Memo



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to: Steve Teel, LHG (Department of Ecology)

from: Shella Swain & Chris Waldron

cc: Kip Summers, P.E. (City of Olympia)

date: August 21, 2014

subject: Supplemental Sediment Sampling Results for the Solid Wood Incorporated Site

Preface: This memorandum was originally submitted to the Washington State Department of Ecology (Ecology) on April 21, 2014. Ecology provided comments on July 30, 2014 (see Attachment 1). This memorandum has been revised, where appropriate, based on Ecology's comments.

This technical memorandum presents the results of the supplemental sediment sampling event that was performed at the Solid Wood Incorporated Site (Site) located in Olympia, Washington. This sampling was conducted on behalf of the City of Olympia (City) under the Site's existing Agreed Order (No. DE-08-TCPSR-5415) in accordance with the supplemental sediment field sampling and analysis plan (FSAP), which is Addendum No. 7 to the work plan for the Site (PIONEER 2013; Parametrix 2008).

Samples were collected from 14 sample locations in the Focus Area identified in the FSAP (PIONEER 2013; Figure 1). The Focus Area was identified based on sampling and bioassay test results; specifically, sampling locations where concentrations of total petroleum hydrocarbons in the diesel fraction (TPH-D) and TPH in the heavy oil fraction (TPH-HO) exceeded the Ecology derived screening level of 100 mg/kg and where the single failure of the bioassay tests occurred. The purpose of this supplemental sampling event was to identify which areas of the Focus Area are adequately characterized and which may need additional evaluation.

1 Background

Previous sediment investigations, conducted as part of the Remedial Investigation/Feasibility Study and Interim Actions (IAs), have characterized the concentrations of (1) Sediment Management Standards (SMS) constituents (Washington Administrative Code [WAC] 173-204-320—Table 1), and (2) TPH-D/TPH-HO in beach sediment adjacent to the upland area (Parametrix 2008, 2010, 2011a, 2011b). All constituent concentrations were below applicable SMS Chemical Criteria (i.e., WAC 173-204-320 or WAC 173-204-520); however, concentrations of the TPH-D/TPH-HO exceeded an Ecology-derived screening level of 100 milligrams per kilogram (mg/kg).

Additionally, previous sediment characterization efforts included three bioassay tests: 1) a 10-day amphipod solid phase survival test using *Eohaustorius estuarius*, 2) a sediment larval test using *Mytilus galloprovincialis*, and 3) a 20-day polychaete solid phase survival and growth test using *Neanthes arenaceodentata*. Only one sample location and a corresponding field duplicate (SD-30 and SD-30-DUP) failed one of the three bioassay tests (Figure 2). Three additional samples were collected at a later date from the SD-30 location and one of those samples (SD-33C) failed the sediment larval test as well (Parametrix 2011b). Consequently, Ecology required that the City collect additional samples to further characterize TPH-D/TPH-HO concentrations in beach sediment adjacent to the upland area near SD-30.





1.1 SCREENING LEVELS

According to Ecology's Draft Sediment Cleanup User's Manual II, the typical biologically-active zone in the Puget Sound has been defined as the uppermost 10 centimeters (0.33 ft) of sediments, where the majority of marine benthic invertebrates are generally found (Ecology 2013). The Draft Sediment Cleanup User's Manual II also states that the biologically-active zone can be deeper at sites if receptors (e.g., geoduck [Panopea generosa], ghost shrimp [Callianassa californiensis]) are present at the site (Ecology 2013). However, there have been no observations of these species in Site sediment. Consequently, only the screening level for sediments in the biologically active zone has been determined. The TPH-D/TPH-HO screening level for shallow sediment samples is 100 mg/kg, which is based on Ecology's direction that this value be used to characterize sediment in order to protect marine benthic invertebrates in the biologically active zone. The screening level for deeper sediment samples has not been determined at this time but will be determined in the future in accordance with the requirements of the SMS and the Model Toxics Control Act (MTCA).

2 Supplemental Sediment Investigation

In accordance with the FSAP, 27 samples were collected from 14 locations in the Focus Area. Sampling was conducted during low tide on February 3rd, 2014 to February 5th, 2014, to ensure that the proposed sample locations were not under water. Surficial gravel was removed from the sampling locations prior to collecting the sediment samples. Surficial sediment samples were collected to a depth of half a foot below ground surface (bgs) with a trowel, and were mixed in a stainless steel bowl prior to being placed in a sample jar. Deep sediment samples were collected from two to three feet (ft) bgs using a hand auger. Sediment from the hand auger was mixed in a stainless steel bowl prior to being placed in a sample jar. After each sample, the trowel, hand auger, and stainless steel bowls were decontaminated. They were scrubbed with a brush and a phosphate-free detergent (Alconox), and then rinsed with deionized water. Field quality control guidelines were followed in accordance with the work plan for the Site (Parametrix 2008). One field duplicate was collected every 20 samples, per analysis¹. One equipment blank was collected every 20 samples.² All samples were placed in a cooler and held at approximately four degrees Celsius until they were received by the project laboratory, Anatek Laboratories in Moscow, Idaho.

Surficial sediment samples were collected from all locations to assess the horizontal extent of contamination within the Focus Area. As required by Ecology, deep samples were also collected from 13 of the 14 shallow sediment sampling locations to assess the vertical extent of contamination. Per the FSAP, only seven of the 13 deep samples and one sample (SD-50 which is located proximate to SD-30/SD-30-DUP/SD-33C and is the location with the single bioassay failure), were analyzed immediately. The other six deep samples were archived and were only to be analyzed if the co-located surficial samples exceeded Ecology's 100 mg/kg TPH screening level. One additional surficial sample (SD-55) was intended to be archived but was inadvertently analyzed by the lab and the results are included in this report. Photos of sediment sampling activities are provided in Attachment 2 and sampling activity field logs are included in Attachment 3.

The sediment samples were shipped overnight to Anatek Laboratories in Moscow, Idaho for TPH-D and TPH-HO analysis via NWTPH-DX with silica gel cleanup³, and grain size analysis. Anatek Laboratories used method ASTM D422/ASTM D421 (with a #230 sieve) for the grain size analysis, which is the fixed laboratory analytical method

³ The project laboratory was not able to achieve the intended practical quantitation limit (PQL) of 50 mg/kg for TPH-HO due to a high amount of moisture in the sediment samples.



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¹ This is a slight deviation from the FSAP which stated that one field duplicate per day would be collected every 20 samples, per analysis.

² In order to collect the equipment blank, the sampling equipment was decontaminated and rinsed again with deionized water. The rinsate was collected in sampling jars and analyzed.



equivalent to the field, wet sieve method stated in the FSAP⁴. The analytical laboratory report is included in Attachment 4.

3 Supplemental Sediment Sampling Results

3.1 TOTAL PETROLEUM HYDROCARBON RESULTS

All beach sediment samples, with the exception of the six archived deep samples, were analyzed for TPH-D and TPH-HO using the NWTPH-Dx method preceded by a silica gel cleanup. TPH-D/TPH-HO results are presented in Table 1. TPH-D was not detected in any of the samples. TPH-HO was detected in eight of the 21 samples (Figure 3). The detected TPH-HO results ranged from 106 mg/kg to 882 mg/kg. Per the FSAP, the six deep archived samples (collected from SD-42, SD-45, SD-46, SD-49, SD-52, and SD-54) were not analyzed because TPH-D and TPH-HO were not detected in the co-located shallow sample locations or because the TPH-D/TPH-HO concentrations in the co-located shallow samples were less than 100 mg/kg (PIONEER 2013). Field duplicate results for SD-WB-51-020314 and SD-WB-51-020314-(01) were comparable (i.e., the TPH-D was not detected and the TPH-HO results were 788 mg/kg and 975 mg/kg, respectively). The equipment blank sample (i.e., EB-WB-020514) was non-detect for TPH-D and TPH-HO.

3.2 GRAIN SIZE RESULTS

Grain size results are presented in Table 1. Grain size results are presented as the percentage of fine sediment (silt and clay) found within the sample and ranged from 1.1% to 13%.

4 Discussion and Evaluation

The purpose of this section is to discuss the extent of TPH-D/TPH-HO concentrations in sediment within the Focus Area relative to the appropriate screening levels.

4.1 COMPARISON OF SUPPLEMENTAL SAMPLING SEDIMENT RESULTS TO SCREENING LEVELS

TPH-D was not detected in any of the shallow sediment samples. TPH-HO was detected in four of the 14 shallow sediment samples and all four samples exceeded the 100 mg/kg screening level. Samples with detected TPH-HO concentrations greater than Ecology's 100 mg/kg screening level were limited to the southern portion of the Focus Area (see Figure 3). The exceedances were delineated by SD-48 to the north, SD-53 to the south, SD-55 to the east, and SD-50 to the west. TPH-HO was not detected in the shallow samples in the northern portion of the Focus Area and the most southeastern portion of the Focus Area (SD-52 and SD-54).

4.2 COMPARISON OF GRAIN SIZE TO SAMPLING RESULTS

The TPH-HO results did not appear to correlate with sediment grain size (see Table 1 and the information presented below that demonstrates that TPH-HO concentrations were not correlated with grain size).

	Grain	TPH –HO Concentration
Sample	Size	(mg/kg)
SD-42 (0 – 0.5 ft bgs)	1. 1%	Not Detected
SD-50 (0 – 0.5 ft bgs)	3.3%	309
SD-44 (2 – 3 ft bgs)	13%	Not Detected
SD-51 (2 – 3 ft bgs)	12%	882

⁴ This is a slight deviation from the FSAP which stated that a field, wet sieve method would be used to determine grain size of the sediment samples.



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4.3 COMPARISON OF PREVIOUS SAMPLING RESULTS AND PREVIOUS BIOASSAY TESTS

An additional evaluation was performed to determine if a clear dose response relationship could be identified for TPH-D/TPH-HO concentrations and bioassay test results. The TPH-D/TPH-HO concentrations from previously collected sediment samples were compared to previous bioassay test results from the same locations (see Table 2 and Figure 2). Nine bioassays tests were performed on samples with a range of TPH-D/TPH-HO concentrations (81 mg/kg to 563 mg/kg; Parametrix 2008, 2010, 2011a, 2011b). Only three of the nine sediment samples failed a bioassay test and all three bioassay failures occurred at the same location (i.e., SD30, SD30 (dup), and SD33C where collected from the same location). The lowest TPH-D/TPH-HO concentration that failed a bioassay test was 320 mg/kg (i.e., SD30); however, three samples had TPH-D/TPH-HO results greater than or equal to 320 mg/kg also passed all of the bioassay tests (see Table 2 and Figure 2):

- 1. SD26/27: TPH-D/TPH-HO = 320 mg/kg and passed all bioassay tests
- 2. SDD29: TPH-D/TPH-HO = 417 mg/kg and passed all bioassay tests
- 3. SD25: TPH-D/TPH-HO = 490 mg/kg and passed all bioassay tests

Based on the conflicting TPH-D/TPH-HO results and bioassay test results presented above, the Site-specific dose-response relationship between TPH-D/TPH-HO concentrations and bioassay results is uncertain. It is possible that SD-30/SD-30 (DUP)/SD-33C failed a bioassay test because of the TPH-D concentrations in the samples (TPH-D was detected in each of these samples at concentrations ranging from 50 mg/kg to 93 mg/kg). However, this is uncertain because similar TPH-D concentrations were detected in two of the samples that passed the bioassay tests (SD28: TPH-D = 37 mg/kg and SD29: TPH-D = 87 mg/kg). Alternatively, SD-30/SD-30 (Dup)/SD-33C may have failed the bioassay tests because the locations may be more representative of upland conditions and do not provide suitable habitat for the organisms used in the bioassays.

5 Conclusions and Recommendations

TPH-D was not detected in any supplemental sediment sample; therefore, the Focus Area is adequately characterized for TPH-D. Detected TPH-HO concentrations were primarily limited to the southern portion of the Focus Area. Four of the samples had concentrations that exceeded screening levels and all exceedances were observed in shallow sediment samples (see Figure 3). An additional evaluation of previous bioassay test and sampling results indicated that the dose-response relationship between TPH-D/TPH-HO and bioassay results is uncertain.

Based on current and previous results, additional characterization (via sediment chemistry and bioassays) of the southern portion of the Focus Area is recommended. The purpose of the bioassay tests is to refine that dose-response relationship between the TPH-D/TPH-HO concentrations and bioassay results in order to finalize delineation of the Focus Area and, if possible, develop a Site-specific shallow sediment remediation level for the Site based on protection of benthic invertebrates. Specifically, four bioassays are recommended in the area where the TPH-HO exceedances were identified and a previous bioassay test failed (see Figure 4). Three of the recommended bioassay locations (SD-56, SD-57, and SD-58) are spaced evenly between the northern and southern TPH-HO delineation boundary. The fourth recommended bioassay location (SD-59) is located on the eastern edge of the delineation boundary. All of the recommended bioassay locations were placed further into the intertidal zone (i.e., further than SD-30/SD-30 (Dup)/SD-33C), which should provide more suitable habitat for the organisms used in the bioassays.

