TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

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TestAmerica Job ID: 580-76514-1
Client Project/Site: Portland Harbor Pre-Remedial Design
Revision: 1

For:
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Attn: Karen Mixon

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Authorized for release by:
7/23/2018 2:18:34 PM

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Job ID: 580-76514-1

Laboratory: TestAmerica Seattle

Narrative

CASE NARRATIVE

Client: AECOM
Project: Portland Harbor Pre-Remedial Design
Report Number: 580-76514-1

REVISION 1: JULY 23, 2018
This revision was required to have the final, signed COC from the Seattle laboratory added to the report.

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

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

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

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

RECEIPT
Twenty-eight samples were received on 4/11/2018 2:30 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 5 coolers at receipt time were 1.2º C, 2.0º C, 4.2º C, 4.3º C and 5.3º 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.

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.

DIESEL AND EXTENDED RANGE ORGANICS
Samples PDI-SG-B082-BL1 (580-76514-1), PDI-SG-B082-BL1-D (580-76514-2), PDI-SG-B087-BL1 (580-76514-3), PDI-SG-B084-BL1 (580-76514-4), PDI-SG-B086-BL1 (580-76514-5), PDI-SG-B089-BL1 (580-76514-6), PDI-SG-B094-BL1 (580-76514-7), PDI-SG-B095-BL1 (580-76514-8), PDI-SG-B079-BL1 (580-76514-9), PDI-SG-B080-BL1 (580-76514-10), PDI-SG-B081-BL1 (580-76514-11), PDI-SG-B081-BL1-D (580-76514-12), PDI-SG-B083-BL1 (580-76514-13), PDI-SG-B088-BL1 (580-76514-14), PDI-SG-B091-BL1 (580-76514-15), PDI-SG-B103-BL1 (580-76514-16), PDI-SG-B090-BL1 (580-76514-17), PDI-SG-B092-BL1 (580-76514-18), PDI-SG-B093-BL1 (580-76514-19), PDI-SG-B098-BL1 (580-76514-20), PDI-SG-B104-BL1 (580-76514-21), PDI-SG-B106-BL1 (580-76514-22), PDI-SG-B100-BL1 (580-76514-23), PDI-SG-B099-BL1 (580-76514-24), PDI-SG-B043-BL1 (580-76514-25), PDI-SG-B069-BL1 (580-76514-26), PDI-SG-B085-BL1 (580-76514-27) and PDI-SG-B097-BL1 (580-76514-28) were analyzed for diesel and extended range organics in accordance with Method NWTPH-Dx. The samples were prepared on 04/23/2018 and 04/24/2018 and analyzed on 04/26/2018, 04/27/2018 and 04/28/2018.

Samples PDI-SG-B084-BL1 (580-76514-4)[3X] and PDI-SG-B103-BL1 (580-76514-16)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

The continuing calibration verification (CCV) associated with batch 580-272193 recovered above the upper control limit for Motor Oil (>C24-C36). The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: (CCV 580-272193/34), (LCS 580-272050/2-A), (LCSD 580-272050/3-A) and (MB 580-272050/1-A).

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Laboratory: TestAmerica Seattle (Continued)

The %D of surrogate (o-Terphenyl) for CCV associated with batch 580-272401 was outside the upper control limits. All associated sample surrogate fell within acceptance criteria; therefore, the data have been reported. (CCV 580-272401/14) and (CCV 580-272401/25).

The continuing calibration verification (CCV) associated with batch 580-272347 recovered above the upper control limit for #2 Diesel (C10-C24) and Motor Oil (>C24-C36). The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: (CCV 580-272347/33), (CCV 580-272347/44), (LCS 580-272170/2-A), (LCSD 580-272170/3-A) and (MB 580-272170/1-A).

o-Terphenyl failed the surrogate recovery criteria high for PDI-SG-B084-BL1 (580-76514-4). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Motor Oil (>C24-C36) exceeded the RPD limit for the duplicate of sample PDI-SG-B098-BL1DU (580-76514-20). The sample may not be homogeneous.

Continuing calibration verification (CCV) standard associated with batch 580-272193 recovered outside %Drift acceptance criteria for o-Terphenyl surrogate. The %Recovery is within acceptance criteria for the surrogate in the CCV and associated samples where matrix does not interfere; therefore, the data are qualified and reported. (CCV 580-272193/23), (CCV 580-272193/34), (CCV 580-272193/65), (LCS 580-272050/2-A), (LCSD 580-272050/3-A) and (MB 580-272050/1-A).

The following samples contained a hydrocarbon pattern in the diesel range; however, the elution pattern was later than the typical diesel fuel pattern used by the laboratory for quantitative purposes: PDI-SG-B081-BL1 (580-76514-11), PDI-SG-B081-BL1-D (580-76514-12), PDI-SG-B083-BL1 (580-76514-13), PDI-SG-B088-BL1 (580-76514-14), PDI-SG-B091-BL1 (580-76514-15), PDI-SG-B103-BL1 (580-76514-16), PDI-SG-B090-BL1 (580-76514-17), PDI-SG-B092-BL1 (580-76514-18), PDI-SG-B093-BL1 (580-76514-19), PDI-SG-B098-BL1 (580-76514-20), PDI-SG-B104-BL1 (580-76514-21), PDI-SG-B106-BL1 (580-76514-22), PDI-SG-B100-BL1 (580-76514-23), PDI-SG-B099-BL1 (580-76514-24), PDI-SG-B043-BL1 (580-76514-25), PDI-SG-B069-BL1 (580-76514-26), PDI-SG-B097-BL1 (580-76514-28), (580-76514-B-20-B DU) and (580-76514-B-21-B DU).

Continuing calibration verification (CCV) standard associated with batch 580-272347 recovered outside %Drift acceptance criteria for o-Terphenyl surrogate. The %Recovery is within acceptance criteria for the surrogate in the CCV and associated samples where matrix does not interfere; therefore, the data are qualified and reported. PDI-SG-B082-BL1 (580-76514-1), PDI-SG-B082-BL1-D (580-76514-2), PDI-SG-B087-BL1 (580-76514-3), PDI-SG-B084-BL1 (580-76514-4), PDI-SG-B086-BL1 (580-76514-5), PDI-SG-B089-BL1 (580-76514-6), PDI-SG-B094-BL1 (580-76514-7), PDI-SG-B095-BL1 (580-76514-8), PDI-SG-B079-BL1 (580-76514-9), PDI-SG-B080-BL1 (580-76514-10), (CCV 580-272347/14), (CCV 580-272347/33), (CCV 580-272347/44) and (CCVRT 580-272347/3).

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

METALS (ICPMS)

Samples PDI-SG-B082-BL1 (580-76514-1), PDI-SG-B082-BL1-D (580-76514-2), PDI-SG-B087-BL1 (580-76514-3), PDI-SG-B084-BL1 (580-76514-4), PDI-SG-B086-BL1 (580-76514-5), PDI-SG-B089-BL1 (580-76514-6), PDI-SG-B094-BL1 (580-76514-7), PDI-SG-B095-BL1 (580-76514-8), PDI-SG-B079-BL1 (580-76514-9), PDI-SG-B080-BL1 (580-76514-10), PDI-SG-B081-BL1 (580-76514-11), PDI-SG-B081-BL1-D (580-76514-12), PDI-SG-B083-BL1 (580-76514-13), PDI-SG-B088-BL1 (580-76514-14), PDI-SG-B091-BL1 (580-76514-15), PDI-SG-B103-BL1 (580-76514-16), PDI-SG-B090-BL1 (580-76514-17), PDI-SG-B092-BL1 (580-76514-18), PDI-SG-B093-BL1 (580-76514-19), PDI-SG-B098-BL1 (580-76514-20), PDI-SG-B104-BL1 (580-76514-21), PDI-SG-B106-BL1 (580-76514-22), PDI-SG-B100-BL1 (580-76514-23), PDI-SG-B099-BL1 (580-76514-24), PDI-SG-B043-BL1 (580-76514-25), PDI-SG-B069-BL1 (580-76514-26), PDI-SG-B085-BL1 (580-76514-27) and PDI-SG-B097-BL1 (580-76514-28) were analyzed for Metals (ICPMS) in accordance with 6020A_LL. The samples were prepared on 04/16/2018 and 04/24/2018 and analyzed on 04/16/2018, 04/17/2018, 04/24/2018 and 04/25/2018.

For the MSD of sample PDI-SG-B084-BL1MSD (580-76514-4) in batch 580-272184, Lead failed the recovery criteria low. Copper failed the recovery criteria high. Matrix interference is suspected as the associated lab control sample met the acceptance criteria. Also, Arsenic, Cadmium, Lead and Zinc exceeded the RPD limit.

Cadmium exceeded the RPD limit for the duplicate of sample PDI-SG-B084-BL1DU (580-76514-4). The sample may not be homogeneous.

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

TOTAL MERCURY

Samples PDI-SG-B082-BL1 (580-76514-1), PDI-SG-B082-BL1-D (580-76514-2), PDI-SG-B087-BL1 (580-76514-3), PDI-SG-B084-BL1 (580-76514-4), PDI-SG-B086-BL1 (580-76514-5), PDI-SG-B089-BL1 (580-76514-6), PDI-SG-B094-BL1 (580-76514-7), PDI-SG-B095-BL1 (580-76514-8), PDI-SG-B079-BL1 (580-76514-9), PDI-SG-B080-BL1 (580-76514-10), PDI-SG-B081-BL1 (580-76514-11), PDI-SG-B081-BL1-D (580-76514-12), PDI-SG-B083-BL1 (580-76514-13), PDI-SG-B088-BL1 (580-76514-14), PDI-SG-B091-BL1 (580-76514-15), PDI-SG-B103-BL1 (580-76514-16), PDI-SG-B090-BL1 (580-76514-17), PDI-SG-B092-BL1 (580-76514-18), PDI-SG-B093-BL1 (580-76514-19), PDI-SG-B098-BL1 (580-76514-20), PDI-SG-B104-BL1 (580-76514-21), PDI-SG-B106-BL1 (580-76514-22), PDI-SG-B100-BL1 (580-76514-23), PDI-SG-B099-BL1 (580-76514-24), PDI-SG-B043-BL1 (580-76514-25), PDI-SG-B069-BL1 (580-76514-26), PDI-SG-B085-BL1 (580-76514-27) and PDI-SG-B097-BL1 (580-76514-28) were analyzed for total mercury in accordance with EPA SW-846 Method 7471A. The samples were prepared and analyzed on 04/25/2018 and 04/27/2018.

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

TOTAL ORGANIC CARBON

Samples PDI-SG-B082-BL1 (580-76514-1), PDI-SG-B082-BL1-D (580-76514-2), PDI-SG-B087-BL1 (580-76514-3), PDI-SG-B084-BL1 (580-76514-4), PDI-SG-B086-BL1 (580-76514-5), PDI-SG-B089-BL1 (580-76514-6), PDI-SG-B094-BL1 (580-76514-7), PDI-SG-B095-BL1 (580-76514-8), PDI-SG-B079-BL1 (580-76514-9), PDI-SG-B080-BL1 (580-76514-10), PDI-SG-B081-BL1 (580-76514-11), PDI-SG-B081-BL1-D (580-76514-12), PDI-SG-B083-BL1 (580-76514-13), PDI-SG-B088-BL1 (580-76514-14), PDI-SG-B091-BL1 (580-76514-15), PDI-SG-B103-BL1 (580-76514-16), PDI-SG-B090-BL1 (580-76514-17), PDI-SG-B092-BL1 (580-76514-18), PDI-SG-B093-BL1 (580-76514-19), PDI-SG-B098-BL1 (580-76514-20), PDI-SG-B104-BL1 (580-76514-21), PDI-SG-B106-BL1 (580-76514-22), PDI-SG-B100-BL1 (580-76514-23), PDI-SG-B099-BL1 (580-76514-24), PDI-SG-B043-BL1 (580-76514-25), PDI-SG-B069-BL1 (580-76514-26), PDI-SG-B085-BL1 (580-76514-27) and PDI-SG-B097-BL1 (580-76514-28) were analyzed for total organic carbon in accordance with EPA SW-846 Method 9060. The samples were analyzed on 04/20/2018 and 04/24/2018.

Total Organic Carbon - Duplicates was detected in method blank MB 580-272185/3 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged

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

GRAIN SIZE

Samples PDI-SG-B082-BL1 (580-76514-1), PDI-SG-B087-BL1 (580-76514-3), PDI-SG-B084-BL1 (580-76514-4), PDI-SG-B086-BL1 (580-76514-5), PDI-SG-B089-BL1 (580-76514-6), PDI-SG-B094-BL1 (580-76514-7), PDI-SG-B095-BL1 (580-76514-8), PDI-SG-B079-BL1 (580-76514-9), PDI-SG-B080-BL1 (580-76514-10), PDI-SG-B081-BL1 (580-76514-11), PDI-SG-B083-BL1 (580-76514-13), PDI-SG-B088-BL1 (580-76514-14), PDI-SG-B091-BL1 (580-76514-15), PDI-SG-B103-BL1 (580-76514-16), PDI-SG-B090-BL1 (580-76514-17), PDI-SG-B092-BL1 (580-76514-18), PDI-SG-B093-BL1 (580-76514-19), PDI-SG-B098-BL1 (580-76514-20), PDI-SG-B104-BL1 (580-76514-21), PDI-SG-B106-BL1 (580-76514-22), PDI-SG-B100-BL1 (580-76514-23), PDI-SG-B099-BL1 (580-76514-24), PDI-SG-B043-BL1 (580-76514-25), PDI-SG-B069-BL1 (580-76514-26), PDI-SG-B085-BL1 (580-76514-27) and PDI-SG-B097-BL1 (580-76514-28) were analyzed for grain size in accordance with ASTM D7928/D6913. The samples were analyzed on 04/17/2018, 04/18/2018 and 04/23/2018.

Coarse Sand and Medium Sand exceeded the RPD limit for the duplicate of sample PDI-SG-B089-BL1DU (580-76514-6). The sample may not be homogenous.

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

PERCENT SOLIDS

Samples PDI-SG-B082-BL1 (580-76514-1), PDI-SG-B082-BL1-D (580-76514-2), PDI-SG-B087-BL1 (580-76514-3), PDI-SG-B084-BL1 (580-76514-4), PDI-SG-B086-BL1 (580-76514-5), PDI-SG-B089-BL1 (580-76514-6), PDI-SG-B094-BL1 (580-76514-7), PDI-SG-B095-BL1 (580-76514-8), PDI-SG-B079-BL1 (580-76514-9), PDI-SG-B080-BL1 (580-76514-10), PDI-SG-B081-BL1 (580-76514-11), PDI-SG-B081-BL1-D (580-76514-12), PDI-SG-B083-BL1 (580-76514-13), PDI-SG-B088-BL1 (580-76514-14), PDI-SG-B091-BL1 (580-76514-15), PDI-SG-B103-BL1 (580-76514-16), PDI-SG-B090-BL1 (580-76514-17), PDI-SG-B092-BL1 (580-76514-18),

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Laboratory: TestAmerica Seattle (Continued)

PDI-SG-B093-BL1 (580-76514-19), PDI-SG-B098-BL1 (580-76514-20), PDI-SG-B104-BL1 (580-76514-21), PDI-SG-B106-BL1 (580-76514-22), PDI-SG-B100-BL1 (580-76514-23), PDI-SG-B099-BL1 (580-76514-24), PDI-SG-B043-BL1 (580-76514-25), PDI-SG-B069-BL1 (580-76514-26), PDI-SG-B085-BL1 (580-76514-27) and PDI-SG-B097-BL1 (580-76514-28) were analyzed for percent solids in accordance with ASTM D2216. The samples were analyzed on 04/16/2018, 04/17/2018 and 04/20/2018.

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

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F3	Duplicate RPD exceeds the control limit
X	Surrogate is outside control limits

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F2	MS/MSD RPD exceeds control limits
F1	MS and/or MSD Recovery is outside acceptance limits.
F5	Duplicate RPD exceeds limit, and one or both sample results are less than 5 times RL. The data are considered valid because the absolute difference is less than the RL.
F4	MS/MSD RPD exceeds control limits due to sample size difference.

