APPENDIX D

Sediment and Chemical Analysis Results of the Proposed Excavated Material (1991-1992; 2013-2014; 2020)

Appendix D: Chemical Analysis Results (December 1991) of Proposed Excavated Material
(Source:1992 Final Environmental Assessment For The Repairs To The Port San Luis Breakwater, U.S. Army Corps of Engineers)

APPENDIX D

Chemical Analysis Results of the Proposed Excavated Material to be Disposed in the Surf Zone

Prepared by:

United States Army Corps of Engineers

Los Angeles District

Los Angeles, California

March 1992

Client No: 700
Client Name: U.S. Army Corps of Engin.
NET Log No: 91.1266

Date: 12/24/1991
Page: xxx

Ref: Port San Luis

Parameter	Method	Reporting Limit	Descriptor, Lab No. and Results 91-607Q 12/05/1991 107933	 91-608Q 12/05/1991 107934	Units
Percent Solids		0.1	77.6	78.8	%
Oil & Grease (IR,TRPH)	5520 C/E/F	50	58	37	mg/Kg
ICP Prep (Solid)			8291/a-20	8291/a-20	
GFAA Prep (Solid)			8293\D2	8293\D2	
Hg Prep (Solid)			8299	8299	
Arsenic (GFAA)	EPA 7060	0.5			mg/Kg
Cadmium (ICP)	EPA 6010	2.0			mg/Kg
Chromium (ICP)	EPA 6010	2.0			mg/Kg
Copper (ICP)	EPA 6010	2.0			mg/Kg
Lead (GFAA)	EPA 7421	0.2			mg/Kg
Mercury (CVAA)	EPA 7471	0.1	ND	ND	mg/Kg
Nickel (ICP)	EPA 6010	5.0			mg/Kg
Selenium (GFAA)	EPA 7740	0.5			mg/Kg
Silver (ICP)	EPA 6010	2.0			mg/Kg
Zinc (ICP)	EPA 6010	2.0			mg/Kg
GC Ext. (Solid, 8080)			12-18-91	12-18-91	

PRELIMINARY REPORT

Port San Luis 2013 Sediment Sampling and Analysis (Source: Sediment Sampling and Analysis Report in Support of 2014 Dredge Permit Application, Port San Luis Harbor District, 2014)

Port San Luis Harbor District

Sediment Sampling and Analysis Report in Support of 2014 Dredge Permit Application

November 15, 2013

Submitted to:

Mr. Loch Dreizler, *Facilities Manager*
Port San Luis Harbor District
Post Office Box 249, Pier 3
Avila Beach, CA 93424

Prepared by:

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1.0 Introduction

In order to maintain accessibility to its boat launch facilities, the Port San Luis Harbor District must periodically dredge the approaches to its Mobile Hoist Pier and Sport Launch. Dredging activities, and the subsequent deposition of the dredge spoils, are regulated by the U. S. Army Corps of Engineers (ACOE) as specified in Dredging Permit #200201383-LM, and by the California Coastal Commission (CCC) as set forth in Coastal Development Permit No. 3-08-038.

In February of 2013, Port San Luis Harbor District (the Port) submitted a sampling and analysis plan (SAP) for the testing of sediments to be collected from the Port San Luis dredge site to the ACOE. The SAP was assembled in accordance with the EPA's 1998 "Evaluation of Dredged Material Proposed for Discharge in the Waters of the U.S. – Testing Manual (Inland Testing Manual)" (EPA 1998). The SAP was approved by the ACOE and subsequently implemented. Sediment samples were collected from the proposed dredge area and the two disposal sites currently used by the Port on October 11, 2013. The samples were submitted for chemical and physical analysis in accordance with the SAP. This report documents the collection and analysis of those samples. Results of the analyses are summarized in the report and all laboratory reports are included in the appendices.

2.0 Project Description

Port San Luis Harbor District (the Port) proposes to dredge bottom sediments from the basins adjacent to Mobile Hoist Pier, the Sport Launch (referred to as the Trailer Boat Launch in some of the past documents submitted to the ACOE), and the area adjacent to the shoreward end of Harford Pier, down to a depth of –10 feet below Mean Lower Low Water (MLLW). The currently permitted dredge area is described in ACOE Dredging Permit #200201383-LM, and is shown, along with the six approved dredge spoil disposal sites, in **Figure 1**. It should be noted that although the permitted dredge area encompasses 32 acres, at the present time and for the foreseeable future dredging will be limited to the areas immediately adjacent to those areas noted above.

The maximum dredge depth permitted is 10 feet below MLLW, with an additional foot to allow for overdredging. Sand in the vicinity of Mobile Hoist Pier will be removed to the maximum depth allowed. Dredging in the vicinity of the Sport Launch, however, is limited by the nature of the bottom substrate. An underlying rocky bottom limits dredging in the area immediately adjacent to the Sport Launch to about 5 to 7 feet below MLLW. The depth to which dredgeable material can be found increases as one moves away from the Sport Launch, and dredging will extend to the maximum depth of 10 feet below MLLW where it can be achieved.

The Port anticipates that the volume of sediment to be removed annually from the entire dredge area will not exceed the maximum 250,000 cubic yards of material currently allowed by their dredge permit. Over the past five years (2009 – 2013) the average annual volume of material removed during maintenance dredging has been 30,272 cubic yards (**Table 1**). The Port anticipates that a similar volume of material will be removed annually for the foreseeable future.

Dredged material will be used for beach nourishment at the sites shown in **Figure 1**. The sites currently permitted for this purpose include those historically used for disposal, specifically, Fisherman's Beach and Olde Port Beach, and four sites introduced in 2003: Lighthouse Beach, Avila Beach, West Bluff Beach and Jetty disposal sites. At this time, the West Bluff Beach site is being used exclusively for beach nourishment and the Fisherman's Beach site could be potentially used. The Port does not anticipate using any of the other four sites in the foreseeable future.

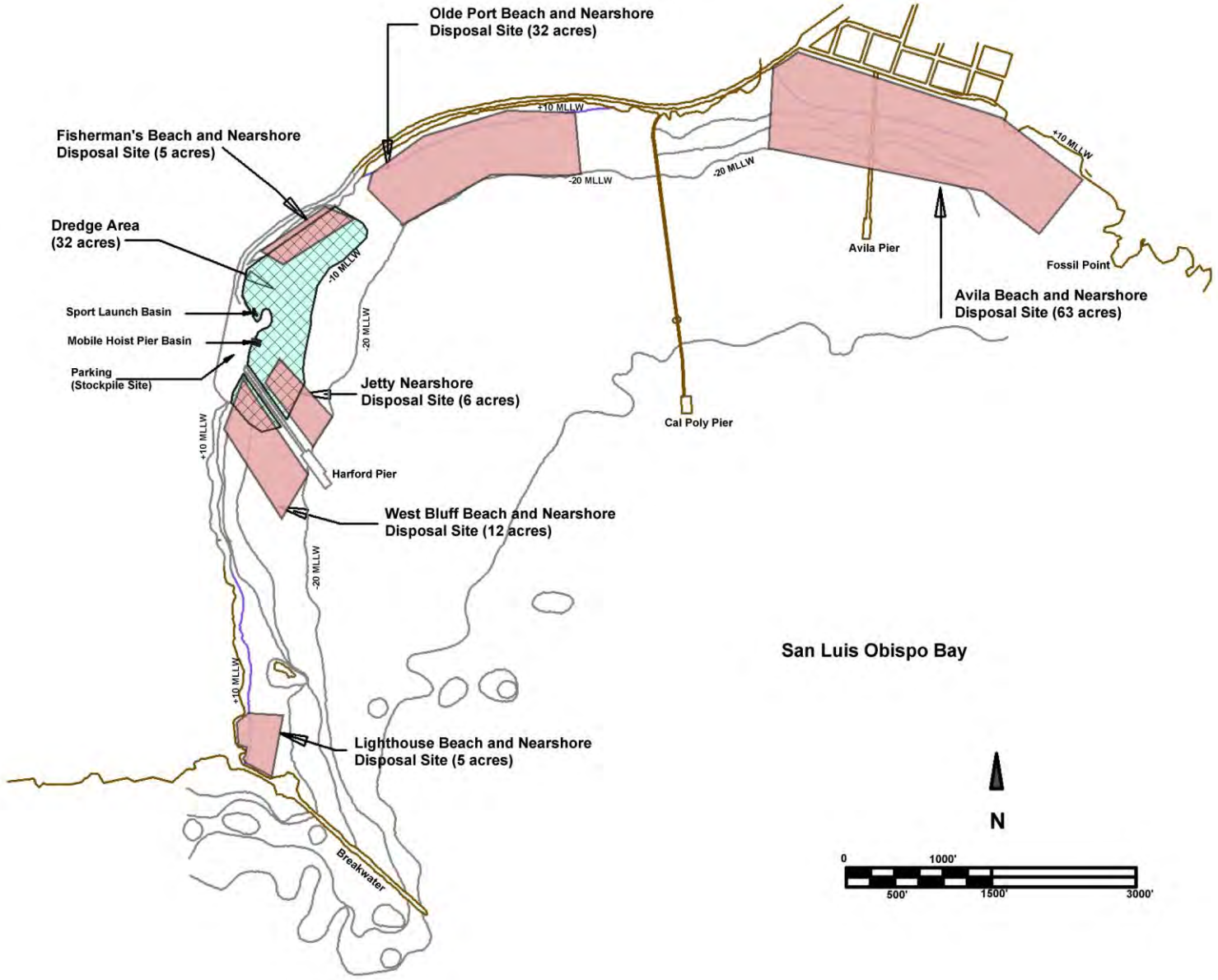


Figure 1. Map of Port San Luis Harbor 2013 Dredge and Disposal Sites

3.0 Site History

Port San Luis Harbor is a small craft harbor located in the lee of Point San Luis about 8 miles southwest of the city of San Luis Obispo, California. The harbor is protected by a rock rubble breakwater that extends southeast from Point San Luis for a distance of about 2,000 feet. While the point and breakwater provide adequate protection from the majority of the predominantly northwesterly swells, the high-energy nature of the ocean along this section of coastline can still produce significant water movement within the harbor. This is most notable during southerly and southwesterly swells, or during the larger northwesterly swells generated by winter storms. Wave action, combined with non-wave driven currents, is responsible for the transport of sand and other suspended particles from San Luis Creek and the outer coastal areas into the quieter waters of the harbor where they are deposited. Sand deposited in the lee of the breakwater is later transported within the harbor and contributes to the shoaling in areas like the Mobile Hoist Pier and the Sport Launch basins. This ongoing process necessitates the periodic dredging of these areas to allow their continued access by boats.

The volume of material dredged from the vicinity of the Sport Launch and Mobile Hoist Pier basins during the period from 1994 through the present is shown in **Table 1**.

Table 1. Chronology of recent dredge activity at Port San Luis, California.

Period of Dredge Activity	Sport Launch Dredge Vol. (yds^3)	Mobile Boat Hoist Dredge Vol. (yds^3)	Total Dredge Vol. (yds^3)
03/94 – 05/94	3,223	3,282	**6,505**
02/95 – 06/95	3,397	2,768	**6,165**
12/95 – 05/96	3,751	3,711	**7,462**
11/96 – 06/97	3,555	3,904	**7,459**
02/98 (post El Niño storms)	4,882	6,621	**11,503**
02/99 – 08/99	4,407	3,105	**7,512**
11/99 – 12/99	350	0	**350**
02/00 – 09/00	3,410	3,563	**6,973**
01/01 – 08/01	7,335	1,420	**8,755**
02/02 – 07/02	4,465	965	**5,430**
03/03 – 05/03	10,560	7,995	**18,555**
03/04 - 05/04	7,507	4,620	**12,127**
03/05 – 05/05	8,032	5,115	**13,147**
03/06 – 08/06	17,605	6,551	**24,156**
03/07 – 08/07	15,012	6,930	**21,942**
03/08 – 07/08	9,660	8,085	**17,745**
03/09 – 06/09	11,655	6,335	**17,990**
03/10 – 10/10	21,175	18,673	**39,848**
03/11 – 05/11	11,565	6,139	**17,704**
03/12 – 06/12	19,682	10,287	**29,969**
03/13 – 08/13	23,800	22,050	**45,850**

4.0 TIER I Evaluation

As described in the ACOE "Inland Testing Manual", Tier I evaluations consist of the review and evaluation of existing data from a proposed dredge site. Sediment samples were collected from the dredge area and analyzed for their chemical constituents and physical characteristics (grain size) in 1996, 1998, 1999, 2000, 2003, and 2009. The results of these analyses were reported to the ACOE by the Port San Luis Harbor District at the conclusion of each sampling interval. Physical and chemical analyses of the sediment samples found the material to be relatively clean, coarse to medium grained sand with a low percentage of fines. Such characteristics would be consistent with those expected of sediments that had recently been deposited in an area of relatively high water movement. The limited residence time of the sediments at the dredge site would tend to reduce their potential to accumulate any contaminants, while water movement would inhibit the deposition of finer grained sediments. The frequency of dredging and the rapidity with which shoaling takes place in the dredge zone, inhibits stratification of the sediments in this area.

5.0 Methods

Two sediment sampling stations were established within the PSL dredge zone as shown in **Figure 2**. The locations of the sampling stations were chosen to place them adjacent to the principal storm drains that discharge into the dredge area. Proximity of the sampling stations to these discharge points should maximize the probability of sampling any potential contaminants that have accumulated in the sediments from land based sources. The locations of areas of potential pollutant contact are also shown in **Figure 2**, as is the direction of runoff, runoff discharge points and the positions of the sediment sampling stations relative to the discharge points. Each of the stations specified has been sampled at least three times previously during the period from 1996 through 2009.

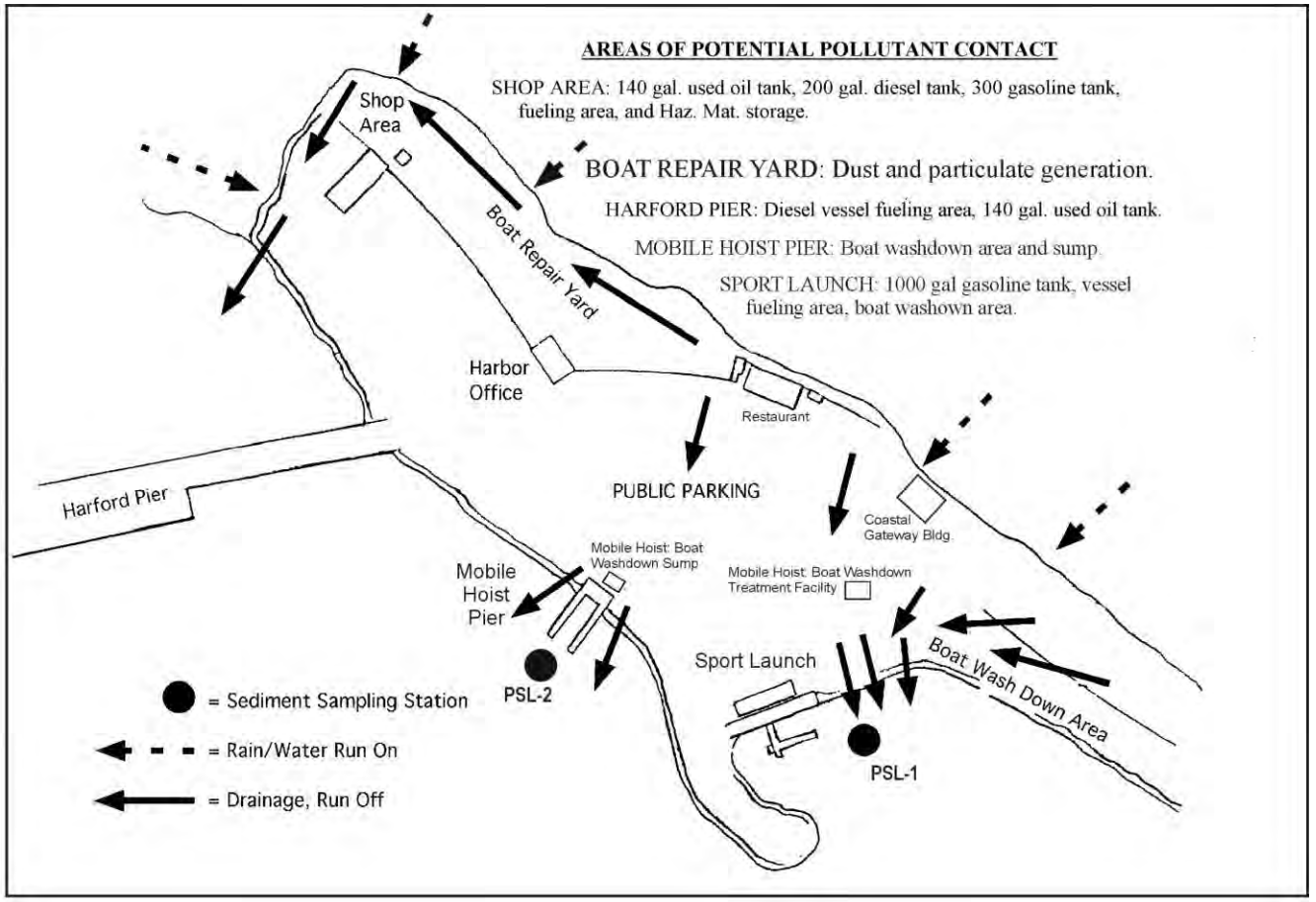


Figure 2. Port San Luis Drainage, Potential Sediment Contaminants, and Sediment Sampling Sites.