If Ecology approves this proposal, a FSAP will be prepared within 30 days, samples will be collected within 30 to 60 days of FSAP approval, and then a report will be submitted within 45 days of receiving the bioassay results.





6 References

- Ecology. 2013. Draft Sediment Cleanup User's Manual II. Publication no. 12-09-057. Olympia, Washington. December.
- Parametrix. 2008. Work Plan for Remedial Investigation/Feasibility Study and Interim Action Solid Wood Incorporated Site (West Bay Park). Olympia, Washington. October.
- Parametrix. 2010. Solid Wood Incorporated Site (West Bay Park) Interim Action Report. Olympia, Washington. September.
- Parametrix. 2011a. Solid Wood Incorporated Site RI/FS and IA Work Plan Addendum No. 4 Supplemental Post Piling Removal Sediment Sampling and Analysis Plan. Olympia, Washington. March.
- Parametrix. 2011b. Results of Supplemental Post Piling Removal Sediment Sampling. Olympia, Washington. August.
- PIONEER. 2013. Addendum No. 7 to the Work Plan for the RI/FS and IA for the Solid Wood Incorporated Site Supplemental Sediment Field Sampling and Analysis Plan. Olympia, Washington. October.

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ATTACHMENTS

Tables

Table 1: Supplemental Sediment Sampling Results
Table 2: Previous Sediment Sampling Results

Figures

Figure 1: Supplemental Sediment Sampling Locations

Figure 2: Previous TPH and Bioassay Results

Figure 3: TPH-HO Results

Figure 4: Recommended Bioassay Locations

Attachment 1: Ecology's Comments on the Technical Memorandum

Attachment 2: Photo Log Attachment 3: Field Logs

Attachment 4: Analytical Laboratory Report



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Tables

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Table 1: Supplemental Sediment Sampling Results

Sample	Depth (ft bgs)	TPH-D (mg/kg)	TPH-HO (mg/kg)	Grain Size (% fines)
SD-42	0 - 0.5	25 U	100 U	1.1
SD-43	0 - 0.5	25 U	100 U	2.3
SD-43	2 - 3	50 U	351	2.7
SD-44	0 - 0.5	25 U	100 U	6.5
SD-44	2 - 3	25 U	100 U	13
SD-45	0 - 0.5	25 U	100 U	2.3
SD-46	0 - 0.5	25 U	100 U	5.8
CD 47	0 - 0.5	25 U	100 U	4.2
SD-47	2 - 3	25 U	100 U	5.9
CD 40	0 - 0.5	25 U	117	3.6
SD-48	2 - 3	25 U	200	5.4
SD-49	0 - 0.5	50 U	200 U	4.5
CD FO	0 - 0.5	25 U	309	3.3
SD-50	2 - 3	25 U	196	2.2
CD 54	0 - 0.5	25 U	100 U	4.4
SD-51	2 - 3	100 U	882	12
SD-52	0 - 0.5	25 U	100 U	5.9
CD F2	0 - 0.5	25 U	115	3.6
SD-53	2 - 3	25 U	100 U	5.3
SD-54	0 - 0.5	25 U	100 U	1.4
SD-55	0 - 0.5	25 U	106	2.0

Notes:

U: Non-detect

Shaded cells indicate that the concentration in the shallow sample (0-0.5 ft bgs) exceeded Ecology's screening level of 100 mg/kg.



Table 2: Previous Sediment Sampling Results

Sediment Sample	Sample Depth (ft bgs)	Sample Date	TPH-D (mg/kg)	TPH-HO (mg/kg)	Total TPH ¹ (mg/kg)	Pass/Fail Biological Criteria?	Grain Size (% fines)
SD12	0 - 0.3	5/28/08	32 U	64 U	64 U	NA	NA
SD12	2 - 3	5/28/08	50 U	200	200	NA	NA
SD14	0 - 0.3	5/28/08	32 U	95	95	NA	NA
SD14	2 - 3	5/28/08	150 U	1,040	1,040	NA	NA
SD15	0 - 0.3	5/28/08	30 U	150	150	NA	NA
SD15	2 - 3	5/28/08	36 U	72 U	72 U	NA	NA
SD16	0 - 0.3	5/28/08	58 U	590	590	NA	NA
SD16	0 - 0.3	5/28/08	86	460	546	NA	NA
SD17	0 - 0.3	5/28/08	63 U	140	140	NA	NA
SD17 (dup)	2 - 3	5/28/08	64 U	270	270	NA	NA
SD17	2 - 3	5/28/08	66	330	396	NA	NA
SD23	0 - 0.3	6/3/08	57 U	150	150	NA	NA
SD23 (dup)	0 - 0.3	6/3/08	54 U	110	110	NA	NA
SD23	2 - 3	6/3/08	49 U	160	160	NA	NA
SD24	0 - 0.3	6/3/08	51 U	270	270	NA	NA
SD24	2 - 3	6/3/08	53	290	343	NA	NA
SD25	0.5	9/28/09	68 U	490	490	Pass	48
SD26/27	0.5	9/28/09	63 U	320	320	Pass	NA
SD28	0.5	9/28/09	37	99	136	Pass	42
SD29	0.5	9/28/09	87	330	417	Pass	26
SD32C	0.5	4/19/11	28 U	110	110	Pass	24
SD30	0.5	9/28/09	50 J	320	320	Fail	17
SD30 (dup)	0.5	9/28/09	77 J	370	447	Fail	21
SD31	0.5	9/28/09	17 U	81	81	Pass	31
SD33A	0.5	4/19/11	18 U	78	78	NA	NA
SD33A (dup)	0.5	4/19/11	22 J	130	152	NA	NA
SD33B	0.5	4/19/11	65 J	340	405	NA	NA
SD33C	0.5	4/19/11	93 J	470	563	Fail	9.0
SD34	0.5	7/19/12	180 U	1,500	1,500	NA	NA
SD35	0.5	7/19/12	45 U	310	310	NA	NA
SD35 (dup)	0.5	7/19/12	38 U	120	120	NA	NA
SD36	0.5	7/19/12	51 U	520	520	NA	NA
SD37	0.5	7/19/12	64	380	444	NA	NA
SD38	0.5	7/19/12	35 U	140	140	NA	NA
SD39	0.5	7/19/12	42 U	190	190	NA	NA
SD40	0.5	7/19/12	66	380	446	NA	NA
SD41	0.5	7/19/12	61	320	381	NA NA	NA

Notes:

Shaded cells indicate that the shallow sample (0-0.5 ft bgs) exceeded Ecology's screening level of 100 mg/kg.

J: Concentration presented is estimated.

U: Non-detect

¹SMS Criteria compound totaling rules (WAC 173-204-320) were applied to Total TPH concentrations:

⁻Where only nontected values were identified, the highest detection limit represents the sum of the respective compounds/isomers; and

⁻Where one or more individual compounds/isomers were identified, only the detected concentrations are summed to represent the group sum.

Figures

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Previous TPH and Bioassay Results
Supplemental Sediment Sampling Results for the Solid Wood Incorporated Site
Olympia, Washington

Figure 2

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TECHNOLOGIES CORPORATION

Olympia, Washington

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Recommended Bioassay Locations
Supplemental Sediment Sampling Results for the Solid Wood Incorporated Site
Olympia, Washington

Figure 4

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Attachment 1

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STATE OF WASHINGTON DEPARTMENT OF ECOLOGY

PO Box 47775 • Olympia, Washington 98504-7775 • (360) 407-6300

July 30, 2014

Mr. Kip Summers, Project Coordinator Olympia Parks, Arts and Recreation Department 222 Columbia St. NW Olympia, WA 98501

Re: Ecology Request for Bioassay Work Plan and Comments on the Supplemental Sediment Sampling Results for the Solid Wood Incorporated Site, dated April 21, 2014, prepared by Pioneer Technologies Corporation, Solid Wood Inc. Site (West Bay Park), Olympia, WA, Agreed Order DE-08-TCPSR-5415

Facility/Site No.: 94656838, Cleanup/Site ID No.: 4228.

Dear Mr. Summers:

Thank you for submitting the above-referenced report for our review. Please revise the report to incorporate the following comments and then resubmit it within 30 days of the date of this letter.

- 1. Section 1.1, Screening Levels: At this stage of the investigation, Ecology does not agree with the report's proposed use of two screening levels. Instead, the original screening level of 100 milligrams per kilogram (mg/kg) should continue to be used. The purpose of the investigation was to characterize the depth and extent of TPH contamination above the 100 mg/kg screening level. If subsequent bioassay results indicate that cleanup is needed to protect benthic invertebrates, then potential cleanup options would need to be explored that consider Site sediment dynamics (for example erosion and deposition). It is necessary to know how deep the contamination is in order to evaluate feasibility of cleanup alternatives. Ecology acknowledges that human health risk for the sediments pathway also needs to be considered at the Site. However, that evaluation should be done separately from the current effort to better identify the area of benthic concern for hydrocarbon impacts. Please revise the text and figures of the report using the benthic screening criteria only.
- 2. Section 2, 1st paragraph: Please clarify how equipment blanks were collected.
- 3. Deviations from the Supplemental Sediment Field Sampling and Analysis Plan (FSAP): Thank you for noting in Section 2 (footnotes 1 and 2) the deviations from the FSAP. There is one further deviation that should also be noted. The practical quantitation limit (PQL) defined in Table 2 of the FSAP for total petroleum hydrocarbons heavy oil range (TPH-HO) was 50 mg/kg. However, the PQL that was actually used (Table 1) was 100 mg/kg. Ecology recommends that a TPH-HO reporting limit of 50 mg/kg be used for future work.

4. <u>Table 1 and Section 3.1, Total Petroleum Hydrocarbons Results</u>: Please clarify in the text and in the table whether or not silica gel cleanup preparation was used.

Ecology agrees with the proposed path forward to collect samples for bioassay analysis at the four sample locations shown in Figure 4. **Please prepare a FSAP for Ecology review within 30 days of the date of this letter.** Please also include in the FSAP that the samples from each bioassay location will also be analyzed for total petroleum hydrocarbons – diesel range (TPH-D) and TPH-HO with silica gel cleanup preparation.

If you have any questions about any of the information presented in this letter, please contact me at (360) 407-6247 or via e-mail at steve.teel@ecy.wa.gov.

Sincerely,

SSTOOL

Steve Teel, LHG Hydrogeologist Toxics Cleanup Program Southwest Regional Office

ST/ksc:Seds Report comments rev july 2014

By certified mail: (7013 2630 0001 9408 9074)

cc: Mr. Chris Waldron, Pioneer Technologies Corporation

Mr. David Hanna, Pioneer Technologies Corporation

Mr. Chris Waldron, Pioneer Technologies Corporation

Mr. Tom Morrill, City Attorney

Ms. Alexandra K. Smith, Environmental Legal Counsel, Port of Olympia

Scott Rose – Ecology

Joyce Mercuri – Ecology

Peter Striplin - Ecology

Diana Smith - Ecology

Attachment 2

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Photo No. 1: Sediment

from SD-42

Date: 2/5/2014

Direction Photo Taken: NA

Description:

Sediment from the shallow sample at SD-42. Coarse sand texture with minimal amount of rocks.



Photo No. 2: SD-42 Sample Location

Date: 2/5/2014

Direction Photo Taken: NA

Description:

Deep sample at SD-42.





Photo No. 3: SD-44 Sample Location

Date: 2/5/2014

Direction Photo Taken: NA

Description:
Sample location at SD44. The sediment was extremely saturated

and lighter in color with a high amount of large stones, shell, and clay.



Photo No. 4: SD-45 Sample Location

Date: 2/4/2014

Direction Photo Taken: NA

Description:

Sample location at SD-45. The sediment was extremely saturated and the sample hole filled with water. Large rocks were present throughout the sample. There was a high amount of biological activity including crabs and invertebrates.





Photo No. 5: SD-46 Sample Location

Date: 2/4/2014

Direction Photo Taken: NA

Description:

The shallow sample at SD-46. There was a small amount of pebbles and a high amount of organic matter.



Photo No. 6: SD-47 Sample Location

Date: 2/4/2014

Direction Photo Taken: NA

Description:

Sample location at SD-47. SD-47 had a high amount of biological activity, including barnacles and crabs.





Photo No. 7: SD-48 Sample Location

Date: 2/3/2014

Direction Photo Taken: NA Description:

Sample location at SD-48. The sample was dark brown and contained a high amount of organic matter, including bark.