General Chemistry

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Geotechnical

Qualifier	Qualifier Description
F3	Duplicate RPD exceeds the control limit

Glossary

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

Client Sample ID: PDI-SG-B082-BL1

Date Collected: 04/09/18 10:31
Date Received: 04/11/18 14:30

Lab Sample ID: 580-76514-1

Matrix: Solid
Percent Solids: 44.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		110	27	mg/Kg	☼	04/23/18 14:02	04/26/18 18:57	1
Motor Oil (>C24-C36)	**180**		110	38	mg/Kg	☼	04/23/18 14:02	04/26/18 18:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*97*		*50 - 150*	*04/23/18 14:02*	*04/26/18 18:57*	*1*

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**5.1**		0.38	0.076	mg/Kg	☼	04/16/18 10:28	04/17/18 14:33	5
Cadmium	**0.31**		0.30	0.059	mg/Kg	☼	04/16/18 10:28	04/17/18 14:33	5
Copper	**41**		0.76	0.17	mg/Kg	☼	04/16/18 10:28	04/17/18 14:33	5
Lead	**12**		0.38	0.037	mg/Kg	☼	04/16/18 10:28	04/17/18 14:33	5
Zinc	**100**		3.8	1.2	mg/Kg	☼	04/16/18 10:28	04/17/18 14:33	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.059**		0.058	0.017	mg/Kg	☼	04/25/18 12:55	04/25/18 16:02	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	**19000**		2000	44	mg/Kg			04/20/18 10:55	1
Total Solids	**44.5**		0.1	0.1	%			04/17/18 11:23	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Clay	**13.6**				%			04/17/18 12:01	1
Coarse Sand	**0.0**				%			04/17/18 12:01	1
Fine Sand	**23.9**				%			04/17/18 12:01	1
Gravel	**0.0**				%			04/17/18 12:01	1
Medium Sand	**0.1**				%			04/17/18 12:01	1
Silt	**62.3**				%			04/17/18 12:01	1

Client Sample ID: PDI-SG-B082-BL1-D

Date Collected: 04/09/18 10:32
Date Received: 04/11/18 14:30

Lab Sample ID: 580-76514-2

Matrix: Solid
Percent Solids: 45.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		110	26	mg/Kg	☼	04/23/18 14:02	04/26/18 19:20	1
Motor Oil (>C24-C36)	**200**		110	37	mg/Kg	☼	04/23/18 14:02	04/26/18 19:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*101*		*50 - 150*	*04/23/18 14:02*	*04/26/18 19:20*	*1*

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**4.0**		0.41	0.083	mg/Kg	☼	04/16/18 10:28	04/17/18 14:37	5
Cadmium	**0.23**	**J**	0.33	0.064	mg/Kg	☼	04/16/18 10:28	04/17/18 14:37	5
Copper	**33**		0.83	0.18	mg/Kg	☼	04/16/18 10:28	04/17/18 14:37	5
Lead	**9.1**		0.41	0.040	mg/Kg	☼	04/16/18 10:28	04/17/18 14:37	5
Zinc	**83**		4.1	1.3	mg/Kg	☼	04/16/18 10:28	04/17/18 14:37	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.041**	**J**	0.064	0.019	mg/Kg	☼	04/25/18 12:55	04/25/18 16:16	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	**19000**		2000	44	mg/Kg			04/20/18 11:01	1
Total Solids	**45.0**		0.1	0.1	%			04/16/18 15:24	1

Client Sample ID: PDI-SG-B087-BL1

Date Collected: 04/09/18 11:59
Date Received: 04/11/18 14:30

Lab Sample ID: 580-76514-3

Matrix: Solid
Percent Solids: 45.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	51	J	100	25	mg/Kg	☼	04/23/18 14:02	04/26/18 19:42	1
Motor Oil (>C24-C36)	280		100	36	mg/Kg	☼	04/23/18 14:02	04/26/18 19:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*101*		*50 - 150*	*04/23/18 14:02*	*04/26/18 19:42*	*1*

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.4		0.31	0.063	mg/Kg	☼	04/16/18 10:28	04/17/18 14:41	5
Cadmium	0.30		0.25	0.048	mg/Kg	☼	04/16/18 10:28	04/17/18 14:41	5
Copper	36		0.63	0.14	mg/Kg	☼	04/16/18 10:28	04/17/18 14:41	5
Lead	10		0.31	0.030	mg/Kg	☼	04/16/18 10:28	04/17/18 14:41	5
Zinc	91		3.1	1.0	mg/Kg	☼	04/16/18 10:28	04/17/18 14:41	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.046	J	0.063	0.019	mg/Kg	☼	04/25/18 12:55	04/25/18 16:18	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	19000		2000	44	mg/Kg			04/20/18 11:06	1
Total Solids	45.6		0.1	0.1	%			04/16/18 15:24	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Clay	11.8				%			04/17/18 12:01	1
Coarse Sand	0.0				%			04/17/18 12:01	1
Fine Sand	24.7				%			04/17/18 12:01	1
Gravel	0.0				%			04/17/18 12:01	1
Medium Sand	0.1				%			04/17/18 12:01	1
Silt	63.4				%			04/17/18 12:01	1

Client Sample ID: PDI-SG-B084-BL1

Date Collected: 04/09/18 12:32
Date Received: 04/11/18 14:30

Lab Sample ID: 580-76514-4

Matrix: Solid
Percent Solids: 69.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		180	43	mg/Kg	☼	04/23/18 14:02	04/26/18 20:05	3
Motor Oil (>C24-C36)	**460**		180	61	mg/Kg	☼	04/23/18 14:02	04/26/18 20:05	3

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*166*	*X*	*50 - 150*	*04/23/18 14:02*	*04/26/18 20:05*	*3*

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**5.0**	**F2**	0.21	0.043	mg/Kg	☼	04/24/18 10:00	04/24/18 16:03	5
Cadmium	**0.23**	**F2**	0.17	0.033	mg/Kg	☼	04/24/18 10:00	04/24/18 16:03	5
Copper	**30**	**F1**	0.43	0.094	mg/Kg	☼	04/24/18 10:00	04/24/18 16:03	5
Lead	**27**	**F1 F2**	0.21	0.020	mg/Kg	☼	04/24/18 10:00	04/24/18 16:03	5
Zinc	**92**	**F2**	2.1	0.69	mg/Kg	☼	04/24/18 10:00	04/24/18 16:03	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.034**		0.032	0.0096	mg/Kg	☼	04/25/18 12:55	04/25/18 16:20	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	**4800**		2000	44	mg/Kg			04/20/18 11:11	1
Total Solids	**69.4**		0.1	0.1	%			04/20/18 09:00	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Clay	**3.8**				%			04/23/18 15:07	1
Coarse Sand	**5.8**				%			04/23/18 15:07	1
Fine Sand	**50.3**				%			04/23/18 15:07	1
Gravel	**6.8**				%			04/23/18 15:07	1
Medium Sand	**27.2**				%			04/23/18 15:07	1
Silt	**6.1**				%			04/23/18 15:07	1

Client Sample ID: PDI-SG-B086-BL1

Date Collected: 04/09/18 13:34
Date Received: 04/11/18 14:30

Lab Sample ID: 580-76514-5

Matrix: Solid
Percent Solids: 42.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		110	27	mg/Kg	☼	04/23/18 14:02	04/26/18 20:29	1
Motor Oil (>C24-C36)	**230**		110	39	mg/Kg	☼	04/23/18 14:02	04/26/18 20:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*102*		*50 - 150*	*04/23/18 14:02*	*04/26/18 20:29*	*1*

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**5.3**		0.42	0.083	mg/Kg	☼	04/16/18 10:28	04/17/18 14:45	5
Cadmium	**0.26**	**J**	0.33	0.064	mg/Kg	☼	04/16/18 10:28	04/17/18 14:45	5
Copper	**40**		0.83	0.18	mg/Kg	☼	04/16/18 10:28	04/17/18 14:45	5
Lead	**11**		0.42	0.040	mg/Kg	☼	04/16/18 10:28	04/17/18 14:45	5
Zinc	**100**		4.2	1.3	mg/Kg	☼	04/16/18 10:28	04/17/18 14:45	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.053**	**J**	0.064	0.019	mg/Kg	☼	04/25/18 12:55	04/25/18 16:23	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	**29000**		2000	44	mg/Kg			04/20/18 11:17	1
Total Solids	**42.3**		0.1	0.1	%			04/16/18 15:24	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Clay	**11.1**				%			04/17/18 12:01	1
Coarse Sand	**0.0**				%			04/17/18 12:01	1
Fine Sand	**28.5**				%			04/17/18 12:01	1
Gravel	**0.0**				%			04/17/18 12:01	1
Medium Sand	**0.5**				%			04/17/18 12:01	1
Silt	**59.8**				%			04/17/18 12:01	1

Client Sample ID: PDI-SG-B089-BL1

Date Collected: 04/09/18 15:26
Date Received: 04/11/18 14:30

Lab Sample ID: 580-76514-6

Matrix: Solid
Percent Solids: 43.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		110	26	mg/Kg	☼	04/23/18 14:02	04/26/18 20:52	1
Motor Oil (>C24-C36)	**170**		110	38	mg/Kg	☼	04/23/18 14:02	04/26/18 20:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*114*		*50 - 150*	*04/23/18 14:02*	*04/26/18 20:52*	*1*

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**4.6**		0.32	0.063	mg/Kg	☼	04/16/18 10:28	04/17/18 14:49	5
Cadmium	**0.16**	**J**	0.25	0.049	mg/Kg	☼	04/16/18 10:28	04/17/18 14:49	5
Copper	**37**		0.63	0.14	mg/Kg	☼	04/16/18 10:28	04/17/18 14:49	5
Lead	**10**		0.32	0.030	mg/Kg	☼	04/16/18 10:28	04/17/18 14:49	5
Zinc	**90**		3.2	1.0	mg/Kg	☼	04/16/18 10:28	04/17/18 14:49	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.039**	**J**	0.057	0.017	mg/Kg	☼	04/25/18 12:55	04/25/18 16:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	**22000**		2000	44	mg/Kg			04/20/18 11:22	1
Total Solids	**43.1**		0.1	0.1	%			04/16/18 15:24	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Clay	**14.7**				%			04/18/18 15:58	1
Coarse Sand	**0.0**				%			04/18/18 15:58	1
Fine Sand	**14.6**				%			04/18/18 15:58	1
Gravel	**0.0**				%			04/18/18 15:58	1
Medium Sand	**0.0**				%			04/18/18 15:58	1
Silt	**70.7**				%			04/18/18 15:58	1

Client Sample ID: PDI-SG-B094-BL1
Date Collected: 04/09/18 16:10
Date Received: 04/11/18 14:30

Lab Sample ID: 580-76514-7
Matrix: Solid
Percent Solids: 49.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		97	24	mg/Kg	☼	04/23/18 14:02	04/26/18 21:16	1
Motor Oil (>C24-C36)	220		97	34	mg/Kg	☼	04/23/18 14:02	04/26/18 21:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*102*		*50 - 150*	*04/23/18 14:02*	*04/26/18 21:16*	*1*

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.5		0.36	0.073	mg/Kg	☼	04/16/18 11:23	04/17/18 00:49	5
Cadmium	0.28	J	0.29	0.056	mg/Kg	☼	04/16/18 11:23	04/17/18 00:49	5
Copper	38		0.73	0.16	mg/Kg	☼	04/16/18 11:23	04/17/18 00:49	5
Lead	12		0.36	0.035	mg/Kg	☼	04/16/18 11:23	04/17/18 00:49	5
Zinc	100		3.6	1.2	mg/Kg	☼	04/16/18 11:23	04/17/18 00:49	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.058		0.058	0.017	mg/Kg	☼	04/25/18 12:55	04/25/18 16:28	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	17000		2000	44	mg/Kg			04/20/18 11:27	1
Total Solids	49.1		0.1	0.1	%			04/16/18 15:24	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Clay	9.4				%			04/18/18 15:58	1
Coarse Sand	0.0				%			04/18/18 15:58	1
Fine Sand	25.6				%			04/18/18 15:58	1
Gravel	0.0				%			04/18/18 15:58	1
Medium Sand	2.4				%			04/18/18 15:58	1
Silt	62.5				%			04/18/18 15:58	1

Client Sample ID: PDI-SG-B095-BL1

Date Collected: 04/09/18 17:00
Date Received: 04/11/18 14:30

Lab Sample ID: 580-76514-8

Matrix: Solid
Percent Solids: 38.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		130	32	mg/Kg	☼	04/23/18 14:02	04/26/18 21:39	1
Motor Oil (>C24-C36)	**340**		130	45	mg/Kg	☼	04/23/18 14:02	04/26/18 21:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*94*		*50 - 150*	*04/23/18 14:02*	*04/26/18 21:39*	*1*

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**5.2**		0.45	0.090	mg/Kg	☼	04/16/18 11:23	04/17/18 00:53	5
Cadmium	**0.28**	**J**	0.36	0.070	mg/Kg	☼	04/16/18 11:23	04/17/18 00:53	5
Copper	**42**		0.90	0.20	mg/Kg	☼	04/16/18 11:23	04/17/18 00:53	5
Lead	**11**		0.45	0.043	mg/Kg	☼	04/16/18 11:23	04/17/18 00:53	5
Zinc	**97**		4.5	1.5	mg/Kg	☼	04/16/18 11:23	04/17/18 00:53	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.058**		0.052	0.016	mg/Kg	☼	04/25/18 12:55	04/25/18 16:30	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	**26000**		2000	44	mg/Kg			04/20/18 11:39	1
Total Solids	**38.3**		0.1	0.1	%			04/16/18 15:24	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Clay	**16.7**				%			04/18/18 15:58	1
Coarse Sand	**0.0**				%			04/18/18 15:58	1
Fine Sand	**9.2**				%			04/18/18 15:58	1
Gravel	**0.0**				%			04/18/18 15:58	1
Medium Sand	**0.1**				%			04/18/18 15:58	1
Silt	**73.9**				%			04/18/18 15:58	1

Client Sample ID: PDI-SG-B079-BL1

Date Collected: 04/09/18 12:03
Date Received: 04/11/18 14:30

Lab Sample ID: 580-76514-9

Matrix: Solid
Percent Solids: 47.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		99	24	mg/Kg	☼	04/23/18 14:02	04/26/18 22:02	1
Motor Oil (>C24-C36)	**180**		99	35	mg/Kg	☼	04/23/18 14:02	04/26/18 22:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*106*		*50 - 150*	*04/23/18 14:02*	*04/26/18 22:02*	*1*

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**4.1**		0.33	0.066	mg/Kg	☼	04/16/18 11:23	04/16/18 23:43	5
Cadmium	**0.16**	**J**	0.27	0.051	mg/Kg	☼	04/16/18 11:23	04/16/18 23:43	5
Copper	**28**		0.66	0.15	mg/Kg	☼	04/16/18 11:23	04/16/18 23:43	5
Lead	**7.5**		0.33	0.032	mg/Kg	☼	04/16/18 11:23	04/16/18 23:43	5
Zinc	**76**		3.3	1.1	mg/Kg	☼	04/16/18 11:23	04/16/18 23:43	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.050**	**J**	0.057	0.017	mg/Kg	☼	04/25/18 12:55	04/25/18 16:37	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	**17000**		2000	44	mg/Kg			04/20/18 11:45	1
Total Solids	**47.0**		0.1	0.1	%			04/16/18 15:24	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Clay	**10.5**				%			04/18/18 15:58	1
Coarse Sand	**0.1**				%			04/18/18 15:58	1
Fine Sand	**35.7**				%			04/18/18 15:58	1
Gravel	**0.0**				%			04/18/18 15:58	1
Medium Sand	**2.6**				%			04/18/18 15:58	1
Silt	**51.1**				%			04/18/18 15:58	1

Client Sample ID: PDI-SG-B080-BL1

Date Collected: 04/09/18 10:28
Date Received: 04/11/18 14:30

Lab Sample ID: 580-76514-10

Matrix: Solid
Percent Solids: 44.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		110	26	mg/Kg	☼	04/23/18 14:02	04/26/18 22:25	1
Motor Oil (>C24-C36)	**290**		110	38	mg/Kg	☼	04/23/18 14:02	04/26/18 22:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*104*		*50 - 150*	*04/23/18 14:02*	*04/26/18 22:25*	*1*

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**4.5**		0.30	0.061	mg/Kg	☼	04/16/18 11:23	04/16/18 23:47	5
Cadmium	**0.23**	**J**	0.24	0.047	mg/Kg	☼	04/16/18 11:23	04/16/18 23:47	5
Copper	**35**		0.61	0.13	mg/Kg	☼	04/16/18 11:23	04/16/18 23:47	5
Lead	**9.4**		0.30	0.029	mg/Kg	☼	04/16/18 11:23	04/16/18 23:47	5
Zinc	**91**		3.0	0.98	mg/Kg	☼	04/16/18 11:23	04/16/18 23:47	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.051**	**J**	0.060	0.018	mg/Kg	☼	04/25/18 12:55	04/25/18 16:39	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	**16000**		2000	44	mg/Kg			04/20/18 11:50	1
Total Solids	**44.8**		0.1	0.1	%			04/17/18 11:23	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Clay	**10.2**				%			04/18/18 15:58	1
Coarse Sand	**0.0**				%			04/18/18 15:58	1
Fine Sand	**29.4**				%			04/18/18 15:58	1
Gravel	**0.0**				%			04/18/18 15:58	1
Medium Sand	**0.1**				%			04/18/18 15:58	1
Silt	**60.0**				%			04/18/18 15:58	1

Client Sample ID: PDI-SG-B081-BL1

Date Collected: 04/09/18 19:32
Date Received: 04/11/18 14:30

Lab Sample ID: 580-76514-11

Matrix: Solid
Percent Solids: 45.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	34	J	100	26	mg/Kg	☼	04/23/18 14:02	04/27/18 18:35	1
Motor Oil (>C24-C36)	240		100	36	mg/Kg	☼	04/23/18 14:02	04/27/18 18:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*101*		*50 - 150*	*04/23/18 14:02*	*04/27/18 18:35*	*1*

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.7		0.44	0.087	mg/Kg	☼	04/16/18 11:23	04/16/18 23:50	5
Cadmium	0.23	J	0.35	0.067	mg/Kg	☼	04/16/18 11:23	04/16/18 23:50	5
Copper	38		0.87	0.19	mg/Kg	☼	04/16/18 11:23	04/16/18 23:50	5
Lead	11		0.44	0.042	mg/Kg	☼	04/16/18 11:23	04/16/18 23:50	5
Zinc	93		4.4	1.4	mg/Kg	☼	04/16/18 11:23	04/16/18 23:50	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.059		0.054	0.016	mg/Kg	☼	04/25/18 12:55	04/25/18 16:42	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	18000		2000	44	mg/Kg			04/20/18 11:56	1
Total Solids	45.7		0.1	0.1	%			04/16/18 15:24	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Clay	10.7				%			04/18/18 15:58	1
Coarse Sand	0.0				%			04/18/18 15:58	1
Fine Sand	21.4				%			04/18/18 15:58	1
Gravel	0.0				%			04/18/18 15:58	1
Medium Sand	0.3				%			04/18/18 15:58	1
Silt	67.6				%			04/18/18 15:58	1