To accurately characterize the sediments at each of the sampling stations, three individual cores were collected along a line running perpendicular to the shoreline and proceeding down the natural slope of the bottom as shown in **Figure 3**. Individual cores were capped and extruded, then combined to produce a composite sample representative of the mixed material that will be deposited on the beach by the dredge. All sediment samples were collected using a diver-operated coring device. The device utilizes a 2-inch diameter stainless steel tube with a removable plastic liner. Each individual core was driven into the sediment achieving a nominal core length of about 3 feet. The composited samples cover the entire depth range of the area to be dredged, extending down to 11 feet below MLLW. The date and time of the sample collection, water depth where each core was taken, the depth of the core and field notes were recorded during sampling, this information is summarized in **Table 2.** The locations of the individual cores are shown graphically in **Figure 4**.

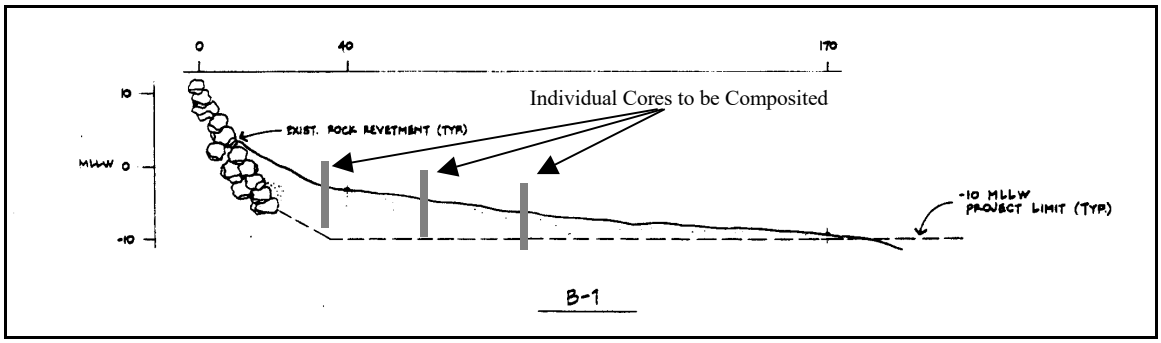


Figure 3. Profile of core sampling technique.

Table 2. Field data for cores collected from Port San Luis Harbor on October 11, 2013.

Station	Core #	Time (PDT)	Water Depth (ft)	Depth of Core (ft)	~ Tide (ft MLLW)	Tide adjusted Core Depth (ft MLLW)	Composite Core Depth (ft MLLW)
PSL-1	I	0943	-5.0	3.0	3.0	-2.0 to -5.0	-2.0
PSL-1	II	0948	-8.0	3.0	3.0	-5.0 to -8.0	to
PSL-1	III	0951	-11.0	3.0	3.0	-8.0 to -11.0	-11.0
PSL-2	I	1008	-5.0	3.0	3.0	-2.0 to -5.0	-2.0
PSL-2	II	1018	-8.0	3.0	3.0	-5.0 to -8.0	to
PSL-2	III	1023	-11.0	2.75	3.1	-7.9 to -10.7	-10.7

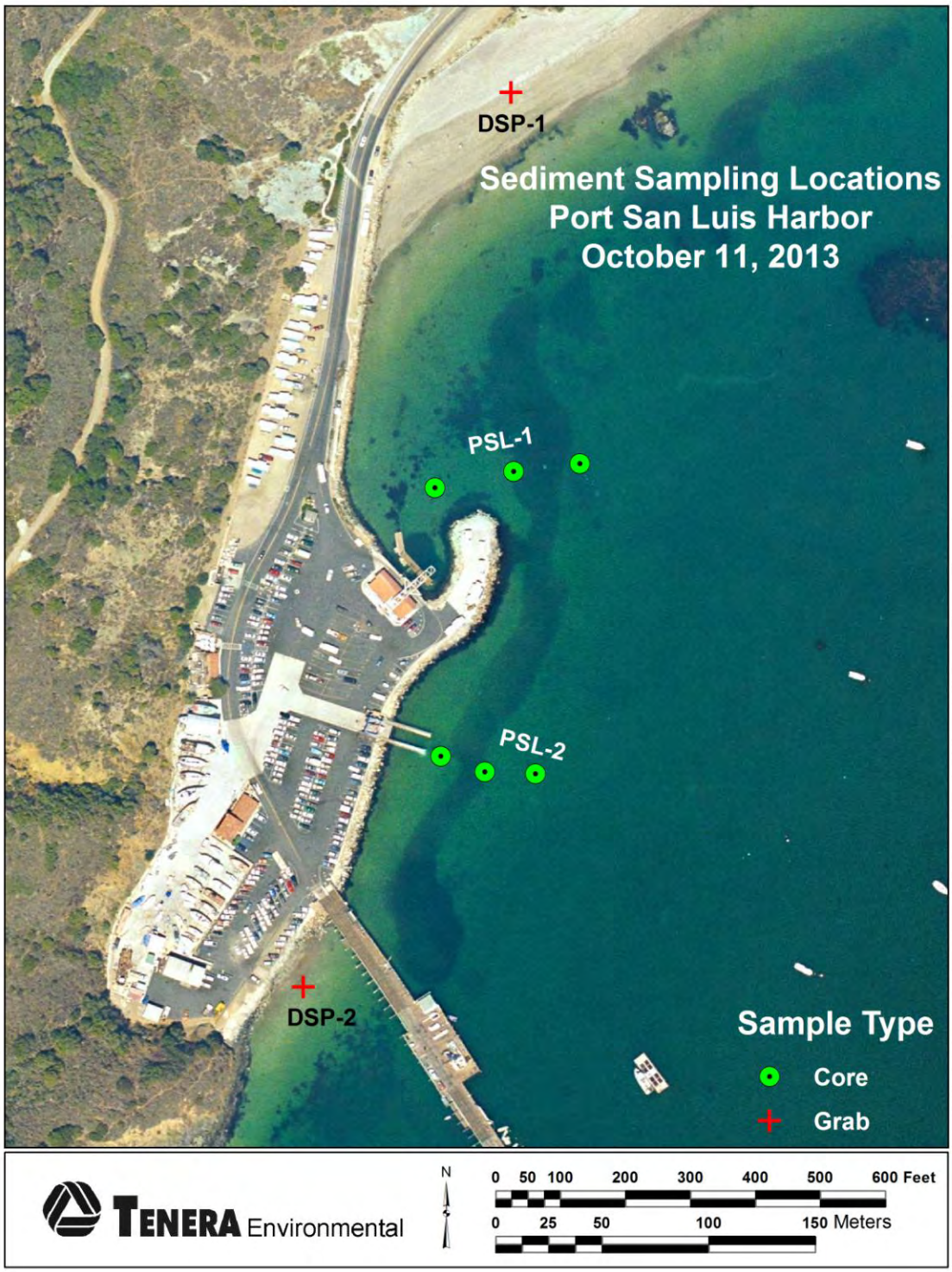


Figure 4. Locations of individual sediment cores and grab samples collected in the Port San Luis Harbor dredge and disposal areas on October 11, 2013.

For the purpose of subsequent physical and chemical analyses, three sub-samples were taken from each composite sample. One subsample was used for chemical analyses, another for particle grain size analysis, and a third sample was archived. The chemical constituents tested for are shown in **Table 3**. The methods used for chemical analyses and the acceptable detection limits for these tests are specified in the EPA's 1995 "QA/QC Guidance for Sampling and Analysis of Sediments, Water and Tissues for Dredged Material Evaluations – Chemical Evaluations" (EPA 1995), and is cited by the "Inland Testing Manual" (EPA 1998) as the source of this information. In some cases, newer or revised methods of analysis have been substituted based on conversations with the EPA and California Department of Fish and Wildlife.

Table 3. Chemical constituents tested and methods of analysis for sediment samples.

Chemical Constituents	EPA Method	PQL. (Practical Quantitation Limit) (mg/kg)
Metals		
Arsenic (As)	6010B	0.5
Cadmium (Ca)	6010B	0.3
Chromium (Cr)	6010B	0.5
Copper (Cu)	6010B	0.5
Lead (Pb)	6010B	0.5
Mercury (Hg)	7471A	0.03
Nickel (Ni)	6010B	0.5
Selenium (Se)	6010B	0.5
Silver (Ag)	6010B	0.5
Zinc (Zn)	6010B	1
Total Sulfides	9034	10
Organo – Chlorine Pesticides	8081	
Non-Polar Oil and Grease	9071B	500
Total Oil and Grease	9071B	500
Polynuclear Aromatic Hydrocarbons (PAH)	8270-SIM	

EPA method 9071B was used to test for non-polar and total oil and grease at the recommendation of the testing laboratory (FGL Laboratories). In the past EPA method 1664A had been used, but that method is recommended by the EPA for testing aqueous matrices while EPA9071B is recommended for sediments and solids. The test measures all oil and grease including that occurring naturally in animal and plant tissues. There are currently no EPA guidelines for oil and grease in dredge sediment used for beach replenishment.

Samples taken for particle grain size analysis only, were collected from the two sites that are currently being used for dredge disposal. Samples from Fisherman's Beach, and West Bluff Beach disposal sites were collected from approximately 3 feet above MLLW elevation (**Figure 4**).

The two resultant samples were analyzed for grain size distribution to determine their compatibility with sediments collected from the dredge area sampling stations. Current Army Corps of Engineers guidance requires that the percentage of dredge area and disposal site sediments that are retained by a #200 sieve be within 10% of each other to be considered compatible.

6.0 Results

The results of the chemical and particle size analyses performed on the sediment samples collected from Port San Luis on October 11, 2013 are summarized in this section. Copies of the chemical analysis data sheets supplied by FGL Laboratories are included in **Appendix A**. Copies of the particle size analysis data sheets supplied by Earth Systems Pacific are included in **Appendix B**.

6.1 Results of Chemical Analyses

The results of the chemical analyses performed on the two composite sediment samples collected from the Port San Luis dredge area on October 11, 2013 are summarized in **Table 4**.

Table 4. Results of chemical analyses of Port San Luis 2013 sediment samples. Also included are the Effects Range Low (ERL) guidelines for metals (Long, et al., 1995).

Chemical Constituent	Method	PSL-1 (mg/kg)	PSL-2 (mg/kg)	ERL (mg/kg)
Metals				
Arsenic	EPA-6010	0.8	0.9	8.2
Cadmium	EPA-6010	ND	ND	1.2
Chromium	EPA-6010	17.7	17.3	81
Copper	EPA-6010	4.6	4.3	34
Lead	EPA-6010	1.6	1.6	46.7
Mercury	EPA-7471	0.06	0.04	0.15
Nickel	EPA-6010	13.1	12.8	20.9
Selenium	EPA-6010	ND	ND	
Silver	EPA-6010	ND	ND	1.0
Zinc	EPA-6010	11	11	150
Total Sulfides	EPA-9034	ND	ND	
Organo-Pesticides	EPA-8081	ND	ND	
Non-Polar Oil and Grease	EPA-9071B	999	1240	
Total Oil and Grease	EPA-9071B	1170	1420	
Polynuclear Aromatic - Hydrocarbons (PAH)	EPA-8270-SIM	ND	ND	

It should be noted that that the laboratory subcontracted to perform test EPA 8081 (Babcock Laboratories) originally performed the wrong test (EPA 8082) on the sample and then later performed the correct test on the remainder of the sample. This exceeded the normal hold time for the test by several days. The results of the test, and subsequent QC testing, are documented in the report from the laboratory included in Appendix A.

6.2 Results of Particle Size Analysis

The results of the particle size analysis performed on the two composite sediment samples collected from the Port San Luis dredge area and the two samples collected from the dredge disposal sites currently in use are summarized in **Table 5**.

Table 5. Particle size distribution of Port San Luis dredge and disposal site samples.

Station (Sample Code)	Percent Gravel [1]	Percent Sand [2]	Percent Silt & Clay [3]
PSL-1	1.0	94.9	4.1
PSL-2	0.0	96.7	3.3
Fisherman's Beach (DSP-1)	0.0	98.0	2.0
West Bluff Beach (DSP-2)	6.0	92.6	1.4

[1] Gravel = fraction of sediment retained by #8 US Standard Sieve
[2] Sand = fraction of sediment passing through #8, but retained by #200 US Standard Sieve
[3] Silt and Clay = fraction of sediment passing through #200 US Standard Sieve

7.0 Discussion

The results of the chemical analyses performed on the two composite sediment samples collected from the Port San Luis Harbor dredge area on October 11, 2013 are summarized in **Table 4**. The results indicate that the sediments are relatively clean of contaminants. Of the metals that were detected, the concentrations present were well below the effects range-low (ERL) levels described by E.R Long (1995) as the level below which the likelihood of adverse biological effects would be minimal. Long's work is generally accepted as a standard in the evaluation of the potential biological effects of chemical contaminants in marine and estuarine sediments. No organo-pesticides or PAH's were detected in any of the samples. The samples were also free of sulfides.

As previously noted the test for organo-pesticides (EPA 8081) was performed several days after the normal hold time after the laboratory contracted to perform the test (Babcock Laboratories) initially performed the wrong test (EPA 8082) on a portion of the sample. Neither FGL Laboratories nor Babcock Laboratories believe that this delay affected the outcome of the test. Also, no organo-pesticides were detected in the previous sediments collected and tested in 2003 or 2009 (Tenera, 2003, Tenera, 2009).

EPA method 9071B was used to test for non-polar and total oil and grease at the recommendation of the testing laboratory (FGL Laboratories). In the past EPA method 1664A had been used, but that method is recommended by the EPA for testing aqueous matrices while EPA9071B is recommended for sediments and solids. The test measures all oil and grease including that occurring naturally in animal and plant tissues. There are currently no EPA guidelines for oil and grease in dredge sediments used for beach replenishment. Since this was the first time this method was used at PSL, there are no results from previous sediment surveys for comparison.

The results of the particle size analysis performed on the two composite sediment samples collected from the Port San Luis Harbor dredge area and the two disposal sites are summarized in **Table 5**. All of the samples can be characterized as coarse to medium grained sand. The percentage of fines in the four samples (material of a grain size small enough to pass through a #200 US Standard Sieve) ranged from 1.4 to 4.1 percent. When these same stations and an additional six sites were tested in 2009 (Tenera, 2009), the results were similar at all of the ten sites, with the percentage of fines ranging from 0.1 to 5.4 percent. Based on these data, we believe that the material to be removed from the dredge site is compatible for beach nourishment with that found at the disposal sites.

