18 12:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			283783	09/12/18 11:48	JSM	TAL SEA
Total/NA	Analysis	8270D SIM		1	284016	09/14/18 21:10	CJ	TAL SEA
Total/NA	Prep	3510C			283780	09/12/18 10:26	KO	TAL SEA
Total/NA	Analysis	8082A		1	284114	09/17/18 18:22	CJB	TAL SEA
Total/NA	Analysis	SM 5310B		1	284316	09/18/18 14:56	TTN	TAL SEA

Lab Chronicle

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

TestAmerica Job ID: 580-80167-1

Client Sample ID: PDI-SC-S019-10to12D

Date Collected: 09/06/18 20:45
Date Received: 09/07/18 12:35

Lab Sample ID: 580-80167-36

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	284222	09/17/18 15:04	A1K	TAL SEA
Total/NA	Analysis	D 2216		1	284312	09/19/18 09:39	KMS	TAL SEA
Total/NA	Analysis	Moisture 70C		1	283855	09/13/18 04:11	HJM	TAL SEA

Client Sample ID: PDI-SC-S019-10to12D

Date Collected: 09/06/18 20:45
Date Received: 09/07/18 12:35

Lab Sample ID: 580-80167-36

Matrix: Solid
Percent Solids: 57.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			286334	10/12/18 10:29	BAH	TAL SEA
Total/NA	Analysis	8270D SIM		5	286568	10/16/18 03:44	ERZ	TAL SEA
Total/NA	Prep	3550B			285847	10/06/18 10:23	KMS	TAL SEA
Total/NA	Analysis	8082A		1	286074	10/10/18 15:58	TL1	TAL SEA

Laboratory References:

TAL SEA = TestAmerica Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

Accreditation/Certification Summary

Client: AECOM
TestAmerica Job ID: 580-80167-1
Project/Site: Portland Harbor Pre-Remedial Design

Laboratory: TestAmerica Seattle

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska (UST)	State Program	10	17-024	01-19-19
ANAB	DoD ELAP		L2236	01-19-19
ANAB	ISO/IEC 17025		L2236	01-19-19
California	State Program	9	2901	11-05-18
Montana (UST)	State Program	8	N/A	04-30-20
Nevada	State Program	9	WA000502019-1	07-31-19
Oregon	NELAP	10	WA100007	11-05-18
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