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

TestAmerica Job ID: 580-76514-1

Client Sample ID: PDI-SG-B081-BL1-D
Date Collected: 04/09/18 13:11
Date Received: 04/11/18 14:30

Lab Sample ID: 580-76514-12
Matrix: Solid
Percent Solids: 43.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		110	28	mg/Kg	☼	04/23/18 14:02	04/27/18 18:57	1
Motor Oil (>C24-C36)	190		110	40	mg/Kg	☼	04/23/18 14:02	04/27/18 18:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*102*		*50 - 150*	*04/23/18 14:02*	*04/27/18 18:57*	*1*

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.1		0.41	0.082	mg/Kg	☼	04/16/18 11:23	04/16/18 23:54	5
Cadmium	0.22	J	0.33	0.063	mg/Kg	☼	04/16/18 11:23	04/16/18 23:54	5
Copper	32		0.82	0.18	mg/Kg	☼	04/16/18 11:23	04/16/18 23:54	5
Lead	9.0		0.41	0.039	mg/Kg	☼	04/16/18 11:23	04/16/18 23:54	5
Zinc	82		4.1	1.3	mg/Kg	☼	04/16/18 11:23	04/16/18 23:54	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.052	J	0.068	0.020	mg/Kg	☼	04/25/18 12:55	04/25/18 16:44	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	18000		2000	44	mg/Kg			04/20/18 12:01	1
Total Solids	43.5		0.1	0.1	%			04/16/18 15:24	1

Client Sample ID: PDI-SG-B083-BL1

Date Collected: 04/09/18 14:18
Date Received: 04/11/18 14:30

Lab Sample ID: 580-76514-13

Matrix: Solid
Percent Solids: 42.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		110	28	mg/Kg	☼	04/23/18 14:02	04/27/18 19:19	1
Motor Oil (>C24-C36)	**220**		110	40	mg/Kg	☼	04/23/18 14:02	04/27/18 19:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*102*		*50 - 150*	*04/23/18 14:02*	*04/27/18 19:19*	*1*

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**4.9**		0.47	0.093	mg/Kg	☼	04/16/18 11:23	04/16/18 23:58	5
Cadmium	**0.21**	**J**	0.37	0.072	mg/Kg	☼	04/16/18 11:23	04/16/18 23:58	5
Copper	**38**		0.93	0.20	mg/Kg	☼	04/16/18 11:23	04/16/18 23:58	5
Lead	**9.8**		0.47	0.045	mg/Kg	☼	04/16/18 11:23	04/16/18 23:58	5
Zinc	**91**		4.7	1.5	mg/Kg	☼	04/16/18 11:23	04/16/18 23:58	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.050**	**J**	0.051	0.015	mg/Kg	☼	04/25/18 12:55	04/25/18 16:58	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	**22000**		2000	44	mg/Kg			04/20/18 12:06	1
Total Solids	**42.7**		0.1	0.1	%			04/16/18 15:24	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Clay	**10.5**				%			04/18/18 15:58	1
Coarse Sand	**0.0**				%			04/18/18 15:58	1
Fine Sand	**13.3**				%			04/18/18 15:58	1
Gravel	**0.0**				%			04/18/18 15:58	1
Medium Sand	**0.1**				%			04/18/18 15:58	1
Silt	**76.1**				%			04/18/18 15:58	1

Client Sample ID: PDI-SG-B088-BL1
Date Collected: 04/09/18 15:10
Date Received: 04/11/18 14:30

Lab Sample ID: 580-76514-14
Matrix: Solid
Percent Solids: 47.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	94	J	100	26	mg/Kg	☼	04/23/18 14:02	04/27/18 19:42	1
Motor Oil (>C24-C36)	360		100	36	mg/Kg	☼	04/23/18 14:02	04/27/18 19:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*95*		*50 - 150*	*04/23/18 14:02*	*04/27/18 19:42*	*1*

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3.8		0.33	0.067	mg/Kg	☼	04/16/18 11:23	04/17/18 00:02	5
Cadmium	0.20	J	0.27	0.052	mg/Kg	☼	04/16/18 11:23	04/17/18 00:02	5
Copper	29		0.67	0.15	mg/Kg	☼	04/16/18 11:23	04/17/18 00:02	5
Lead	8.1		0.33	0.032	mg/Kg	☼	04/16/18 11:23	04/17/18 00:02	5
Zinc	76		3.3	1.1	mg/Kg	☼	04/16/18 11:23	04/17/18 00:02	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.054	J	0.055	0.017	mg/Kg	☼	04/25/18 12:55	04/25/18 16:49	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	25000		2000	44	mg/Kg			04/20/18 12:11	1
Total Solids	47.9		0.1	0.1	%			04/16/18 15:24	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Clay	6.6				%			04/18/18 15:58	1
Coarse Sand	0.2				%			04/18/18 15:58	1
Fine Sand	36.1				%			04/18/18 15:58	1
Gravel	0.6				%			04/18/18 15:58	1
Medium Sand	1.5				%			04/18/18 15:58	1
Silt	55.1				%			04/18/18 15:58	1

Client Sample ID: PDI-SG-B091-BL1

Date Collected: 04/09/18 15:57
Date Received: 04/11/18 14:30

Lab Sample ID: 580-76514-15

Matrix: Solid
Percent Solids: 47.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	110		100	25	mg/Kg	☼	04/23/18 14:02	04/27/18 20:04	1
Motor Oil (>C24-C36)	420		100	36	mg/Kg	☼	04/23/18 14:02	04/27/18 20:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*101*		*50 - 150*	*04/23/18 14:02*	*04/27/18 20:04*	*1*

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3.3		0.31	0.062	mg/Kg	☼	04/16/18 11:23	04/17/18 00:06	5
Cadmium	0.19	J	0.25	0.047	mg/Kg	☼	04/16/18 11:23	04/17/18 00:06	5
Copper	26		0.62	0.14	mg/Kg	☼	04/16/18 11:23	04/17/18 00:06	5
Lead	14		0.31	0.030	mg/Kg	☼	04/16/18 11:23	04/17/18 00:06	5
Zinc	69		3.1	0.99	mg/Kg	☼	04/16/18 11:23	04/17/18 00:06	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.052	J	0.053	0.016	mg/Kg	☼	04/25/18 12:55	04/25/18 16:51	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	20000		2000	44	mg/Kg			04/20/18 12:17	1
Total Solids	47.5		0.1	0.1	%			04/16/18 15:24	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Clay	12.1				%			04/18/18 15:58	1
Coarse Sand	0.1				%			04/18/18 15:58	1
Fine Sand	33.9				%			04/18/18 15:58	1
Gravel	0.0				%			04/18/18 15:58	1
Medium Sand	0.3				%			04/18/18 15:58	1
Silt	53.6				%			04/18/18 15:58	1

Client Sample ID: PDI-SG-B103-BL1
Date Collected: 04/10/18 14:13
Date Received: 04/11/18 14:30

Lab Sample ID: 580-76514-16
Matrix: Solid
Percent Solids: 55.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	520		410	100	mg/Kg	☼	04/23/18 14:02	04/27/18 20:26	5
Motor Oil (>C24-C36)	1200		410	150	mg/Kg	☼	04/23/18 14:02	04/27/18 20:26	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*127*		*50 - 150*	*04/23/18 14:02*	*04/27/18 20:26*	*5*

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	5.3		0.31	0.062	mg/Kg	☼	04/24/18 14:42	04/25/18 16:31	5
Cadmium	0.34		0.25	0.048	mg/Kg	☼	04/24/18 14:42	04/25/18 16:31	5
Copper	28		0.62	0.14	mg/Kg	☼	04/24/18 14:42	04/25/18 16:31	5
Lead	20		0.31	0.030	mg/Kg	☼	04/24/18 14:42	04/25/18 16:31	5
Zinc	99		3.1	0.99	mg/Kg	☼	04/24/18 14:42	04/25/18 16:31	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.080		0.039	0.012	mg/Kg	☼	04/27/18 09:12	04/27/18 10:53	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	12000	B	2000	44	mg/Kg			04/24/18 16:26	1
Total Solids	55.4		0.1	0.1	%			04/20/18 09:00	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Clay	5.3				%			04/23/18 15:07	1
Coarse Sand	0.3				%			04/23/18 15:07	1
Fine Sand	45.6				%			04/23/18 15:07	1
Gravel	0.6				%			04/23/18 15:07	1
Medium Sand	1.0				%			04/23/18 15:07	1
Silt	47.1				%			04/23/18 15:07	1

Client Sample ID: PDI-SG-B090-BL1

Date Collected: 04/10/18 09:52
Date Received: 04/11/18 14:30

Lab Sample ID: 580-76514-17

Matrix: Solid
Percent Solids: 49.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	68	J	97	24	mg/Kg	☼	04/23/18 14:02	04/27/18 20:48	1
Motor Oil (>C24-C36)	370		97	34	mg/Kg	☼	04/23/18 14:02	04/27/18 20:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*102*		*50 - 150*	*04/23/18 14:02*	*04/27/18 20:48*	*1*

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.3		0.35	0.069	mg/Kg	☼	04/16/18 11:23	04/17/18 00:26	5
Cadmium	0.18	J	0.28	0.053	mg/Kg	☼	04/16/18 11:23	04/17/18 00:26	5
Copper	27		0.69	0.15	mg/Kg	☼	04/16/18 11:23	04/17/18 00:26	5
Lead	12		0.35	0.033	mg/Kg	☼	04/16/18 11:23	04/17/18 00:26	5
Zinc	76		3.5	1.1	mg/Kg	☼	04/16/18 11:23	04/17/18 00:26	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.043		0.043	0.013	mg/Kg	☼	04/27/18 09:12	04/27/18 11:02	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	17000		2000	44	mg/Kg			04/20/18 12:46	1
Total Solids	49.9		0.1	0.1	%			04/16/18 15:59	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Clay	8.9				%			04/18/18 15:58	1
Coarse Sand	0.0				%			04/18/18 15:58	1
Fine Sand	31.3				%			04/18/18 15:58	1
Gravel	0.2				%			04/18/18 15:58	1
Medium Sand	0.2				%			04/18/18 15:58	1
Silt	59.3				%			04/18/18 15:58	1

Client Sample ID: PDI-SG-B092-BL1

Date Collected: 04/10/18 10:43
Date Received: 04/11/18 14:30

Lab Sample ID: 580-76514-18

Matrix: Solid
Percent Solids: 42.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		110	28	mg/Kg	☼	04/23/18 14:02	04/27/18 21:10	1
Motor Oil (>C24-C36)	**170**		110	40	mg/Kg	☼	04/23/18 14:02	04/27/18 21:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*98*		*50 - 150*	*04/23/18 14:02*	*04/27/18 21:10*	*1*

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**4.8**		0.41	0.083	mg/Kg	☼	04/16/18 11:23	04/17/18 00:30	5
Cadmium	**0.21**	**J**	0.33	0.064	mg/Kg	☼	04/16/18 11:23	04/17/18 00:30	5
Copper	**38**		0.83	0.18	mg/Kg	☼	04/16/18 11:23	04/17/18 00:30	5
Lead	**10**		0.41	0.040	mg/Kg	☼	04/16/18 11:23	04/17/18 00:30	5
Zinc	**95**		4.1	1.3	mg/Kg	☼	04/16/18 11:23	04/17/18 00:30	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.053**		0.050	0.015	mg/Kg	☼	04/27/18 09:12	04/27/18 11:04	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	**18000**		2000	44	mg/Kg			04/20/18 12:52	1
Total Solids	**42.3**		0.1	0.1	%			04/16/18 15:59	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Clay	**10.7**				%			04/18/18 15:58	1
Coarse Sand	**0.0**				%			04/18/18 15:58	1
Fine Sand	**25.9**				%			04/18/18 15:58	1
Gravel	**0.0**				%			04/18/18 15:58	1
Medium Sand	**0.5**				%			04/18/18 15:58	1
Silt	**62.9**				%			04/18/18 15:58	1

Client Sample ID: PDI-SG-B093-BL1

Date Collected: 04/10/18 11:42
Date Received: 04/11/18 14:30

Lab Sample ID: 580-76514-19

Matrix: Solid
Percent Solids: 65.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		73	18	mg/Kg	☼	04/23/18 14:02	04/27/18 21:32	1
Motor Oil (>C24-C36)	**57**	**J**	73	25	mg/Kg	☼	04/23/18 14:02	04/27/18 21:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*100*		*50 - 150*	*04/23/18 14:02*	*04/27/18 21:32*	*1*

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**3.3**		0.25	0.049	mg/Kg	☼	04/16/18 11:23	04/17/18 00:33	5
Cadmium	**0.10**	**J**	0.20	0.038	mg/Kg	☼	04/16/18 11:23	04/17/18 00:33	5
Copper	**16**		0.49	0.11	mg/Kg	☼	04/16/18 11:23	04/17/18 00:33	5
Lead	**4.8**		0.25	0.024	mg/Kg	☼	04/16/18 11:23	04/17/18 00:33	5
Zinc	**55**		2.5	0.79	mg/Kg	☼	04/16/18 11:23	04/17/18 00:33	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.019**	**J**	0.039	0.012	mg/Kg	☼	04/27/18 09:12	04/27/18 11:06	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	**5200**		2000	44	mg/Kg			04/20/18 12:57	1
Total Solids	**65.8**		0.1	0.1	%			04/16/18 15:59	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Clay	**3.5**				%			04/18/18 15:58	1
Coarse Sand	**0.3**				%			04/18/18 15:58	1
Fine Sand	**58.9**				%			04/18/18 15:58	1
Gravel	**0.0**				%			04/18/18 15:58	1
Medium Sand	**18.6**				%			04/18/18 15:58	1
Silt	**18.7**				%			04/18/18 15:58	1

Client Sample ID: PDI-SG-B098-BL1

Date Collected: 04/10/18 15:09
Date Received: 04/11/18 14:30

Lab Sample ID: 580-76514-20

Matrix: Solid
Percent Solids: 42.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	82	J	120	29	mg/Kg	☼	04/23/18 14:02	04/27/18 22:17	1
Motor Oil (>C24-C36)	810		120	41	mg/Kg	☼	04/23/18 14:02	04/27/18 22:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*98*		*50 - 150*	*04/23/18 14:02*	*04/27/18 22:17*	*1*

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	5.2		0.41	0.082	mg/Kg	☼	04/16/18 11:23	04/17/18 00:37	5
Cadmium	0.21	J	0.33	0.063	mg/Kg	☼	04/16/18 11:23	04/17/18 00:37	5
Copper	36		0.82	0.18	mg/Kg	☼	04/16/18 11:23	04/17/18 00:37	5
Lead	16		0.41	0.039	mg/Kg	☼	04/16/18 11:23	04/17/18 00:37	5
Zinc	93		4.1	1.3	mg/Kg	☼	04/16/18 11:23	04/17/18 00:37	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.051	J	0.056	0.017	mg/Kg	☼	04/27/18 09:12	04/27/18 11:13	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	27000		2000	44	mg/Kg			04/20/18 13:02	1
Total Solids	42.5		0.1	0.1	%			04/16/18 15:24	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Clay	9.3				%			04/18/18 15:58	1
Coarse Sand	0.0				%			04/18/18 15:58	1
Fine Sand	17.6				%			04/18/18 15:58	1
Gravel	0.1				%			04/18/18 15:58	1
Medium Sand	0.6				%			04/18/18 15:58	1
Silt	72.4				%			04/18/18 15:58	1

Client Sample ID: PDI-SG-B104-BL1

Date Collected: 04/10/18 15:57
Date Received: 04/11/18 14:30

Lab Sample ID: 580-76514-21

Matrix: Solid
Percent Solids: 65.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	27	J	72	18	mg/Kg	☼	04/24/18 16:29	04/27/18 23:01	1
Motor Oil (>C24-C36)	140		72	25	mg/Kg	☼	04/24/18 16:29	04/27/18 23:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*109*		*50 - 150*	*04/24/18 16:29*	*04/27/18 23:01*	*1*

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.7		0.26	0.053	mg/Kg	☼	04/16/18 11:23	04/17/18 00:41	5
Cadmium	0.12	J	0.21	0.041	mg/Kg	☼	04/16/18 11:23	04/17/18 00:41	5
Copper	17		0.53	0.12	mg/Kg	☼	04/16/18 11:23	04/17/18 00:41	5
Lead	9.4		0.26	0.025	mg/Kg	☼	04/16/18 11:23	04/17/18 00:41	5
Zinc	62		2.6	0.85	mg/Kg	☼	04/16/18 11:23	04/17/18 00:41	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.041		0.035	0.010	mg/Kg	☼	04/27/18 09:12	04/27/18 11:15	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	6100		2000	44	mg/Kg			04/20/18 16:40	1
Total Solids	65.2		0.1	0.1	%			04/16/18 15:59	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Clay	2.8				%			04/18/18 15:58	1
Coarse Sand	0.0				%			04/18/18 15:58	1
Fine Sand	71.8				%			04/18/18 15:58	1
Gravel	0.5				%			04/18/18 15:58	1
Medium Sand	0.7				%			04/18/18 15:58	1
Silt	24.3				%			04/18/18 15:58	1

Client Sample ID: PDI-SG-B106-BL1

Date Collected: 04/10/18 16:37
Date Received: 04/11/18 14:30

Lab Sample ID: 580-76514-22

Matrix: Solid
Percent Solids: 38.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		120	31	mg/Kg	☼	04/24/18 16:29	04/27/18 23:45	1
Motor Oil (>C24-C36)	**140**		120	44	mg/Kg	☼	04/24/18 16:29	04/27/18 23:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*109*		*50 - 150*	*04/24/18 16:29*	*04/27/18 23:45*	*1*