Photo No. 8: SD-49 Sample Location

Date: 2/4/2014

Direction Photo Taken: NA

Description:
SD-49 had a high
amount of large stones
and a high amount of
crabs and invertebrate
activity.





Photo No. 9: Sediment

from SD-49

Date: 2/4/2014

Direction Photo Taken: NA

Description:

Sediment from SD-49 contained a high amount of large stones.



Photo No. 10: SD-50 Sample Location

Date: 2/3/2014

Direction Photo Taken: NA

Description:

SD-50 had a slight sheen when water pooled in the sample hole. There was minimal rock and shell, and a high amount of organic material.





Photo No. 11: SD-52 Sample Location

Date: 2/3/2014

Direction Photo Taken: NA
Description:

Slight sheen visible in the pooled water. Large rocks and bricks were present in the deep sample.



Photo No. 12: SD-53 Sample Location

Date: 2/4/2014

Direction Photo Taken: NA

Description:

SD-53 sediment had a spongy texture and a large amount of small pebbles.





Photo No. 13: SD-54 Sample Location

Date: 2/3/2014

Direction Photo Taken: NA

Description:

There was a sheen present on the pooled water. Large rocks and shells were present in the shallow sample.



Photo No. 14: SD-55 Sample Location

Date: 2/3/2014

Direction Photo Taken: NA

Description:

SD-55 sediment was dark gray sand with a high amount of shell and wood particles, and large mussels.



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Attachment 3

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PIONEER DAILY FIELD REPORT

	ite Location: W	est bay	Site Arrival Time:/	<u>: 40</u> si	te Departure Time :
	Clear Sun	Overcast	Drizzle	Rain	Snow
EATHER	To 32	32-50	50-70	70-85	85 Up
EMPERATURE 'IND	Calm	Wied.	Strong	Severe	
	L	F			
EOPLE PRESENT ON		NAME	ASSOCIATION		TIME ON-SITE AND OFF-SI
		lla Swain	PIONER		1:40 - 5:30
	Dar	11el Buttain	provers		1:40 -5:30
			Contraction Contra		1. Water 1.
TES ON WORK COM					
1:40 AVIV	al on-site	Tide Still 1	110h		
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4.15	5D-51 SN SS beg SD-51 De -Mosru	iallow at a your shallow er sand, som or or shown se	s.50 while Dis du	y deg	p (SD-52
	5D-51 SN SS beg SD-51 De -Mosru	iallow at 2 ym shallow es and, som	s.50 while Dis du	y deg	p @ 50-52
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PIONEER DAILY FIELD REPORT

EATHER TO TO STATE THE PROPERTY OF THE CHART	ate:) 3 14	Site Location:	West Bay	Site Arrival Time:	Site Depa	arture Time : <u>5:3</u>
MERATURE TOTAL					- L Poin	I Snow
MPERATURE ND COPIE PRESENT ON SITE NAME ASSOCIATION TIME UNSITE AND OFF-SITE DATE OF THE WITH THE PLEATED THE UNSITE AND OFF-SITE STEPLE SHELLE SHELL STEPLE STORY THE DATE OF STEPLE THE UNSITE AND OFF-SITE DATE OF STEPLE THE UNSITE AND OFF-SITE NO THE UNSITE AND OFF-SITE DATE OF STEPLE THE UNSITE AND OFF-SITE THE UNSITE AND OFF-	/EATHER	Clear Sun			e '	
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THE ON-SITE NAME ASSOCIATION THE ON-SITE AND OFF-SITE ON WORK COMPLETED STES ON WORK COMPLETED 4 4 35 5D 50 Shallow 4 1 10 Shell The order The order or sheen visible TO order or sheen visible		Calm	Med	Strong		
Discrete Britain PleNoth 1.40 - 5.50 Shella Sminn YIBNAM 1.47 - 5.50 TES ON WORK COMPLETED 4. \$35 5D 50 shallow 4. 1.410 - light sheen - no der - minimal rick/shell - lots or organic makerial 5.00 SD-48 shallow 5.00 SD-48 shallow - went ricky makerial - high amounts of berk - no odor or sheen visible.		N_SITE	NAME	ASSOCIATION	TIME	ON-SITE AND OFF-SITE
Shella Shiella Shiella 192-5:30 TES ON WORK COMPLETED 4: \$35 50.50 shallow 4: 40 deep - light sheen - light sheen - liets or organ Makenal 5:00 5:00 Sp. 48 shallow 5:00 Sp. 48 shallow 5:00 Sp. 48 shallow - high amounts of back - ho odor or sheen visible - no odor or sheen visible	TOPLE PRESENT O		2181 1214011	PICNOPIC	1:46	- 5:30
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4:435 SD. 50 shallow 4:410 halt sheen hot of or organ: making 5:00 U.50 SD-48 Shallow 5:00 SD. 45 deep very rolky-higher on beach in and rocky are high amounts of bark no odor or sheen visible.			CECCO SICTOR			
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5.00 SD-48 Shallow 5.00 SD-48 Shallow - Very rolky-maner on beach in sectority are - man amounts of bark - no odor or sheen visible. DATE: 2/3/14	Si-Ar)					
- Very niky-higher on beach in ged rocky are - high amounts of bark - no odor or sheen visible.		SD -40 1	1-01(CO)			
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- man amounts of bark - no odor or sheen visible. DATE: 2/3/14	5.00	30 - 93	acer-			
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- man amounts of bark - no odor or sheen visible. DATE: 2/3/14		- Very	wikey-mal	ner on black	n un 400	rocky are
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PIONEER DAILY FIELD REPORT

/EATHER	Cyfear Sup	Overcast	Drizzle	Rain	Snow
MPERATURE	10 32	32-50	50-70	70-85	85 Up
ND	Calm	Med.	Strong	Severe	
			A.V.C.V.II.A.T.V.III.		TIME ON SITE AND OFF SITE
OPLE PRESENT ON		NAME	ASSOCIATION		TIME ON-SITE AND OFF-SITE
		H SWALN	PLONETR		1:30 -6:00
	DAIL	el Buttern	VICIOLAR		1190 0.00
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ES ON WORK COM	IPLETED				
P-53		11'1-			
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-110		x oder			
- 1/1/		1			
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100		265			
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	0 5:30 0 54 490V	upu volu	ind dec to 1	11/65	thigh amor fuguel
	0 5:30 0 54 490V		ind det to		
	1 - 1 - 20 - 5:30 - 25 - 50 V	14:50	ind drig to l		
	1 5:30 2 54 6av 3 hallow	upu volu 4:50	ind det to		
)-116 =	p 5:30 less sav shallow - Largy a - spongy	14:50 AND CITE EXTRE			
)-116 =	1 5:30 2 54 6av 3 hallow	upu volu 4:50			
D-116 5	p 5:30 less sav shallow - Largy a - spongy	14:50 AND CITE EXTRE			
D-116 5	p 5:30 (DSG GAV Shallow - Laryl gi - Sponggi - no oder	14:50 4:50 AND CITE Extre iv clear			
D-416 5	p 5:30 less sav shallow - Largy a - spongy	4:50 Ach cite Exhie iv cher			
D-416 5	p 5:30 (DSG GAV Shallow - Laryl gi - Sponggi - no oder	4:50 Ach cite Exhie iv cher			
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D-416 5	p 5:30 (DSG GAV Shallow - Laryl gi - Sponggi - no oder	4:50 Ach cite Exhie iv cher			
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D-116 =	p 5:30 (DSG GAV Shallow - Laryl gi - Sponggi - no oder	4:50 Ach cite Exhie iv cher			
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D-116 5	p 5:30 (DSG GAV Shallow - Laryl gi - Sponggi - no oder	4:50 Ach cite Exhie iv cher			

PIONEER DAILY FIELD REPORT

						1 Coour
WEATHER		Sua	Overcast	Drizzle	Rain	Snow
EMPERATURE	To 32		32-50	50-70	70-85	85 Up
/IND	Calm		Med	Strong	Severe	
EOPLE PRESENT C	N-SITE		NAME	ASSOCIATION		TIME ON-SITE AND OFF-SI
	,,, <u>,</u> ,, _	Shella	Swain	PLONKER	1:	36 -6:00
		Danie	1 Buttain	RIONEER		30 ~6:00
		Ster		Ecology	3	3:00-3:45
TES ON WORK CO	MPLETED					
\-4.6 C	, ,					
		2:05				
	Deep	215				
-5:4	Froul	the con	lighting	1st sample	- 10ts	0/2
			ocks)			- 0
h	Car				· · · · · · · · · · · · · · · · · · ·	
			A C			
· //	CAC		ecn		2	
- 10	ols of	crabs		ebrate active	ty	
- 10	CAC			ebrate activi	ty	
- LC	ols of	crabs	and invert	rebrate activi	ty	
- Le	ols of	crabs	and invert	ebrate activi	ty	
- 10	challo	crabs	and invert	ebrate activi	ty	
- Le	ols of	crabs	and invert	ebrate activi	ty	
- Le	challo deep	w 2:25	and invert		0	Le athirt
- 10	challo deep	072 155 05:05	and invert	ab and in	0	te acturity
D-47	challo deep Lots i	072 155 20:05	and invert		0	te acturity
D-47	challo deep Lots i	072 155 20:05	and invert		0	te acturity
D-47	challo deep Lots i	w 2:25 2:05 b lave sand	end invert		0	te actuat
D-47	challo deep Lots i	w 2:25 2:05 b lave sand	end invert		0	te acturt
D-47	challo deep Lots i	072 155 20:05	end invert		0	te actuat
D-47	challo deep Lots i dark no oc shallo deep	w 2:25 2:05 b lard sand lor ov w 3 3:45	and invert	ab and in	verte bra	
)-47 	challo deep Lots i dark no oc shallo deep	w 2:25 2:05 b lard sand lor ov w 3 3:45	and invert	ab and in	verte bra	
D-47	challo deep Lots i dark no oc shallo deep	w 2:25 2:05 b lard sand lor ov w 3 3:45	and invert	ab and in	verte bra	
D-47	Challo deep Lots is dark ne oc shallo deep Lots	0 1 2 2 3 2 5 2 5 0 5 0 5 0 0 0 0 0 0 0 0 0 0 0 0	le MCK, CV steen 15		verte bra	
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)-47 	Challo deep Lots is dark ne oc shallo deep Lots	0 1 2 2 3 2 5 2 5 0 5 0 5 0 0 0 0 0 0 0 0 0 0 0 0	le MCK, CV steen 15	ab and in	verte bra	
D-47	Challo deep Lots is daylo per oc shallo deep Lots -no od	crabs w 2:25 2:05 b land sand lor or w 3 3:45 of 1210 lor or	logical a sheen logical a sheen un size	ab and in	verte bra	
D-47	Challo deep Lots is daylo per oc shallo deep Lots -no od	crabs w 2:25 2:05 b land sand lor or w 3 3:45 of 1210 lor or	logical a sheen logical a sheen un size	ab and in	verte bra	
D-47	challo deep Lots is dark no oc shallo deep Lots no od shallo	0 1 2 2 5 2 5 0 5 0 5 0 5 0 5 0 5 0 5 0 5 0	logical a sheen logical a sheen un size	ab and in	vertebra	mertiblat
D-47	challo deep Lots is dark no oc shallo deep Lots no od shallo	crabs w 2:25 2:05 b land sand lor or w 3 3:45 of 1210 lor or	logical a sheen logical a sheen un size	ab and in	sertebra	rectibiat
D-47	challo deep Lots is dark no oc shallo deep Lots no od shallo	0 100 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	le rock, and inverted steem 15	ab and im churty - cr	sextebra abs, in	rolume
D-47	challo deep Lots is dark no oc shallo deep Lots no od shallo	0 100 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	le rock, and inverted steem 15	ab and im churty - cr	sextebra abs, in	rolume The DO THE TO
D-47	challo deep Lots is dark no oc shallo deep Lots no od shallo deep	0 100 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	le rock, and inverted steem 15	ab and im churty - cr	sextebra abs, in	rolume The DO THE TO
D-47 10 D-47 10	challo deep Lots is dark nes oc shallo deep Lots nes oc shallo deep Lots deep	of blo ov or 2005 Sand Sand Sov ov W 3 3.45 of blo ov ov 4.10 Man	and invert	ab and in	sextebra abs, in	rolume The DO THE TO
D-47 10 D-47 10	challo deep Lots is dark nes oc shallo deep Lots nes oc shallo deep Lots deep	of blo ov or 2005 Sand Sand Sov ov W 3 3.45 of blo ov ov 4.10 Man	and invert	ab and im churty - cr	sextebra abs, in	rolume
7-45 50-43	challo deep Lots is dark nes oc shallo deep Lots nes oc shallo deep Lots deep	0 100 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	and invert	ab and im churty - cr	chs, in	rolume The DO THE TO