Sample Summary

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

TestAmerica Job ID: 580-80167-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-80167-1	PDI-SC-S129-0to2	Solid	09/05/18 14:20	09/07/18 12:35
580-80167-2	PDI-SC-S129-2to4	Solid	09/05/18 14:25	09/07/18 12:35
580-80167-3	PDI-SC-S129-4to5.3	Solid	09/05/18 14:30	09/07/18 12:35
580-80167-4	PDI-SC-S155-0to2.1	Solid	09/05/18 16:00	09/07/18 12:35
580-80167-5	PDI-SC-S155-2.1to4.2	Solid	09/05/18 16:05	09/07/18 12:35
580-80167-6	PDI-SC-S155-4.2to5.3	Solid	09/05/18 16:10	09/07/18 12:35
580-80167-7	PDI-SC-S121-0to1.8	Solid	09/05/18 17:25	09/07/18 12:35
580-80167-8	PDI-SC-S121-1.8to3.4	Solid	09/05/18 17:30	09/07/18 12:35
580-80167-9	PDI-SC-S255-0to2.1	Solid	09/05/18 19:45	09/07/18 12:35
580-80167-10	PDI-SC-S255-0to2.1D	Solid	09/05/18 19:45	09/07/18 12:35
580-80167-11	PDI-SC-S255-2.1to4.3	Solid	09/05/18 19:50	09/07/18 12:35
580-80167-12	PDI-SC-S112-0to2	Solid	09/05/18 21:00	09/07/18 12:35
580-80167-13	PDI-SC-S112-2to4	Solid	09/05/18 21:05	09/07/18 12:35
580-80167-14	PDI-SC-S112-4to6	Solid	09/05/18 21:10	09/07/18 12:35
580-80167-15	PDI-RB-SS-180905	Water	09/05/18 20:00	09/07/18 12:35
580-80167-16	PDI-SC-S113C-0to1.1	Solid	09/06/18 14:40	09/07/18 12:35
580-80167-17	PDI-SC-S113C-1.1to3.1	Solid	09/06/18 14:45	09/07/18 12:35
580-80167-18	PDI-SC-S113C-3.1to5.6	Solid	09/06/18 14:50	09/07/18 12:35
580-80167-19	PDI-SC-S113C-5.6to6.6	Solid	09/06/18 14:55	09/07/18 12:35
580-80167-20	PDI-SC-S260-0to1.3	Solid	09/06/18 18:00	09/07/18 12:35
580-80167-21	PDI-SC-S260-1.3to2.6	Solid	09/06/18 18:05	09/07/18 12:35
580-80167-22	PDI-SC-S260-2.6to4.2	Solid	09/06/18 18:10	09/07/18 12:35
580-80167-23	PDI-SC-S260-4.2to6	Solid	09/06/18 18:15	09/07/18 12:35
580-80167-24	PDI-SC-S260-6to7	Solid	09/06/18 18:20	09/07/18 12:35
580-80167-25	PDI-SC-S019-0to2	Solid	09/06/18 20:20	09/07/18 12:35
580-80167-26	PDI-SC-S019-2to4	Solid	09/06/18 20:25	09/07/18 12:35
580-80167-27	PDI-SC-S019-4to6	Solid	09/06/18 20:30	09/07/18 12:35
580-80167-28	PDI-SC-S019-6to8	Solid	09/06/18 20:35	09/07/18 12:35
580-80167-29	PDI-SC-S019-8to10	Solid	09/06/18 20:40	09/07/18 12:35
580-80167-30	PDI-SC-S019-10to12	Solid	09/06/18 20:45	09/07/18 12:35
580-80167-31	PDI-SC-S019-12to13.7	Solid	09/06/18 20:50	09/07/18 12:35
580-80167-32	PDI-SC-S019-13.7to14.7	Solid	09/06/18 20:55	09/07/18 12:35
580-80167-33	PDI-RB-SS-180906	Water	09/06/18 21:00	09/07/18 12:35
580-80167-34	PDI-RB-LL-180907	Water	09/07/18 10:00	09/07/18 12:35
580-80167-35	PDI-RB-AL-180905	Water	09/07/18 10:15	09/07/18 12:35
580-80167-36	PDI-SC-S019-10to12D	Solid	09/06/18 20:45	09/07/18 12:35

SUBSURFACE SEDIMENT
CHAIN OF CUSTODY

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

Client Contact
AECOM
1111 3rd Ave Suite 1600
Seattle, WA 98101
Phone: (206) 438-2700 Fax: 1+(866) 495-5288
Project Name: Portland Harbor Pre-Remedial Design Investigation and Baseline Sampling
Portland, OR
Project #: 60566335 Study: Subsurface Sediment
Sample Type:

Project Contact: Amy Dahl / Chelsey Cook
Tel: (206) 438-2261 / (206) 438-2010
Analysis Turnaround Time
Calendar (C) or Work Days (W) _W_
[x] 21 days
[ ] Other _____