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**5.4**		0.47	0.094	mg/Kg	☼	04/16/18 11:23	04/17/18 00:45	5
Cadmium	**0.23**	**J**	0.38	0.073	mg/Kg	☼	04/16/18 11:23	04/17/18 00:45	5
Copper	**43**		0.94	0.21	mg/Kg	☼	04/16/18 11:23	04/17/18 00:45	5
Lead	**11**		0.47	0.045	mg/Kg	☼	04/16/18 11:23	04/17/18 00:45	5
Zinc	**95**		4.7	1.5	mg/Kg	☼	04/16/18 11:23	04/17/18 00:45	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.044**	**J**	0.065	0.020	mg/Kg	☼	04/27/18 09:12	04/27/18 11:18	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	**25000**		2000	44	mg/Kg			04/20/18 16:45	1
Total Solids	**38.0**		0.1	0.1	%			04/16/18 15:59	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Clay	**11.5**				%			04/18/18 15:58	1
Coarse Sand	**0.0**				%			04/18/18 15:58	1
Fine Sand	**6.7**				%			04/18/18 15:58	1
Gravel	**0.1**				%			04/18/18 15:58	1
Medium Sand	**0.1**				%			04/18/18 15:58	1
Silt	**81.4**				%			04/18/18 15:58	1

Client Sample ID: PDI-SG-B100-BL1

Date Collected: 04/10/18 17:25
Date Received: 04/11/18 14:30

Lab Sample ID: 580-76514-23

Matrix: Solid
Percent Solids: 40.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		110	28	mg/Kg	☼	04/24/18 16:29	04/28/18 00:07	1
Motor Oil (>C24-C36)	**110**		110	39	mg/Kg	☼	04/24/18 16:29	04/28/18 00:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*107*		*50 - 150*	*04/24/18 16:29*	*04/28/18 00:07*	*1*

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**5.1**		0.39	0.078	mg/Kg	☼	04/16/18 13:32	04/17/18 12:10	5
Cadmium	**0.21**	**J**	0.31	0.060	mg/Kg	☼	04/16/18 13:32	04/17/18 12:10	5
Copper	**40**		0.78	0.17	mg/Kg	☼	04/16/18 13:32	04/17/18 12:10	5
Lead	**12**		0.39	0.037	mg/Kg	☼	04/16/18 13:32	04/17/18 12:10	5
Zinc	**99**		3.9	1.2	mg/Kg	☼	04/16/18 13:32	04/17/18 12:10	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.052**	**J**	0.053	0.016	mg/Kg	☼	04/27/18 09:12	04/27/18 11:20	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	**19000**		2000	44	mg/Kg			04/20/18 16:50	1
Total Solids	**40.5**		0.1	0.1	%			04/16/18 15:59	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Clay	**11.0**				%			04/18/18 15:58	1
Coarse Sand	**0.0**				%			04/18/18 15:58	1
Fine Sand	**16.4**				%			04/18/18 15:58	1
Gravel	**0.0**				%			04/18/18 15:58	1
Medium Sand	**0.2**				%			04/18/18 15:58	1
Silt	**72.3**				%			04/18/18 15:58	1

Client Sample ID: PDI-SG-B099-BL1
Date Collected: 04/10/18 16:32
Date Received: 04/11/18 14:30

Lab Sample ID: 580-76514-24
Matrix: Solid
Percent Solids: 39.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		120	30	mg/Kg	☼	04/24/18 16:29	04/28/18 00:30	1
Motor Oil (>C24-C36)	**120**		120	43	mg/Kg	☼	04/24/18 16:29	04/28/18 00:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*106*		*50 - 150*	*04/24/18 16:29*	*04/28/18 00:30*	*1*

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**5.4**		0.50	0.10	mg/Kg	☼	04/16/18 13:32	04/17/18 12:14	5
Cadmium	**0.26**	**J**	0.40	0.077	mg/Kg	☼	04/16/18 13:32	04/17/18 12:14	5
Copper	**37**		1.0	0.22	mg/Kg	☼	04/16/18 13:32	04/17/18 12:14	5
Lead	**11**		0.50	0.048	mg/Kg	☼	04/16/18 13:32	04/17/18 12:14	5
Zinc	**90**		5.0	1.6	mg/Kg	☼	04/16/18 13:32	04/17/18 12:14	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.057**	**J**	0.062	0.019	mg/Kg	☼	04/27/18 09:12	04/27/18 11:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	**21000**		2000	44	mg/Kg			04/20/18 16:55	1
Total Solids	**39.4**		0.1	0.1	%			04/16/18 15:59	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Clay	**13.3**				%			04/18/18 15:58	1
Coarse Sand	**0.0**				%			04/18/18 15:58	1
Fine Sand	**11.7**				%			04/18/18 15:58	1
Gravel	**0.0**				%			04/18/18 15:58	1
Medium Sand	**0.3**				%			04/18/18 15:58	1
Silt	**74.7**				%			04/18/18 15:58	1

Client Sample ID: PDI-SG-B043-BL1
Date Collected: 04/10/18 10:15
Date Received: 04/11/18 14:30

Lab Sample ID: 580-76514-25
Matrix: Solid
Percent Solids: 51.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		94	23	mg/Kg	☼	04/24/18 16:29	04/28/18 00:52	1
Motor Oil (>C24-C36)	110		94	33	mg/Kg	☼	04/24/18 16:29	04/28/18 00:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*103*		*50 - 150*	*04/24/18 16:29*	*04/28/18 00:52*	*1*

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	5.0		0.28	0.056	mg/Kg	☼	04/16/18 13:32	04/17/18 12:18	5
Cadmium	0.36		0.23	0.043	mg/Kg	☼	04/16/18 13:32	04/17/18 12:18	5
Copper	31		0.56	0.12	mg/Kg	☼	04/16/18 13:32	04/17/18 12:18	5
Lead	11		0.28	0.027	mg/Kg	☼	04/16/18 13:32	04/17/18 12:18	5
Zinc	100		2.8	0.91	mg/Kg	☼	04/16/18 13:32	04/17/18 12:18	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.053		0.043	0.013	mg/Kg	☼	04/27/18 09:12	04/27/18 11:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	12000		2000	44	mg/Kg			04/20/18 17:00	1
Total Solids	51.8		0.1	0.1	%			04/16/18 15:59	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Clay	8.5				%			04/18/18 15:58	1
Coarse Sand	0.1				%			04/18/18 15:58	1
Fine Sand	49.9				%			04/18/18 15:58	1
Gravel	0.0				%			04/18/18 15:58	1
Medium Sand	1.1				%			04/18/18 15:58	1
Silt	40.5				%			04/18/18 15:58	1

Client Sample ID: PDI-SG-B069-BL1

Date Collected: 04/10/18 11:53
Date Received: 04/11/18 14:30

Lab Sample ID: 580-76514-26

Matrix: Solid
Percent Solids: 64.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	26	J	75	18	mg/Kg	☼	04/24/18 16:29	04/28/18 01:13	1
Motor Oil (>C24-C36)	110		75	26	mg/Kg	☼	04/24/18 16:29	04/28/18 01:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*113*		*50 - 150*	*04/24/18 16:29*	*04/28/18 01:13*	*1*

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.1		0.28	0.057	mg/Kg	☼	04/24/18 10:00	04/24/18 16:42	5
Cadmium	0.18	J	0.23	0.044	mg/Kg	☼	04/24/18 10:00	04/24/18 16:42	5
Copper	21		0.57	0.12	mg/Kg	☼	04/24/18 10:00	04/24/18 16:42	5
Lead	6.8		0.28	0.027	mg/Kg	☼	04/24/18 10:00	04/24/18 16:42	5
Zinc	79		2.8	0.91	mg/Kg	☼	04/24/18 10:00	04/24/18 16:42	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.024	J	0.037	0.011	mg/Kg	☼	04/27/18 09:12	04/27/18 11:27	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	7000	B	2000	44	mg/Kg			04/24/18 16:31	1
Total Solids	64.1		0.1	0.1	%			04/20/18 09:00	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Clay	4.9				%			04/23/18 15:07	1
Coarse Sand	0.6				%			04/23/18 15:07	1
Fine Sand	55.5				%			04/23/18 15:07	1
Gravel	0.0				%			04/23/18 15:07	1
Medium Sand	11.3				%			04/23/18 15:07	1
Silt	27.6				%			04/23/18 15:07	1

Client Sample ID: PDI-SG-B085-BL1
Date Collected: 04/10/18 14:22
Date Received: 04/11/18 14:30

Lab Sample ID: 580-76514-27
Matrix: Solid
Percent Solids: 73.5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		64	16	mg/Kg	☼	04/24/18 16:29	04/28/18 01:36	1
Motor Oil (>C24-C36)	ND		64	22	mg/Kg	☼	04/24/18 16:29	04/28/18 01:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*110*		*50 - 150*	*04/24/18 16:29*	*04/28/18 01:36*	*1*

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**4.2**		0.22	0.044	mg/Kg	☼	04/16/18 13:32	04/17/18 12:21	5
Cadmium	**0.13**	**J**	0.18	0.034	mg/Kg	☼	04/16/18 13:32	04/17/18 12:21	5
Copper	**15**		0.44	0.097	mg/Kg	☼	04/16/18 13:32	04/17/18 12:21	5
Lead	**4.6**		0.22	0.021	mg/Kg	☼	04/16/18 13:32	04/17/18 12:21	5
Zinc	**62**		2.2	0.71	mg/Kg	☼	04/16/18 13:32	04/17/18 12:21	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.029	0.0088	mg/Kg	☼	04/27/18 09:12	04/27/18 11:29	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	**840**	**J**	2000	44	mg/Kg			04/20/18 17:06	1
Total Solids	**73.5**		0.1	0.1	%			04/16/18 15:59	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Clay	**0.9**				%			04/18/18 15:58	1
Coarse Sand	**0.5**				%			04/18/18 15:58	1
Fine Sand	**65.5**				%			04/18/18 15:58	1
Gravel	**0.0**				%			04/18/18 15:58	1
Medium Sand	**28.4**				%			04/18/18 15:58	1
Silt	**4.7**				%			04/18/18 15:58	1

Client Sample ID: PDI-SG-B097-BL1

Date Collected: 04/10/18 15:44
Date Received: 04/11/18 14:30

Lab Sample ID: 580-76514-28

Matrix: Solid
Percent Solids: 40.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		120	29	mg/Kg	☼	04/24/18 16:29	04/28/18 02:20	1
Motor Oil (>C24-C36)	**140**		120	41	mg/Kg	☼	04/24/18 16:29	04/28/18 02:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*105*		*50 - 150*	*04/24/18 16:29*	*04/28/18 02:20*	*1*

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**5.7**		0.39	0.078	mg/Kg	☼	04/16/18 13:32	04/17/18 12:25	5
Cadmium	**0.30**	**J**	0.31	0.060	mg/Kg	☼	04/16/18 13:32	04/17/18 12:25	5
Copper	**45**		0.78	0.17	mg/Kg	☼	04/16/18 13:32	04/17/18 12:25	5
Lead	**12**		0.39	0.037	mg/Kg	☼	04/16/18 13:32	04/17/18 12:25	5
Zinc	**110**		3.9	1.3	mg/Kg	☼	04/16/18 13:32	04/17/18 12:25	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.10**		0.052	0.016	mg/Kg	☼	04/27/18 09:12	04/27/18 11:31	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	**22000**		2000	44	mg/Kg			04/20/18 17:10	1
Total Solids	**40.1**		0.1	0.1	%			04/16/18 15:59	1

Method: D7928/D6913 - ASTM D7928/D6913

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Clay	**11.9**				%			04/18/18 15:58	1
Coarse Sand	**0.0**				%			04/18/18 15:58	1
Fine Sand	**9.2**				%			04/18/18 15:58	1
Gravel	**0.0**				%			04/18/18 15:58	1
Medium Sand	**0.0**				%			04/18/18 15:58	1
Silt	**78.9**				%			04/18/18 15:58	1

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

Lab Sample ID: MB 580-272050/1-A
Matrix: Solid
Analysis Batch: 272193

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 272050

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		50	12	mg/Kg		04/23/18 14:02	04/25/18 22:18	1
Motor Oil (>C24-C36)	ND		50	18	mg/Kg		04/23/18 14:02	04/25/18 22:18	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*105*		*50 - 150*	*04/23/18 14:02*	*04/25/18 22:18*	*1*

Lab Sample ID: LCS 580-272050/2-A
Matrix: Solid
Analysis Batch: 272193

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 272050

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
#2 Diesel (C10-C24)			500	461		mg/Kg		92	70 - 125		
Motor Oil (>C24-C36)			500	490		mg/Kg		98	70 - 119		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
o-Terphenyl	*106*		*50 - 150*

Lab Sample ID: LCSD 580-272050/3-A
Matrix: Solid
Analysis Batch: 272193

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 272050

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
#2 Diesel (C10-C24)			500	470		mg/Kg		94	70 - 125	2	16
Motor Oil (>C24-C36)			500	504		mg/Kg		101	70 - 119	3	16

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
o-Terphenyl	*104*		*50 - 150*

Lab Sample ID: 580-76514-10 DU
Matrix: Solid
Analysis Batch: 272401

Client Sample ID: PDI-SG-B080-BL1
Prep Type: Total/NA
Prep Batch: 272050

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
#2 Diesel (C10-C24)	ND			55.6	J	mg/Kg	☼			NC	35
Motor Oil (>C24-C36)	290			267		mg/Kg	☼			7	35

Surrogate	*DU %Recovery*	*DU Qualifier*	*Limits*
o-Terphenyl	*98*		*50 - 150*

Lab Sample ID: 580-76514-20 DU
Matrix: Solid
Analysis Batch: 272401

Client Sample ID: PDI-SG-B098-BL1
Prep Type: Total/NA
Prep Batch: 272050

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
#2 Diesel (C10-C24)	82	J		77.0	J	mg/Kg	☼			6	35
Motor Oil (>C24-C36)	810			404	F3	mg/Kg	☼			67	35

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

Lab Sample ID: 580-76514-20 DU
Matrix: Solid
Analysis Batch: 272401

Client Sample ID: PDI-SG-B098-BL1
Prep Type: Total/NA
Prep Batch: 272050

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

Lab Sample ID: MB 580-272170/1-A
Matrix: Solid
Analysis Batch: 272347

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 272170

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		50	12	mg/Kg		04/24/18 16:29	04/27/18 06:13	1
Motor Oil (>C24-C36)	ND		50	18	mg/Kg		04/24/18 16:29	04/27/18 06:13	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	111		50 - 150	04/24/18 16:29	04/27/18 06:13	1

Lab Sample ID: LCS 580-272170/2-A
Matrix: Solid
Analysis Batch: 272347

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 272170

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
#2 Diesel (C10-C24)			500	470		mg/Kg		94	70 - 125		
Motor Oil (>C24-C36)			500	494		mg/Kg		99	70 - 119		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
o-Terphenyl	120		50 - 150

Lab Sample ID: LCSD 580-272170/3-A
Matrix: Solid
Analysis Batch: 272347

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 272170

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
#2 Diesel (C10-C24)			500	472		mg/Kg		94	70 - 125	0	16
Motor Oil (>C24-C36)			500	489		mg/Kg		98	70 - 119	1	16

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
o-Terphenyl	111		50 - 150

Lab Sample ID: 580-76514-21 DU
Matrix: Solid
Analysis Batch: 272401

Client Sample ID: PDI-SG-B104-BL1
Prep Type: Total/NA
Prep Batch: 272170

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
#2 Diesel (C10-C24)	27	J		24.2	J	mg/Kg	☼			12	35
Motor Oil (>C24-C36)	140			127		mg/Kg	☼			8	35

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

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 580-271462/22-A
Matrix: Solid
Analysis Batch: 271622

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 271462

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.25	0.050	mg/Kg		04/16/18 10:28	04/17/18 12:45	5
Cadmium	ND		0.20	0.039	mg/Kg		04/16/18 10:28	04/17/18 12:45	5
Copper	ND		0.50	0.11	mg/Kg		04/16/18 10:28	04/17/18 12:45	5
Lead	ND		0.25	0.024	mg/Kg		04/16/18 10:28	04/17/18 12:45	5
Zinc	ND		2.5	0.81	mg/Kg		04/16/18 10:28	04/17/18 12:45	5

Lab Sample ID: LCS 580-271462/23-A
Matrix: Solid
Analysis Batch: 271622

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 271462

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	200	194		mg/Kg		97	80 - 120
Cadmium	5.00	4.75		mg/Kg		95	80 - 120
Copper	25.0	24.9		mg/Kg		100	80 - 120
Lead	50.0	47.2		mg/Kg		94	80 - 120
Zinc	200	186		mg/Kg		93	80 - 120

Lab Sample ID: LCSD 580-271462/24-A
Matrix: Solid
Analysis Batch: 271622

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 271462

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	200	197		mg/Kg		98	80 - 120	2	20
Cadmium	5.00	5.38		mg/Kg		108	80 - 120	12	20
Copper	25.0	24.9		mg/Kg		99	80 - 120	0	20
Lead	50.0	47.4		mg/Kg		95	80 - 120	0	20
Zinc	200	193		mg/Kg		96	80 - 120	4	20

Lab Sample ID: MB 580-271475/22-A
Matrix: Solid
Analysis Batch: 271515

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 271475

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.25	0.050	mg/Kg		04/16/18 11:23	04/16/18 22:47	5
Cadmium	ND		0.20	0.039	mg/Kg		04/16/18 11:23	04/16/18 22:47	5
Copper	ND		0.50	0.11	mg/Kg		04/16/18 11:23	04/16/18 22:47	5
Lead	ND		0.25	0.024	mg/Kg		04/16/18 11:23	04/16/18 22:47	5
Zinc	ND		2.5	0.81	mg/Kg		04/16/18 11:23	04/16/18 22:47	5