8.0 References

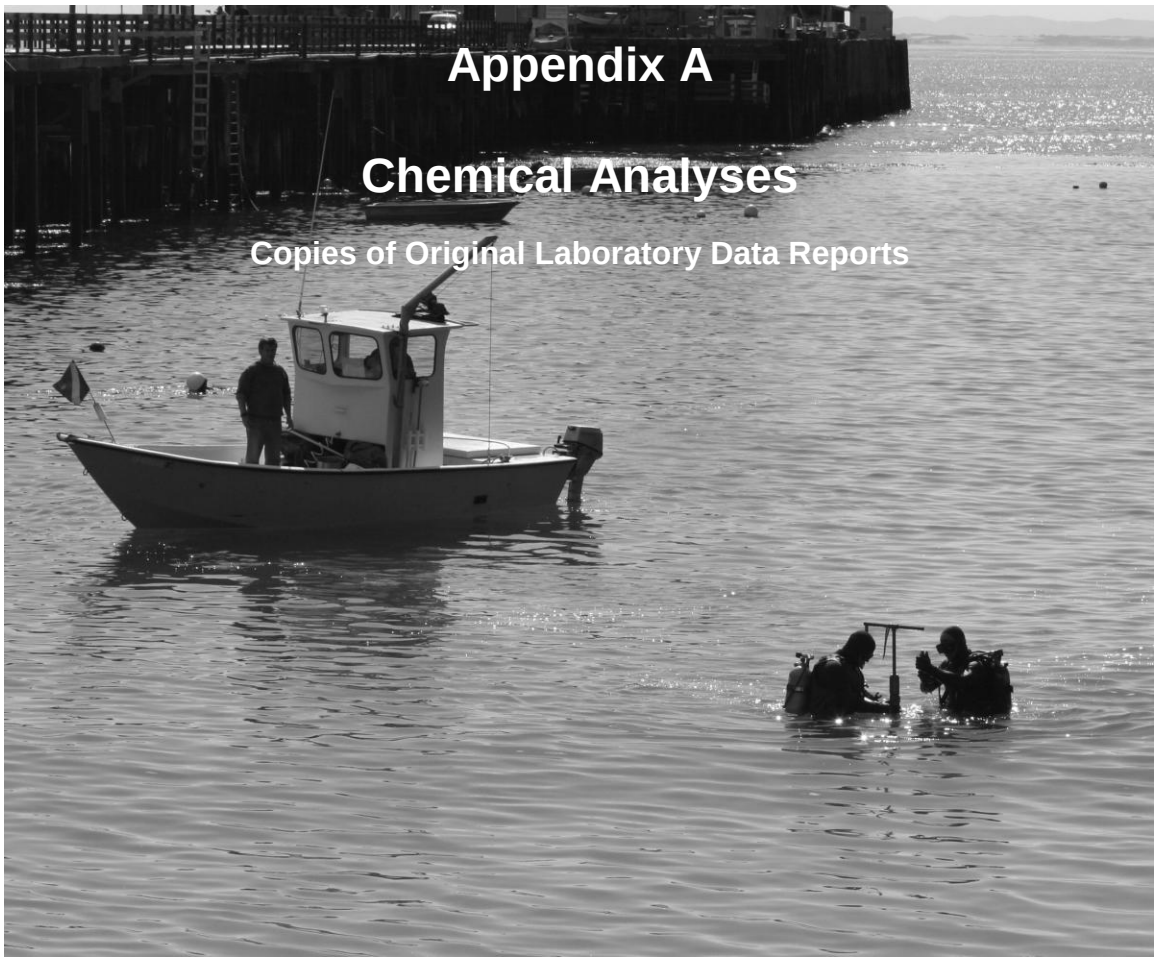
EPA. 1995. QC/QA Guidance for Sampling and Analysis of Sediments, Water, and Tissues for Dredged Material Evaluations – Chemical Evaluations. EPA-823-B-95-001.

EPA. 1998. Evaluation of Dredged Material Proposed for Discharge in Waters of the U.S. – Testing Manual – Inland Testing Manual. EPA-823-B-98-004.

Long, E. R., D. D. Macdonald, S. L. Smith, and F. D. Calder. 1995. Incidence of Adverse Biological Effects Within Ranges of Chemical Concentrations in Marine and Estuarine Sediments. Environmental Management Vol. 19, No. 1, pp. 81-97.

Tenera. 2003. Sediment Sampling and Analysis Report in Support of 2003 Dredge Permit Application. Prepared for Port San Luis Harbor District. 17 p. plus appendices.

Tenera. 2009. Sediment Sampling and Analysis Report in Support of Coastal Development Permit No. 3-08-038. Prepared for Port San Luis Harbor District. 17 p. plus appendices.



Appendix A

Chemical Analyses

Copies of Original Laboratory Data Reports

November 7, 2013

Tenera Environmental
141 Suburban Rd., Suite A2
San Luis Obispo, CA 93401

Lab ID : CC 1383751
Customer : 8-769

Laboratory Report

Introduction: This report package contains total of 22 pages divided into 3 sections:

Case Narrative	(2 pages)	: An overview of the work performed at FGL.
Sample Results	(8 pages)	: Results for each sample submitted.
Quality Control	(12 pages)	: Supporting Quality Control (QC) results.

Case Narrative

This Case Narrative pertains to the following samples:

Sample Description	Date Sampled	Date Received	FGL Lab ID #	Matrix
PSL - 1	10/11/2013	10/11/2013	CC 1383751-001	Sld
PSL - 2	10/11/2013	10/11/2013	CC 1383751-002	Sld

Sampling and Receipt Information: All samples were received, prepared and analyzed within the method specified holding times. All samples arrived on ice. All samples were checked for pH if acid or base preservation is required (except for VOAs). For details of sample receipt information, please see the attached Chain of Custody and Condition Upon Receipt Form.

Quality Control: All samples were prepared and analyzed according to the following tables:

Inorganic - Metals QC

3050	10/24/2013:212227 All preparation quality controls are within established criteria, except: The following note applies to Zinc, Copper: 435 Sample matrix may be affecting this analyte. Data was accepted based on the LCS or CCV recovery. The following note applies to Silver, Arsenic, Cadmium, Chromium, Copper, Nickel, Lead, Selenium, Zinc: 430 Post Digestion Spike (PDS) not within Acceptance Range (AR) because of matrix interferences affecting this analyte.
6010B	10/28/2013:215941 All analysis quality controls are within established criteria.
	10/29/2013:216017 All analysis quality controls are within established criteria.
7471	10/18/2013:212023 All preparation quality controls are within established criteria, except:

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CA NELAP Certification No. 01110CA

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TEL: (209)942-0182
FAX: (209)942-0423
CA ELAP Certification No. 1563

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FAX: (530)343-3807
CA ELAP Certification No. 2670

Office & Laboratory
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San Luis Obispo, CA 93401
TEL: (805)783-2940
FAX: (805)783-2912
CA ELAP Certification No. 2775

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9415 W. Goshen Avenue
Visalia, CA 93291
TEL: (559)734-9473
FAX: (559)734-8435
CA ELAP Certification No. 2810

November 7, 2013 Lab ID : CC 1383751
Tenera Environmental Customer : 8-769

Inorganic - Metals QC

7471	The following note applies to Mercury: 435 Sample matrix may be affecting this analyte. Data was accepted based on the LCS or CCV recovery. The following note applies to Mercury: 435 Sample matrix may be affecting this analyte. Data was accepted based on the LCS or CCV recovery.
7471A	10/18/2013:215448 All analysis quality controls are within established criteria.

Organic QC

8270C	10/24/2013:215920 All analysis quality controls are within established criteria, except: The following note applies to 2,4-Dimethylphenol, Benzidine, Nitrobenzene: 360 CCV above Acceptance Range (AR). Samples which were non detect for this analyte were accepted.
	10/16/2013:211880 All preparation quality controls are within established criteria, except: The following note applies to 4-Nitroaniline: 435 Sample matrix may be affecting this analyte. Data was accepted based on the LCS or CCV recovery. The following note applies to 2-Nitrophenol, N-Nitrosodimethylamine: 435 Sample matrix may be affecting this analyte. Data was accepted based on the LCS or CCV recovery.

Discussion of Analytical Results: Amended Report

Amended to correct Method notations for Total Metals and Mercury.

Certification:: I certify that this data package is in compliance with NELAC standards, both technically and for completeness, except for any conditions listed above. Release of the data contained in this data package is authorized by the Laboratory Director or his designee, as verified by the following electronic signature.

KD:DMB

Approved By **Kelly A. Dunnahoo, B.S.** Digitally signed by Kelly A. Dunnahoo, B.S.
Title: Laboratory Director
Date: 2013-11-07

November 7, 2013

Lab ID : CC 1383751-001
Customer ID : 8-769

Tenera Environmental
141 Suburban Rd., Suite A2
San Luis Obispo, CA 93401

Sampled On : October 11, 2013-09:51
Sampled By : Tenera Environmental
Received On : October 11, 2013-13:30
Matrix : Solid

Description : PSL - 1
Project : Port San Luis Sediment

Sample Result - Inorganic

Constituent	Result	PQL	Units	Note	Sample Preparation Method	Sample Preparation Date/ID	Sample Analysis Method	Sample Analysis Date/ID
Metals, Total[G:1]								
Arsenic	0.8	0.5	mg/kg		3050	10/24/13:212227	6010B	10/28/13:215941
Cadmium	ND	0.3	mg/kg		3050	10/24/13:212227	6010B	10/28/13:215941
Chromium	17.7	0.5	mg/kg		3050	10/24/13:212227	6010B	10/28/13:215941
Copper	4.6	0.5	mg/kg		3050	10/24/13:212227	6010B	10/28/13:215941
Lead	1.6	0.5	mg/kg		3050	10/24/13:212227	6010B	10/28/13:215941
Mercury	0.06	0.03	mg/kg		7471	10/18/13:212023	7471A	10/18/13:215448
Nickel	13.1	0.5	mg/kg		3050	10/24/13:212227	6010B	10/28/13:215941
Selenium	ND	0.5	mg/kg		3050	10/24/13:212227	6010B	10/28/13:215941
Silver	ND	0.5	mg/kg		3050	10/24/13:212227	6010B	10/28/13:215941
Zinc	11	1	mg/kg		3050	10/24/13:212227	6010B	10/28/13:215941

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: (G) Glass Jar Preservatives: N/A ‡Surrogate. * PQL adjusted for dilution.

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November 7, 2013

Lab ID : CC 1383751-001
Customer ID : 8-769

Tenera Environmental
141 Suburban Rd., Suite A2
San Luis Obispo, CA 93401

Sampled On : October 11, 2013-09:51
Sampled By : Tenera Environmental
Received On : October 11, 2013-13:30
Matrix : Solid

Description : PSL - 1
Project : Port San Luis Sediment

Sample Result - Organic

Constituent	Result	PQL	Units	Note	Sample Preparation Method	Sample Preparation Date/ID	Sample Analysis Method	Sample Analysis Date/ID
EPA 8270[G:1]								
2-Fluorobiphenyl‡	59.9	29-97	%		8270C	10/16/13:211880	8270C	10/24/13:215920
2-Fluorophenol‡	51.8	32-96	%		8270C	10/16/13:211880	8270C	10/24/13:215920
Nitrobenzene-d5‡	54.8	18-95	%		8270C	10/16/13:211880	8270C	10/24/13:215920
Phenol-d6‡	54.0	30-92	%		8270C	10/16/13:211880	8270C	10/24/13:215920
p-Terphenyl-d14‡	70.4	27-103	%		8270C	10/16/13:211880	8270C	10/24/13:215920
2,4,6-Tribromophenol‡	64.6	47-105	%		8270C	10/16/13:211880	8270C	10/24/13:215920
Acenaphthene	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
Acenaphthylene	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
Aniline	ND	5	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
Anthracene	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
1,2-Diphenylhydrazine	ND	5	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
Benzidine	ND	5	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
Benzo(a)anthracene	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
Benzo(b)fluoranthene	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
Benzo(k)fluoranthene	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
Benzo(g,h,i)perylene	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
Benzo(a)pyrene	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
Benzoic Acid	ND	5	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
Benzylalcohol	ND	2	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
4-Bromophenylphenylether	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
Butylbenzylphthalate	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
bis(2-Chloroethoxy)methane	ND	5	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
bis(2-Chloroethyl)ether	ND	6	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
bis(2-Chloroisopropyl)ether	ND	5	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
bis(2-Ethylhexyl)phthalate	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
4-Chloroaniline	ND	5	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
4-Chloro-3-methylphenol	ND	2	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
2-Chloronaphthalene	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
2-Chlorophenol	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
4-Chlorophenylphenylether	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
Chrysene	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
Dibenzo(a,h)anthracene	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
Dibenzofuran	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
Di-n-butylphthalate	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
1,2-Dichlorobenzene	ND	5	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920

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November 7, 2013 Lab ID : CC 1383751-001
Description : PSL - 1 Customer ID : 8-769

Sample Result - Organic

Constituent	Result	PQL	Units	Note	Sample Preparation		Sample Analysis	
					Method	Date/ID	Method	Date/ID
EPA 8270[G:1]								
1,3-Dichlorobenzene	ND	5	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
1,4-Dichlorobenzene	ND	5	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
3,3'-Dichlorobenzidine	ND	2	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
2,4-Dichlorophenol	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
Diethylphthalate	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
2,4-Dimethylphenol	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
Dimethylphthalate	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
4,6-Dinitro-2-methylphenol	ND	5	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
2,4-Dinitrophenol	ND	5	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
2,4-Dinitrotoluene	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
2,6-Dinitrotoluene	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
Di-n-octylphthalate	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
Fluoranthene	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
Fluorene	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
Hexachlorobenzene	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
Hexachlorobutadiene	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
Hexachlorocyclopentadiene	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
Hexachloroethane	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
Indeno(1,2,3-c,d)pyrene	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
Isophorone	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
2-Methylnaphthalene	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
2-Methylphenol	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
3- and 4-Methylphenol	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
Naphthalene	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
2-Nitroanaline	ND	5	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
3-Nitroanaline	ND	5	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
4-Nitroanaline	ND	5	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
Nitrobenzene	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
2-Nitrophenol	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
4-Nitrophenol	ND	5	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
N-Nitrosodimethylamine	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
N-Nitrosodiphenylamine	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
N-Nitrosodi-n-propylamine	ND	2	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
Pentachlorophenol	ND	5	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
Phenanthrene	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
Phenol	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
Pyrene	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
1,2,4-Trichlorobenzene	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920

November 7, 2013
Description : PSL - 1

Lab ID : CC 1383751-001
Customer ID : 8-769

Sample Result - Organic

Constituent	Result	PQL	Units	Note	Sample Preparation		Sample Analysis	
					Method	Date/ID	Method	Date/ID
EPA 8270[G:1]								
2,4,5-Trichlorophenol	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
2,4,6-Trichlorophenol	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: (G) Glass Jar Preservatives: N/A ‡Surrogate. * PQL adjusted for dilution.

November 7, 2013

Lab ID : CC 1383751-002
Customer ID : 8-769

Tenera Environmental
141 Suburban Rd., Suite A2
San Luis Obispo, CA 93401

Sampled On : October 11, 2013-10:23
Sampled By : Tenera Environmental
Received On : October 11, 2013-13:30
Matrix : Solid

Description : PSL - 2
Project : Port San Luis Sediment

Sample Result - Inorganic

Constituent	Result	PQL	Units	Note	Sample Preparation Method	Sample Preparation Date/ID	Sample Analysis Method	Sample Analysis Date/ID
Metals, Total[G:1]								
Arsenic	0.9	0.5	mg/kg		3050	10/24/13:212227	6010B	10/28/13:215941
Cadmium	ND	0.3	mg/kg		3050	10/24/13:212227	6010B	10/28/13:215941
Chromium	17.3	0.5	mg/kg		3050	10/24/13:212227	6010B	10/28/13:215941
Copper	4.3	0.5	mg/kg		3050	10/24/13:212227	6010B	10/28/13:215941
Lead	1.6	0.5	mg/kg		3050	10/24/13:212227	6010B	10/28/13:215941
Mercury	0.04	0.03	mg/kg		7471	10/18/13:212023	7471A	10/18/13:215448
Nickel	12.8	0.5	mg/kg		3050	10/24/13:212227	6010B	10/28/13:215941
Selenium	ND	12*	mg/kg		3050	10/24/13:212227	6010B	10/29/13:216017
Silver	ND	0.5	mg/kg		3050	10/24/13:212227	6010B	10/28/13:215941
Zinc	11	1	mg/kg		3050	10/24/13:212227	6010B	10/28/13:215941

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: (G) Glass Jar Preservatives: N/A ‡Surrogate. * PQL adjusted for dilution.