Site Contact: Jennifer Ray
Laboratory Contact: Elaine-Walker

Date: 9/7/18
Carrier: Courier

COC No: 1
1 of 3 pages

580-80167 Chain of Custody

Sample Identification	Sample Date	Sample Time	Matrix	QC Sample	Sampler's Initials	Total No. of Cont.	Fraction	PCDD/Fs 1613B	Archive	Grain size ASTM D7928/D6913	PCB Aroclors, PAHs, Total Organic Carbon, Total Solids 8082A, 8270D-SIM, 9060, 160.3	Atterberg Limits ASTM D4318	Sample Specific Notes:
PDI-SC-S129 - 0 to 2	9/5/2018	14:20	SC		DH	4		x	x	x	x		
PDI-SC-S129 - 2 to 4	9/5/2018	14:25	SC		DH			x	x	x	x		
PDI-SC-S129 - 4 to 5.3	9/5/2018	14:30	SC		DH			x	x	x	x		
PDI-SC-S155 - 0 to 2.1	9/5/2018	16:00	SC		DH			x	x	x	x		
PDI-SC-S155 - 2.1 to 4.2	9/5/2018	16:05	SC		DH			x	x	x	x		
PDI-SC-S155 - 4.2 to 5.3	9/5/2018	16:10	SC		DH			x	x	x	x		
PDI-SC-S121 - 0 to 1.8	9/5/2018	17:25	SC		DH			x	x	x	x		
PDI-SC-S121 - 1.8 to 3.4	9/5/2018	17:30	SC		DH			x	x	x	x		
PDI-SC-S255 - 0 to 2.1	9/5/2018	19:45	SC		DH			x	x	x	x		
PDI-SC-S255 - 0 to 2.1D	9/5/2018	19:45	SC		DH	3 3		x	x	x	x		
PDI-SC-S255 - 2.1 to 4.3	9/5/2018	19:50	SC		DH	4		x	x	x	x		
PDI-SC-S112 - 0 to 2	9/5/2018	21:00	SC		DH			x	x	x	x		
Container Type: WMG=Wide Mouth Glass Jar, P=HDPE, PP=Polypropylene, AG=amber glass, G=glass, RC=Resin Col								AG	AG	WMG	WMG	AG	

Preservative: HCl = Hydrochloric Acid, H3PO4 = Phosphoric Acid, HNO3 = Nitric Acid
Fraction: D = Dissolved, PRT = Particulate, T = Total (unfiltered)

Sample Disposal
[ ] Return To Client [X] sposal By Lab [X] rchive For 12 Months

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

1.7, 2.0, 1.3, 3.2, 2.2, 0.9

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	Accom	9/7/18 1212		M.E.	9/7/18 1212
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	M.E.	9/7/18 1235		TRPR	9/7/18 1235
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

SUBSURFACE SEDIMENT
CHAIN OF CUSTODY

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

Client Contact
AECOM
1111 3rd Ave Suite 1600
Seattle, WA 98101
Phone: (206) 438-2700 Fax: 1+(866) 495-5288
Project Name: Portland Harbor Pre-Remedial Design Investigation and Baseline Sampling
Portland, OR
Project #: 60566335 Study: Subsurface Sediment
Sample Type:

Project Contact: Amy Dahl / Chelsey Cook
Tel: (206) 438-2261 / (206) 438-2010
Analysis Turnaround Time
Calendar (C) or Work Days (W) W
[x] 21 days
[ ] Other _____

Site Contact: Jennifer Ray
Laboratory Contact: Elaine-Walker

Date: 9/7/18
Carrier: Courier

COC No: 1
2 of 3 pages

Sample Identification	Sample Date	Sample Time	Matrix	QC Sample	Sampler's Initials	Total No. of Cont.	Fraction	PCDD/Fs 1613B	Archive	Grain size ASTM D7928/D6913	PCB Aroclors, PAHs, Total Organic Carbon, Total Solids 8082A, 8270D-SIM, 9060, 160.3	Atterberg Limits ASTM D4318	WQ-PCB-A	WQ-DIF	WQ-PAH	WQ-TOC	Sample Specific Notes:
PDI-SC-S112 - 2 to 4	9/5/2018	21:05	SC		DH	4		x	x	x	x						
PDI-SC-S112 - 4 to 6	9/5/2018	21:10	SC		DH	↓		x	x	x	x						
PDI-RB-SS-180905	9/5/2018	20:00	W		DH	7		x	x	x	x		x	x	x	x	
PDI-SC-S113C - 0 to 1.1	9/6/2018	14:40	SC		ED	4		x	x	x	x						
PDI-SC-S113C - 1.1 to 3.1	9/6/2018	14:45	SC		ED	4		x	x	x	x						
PDI-SC-S113C - 3.1 to 5.6	9/6/2018	14:50	SC	MS/MSD	ED	6		x	x	x	x						
PDI-SC-S113C - 5.6 to 6.6	9/6/2018	14:55	SC		ED	4		x	x	x	x						
PDI-SC-S260 - 0 to 1.3	9/6/2018	18:00	SC		ED	|		x	x	x	x						
PDI-SC-S260 - 1.3 to 2.6	9/6/2018	18:05	SC		ED	|		x	x	x	x						
PDI-SC-S260 - 2.6 to 4.2	9/6/2018	18:10	SC		ED	|		x	x	x	x						
PDI-SC-S260 - 4.2 to 6	9/6/2018	18:15	SC		ED	|		x	x	x	x						
PDI-SC-S260 - 6 to 7	9/6/2018	18:20	SC		ED	↓		x	x	x	x						
								AG	AG	WMG	WMG	AG					