PIONEER DAILY FIELD REPORT

		DAILY FIE	LD REPORT		
Date: 2/5/14 Sit	e Location: _	westizam	Site Arrival Time: _	1 3 0 Site De	parture Time :_ 4.5
WEATHER TEMPERATURE WIND	Clear Sun ,	Overcast 32-50	Drizzle 50-70 Strong	Rain 70-85 Severe	Snow 85 Up
PEOPLE PRESENT ON-	SITE	NAME	ASSOCIATION	TIM	E ON-SITE AND OFF-SITE
	T	ANIEL BRITTAIN HELLH SNAIN	PIONETR		30 -4:00 30 -4:00
NOTES ON WORK COM	PLETED				
5D-4/10 de	ep /	50			
50-44 dee -light -light -fin - yew -no	ode ode ode ode ode ode ode ode	on extense	Saturated Saturated		
L	el gi	area _2 av	ey, bi criarn		
Overall n dark promy samy	otes; ev . Dies.	Samples fur Samples nation gra Most bio. Focus are	ther south near spit in size in actury	were (further mid-bea	red ght rout ch m
SIGNATURE:				DATE: 2/	5/2014

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Attachment 4

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1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com 504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client: PIONEER TECHNOLOGIES CORPORATION

Address: 5205 CORPORATE CENTER COURT

LACEY, WA 98503

Attn: CHRIS WALDRON

Batch #: 140207024

Project Name: WEST BAY

Analytical Results Report

Sample Number
Client Sample ID

140207024-001

SD-WB-44-020514-2-3

Sampling Date Sampling Time

Result

ND

ND

2/5/2014 2:00 PM Date/Time Received

2/7/2014 1:09 PM

Client Sample ID Matrix

Parameter

Diesel

Lube Oil

Soil

Sample Location

Extraction Date

2/8/2014

Comments

ments

Units	PQL	Analysis Date	Analyst	Method	Qualifier
mg/kg	25	2/10/2014	KFG	NWTPHDX	
mg/kg	100	2/10/2014	KFG	NWTPHDX	

Surrogate Data

Sample Number

140207024-001

Surrogate Standard hexacosane

Method NWTPHDX Percent Recovery 115.4 Control Limits 50-150

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C595 Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095; FL(NELAP): E871099

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Client: PIONEER TECHNOLOGIES CORPORATION

Address: 5205 CORPORATE CENTER COURT

LACEY, WA 98503

Attn: CHRIS WALDRON

Batch #: 140207024

Project Name: WEST BAY

Analytical Results Report

 Sample Number
 140207024-004
 Sampling Date
 2/5/2014
 Date/Time Received
 2/7/2014
 1:09 PM

Client Sample ID SD-WB-42-020514-05-1 Sampling Time 2:15 PM Extraction Date 2/8/2014

Matrix Soil Sample Location

Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Diesel	ND	mg/kg	25	2/10/2014	KFG	NWTPHDX	
Lube Oil	ND	mg/kg	100	2/10/2014	KFG	NWTPHDX	

Surrogate Data

Sample Number 140207024-004

Surrogate Standard Method Percent Recovery Control Limits
hexacosane NWTPHDX 123.6 50-150

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C595 Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095; FL(NELAP): E871099

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Client: PIONEER TECHNOLOGIES CORPORATION

Address: 5205 CORPORATE CENTER COURT

LACEY, WA 98503

Attn: CHRIS WALDRON

Batch #: 140207024

Project Name: WEST BAY

Analytical Results Report

 Sample Number
 140207024-005
 Sampling Date
 2/3/2014
 Date/Time Received
 2/7/2014
 1:09 PM

 Client Sample ID
 SD-WB-51-020314-2-3-(01)
 Sampling Time
 4:20 PM
 Extraction Date
 2/8/2014

Matrix Soil Sample Location

Comments

Parameter Result Units **PQL Analysis Date** Analyst Method Qualifier Diesel ND 100 2/10/2014 **KFG NWTPHDX** mg/kg 975 **KFG** Lube Oil mg/kg 400 2/10/2014 **NWTPHDX**

Surrogate Data

Sample Number 140207024-005
Surrogate Standard Method Percent Recovery Control Limits
hexacosane NWTPHDX 122.6 50-150

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C595 Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095; FL(NELAP): E871099

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Client: PIONEER TECHNOLOGIES CORPORATION

Address: 5205 CORPORATE CENTER COURT

LACEY, WA 98503

Attn: CHRIS WALDRON

Batch #: 140207024

Project Name: WEST BAY

Analytical Results Report

 Sample Number
 140207024-006
 Sampling Date
 2/3/2014
 Date/Time Received
 2/7/2014
 1:09 PM

 Client Sample ID
 SD-WB-51-020314-2-3
 Sampling Time
 4:15 PM
 Extraction Date
 2/8/2014

Matrix Soil Sample Location

Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Diesel	ND	mg/kg	100	2/10/2014	KFG	NWTPHDX	
Lube Oil	788	mg/kg	400	2/10/2014	KFG	NWTPHDX	

Surrogate Data

Sample Number 140207024-006
Surrogate Standard Method Percent Recovery Control Limits
hexacosane NWTPHDX 121.4 50-150

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C595 Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095; FL(NELAP): E871099

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Client: PIONEER TECHNOLOGIES CORPORATION

Address: 5205 CORPORATE CENTER COURT

LACEY, WA 98503

Attn: **CHRIS WALDRON** Batch #: 140207024

Project Name: WEST BAY

Analytical Results Report

Sample Number **Client Sample ID** 140207024-007

Sampling Date Sampling Time

309

2/3/2014 4:35 PM

Date/Time Received

2/7/2014

1:09 PM

Matrix

Lube Oil

SD-WB-50-020314-05-1

Sample Location

Extraction Date

2/8/2014

NWTPHDX

Comments

Parameter Result Diesel ND

PQL Units 25 mg/kg mg/kg 100

Analysis Date 2/10/2014 2/10/2014

Analyst **KFG KFG**

Method Qualifier **NWTPHDX**

Surrogate Data

Sample Number

140207024-007

Surrogate Standard hexacosane

Method **NWTPHDX** **Percent Recovery** 116.8

Control Limits 50-150

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C595 Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095; FL(NELAP): E871099

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Client: PIONEER TECHNOLOGIES CORPORATION

Address: 5205 CORPORATE CENTER COURT

LACEY, WA 98503

Attn: **CHRIS WALDRON** Batch #: 140207024

Project Name: WEST BAY

Analytical Results Report

Sample Number **Client Sample ID**

140207024-008 SD-WB-48-020314-05-1 **Sampling Date** Sampling Time 2/3/2014 4:50 PM

Date/Time Received

2/7/2014

1:09 PM

Matrix

Sample Location

Extraction Date

2/8/2014

NWTPHDX

Comments

Parameter Result Diesel ND Lube Oil 117

PQL Units 25 mg/kg mg/kg 100

Analysis Date 2/10/2014 2/10/2014

Analyst **KFG KFG**

Method Qualifier **NWTPHDX**

Surrogate Data

Sample Number

140207024-008

Surrogate Standard hexacosane

Method **NWTPHDX** **Percent Recovery** 113.4

Control Limits 50-150

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C595 Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095; FL(NELAP): E871099

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Client: PIONEER TECHNOLOGIES CORPORATION

Address: 5205 CORPORATE CENTER COURT

LACEY, WA 98503

Attn: CHRIS WALDRON

Batch #: 140207024

Project Name: WEST BAY

Analytical Results Report

 Sample Number
 140207024-009
 Sampling Date
 2/3/2014
 Date/Time Received
 2/7/2014
 1:09 PM

Client Sample ID SD-WB-48-020314-2-3 Sampling Time 5:00 PM Extraction Date 2/8/2014

Matrix Soil Sample Location

Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Diesel	ND	mg/kg	25	2/10/2014	KFG	NWTPHDX	
Lube Oil	200	mg/kg	100	2/10/2014	KFG	NWTPHDX	

Surrogate Data

Sample Number 140207024-009
Surrogate Standard Method Percent Recovery Control Limits
hexacosane NWTPHDX 111.8 50-150

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C595 Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095; FL(NELAP): E871099

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Client: PIONEER TECHNOLOGIES CORPORATION

Address: 5205 CORPORATE CENTER COURT

LACEY, WA 98503

Attn: **CHRIS WALDRON** Batch #: 140207024

Project Name: WEST BAY

Analytical Results Report

Sample Number Date/Time Received 140207024-010 **Sampling Date** 2/3/2014 2/7/2014 1:09 PM 2/10/2014 4:40 PM **Extraction Date**

SD-WB-50-020314-2-3 **Client Sample ID** Sampling Time Sample Location

Matrix

Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Diesel	ND	mg/kg	25	2/11/2014	KFG	NWTPHDX	
Lube Oil	196	mg/kg	100	2/11/2014	KFG	NWTPHDX	

Surrogate Data

140207024-010 Sample Number **Surrogate Standard** Method **Percent Recovery Control Limits** hexacosane **NWTPHDX** 111.8 50-150

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C595 Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095; FL(NELAP): E871099

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Client: PIONEER TECHNOLOGIES CORPORATION

Address: 5205 CORPORATE CENTER COURT

LACEY, WA 98503

Attn: **CHRIS WALDRON** Batch #: 140207024

Project Name: WEST BAY

Analytical Results Report

Sample Number **Client Sample ID** 140207024-011

Sampling Date Sampling Time 2/3/2014

2:30 PM

Date/Time Received

1:09 PM 2/7/2014

Matrix

SD-WB-54-020314-05-1

Extraction Date

2/10/2014

Comments

Sample Location

Analysis Date Analyst Method Qualifier

PQL Parameter Result Units Diesel ND 25 2/11/2014 **KFG NWTPHDX** mg/kg ND **KFG** Lube Oil mg/kg 100 2/11/2014 **NWTPHDX**

Surrogate Data

Sample Number

140207024-011

Surrogate Standard hexacosane

Method **NWTPHDX** **Percent Recovery** 117.2

Control Limits 50-150

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C595 Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095; FL(NELAP): E871099

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Client: PIONEER TECHNOLOGIES CORPORATION

Address: 5205 CORPORATE CENTER COURT

LACEY, WA 98503

Attn: **CHRIS WALDRON** Batch #: 140207024

Project Name: WEST BAY

Analytical Results Report

Sample Number **Client Sample ID**

140207024-013

Sampling Date Sampling Time 2/3/2014 2:15 PM

Date/Time Received

2/7/2014

NWTPHDX

1:09 PM

Matrix

Lube Oil

SD-WB-55-020314-05-1

Sample Location

2/10/2014 **Extraction Date**

Comments

Parameter Result Diesel ND

PQL Units 25 mg/kg mg/kg 100

106

Analysis Date 2/11/2014 2/11/2014

Analyst **KFG KFG**

Method Qualifier **NWTPHDX**

Surrogate Data

Sample Number

140207024-013

Surrogate Standard hexacosane

Method **NWTPHDX** **Percent Recovery** 113.4

Control Limits 50-150

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C595 Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095; FL(NELAP): E871099

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Client: PIONEER TECHNOLOGIES CORPORATION

Address: 5205 CORPORATE CENTER COURT

LACEY, WA 98503

Attn: **CHRIS WALDRON** Batch #: 140207024

Project Name: WEST BAY

Analytical Results Report

Sample Number **Client Sample ID**

140207024-014

Sampling Date Sampling Time

Result

2/4/2014 5:30 PM

Date/Time Received

2/7/2014

1:09 PM

Matrix

SD-WB-44-020414-05-1

Sample Location

Extraction Date

2/10/2014

Comments

PQL Units **Analysis Date** 25 2/11/2014 mg/kg mg/kg 100 2/11/2014

Analyst **KFG NWTPHDX** Qualifier

Parameter

Diesel ND ND Lube Oil

KFG

NWTPHDX

Method

Surrogate Data

Sample Number

140207024-014

Surrogate Standard hexacosane

Method **NWTPHDX** **Percent Recovery** 118.6

Control Limits 50-150

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C595 Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095; FL(NELAP): E871099

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Client: PIONEER TECHNOLOGIES CORPORATION

Address: 5205 CORPORATE CENTER COURT

LACEY, WA 98503

Attn: **CHRIS WALDRON** Batch #: 140207024

Project Name: WEST BAY

Analytical Results Report

Sample Number **Client Sample ID** 140207024-015 SD-WB-46-020414-05-1 **Sampling Date** Sampling Time

2/4/2014 4:50 PM

Date/Time Received

2/7/2014

1:09 PM

Matrix

Sample Location

Extraction Date

2/10/2014

NWTPHDX

Comments

Parameter Result Diesel ND ND Lube Oil

PQL Units 25 mg/kg mg/kg 100

2/11/2014 2/11/2014

Analysis Date

Analyst **KFG KFG**

Method Qualifier **NWTPHDX**

Surrogate Data

Sample Number

140207024-015

Surrogate Standard hexacosane

Method **NWTPHDX** **Percent Recovery** 120.4

Control Limits 50-150

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C595 Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095; FL(NELAP): E871099