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November 7, 2013

Lab ID : CC 1383751-002
Customer ID : 8-769

Tenera Environmental
141 Suburban Rd., Suite A2
San Luis Obispo, CA 93401

Sampled On : October 11, 2013-10:23
Sampled By : Tenera Environmental
Received On : October 11, 2013-13:30
Matrix : Solid

Description : PSL - 2
Project : Port San Luis Sediment

Sample Result - Organic

Constituent	Result	PQL	Units	Note	Sample Preparation Method	Sample Preparation Date/ID	Sample Analysis Method	Sample Analysis Date/ID
EPA 8270[G:1]								
2-Fluorobiphenyl‡	53.5	29-97	%		8270C	10/16/13:211880	8270C	10/24/13:215920
2-Fluorophenol‡	45.7	32-96	%		8270C	10/16/13:211880	8270C	10/24/13:215920
Nitrobenzene-d5‡	47.3	18-95	%		8270C	10/16/13:211880	8270C	10/24/13:215920
Phenol-d6‡	46.8	30-92	%		8270C	10/16/13:211880	8270C	10/24/13:215920
p-Terphenyl-d14‡	62.6	27-103	%		8270C	10/16/13:211880	8270C	10/24/13:215920
2,4,6-Tribromophenol‡	57.8	47-105	%		8270C	10/16/13:211880	8270C	10/24/13:215920
Acenaphthene	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
Acenaphthylene	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
Aniline	ND	5	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
Anthracene	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
1,2-Diphenylhydrazine	ND	5	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
Benzidine	ND	5	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
Benzo(a)anthracene	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
Benzo(b)fluoranthene	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
Benzo(k)fluoranthene	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
Benzo(g,h,i)perylene	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
Benzo(a)pyrene	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
Benzoic Acid	ND	5	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
Benzylalcohol	ND	2	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
4-Bromophenylphenylether	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
Butylbenzylphthalate	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
bis(2-Chloroethoxy)methane	ND	5	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
bis(2-Chloroethyl)ether	ND	6	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
bis(2-Chloroisopropyl)ether	ND	5	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
bis(2-Ethylhexyl)phthalate	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
4-Chloroaniline	ND	5	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
4-Chloro-3-methylphenol	ND	2	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
2-Chloronaphthalene	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
2-Chlorophenol	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
4-Chlorophenylphenylether	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
Chrysene	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
Dibenzo(a,h)anthracene	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
Dibenzofuran	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
Di-n-butylphthalate	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
1,2-Dichlorobenzene	ND	5	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920

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CA ELAP Certification No. 2810

November 7, 2013 Lab ID : CC 1383751-002
Description : PSL - 2 Customer ID : 8-769

Sample Result - Organic

Constituent	Result	PQL	Units	Note	Sample Preparation		Sample Analysis	
					Method	Date/ID	Method	Date/ID
EPA 8270[G:1]								
1,3-Dichlorobenzene	ND	5	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
1,4-Dichlorobenzene	ND	5	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
3,3'-Dichlorobenzidine	ND	2	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
2,4-Dichlorophenol	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
Diethylphthalate	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
2,4-Dimethylphenol	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
Dimethylphthalate	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
4,6-Dinitro-2-methylphenol	ND	5	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
2,4-Dinitrophenol	ND	5	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
2,4-Dinitrotoluene	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
2,6-Dinitrotoluene	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
Di-n-octylphthalate	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
Fluoranthene	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
Fluorene	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
Hexachlorobenzene	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
Hexachlorobutadiene	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
Hexachlorocyclopentadiene	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
Hexachloroethane	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
Indeno(1,2,3-c,d)pyrene	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
Isophorone	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
2-Methylnaphthalene	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
2-Methylphenol	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
3- and 4-Methylphenol	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
Naphthalene	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
2-Nitroanaline	ND	5	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
3-Nitroanaline	ND	5	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
4-Nitroanaline	ND	5	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
Nitrobenzene	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
2-Nitrophenol	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
4-Nitrophenol	ND	5	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
N-Nitrosodimethylamine	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
N-Nitrosodiphenylamine	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
N-Nitrosodi-n-propylamine	ND	2	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
Pentachlorophenol	ND	5	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
Phenanthrene	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
Phenol	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
Pyrene	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
1,2,4-Trichlorobenzene	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920

November 7, 2013
Description : PSL - 2

Lab ID : CC 1383751-002
Customer ID : 8-769

Sample Result - Organic

Constituent	Result	PQL	Units	Note	Sample Preparation		Sample Analysis	
					Method	Date/ID	Method	Date/ID
EPA 8270[G:1]								
2,4,5-Trichlorophenol	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920
2,4,6-Trichlorophenol	ND	1	mg/kg		8270C	10/16/13:211880	8270C	10/24/13:215920

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: (G) Glass Jar Preservatives: N/A ‡Surrogate. * PQL adjusted for dilution.

November 7, 2013 Lab ID : CC 1383751
Tenera Environmental Customer : 8-769

Quality Control - Inorganic

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Metals								
Arsenic	3050	10/24/13:212227amb	Blank	mg/kg		ND	<0.5	
			LCS	mg/kg	40.00	98.8 %	85-115	
			MS	mg/kg	40.00	103 %	75-125	
		(CC 1383692-001)	MSD	mg/kg	40.00	97.1 %	75-125	
			MSRPD	mg/kg	40.02	5.6%	≤20	
			PDS	mg/kg	40.00	135 %	75-125	430
Cadmium	3050	10/24/13:212227amb	Blank	mg/kg		ND	<0.3	
			LCS	mg/kg	40.00	99.2 %	85-115	
			MS	mg/kg	40.00	101 %	75-125	
		(CC 1383692-001)	MSD	mg/kg	40.00	95.3 %	75-125	
			MSRPD	mg/kg	40.02	5.9%	≤20	
			PDS	mg/kg	40.00	132 %	75-125	430
Chromium	3050	10/24/13:212227amb	Blank	mg/kg		ND	<0.5	
			LCS	mg/kg	40.00	104 %	85-115	
			MS	mg/kg	40.00	102 %	75-125	
		(CC 1383692-001)	MSD	mg/kg	40.00	96.2 %	75-125	
			MSRPD	mg/kg	40.02	5.6%	≤20	
			PDS	mg/kg	40.00	135 %	75-125	430
Copper	3050	10/24/13:212227amb	Blank	mg/kg		ND	<0.5	
			LCS	mg/kg	40.00	104 %	85-115	
			MS	mg/kg	40.00	78.0 %	75-125	
		(CC 1383692-001)	MSD	mg/kg	40.00	57.8 %	75-125	435
			MSRPD	mg/kg	40.02	4.5%	≤20	
			PDS	mg/kg	40.00	171 %	75-125	430
Lead	3050	10/24/13:212227amb	Blank	mg/kg		ND	<0.5	
			LCS	mg/kg	40.00	101 %	85-115	
			MS	mg/kg	40.00	97.9 %	75-125	
		(CC 1383692-001)	MSD	mg/kg	40.00	93.4 %	75-125	
			MSRPD	mg/kg	40.02	4.4%	≤20	
			PDS	mg/kg	40.00	130 %	75-125	430
Nickel	3050	10/24/13:212227amb	Blank	mg/kg		ND	<0.5	
			LCS	mg/kg	40.00	103 %	85-115	
			MS	mg/kg	40.00	101 %	75-125	
		(CC 1383692-001)	MSD	mg/kg	40.00	95.1 %	75-125	
			MSRPD	mg/kg	40.02	5.1%	≤20	
			PDS	mg/kg	40.00	131 %	75-125	430
Selenium	3050	10/24/13:212227amb	Blank	mg/kg		ND	<0.5	
			LCS	mg/kg	40.00	98.9 %	85-115	
			MS	mg/kg	40.00	105 %	75-125	
		(CC 1383692-001)	MSD	mg/kg	40.00	99.9 %	75-125	
			MSRPD	mg/kg	40.02	5.1%	≤20	
			PDS	mg/kg	40.00	138 %	75-125	430
Silver	3050	10/24/13:212227amb	Blank	mg/kg		ND	<0.5	
			LCS	mg/kg	40.02	99.8 %	85-115	
			MS	mg/kg	40.02	102 %	75-125	
		(CC 1383692-001)	MSD	mg/kg	40.02	96.7 %	75-125	
			MSRPD	mg/kg	40.02	5.5%	≤20	
			PDS	mg/kg	40.02	132 %	75-125	430
Zinc	3050	10/24/13:212227amb	Blank	mg/kg		ND	<1	
			LCS	mg/kg	40.00	103 %	85-115	
			MS	mg/kg	40.00	66.5 %	75-125	435
		(CC 1383692-001)	MSD	mg/kg	40.00	50.3 %	75-125	435
			MSRPD	mg/kg	40.02	4.1%	≤20	
			PDS	mg/kg	40.00	151 %	75-125	430
Arsenic	6010B	10/28/13:215941AC	CCV	ppm	1.000	98.0 %	90-110	

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November 7, 2013 Lab ID : CC 1383751
Tenera Environmental Customer : 8-769

Quality Control - Inorganic

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Metals								
Arsenic	6010B	10/28/13:215941AC	CCB	ppm		0.0006	0.01	
			CCV	ppm	1.000	95.2 %	90-110	
			CCB	ppm		-0.0016	0.01	
Cadmium	6010B	10/28/13:215941AC	CCV	ppm	1.000	96.5 %	90-110	
			CCB	ppm		-0.00011	0.005	
			CCV	ppm	1.000	94.6 %	90-110	
			CCB	ppm		-0.00027	0.005	
Chromium	6010B	10/28/13:215941AC	CCV	ppm	1.000	97.8 %	90-110	
			CCB	ppm		-0.00001	0.01	
			CCV	ppm	1.000	95.5 %	90-110	
			CCB	ppm		-0.0009	0.01	
Copper	6010B	10/28/13:215941AC	CCV	ppm	1.000	97.4 %	90-110	
			CCB	ppm		0.0005	0.01	
			CCV	ppm	1.000	96.1 %	90-110	
			CCB	ppm		0.0004	0.01	
Lead	6010B	10/28/13:215941AC	CCV	ppm	1.000	97.3 %	90-110	
			CCB	ppm		-0.0018	0.01	
			CCV	ppm	1.000	93.9 %	90-110	
			CCB	ppm		-0.0027	0.01	
Nickel	6010B	10/28/13:215941AC	CCV	ppm	1.000	97.6 %	90-110	
			CCB	ppm		0.0008	0.01	
			CCV	ppm	1.000	95.1 %	90-110	
			CCB	ppm		0.0004	0.01	
Selenium	6010B	10/28/13:215941AC	CCV	ppm	1.000	96.5 %	90-110	
			CCB	ppm		-0.0022	0.01	
			CCV	ppm	1.000	93.0 %	90-110	
			CCB	ppm		-0.0024	0.01	
	6010B	10/29/13:216017AC	CCV	ppm	1.000	99.6 %	90-110	
			CCB	ppm		0.0044	0.01	
			CCV	ppm	1.000	96.8 %	90-110	
			CCB	ppm		0.0055	0.01	
Silver	6010B	10/28/13:215941AC	CCV	ppm	1.000	97.1 %	90-110	
			CCB	ppm		0.0001	0.01	
			CCV	ppm	1.000	95.7 %	90-110	
			CCB	ppm		0.0002	0.01	
Zinc	6010B	10/28/13:215941AC	CCV	ppm	1.000	97.5 %	90-110	
			CCB	ppm		-0.0043	0.02	
			CCV	ppm	1.000	93.8 %	90-110	
			CCB	ppm		-0.0058	0.02	
Mercury	7471	10/18/13:212023ac	Blank	mg/kg		ND	<0.03	
			LCS	mg/kg	0.2500	89.4 %	85-115	
			MS	mg/kg	0.2500	107 %	75-125	
		(CC 1383751-002)	MSD	mg/kg	0.2500	261 %	75-125	435
			MSRPD	mg/kg	0.2500	76.6%	≤20	435
	7471A	10/18/13:215448AC	ICV	ppb	4.000	98.0 %	90-110	
			ICB	ppb		-0.002	10	
			CCV	ppb	4.000	98.2 %	90-110	
			CCB	ppb		0.0	10	

Definition

PDS : PDS failed, matrix - Post Digestion Spike (PDS) not within Acceptance Range (AR) because of matrix interferences affecting this analyte.
ICV : Initial Calibration Verification - Analyzed to verify the instrument calibration is within criteria.
ICB : Initial Calibration Blank - Analyzed to verify the instrument baseline is within criteria.
CCV : Continuing Calibration Verification - Analyzed to verify the instrument calibration is within criteria.

November 7, 2013 Lab ID : CC 1383751
Tenera Environmental Customer : 8-769

Quality Control - Inorganic

Definition	
CCB	: Continuing Calibration Blank - Analyzed to verify the instrument baseline is within criteria.
Blank	: Method Blank - Prepared to verify that the preparation process is not contributing contamination to the samples.
LCS	: Laboratory Control Standard/Sample - Prepared to verify that the preparation process is not affecting analyte recovery.
MS	: Matrix Spikes - A random sample is spiked with a known amount of analyte. The recoveries are an indication of how that sample matrix affects analyte recovery.
MSD	: Matrix Spike Duplicate of MS/MSD pair - A random sample duplicate is spiked with a known amount of analyted. The recoveries are an indication of how that sample matrix affects analyte recovery.
MSRPD	: MS/MSD Relative Percent Difference (RPD) - The MS relative percent difference is an indication of precision for the preparation and analysis.
ND	: Non-detect - Result was below the DQO listed for the analyte.
DQO	: Data Quality Objective - This is the criteria against which the quality control data is compared.
Explanation	
430	: Post Digestion Spike (PDS) not within Acceptance Range (AR) because of matrix interferences affecting this analyte.
435	: Sample matrix may be affecting this analyte. Data was accepted based on the LCS or CCV recovery.

November 7, 2013 Lab ID : CC 1383751
Tenera Environmental Customer : 8-769

Quality Control - Organic

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Organic								
1,2,4-Trichlorobenzene	8270C	10/16/13:211880CCG	Blank	mg/kg		ND	<1	
			LCS	mg/kg	5.000	59.6 %	23-69	
			MS	mg/kg	4.929	33.3 %	3-58	
		(SP 1310784-001)	MSD	mg/kg	4.988	30.1 %	3-58	
			MSRPD	mg/kg	9.975	0.14	≤1	
	8270C	10/24/13:215920VRG	CCV	mg/L	80.00	107 %	80-120	
1,2-Dichlorobenzene	8270C	10/16/13:211880CCG	Blank	mg/kg		ND	<5	
			LCS	mg/kg	5.000	58.6 %	23-73	
			MS	mg/kg	4.929	29.0 %	0-88	
		(SP 1310784-001)	MSD	mg/kg	4.988	26.1 %	0-88	
			MSRPD	mg/kg	9.975	0.13	≤5	
	8270C	10/24/13:215920VRG	CCV	mg/L	80.00	105 %	80-120	
1,2-Diphenylhydrazine	8270C	10/16/13:211880CCG	Blank	mg/kg		ND	<5	
			LCS	mg/kg	5.000	62.8 %	20-105	
			MS	mg/kg	4.929	42.4 %	0-157	
		(SP 1310784-001)	MSD	mg/kg	4.988	34.4 %	0-157	
			MSRPD	mg/kg	9.975	0.38	≤5	
1,3-Dichlorobenzene	8270C	10/16/13:211880CCG	Blank	mg/kg		ND	<5	
			LCS	mg/kg	5.000	59.2 %	25-67	
			MS	mg/kg	4.929	27.7 %	0-85	
		(SP 1310784-001)	MSD	mg/kg	4.988	24.8 %	0-85	
			MSRPD	mg/kg	9.975	0.13	≤5	
	8270C	10/24/13:215920VRG	CCV	mg/L	80.00	110 %	80-120	
1,4-Dichlorobenzene	8270C	10/16/13:211880CCG	Blank	mg/kg		ND	<5	
			LCS	mg/kg	5.000	58.9 %	25-71	
			MS	mg/kg	4.929	28.9 %	0-83	
		(SP 1310784-001)	MSD	mg/kg	4.988	26.0 %	0-83	
			MSRPD	mg/kg	9.975	0.12	≤5	
	8270C	10/24/13:215920VRG	CCV	mg/L	80.00	110 %	80-120	
2,4,5-Trichlorophenol	8270C	10/16/13:211880CCG	Blank	mg/kg		ND	<1	
			LCS	mg/kg	10.00	54.7 %	28-84	
			MS	mg/kg	9.857	38.4 %	0-100	
		(SP 1310784-001)	MSD	mg/kg	9.975	32.9 %	0-100	
			MSRPD	mg/kg	9.975	0.51	≤1	
	8270C	10/24/13:215920VRG	CCV	mg/L	80.00	97.9 %	70-130	
2,4,6-Tribromophenol	8270C	10/16/13:211880CCG	Blank	mg/kg	10.00	30.7 %	47-105	
			LCS	mg/kg	10.00	69.5 %	47-105	
			MS	mg/kg	9.857	42.7 %	N/A	
		(SP 1310784-001)	MSD	mg/kg	9.975	35.0 %	N/A	
			MSRPD	mg/kg	9.975	0.71	≤1	
	8270C	10/24/13:215920VRG	CCV	mg/L	200.0	104 %	80-120	
2,4,6-Trichlorophenol	8270C	10/16/13:211880CCG	Blank	mg/kg		ND	<1	
			LCS	mg/kg	10.00	60.9 %	28-86	
			MS	mg/kg	9.857	41.7 %	0-101	
		(SP 1310784-001)	MSD	mg/kg	9.975	35.2 %	0-101	
			MSRPD	mg/kg	9.975	0.60	≤1	
	8270C	10/24/13:215920VRG	CCV	mg/L	80.00	112 %	80-120	
2,4-Dichlorophenol	8270C	10/16/13:211880CCG	Blank	mg/kg		ND	<1	
			LCS	mg/kg	10.00	53.6 %	7-97	
			MS	mg/kg	9.857	37.3 %	0-100	
		(SP 1310784-001)	MSD	mg/kg	9.975	33.3 %	0-100	
			MSRPD	mg/kg	9.975	0.35	≤1	
	8270C	10/24/13:215920VRG	CCV	mg/L	80.00	101 %	80-120	
2,4-Dimethylphenol	8270C	10/16/13:211880CCG	Blank	mg/kg		ND	<1	
			LCS	mg/kg	10.00	60.5 %	33-93	