Container Type: WMG=Wide Mouth Glass Jar, P=HDPE, PP=Polypropylene, AG=amber glass, G=glass, RC=Resin Col
Preservative: HCl = Hydrochloric Acid, H3PO4 = Phosphoric Acid, HNO3 = Nitric Acid
Fraction: D = Dissolved, PRT = Particulate, T = Total (unfiltered)

Sample Disposal
[ ] Return To Client [X] sposal By Lab [X] rchive For 12 Months

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

Relinquished by:		Company: AECOM	Date/Time: 9/7/18 1212	Received by:		Company: M-E-	Date/Time: 9/7/18 1212
Relinquished by:		Company: M.E.	Date/Time: 9/7/18 1235	Received by:		Company: TAROP	Date/Time: 9/7/18 1235
Relinquished by:		Company:	Date/Time:	Received by:		Company:	Date/Time:

SUBSURFACE SEDIMENT
CHAIN OF CUSTODY

TestAmerica-Seattle 5755-8th-Street-East Tacoma, WA 98424-1317 **Ph: 253-922-2310 Fax: 253-922-5047**	**Project Contact: Amy Dahl / Chelsey Cook** **Tel: (206) 438-2261 / (206) 438-2010**	**Site Contact: Jennifer Ray** **Laboratory Contact: Elaine-Walker**	**Date: 9/7/18** **Carrier: Courier**
Client Contact AECOM 1111 3rd Ave Suite 1600 Seattle, WA 98101 Phone: (206) 438-2700 Fax: 1+(866) 495-5288 Project Name: Portland Harbor Pre-Remedial Design Investigation and Baseline Sampling Portland, OR Project #: 60566335 Study: Subsurface Sediment Sample Type:	**Analysis Turnaround Time** Calendar (C) or Work Days (W) W [x] 21 days [ ] Other _____		COC No: 1 3 of 3 pages

Sample Identification	Sample Date	Sample Time	Matrix	QC Sample	Sampler's Initials	Total No. of Cont.	Filtration	PCDD/Fs 1613B	Arthive	Grain size ASTM D7928/D6913	PCB Aroclors, PAHs, Total Organic Carbon, Total Solids 8082A, 8270D-SIM, 9060, 160.3	Atterberg Limits ASTM D4318	WQ-PCB-A	WQ-DIF	WQ-TTH	WQ-TOC	Sample Specific Notes:
PDI-SC-S019 - 0 to 2	9/6/2018	20:20	SC	MS/MSD	ED	6		x	x	x	x						
PDI-SC-S019 - 2 to 4	9/6/2018	20:25	SC	MS/MSD	ED	6		x	x	x	x						
PDI-SC-S019 - 4 to 6	9/6/2018	20:30	SC		ED	4		x	x	x	x						
PDI-SC-S019 - 6 to 8	9/6/2018	20:35	SC		ED			x	x	x	x						
PDI-SC-S019 - 8 to 10	9/6/2018	20:40	SC		ED			x	x	x	x						
PDI-SC-S019 - 10 to 12	9/6/2018	20:45	SC		ED			x	x	x	x						
PDI-SC-S019 - 12 to 13.7	9/6/2018	20:50	SC		ED			x	x	x	x						
PDI-SC-S019 - 13.7 to 14.7	9/6/2018	20:55	SC		ED			x	x	x	x						
PDI-RB-SS-180906	9/6/2018	21:00	SC		ED	7		x	x	x	x		X	X	X	X	
PDI-RB-LL-180907	9/7/2018	10:00	SC		DH	7		x	x	x	x		X	X	X	X	
PDI-RB-AL-180907	9/7/2018	10:15	SC		DH	7		x	x	x	x		X	X	X	X	
PDI-SC-S019-10to12D	9/6/18	2045	SC		ED	3		X	X		X						
Container Type: WMG=Wide Mouth Glass Jar, P=HDPE, PP=Polypropylene, AG=amber glass, G=glass, RC=Resin Col								AG	AG	WMG	WMG	AG					