Lab Sample ID: LCS 580-271475/23-A
Matrix: Solid
Analysis Batch: 271515

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 271475

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	200	187		mg/Kg		93	80 - 120
Cadmium	5.00	4.35		mg/Kg		87	80 - 120
Copper	25.0	24.7		mg/Kg		99	80 - 120
Lead	50.0	45.8		mg/Kg		92	80 - 120
Zinc	200	180		mg/Kg		90	80 - 120

Lab Sample ID: LCSD 580-271475/24-A
Matrix: Solid
Analysis Batch: 271515

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 271475

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	200	188		mg/Kg		94	80 - 120	1	20
Cadmium	5.00	4.79		mg/Kg		96	80 - 120	9	20
Copper	25.0	24.4		mg/Kg		98	80 - 120	1	20
Lead	50.0	46.3		mg/Kg		93	80 - 120	1	20
Zinc	200	185		mg/Kg		92	80 - 120	3	20

Lab Sample ID: MB 580-271497/22-A
Matrix: Solid
Analysis Batch: 271622

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 271497

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.25	0.050	mg/Kg		04/16/18 13:32	04/17/18 10:17	5
Cadmium	ND		0.20	0.039	mg/Kg		04/16/18 13:32	04/17/18 10:17	5
Copper	ND		0.50	0.11	mg/Kg		04/16/18 13:32	04/17/18 10:17	5
Lead	ND		0.25	0.024	mg/Kg		04/16/18 13:32	04/17/18 10:17	5
Zinc	ND		2.5	0.81	mg/Kg		04/16/18 13:32	04/17/18 10:17	5

Lab Sample ID: LCS 580-271497/23-A
Matrix: Solid
Analysis Batch: 271622

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 271497

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	200	196		mg/Kg		98	80 - 120
Cadmium	5.00	5.17		mg/Kg		103	80 - 120
Copper	25.0	26.1		mg/Kg		104	80 - 120
Lead	50.0	48.8		mg/Kg		98	80 - 120
Zinc	200	190		mg/Kg		95	80 - 120

Lab Sample ID: LCSD 580-271497/24-A
Matrix: Solid
Analysis Batch: 271622

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 271497

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	200	200		mg/Kg		100	80 - 120	2	20
Cadmium	5.00	4.71		mg/Kg		94	80 - 120	9	20
Copper	25.0	25.9		mg/Kg		104	80 - 120	1	20
Lead	50.0	48.3		mg/Kg		97	80 - 120	1	20
Zinc	200	193		mg/Kg		96	80 - 120	1	20

Lab Sample ID: MB 580-272103/18-A
Matrix: Solid
Analysis Batch: 272184

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 272103

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.25	0.050	mg/Kg		04/24/18 10:00	04/24/18 15:52	5
Cadmium	ND		0.20	0.039	mg/Kg		04/24/18 10:00	04/24/18 15:52	5
Copper	ND		0.50	0.11	mg/Kg		04/24/18 10:00	04/24/18 15:52	5
Lead	ND		0.25	0.024	mg/Kg		04/24/18 10:00	04/24/18 15:52	5
Zinc	ND		2.5	0.81	mg/Kg		04/24/18 10:00	04/24/18 15:52	5

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 580-272103/19-A
Matrix: Solid
Analysis Batch: 272184

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 272103

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	200	192		mg/Kg		96	80 - 120
Cadmium	5.00	4.96		mg/Kg		99	80 - 120
Copper	25.0	24.2		mg/Kg		97	80 - 120
Lead	50.0	47.7		mg/Kg		95	80 - 120
Zinc	200	189		mg/Kg		95	80 - 120

Lab Sample ID: LCSD 580-272103/20-A
Matrix: Solid
Analysis Batch: 272184

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 272103

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	200	196		mg/Kg		98	80 - 120	2	20
Cadmium	5.00	5.11		mg/Kg		102	80 - 120	3	20
Copper	25.0	23.7		mg/Kg		95	80 - 120	2	20
Lead	50.0	48.0		mg/Kg		96	80 - 120	1	20
Zinc	200	191		mg/Kg		95	80 - 120	1	20

Lab Sample ID: 580-76514-4 MS
Matrix: Solid
Analysis Batch: 272184

Client Sample ID: PDI-SG-B084-BL1
Prep Type: Total/NA
Prep Batch: 272103

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	5.0	F2	220	234		mg/Kg	☼	104	80 - 120
Cadmium	0.23	F2	5.49	5.57		mg/Kg	☼	97	80 - 120
Copper	30	F1	27.5	60.6		mg/Kg	☼	110	80 - 120
Lead	27	F1 F2	54.9	82.5		mg/Kg	☼	101	80 - 120
Zinc	92	F2	220	328		mg/Kg	☼	107	80 - 120

Lab Sample ID: 580-76514-4 MSD
Matrix: Solid
Analysis Batch: 272184

Client Sample ID: PDI-SG-B084-BL1
Prep Type: Total/NA
Prep Batch: 272103

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	5.0	F2	165	170	F4	mg/Kg	☼	100	80 - 120	32	20
Cadmium	0.23	F2	4.12	4.31	F4	mg/Kg	☼	99	80 - 120	25	20
Copper	30	F1	20.6	57.8	F1	mg/Kg	☼	133	80 - 120	5	20
Lead	27	F1 F2	41.2	58.4	F1 F4	mg/Kg	☼	76	80 - 120	34	20
Zinc	92	F2	165	257	F4	mg/Kg	☼	100	80 - 120	24	20

Lab Sample ID: 580-76514-4 DU
Matrix: Solid
Analysis Batch: 272184

Client Sample ID: PDI-SG-B084-BL1
Prep Type: Total/NA
Prep Batch: 272103

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Arsenic	5.0	F2	5.15		mg/Kg	☼	3	20
Cadmium	0.23	F2	0.321	F5	mg/Kg	☼	33	20
Copper	30	F1	35.0		mg/Kg	☼	14	20
Lead	27	F1 F2	23.3		mg/Kg	☼	16	20
Zinc	92	F2	90.2		mg/Kg	☼	2	20

Lab Sample ID: MB 580-272141/19-A
Matrix: Solid
Analysis Batch: 272296

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 272141

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.25	0.050	mg/Kg		04/24/18 14:42	04/25/18 14:50	5
Cadmium	ND		0.20	0.039	mg/Kg		04/24/18 14:42	04/25/18 14:50	5
Copper	ND		0.50	0.11	mg/Kg		04/24/18 14:42	04/25/18 14:50	5
Lead	ND		0.25	0.024	mg/Kg		04/24/18 14:42	04/25/18 14:50	5
Zinc	ND		2.5	0.81	mg/Kg		04/24/18 14:42	04/25/18 14:50	5

Lab Sample ID: LCS 580-272141/20-A
Matrix: Solid
Analysis Batch: 272296

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 272141

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	200	194		mg/Kg		97	80 - 120
Cadmium	5.00	4.44		mg/Kg		89	80 - 120
Copper	25.0	24.7		mg/Kg		99	80 - 120
Lead	50.0	48.1		mg/Kg		96	80 - 120
Zinc	200	190		mg/Kg		95	80 - 120

Lab Sample ID: LCSD 580-272141/21-A
Matrix: Solid
Analysis Batch: 272296

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 272141

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	200	196		mg/Kg		98	80 - 120	1	20
Cadmium	5.00	4.97		mg/Kg		99	80 - 120	11	20
Copper	25.0	24.7		mg/Kg		99	80 - 120	0	20
Lead	50.0	49.2		mg/Kg		98	80 - 120	2	20
Zinc	200	191		mg/Kg		95	80 - 120	0	20

Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 580-272230/22-A
Matrix: Solid
Analysis Batch: 272293

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 272230

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.030	0.0090	mg/Kg		04/25/18 12:55	04/25/18 15:55	1

Lab Sample ID: LCS 580-272230/23-A
Matrix: Solid
Analysis Batch: 272293

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 272230

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.167	0.150		mg/Kg		90	80 - 120

Lab Sample ID: LCSD 580-272230/24-A
Matrix: Solid
Analysis Batch: 272293

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 272230

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.167	0.143		mg/Kg		86	80 - 120	5	20

Method: 7471A - Mercury (CVAA) (Continued)

Lab Sample ID: 580-76514-1 MS
Matrix: Solid
Analysis Batch: 272293

Client Sample ID: PDI-SG-B082-BL1
Prep Type: Total/NA
Prep Batch: 272230

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.059		0.301	0.367		mg/Kg	☼	102	80 - 120

Lab Sample ID: 580-76514-1 MSD
Matrix: Solid
Analysis Batch: 272293

Client Sample ID: PDI-SG-B082-BL1
Prep Type: Total/NA
Prep Batch: 272230

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.059		0.280	0.331		mg/Kg	☼	97	80 - 120	10	20

Lab Sample ID: 580-76514-1 DU
Matrix: Solid
Analysis Batch: 272293

Client Sample ID: PDI-SG-B082-BL1
Prep Type: Total/NA
Prep Batch: 272230

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Mercury	0.059		0.0608		mg/Kg	☼	3	20

Lab Sample ID: MB 580-272400/22-A
Matrix: Solid
Analysis Batch: 272420

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 272400

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.030	0.0090	mg/Kg		04/27/18 09:12	04/27/18 10:46	1

Lab Sample ID: LCS 580-272400/23-A
Matrix: Solid
Analysis Batch: 272420

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 272400

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.167	0.162		mg/Kg		97	80 - 120

Lab Sample ID: LCSD 580-272400/24-A
Matrix: Solid
Analysis Batch: 272420

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 272400

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.167	0.154		mg/Kg		92	80 - 120	5	20

Lab Sample ID: 580-76514-16 MS
Matrix: Solid
Analysis Batch: 272420

Client Sample ID: PDI-SG-B103-BL1
Prep Type: Total/NA
Prep Batch: 272400

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.080		0.248	0.324		mg/Kg	☼	99	80 - 120

Lab Sample ID: 580-76514-16 MSD
Matrix: Solid
Analysis Batch: 272420

Client Sample ID: PDI-SG-B103-BL1
Prep Type: Total/NA
Prep Batch: 272400

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.080		0.227	0.306		mg/Kg	☼	100	80 - 120	6	20

Lab Sample ID: 580-76514-16 DU
Matrix: Solid
Analysis Batch: 272420

Client Sample ID: PDI-SG-B103-BL1
Prep Type: Total/NA
Prep Batch: 272400

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Mercury	0.080		0.0872		mg/Kg	☼	9	20

Method: 9060_PSEP - TOC (Puget Sound)

Lab Sample ID: MB 580-271894/3
Matrix: Solid
Analysis Batch: 271894

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			04/20/18 10:47	1

Lab Sample ID: LCS 580-271894/4
Matrix: Solid
Analysis Batch: 271894

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	4620	4500		mg/Kg		97	68 - 149

Lab Sample ID: LCSD 580-271894/5
Matrix: Solid
Analysis Batch: 271894

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	4620	5280		mg/Kg		114	68 - 149	16	32

Lab Sample ID: 580-76514-15 MS
Matrix: Solid
Analysis Batch: 271894

Client Sample ID: PDI-SG-B091-BL1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon - Duplicates	20000		120000	135000		mg/Kg		96	68 - 149

Lab Sample ID: 580-76514-15 MSD
Matrix: Solid
Analysis Batch: 271894

Client Sample ID: PDI-SG-B091-BL1
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	20000		120000	106000		mg/Kg		72	68 - 149	24	32

Lab Sample ID: 580-76514-15 DU
Matrix: Solid
Analysis Batch: 271894

Client Sample ID: PDI-SG-B091-BL1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Organic Carbon - Duplicates	20000		19300		mg/Kg		2	50

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

Lab Sample ID: 580-76514-15 TRL
Matrix: Solid
Analysis Batch: 271894

Client Sample ID: PDI-SG-B091-BL1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		TRL Result	TRL Qualifier	Unit	D			RSD	RSD Limit
Total Organic Carbon - Duplicates	20000			20400		mg/Kg				3	20

Lab Sample ID: MB 580-271995/3
Matrix: Solid
Analysis Batch: 271995

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			04/20/18 16:32	1

Lab Sample ID: LCS 580-271995/4
Matrix: Solid
Analysis Batch: 271995

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			4620	4740		mg/Kg		103	68 - 149		

Lab Sample ID: LCSD 580-271995/5
Matrix: Solid
Analysis Batch: 271995

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			4620	4670		mg/Kg		101	68 - 149	1	32

Lab Sample ID: MB 580-272185/3
Matrix: Solid
Analysis Batch: 272185

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	166	J	2000	44	mg/Kg			04/24/18 15:41	1

Lab Sample ID: LCS 580-272185/4
Matrix: Solid
Analysis Batch: 272185

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			4620	5450		mg/Kg		118	68 - 149		

Lab Sample ID: LCSD 580-272185/5
Matrix: Solid
Analysis Batch: 272185

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			4620	5670		mg/Kg		123	68 - 149	4	32

Method: D 2216 - Percent Moisture

Lab Sample ID: 580-76514-5 DU
Matrix: Solid
Analysis Batch: 271503

Client Sample ID: PDI-SG-B086-BL1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Solids	42.3			43.6		%				3	20

Lab Sample ID: 580-76514-18 DU
Matrix: Solid
Analysis Batch: 271503

Client Sample ID: PDI-SG-B092-BL1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Solids	42.3			42.9		%				1	20

Lab Sample ID: 580-76514-10 DU
Matrix: Solid
Analysis Batch: 271557

Client Sample ID: PDI-SG-B080-BL1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Solids	44.8			46.0		%				3	20

Lab Sample ID: 580-76514-26 DU
Matrix: Solid
Analysis Batch: 271865

Client Sample ID: PDI-SG-B069-BL1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Solids	64.1			63.5		%				0.9	20

Method: D7928/D6913 - ASTM D7928/D6913

Lab Sample ID: 580-76514-6 DU
Matrix: Solid
Analysis Batch: 271714

Client Sample ID: PDI-SG-B089-BL1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Clay	14.7			12.5		%				16	20
Coarse Sand	0.0			0.1	F3	%				200	20
Fine Sand	14.6			14.9		%				2	20
Gravel	0.0			0.0		%				NC	20
Medium Sand	0.0			0.1	F3	%				200	20
Silt	70.7			72.4		%				2	20

Client Sample ID: PDI-SG-B082-BL1
Date Collected: 04/09/18 10:31
Date Received: 04/11/18 14:30

Lab Sample ID: 580-76514-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	271894	04/20/18 10:55	SPP	TAL SEA
Total/NA	Analysis	D 2216		1	271557	04/17/18 11:23	APR	TAL SEA
Total/NA	Analysis	D7928/D6913		1	271567	04/17/18 12:01	HJM	TAL SEA

Client Sample ID: PDI-SG-B082-BL1
Date Collected: 04/09/18 10:31
Date Received: 04/11/18 14:30

Lab Sample ID: 580-76514-1
Matrix: Solid
Percent Solids: 44.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			272050	04/23/18 14:02	APR	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	272347	04/26/18 18:57	ADB	TAL SEA
Total/NA	Prep	3050B			271462	04/16/18 10:28	ASJ	TAL SEA
Total/NA	Analysis	6020B		5	271622	04/17/18 14:33	FCW	TAL SEA
Total/NA	Prep	7471A			272230	04/25/18 12:55	PAB	TAL SEA
Total/NA	Analysis	7471A		1	272293	04/25/18 16:02	PAB	TAL SEA

Client Sample ID: PDI-SG-B082-BL1-D
Date Collected: 04/09/18 10:32
Date Received: 04/11/18 14:30

Lab Sample ID: 580-76514-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	271894	04/20/18 11:01	SPP	TAL SEA
Total/NA	Analysis	D 2216		1	271503	04/16/18 15:24	TTN	TAL SEA

Client Sample ID: PDI-SG-B082-BL1-D
Date Collected: 04/09/18 10:32
Date Received: 04/11/18 14:30

Lab Sample ID: 580-76514-2
Matrix: Solid
Percent Solids: 45.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			272050	04/23/18 14:02	APR	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	272347	04/26/18 19:20	ADB	TAL SEA
Total/NA	Prep	3050B			271462	04/16/18 10:28	ASJ	TAL SEA
Total/NA	Analysis	6020B		5	271622	04/17/18 14:37	FCW	TAL SEA
Total/NA	Prep	7471A			272230	04/25/18 12:55	PAB	TAL SEA
Total/NA	Analysis	7471A		1	272293	04/25/18 16:16	PAB	TAL SEA

Client Sample ID: PDI-SG-B087-BL1
Date Collected: 04/09/18 11:59
Date Received: 04/11/18 14:30

Lab Sample ID: 580-76514-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	271894	04/20/18 11:06	SPP	TAL SEA

Client Sample ID: PDI-SG-B087-BL1
Lab Sample ID: 580-76514-3
Date Collected: 04/09/18 11:59
Matrix: Solid
Date Received: 04/11/18 14:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	271503	04/16/18 15:24	TTN	TAL SEA
Total/NA	Analysis	D7928/D6913		1	271567	04/17/18 12:01	HJM	TAL SEA