November 7, 2013 Lab ID : CC 1383751
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Quality Control - Organic

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Organic								
2,4-Dimethylphenol	8270C		MS	mg/kg	9.857	47.5 %	0-117	
		(SP 1310784-001)	MSD	mg/kg	9.975	42.7 %	0-117	
			MSRPD	mg/kg	9.975	0.43	≤1	
	8270C	10/24/13:215920VRG	CCV	mg/L	80.00	122 %	80-120	360
2,4-Dinitrophenol	8270C	10/16/13:211880CCG	Blank	mg/kg		ND	<5	
			LCS	mg/kg	10.00	44.7 %	18-90	
			MS	mg/kg	9.857	6.9 %	0-52	
		(SP 1310784-001)	MSD	mg/kg	9.975	3.6 %	0-52	
			MSRPD	mg/kg	9.975	0.32	≤5	
	8270C	10/24/13:215920VRG	CCV	mg/L	80.00	85.8 %	80-120	
2,4-Dinitrotoluene	8270C	10/16/13:211880CCG	Blank	mg/kg		ND	<1	
			LCS	mg/kg	5.000	58.8 %	33-77	
			MS	mg/kg	4.929	35.2 %	0-178	
		(SP 1310784-001)	MSD	mg/kg	4.988	22.8 %	0-178	
			MSRPD	mg/kg	9.975	0.60	≤1	
	8270C	10/24/13:215920VRG	CCV	mg/L	80.00	106 %	80-120	
2,6-Dinitrotoluene	8270C	10/16/13:211880CCG	Blank	mg/kg		ND	<1	
			LCS	mg/kg	5.000	59.2 %	34-81	
			MS	mg/kg	4.929	37.0 %	0-251	
		(SP 1310784-001)	MSD	mg/kg	4.988	22.9 %	0-251	
			MSRPD	mg/kg	9.975	0.68	≤1	
	8270C	10/24/13:215920VRG	CCV	mg/L	80.00	100 %	80-120	
2-Chlorophenol	8270C	10/16/13:211880CCG	Blank	mg/kg		ND	<1	
			LCS	mg/kg	10.00	54.1 %	17-88	
			MS	mg/kg	9.857	34.2 %	0-93	
		(SP 1310784-001)	MSD	mg/kg	9.975	31.5 %	0-93	
			MSRPD	mg/kg	9.975	0.23	≤1	
	8270C	10/24/13:215920VRG	CCV	mg/L	80.00	99.2 %	80-120	
2-Fluorobiphenyl	8270C	10/16/13:211880CCG	Blank	mg/kg	5.000	9.0 %	29-97	
			LCS	mg/kg	5.000	61.9 %	29-97	
			MS	mg/kg	4.929	38.4 %	N/A	
		(SP 1310784-001)	MSD	mg/kg	4.988	35.0 %	N/A	
			MSRPD	mg/kg	9.975	0.15	≤1	
	8270C	10/24/13:215920VRG	CCV	mg/L	100.0	103 %	80-120	
2-Fluorophenol	8270C	10/16/13:211880CCG	Blank	mg/kg	10.00	19.3 %	32-96	
			LCS	mg/kg	10.00	52.1 %	32-96	
			MS	mg/kg	9.857	31.0 %	N/A	
		(SP 1310784-001)	MSD	mg/kg	9.975	28.6 %	N/A	
			MSRPD	mg/kg	9.975	0.20	≤1	
	8270C	10/24/13:215920VRG	CCV	mg/L	200.0	88.4 %	80-120	
2-Methylnaphthalene	8270C	10/16/13:211880CCG	Blank	mg/kg		ND	<1	
			LCS	mg/kg	10.00	58.3 %	26-105	
			MS	mg/kg	9.857	36.5 %	0-103	
		(SP 1310784-001)	MSD	mg/kg	9.975	33.0 %	0-103	
			MSRPD	mg/kg	9.975	0.31	≤1	
	8270C	10/24/13:215920VRG	CCV	mg/L	120.0	89.7 %	70-120	
2-Methylphenol	8270C	10/16/13:211880CCG	Blank	mg/kg		ND	<1	
			LCS	mg/kg	10.00	56.1 %	19-81	
			MS	mg/kg	9.857	38.6 %	0-88	
		(SP 1310784-001)	MSD	mg/kg	9.975	33.2 %	0-88	
			MSRPD	mg/kg	9.975	0.49	≤1	
	8270C	10/24/13:215920VRG	CCV	mg/L	80.00	101 %	70-130	
2-Nitroaniline	8270C	10/16/13:211880CCG	Blank	mg/kg		ND	<5	
			LCS	mg/kg	10.00	57.1 %	29-86	

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Quality Control - Organic

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Organic								
2-Nitroaniline	8270C		MS	mg/kg	9.857	37.7 %	0-93	
		(SP 1310784-001)	MSD	mg/kg	9.975	27.9 %	0-93	
			MSRPD	mg/kg	9.975	0.93	≤5	
	8270C	10/24/13:215920VRG	CCV	mg/L	120.0	86.0 %	70-130	
2-Nitrophenol	8270C	10/16/13:211880CCG	Blank	mg/kg		ND	<1	
			LCS	mg/kg	10.00	55.9 %	22-79	
			MS	mg/kg	9.857	34.0 %	0-90	
		(SP 1310784-001)	MSD	mg/kg	9.975	17.3 %	0-90	
			MSRPD	mg/kg	9.975	1.6	≤1	435
	8270C	10/24/13:215920VRG	CCV	mg/L	80.00	109 %	80-120	
3,3-Dichlorobenzidine	8270C	10/16/13:211880CCG	Blank	mg/kg		ND	<2	
			LCS	mg/kg	10.00	69.8 %	25-88	
			MS	mg/kg	9.857	20.5 %	0-87	
		(SP 1310784-001)	MSD	mg/kg	9.975	17.7 %	0-87	
			MSRPD	mg/kg	9.975	0.25	≤2	
	8270C	10/24/13:215920VRG	CCV	mg/L	120.0	115 %	80-120	
3-Nitroaniline	8270C	10/16/13:211880CCG	Blank	mg/kg		ND	<5	
			LCS	mg/kg	10.00	53.2 %	0-107	
			MS	mg/kg	9.857	30.6 %	0-125	
		(SP 1310784-001)	MSD	mg/kg	9.975	27.7 %	0-125	
			MSRPD	mg/kg	9.975	0.25	≤5	
	8270C	10/24/13:215920VRG	CCV	mg/L	120.0	82.7 %	70-130	
4,6-Dinitro-2-methylphenol	8270C	10/16/13:211880CCG	Blank	mg/kg		ND	<5	
			LCS	mg/kg	10.00	56.4 %	11-108	
			MS	mg/kg	9.857	8.0 %	0-79	
		(SP 1310784-001)	MSD	mg/kg	9.975	0.7 %	0-79	
			MSRPD	mg/kg	9.975	0.72	≤5	
4,6-Dinitro-o-cresol	8270C	10/24/13:215920VRG	CCV	mg/L	80.00	92.9 %	80-120	
4-Bromophenylphenylether	8270C	10/16/13:211880CCG	Blank	mg/kg		ND	<1	
			LCS	mg/kg	5.000	61.8 %	27-82	
			MS	mg/kg	4.929	41.9 %	0-108	
		(SP 1310784-001)	MSD	mg/kg	4.988	34.3 %	0-108	
			MSRPD	mg/kg	9.975	0.36	≤1	
	8270C	10/24/13:215920VRG	CCV	mg/L	80.00	98.1 %	80-120	
4-Chloro-3-methylphenol	8270C	10/16/13:211880CCG	Blank	mg/kg		ND	<2	
			LCS	mg/kg	10.00	54.2 %	29-85	
			MS	mg/kg	9.857	37.1 %	11-90	
		(SP 1310784-001)	MSD	mg/kg	9.975	32.3 %	11-90	
			MSRPD	mg/kg	9.975	0.43	≤2	
4-Chloroaniline	8270C	10/16/13:211880CCG	Blank	mg/kg		ND	<5	
			LCS	mg/kg	10.00	59.0 %	17-60	
			MS	mg/kg	9.857	26.0 %	0-82	
		(SP 1310784-001)	MSD	mg/kg	9.975	21.6 %	0-82	
			MSRPD	mg/kg	9.975	0.41	≤5	
	8270C	10/24/13:215920VRG	CCV	mg/L	120.0	94.8 %	70-130	
4-Methylphenol	8270C	10/16/13:211880CCG	Blank	mg/kg		ND	<1	
			LCS	mg/kg	10.00	51.7 %	28-85	
			MS	mg/kg	9.857	36.3 %	8-87	
		(SP 1310784-001)	MSD	mg/kg	9.975	32.4 %	8-87	
			MSRPD	mg/kg	9.975	0.35	≤1	
	8270C	10/24/13:215920VRG	CCV	mg/L	80.00	93.7 %	70-130	
4-Nitroaniline	8270C	10/16/13:211880CCG	Blank	mg/kg		ND	<5	
			LCS	mg/kg	10.00	53.3 %	38-80	
			MS	mg/kg	9.857	28.8 %	28-88	

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Organic								
4-Nitroaniline	8270C	(SP 1310784-001)	MSD	mg/kg	9.975	24.4 %	28-88	435
			MSRPD	mg/kg	9.975	0.41	≤5	
	8270C	10/24/13:215920VRG	CCV	mg/L	120.0	89.9 %	70-130	
4-Nitrophenol	8270C	10/16/13:211880CCG	Blank	mg/kg		ND	<5	
			LCS	mg/kg	10.00	32.2 %	4-110	
			MS	mg/kg	9.857	20.9 %	0-110	
		(SP 1310784-001)	MSD	mg/kg	9.975	20.4 %	0-110	
			MSRPD	mg/kg	9.975	0.024	≤5	
	8270C	10/24/13:215920VRG	CCV	mg/L	80.00	84.8 %	80-120	
Acenaphthene	8270C	10/16/13:211880CCG	Blank	mg/kg		ND	<1	
			LCS	mg/kg	5.000	61.8 %	32-79	
			MS	mg/kg	4.929	40.5 %	3-94	
		(SP 1310784-001)	MSD	mg/kg	4.988	35.0 %	3-94	
			MSRPD	mg/kg	9.975	0.25	≤1	
	8270C	10/24/13:215920VRG	CCV	mg/L	80.00	105 %	80-120	
Acenaphthylene	8270C	10/16/13:211880CCG	Blank	mg/kg		ND	<1	
			LCS	mg/kg	5.000	56.5 %	27-63	
			MS	mg/kg	4.929	36.7 %	0-77	
		(SP 1310784-001)	MSD	mg/kg	4.988	31.6 %	0-77	
			MSRPD	mg/kg	9.975	0.23	≤1	
	8270C	10/24/13:215920VRG	CCV	mg/L	80.00	108 %	80-120	
Aniline	8270C	10/16/13:211880CCG	Blank	mg/kg		ND	<5	
			LCS	mg/kg	10.00	57.2 %	23-77	
			MS	mg/kg	9.857	27.3 %	0-100	
		(SP 1310784-001)	MSD	mg/kg	9.975	21.9 %	0-100	
			MSRPD	mg/kg	9.975	0.51	≤5	
	8270C	10/24/13:215920VRG	CCV	mg/L	120.0	99.5 %	70-130	
Anthracene	8270C	10/16/13:211880CCG	Blank	mg/kg		ND	<1	
			LCS	mg/kg	5.000	61.9 %	30-84	
			MS	mg/kg	4.929	39.4 %	0-111	
		(SP 1310784-001)	MSD	mg/kg	4.988	34.2 %	0-111	
			MSRPD	mg/kg	9.975	0.23	≤1	
	8270C	10/24/13:215920VRG	CCV	mg/L	80.00	104 %	80-120	
Azobenzene	8270C	10/24/13:215920VRG	CCV	mg/L	80.00	105 %	80-120	
Benzidine	8270C	10/16/13:211880CCG	Blank	mg/kg		ND	<5	
			LCS	mg/kg	10.00	47.2 %	9-54	
			MS	mg/kg	9.857	0.0 %	0-35	
		(SP 1310784-001)	MSD	mg/kg	9.975	0.3 %	0-35	
			MSRPD	mg/kg	9.975	0.026	≤5	
	8270C	10/24/13:215920VRG	CCV	mg/L	120.0	366 %	70-130	360
Benzo(a)anthracene	8270C	10/16/13:211880CCG	Blank	mg/kg		ND	<1	
			LCS	mg/kg	5.000	62.3 %	23-96	
			MS	mg/kg	4.929	41.5 %	0-99	
		(SP 1310784-001)	MSD	mg/kg	4.988	34.9 %	0-99	
			MSRPD	mg/kg	9.975	0.30	≤1	
	8270C	10/24/13:215920VRG	CCV	mg/L	80.00	104 %	80-120	
Benzo(a)pyrene	8270C	10/16/13:211880CCG	Blank	mg/kg		ND	<1	
			LCS	mg/kg	5.000	60.4 %	0-118	
			MS	mg/kg	4.929	40.3 %	9-112	
		(SP 1310784-001)	MSD	mg/kg	4.988	34.6 %	9-112	
			MSRPD	mg/kg	9.975	0.26	≤1	
	8270C	10/24/13:215920VRG	CCV	mg/L	80.00	92.5 %	80-120	
Benzo(b)fluoranthene	8270C	10/16/13:211880CCG	Blank	mg/kg		ND	<1	
			LCS	mg/kg	5.000	62.8 %	0-130	