Preservative: HCl = Hydrochloric Acid, H3PO4 = Phosphoric Acid, HNO3 = Nitric Acid

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

Sample Disposal
[ ] Return To Client [X] sposal By Lab [X] rchive For 12 Months

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

Relinquished by:	Company: AECOM	Date/Time: 9/7/18 1212	Received by:	Company: M.E.	Date/Time: 9/7/18 1212
Relinquished by:	Company: M.E.	Date/Time: 9/7/18 1235	Received by:	Company: TARGA	Date/Time: 9/7/18 1235
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

SUBSURFACE SEDIMENT
CHAIN OF CUSTODY

TestAmerica-Seattle 5755-8th-Street-East Tacoma, WA 98424-1317 **Ph: 253-922-2310 Fax: 253-922-5047**	**Project Contact: Amy Dahl / Chelsey Cook** **Tel: (206) 438-2261 / (206) 438-2010**	**Site Contact: Jennifer Ray** **Laboratory Contact: Elaine-Walker**	**Date: 9/7/18** **Carrier: Courier**	COC No: 1 1 of 3 pages
Client Contact AECOM 1111 3rd Ave Suite 1600 Seattle, WA 98101 Phone: (206) 438-2700 Fax: 1+(866) 495-5288 Project Name: Portland Harbor Pre-Remedial Design Investigation and Baseline Sampling Portland, OR Project #: 60566335 Study: Subsurface Sediment Sample Type:	**Analysis Turnaround Time** Calendar (C) or Work Days (W) W [x] 21 days [ ] Other _____			

580-80167 Chain of Custody

Sample Identification	Sample Date	Sample Time	Matrix	QC Sample	Sampler's Initials	Total No. of Cont.	Fraction	PCDD/Fs 1613B	Archive	Grain size ASTM D7928/Bo913	PCB Aroclors, PAHs, Total Organic Carbon, Total Solids 8082A, 8270D-SIM, 9060, 160.3	Atterberg Limits ASTM D4318	Sample Specific Notes:
PDI-SC-S129 - 0 to 2	9/5/2018	14:20	SC		DH	4		x	x	x	x		
PDI-SC-S129 - 2 to 4	9/5/2018	14:25	SC		DH			x	x	x	x		
PDI-SC-S129 - 4 to 5.3	9/5/2018	14:30	SC		DH			x	x	x	x		
PDI-SC-S155 - 0 to 2.1	9/5/2018	16:00	SC		DH			x	x	x	x		
PDI-SC-S155 - 2.1 to 4.2	9/5/2018	16:05	SC		DH			x	x	x	x		
PDI-SC-S155 - 4.2 to 5.3	9/5/2018	16:10	SC		DH			x	x	x	x		
PDI-SC-S121 - 0 to 1.8	9/5/2018	17:25	SC		DH			x	x	x	x		
PDI-SC-S121 - 1.8 to 3.4	9/5/2018	17:30	SC		DH			x	x	x	x		
PDI-SC-S255 - 0 to 2.1	9/5/2018	19:45	SC		DH			x	x	x	x		
PDI-SC-S255 - 0 to 2.1D	9/5/2018	19:45	SC		DH	3		x	x	x	x		
PDI-SC-S255 - 2.1 to 4.3	9/5/2018	19:50	SC		DH	4		x	x	x	x		
PDI-SC-S112 - 0 to 2	9/5/2018	21:00	SC		DH			x	x	x	x		
Container Type: WMG=Wide Mouth Glass Jar, P=HDPE, PP=Polypropylene, AG=amber glass, G=glass, RC=Resin Col								AG	AG	WMG	WMG	AG	

Preservative: HCl = Hydrochloric Acid, H3PO4 = Phosphoric Acid, HNO3 = Nitric Acid