Client Sample ID: PDI-SG-B087-BL1
Lab Sample ID: 580-76514-3
Date Collected: 04/09/18 11:59
Matrix: Solid
Date Received: 04/11/18 14:30
Percent Solids: 45.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			272050	04/23/18 14:02	APR	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	272347	04/26/18 19:42	ADB	TAL SEA
Total/NA	Prep	3050B			271462	04/16/18 10:28	ASJ	TAL SEA
Total/NA	Analysis	6020B		5	271622	04/17/18 14:41	FCW	TAL SEA
Total/NA	Prep	7471A			272230	04/25/18 12:55	PAB	TAL SEA
Total/NA	Analysis	7471A		1	272293	04/25/18 16:18	PAB	TAL SEA

Client Sample ID: PDI-SG-B084-BL1
Lab Sample ID: 580-76514-4
Date Collected: 04/09/18 12:32
Matrix: Solid
Date Received: 04/11/18 14:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	271894	04/20/18 11:11	SPP	TAL SEA
Total/NA	Analysis	D 2216		1	271865	04/20/18 09:00	KMS	TAL SEA
Total/NA	Analysis	D7928/D6913		1	272065	04/23/18 15:07	HJM	TAL SEA

Client Sample ID: PDI-SG-B084-BL1
Lab Sample ID: 580-76514-4
Date Collected: 04/09/18 12:32
Matrix: Solid
Date Received: 04/11/18 14:30
Percent Solids: 69.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			272050	04/23/18 14:02	APR	TAL SEA
Total/NA	Analysis	NWTPH-Dx		3	272347	04/26/18 20:05	ADB	TAL SEA
Total/NA	Prep	3050B			272103	04/24/18 10:00	ASJ	TAL SEA
Total/NA	Analysis	6020B		5	272184	04/24/18 16:03	FCW	TAL SEA
Total/NA	Prep	7471A			272230	04/25/18 12:55	PAB	TAL SEA
Total/NA	Analysis	7471A		1	272293	04/25/18 16:20	PAB	TAL SEA

Client Sample ID: PDI-SG-B086-BL1
Lab Sample ID: 580-76514-5
Date Collected: 04/09/18 13:34
Matrix: Solid
Date Received: 04/11/18 14:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	271894	04/20/18 11:17	SPP	TAL SEA

Client Sample ID: PDI-SG-B086-BL1

Lab Sample ID: 580-76514-5
Date Collected: 04/09/18 13:34
Matrix: Solid
Date Received: 04/11/18 14:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	271503	04/16/18 15:24	TTN	TAL SEA
Total/NA	Analysis	D7928/D6913		1	271567	04/17/18 12:01	HJM	TAL SEA

Client Sample ID: PDI-SG-B086-BL1

Lab Sample ID: 580-76514-5
Date Collected: 04/09/18 13:34
Matrix: Solid
Date Received: 04/11/18 14:30
Percent Solids: 42.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			272050	04/23/18 14:02	APR	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	272347	04/26/18 20:29	ADB	TAL SEA
Total/NA	Prep	3050B			271462	04/16/18 10:28	ASJ	TAL SEA
Total/NA	Analysis	6020B		5	271622	04/17/18 14:45	FCW	TAL SEA
Total/NA	Prep	7471A			272230	04/25/18 12:55	PAB	TAL SEA
Total/NA	Analysis	7471A		1	272293	04/25/18 16:23	PAB	TAL SEA

Client Sample ID: PDI-SG-B089-BL1

Lab Sample ID: 580-76514-6
Date Collected: 04/09/18 15:26
Matrix: Solid
Date Received: 04/11/18 14:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	271894	04/20/18 11:22	SPP	TAL SEA
Total/NA	Analysis	D 2216		1	271503	04/16/18 15:24	TTN	TAL SEA
Total/NA	Analysis	D7928/D6913		1	271714	04/18/18 15:58	HJM	TAL SEA

Client Sample ID: PDI-SG-B089-BL1

Lab Sample ID: 580-76514-6
Date Collected: 04/09/18 15:26
Matrix: Solid
Date Received: 04/11/18 14:30
Percent Solids: 43.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			272050	04/23/18 14:02	APR	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	272347	04/26/18 20:52	ADB	TAL SEA
Total/NA	Prep	3050B			271462	04/16/18 10:28	ASJ	TAL SEA
Total/NA	Analysis	6020B		5	271622	04/17/18 14:49	FCW	TAL SEA
Total/NA	Prep	7471A			272230	04/25/18 12:55	PAB	TAL SEA
Total/NA	Analysis	7471A		1	272293	04/25/18 16:25	PAB	TAL SEA

Client Sample ID: PDI-SG-B094-BL1

Lab Sample ID: 580-76514-7
Date Collected: 04/09/18 16:10
Matrix: Solid
Date Received: 04/11/18 14:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	271894	04/20/18 11:27	SPP	TAL SEA

Client Sample ID: PDI-SG-B094-BL1
Lab Sample ID: 580-76514-7
Date Collected: 04/09/18 16:10
Matrix: Solid
Date Received: 04/11/18 14:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	271503	04/16/18 15:24	TTN	TAL SEA
Total/NA	Analysis	D7928/D6913		1	271714	04/18/18 15:58	HJM	TAL SEA

Client Sample ID: PDI-SG-B094-BL1
Lab Sample ID: 580-76514-7
Date Collected: 04/09/18 16:10
Matrix: Solid
Date Received: 04/11/18 14:30
Percent Solids: 49.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			272050	04/23/18 14:02	APR	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	272347	04/26/18 21:16	ADB	TAL SEA
Total/NA	Prep	3050B			271475	04/16/18 11:23	ASJ	TAL SEA
Total/NA	Analysis	6020B		5	271515	04/17/18 00:49	FCW	TAL SEA
Total/NA	Prep	7471A			272230	04/25/18 12:55	PAB	TAL SEA
Total/NA	Analysis	7471A		1	272293	04/25/18 16:28	PAB	TAL SEA

Client Sample ID: PDI-SG-B095-BL1
Lab Sample ID: 580-76514-8
Date Collected: 04/09/18 17:00
Matrix: Solid
Date Received: 04/11/18 14:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	271894	04/20/18 11:39	SPP	TAL SEA
Total/NA	Analysis	D 2216		1	271503	04/16/18 15:24	TTN	TAL SEA
Total/NA	Analysis	D7928/D6913		1	271714	04/18/18 15:58	HJM	TAL SEA

Client Sample ID: PDI-SG-B095-BL1
Lab Sample ID: 580-76514-8
Date Collected: 04/09/18 17:00
Matrix: Solid
Date Received: 04/11/18 14:30
Percent Solids: 38.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			272050	04/23/18 14:02	APR	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	272347	04/26/18 21:39	ADB	TAL SEA
Total/NA	Prep	3050B			271475	04/16/18 11:23	ASJ	TAL SEA
Total/NA	Analysis	6020B		5	271515	04/17/18 00:53	FCW	TAL SEA
Total/NA	Prep	7471A			272230	04/25/18 12:55	PAB	TAL SEA
Total/NA	Analysis	7471A		1	272293	04/25/18 16:30	PAB	TAL SEA

Client Sample ID: PDI-SG-B079-BL1
Lab Sample ID: 580-76514-9
Date Collected: 04/09/18 12:03
Matrix: Solid
Date Received: 04/11/18 14:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	271894	04/20/18 11:45	SPP	TAL SEA

Client Sample ID: PDI-SG-B079-BL1 — **Lab Sample ID: 580-76514-9**
Date Collected: 04/09/18 12:03 — **Matrix: Solid**
Date Received: 04/11/18 14:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	271503	04/16/18 15:24	TTN	TAL SEA
Total/NA	Analysis	D7928/D6913		1	271714	04/18/18 15:58	HJM	TAL SEA

Client Sample ID: PDI-SG-B079-BL1 — **Lab Sample ID: 580-76514-9**
Date Collected: 04/09/18 12:03 — **Matrix: Solid**
Date Received: 04/11/18 14:30 — **Percent Solids: 47.0**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			272050	04/23/18 14:02	APR	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	272347	04/26/18 22:02	ADB	TAL SEA
Total/NA	Prep	3050B			271475	04/16/18 11:23	ASJ	TAL SEA
Total/NA	Analysis	6020B		5	271515	04/16/18 23:43	FCW	TAL SEA
Total/NA	Prep	7471A			272230	04/25/18 12:55	PAB	TAL SEA
Total/NA	Analysis	7471A		1	272293	04/25/18 16:37	PAB	TAL SEA

Client Sample ID: PDI-SG-B080-BL1 — **Lab Sample ID: 580-76514-10**
Date Collected: 04/09/18 10:28 — **Matrix: Solid**
Date Received: 04/11/18 14:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	271894	04/20/18 11:50	SPP	TAL SEA
Total/NA	Analysis	D 2216		1	271557	04/17/18 11:23	APR	TAL SEA
Total/NA	Analysis	D7928/D6913		1	271714	04/18/18 15:58	HJM	TAL SEA

Client Sample ID: PDI-SG-B080-BL1 — **Lab Sample ID: 580-76514-10**
Date Collected: 04/09/18 10:28 — **Matrix: Solid**
Date Received: 04/11/18 14:30 — **Percent Solids: 44.8**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			272050	04/23/18 14:02	APR	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	272347	04/26/18 22:25	ADB	TAL SEA
Total/NA	Prep	3050B			271475	04/16/18 11:23	ASJ	TAL SEA
Total/NA	Analysis	6020B		5	271515	04/16/18 23:47	FCW	TAL SEA
Total/NA	Prep	7471A			272230	04/25/18 12:55	PAB	TAL SEA
Total/NA	Analysis	7471A		1	272293	04/25/18 16:39	PAB	TAL SEA

Client Sample ID: PDI-SG-B081-BL1 — **Lab Sample ID: 580-76514-11**
Date Collected: 04/09/18 19:32 — **Matrix: Solid**
Date Received: 04/11/18 14:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	271894	04/20/18 11:56	SPP	TAL SEA

Lab Chronicle

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

TestAmerica Job ID: 580-76514-1

Client Sample ID: PDI-SG-B081-BL1
Lab Sample ID: 580-76514-11
Date Collected: 04/09/18 19:32
Matrix: Solid
Date Received: 04/11/18 14:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	271503	04/16/18 15:24	TTN	TAL SEA
Total/NA	Analysis	D7928/D6913		1	271714	04/18/18 15:58	HJM	TAL SEA

Client Sample ID: PDI-SG-B081-BL1
Lab Sample ID: 580-76514-11
Date Collected: 04/09/18 19:32
Matrix: Solid
Date Received: 04/11/18 14:30
Percent Solids: 45.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			272050	04/23/18 14:02	APR	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	272401	04/27/18 18:35	CJ	TAL SEA
Total/NA	Prep	3050B			271475	04/16/18 11:23	ASJ	TAL SEA
Total/NA	Analysis	6020B		5	271515	04/16/18 23:50	FCW	TAL SEA
Total/NA	Prep	7471A			272230	04/25/18 12:55	PAB	TAL SEA
Total/NA	Analysis	7471A		1	272293	04/25/18 16:42	PAB	TAL SEA

Client Sample ID: PDI-SG-B081-BL1-D
Lab Sample ID: 580-76514-12
Date Collected: 04/09/18 13:11
Matrix: Solid
Date Received: 04/11/18 14:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	271894	04/20/18 12:01	SPP	TAL SEA
Total/NA	Analysis	D 2216		1	271503	04/16/18 15:24	TTN	TAL SEA

Client Sample ID: PDI-SG-B081-BL1-D
Lab Sample ID: 580-76514-12
Date Collected: 04/09/18 13:11
Matrix: Solid
Date Received: 04/11/18 14:30
Percent Solids: 43.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			272050	04/23/18 14:02	APR	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	272401	04/27/18 18:57	CJ	TAL SEA
Total/NA	Prep	3050B			271475	04/16/18 11:23	ASJ	TAL SEA
Total/NA	Analysis	6020B		5	271515	04/16/18 23:54	FCW	TAL SEA
Total/NA	Prep	7471A			272230	04/25/18 12:55	PAB	TAL SEA
Total/NA	Analysis	7471A		1	272293	04/25/18 16:44	PAB	TAL SEA

Client Sample ID: PDI-SG-B083-BL1
Lab Sample ID: 580-76514-13
Date Collected: 04/09/18 14:18
Matrix: Solid
Date Received: 04/11/18 14:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	271894	04/20/18 12:06	SPP	TAL SEA
Total/NA	Analysis	D 2216		1	271503	04/16/18 15:24	TTN	TAL SEA

Client Sample ID: PDI-SG-B083-BL1
Lab Sample ID: 580-76514-13
Date Collected: 04/09/18 14:18
Matrix: Solid
Date Received: 04/11/18 14:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D7928/D6913		1	271714	04/18/18 15:58	HJM	TAL SEA

Client Sample ID: PDI-SG-B083-BL1
Lab Sample ID: 580-76514-13
Date Collected: 04/09/18 14:18
Matrix: Solid
Date Received: 04/11/18 14:30
Percent Solids: 42.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			272050	04/23/18 14:02	APR	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	272401	04/27/18 19:19	CJ	TAL SEA
Total/NA	Prep	3050B			271475	04/16/18 11:23	ASJ	TAL SEA
Total/NA	Analysis	6020B		5	271515	04/16/18 23:58	FCW	TAL SEA
Total/NA	Prep	7471A			272230	04/25/18 12:55	PAB	TAL SEA
Total/NA	Analysis	7471A		1	272293	04/25/18 16:58	PAB	TAL SEA

Client Sample ID: PDI-SG-B088-BL1
Lab Sample ID: 580-76514-14
Date Collected: 04/09/18 15:10
Matrix: Solid
Date Received: 04/11/18 14:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	271894	04/20/18 12:11	SPP	TAL SEA
Total/NA	Analysis	D 2216		1	271503	04/16/18 15:24	TTN	TAL SEA
Total/NA	Analysis	D7928/D6913		1	271714	04/18/18 15:58	HJM	TAL SEA

Client Sample ID: PDI-SG-B088-BL1
Lab Sample ID: 580-76514-14
Date Collected: 04/09/18 15:10
Matrix: Solid
Date Received: 04/11/18 14:30
Percent Solids: 47.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			272050	04/23/18 14:02	APR	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	272401	04/27/18 19:42	CJ	TAL SEA
Total/NA	Prep	3050B			271475	04/16/18 11:23	ASJ	TAL SEA
Total/NA	Analysis	6020B		5	271515	04/17/18 00:02	FCW	TAL SEA
Total/NA	Prep	7471A			272230	04/25/18 12:55	PAB	TAL SEA
Total/NA	Analysis	7471A		1	272293	04/25/18 16:49	PAB	TAL SEA

Client Sample ID: PDI-SG-B091-BL1
Lab Sample ID: 580-76514-15
Date Collected: 04/09/18 15:57
Matrix: Solid
Date Received: 04/11/18 14:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	271894	04/20/18 12:17	SPP	TAL SEA
Total/NA	Analysis	D 2216		1	271503	04/16/18 15:24	TTN	TAL SEA

Client Sample ID: PDI-SG-B091-BL1
Lab Sample ID: 580-76514-15
Date Collected: 04/09/18 15:57
Matrix: Solid
Date Received: 04/11/18 14:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D7928/D6913		1	271714	04/18/18 15:58	HJM	TAL SEA

Client Sample ID: PDI-SG-B091-BL1
Lab Sample ID: 580-76514-15
Date Collected: 04/09/18 15:57
Matrix: Solid
Date Received: 04/11/18 14:30
Percent Solids: 47.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			272050	04/23/18 14:02	APR	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	272401	04/27/18 20:04	CJ	TAL SEA
Total/NA	Prep	3050B			271475	04/16/18 11:23	ASJ	TAL SEA
Total/NA	Analysis	6020B		5	271515	04/17/18 00:06	FCW	TAL SEA
Total/NA	Prep	7471A			272230	04/25/18 12:55	PAB	TAL SEA
Total/NA	Analysis	7471A		1	272293	04/25/18 16:51	PAB	TAL SEA

Client Sample ID: PDI-SG-B103-BL1
Lab Sample ID: 580-76514-16
Date Collected: 04/10/18 14:13
Matrix: Solid
Date Received: 04/11/18 14:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	272185	04/24/18 16:26	SPP	TAL SEA
Total/NA	Analysis	D 2216		1	271865	04/20/18 09:00	KMS	TAL SEA
Total/NA	Analysis	D7928/D6913		1	272065	04/23/18 15:07	HJM	TAL SEA

Client Sample ID: PDI-SG-B103-BL1
Lab Sample ID: 580-76514-16
Date Collected: 04/10/18 14:13
Matrix: Solid
Date Received: 04/11/18 14:30
Percent Solids: 55.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			272050	04/23/18 14:02	APR	TAL SEA
Total/NA	Analysis	NWTPH-Dx		5	272401	04/27/18 20:26	CJ	TAL SEA
Total/NA	Prep	3050B			272141	04/24/18 14:42	ASJ	TAL SEA
Total/NA	Analysis	6020B		5	272296	04/25/18 16:31	FCW	TAL SEA
Total/NA	Prep	7471A			272400	04/27/18 09:12	ASJ	TAL SEA
Total/NA	Analysis	7471A		1	272420	04/27/18 10:53	FCW	TAL SEA

Client Sample ID: PDI-SG-B090-BL1
Lab Sample ID: 580-76514-17
Date Collected: 04/10/18 09:52
Matrix: Solid
Date Received: 04/11/18 14:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	271894	04/20/18 12:46	SPP	TAL SEA
Total/NA	Analysis	D 2216		1	271503	04/16/18 15:59	TTN	TAL SEA

Client Sample ID: PDI-SG-B090-BL1
Lab Sample ID: 580-76514-17
Date Collected: 04/10/18 09:52
Matrix: Solid
Date Received: 04/11/18 14:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D7928/D6913		1	271714	04/18/18 15:58	HJM	TAL SEA