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Organic								
Benzo(b)fluoranthene	8270C		MS	mg/kg	4.929	44.0 %	0-141	
		(SP 1310784-001)	MSD	mg/kg	4.988	40.6 %	0-141	
			MSRPD	mg/kg	9.975	0.14	≤1	
	8270C	10/24/13:215920VRG	CCV	mg/L	80.00	84.1 %	80-120	
Benzo(g,h,i)perylene	8270C	10/16/13:211880CCG	Blank	mg/kg		ND	<1	
			LCS	mg/kg	5.000	64.7 %	1-120	
			MS	mg/kg	4.929	37.7 %	0-107	
		(SP 1310784-001)	MSD	mg/kg	4.988	26.3 %	0-107	
			MSRPD	mg/kg	9.975	0.55	≤1	
	8270C	10/24/13:215920VRG	CCV	mg/L	80.00	84.9 %	80-120	
Benzo(k)fluoranthene	8270C	10/16/13:211880CCG	Blank	mg/kg		ND	<1	
			LCS	mg/kg	5.000	76.7 %	0-108	
			MS	mg/kg	4.929	53.1 %	0-165	
		(SP 1310784-001)	MSD	mg/kg	4.988	43.0 %	0-165	
			MSRPD	mg/kg	9.975	0.47	≤1	
	8270C	10/24/13:215920VRG	CCV	mg/L	80.00	114 %	80-120	
Benzoic Acid	8270C	10/16/13:211880CCG	Blank	mg/kg		ND	<5	
			LCS	mg/kg	10.00	58.3 %	28-74	
			MS	mg/kg	9.857	19.3 %	0-36	
		(SP 1310784-001)	MSD	mg/kg	9.975	3.9 %	0-36	
			MSRPD	mg/kg	9.975	1.5	≤5	
	8270C	10/24/13:215920VRG	CCV	mg/L	80.00	130 %	70-130	
Benzylalcohol	8270C	10/16/13:211880CCG	Blank	mg/kg		ND	<2	
			LCS	mg/kg	10.00	64.3 %	0-104	
			MS	mg/kg	9.857	41.6 %	0-111	
		(SP 1310784-001)	MSD	mg/kg	9.975	34.5 %	0-111	
			MSRPD	mg/kg	9.975	0.66	≤2	
	8270C	10/24/13:215920VRG	CCV	mg/L	120.0	93.5 %	70-130	
bis(2-Chloroethoxy)methane	8270C	10/16/13:211880CCG	Blank	mg/kg		ND	<5	
			LCS	mg/kg	5.000	59.6 %	0-93	
			MS	mg/kg	4.929	37.4 %	0-88	
		(SP 1310784-001)	MSD	mg/kg	4.988	33.8 %	0-88	
			MSRPD	mg/kg	9.975	0.15	≤5	
	8270C	10/24/13:215920VRG	CCV	mg/L	80.00	101 %	80-120	
bis(2-Chloroethyl)ether	8270C	10/16/13:211880CCG	Blank	mg/kg		ND	<6	
			LCS	mg/kg	5.000	59.2 %	14-94	
			MS	mg/kg	4.929	35.6 %	0-123	
		(SP 1310784-001)	MSD	mg/kg	4.988	33.4 %	0-123	
			MSRPD	mg/kg	9.975	0.091	≤6	
	8270C	10/24/13:215920VRG	CCV	mg/L	80.00	98.4 %	80-120	
bis(2-Chloroisopropyl)ether	8270C	10/16/13:211880CCG	Blank	mg/kg		ND	<5	
			LCS	mg/kg	5.000	58.5 %	27-69	
			MS	mg/kg	4.929	31.1 %	0-89	
		(SP 1310784-001)	MSD	mg/kg	4.988	28.7 %	0-89	
			MSRPD	mg/kg	9.975	0.10	≤5	
	8270C	10/24/13:215920VRG	CCV	mg/L	80.00	85.0 %	80-120	
bis(2-Ethylhexyl)phthalate	8270C	10/16/13:211880CCG	Blank	mg/kg		ND	<1	
			LCS	mg/kg	5.000	68.9 %	17-95	
			MS	mg/kg	4.929	41.7 %	17-104	
		(SP 1310784-001)	MSD	mg/kg	4.988	36.1 %	17-104	
			MSRPD	mg/kg	9.975	0.25	≤1	
	8270C	10/24/13:215920VRG	CCV	mg/L	80.00	114 %	80-120	
Butylbenzylphthalate	8270C	10/16/13:211880CCG	Blank	mg/kg		ND	<1	
			LCS	mg/kg	5.000	64.4 %	19-89	

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Organic								
Butylbenzylphthalate	8270C		MS	mg/kg	4.929	42.0 %	9-121	
		(SP 1310784-001)	MSD	mg/kg	4.988	36.7 %	9-121	
			MSRPD	mg/kg	9.975	0.24	≤1	
	8270C	10/24/13:215920VRG	CCV	mg/L	80.00	111 %	80-120	
Chloronaphthalene	8270C	10/16/13:211880CCG	Blank	mg/kg		ND	<1	
			LCS	mg/kg	5.000	59.4 %	29-81	
			MS	mg/kg	4.929	39.8 %	0-116	
		(SP 1310784-001)	MSD	mg/kg	4.988	34.4 %	0-116	
			MSRPD	mg/kg	9.975	0.25	≤1	
	8270C	10/24/13:215920VRG	CCV	mg/L	80.00	109 %	80-120	
Chlorophenylphenylether	8270C	10/16/13:211880CCG	Blank	mg/kg		ND	<1	
			LCS	mg/kg	5.000	62.8 %	33-82	
			MS	mg/kg	4.929	41.2 %	1-97	
		(SP 1310784-001)	MSD	mg/kg	4.988	35.7 %	1-97	
			MSRPD	mg/kg	9.975	0.25	≤1	
	8270C	10/24/13:215920VRG	CCV	mg/L	80.00	103 %	80-120	
Chrysene	8270C	10/16/13:211880CCG	Blank	mg/kg		ND	<1	
			LCS	mg/kg	5.000	62.3 %	13-99	
			MS	mg/kg	4.929	40.3 %	0-99	
		(SP 1310784-001)	MSD	mg/kg	4.988	34.3 %	0-99	
			MSRPD	mg/kg	9.975	0.27	≤1	
	8270C	10/24/13:215920VRG	CCV	mg/L	80.00	104 %	80-120	
Dibenzo(a,h)anthracene	8270C	10/16/13:211880CCG	Blank	mg/kg		ND	<1	
			LCS	mg/kg	5.000	69.1 %	0-122	
			MS	mg/kg	4.929	39.2 %	0-115	
		(SP 1310784-001)	MSD	mg/kg	4.988	29.2 %	0-115	
			MSRPD	mg/kg	9.975	0.47	≤1	
	8270C	10/24/13:215920VRG	CCV	mg/L	80.00	90.8 %	80-120	
Dibenzofuran	8270C	10/16/13:211880CCG	Blank	mg/kg		ND	<1	
			LCS	mg/kg	10.00	55.9 %	20-89	
			MS	mg/kg	9.857	38.4 %	0-124	
		(SP 1310784-001)	MSD	mg/kg	9.975	33.1 %	0-124	
			MSRPD	mg/kg	9.975	0.48	≤1	
	8270C	10/24/13:215920VRG	CCV	mg/L	120.0	86.0 %	70-130	
Diethylphthalate	8270C	10/16/13:211880CCG	Blank	mg/kg		ND	<1	
			LCS	mg/kg	5.000	62.7 %	42-76	
			MS	mg/kg	4.929	45.2 %	1-101	
		(SP 1310784-001)	MSD	mg/kg	4.988	39.0 %	1-101	
			MSRPD	mg/kg	9.975	0.28	≤1	
	8270C	10/24/13:215920VRG	CCV	mg/L	80.00	114 %	80-120	
Dimethylphthalate	8270C	10/16/13:211880CCG	Blank	mg/kg		ND	<1	
			LCS	mg/kg	5.000	40.2 %	34-79	
			MS	mg/kg	4.929	41.5 %	0-98	
		(SP 1310784-001)	MSD	mg/kg	4.988	35.3 %	0-98	
			MSRPD	mg/kg	9.975	0.29	≤1	
	8270C	10/24/13:215920VRG	CCV	mg/L	80.00	102 %	80-120	
Di-n-butylphthalate	8270C	10/16/13:211880CCG	Blank	mg/kg		ND	<1	
			LCS	mg/kg	5.000	62.0 %	28-83	
			MS	mg/kg	4.929	40.8 %	0-109	
		(SP 1310784-001)	MSD	mg/kg	4.988	35.2 %	0-109	
			MSRPD	mg/kg	9.975	0.26	≤1	
	8270C	10/24/13:215920VRG	CCV	mg/L	80.00	104 %	80-120	
Di-n-octylphthalate	8270C	10/16/13:211880CCG	Blank	mg/kg		ND	<1	
			LCS	mg/kg	5.000	73.0 %	0-128	

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Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Organic								
Di-n-octylphthalate	8270C		MS	mg/kg	4.929	55.6 %	0-157	
		(SP 1310784-001)	MSD	mg/kg	4.988	51.2 %	0-157	
			MSRPD	mg/kg	9.975	0.19	≤1	
	8270C	10/24/13:215920VRG	CCV	mg/L	80.00	104 %	80-120	
Fluoranthene	8270C	10/16/13:211880CCG	Blank	mg/kg		ND	<1	
			LCS	mg/kg	5.000	62.2 %	30-88	
			MS	mg/kg	4.929	38.1 %	0-118	
		(SP 1310784-001)	MSD	mg/kg	4.988	34.4 %	0-118	
			MSRPD	mg/kg	9.975	0.16	≤1	
	8270C	10/24/13:215920VRG	CCV	mg/L	80.00	102 %	80-120	
Fluorene	8270C	10/16/13:211880CCG	Blank	mg/kg		ND	<1	
			LCS	mg/kg	5.000	63.8 %	32-89	
			MS	mg/kg	4.929	41.8 %	2-102	
		(SP 1310784-001)	MSD	mg/kg	4.988	36.4 %	2-102	
			MSRPD	mg/kg	9.975	0.24	≤1	
	8270C	10/24/13:215920VRG	CCV	mg/L	80.00	105 %	80-120	
Hexachlorobenzene	8270C	10/16/13:211880CCG	Blank	mg/kg		ND	<1	
			LCS	mg/kg	5.000	65.8 %	29-81	
			MS	mg/kg	4.929	41.8 %	0-116	
		(SP 1310784-001)	MSD	mg/kg	4.988	34.3 %	0-116	
			MSRPD	mg/kg	9.975	0.35	≤1	
	8270C	10/24/13:215920VRG	CCV	mg/L	80.00	111 %	80-120	
Hexachlorobutadiene	8270C	10/16/13:211880CCG	Blank	mg/kg		ND	<1	
			LCS	mg/kg	5.000	61.8 %	27-69	
			MS	mg/kg	4.929	32.3 %	0-89	
		(SP 1310784-001)	MSD	mg/kg	4.988	29.8 %	0-89	
			MSRPD	mg/kg	9.975	0.11	≤1	
	8270C	10/24/13:215920VRG	CCV	mg/L	80.00	107 %	80-120	
Hexachlorocyclopentadiene	8270C	10/16/13:211880CCG	Blank	mg/kg		ND	<1	
			LCS	mg/kg	5.000	35.7 %	17-49	
			MS	mg/kg	4.929	3.8 %	0-23	
		(SP 1310784-001)	MSD	mg/kg	4.988	1.3 %	0-23	
			MSRPD	mg/kg	9.975	0.12	≤1	
	8270C	10/24/13:215920VRG	CCV	mg/L	80.00	117 %	80-120	
Hexachloroethane	8270C	10/16/13:211880CCG	Blank	mg/kg		ND	<1	
			LCS	mg/kg	5.000	58.2 %	26-66	
			MS	mg/kg	4.929	21.1 %	0-79	
		(SP 1310784-001)	MSD	mg/kg	4.988	14.1 %	0-79	
			MSRPD	mg/kg	9.975	0.33	≤1	
	8270C	10/24/13:215920VRG	CCV	mg/L	80.00	105 %	80-120	
Indeno(1,2,3-c,d)pyrene	8270C	10/16/13:211880CCG	Blank	mg/kg		ND	<1	
			LCS	mg/kg	5.000	64.6 %	0-130	
			MS	mg/kg	4.929	38.2 %	0-114	
		(SP 1310784-001)	MSD	mg/kg	4.988	28.2 %	0-114	
			MSRPD	mg/kg	9.975	0.48	≤1	
	8270C	10/24/13:215920VRG	CCV	mg/L	80.00	85.6 %	80-120	
Isophorone	8270C	10/16/13:211880CCG	Blank	mg/kg		ND	<1	
			LCS	mg/kg	5.000	58.9 %	16-80	
			MS	mg/kg	4.929	34.1 %	0-94	
		(SP 1310784-001)	MSD	mg/kg	4.988	29.9 %	0-94	
			MSRPD	mg/kg	9.975	0.19	≤1	
	8270C	10/24/13:215920VRG	CCV	mg/L	80.00	100 %	80-120	
Naphthalene	8270C	10/16/13:211880CCG	Blank	mg/kg		ND	<1	
			LCS	mg/kg	5.000	61.5 %	27-79	

November 7, 2013 Lab ID : CC 1383751
Tenera Environmental Customer : 8-769

Quality Control - Organic

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Organic								
Naphthalene	8270C		MS	mg/kg	4.929	36.9 %	0-103	
		(SP 1310784-001)	MSD	mg/kg	4.988	33.9 %	0-103	
			MSRPD	mg/kg	9.975	0.13	≤1	
	8270C	10/24/13:215920VRG	CCV	mg/L	80.00	103 %	80-120	
Nitrobenzene	8270C	10/16/13:211880CCG	Blank	mg/kg		ND	<1	
			LCS	mg/kg	5.000	84.2 %	15-100	
			MS	mg/kg	4.929	53.2 %	5-94	
		(SP 1310784-001)	MSD	mg/kg	4.988	47.6 %	5-94	
			MSRPD	mg/kg	9.975	0.25	≤1	
	8270C	10/24/13:215920VRG	CCV	mg/L	80.00	128 %	80-120	360
Nitrobenzene-d5	8270C	10/16/13:211880CCG	Blank	mg/kg	5.000	12.9 %	18-95	
			LCS	mg/kg	5.000	55.2 %	18-95	
			MS	mg/kg	4.929	30.9 %	N/A	
		(SP 1310784-001)	MSD	mg/kg	4.988	29.9 %	N/A	
			MSRPD	mg/kg	9.975	0.029	≤1	
	8270C	10/24/13:215920VRG	CCV	mg/L	100.0	96.8 %	80-120	
N-Nitrosodimethylamine	8270C	10/16/13:211880CCG	Blank	mg/kg		ND	<1	
			LCS	mg/kg	5.000	50.7 %	8-75	
			MS	mg/kg	4.929	26.6 %	0-83	
		(SP 1310784-001)	MSD	mg/kg	4.988	0.8 %	0-83	
			MSRPD	mg/kg	9.975	1.3	≤1	435
	8270C	10/24/13:215920VRG	CCV	mg/L	80.00	96.9 %	80-120	
N-Nitrosodi-N-propylamine	8270C	10/16/13:211880CCG	Blank	mg/kg		ND	<2	
			LCS	mg/kg	5.000	57.2 %	16-97	
			MS	mg/kg	4.929	33.4 %	0-87	
		(SP 1310784-001)	MSD	mg/kg	4.988	27.0 %	0-87	
			MSRPD	mg/kg	9.975	0.30	≤2	
	8270C	10/24/13:215920VRG	CCV	mg/L	80.00	91.7 %	80-120	
N-Nitrosodiphenylamine	8270C	10/16/13:211880CCG	Blank	mg/kg		ND	<1	
			LCS	mg/kg	5.000	77.9 %	46-102	
			MS	mg/kg	4.929	56.0 %	0-164	
		(SP 1310784-001)	MSD	mg/kg	4.988	43.6 %	0-164	
			MSRPD	mg/kg	9.975	0.59	≤1	
	8270C	10/24/13:215920VRG	CCV	mg/L	80.00	120 %	80-120	
p-Chloro-m-cresol	8270C	10/24/13:215920VRG	CCV	mg/L	80.00	98.8 %	80-120	
Pentachlorophenol	8270C	10/16/13:211880CCG	Blank	mg/kg		ND	<5	
			LCS	mg/kg	10.00	68.7 %	3-111	
			MS	mg/kg	9.857	36.0 %	0-85	
		(SP 1310784-001)	MSD	mg/kg	9.975	23.5 %	0-85	
			MSRPD	mg/kg	9.975	1.2	≤5	
	8270C	10/24/13:215920VRG	CCV	mg/L	80.00	118 %	80-120	
Phenanthrene	8270C	10/16/13:211880CCG	Blank	mg/kg		ND	<1	
			LCS	mg/kg	5.000	62.8 %	26-89	
			MS	mg/kg	4.929	42.3 %	0-120	
		(SP 1310784-001)	MSD	mg/kg	4.988	35.1 %	0-120	
			MSRPD	mg/kg	9.975	0.34	≤1	
	8270C	10/24/13:215920VRG	CCV	mg/L	80.00	102 %	80-120	
Phenol	8270C	10/16/13:211880CCG	Blank	mg/kg		ND	<1	
			LCS	mg/kg	10.00	49.9 %	31-79	
			MS	mg/kg	9.857	34.1 %	0-106	
		(SP 1310784-001)	MSD	mg/kg	9.975	30.3 %	0-106	
			MSRPD	mg/kg	9.975	0.34	≤1	
	8270C	10/24/13:215920VRG	CCV	mg/L	80.00	95.0 %	80-120	
Phenol-d6	8270C	10/16/13:211880CCG	Blank	mg/kg	10.00	25.7 %	30-92	