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

Sample Disposal
[ ] Return To Client [X] sposal By Lab [X] rchive For 12 Months

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

1.7, 2.0, 1.3, 3.2, 2.2, 0.9

Relinquished by:	Company: AECOM	Date/Time: 9/7/18 1212	Received by:	Company: M.E.	Date/Time: 9/7/18 1212
Relinquished by:	Company: M.E.	Date/Time: 9/7/18 1235	Received by:	Company: TAPOR	Date/Time: 9/7/18 1235
Relinquished by:	Company: TAPOR	Date/Time: 9/10/18 1700	Received by:	Company: SEATA	Date/Time: 9.12.18 0940

FR5 = 2.1/2.1, 1.3/1.3, 2.8/2.8 W/CS.

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

SUBSURFACE SEDIMENT CHAIN OF CUSTODY

Client Contact	Project Contact: Amy Dahl / Chelsey Cook	Site Contact: Jennifer Ray	Date: 9/7/18	COC No: 1
AECOM	Tel: (206) 438-2261 / (206) 438-2010	Laboratory Contact: Elaine-Walker	Carrier: Courier	2 of 5 pages
1111 3rd Ave Suite 1600	Analysis Turnaround Time			
Seattle, WA 98101	Calendar (C) or Work Days (W) W			
Phone: (206) 438-2700 Fax: 1+(866) 495-5288 Project Name: Portland Harbor Pre-Remedial Design Investigation and Baseline Sampling	[x] 21 days			
Portland, OR	[ ] Other ______			
Project #: 60566335 Study: Subsurface Sediment				
Sample Type:				

Sample Identification	Sample Date	Sample Time	Matrix	QC Sample	Sampler's Initials	Total No. of Cont.	Fraction	PCDD/Fs 1613B	Archive	Grain size ASTM D7928/D6913	PCB Aroclors, PAHs, Total Organic Carbon, Total Solids 8082A, 8270D-SIM, 9060, 160.3	Atterberg Limits ASTM D4318	WQ-PCB-A	WQ-D/F	WQ-PAH	WQ-TOC	Sample Specific Notes:
PDI-SC-S112 - 2 to 4	9/5/2018	21:05	SC		DH	4		x	x	x	x						
PDI-SC-S112 - 4 to 6	9/5/2018	21:10	SC		DH	↓		x	x	x	x						
PDI-RB-SS-180905	9/5/2018	20:00	W		DH	7		~~x~~	~~x~~	~~x~~	~~x~~		X	X	X	X	
PDI-SC-S113C - 0 to 1.1	9/6/2018	14:40	SC		ED	4		x	x	x	x						
PDI-SC-S113C - 1.1 to 3.1	9/6/2018	14:45	SC		ED	4		x	x	x	x						
PDI-SC-S113C - 3.1 to 5.6	9/6/2018	14:50	SC	MS/MSD	ED	6		x	x	x	x						
PDI-SC-S113C - 5.6 to 6.6	9/6/2018	14:55	SC		ED	4		x	x	x	x						
PDI-SC-S260 - 0 to 1.3	9/6/2018	18:00	SC		ED			x	x	x	x						
PDI-SC-S260 - 1.3 to 2.6	9/6/2018	18:05	SC		ED			x	x	x	x						
PDI-SC-S260 - 2.6 to 4.2	9/6/2018	18:10	SC		ED			x	x	x	x						
PDI-SC-S260 - 4.2 to 6	9/6/2018	18:15	SC		ED			x	x	x	x						
PDI-SC-S260 - 6 to 7	9/6/2018	18:20	SC		ED	↓		x	x	x	x						
Container Type: WMG=Wide Mouth Glass Jar, P=HDPE, PP=Polypropylene, AG=amber glass, G=glass, RC=Resin Col								AG	AG	WMG	WMG	AG					
Preservative: HCl = Hydrochloric Acid, H3PO4 = Phosphoric Acid, HNO3 = Nitric Acid																	

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

Sample Disposal
[ ] *Return To Client* [X] *Disposal By Lab* [X] *Archive For 12 Months*