Client Sample ID: PDI-SG-B090-BL1
Lab Sample ID: 580-76514-17
Date Collected: 04/10/18 09:52
Matrix: Solid
Date Received: 04/11/18 14:30
Percent Solids: 49.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			272050	04/23/18 14:02	APR	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	272401	04/27/18 20:48	CJ	TAL SEA
Total/NA	Prep	3050B			271475	04/16/18 11:23	ASJ	TAL SEA
Total/NA	Analysis	6020B		5	271515	04/17/18 00:26	FCW	TAL SEA
Total/NA	Prep	7471A			272400	04/27/18 09:12	ASJ	TAL SEA
Total/NA	Analysis	7471A		1	272420	04/27/18 11:02	FCW	TAL SEA

Client Sample ID: PDI-SG-B092-BL1
Lab Sample ID: 580-76514-18
Date Collected: 04/10/18 10:43
Matrix: Solid
Date Received: 04/11/18 14:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	271894	04/20/18 12:52	SPP	TAL SEA
Total/NA	Analysis	D 2216		1	271503	04/16/18 15:59	TTN	TAL SEA
Total/NA	Analysis	D7928/D6913		1	271714	04/18/18 15:58	HJM	TAL SEA

Client Sample ID: PDI-SG-B092-BL1
Lab Sample ID: 580-76514-18
Date Collected: 04/10/18 10:43
Matrix: Solid
Date Received: 04/11/18 14:30
Percent Solids: 42.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			272050	04/23/18 14:02	APR	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	272401	04/27/18 21:10	CJ	TAL SEA
Total/NA	Prep	3050B			271475	04/16/18 11:23	ASJ	TAL SEA
Total/NA	Analysis	6020B		5	271515	04/17/18 00:30	FCW	TAL SEA
Total/NA	Prep	7471A			272400	04/27/18 09:12	ASJ	TAL SEA
Total/NA	Analysis	7471A		1	272420	04/27/18 11:04	FCW	TAL SEA

Client Sample ID: PDI-SG-B093-BL1
Lab Sample ID: 580-76514-19
Date Collected: 04/10/18 11:42
Matrix: Solid
Date Received: 04/11/18 14:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	271894	04/20/18 12:57	SPP	TAL SEA
Total/NA	Analysis	D 2216		1	271503	04/16/18 15:59	TTN	TAL SEA

Client Sample ID: PDI-SG-B093-BL1
Lab Sample ID: 580-76514-19
Date Collected: 04/10/18 11:42
Matrix: Solid
Date Received: 04/11/18 14:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D7928/D6913		1	271714	04/18/18 15:58	HJM	TAL SEA

Client Sample ID: PDI-SG-B093-BL1
Lab Sample ID: 580-76514-19
Date Collected: 04/10/18 11:42
Matrix: Solid
Date Received: 04/11/18 14:30
Percent Solids: 65.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			272050	04/23/18 14:02	APR	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	272401	04/27/18 21:32	CJ	TAL SEA
Total/NA	Prep	3050B			271475	04/16/18 11:23	ASJ	TAL SEA
Total/NA	Analysis	6020B		5	271515	04/17/18 00:33	FCW	TAL SEA
Total/NA	Prep	7471A			272400	04/27/18 09:12	ASJ	TAL SEA
Total/NA	Analysis	7471A		1	272420	04/27/18 11:06	FCW	TAL SEA

Client Sample ID: PDI-SG-B098-BL1
Lab Sample ID: 580-76514-20
Date Collected: 04/10/18 15:09
Matrix: Solid
Date Received: 04/11/18 14:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	271894	04/20/18 13:02	SPP	TAL SEA
Total/NA	Analysis	D 2216		1	271503	04/16/18 15:24	TTN	TAL SEA
Total/NA	Analysis	D7928/D6913		1	271714	04/18/18 15:58	HJM	TAL SEA

Client Sample ID: PDI-SG-B098-BL1
Lab Sample ID: 580-76514-20
Date Collected: 04/10/18 15:09
Matrix: Solid
Date Received: 04/11/18 14:30
Percent Solids: 42.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			272050	04/23/18 14:02	APR	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	272401	04/27/18 22:17	CJ	TAL SEA
Total/NA	Prep	3050B			271475	04/16/18 11:23	ASJ	TAL SEA
Total/NA	Analysis	6020B		5	271515	04/17/18 00:37	FCW	TAL SEA
Total/NA	Prep	7471A			272400	04/27/18 09:12	ASJ	TAL SEA
Total/NA	Analysis	7471A		1	272420	04/27/18 11:13	FCW	TAL SEA

Client Sample ID: PDI-SG-B104-BL1
Lab Sample ID: 580-76514-21
Date Collected: 04/10/18 15:57
Matrix: Solid
Date Received: 04/11/18 14:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	271995	04/20/18 16:40	SPP	TAL SEA
Total/NA	Analysis	D 2216		1	271503	04/16/18 15:59	TTN	TAL SEA

Client Sample ID: PDI-SG-B104-BL1
Lab Sample ID: 580-76514-21
Date Collected: 04/10/18 15:57
Matrix: Solid
Date Received: 04/11/18 14:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D7928/D6913		1	271714	04/18/18 15:58	HJM	TAL SEA

Client Sample ID: PDI-SG-B104-BL1
Lab Sample ID: 580-76514-21
Date Collected: 04/10/18 15:57
Matrix: Solid
Date Received: 04/11/18 14:30
Percent Solids: 65.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			272170	04/24/18 16:29	TTN	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	272401	04/27/18 23:01	CJ	TAL SEA
Total/NA	Prep	3050B			271475	04/16/18 11:23	ASJ	TAL SEA
Total/NA	Analysis	6020B		5	271515	04/17/18 00:41	FCW	TAL SEA
Total/NA	Prep	7471A			272400	04/27/18 09:12	ASJ	TAL SEA
Total/NA	Analysis	7471A		1	272420	04/27/18 11:15	FCW	TAL SEA

Client Sample ID: PDI-SG-B106-BL1
Lab Sample ID: 580-76514-22
Date Collected: 04/10/18 16:37
Matrix: Solid
Date Received: 04/11/18 14:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	271995	04/20/18 16:45	SPP	TAL SEA
Total/NA	Analysis	D 2216		1	271503	04/16/18 15:59	TTN	TAL SEA
Total/NA	Analysis	D7928/D6913		1	271714	04/18/18 15:58	HJM	TAL SEA

Client Sample ID: PDI-SG-B106-BL1
Lab Sample ID: 580-76514-22
Date Collected: 04/10/18 16:37
Matrix: Solid
Date Received: 04/11/18 14:30
Percent Solids: 38.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			272170	04/24/18 16:29	TTN	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	272401	04/27/18 23:45	CJ	TAL SEA
Total/NA	Prep	3050B			271475	04/16/18 11:23	ASJ	TAL SEA
Total/NA	Analysis	6020B		5	271515	04/17/18 00:45	FCW	TAL SEA
Total/NA	Prep	7471A			272400	04/27/18 09:12	ASJ	TAL SEA
Total/NA	Analysis	7471A		1	272420	04/27/18 11:18	FCW	TAL SEA

Client Sample ID: PDI-SG-B100-BL1
Lab Sample ID: 580-76514-23
Date Collected: 04/10/18 17:25
Matrix: Solid
Date Received: 04/11/18 14:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	271995	04/20/18 16:50	SPP	TAL SEA
Total/NA	Analysis	D 2216		1	271503	04/16/18 15:59	TTN	TAL SEA

Client Sample ID: PDI-SG-B100-BL1
Lab Sample ID: 580-76514-23
Date Collected: 04/10/18 17:25
Matrix: Solid
Date Received: 04/11/18 14:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D7928/D6913		1	271714	04/18/18 15:58	HJM	TAL SEA

Client Sample ID: PDI-SG-B100-BL1
Lab Sample ID: 580-76514-23
Date Collected: 04/10/18 17:25
Matrix: Solid
Date Received: 04/11/18 14:30
Percent Solids: 40.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			272170	04/24/18 16:29	TTN	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	272401	04/28/18 00:07	CJ	TAL SEA
Total/NA	Prep	3050B			271497	04/16/18 13:32	ASJ	TAL SEA
Total/NA	Analysis	6020B		5	271622	04/17/18 12:10	FCW	TAL SEA
Total/NA	Prep	7471A			272400	04/27/18 09:12	ASJ	TAL SEA
Total/NA	Analysis	7471A		1	272420	04/27/18 11:20	FCW	TAL SEA

Client Sample ID: PDI-SG-B099-BL1
Lab Sample ID: 580-76514-24
Date Collected: 04/10/18 16:32
Matrix: Solid
Date Received: 04/11/18 14:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	271995	04/20/18 16:55	SPP	TAL SEA
Total/NA	Analysis	D 2216		1	271503	04/16/18 15:59	TTN	TAL SEA
Total/NA	Analysis	D7928/D6913		1	271714	04/18/18 15:58	HJM	TAL SEA

Client Sample ID: PDI-SG-B099-BL1
Lab Sample ID: 580-76514-24
Date Collected: 04/10/18 16:32
Matrix: Solid
Date Received: 04/11/18 14:30
Percent Solids: 39.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			272170	04/24/18 16:29	TTN	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	272401	04/28/18 00:30	CJ	TAL SEA
Total/NA	Prep	3050B			271497	04/16/18 13:32	ASJ	TAL SEA
Total/NA	Analysis	6020B		5	271622	04/17/18 12:14	FCW	TAL SEA
Total/NA	Prep	7471A			272400	04/27/18 09:12	ASJ	TAL SEA
Total/NA	Analysis	7471A		1	272420	04/27/18 11:22	FCW	TAL SEA

Client Sample ID: PDI-SG-B043-BL1
Lab Sample ID: 580-76514-25
Date Collected: 04/10/18 10:15
Matrix: Solid
Date Received: 04/11/18 14:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	271995	04/20/18 17:00	SPP	TAL SEA
Total/NA	Analysis	D 2216		1	271503	04/16/18 15:59	TTN	TAL SEA

Client Sample ID: PDI-SG-B043-BL1

Lab Sample ID: 580-76514-25
Date Collected: 04/10/18 10:15
Matrix: Solid
Date Received: 04/11/18 14:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D7928/D6913		1	271714	04/18/18 15:58	HJM	TAL SEA

Client Sample ID: PDI-SG-B043-BL1

Lab Sample ID: 580-76514-25
Date Collected: 04/10/18 10:15
Matrix: Solid
Date Received: 04/11/18 14:30
Percent Solids: 51.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			272170	04/24/18 16:29	TTN	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	272401	04/28/18 00:52	CJ	TAL SEA
Total/NA	Prep	3050B			271497	04/16/18 13:32	ASJ	TAL SEA
Total/NA	Analysis	6020B		5	271622	04/17/18 12:18	FCW	TAL SEA
Total/NA	Prep	7471A			272400	04/27/18 09:12	ASJ	TAL SEA
Total/NA	Analysis	7471A		1	272420	04/27/18 11:25	FCW	TAL SEA

Client Sample ID: PDI-SG-B069-BL1

Lab Sample ID: 580-76514-26
Date Collected: 04/10/18 11:53
Matrix: Solid
Date Received: 04/11/18 14:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	272185	04/24/18 16:31	SPP	TAL SEA
Total/NA	Analysis	D 2216		1	271865	04/20/18 09:00	KMS	TAL SEA
Total/NA	Analysis	D7928/D6913		1	272065	04/23/18 15:07	HJM	TAL SEA

Client Sample ID: PDI-SG-B069-BL1

Lab Sample ID: 580-76514-26
Date Collected: 04/10/18 11:53
Matrix: Solid
Date Received: 04/11/18 14:30
Percent Solids: 64.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			272170	04/24/18 16:29	TTN	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	272401	04/28/18 01:13	CJ	TAL SEA
Total/NA	Prep	3050B			272103	04/24/18 10:00	ASJ	TAL SEA
Total/NA	Analysis	6020B		5	272184	04/24/18 16:42	FCW	TAL SEA
Total/NA	Prep	7471A			272400	04/27/18 09:12	ASJ	TAL SEA
Total/NA	Analysis	7471A		1	272420	04/27/18 11:27	FCW	TAL SEA

Client Sample ID: PDI-SG-B085-BL1

Lab Sample ID: 580-76514-27
Date Collected: 04/10/18 14:22
Matrix: Solid
Date Received: 04/11/18 14:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	271995	04/20/18 17:06	SPP	TAL SEA
Total/NA	Analysis	D 2216		1	271503	04/16/18 15:59	TTN	TAL SEA

Lab Chronicle

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

TestAmerica Job ID: 580-76514-1

Client Sample ID: PDI-SG-B085-BL1
Date Collected: 04/10/18 14:22
Date Received: 04/11/18 14:30

Lab Sample ID: 580-76514-27
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D7928/D6913		1	271714	04/18/18 15:58	HJM	TAL SEA

Client Sample ID: PDI-SG-B085-BL1
Date Collected: 04/10/18 14:22
Date Received: 04/11/18 14:30

Lab Sample ID: 580-76514-27
Matrix: Solid
Percent Solids: 73.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			272170	04/24/18 16:29	TTN	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	272401	04/28/18 01:36	CJ	TAL SEA
Total/NA	Prep	3050B			271497	04/16/18 13:32	ASJ	TAL SEA
Total/NA	Analysis	6020B		5	271622	04/17/18 12:21	FCW	TAL SEA
Total/NA	Prep	7471A			272400	04/27/18 09:12	ASJ	TAL SEA
Total/NA	Analysis	7471A		1	272420	04/27/18 11:29	FCW	TAL SEA

Client Sample ID: PDI-SG-B097-BL1
Date Collected: 04/10/18 15:44
Date Received: 04/11/18 14:30

Lab Sample ID: 580-76514-28
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	9060_PSEP		1	271995	04/20/18 17:10	SPP	TAL SEA
Total/NA	Analysis	D 2216		1	271503	04/16/18 15:59	TTN	TAL SEA
Total/NA	Analysis	D7928/D6913		1	271714	04/18/18 15:58	HJM	TAL SEA

Client Sample ID: PDI-SG-B097-BL1
Date Collected: 04/10/18 15:44
Date Received: 04/11/18 14:30

Lab Sample ID: 580-76514-28
Matrix: Solid
Percent Solids: 40.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			272170	04/24/18 16:29	TTN	TAL SEA
Total/NA	Analysis	NWTPH-Dx		1	272401	04/28/18 02:20	CJ	TAL SEA
Total/NA	Prep	3050B			271497	04/16/18 13:32	ASJ	TAL SEA
Total/NA	Analysis	6020B		5	271622	04/17/18 12:25	FCW	TAL SEA
Total/NA	Prep	7471A			272400	04/27/18 09:12	ASJ	TAL SEA
Total/NA	Analysis	7471A		1	272420	04/27/18 11:31	FCW	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: 580-76514-1
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.

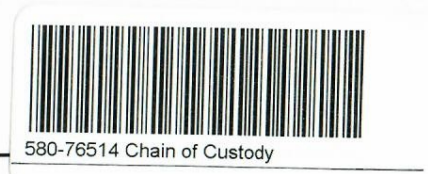
Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska (UST)	State Program	10	17-024	01-19-19
ANAB	DoD ELAP		L2236	01-19-19
ANAB	ISO/IEC 17025		L2236	01-19-19
California	State Program	9	2901	11-05-18
Montana (UST)	State Program	8	N/A	04-30-20
Oregon	NELAP	10	WA100007	11-05-18
US Fish & Wildlife	Federal		LE058448-0	07-31-18
USDA	Federal		P330-14-00126	02-10-20
Washington	State Program	10	C553	02-17-19

Sample Summary

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

TestAmerica Job ID: 580-76514-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-76514-1	PDI-SG-B082-BL1	Solid	04/09/18 10:31	04/11/18 14:30
580-76514-2	PDI-SG-B082-BL1-D	Solid	04/09/18 10:32	04/11/18 14:30
580-76514-3	PDI-SG-B087-BL1	Solid	04/09/18 11:59	04/11/18 14:30
580-76514-4	PDI-SG-B084-BL1	Solid	04/09/18 12:32	04/11/18 14:30
580-76514-5	PDI-SG-B086-BL1	Solid	04/09/18 13:34	04/11/18 14:30
580-76514-6	PDI-SG-B089-BL1	Solid	04/09/18 15:26	04/11/18 14:30
580-76514-7	PDI-SG-B094-BL1	Solid	04/09/18 16:10	04/11/18 14:30
580-76514-8	PDI-SG-B095-BL1	Solid	04/09/18 17:00	04/11/18 14:30
580-76514-9	PDI-SG-B079-BL1	Solid	04/09/18 12:03	04/11/18 14:30
580-76514-10	PDI-SG-B080-BL1	Solid	04/09/18 10:28	04/11/18 14:30
580-76514-11	PDI-SG-B081-BL1	Solid	04/09/18 19:32	04/11/18 14:30
580-76514-12	PDI-SG-B081-BL1-D	Solid	04/09/18 13:11	04/11/18 14:30
580-76514-13	PDI-SG-B083-BL1	Solid	04/09/18 14:18	04/11/18 14:30
580-76514-14	PDI-SG-B088-BL1	Solid	04/09/18 15:10	04/11/18 14:30
580-76514-15	PDI-SG-B091-BL1	Solid	04/09/18 15:57	04/11/18 14:30
580-76514-16	PDI-SG-B103-BL1	Solid	04/10/18 14:13	04/11/18 14:30
580-76514-17	PDI-SG-B090-BL1	Solid	04/10/18 09:52	04/11/18 14:30
580-76514-18	PDI-SG-B092-BL1	Solid	04/10/18 10:43	04/11/18 14:30
580-76514-19	PDI-SG-B093-BL1	Solid	04/10/18 11:42	04/11/18 14:30
580-76514-20	PDI-SG-B098-BL1	Solid	04/10/18 15:09	04/11/18 14:30
580-76514-21	PDI-SG-B104-BL1	Solid	04/10/18 15:57	04/11/18 14:30
580-76514-22	PDI-SG-B106-BL1	Solid	04/10/18 16:37	04/11/18 14:30
580-76514-23	PDI-SG-B100-BL1	Solid	04/10/18 17:25	04/11/18 14:30
580-76514-24	PDI-SG-B099-BL1	Solid	04/10/18 16:32	04/11/18 14:30
580-76514-25	PDI-SG-B043-BL1	Solid	04/10/18 10:15	04/11/18 14:30
580-76514-26	PDI-SG-B069-BL1	Solid	04/10/18 11:53	04/11/18 14:30
580-76514-27	PDI-SG-B085-BL1	Solid	04/10/18 14:22	04/11/18 14:30
580-76514-28	PDI-SG-B097-BL1	Solid	04/10/18 15:44	04/11/18 14:30