November 7, 2013 Lab ID : CC 1383751
Tenera Environmental Customer : 8-769

Quality Control - Organic

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Organic								
Phenol-d6	8270C	10/16/13:211880CCG	LCS	mg/kg	10.00	53.9 %	30-92	
			MS	mg/kg	9.857	34.7 %	N/A	
		(SP 1310784-001)	MSD	mg/kg	9.975	29.8 %	N/A	
			MSRPD	mg/kg	9.975	0.45	≤1	
	8270C	10/24/13:215920VRG	CCV	mg/L	200.0	85.9 %	80-120	
p-Terphenyl-d14	8270C	10/16/13:211880CCG	Blank	mg/kg	5.000	36.6 %	27-103	
			LCS	mg/kg	5.000	68.4 %	27-103	
			MS	mg/kg	4.929	43.7 %	N/A	
		(SP 1310784-001)	MSD	mg/kg	4.988	37.4 %	N/A	
			MSRPD	mg/kg	9.975	0.29	≤1	
	8270C	10/24/13:215920VRG	CCV	mg/L	100.0	117 %	80-120	
Pyrene	8270C	10/16/13:211880CCG	Blank	mg/kg		ND	<1	
			LCS	mg/kg	5.000	68.5 %	24-94	
			MS	mg/kg	4.929	45.5 %	15-81	
		(SP 1310784-001)	MSD	mg/kg	4.988	36.8 %	15-81	
			MSRPD	mg/kg	9.975	0.41	≤1	
	8270C	10/24/13:215920VRG	CCV	mg/L	80.00	119 %	80-120	

Definition

CCV	: Continuing Calibration Verification - Analyzed to verify the instrument calibration is within criteria.
Blank	: Method Blank - Prepared to verify that the preparation process is not contributing contamination to the samples.
LCS	: Laboratory Control Standard/Sample - Prepared to verify that the preparation process is not affecting analyte recovery.
MS	: Matrix Spikes - A random sample is spiked with a known amount of analyte. The recoveries are an indication of how that sample matrix affects analyte recovery.
MSD	: Matrix Spike Duplicate of MS/MSD pair - A random sample duplicate is spiked with a known amount of analyted. The recoveries are an indication of how that sample matrix affects analyte recovery.
MSRPD	: MS/MSD Relative Percent Difference (RPD) - The MS relative percent difference is an indication of precision for the preparation and analysis.
ND	: Non-detect - Result was below the DQO listed for the analyte.
DQO	: Data Quality Objective - This is the criteria against which the quality control data is compared.

Explanation

360	: CCV above Acceptance Range (AR). Samples which were non detect for this analyte were accepted.
435	: Sample matrix may be affecting this analyte. Data was accepted based on the LCS or CCV recovery.

October 25, 2013

Tenera Environmental
141 Suburban Rd., Suite A2
San Luis Obispo, CA 93401

Subject: Subcontract Analyses for FGL Lab No. CC 1383751

Enclosed please find results for the following sample(s) which were received by FGL.

- Sub Inorganic-H2S
- Sub Contracted-Oil & Grease - SGT by EPA 9071B
- Sub Contracted-Oil & Grease - HEM by EPA 9071B

Please note that this analysis was performed by Associated Laboratories (NELAP Certified Laboratory)

Thank you for using FGL Environmental.

Sincerely,

Cindy Aguirre Digitally signed by Cindy Aguirre
Title: Customer Service Rep
Date: 2013-10-25

Enclosure

Associated Laboratories
806 N. Batavia - Orange, CA 92868
Tel (714)771-6900 Fax (714)538-1209
www.associatedlabs.com
Info@associatedlabs.com

ACCREDITED IN ACCORDANCE WITH nelac
04232CA

Client: FGL
Address: 853 Corporation St.
Santa Paula, CA 93060

Attn: Cindy Aguirre

Comments: Project #CC1383751-(8-769)
Quote #CC 20130220-01

Lab Request: 330508
Report Date: 10/24/2013
Date Received: 10/12/2013
Client ID: 6050

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods. Methods accredited by NELAC are indicated on the report. This cover letter is an integral part of the final report.

Sample #	Client Sample ID
330508-001	PSL-1
330508-002	PSL-2

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

ASSOCIATED LABORATORIES by,

Nina Prasad
President

NOTE: Unless notified in writing , all samples will be discarded by appropriate disposal protocol 45 days from date reported.

TESTING & CONSULTING
Chemical
Microbiological
Environmental

Matrix: Solid	**Client:** FGL	**Collector:** Client	
Sampled: 10/11/2013 09:51	**Site:**		
Sample #: 330508-001	**Client Sample #:** PSL-1	**Sample Type:**	

Analyte	Result	DF	RDL	Units	Analyzed	By	Notes
Method: EPA 9034 *NELAC*	**Prep Method:** SW-846 9030B					**QCBatchID:**	QC1140777
Sulfide	ND	1	10	mg/Kg	10/17/13	hanhkhong	
Method: EPA 9071B	**Prep Method:** Method					**QCBatchID:**	QC1140837
Non-Polar Oil and Grease	**999**	1	500	mg/Kg	10/19/13	rybechay	
Total Oil and Grease	**1170**	1	500	mg/Kg	10/19/13	rybechay	

Matrix: Solid	**Client:** FGL	**Collector:** Client	
Sampled: 10/11/2013 10:23	**Site:**		
Sample #: 330508-002	**Client Sample #:** PSL-2	**Sample Type:**	

Analyte	Result	DF	RDL	Units	Analyzed	By	Notes
Method: EPA 9034 *NELAC*	**Prep Method:** SW-846 9030B					**QCBatchID:**	QC1140777
Sulfide	ND	1	10	mg/Kg	10/17/13	hanhkhong	
Method: EPA 9071B	**Prep Method:** Method					**QCBatchID:**	QC1140837
Non-Polar Oil and Grease	**1240**	1	500	mg/Kg	10/19/13	rybechay	
Total Oil and Grease	**1420**	1	500	mg/Kg	10/19/13	rybechay	

QCBatchID: QC1140777	**Analyst:** hanhkhong	**Method:** EPA 9034	
Matrix: Solid	**Analyzed:** 10/17/2013	**Instrument:** CHEM (group)	

Blank Summary

Analyte	Blank Result	Units		RDL	Notes	
QC1140777MB1						
Total Sulfide	ND	mg/Kg		10		

Lab Control Spike/ Lab Control Spike Duplicate Summary

Analyte	Spike Amount LCS	Spike Amount LCSD	Spike Result LCS	Spike Result LCSD	Units	Recoveries LCS	Recoveries LCSD	RPD	Limits %Rec	Limits RPD	Notes
QC1140777LCS1											
Total Sulfide	329		314.0		mg/Kg	95			80-120		

QCBatchID: QC1140837	Analyst: rybechay	Method: EPA 9071B
Matrix: Solid	Analyzed: 10/21/2013	Instrument: CHEM (group)

Blank Summary

Analyte	Blank Result	Units		RDL	Notes
QC1140837MB1					
Non-Polar Oil and Grease	ND	mg/Kg		500	
Total Oil and Grease	ND	mg/Kg		500	

Lab Control Spike/ Lab Control Spike Duplicate Summary

Analyte	Spike Amount LCS	Spike Amount LCSD	Spike Result LCS	Spike Result LCSD	Units	Recoveries LCS	Recoveries LCSD	RPD	Limits %Rec	Limits RPD	Notes
QC1140837LCS1											
Total Oil and Grease	4000		3900		mg/Kg	98			78-114		

Duplicate Summary

Analyte	Sample Amount	Duplicate Amount	Units	RPD	Limits RPD	Notes
QC1140837DUP1						**Source: 330508-002**
Non-Polar Oil and Grease	1240	1258.4	mg/Kg	1.6	25	
Total Oil and Grease	1420	1470	mg/Kg	3.5	25	

Notes and Definitions

B	Analyte was present in an associated method blank. Associated sample data was reported with qualifier.
C	Laboratory Contamination.
D	The sample duplicate RPD was not within control limits, the sample data was reported without further clarification.
DF	Dilution Factor
DW	Sample result is calculated on a dry weigh basis
J	Reported value is estimated
L	The laboratory control sample (LCS) or laboratory control sample duplicate (LCSD) was out of control limits. Associated sample data was reported with qualifier.
M	The matrix spike (MS) or matrix spike duplicate (MSD) was not within control limits due to matrix interference. The associated LCS and/or LCSD was within control limits and the sample data was reported without further clarification.
MDL	Method Detection Limit
NC	The analyte concentration in the sample exceeded the spike level by a factor of four or greater, spike recovery and limits do not apply.
ND	Analyte was not detected or was less than the detection limit.
P	Sample was received without proper preservation according to EPA guidelines.
Q1	Analyte Calibration Verification exceeds criteria and the result was reported with qualifier.
RDL	Reporting Detection Limit
S	The surrogate recovery was out of control limits due to matrix interference. The associated method blank surrogate recovery was within control limits and the sample data was reported without further clarification.
T	Sample was extracted/analyzed past the holding time.
T2	Sample was analyzed ASAP but received and analyzed past the 15 minute holding time.

ASSOCIATED LABORATORIES
806 North Batavia – Orange, California 92868 – 714-771-6900 FAX 714-538-1209

SAMPLE ACCEPTANCE CHECKLIST

Section 1
Client: FGL
Date Received: 10/12/13
Sample temperature: _____
Sample(s) received in cooler: (Yes) No (Skip Section 2)
Shipping Information: ontrac
Project: _____
Sampler's Name: (Yes) No

Section 2
Was the cooler packed with: X Ice ___ Ice Packs ___ Bubble Wrap ___ Styrofoam ___ Paper ___ None ___ Other _____
Cooler Temperature: 4°C

(Acceptance range is 0 to 6 Deg. C. or arrival on ice; For Microbiology sample ≤10 Deg. C or arrival on ice)

Section 3	YES	NO	N/A
Was a COC received?	X		
Is it properly completed? (IDs, sampling date and time, signature, test)	X		
Were custody seals present?		X	
If Yes – were they intact?			X
Were all samples sealed in plastic bags?	X		
Did all samples arrive intact? If no, indicate below.	X		
Did all bottle labels agree with COC? (ID, dates and times)	X		
Were correct containers used for the tests required?	X		
Was a sufficient amount of sample sent for tests indicated?	X		
Was there headspace in VOA vials?			X
Were the containers labeled with correct preservatives?			X
Was total residual chlorine measured (Fish Bioassay samples only)? *			X

*: If the answer is no, please inform Fish Bioassay Dept. immediately.

Section 4
Explanations/Comments

Section 5
Was Project Manager notified of discrepancies: Y / N N/A
Project Manager's response: _____

Completed By: _____ Date: 10/12/13

ENVIRONMENTAL

Special Subcontract to Associated Laboratories

www.fglinc.com

CHAIN OF CUSTODY

Laboratory Copy (1 of 3) 330508

80777:03/04/2013

TEST DESCRIPTION - See Reverse side for Container, Preservative and Sampling information

Client: **Fruit Growers Laboratory, Inc.**
Address: FGL Environmental, Inc.
853 Corporation St.
Santa Paula, CA 93060-3005

Phone: (805)392-2039 Fax: (805)525-6264
Contact Person:
Project Name: CC138375I - (8-769)
Purchase Order Number:
Quote Number: CC **20130220-01**

Sampler(s): TE

Sampling Fee: _____ Pickup Fee: _____
Compositor Setup Date: ___/___/___ Time: ___/___

Lab Number:

Samp Num	Location Description	Date Sampled	Time Sampled	Method of Sampling: Composite(C) Grab(G)	Type of Sample **SEE REVERSE SIDE**	Potable(P) Non-Potable(NP) Ag Water(AgW)	Bacti Type: Other(O) System(SYS) Source(SR) Waste(W)	Bacti Reason: Routine(ROUT) Repeat(RPT) Replace(RPL) Other(O) Special(SPL)	Sub Inorganic-H2S 8oz(G)	Sub Contracted-Oil & Grease - SGT by EPA 9071B 8oz(G)	Sub Contracted-Oil & Grease - HEM by EPA 9071B 8oz(G)
1	PSL-1	10/11	0951	G	Sld				1	1	1
2	PSL-2	↓	~~0951~~ 1023	G	Sld				1	1	1

Remarks:

Relinquished: [signature] Date: 10/11/13 Time: 1700
Received By: CONTRAC Date: ↓ Time: ↓

Relinquished: Date: Time:
Received By: [signature] Date: 10/12/13 Time: 1200

Relinquished: Date: Time:
Received By: Date: Time:

Corporate Offices & Laboratory
853 Corporation Street
Santa Paula, CA 93060
TEL: 805/392-2000
FAX: 805/525-4172

Office & Laboratory
2500 Stagecoach Road
Stockton, CA 95215
TEL: 209/942-0182
FAX: 209/942-0423

Office & Laboratory
563 E. Lindo Avenue
Chico, CA 95926
TEL: 530/343-5818
FAX: 530/343-3807

Office & Laboratory
3442 Empresa Drive, Suite D
San Luis Obispo, CA 93401
TEL: 805/783-2940
FAX: 805/525-4172

Field Office
Visalia, California
TEL: 559/734-9473
Mobile: 559/737-2399
FAX: 559/734-8435

November 6, 2013

Tenera Environmental
141 Suburban Rd., Suite A2
San Luis Obispo, CA 93401

Subject: Subcontract Analysis for FGL Lab No. CC 1383751

Enclosed please find results for the following sample(s) which were received by FGL.

- EPA 8081 - The B3J1321 report has the EPA 8081 Pesticide results; however, there is no EPA 8081 spike results since these were extracted on 10/15/2013 as EPA 8082 samples. The B3J2724 reports has the pesticide results along with the pesticide QC spike; however these were extracted on 10/30/2013 past Hold Time as indicated by the ``T`` in the Flag column of the report.

Please note that this analysis was performed by Babcock & Sons, Inc. (NELAP Certified Laboratory)

Thank you for using FGL Environmental.

Sincerely,

Cindy Aguirre Digitally signed by Cindy Aguirre
Title: Customer Service Rep
Date: 2013-11-06

Enclosure

E.S.BABCOCK&Sons,Inc.
Environmental Laboratories est 1906

Client Name: FGL Environmental, Inc.
Contact: Cindy Aguirre
Address: 853 Corporation Street
Santa Paula, CA 93060

Report Date: 06-Nov-2013

Analytical Report: Page 1 of 8
Project Name: No Project
Project Number: CC1383751-(8-769)

Work Order Number: B3J1321

Received on Ice (Y/N): Yes Temp: 1 °C

Attached is the analytical report for the sample(s) received for your project. Below is a list of the individual sample descriptions with the corresponding laboratory number(s). Also, enclosed is a copy of the Chain of Custody document (if received with your sample(s)). Please note any unused portion of the sample(s) may be responsibly discarded after 30 days from the above report date, unless you have requested otherwise.

Thank you for the opportunity to serve your analytical needs. If you have any questions or concerns regarding this report please contact our client service department.

Sample Identification

Lab Sample #	Client Sample ID	Matrix	Date Sampled	By	Date Submitted	By
B3J1321-01	CC1383751-(8-769) 1 PSL-1 Grab	Solid	10/11/13 09:51	TE	10/12/13 11:05	Courier (OnTrac)
B3J1321-02	CC1383751-(8-769) 2 PSL-2 Grab	Solid	10/11/13 10:23	TE	10/12/13 11:05	Courier (OnTrac)

Included in this Data Package please find an amended report for the laboratory numbers referenced below.
Laboratory Number: B3J1321-01 and B3J1321-02
Reason for Amendment:
Due to a sample control error, the incorrect analysis was logged-in and performed. Since the hold time for the initially requested analysis had been exceeded, the client instructed Babcock Laboratories to perform EPA 8081 on the original EPA 8082 extracts; including the method blank (identified as 13J3007-BLK2). Results for EPA 8081 are found herein.
This report supersedes the report issued on 21-Oct-2013.