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

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	AECOM	9/7/18 1212	[signature]	M.E.	9/7/18 1212
[signature]	M.E.	9/7/18 1235	[signature]	TAPOR	9/7/18 1235
[signature]	TAPOR	9/10/18 1700	B. [signature]	SZA TA	9.12.18 0940

SUBSURFACE SEDIMENT
CHAIN OF CUSTODY

TestAmerica-Seattle 5755-8th-Street-East Tacoma, WA 98424-1317 **Ph: 253-922-2310 Fax: 253-922-5047**			
Client Contact	**Project Contact: Amy Dahl / Chelsey Cook**	**Site Contact: Jennifer Ray**	**Date: 9/7/18**
AECOM	**Tel: (206) 438-2261 / (206) 438-2010**	**Laboratory Contact: Elaine-Walker**	**Carrier: Courier**
1111 3rd Ave Suite 1600	**Analysis Turnaround Time**		COC No: 1
Seattle, WA 98101	Calendar (C) or Work Days (W) W		3 of 3 pages
Phone: (206) 438-2700 Fax: 1+(866) 495-5288 Project Name: Portland Harbor Pre-Remedial Design Investigation and Baseline Sampling Portland, OR	[x] 21 days [ ] Other		
Project #: 60566335 Study: **Subsurface Sediment**			
Sample Type:			

Sample Identification	Sample Date	Sample Time	Matrix	QC Sample	Sampler's Initials	Total No. of Cont.	Fraction	PCDD/Fs 1613B	Archive	Grain size ASTM D7928/D6913	PCB Aroclors, PAHs, Total Organic Carbon, Total Solids 8082A, 8270D-SIM, 9060, 160.3	Atterberg Limits ASTM D4318	WD_PCB-A	WD-DIF	WD-PAH	WD-TOC	Sample Specific Notes:
PDI-SC-S019 - 0 to 2	9/6/2018	20:20	SC	MS/MSD	ED	6		x	x	x	x						
PDI-SC-S019 - 2 to 4	9/6/2018	20:25	SC	MS/MSD	ED	6		x	x	x	x						
PDI-SC-S019 - 4 to 6	9/6/2018	20:30	SC		ED	4		x	x	x	x						
PDI-SC-S019 - 6 to 8	9/6/2018	20:35	SC		ED			x	x	x	x						
PDI-SC-S019 - 8 to 10	9/6/2018	20:40	SC		ED			x	x	x	x						
PDI-SC-S019 - 10 to 12	9/6/2018	20:45	SC		ED			x	x	x	x						
PDI-SC-S019 - 12 to 13.7	9/6/2018	20:50	SC		ED			x	x	x	x						
PDI-SC-S019 - 13.7 to 14.7	9/6/2018	20:55	SC		ED	V		x	x	x	x						
PDI-RB-SS-180906	9/6/2018	21:00	SC		ED	7		x	x	x	x		X	X	X	X	
PDI-RB-LL-180907	9/7/2018	10:00	SC		DH	7		x	x	x	x		X	X	X	X	
PDI-RB-AL-180907	9/7/2018	10:15	SC		DH	7		x	x	x	x		X	X	X	X	
PDI-SC-S019-10to12D	9/6/18	2045	SC		ED	3		X	X		X						
Container Type: WMG=Wide Mouth Glass Jar, P=HDPE, PP=Polypropylene, AG=amber glass, G=glass, RC=Resin Col								AG	AG	WMG	WMG	AG					

Preservative: HCl = Hydrochloric Acid, H3PO4 = Phosphoric Acid, HNO3 = Nitric Acid

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

Sample Disposal

[ ] *Return To Client* [X] *sposal By Lab* [X] *rchive For 12 Months*

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

Relinquished by:	Company: AECOM	Date/Time: 9/7/18 1212	Received by:	Company: M.E.	Date/Time: 9/7/18 1212
Relinquished by:	Company: M.E.	Date/Time: 9/7/18 1235	Received by:	Company: TAPCR	Date/Time: 9/7/18 1235
Relinquished by:	Company: TAPCR	Date/Time: 9/10/18 1700	Received by:	Company: SEA TA	Date/Time: 9.12.18 0940

Login Sample Receipt Checklist

Client: AECOM

Job Number: 580-80167-1

Login Number: 80167
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	