SURFACE 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 / Michaela McCoog** **Laboratory Contact: Elaine-Walker**	**Date: 4/11/18** **Carrier:**	COC No: 1 of 3 COCs
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: Study	**Analysis Turnaround Time** Calendar (C) or Work Days (W) _____ ☒ 21 days ☐ Other _____			

Sample Identification	Sample Date	Sample Time	Matrix	QC Sample	Sampler's Initials	Total No. of Cont.	Fraction	PCB Congeners 1668A	PCDD/Fs 1613B	TPH Diesel, Metals, Mercury NWTPH-Dx, 6020B, 7471A	Grain size ASTM D7928/D6913	Total organic carbon, Total solids 9060	Archive Archive -20 C	Sample Specific Notes:
PDI-SG-B082-BL1	4/9/2018	10:31	SS		MT	6		x	x	x	x	x	x	
PDI-SG-B082-BL1-D	4/9/2018	10:32	SS		MT	6		x	x	x		x	x	
PDI-SG-B087-BL1	4/9/2018	11:59	SS		MT	6		x	x	x	x	x	x	
PDI-SG-B084-BL1	4/9/2018	12:32	SS		MT	6		x	x	x	x	x	x	
PDI-SG-B086-BL1	4/9/2018	13:34	SS		MT	6		x	x	x	x	x	x	
PDI-SG-B089-BL1	4/9/2018	15:26	SS		MT	6		x	x	x	x	x	x	
PDI-SG-B094-BL1	4/9/2018	16:10	SS		MT	6		x	x	x	x	x	x	
PDI-SG-B095-BL1	4/9/2018	17:00	SS		MT	6		x	x	x	x	x	x	
PDI-SG-B079-BL1	4/9/2018	12:03	SS		DH	6		x	x	x	x	x	x	
PDI-SG-B080-BL1	4/9/2018	10:28	SS		DH	6		x	x	x	x	x	x	
PDI-SG-B081-BL1	4/9/2018	19:32	SS		DH	6		x	x	x	x	x	x	
PDI-SG-B081-BL1-D	4/9/2018	13:11	SS		DH	5		x	x	x		x	x	

Container Type: WMG=Wide Mouth Glass Jar, P=HDPE, PP=Polypropylene, AG=amber glass, G=glass, RC=Resin Column

Preservative: HCl = Hydrochloric Acid, H3PO4 = Phosphoric Acid, HNO3 = Nitric Acid

Fraction: D = Dissolved, PRT = Particulate, T = Total (unfiltered)

Sample Disposal
☐ *Return To Client* ☒ *isposal By Lab* ☒ *rchive For 12 Months*

Special Instructions/QC Requirements & Comments:
Separate reports for each lab

1.2, 4.2, 4.3
2.0, 5.3,

Relinquished by:	Company: AECOM	Date/Time: 4/11/18 1405	Received by:	Company: M.E.	Date/Time: 4/11/18 1405
Relinquished by:	Company: M.E.	Date/Time: 4/11/18 1430	Received by:	Company: TA-FOR	Date/Time: 4/11/18 1430
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

SURFACE 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 / Michaela McCoog** **Laboratory Contact: Elaine-Walker**	**Date: 4/11/18** **Carrier:**	COC No: 2 of 3 COCs

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: Study

Analysis Turnaround Time

Calendar (C) or Work Days (W) _____

[x] 21 days

[ ] Other _____

Sample Identification	Sample Date	Sample Time	Matrix	QC Sample	Sampler's Initials	Total No. of Cont.	Fraction	PCB Congeners 1668A	PCDD/Fs 1613B	TPH Diesel, Metals, Mercury NWTPH-Dx, 6020B, 7471A	Grain size ASTM D7928/D6913	Total organic carbon, Total solids 9060	Archive Archive -20 C									Sample Specific Notes:
PDI-SG-B083-BL1	4/9/2018	14:18	SS		DH	6		x	x	x	x	x	x									
PDI-SG-B088-BL1	4/9/2018	15:10	SS		DH	6		x	x	x	x	x	x									
PDI-SG-B091-BL1	4/9/2018	15:57	SS		DH	6		x	x	x	x	x	x									
PDI-SG-B103-BL1	4/10/2018	14:13	SS		NM	6		x	x	x	x	x	x									
PDI-SG-B090-BL1	4/10/2018	9:52	SS		NM	6		x	x	x	x	x	x									
PDI-SG-B092-BL1	4/10/2018	10:43	SS		NM	6		x	x	x	x	x	x									
PDI-SG-B093-BL1	4/10/2018	11:42	SS		NM	6		x	x	x	x	x	x									
PDI-SG-B098-BL1	4/10/2018	15:09	SS		NM	6		x	x	x	x	x	x									
PDI-SG-B104-BL1	4/10/2018	15:57	SS		NM	6		x	x	x	x	x	x									
PDI-SG-B106-BL1	4/10/2018	16:37	SS		NM	6		x	x	x	x	x	x									
PDI-SG-B100-BL1	4/10/2018	17:25	SS		ED	6		x	x	x	x	x	x									
PDI-SG-B099-BL1	4/10/2018	16:32	SS		ED	5		x	x	x	x	x	x									

Container Type: WMG=Wide Mouth Glass Jar, P=HDPE, PP=Polypropylene, AG=amber glass, G=glass, RC=Resin Column

Preservative: HCl = Hydrochloric Acid, H3PO4 = Phosphoric Acid, HNO3 = Nitric Acid

Fraction: D = Dissolved, PRT = Particulate, T = Total (unfiltered)

Sample Disposal

[ ] Return To Client [X] Disposal By Lab [X] Archive For 12 Months

Special Instructions/QC Requirements & Comments:

Separate reports for each lab

Relinquished by:	Company: AECOM	Date/Time: 4/11/18/1405	Received by:	Company: M.E.	Date/Time: 4/11/18 1405
Relinquished by:	Company: M.E.	Date/Time: 4/11/18 1430	Received by:	Company: TA-POR	Date/Time: 4/11/18 1430
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

SURFACE 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** **Analysis Turnaround Time** Calendar (C) or Work Days (W) _____ [x] 21 days [ ] Other _____	**Site Contact: Jennifer Ray / Michaela McCoog** **Laboratory Contact: Elaine-Walker**	**Date: 4/11/18** **Carrier:**
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: Study			COC No: _3_ of _3_ COCs

Sample Identification	Sample Date	Sample Time	Matrix	QC Sample	Sampler's Initials	Total No. of Cont.	Fraction	PCB Congeners 1668A	PCDD/Fs 1613B	TPH Diesel, Metals, Mercury, NWTPH-Dx, 6020B, 7471A	Grain size ASTM D7928/D6913	Total organic carbon, Total solids 9060	Archive Archive -20 C	Sample Specific Notes:
PDI-SG-B043-BL1	4/10/2018	10:15	SS		ED	6		x	x	x	x	x	x	
PDI-SG-B069-BL1	4/10/2018	11:53	SS		ED	6		x	x	x	x	x	x	
PDI-SG-B085-BL1	4/10/2018	14:22	SS		ED	6		x	x	x	x	x	x	
PDI-SG-B097-BL1	4/10/2018	15:44	SS		ED	6		x	x	x	x	x	x	

Container Type: WMG=Wide Mouth Glass Jar, P=HDPE, PP=Polypropylene, AG=amber glass, G=glass, RC=Resin Column

Preservative: HCl = Hydrochloric Acid, H3PO4 = Phosphoric Acid, HNO3 = Nitric Acid

Fraction: D = Dissolved, PRT = Particulate, T = Total (unfiltered)

Sample Disposal
[ ] Return To Client [X] Disposal By Lab [X] Archive For 12 Months

Special Instructions/QC Requirements & Comments:
Separate reports for each lab

Relinquished by:	Company: AECOM	Date/Time: 4/11/18/1405	Received by:	Company: M.E.	Date/Time: 4/11/18 1405
Relinquished by:	Company: M.E.	Date/Time: 4/11/18 1430	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

580-76514 Chain of Custody

SURFACE SEDIMENT
CHAIN OF CUSTODY

TestAmerica-Seattle 5755-8th-Street-East Tacoma, WA 98424-1317 **Ph: 253-922-2310 Fax: 253-922-5047**	**Project Contact: Amy Dahl / Chelsey Cook** **Tel: (206) 438-2261 / (206) 438-2010**	**Site Contact: Jennifer Ray / Michaela McCoog** **Laboratory Contact: Elaine-Walker**	**Date: 4/11/18** **Carrier:**	COC No: 1 of 3 COCs
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: Study	**Analysis Turnaround Time** Calendar (C) or Work Days (W) [x] 21 days [ ] Other _____			

Sample Identification	Sample Date	Sample Time	Matrix	QC Sample	Sampler's Initials	Total No. of Cont.	Fraction	PCB Congeners 1668A	PCDD/Fs 1613B	TPH Diesel, Metals, Mercury, NWTPH-Dx, 6020B, 7471A	Grain size ASTM D7928/D6913	Total organic carbon, Total solids 9060	Archive Archive -20 C	Sample Specific Notes:
PDI-SG-B082-BL1	4/9/2018	10:31	SS		MT	6		x	x	x	x	x	x	
PDI-SG-B082-BL1-D	4/9/2018	10:32	SS		MT	6		x	x	x		x	x	
PDI-SG-B087-BL1	4/9/2018	11:59	SS		MT	6		x	x	x	x	x	x	
PDI-SG-B084-BL1	4/9/2018	12:32	SS		MT	6		x	x	x	x	x	x	
PDI-SG-B086-BL1	4/9/2018	13:34	SS		MT	6		x	x	x	x	x	x	
PDI-SG-B089-BL1	4/9/2018	15:26	SS		MT	6		x	x	x	x	x	x	
PDI-SG-B094-BL1	4/9/2018	16:10	SS		MT	6		x	x	x	x	x	x	
PDI-SG-B095-BL1	4/9/2018	17:00	SS		MT	6		x	x	x	x	x	x	
PDI-SG-B079-BL1	4/9/2018	12:03	SS		DH	6		x	x	x	x	x	x	
PDI-SG-B080-BL1	4/9/2018	10:28	SS		DH	6		x	x	x	x	x	x	
PDI-SG-B081-BL1	4/9/2018	19:32	SS		DH	6		x	x	x	x	x	x	
PDI-SG-B081-BL1-D	4/9/2018	13:11	SS		DH	5		x	x	x		x	x	

Container Type: WMG=Wide Mouth Glass Jar, P=HDPE, PP=Polypropylene, AG=amber glass, G=glass, RC=Resin Column

Preservative: HCl = Hydrochloric Acid, H3PO4 = Phosphoric Acid, HNO3 = Nitric Acid

Fraction: D = Dissolved, PRT = Particulate, T = Total (unfiltered)

Sample Disposal

[ ] Return To Client [X] Disposal By Lab [X] Archive For 12 Months

Special Instructions/QC Requirements & Comments:

Separate reports for each lab

1.2, 4.2, 4.3
2.0, 5.3,

Relinquished by:	Company: AECOM	Date/Time: 4/11/18 1405	Received by:	Company: M.E.	Date/Time: 4/11/18 1405
Relinquished by:	Company: M.E.	Date/Time: 4/11/18 1430	Received by:	Company: TA FOR	Date/Time: 4/11/18 1430
Relinquished by:	Company: TA QA	Date/Time: 4/11/18 1700	Received by:	Company: TASEA	Date/Time: 4-12-18 0915

IR4=-0.6/-0.8, 1.0/0.8

TestAmerica-Seattle
5755-8th-Street-East
Tacoma, WA 98424-1317
Ph: 253-922-2310 Fax: 253-922-5047

SURFACE SEDIMENT
CHAIN OF CUSTODY

Client Contact	Project Contact: Amy Dahl / Chelsey Cook	Site Contact: Jennifer Ray / Michaela McCoog	Date: 4/11/18	COC No:
AECOM	Tel: (206) 438-2261 / (206) 438-2010	Laboratory Contact: Elaine-Walker	Carrier:	2 of 3 COCs
1111 3rd Ave Suite 1600	Analysis Turnaround Time			
Seattle, WA 98101	Calendar (C) or Work Days (W) ______			
Phone: (206) 438-2700 Fax: 1+(866) 495-5288	[x] 21 days			
Project Name: Portland Harbor Pre-Remedial Design Investigation and Baseline Sampling	[ ] Other ______			
Portland, OR				
Project #: 60566335 Study: Study				

Sample Identification	Sample Date	Sample Time	Matrix	QC Sample	Sampler's Initials	Total No. of Cont.	Fraction	PCB Congeners 1668A	PCDD/Fs 1613B	TPH Diesel, Metals, Mercury NWTPH-Dx, 6020B, 7471A	Grain size ASTM D7928/D6913	Total organic carbon, Total solids 9060	Archive Archive -20 C	Sample Specific Notes:
PDI-SG-B083-BL1	4/9/2018	14:18	SS		DH	6		x	x	x	x	x	x	
PDI-SG-B088-BL1	4/9/2018	15:10	SS		DH	6		x	x	x	x	x	x	
PDI-SG-B091-BL1	4/9/2018	15:57	SS		DH	6		x	x	x	x	x	x	
PDI-SG-B103-BL1	4/10/2018	14:13	SS		NM	6		x	x	x	x	x	x	
PDI-SG-B090-BL1	4/10/2018	9:52	SS		NM	6		x	x	x	x	x	x	
PDI-SG-B092-BL1	4/10/2018	10:43	SS		NM	6		x	x	x	x	x	x	
PDI-SG-B093-BL1	4/10/2018	11:42	SS		NM	6		x	x	x	x	x	x	
PDI-SG-B098-BL1	4/10/2018	15:09	SS		NM	6		x	x	x	x	x	x	
PDI-SG-B104-BL1	4/10/2018	15:57	SS		NM	6		x	x	x	x	x	x	
PDI-SG-B106-BL1	4/10/2018	16:37	SS		NM	6		x	x	x	x	x	x	
PDI-SG-B100-BL1	4/10/2018	17:25	SS		ED	6		x	x	x	x	x	x	
PDI-SG-B099-BL1	4/10/2018	16:32	SS		ED	5		x	x	x	x	x	x	

Container Type: WMG=Wide Mouth Glass Jar, P=HDPE, PP=Polypropylene, AG=amber glass, G=glass, RC=Resin Column

Preservative: HCl = Hydrochloric Acid, H3PO4 = Phosphoric Acid, HNO3 = Nitric Acid

Fraction: D = Dissolved, PRT = Particulate, T = Total (unfiltered)

Sample Disposal
[ ] Return To Client [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	4/11/18/1405	Jennifer Ray [signature]	M.E.	4/11/18 1405
Jennifer Ray [signature]	M.E.	4/11/18 1430	[signature]	TA-POR	4/11/18 1430
[signature]	TAPOR	4/11/18 1700	[signature]	TASea	4-12-18 0915

SURFACE 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 / Michaela McCoog** **Laboratory Contact: Elaine-Walker**	**Date: 4/11/18** **Carrier:**	COC No: 3 of 3 COCs
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: Study	**Analysis Turnaround Time** Calendar (C) or Work Days (W) _____ [x] 21 days [ ] Other _____			

Sample Identification	Sample Date	Sample Time	Matrix	QC Sample	Sampler's Initials	Total No. of Cont.	Fraction	PCB Congeners 1668A	PCDD/Fs 1613B	TPH Diesel, Metals, Mercury NWTPH-Dx, 6020B, 7471A	Grain size ASTM D7928/D6913	Total organic carbon, Total solids 9060	Archive Archive -20 C	Sample Specific Notes:
PDI-SG-B043-BL1	4/10/2018	10:15	SS		ED	6		x	x	x	x	x	x	
PDI-SG-B069-BL1	4/10/2018	11:53	SS		ED	6		x	x	x	x	x	x	
PDI-SG-B085-BL1	4/10/2018	14:22	SS		ED	6		x	x	x	x	x	x	
PDI-SG-B097-BL1	4/10/2018	15:44	SS		ED	6		x	x	x	x	x	x	

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Sample Disposal

[ ] Return To Client [X] isposal By Lab [X] rchive For 12 Months

Special Instructions/QC Requirements & Comments:

Separate reports for each lab

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	AECOM	4/11/18/1405		M.E.	4/11/18 1405
	M.E.	4/11/18 1430			
	TAL SEA	4/11/18 1700		TASea	4.12.18 0915

Login Sample Receipt Checklist

Client: AECOM

Job Number: 580-76514-1

Login Number: 76514
List Number: 1
Creator: Gonzales, Steve

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	