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Client: PIONEER TECHNOLOGIES CORPORATION

Address: 5205 CORPORATE CENTER COURT

LACEY, WA 98503

Attn: CHRIS WALDRON

Batch #: 140207024

Project Name: WEST BAY

1:09 PM

2/7/2014 2/10/2014

Analytical Results Report

Sample Number140207024-017Sampling Date2/4/2014Date/Time ReceivedClient Sample IDSD-WB-53-020414-05-1Sampling Time4:10 PMExtraction Date

Soil Sample Location

Matrix S Comments

> **PQL Parameter** Result Units **Analysis Date** Analyst Method Qualifier Diesel ND 25 2/11/2014 **KFG NWTPHDX** mg/kg **KFG** Lube Oil 115 mg/kg 100 2/11/2014 **NWTPHDX**

Surrogate Data

Sample Number 140207024-017
Surrogate Standard Method Percent Recovery Control Limits
hexacosane NWTPHDX 118.4 50-150

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C595 Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095; FL(NELAP): E871099

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Client: PIONEER TECHNOLOGIES CORPORATION

Address: 5205 CORPORATE CENTER COURT

LACEY, WA 98503

Attn: CHRIS WALDRON

Batch #: 140207024

Project Name: WEST BAY

Analytical Results Report

 Sample Number
 140207024-018
 Sampling Date
 2/4/2014
 Date/Time Received
 2/7/2014
 1:09 PM

 Client Sample ID
 SD-WB-53-020414-2-3
 Sampling Time
 5:30 PM
 Extraction Date
 2/10/2014

Matrix Soil Sample Location

Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Diesel	ND	mg/kg	25	2/11/2014	KFG	NWTPHDX	
Lube Oil	ND	mg/kg	100	2/11/2014	KFG	NWTPHDX	

Surrogate Data

Sample Number 140207024-018
Surrogate Standard Method Percent Recovery Control Limits
hexacosane NWTPHDX 113.8 50-150

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C595 Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095; FL(NELAP): E871099

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Client: PIONEER TECHNOLOGIES CORPORATION

Address: 5205 CORPORATE CENTER COURT

LACEY, WA 98503

Attn: **CHRIS WALDRON** Batch #: 140207024

Project Name: WEST BAY

Analytical Results Report

Sampling Date Sample Number 140207024-019 2/4/2014 Date/Time Received 2/7/2014 1:09 PM 2/10/2014

SD-WB-43-020414-2-3 **Client Sample ID** Sampling Time 4:16 PM **Extraction Date** Sample Location

Matrix

Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Diesel	ND	mg/kg	50	2/11/2014	KFG	NWTPHDX	
Lube Oil	351	mg/kg	200	2/11/2014	KFG	NWTPHDX	

Surrogate Data

140207024-019 Sample Number **Surrogate Standard** Method **Percent Recovery Control Limits** hexacosane **NWTPHDX** 116.2 50-150

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C595 Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095; FL(NELAP): E871099

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Client: PIONEER TECHNOLOGIES CORPORATION

Address: 5205 CORPORATE CENTER COURT

LACEY, WA 98503

Attn: CHRIS WALDRON

Batch #: 140207024

Project Name: WEST BAY

Analytical Results Report

 Sample Number
 140207024-020
 Sampling Date
 2/4/2014
 Date/Time Received
 2/7/2014
 1:09 PM

 Client Sample ID
 SD-WB-47-020414-05-1
 Sampling Time
 2:25 PM
 Extraction Date
 2/10/2014

Matrix Soil Sample Location

Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Diesel	ND	mg/kg	25	2/11/2014	KFG	NWTPHDX	
Lube Oil	ND	mg/kg	100	2/11/2014	KFG	NWTPHDX	

Surrogate Data

Sample Number 140207024-020
Surrogate Standard Method Percent Recovery Control Limits
hexacosane NWTPHDX 68.4 50-150

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C595 Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095; FL(NELAP): E871099

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Client: PIONEER TECHNOLOGIES CORPORATION

Address: 5205 CORPORATE CENTER COURT

LACEY, WA 98503

Attn: **CHRIS WALDRON** Batch #: 140207024

Project Name: WEST BAY

Analytical Results Report

Sample Number **Client Sample ID** 140207024-021 SD-WB-43-020414-05-1 **Sampling Date** Sampling Time

ND

2/4/2014 3:50 PM

Date/Time Received

2/7/2014

1:09 PM

Matrix

Lube Oil

Sample Location

Extraction Date

2/10/2014

NWTPHDX

Comments

Parameter Result Diesel ND

PQL Units 25 mg/kg mg/kg 100

Analysis Date 2/11/2014 2/11/2014

Analyst **KFG KFG**

Method Qualifier **NWTPHDX**

Surrogate Data

Sample Number

140207024-021

Surrogate Standard hexacosane

Method **NWTPHDX** **Percent Recovery** 65.6

Control Limits 50-150

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C595 Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095; FL(NELAP): E871099

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Client: PIONEER TECHNOLOGIES CORPORATION

Address: 5205 CORPORATE CENTER COURT

LACEY, WA 98503

Attn: **CHRIS WALDRON** Batch #: 140207024

Project Name: WEST BAY

Analytical Results Report

1:09 PM Sample Number 140207024-022 **Sampling Date** 2/4/2014 **Date/Time Received** 2/7/2014 SD-WB-47-020414-2-3 2/10/2014 **Client Sample ID** 3:05 PM **Extraction Date**

Sampling Time Sample Location

Matrix

Comments

PQL Parameter Result Units **Analysis Date** Analyst Method Qualifier Diesel ND 25 2/11/2014 **KFG NWTPHDX** mg/kg ND **KFG** Lube Oil mg/kg 100 2/11/2014 **NWTPHDX**

Surrogate Data

140207024-022 Sample Number **Surrogate Standard** Method **Percent Recovery Control Limits** hexacosane **NWTPHDX** 58.0 50-150

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C595 Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095; FL(NELAP): E871099

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Client: PIONEER TECHNOLOGIES CORPORATION

Address: 5205 CORPORATE CENTER COURT

LACEY, WA 98503

Attn: **CHRIS WALDRON** Batch #: 140207024

Project Name: WEST BAY

Analytical Results Report

Sample Number **Client Sample ID** 140207024-023

Sampling Date Sampling Time

Result

ND ND 2/4/2014 3:15 PM

Date/Time Received

2/7/2014

1:09 PM

Matrix

SD-WB-45-020414-05-1

Extraction Date

2/10/2014

Comments

Parameter

Diesel

Lube Oil

Sample Location

Units	PQL	Analysis Date	Analyst	Method	Qualifier
mg/kg mg/kg	25 100	2/11/2014 2/11/2014	KFG KFG	NWTPHDX NWTPHDX	

Surrogate Data

Sample Number

140207024-023

Surrogate Standard hexacosane

Method **NWTPHDX** **Percent Recovery** 50.6

Control Limits 50-150

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C595 Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095; FL(NELAP): E871099

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Client: PIONEER TECHNOLOGIES CORPORATION

Address: 5205 CORPORATE CENTER COURT

LACEY, WA 98503

Attn: CHRIS WALDRON

Batch #: 140207024

Project Name: WEST BAY

Analytical Results Report

 Sample Number
 140207024-025
 Sampling Date
 2/4/2014
 Date/Time Received
 2/7/2014
 1:09 PM

 Client Sample ID
 SD-WB-49-020414-05-1
 Sampling Time
 2:05 PM
 Extraction Date
 2/10/2014

Matrix Soil Sample Location

Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Diesel	ND	mg/kg	50	2/11/2014	KFG	NWTPHDX	
Lube Oil	ND	mg/kg	200	2/11/2014	KFG	NWTPHDX	

Surrogate Data

Sample Number 140207024-025
Surrogate Standard Method Percent Recovery Control Limits
hexacosane NWTPHDX 52.6 50-150

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C595 Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095; FL(NELAP): E871099

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Client: PIONEER TECHNOLOGIES CORPORATION

Address: 5205 CORPORATE CENTER COURT

LACEY, WA 98503

Attn: CHRIS WALDRON

Batch #: 140207024

Project Name: WEST BAY

Analytical Results Report

 Sample Number
 140207024-026
 Sampling Date
 2/5/2014
 Date/Time Received
 2/7/2014
 1:09 PM

Client Sample ID EB-WB-020514 Sampling Time 3:00 PM Extraction Date 2/7/2014

Matrix Water Sample Location

Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Diesel	ND	mg/L	0.1	2/10/2014	KFG	NWTPHDX	
Lube Oil	ND	mg/L	0.5	2/10/2014	KFG	NWTPHDX	

Surrogate Data

Sample Number 140207024-026
Surrogate Standard Method Percent Recovery Control Limits
hexacosane NWTPHDX 103.2 50-150

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C595 Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095; FL(NELAP): E871099

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Client: PIONEER TECHNOLOGIES CORPORATION

Address: 5205 CORPORATE CENTER COURT

LACEY, WA 98503

Attn: **CHRIS WALDRON** Batch #: 140207024

Project Name: WEST BAY

Analytical Results Report

Sample Number

140207024-027

Sampling Date Sampling Time

Units

mg/kg

mg/kg

ND

2/3/2014 3:25 PM

Date/Time Received

2/7/2014

1:09 PM

Client Sample ID Matrix

Lube Oil

SD-WB-52-020314-05-1

Sample Location

Extraction Date

2/10/2014

Method

Comments

Parameter Result Diesel ND

PQL 25 100

2/11/2014 2/11/2014

Analysis Date

Analyst **KFG NWTPHDX KFG NWTPHDX** Qualifier

Surrogate Data

Sample Number

140207024-027

Surrogate Standard hexacosane

Method **NWTPHDX** **Percent Recovery** 74.3

Control Limits 50-150

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C595 Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095; FL(NELAP): E871099

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Client: PIONEER TECHNOLOGIES CORPORATION

Address: 5205 CORPORATE CENTER COURT

LACEY, WA 98503

Attn: **CHRIS WALDRON** Batch #: 140207024

Project Name: WEST BAY

Analytical Results Report

Sample Number **Client Sample ID** 140207024-029

SD-WB-51-020314-05-1

Sampling Date Sampling Time

2/3/2014 3:50 PM

Date/Time Received Extraction Date

2/7/2014 2/10/2014 1:09 PM

Matrix Comments

Sample Location

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Diesel	ND	mg/kg	25	2/11/2014	KFG	NWTPHDX	
Lube Oil	ND	mg/kg	100	2/11/2014	KFG	NWTPHDX	

Surrogate Data

Sample Number

140207024-029

Surrogate Standard hexacosane

Method **NWTPHDX** **Percent Recovery** 56.8

Control Limits

50-150

Authorized Signature

MCL EPA's Maximum Contaminant Level

ND Not Detected

Practical Quantitation Limit **PQL**

This report shall not be reproduced except in full, without the written approval of the laboratory.

The results reported relate only to the samples indicated.

Soil/solid results are reported on a dry-weight basis unless otherwise noted.

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Client: PIONEER TECHNOLOGIES CORPORATION

Batch #: 140207024

Address: 5205 CORPORATE CENTER COURT

Project Name: WEST BAY

LACEY, WA 98503

Attn: CHRIS WALDRON

Analytical Results Report

Quality Control Data

Lab Control Sample										
Parameter	LCS Result	Units	s LCS	Spike %	%Rec	AR	%Rec	Prep	Date	Analysis Date
Diesel	87.0	mg/k	g 1	00	87.0	50)-150	2/8/2	2014	2/10/2014
Matrix Spike										
Sample Number Parameter		Sample Result	MS Result	Units	:	MS Spike	%Rec	AR %Rec	Prep Date	Analysis Date
140207024-004 Diesel		ND	94.4	mg/kg		100	94.4	50-150	•	2/10/2014
Matrix Spike Duplicate										
Parameter	MSD Result	Units	MSD Spike	%Re	ec.	%RPD	AR %RPD) Pre	p Date	Analysis Date
Diesel	89.6	mg/kg	100	89.6		5.2	0-50		3/2014	2/10/2014
Method Blank										
Parameter		Re	sult	Uni	its		PQL	Pr	ep Date	Analysis Date
Diesel		1	ND	mg/	kg		25	2/3	8/2014	2/10/2014
Lube Oil		1	ND	mg/	/kg		100	2/3	8/2014	2/10/2014

AR Acceptable Range ND Not Detected

PQL Practical Quantitation Limit RPD Relative Percentage Difference

Comments:

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C595 Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095; FL(NELAP): E871099

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Client: PIONEER TECHNOLOGIES CORPORATION

Batch #: 140207024

Address: 5205 CORPORATE CENTER COURT

Project Name: WEST BAY

LACEY, WA 98503

CHRIS WALDRON

Analytical Results Report

Quality Control Data

Lab Control Sample

Attn:

 Parameter
 LCS Result
 Units
 LCS Spike
 %Rec
 AR %Rec
 Prep Date
 Analysis Date

 Diesel
 99.2
 mg/kg
 100
 99.2
 50-150
 2/10/2014
 2/11/2014

Matrix Spike MS MS AR Sample Sample Number **Parameter** Units %Rec **Prep Date Analysis Date** Result Result Spike %Rec 140207024-018 ND Diesel 147 100 50-150 2/10/2014 2/11/2014 mg/kg 147.0

Matrix Spike Duplicate MSD MSD AR **Parameter** Units Spike %Rec %RPD %RPD **Prep Date Analysis Date** Result Diesel 106 100 106.0 2/10/2014 2/11/2014 mg/kg 32.4 0-50

Method Blank

Parameter Result Units PQL **Analysis Date Prep Date** ND Diesel mg/kg 25 2/10/2014 2/11/2014 ND 2/10/2014 2/11/2014 Lube Oil mg/kg 100

AR Acceptable Range ND Not Detected

PQL Practical Quantitation Limit
RPD Relative Percentage Difference

Comments:

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C595 Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095; FL(NELAP): E871099

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Client: PIONEER TECHNOLOGIES CORPORATION

Batch #: 140207024

Address: 5205 CORPORATE CENTER COURT

Project Name: WEST BAY

LACEY, WA 98503 CHRIS WALDRON

Attn:

Analytical Results Report

Quality Control Data

Lab Control Sample								
Parameter	LCS Result	Units	LC	S Spike	%Rec	AR %Rec	Prep Date	Analysis Date
Diesel	0.769	mg/L		1		50-150	2/7/2014	2/10/2014
Lab Control Sample Duplicate								
	LCSD		LCSD	0/5	0/000	AR		
Parameter	Result	Units	Spike	%Rec	%RPD	%RPD	Prep Date	Analysis Date
	0.819	mg/L	_	81.9	6.3	0-50	2/7/2014	2/10/2014

Method Blank					
Parameter	Result	Units	PQL	Prep Date	Analysis Date
Diesel	ND	mg/L	0.1	2/7/2014	2/10/2014
Lube Oil	ND	mg/L	0.5	2/7/2014	2/10/2014

AR Acceptable Range ND Not Detected

PQL Practical Quantitation Limit
RPD Relative Percentage Difference

Comments:

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C595 Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095; FL(NELAP): E871099



1282 Alturas Dr Moscow ID 83843 (208) 883-2839 FAX 882-9246 moscow@anateklabs.com

February 21, 2013

Pioneer Technologies Corp

5205 Corporate Center Crt SE Suite A

Olympia, WA 98503

Project Manager: Shella Swain

Laboratory Project #: 140207024

Client Project #: West Bay Date Sampled: 2/3-2/5 Sampled by: Shella Swain Date Received: 2/7/2014

Anatek Sample ID	Sample ID	Result	Analysis	Analyst
140207024-001	SD-WB-44-020514-2-3	12.5%	2/18/2014	KG
140207024-004	SD-WB-42-020514-05-1	1.12%	2/18/2014	KG
140207024-005	SD-WB-51-020314-2-3-(01)	10.4%	2/18/2014	KG
140207024-006	SD-WB-51-020314-2-3	12.6%	2/18/2014	KG
140207024-007	SD-WB-50-020314-05-1	3.28%	2/18/2014	KG
140207024-008	SD-WB-48-020314-05-1	3.62%	2/18/2014	KG
140207024-009	SD-WB-48-020314-2-3	5.43%	2/18/2014	KG
140207024-010	SD-WB-50-020314-2-3	2.24%	2/18/2014	KG
140207024-011	SD-WB-54-020314-05-1	1.35%	2/18/2014	KG
140207024-013	SD-WB-55-020314-05-1	2.03%	2/18/2014	KG
140207024-014	SD-WB-44-020414-05-1	6.51%	2/18/2014	KG
140207024-015	SD-WB-46-020414-05-1	5.82%	2/18/2014	KG
140207024-017	SD-WB-53-020414-05-1	3.63%	2/18/2014	KG
140207024-018	SD-WB-53-020414-2-3	5.33%	2/18/2014	KG
140207024-019	SD-WB-43-020414-2-3	2.67%	2/18/2014	KG
140207024-020	SD-WB-47-020414-05-1	4.21%	2/18/2014	KG
140207024-021	SD-WB-43-020414-05-1	2.34%	2/18/2014	KG
140207024-022	SD-WB-47-020414-2-3	5.85%	2/18/2014	KG
140207024-023	SD-WB-45-020414-05-1	2.30%	2/18/2014	KG
140207024-025	SD-WB-49-020414-05-1	4.52%	2/18/2014	KG
140207024-027	SD-WB-52-020314-05-1	5.89%	2/18/2014	KG
140207024-029	SD-WB-51-020314-05-1	4.37%	2/18/2014	KG

^{** -} A known amount of dried sample was determined by difference and the fine particulates removed from it by washing through a #230 sieve until the water ran clear. The remaining sample was then quantitatively transferred into a funnel, collected in a pre-weighed filter paper, and the filter placed in a pre-weighed beaker for overnight drying. % Fines was determined as follows:

% Fines = 100% - 100% x ((Final Wt. - Beaker Wt. - Filter Wt.) / (Initial Jar Wt. - Final Jar Wt.))

Approved by:

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Client: Address: PIONEER TECHNOLOGIES CORPORATION

5205 CORPORATE CENTER COURT

Project Name:

Batch #:

140207024

LACEY, WA 98503

WEST BAY

Attn: **CHRIS WALDRON**

Analytical Results Report

Sample Number

Comments

140207024-001

SD-WB-44-020514-2-3

Sampling Date 2/5/2014 Sampling Time 2:00 PM

Date/Time Received 2/7/2014 1:09 PM

Date/Time Received

Date/Time Received 2/7/2014

2/7/2014

1:09 PM

1:09 PM

Client Sample ID Matrix

Soil

Sample Location

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
%moisture	16.9	Percent		2/8/2014	KFG	%moisture	

Sample Number **Client Sample ID**

Matrix

Comments

SD-WB-42-020514-05-1

Soil

140207024-004

Sampling Date 2/5/2014 Sampling Time 2:15 PM

Sample Location

Units **PQL Analysis Date** Qualifier **Parameter** Result **Analyst** Method %moisture 10.2 Percent 2/8/2014 **KFG** %moisture

Sample Number **Client Sample ID** Matrix

140207024-005

SD-WB-51-020314-2-3-(01)

Soil

2/3/2014 Sampling Date Sampling Time 4:20 PM

Sample Location

Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
%moisture	76.2	Percent		2/8/2014	KFG	%moisture	

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Friday, February 21, 2014 Page 1 of 8

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Client: PIONEER TECHNOLOGIES CORPORATION

Address: 5205 CORPORATE CENTER COURT

LACEY, WA 98503

Attn: CHRIS WALDRON

Batch #: 140207024

Project Name: WEST BAY

Analytical Results Report

Sample Number Client Sample ID 140207024-006 SD-WB-51-020314-2-3 Sampling Date 2/3/2014 Sampling Time 4:15 PM Date/Time Received 2/7/2014 1:09 PM

Matrix

Soil

Sample Location

Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
%moisture	77.7	Percent		2/8/2014	KFG	%moisture	

Sample Number Client Sample ID 140207024-007 SD-WB-50-020314-05-1 Sampling Date 2/3/2014 Sampling Time 4:35 PM Date/Time Received 2/7/2014 1:09 PM

Matrix

Soil

Soil

Sample Location

Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
%moisture	75	Percent		2/8/2014	KFG	%moisture	

Sample Number Client Sample ID Matrix

Comments

SD-WB-48-020314-05-1 Sa

Sample

Sampling Time 4:50 PM

Sample Location

 mple Number
 140207024-008
 Sampling Date
 2/3/2014
 Date/Time Received
 2/7/2014
 1:09 PM

ParameterResultUnitsPQLAnalysis DateAnalystMethodQualifier%moisture33Percent2/8/2014KFG%moisture

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C595 Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095; FL(NELAP): E871099

Friday, February 21, 2014 Page 2 of 8

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Client: PIONEER TECHNOLOGIES CORPORATION

Address: 5205 CORPORATE CENTER COURT

LACEY, WA 98503

Attn: **CHRIS WALDRON** Batch #:

Project Name:

140207024

WEST BAY

Analytical Results Report

Sample Number **Client Sample ID** 140207024-009 SD-WB-48-020314-2-3 Sampling Date 2/3/2014 Sampling Time 5:00 PM

Date/Time Received 2/7/2014 1:09 PM

Matrix

Soil

Sample Location

Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
%moisture	60	Percent		2/8/2014	KFG	%moisture	

Sample Number **Client Sample ID** 140207024-010 SD-WB-50-020314-2-3 Sampling Date 2/3/2014 Sampling Time 4:40 PM

Date/Time Received 2/7/2014 1:09 PM

Matrix Comments Soil

Sample Location

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
%moisture	42.6	Percent		2/8/2014	KFG	%moisture	

Sample Number **Client Sample ID** Matrix

140207024-011

SD-WB-54-020314-05-1

Sampling Date Sampling Time 2:30 PM Date/Time Received 2/7/2014 1:09 PM

Method

Qualifier

Comments

Soil

Sample Location

Parameter Result Units PQL **Analysis Date Analyst**

%moisture 19.8 Percent 2/8/2014 **KFG** %moisture

2/3/2014

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Client: PIONEER TECHNOLOGIES CORPORATION

Address: 5205 CORPORATE CENTER COURT

LACEY, WA 98503

Attn: **CHRIS WALDRON** Batch #: 140207024

Project Name: WEST BAY

Analytical Results Report

Sample Number **Client Sample ID** 140207024-013 SD-WB-55-020314-05-1 Sampling Date 2/3/2014 Sampling Time 2:15 PM

Date/Time Received 2/7/2014 1:09 PM

Matrix

Soil

Sample Location

Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
%moisture	32.2	Percent		2/8/2014	KFG	%moisture	

Sample Number **Client Sample ID** 140207024-014

Sampling Date 2/4/2014 5:30 PM

Date/Time Received 2/7/2014 1:09 PM

Matrix

SD-WB-44-020414-05-1 Soil

Sampling Time

Sample Location

Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
%moisture	11.6	Percent		2/8/2014	KFG	%moisture	

Sample Number **Client Sample ID** Matrix

140207024-015

SD-WB-46-020414-05-1

Soil

Sampling Date 2/4/2014 Sampling Time Sample Location

4:50 PM

Date/Time Received 2/7/2014 1:09 PM

Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
%moisture	33.3	Percent		2/8/2014	KFG	%moisture	

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Client: PIONEER TECHNOLOGIES CORPORATION

Address: 5205 CORPORATE CENTER COURT

LACEY, WA 98503

Attn: **CHRIS WALDRON** Batch #: 140207024

Project Name: WEST BAY

Analytical Results Report

Sample Number **Client Sample ID** 140207024-017

SD-WB-53-020414-05-1

Sampling Date 2/4/2014 Sampling Time 4:10 PM

Date/Time Received 2/7/2014 1:09 PM

Matrix

Soil

Sample Location

Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
%moisture	27.9	Percent		2/8/2014	KFG	%moisture	_

Sample Number **Client Sample ID** 140207024-018 SD-WB-53-020414-2-3 Sampling Date 2/4/2014 Sampling Time 5:30 PM

Date/Time Received 2/7/2014 1:09 PM

Matrix Comments Soil

Sample Location

Parameter Result Units **PQL Analysis Date** Analyst Method Qualifier Percent 2/8/2014 **KFG** %moisture 24.1 %moisture

2/4/2014

4:16 PM

Sample Number **Client Sample ID** Matrix

140207024-019 SD-WB-43-020414-2-3

Sampling Date Sampling Time Date/Time Received 2/7/2014 1:09 PM

Soil

Sample Location

Comments

Parameter Result Units PQL **Analysis Date** Method Qualifier **Analyst** %moisture 55.4 Percent 2/8/2014 **KFG** %moisture

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C595 Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095; FL(NELAP): E871099

Friday, February 21, 2014 Page 5 of 8

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Client: PIONEER TECHNOLOGIES CORPORATION

Address: 5205 CORPORATE CENTER COURT

LACEY, WA 98503

Attn: CHRIS WALDRON

Batch #: 140207024

Project Name: WEST BAY

Analytical Results Report

Sample Number Client Sample ID 140207024-020 SD-WB-47-020414-05-1 Sampling Date 2/4/2014 Sampling Time 2:25 PM Date/Time Received 2/7/2014 1:09 PM

Matrix

Soil

Sample Location

Sample Location

Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
%moisture	33	Percent		2/10/2014	KFG	%moisture	

Sample Number Client Sample ID 140207024-021 SD-WB-43-020414-05-1 Sampling Date 2/4/2014 Sampling Time 3:50 PM Date/Time Received 2/7/2014 1:09 PM

Matrix

Soil

Sample Location

Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
%moisture	19.4	Percent		2/10/2014	KFG	%moisture	

Sample Number Client Sample ID Matrix

Parameter

%moisture

Friday, February 21, 2014

140207024-022

SD-WB-47-020414-2-3

Sampling Date Sampling Time Sample Location

Percent

24.5

Date/Time Received 2/7/2014 1:09 PM

%moisture

KFG

Comments

rix Soil

Result Units PQL Analysis Date Analyst Method

2/10/2014

2/4/2014

3:05 PM

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C595 Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095; FL(NELAP): E871099

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Qualifier

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Client: PIONEER TECHNOLOGIES CORPORATION

Address: 5205 CORPORATE CENTER COURT

LACEY, WA 98503

Attn: **CHRIS WALDRON** Batch #:

140207024

Project Name: WEST BAY

Analytical Results Report

Sample Number **Client Sample ID** 140207024-023

SD-WB-45-020414-05-1

Sampling Date

2/4/2014

Date/Time Received 2/7/2014 1:09 PM

Matrix

Soil

Sampling Time 3:15 PM Sample Location

Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
%moisture	26.5	Percent		2/10/2014	KFG	%moisture	

Sample Number **Client Sample ID** 140207024-025 SD-WB-49-020414-05-1 Sampling Date 2/4/2014 Sampling Time 2:05 PM

Date/Time Received 2/7/2014 1:09 PM

Matrix

Soil

Sample Location

Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
%moisture	42.2	Percent		2/10/2014	KFG	%moisture	

Sample Number **Client Sample ID** Matrix

140207024-027

Soil

SD-WB-52-020314-05-1

Sampling Time

Sample Location

Sampling Date

Date/Time Received 2/7/2014 1:09 PM

Comments

Parameter Result Units PQL **Analysis Date** Method Qualifier **Analyst** %moisture 36.1 Percent 2/10/2014 **KFG** %moisture

2/3/2014

3:25 PM

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C595 Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095; FL(NELAP): E871099

Friday, February 21, 2014 Page 7 of 8

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com 504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client: PIONEER TECHNOLOGIES CORPORATION

5205 CORPORATE CENTER COURT

LACEY, WA 98503

Attn: CHRIS WALDRON

Batch #: 140207024

Project Name: WEST BAY

Analytical Results Report

2/3/2014

Sample Number Client Sample ID 140207024-029

SD-WB-51-020314-05-1

Sampling Date

Date/Time Received 2/7/2014 1:09 PM

Matrix

Address:

Soil

Sampling Time 3:50 PM

Sample Location

Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
%moisture	30.1	Percent		2/10/2014	KFG	%moisture	

Authorized Signature

John Coddington, Lab Manager

MCL EPA's Maximum Contaminant Level

ND Not Detected

PQL Practical Quantitation Limit

This report shall not be reproduced except in full, without the written approval of the laboratory.

The results reported relate only to the samples indicated.

Soil/solid results are reported on a dry-weight basis unless otherwise noted.

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C595 Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095; FL(NELAP): E871099

Friday, February 21, 2014 Page 8 of 8

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com 504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Login Report

Customer Name: PIONEER TECHNOLOGIES CORPORATION

Order ID: 140207024

5205 CORPORATE CENTER COURT

2/7/2014

LACEY

WA 98503

Contact Name: CHRIS WALDRON

Project Name: WEST BAY

Order Date:

Comment:

Sample #: 140207024-001 **Customer Sample #:** SD-WB-44-020514-2-3

Recv'd:

Collector: SHELLA Date Collected: 2/5/2014

Quantity: 2 Matrix: Soil Date Received: 2/7/2014 1:09:00 PM

Comment:

 Test
 Lab
 Method
 Due Date
 Priority

 %Moisture
 M
 %moisture
 2/19/2014
 Normal (~10 Days)

 TPHDX-NW
 M
 NWTPHDX
 2/19/2014
 Normal (~10 Days)

Recv'd: ✓ Collector: SHELLA Date Collected: 2/5/2014

Quantity: 2 Matrix: Soil Date Received: 2/7/2014 1:09:00 PM

Comment:

 Test
 Lab
 Method
 Due Date
 Priority

 HOLD
 M
 hold
 2/19/2014
 Normal (~10 Days)

Sample #: 140207024-003 **Customer Sample #:** SD-WB-46-020514-2-3

Recv'd: ✓ Collector: SHELLA Date Collected: 2/5/2014

Quantity: 2 Matrix: Soil Date Received: 2/7/2014 1:09:00 PM

Comment:

 Test
 Lab
 Method
 Due Date
 Priority

 HOLD
 M
 hold
 2/19/2014
 Normal (~10 Days)

5205 CORPORATE CENTER COURT

LACEY

WA

98503

Project Name: WEST BAY

Order ID:

Order Date:

140207024

2/7/2014

Contact Name: CHRIS WALDRON

140207024-004

Comment:

Customer Sample #:

Recv'd: Collector: SHELLA **Date Collected:** 2/5/2014 **~**

Quantity: 2 **Date Received:** 2/7/2014 1:09:00 PM Matrix: Soil

Comment:

Sample #:

Test Method **Due Date** Lab **Priority** %Moisture Μ %moisture 2/19/2014 Normal (~10 Days) TPHDX-NW **NWTPHDX** Μ 2/19/2014 Normal (~10 Days)

SD-WB-42-020514-05-1

140207024-005 SD-WB-51-020314-2-3-(01) Sample #: Customer Sample #:

Recv'd: **~** Collector: **SHELLA Date Collected:** 2/3/2014

Quantity: 2 Matrix: Soil Date Received: 2/7/2014 1:09:00 PM

Comment:

Method **Due Date Priority** Test Lab %Moisture Μ %moisture 2/19/2014 Normal (~10 Days) TPHDX-NW NWTPHDX Μ 2/19/2014 Normal (~10 Days)

Sample #: 140207024-006 Customer Sample #: SD-WB-51-020314-2-3

Recv'd: SHELLA **Date Collected:** Collector: 2/3/2014 **V**

Quantity: 2 Matrix: Soil **Date Received:** 2/7/2014 1:09:00 PM

Comment:

Method **Due Date Priority** Test Lab %Moisture Μ %moisture 2/19/2014 Normal (~10 Days) TPHDX-NW **NWTPHDX** Μ 2/19/2014 Normal (~10 Days)

Sample #: 140207024-007 Customer Sample #: SD-WB-50-020314-05-1

Recv'd: Collector: **SHELLA Date Collected:** 2/3/2014 **~**

Quantity: Matrix: Soil **Date Received:** 2/7/2014 1:09:00 PM

Comment:

Test Lab Method **Due Date Priority** %Moisture Μ %moisture 2/19/2014 Normal (~10 Days) TPHDX-NW М **NWTPHDX** 2/19/2014 Normal (~10 Days)

5205 CORPORATE CENTER COURT

LACEY

WA 98503

Order ID:

Order Date:

140207024

2/7/2014

Contact Name: CHRIS WALDRON Project Name: WEST BAY

Comment:

Sample #: 140207024-008 Customer Sample #: SD-WB-48-020314-05-1

Recv'd:

Collector: SHELLA Date Collected: 2/3/2014

Quantity: 2 Matrix: Soil Date Received: 2/7/2014 1:09:00 PM

Comment:

 Test
 Lab
 Method
 Due Date
 Priority

 %Moisture
 M
 %moisture
 2/19/2014
 Normal (~10 Days)

 TPHDX-NW
 M
 NWTPHDX
 2/19/2014
 Normal (~10 Days)

Sample #: 140207024-009 Customer Sample #: SD-WB-48-020314-2-3

Recv'd:

Collector: SHELLA Date Collected: 2/3/2014

Quantity: 2 Matrix: Soil Date Received: 2/7/2014 1:09:00 PM

Comment:

 Test
 Lab
 Method
 Due Date
 Priority

 %Moisture
 M
 %moisture
 2/19/2014
 Normal (~10 Days)

 TPHDX-NW
 M
 NWTPHDX
 2/19/2014
 Normal (~10 Days)

Sample #: 140207024-010 Customer Sample #: SD-WB-50-020314-2-3

Recv'd:

Collector: SHELLA Date Collected: 2/3/2014

Quantity: 2 Matrix: Soil Date Received: 2/7/2014 1:09:00 PM

Comment:

 Test
 Lab
 Method
 Due Date
 Priority

 %Moisture
 M
 %moisture
 2/19/2014
 Normal (~10 Days)

 TPHDX-NW
 M
 NWTPHDX
 2/19/2014
 Normal (~10 Days)

Sample #: 140207024-011 Customer Sample #: SD-WB-54-020314-05-1

Recv'd: ☐ Collector: SHELLA Date Collected: 2/3/2014

Quantity: 2 Matrix: Soil Date Received: 2/7/2014 1:09:00 PM

Comment:

 Test
 Lab
 Method
 Due Date
 Priority

 %Moisture
 M
 %moisture
 2/19/2014
 Normal (~10 Days)

 TPHDX-NW
 M
 NWTPHDX
 2/19/2014
 Normal (~10 Days)

5205 CORPORATE CENTER COURT

LACEY

Contact Name: CHRIS WALDRON

140207024-015

~

2

Sample #:

Recv'd:

Quantity:

Comment:

%Moisture

TPHDX-NW

Test

Customer Sample #:

Soil

Collector:

Matrix:

SHELLA

Lab

Μ

Μ

Comment:

WA

98503

Order ID:

Order Date:

Project Name: WEST BAY

140207024

2/7/2014

140207024-012 Customer Sample #: SD-WB-52-020314-2-3 Recv'd: Collector: **SHELLA Date Collected:** 2/3/2014 **V** Quantity: 2 **Date Received:** 2/7/2014 1:09:00 PM Matrix: Soil Comment: Test Lab Method **Due Date Priority HOLD** hold 2/19/2014 Normal (~10 Days) Sample #: 140207024-013 Customer Sample #: SD-WB-55-020314-05-1 Recv'd: **~** Collector: **SHELLA Date Collected:** 2/3/2014 Quantity: 2 Matrix: Soil **Date Received:** 2/7/2014 1:09:00 PM Comment: Test Lab Method **Due Date Priority** %Moisture Μ %moisture 2/19/2014 Normal (~10 Days) TPHDX-NW Μ **NWTPHDX** 2/19/2014 Normal (~10 Days) Sample #: 140207024-014 Customer Sample #: SD-WB-44-020414-05-1 Recv'd: **~** Collector: **SHELLA Date Collected:** 2/4/2014 Quantity: 2 Matrix: **Date Received:** 2/7/2014 1:09:00 PM Soil Comment: Test Method Lab **Due Date Priority** %Moisture Μ %moisture 2/19/2014 Normal (~10 Days) TPHDX-NW **NWTPHDX** 2/19/2014 Μ Normal (~10 Days)

SD-WB-46-020414-05-1

Method

%moisture

NWTPHDX

Date Collected:

Date Received:

2/4/2014

2/7/2014 1:09:00 PM

Due Date

2/19/2014

2/19/2014

Priority

Normal (~10 Days)

Normal (~10 Days)

5205 CORPORATE CENTER COURT

LACEY

WA

140207024

Order Date: 2/7/2014

Order ID:

98503 Contact Name: CHRIS WALDRON Project Name: WEST BAY

Comment:

Sample #: 140207024-016 Customer Sample #: SD-WB-45-020414-2-3

Recv'd: Collector: **SHELLA Date Collected:** 2/4/2014 **V**

Quantity: 2 **Date Received:** 2/7/2014 1:09:00 PM Matrix: Soil

Comment:

Test Lab Method **Due Date Priority HOLD** hold 2/19/2014 Normal (~10 Days)

Sample #: 140207024-017 Customer Sample #: SD-WB-53-020414-05-1

Recv'd: **~** Collector: **SHELLA Date Collected:** 2/4/2014

Quantity: 2 Matrix: Soil **Date Received:** 2/7/2014 1:09:00 PM

Comment:

Test Lab Method **Due Date Priority** %Moisture Μ %moisture 2/19/2014 Normal (~10 Days) TPHDX-NW Μ **NWTPHDX** 2/19/2014 Normal (~10 Days)

Sample #: 140207024-018 Customer Sample #: SD-WB-53-020414-2-3

Recv'd: **~** Collector: **SHELLA Date Collected:** 2/4/2014

Quantity: 2 Matrix: **Date Received:** 2/7/2014 1:09:00 PM Soil

Comment:

Test Method Lab **Due Date Priority** %Moisture Μ %moisture 2/19/2014 Normal (~10 Days) TPHDX-NW **NWTPHDX** 2/19/2014 Μ Normal (~10 Days)

140207024-019 Customer Sample #: SD-WB-43-020414-2-3 Sample #:

SHELLA 2/4/2014 Recv'd: Collector: **Date Collected: ~**

2/7/2014 1:09:00 PM Quantity: 2 Matrix: Soil **Date Received:**

Comment:

Test Lab Method **Due Date Priority** %Moisture Μ %moisture 2/19/2014 Normal (~10 Days) TPHDX-NW Μ **NWTPHDX** 2/19/2014 Normal (~10 Days)

5205 CORPORATE CENTER COURT

LACEY WA 98503

Contact Name: CHRIS WALDRON

Project Name: WEST BAY

Order ID:

Order Date:

140207024

2/7/2014

Comment:

Sample #: 140207024-020 Customer Sample #: SD-WB-47-020414-05-1

Recv'd: ✓ Collector: SHELLA Date Collected: 2/4/2014

Quantity: 2 Matrix: Soil Date Received: 2/7/2014 1:09:00 PM

Comment:

 Test
 Lab
 Method
 Due Date
 Priority

 %Moisture
 M
 %moisture
 2/19/2014
 Normal (~10 Days)

 TPHDX-NW
 M
 NWTPHDX
 2/19/2014
 Normal (~10 Days)

Sample #: 140207024-021 Customer Sample #: SD-WB-43-020414-05-1

Recv'd:

Collector: SHELLA Date Collected: 2/4/2014

Quantity: 2 Matrix: Soil Date Received: 2/7/2014 1:09:00 PM

Comment:

 Test
 Lab
 Method
 Due Date
 Priority

 %Moisture
 M
 %moisture
 2/19/2014
 Normal (~10 Days)

 TPHDX-NW
 M
 NWTPHDX
 2/19/2014
 Normal (~10 Days)

Sample #: 140207024-022 Customer Sample #: SD-WB-47-020414-2-3

Recv'd:

Collector: SHELLA Date Collected: 2/4/2014

Quantity: 2 Matrix: Soil Date Received: 2/7/2014 1:09:00 PM

Comment:

 Test
 Lab
 Method
 Due Date
 Priority

 %Moisture
 M
 %moisture
 2/19/2014
 Normal (~10 Days)

 TPHDX-NW
 M
 NWTPHDX
 2/19/2014
 Normal (~10 Days)

Sample #: 140207024-023 Customer Sample #: SD-WB-45-020414-05-1

Recv'd: ✓ Collector: SHELLA Date Collected: 2/4/2014

Quantity: 2 Matrix: Soil Date Received: 2/7/2014 1:09:00 PM

Comment:

 Test
 Lab
 Method
 Due Date
 Priority

 %Moisture
 M
 %moisture
 2/19/2014
 Normal (~10 Days)

 TPHDX-NW
 M
 NWTPHDX
 2/19/2014
 Normal (~10 Days)

5205 CORPORATE CENTER COURT

LACEY

WA

Order Date:

140207024 2/7/2014

98503

Order ID:

Contact Name: CHRIS WALDRON Project Name: WEST BAY

Comment:

Sample #: 140207024-024 Customer Sample #: SD-WB-49-020414-2-3

Recv'd: Collector: **SHELLA Date Collected:** 2/4/2014 **~**

Quantity: 2 Date Received: 2/7/2014 1:09:00 PM Matrix: Soil

Comment:

Test Lab Method **Due Date Priority HOLD** hold 2/19/2014 Normal (~10 Days)

Sample #: 140207024-025 Customer Sample #: SD-WB-49-020414-05-1

Recv'd: **~** Collector: **SHELLA Date Collected:** 2/4/2014

Quantity: 2 Matrix: Soil **Date Received:** 2/7/2014 1:09:00 PM

Comment:

Test Lab Method **Due Date Priority** 2/19/2014 %Moisture Μ %moisture Normal (~10 Days) TPHDX-NW Μ **NWTPHDX** 2/19/2014 Normal (~10 Days)

Sample #: 140207024-026 Customer Sample #: EB-WB-020514

Recv'd: **~** Collector: **SHELLA Date Collected:** 2/5/2014

Quantity: 1 Matrix: **Date Received:** 2/7/2014 1:09:00 PM Water

Comment:

Method Test Lab **Due Date Priority** TPHDX-NW Μ **NWTPHDX** 2/19/2014 Normal (~10 Days)

Sample #: 140207024-027 Customer Sample #: SD-WB-52-020314-05-1

Recv'd: Collector: **SHELLA Date Collected:** 2/3/2014 **~**

2 2/7/2014 1:09:00 PM Quantity: Matrix: Soil **Date Received:**

Comment:

Test Lab Method **Due Date Priority** %Moisture Μ %moisture 2/19/2014 Normal (~10 Days) TPHDX-NW **NWTPHDX** 2/19/2014 Μ Normal (~10 Days)

Order Date:

2/7/2014

5205 CORPORATE CENTER COURT

LACEY WA 98503

Contact Name: CHRIS WALDRON Project Name: WEST BAY

Comment:

Sample #: 140207024-028 **Customer Sample #:** SD-WB-54-020314-2-3

Recv'd:

Collector: SHELLA Date Collected: 2/3/2014

Date Collected: 2/3/2014

Quantity: 2 Matrix: Soil Date Received: 2/7/2014 1:09:00 PM

Comment:

 Test
 Lab
 Method
 Due Date
 Priority

 HOLD
 M
 hold
 2/19/2014
 Normal (~10 Days)

Sample #: 140207024-029 Customer Sample #: SD-WB-51-020314-05-1

Recv'd: ✓ Collector: SHELLA Date Collected: 2/3/2014

Quantity: 2 Matrix: Soil Date Received: 2/7/2014 1:09:00 PM

Comment:

 Test
 Lab
 Method
 Due Date
 Priority

 %Moisture
 M
 %moisture
 2/19/2014
 Normal (~10 Days)

 TPHDX-NW
 M
 NWTPHDX
 2/19/2014
 Normal (~10 Days)

SAMPLE CONDITION RECORD

Samples received in a cooler?	Yes
Samples received intact?	Yes
What is the temperature inside the cooler?	2.0
Samples received with a COC?	Yes
Samples received within holding time?	Yes
Are all sample bottles properly preserved?	Yes
Are VOC samples free of headspace?	N/A
Is there a trip blank to accompany VOC samples?	N/A
Labels and chain agree?	Yes

Phone:

address

Chain of Custody Record

504 E Sprague Ste D, Spokane WA 99202 (509) 838-3999 FAX 838-4433 1282 Alturas Drive, Moscow ID 83843 (208) 883-2839 FAX 882-9246 00

Relinquished by ALCEA TANATA MIS Received by Relinquished by Received by Relinquished by 5205 LORPORATE CENTER 13 JD-WB-55-020314-05-1 12 Sp -WB-52-02034-2-3 10 50-WB-50 -020314-2-3 PIONEER TECHNOLOGIES 1-50-115020-115-80-11-05-1 50-WB-48-02034-05-1 50 -60 - 50 - 02 - 6ur 03 50-w8-51-020314-2-3 5D-WB-42-020514-05-1 2/5/14 50-wB-46-020514-2-3 2/5/14 5D-WB-51-020314-2-3-61) 2/3/14 /4:20 5D-WB-42-0205H-23 2/5 14 /2130 5D-44-026514-2-3 360-570-1700 Sample Identification Provide Sample Description Printed Name Shella Swain B (homson State: 2/5/14 2/3/14 2/3/14/415 23 14 2/3/14 2/3/14 Sampling Date/Time 21:5/14/2:15 0 2115 2:00 14:50 194:40 2:30 14.35 13:45 (38) CRI SE 5016 1 V010 201L 201r אס ור 5016 501L جاد SOIL ろのし 7105 Matrix Sugar Sampler Name & phone: SHELLA SWオル Purchase Order #: Email Address: Project Name & #: Project Manager: þ 2 N # of Containers 2 V 1 N 'n SWAINS @ USPIONEER. COM Sample Volume WEST RAY TPH-DX CHRIS LO ALDRON GRAINSIZE ist Analyses Requested twatto せるこのの 360-570-1700 **3**/5/14 RRC 世上所 13:09 Time 5:30 1 *ARCHIVE until furtuer notice * REALINE Preservative Jemperature (°C) Received Intact? Inspected By: 🔯 Date & Time VOO Higad Space? Containers Sealed? Labels & Chains Agree? Normal 50/20 Other* _Next Day* _2nd Day* http://www.anateklabs.com/services/guidelines/reporting.asp Note Special Instructions/Comments Please refer to our normal turn around times at: Turn Around Time & Reporting must be prior approved *All rush order requests JOT FURTOR てったつ K Email Fax \$ Phone

Lab ID

Received by

140207 024 PITC Last Due

2/19/2014

1st SAMP 2/3/2014 1st RCVD 2/7/2014

Anam WEST BAY

	7	Anatek
Inc.	Labs,	tek

Chain of Custody Record

Labs, 1282 Alturas Dr Inc. State E Sprague Sta	1282 Alturas Drive, Moscow ID 83843 (208) 883-2839 FAX 882-9246 Sporague Ste D. Snokane WA 99202 (509) 838-3999 FAX 838-4433	
Company Name: Planter technologies lorp.		Turn Around Time & Reporting Please refer to our normal turn around times at:
OPPOPATE CENTER COVETSE	Project Name & #:	http://www.anateklabs.com/services/guidelines/reporting.asp
State: Zip: 7.850-3	Email Address: USPIONEER. (Gran	Normal *All rush order requests —Phone Next Day* Mail
Phone: 360-540-1700		2nd Day* Fmail
	Sampler Name & phone: THE CLIT SULATION 360-570-1700	Cura
Provide Sample Description	Analyses Requested	Note Special Instructions/Comments
	ontainers Presentative	
Lab ID Sample Identification Sampling Date/Time Matrix	Samp	
14 SD-WB-44-020414-05-1 2/4/14/5:30 SOIL	42 X X	
	* '	
50-45-45-020414-2-3 2/4/14/3:45	T	- * FRATIVE UNTIL FURTHER WOTE
	* 2 X X	
24/14/5:30	\$ 7 X X	
19 58W8-43-02044-2-3 2/4/14/4:16 501L	2 X X	
50-w8-47-0204-05-1 2/4/14/2:25	2 X X	
Τ	7 X X	IIIS PROJECTION STOCK
N	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	Tabels & Chains Armee?
50 wg-49-020M4-23 2/4/14/2:15	2	Combiners Sealed? (1) N
SD WB-49-020414-05-1 2/4/14/2:05		VOC Heard Space? Y N
7/0 FB - ω3 - 62.0 ≤ 14 2/5/14 / 3:60 CAFTER Signature Signature	Company Date Time	2 to See See See See See See See See See Se
Relinquished by Shella Swam QQ	NEER 45/14 3:40	Temperature (°C) 2.0
8 Thorse	Anate (c 41/14/3/12	Preservative:
Relinquished by		
Received by		Date & Time 2/7/14 13/12
Relinquished by		Inspected By ST

Chain of Custody Record

Anatek	Chain of Custody Record	Anatek Log-In
0	1282 Alturas Drive, Moscow ID 83843 (208) 883-2839 FAX 882-9246	
, inc.	504 E Sprague Ste D, Spokane WA 99202 (509) 838-3999 FAX 838-4433	
Company Name: PIONEER TECHNOLOGIES CORP	Project Manager: CHRIS WALDRON	Turn Around Time & Reporting
RATE COVIER WUR	Project Name & #: WEST BAY	http://www.anateklabs.com/services/guidelines/reporting.asp
State: Zip: ON A GBS 0	Email Address: ' SWAINSE USPIDNETE, COM	XNormal *All rush order requests Phone Next Day*
Phone: 360-570-1700	Purchase Order #:	must be prior approved.
Fax	Sampler Name & phone: SHETUA SWAIN, BUO 570-1700	Cuici
Provide Sample Description	List Analyses Requested	Note Special Instructions/Comments
	ontainers engage	
Lab ID Sample Identification Sampling Date/Time Matrix	TPH	
27 SD-WB-52-020314-05-1 2/3/14/3:25 SUIL	2 × ×	
1	7 XX	- Decre we with Further notice
50-w8-51-020314-05-1	XXX	
		Inspector Grac
		Received Intact? Labels & Chains Agree? N
		Containers Sealed?
Printed Name Signature	Company Date Time	20 / 100 20 / 100
Relinquished by Shella Swan X	PI CNOSER 2/5/14 3:30	Temperature (°C) 2-0
3 Thomson 18th	on Awate 2/1/11/13/10	Preservative.
Relinquished by		
Received by		Date & Time 2/7/14 13/09
Relinquished by		Inspected By 87
Received by		