E.S.BABCOCK&Sons,Inc.
Environmental Laboratories est 1906

Client Name: FGL Environmental, Inc.
Contact: Cindy Aguirre
Address: 853 Corporation Street
Santa Paula, CA 93060

Report Date: 06-Nov-2013

Project Name: No Project
Project Number: CC1383751-(8-769)

Work Order Number: B3J1321

Received on Ice (Y/N): Yes Temp: 1 °C

Laboratory Reference Number
B3J1321-01

Sample Description	Matrix	Sampled Date/Time	Received Date/Time
CC1383751-(8-769) 1 PSL-1	Solid	10/11/13 09:51	10/12/13 11:05

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Organochlorine Pesticides and PCBs by EPA 8000 Series							
4,4'-DDD	ND	16	ug/kg	EPA 8081A	10/31/13 12:03	sbart	N_RLm
4,4'-DDE	ND	12	ug/kg	EPA 8081A	10/31/13 12:03	sbart	N_RLm
4,4'-DDT	ND	16	ug/kg	EPA 8081A	10/31/13 12:03	sbart	N_RLm
a-BHC	ND	16	ug/kg	EPA 8081A	10/31/13 12:03	sbart	N_RLm
Aldrin	ND	8.0	ug/kg	EPA 8081A	10/31/13 12:03	sbart	N_RLm
b-BHC	ND	16	ug/kg	EPA 8081A	10/31/13 12:03	sbart	N_RLm
Chlordane	ND	100	ug/kg	EPA 8081A	10/31/13 12:03	sbart	N_RLm
d-BHC	ND	28	ug/kg	EPA 8081A	10/31/13 12:03	sbart	N_RLm
Dieldrin	ND	12	ug/kg	EPA 8081A	10/31/13 12:03	sbart	N_RLm
Endosulfan I	ND	12	ug/kg	EPA 8081A	10/31/13 12:03	sbart	N_RLm
Endosulfan II	ND	16	ug/kg	EPA 8081A	10/31/13 12:03	sbart	N_RLm
Endosulfan Sulfate	ND	40	ug/kg	EPA 8081A	10/31/13 12:03	sbart	N_RLm
Endrin	ND	12	ug/kg	EPA 8081A	10/31/13 12:03	sbart	N_RLm
Endrin Aldehyde	ND	28	ug/kg	EPA 8081A	10/31/13 12:03	sbart	N_RLm
Heptachlor	ND	12	ug/kg	EPA 8081A	10/31/13 12:03	sbart	N_RLm
Heptachlor Epoxide	ND	12	ug/kg	EPA 8081A	10/31/13 12:03	sbart	N_RLm
Hexachlorobenzene	ND	160	ug/kg	EPA 8081A	10/31/13 12:03	sbart	N_RLm
Lindane	ND	16	ug/kg	EPA 8081A	10/31/13 12:03	sbart	N_RLm
Methoxychlor	ND	110	ug/kg	EPA 8081A	10/31/13 12:03	sbart	N_RLm
Toxaphene	ND	320	ug/kg	EPA 8081A	10/31/13 12:03	sbart	N_RLm
Surrogate: Decachlorobiphenyl	70.7	% 10-158		EPA 8081A	10/31/13 12:03	sbart	

E.S.BABCOCK&Sons,Inc.
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Client Name: FGL Environmental, Inc.
Contact: Cindy Aguirre
Address: 853 Corporation Street
Santa Paula, CA 93060

Report Date: 06-Nov-2013

Project Name: No Project
Project Number: CC1383751-(8-769)

Work Order Number: B3J1321

Received on Ice (Y/N): Yes Temp: 1 °C

Laboratory Reference Number
B3J1321-02

Sample Description	Matrix	Sampled Date/Time	Received Date/Time
CC1383751-(8-769) 2 PSL-2	Solid	10/11/13 10:23	10/12/13 11:05

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Organochlorine Pesticides and PCBs by EPA 8000 Series							
4,4'-DDD	ND	16	ug/kg	EPA 8081A	10/31/13 12:49	sbart	N_RLm
4,4'-DDE	ND	12	ug/kg	EPA 8081A	10/31/13 12:49	sbart	N_RLm
4,4'-DDT	ND	16	ug/kg	EPA 8081A	10/31/13 12:49	sbart	N_RLm
a-BHC	ND	16	ug/kg	EPA 8081A	10/31/13 12:49	sbart	N_RLm
Aldrin	ND	8.0	ug/kg	EPA 8081A	10/31/13 12:49	sbart	N_RLm
b-BHC	ND	16	ug/kg	EPA 8081A	10/31/13 12:49	sbart	N_RLm
Chlordane	ND	100	ug/kg	EPA 8081A	10/31/13 12:49	sbart	N_RLm
d-BHC	ND	28	ug/kg	EPA 8081A	10/31/13 12:49	sbart	N_RLm
Dieldrin	ND	12	ug/kg	EPA 8081A	10/31/13 12:49	sbart	N_RLm
Endosulfan I	ND	12	ug/kg	EPA 8081A	10/31/13 12:49	sbart	N_RLm
Endosulfan II	ND	16	ug/kg	EPA 8081A	10/31/13 12:49	sbart	N_RLm
Endosulfan Sulfate	ND	40	ug/kg	EPA 8081A	10/31/13 12:49	sbart	N_RLm
Endrin	ND	12	ug/kg	EPA 8081A	10/31/13 12:49	sbart	N_RLm
Endrin Aldehyde	ND	28	ug/kg	EPA 8081A	10/31/13 12:49	sbart	N_RLm
Heptachlor	ND	12	ug/kg	EPA 8081A	10/31/13 12:49	sbart	N_RLm
Heptachlor Epoxide	ND	12	ug/kg	EPA 8081A	10/31/13 12:49	sbart	N_RLm
Hexachlorobenzene	ND	160	ug/kg	EPA 8081A	10/31/13 12:49	sbart	N_RLm
Lindane	ND	16	ug/kg	EPA 8081A	10/31/13 12:49	sbart	N_RLm
Methoxychlor	ND	110	ug/kg	EPA 8081A	10/31/13 12:49	sbart	N_RLm
Toxaphene	ND	320	ug/kg	EPA 8081A	10/31/13 12:49	sbart	N_RLm
Surrogate: Decachlorobiphenyl	69.9	% 10-158		EPA 8081A	10/31/13 12:49	sbart	

Client Name: FGL Environmental, Inc.
Contact: Cindy Aguirre
Address: 853 Corporation Street
Santa Paula, CA 93060

Report Date: 06-Nov-2013

Analytical Report: Page 4 of 8
Project Name: No Project
Project Number: CC1383751-(8-769)

Work Order Number: B3J1321

Received on Ice (Y/N): Yes Temp: 1 °C

Organochlorine Pesticides and PCBs by EPA 8000 Series - Batch Quality Control

Analyte(s)	Result	RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 13J3007 - EPA 3550B										
Blank (13J3007-BLK1)				Prepared: 10/30/13 Analyzed: 10/31/13						
4,4'-DDD	ND	4.0	ug/kg							
4,4'-DDE	ND	3.0	ug/kg							
4,4'-DDT	ND	4.0	ug/kg							
a-BHC	ND	4.0	ug/kg							
Aldrin	ND	2.0	ug/kg							
b-BHC	ND	4.0	ug/kg							
Chlordane	ND	25	ug/kg							
d-BHC	ND	7.0	ug/kg							
Dieldrin	ND	3.0	ug/kg							
Endosulfan I	ND	3.0	ug/kg							
Endosulfan II	ND	4.0	ug/kg							
Endosulfan Sulfate	ND	10	ug/kg							
Endrin	ND	3.0	ug/kg							
Endrin Aldehyde	ND	7.0	ug/kg							
Heptachlor	ND	3.0	ug/kg							
Heptachlor Epoxide	ND	3.0	ug/kg							
Hexachlorobenzene	ND	40	ug/kg							
Lindane	ND	4.0	ug/kg							
Methoxychlor	ND	27	ug/kg							
Toxaphene	ND	80	ug/kg							
Surrogate: Decachlorobiphenyl	*15*		ug/kg	*20.0*		*77.3*	*10-158*			
Blank (13J3007-BLK2)				Prepared: 10/15/13 Analyzed: 10/31/13						
4,4'-DDD	ND	4.0	ug/kg							
4,4'-DDE	ND	3.0	ug/kg							
4,4'-DDT	ND	4.0	ug/kg							
a-BHC	ND	4.0	ug/kg							
Aldrin	ND	2.0	ug/kg							
b-BHC	ND	4.0	ug/kg							
Chlordane	ND	25	ug/kg							
d-BHC	ND	7.0	ug/kg							
Dieldrin	ND	3.0	ug/kg							
Endosulfan I	ND	3.0	ug/kg							
Endosulfan II	ND	4.0	ug/kg							
Endosulfan Sulfate	ND	10	ug/kg							
Endrin	ND	3.0	ug/kg							

Client Name: FGL Environmental, Inc.
Contact: Cindy Aguirre
Address: 853 Corporation Street
Santa Paula, CA 93060

Report Date: 06-Nov-2013

Project Name: No Project
Project Number: CC1383751-(8-769)

Work Order Number: B3J1321

Received on Ice (Y/N): Yes Temp: 1 °C

Organochlorine Pesticides and PCBs by EPA 8000 Series - Batch Quality Control

Analyte(s)	Result	RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 13J3007 - EPA 3550B										
Blank (13J3007-BLK2)				Prepared: 10/15/13 Analyzed: 10/31/13						
Endrin Aldehyde	ND	7.0	ug/kg							
Heptachlor	ND	3.0	ug/kg							
Heptachlor Epoxide	ND	3.0	ug/kg							
Hexachlorobenzene	ND	40	ug/kg							
Lindane	ND	4.0	ug/kg							
Methoxychlor	ND	27	ug/kg							
Toxaphene	ND	80	ug/kg							
Surrogate: Decachlorobiphenyl	*47*		ug/kg	*66.7*		*71.2*	*10-158*			
LCS (13J3007-BS1)				Prepared: 10/30/13 Analyzed: 10/31/13						
4,4'-DDD	13.6	4.0	ug/kg	16.7		81.5	67.1-122			
4,4'-DDE	13.6	3.0	ug/kg	16.7		81.6	69.9-120			
4,4'-DDT	13.5	4.0	ug/kg	16.7		81.0	68.4-130			
a-BHC	12.5	4.0	ug/kg	16.7		74.9	54.3-108			
Aldrin	13.0	2.0	ug/kg	16.7		77.8	52.8-113			
b-BHC	13.9	4.0	ug/kg	16.7		83.7	36.6-124			
d-BHC	7.88	7.0	ug/kg	16.7		47.3	21.3-103			
Dieldrin	13.2	3.0	ug/kg	16.7		79.4	68.5-119			
Endosulfan I	13.7	3.0	ug/kg	16.7		82.4	64.8-127			
Endosulfan II	14.2	4.0	ug/kg	16.7		85.0	64.3-127			
Endrin	14.6	3.0	ug/kg	16.7		87.7	80.7-142			
Endrin Aldehyde	12.7	7.0	ug/kg	16.7		76.3	33.8-100			
Heptachlor	13.7	3.0	ug/kg	16.7		82.3	67.4-127			
Heptachlor Epoxide	13.5	3.0	ug/kg	16.7		81.0	67.4-121			
Lindane	12.8	4.0	ug/kg	16.7		77.0	54.7-114			
Surrogate: Decachlorobiphenyl	*16*		ug/kg	*20.0*		*77.6*	*10-158*			
LCS Dup (13J3007-BSD1)				Prepared: 10/30/13 Analyzed: 10/31/13						
4,4'-DDD	12.8	4.0	ug/kg	16.7		76.6	67.1-122	6.20	20	
4,4'-DDE	12.6	3.0	ug/kg	16.7		75.9	69.9-120	7.27	20	
4,4'-DDT	12.8	4.0	ug/kg	16.7		76.5	68.4-130	5.77	20	
a-BHC	12.0	4.0	ug/kg	16.7		71.8	54.3-108	4.16	20	
Aldrin	12.2	2.0	ug/kg	16.7		73.4	52.8-113	5.83	20	
b-BHC	13.3	4.0	ug/kg	16.7		79.9	36.6-124	4.67	20	
d-BHC	7.48	7.0	ug/kg	16.7		44.9	21.3-103	5.18	22.5	
Dieldrin	12.4	3.0	ug/kg	16.7		74.4	68.5-119	6.53	20	

Client Name: FGL Environmental, Inc.
Contact: Cindy Aguirre
Address: 853 Corporation Street
Santa Paula, CA 93060

Report Date: 06-Nov-2013

Project Name: No Project
Project Number: CC1383751-(8-769)

Work Order Number: B3J1321

Received on Ice (Y/N): Yes Temp: 1 °C

Organochlorine Pesticides and PCBs by EPA 8000 Series - Batch Quality Control

Analyte(s)	Result	RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 13J3007 - EPA 3550B										
LCS Dup (13J3007-BSD1)				Prepared: 10/30/13		Analyzed: 10/31/13				
Endosulfan I	12.9	3.0	ug/kg	16.7		77.4	64.8-127	6.30	20	
Endosulfan II	13.4	4.0	ug/kg	16.7		80.4	64.3-127	5.55	20	
Endrin	13.7	3.0	ug/kg	16.7		82.1	80.7-142	6.60	20	
Endrin Aldehyde	12.2	7.0	ug/kg	16.7		72.9	33.8-100	4.52	30.9	
Heptachlor	13.1	3.0	ug/kg	16.7		78.6	67.4-127	4.52	20	
Heptachlor Epoxide	12.7	3.0	ug/kg	16.7		76.2	67.4-121	6.10	20	
Lindane	12.3	4.0	ug/kg	16.7		73.8	54.7-114	4.16	20	
Surrogate: Decachlorobiphenyl	*16*		ug/kg	*20.0*		*78.4*	*10-158*			
Matrix Spike (13J3007-MS1)		**Source: B3J2724-02**		Prepared: 10/30/13		Analyzed: 10/31/13				
4,4'-DDD	12.3	16	ug/kg	16.7	ND	73.6	5-169			Q_RL
4,4'-DDE	11.0	12	ug/kg	16.7	ND	66.0	20.8-133			Q_RL
4,4'-DDT	11.9	16	ug/kg	16.7	ND	71.3	5-172			Q_RL
a-BHC	13.3	16	ug/kg	16.7	ND	79.8	5-141			Q_RL
Aldrin	11.3	8.0	ug/kg	16.7	ND	68.0	23.1-110			
b-BHC	14.9	16	ug/kg	16.7	ND	89.6	5-134			Q_RL
d-BHC	8.43	28	ug/kg	16.7	ND	50.6	5-106			Q_RL
Dieldrin	11.6	12	ug/kg	16.7	ND	69.7	28-137			Q_RL
Endosulfan I	11.7	12	ug/kg	16.7	ND	70.5	17.1-147			Q_RL
Endosulfan II	12.4	16	ug/kg	16.7	ND	74.3	15.9-132			Q_RL
Endrin	13.2	12	ug/kg	16.7	ND	79.1	32.1-150			
Endrin Aldehyde	12.2	28	ug/kg	16.7	ND	73.3	5-102			Q_RL
Heptachlor	12.3	12	ug/kg	16.7	ND	73.7	26.4-126			
Heptachlor Epoxide	11.7	12	ug/kg	16.7	ND	70.1	28.3-122			Q_RL
Lindane	12.6	16	ug/kg	16.7	ND	75.7	6.65-134			Q_RL
Surrogate: Decachlorobiphenyl	*15*		ug/kg	*20.0*		*76.3*	*10-158*			
Matrix Spike Dup (13J3007-MSD1)		**Source: B3J2724-02**		Prepared: 10/30/13		Analyzed: 10/31/13				
4,4'-DDD	12.4	16	ug/kg	16.7	ND	74.2	5-169	0.852	55	Q_RL
4,4'-DDE	11.2	12	ug/kg	16.7	ND	67.5	20.8-133	2.28	50	Q_RL
4,4'-DDT	11.8	16	ug/kg	16.7	ND	71.1	5-172	0.308	34	Q_RL
a-BHC	12.9	16	ug/kg	16.7	ND	77.6	5-141	2.79	60	Q_RL
Aldrin	11.1	8.0	ug/kg	16.7	ND	66.7	23.1-110	1.82	60	
b-BHC	16.7	16	ug/kg	16.7	ND	100	5-134	11.2	60	
d-BHC	7.88	28	ug/kg	16.7	ND	47.3	5-106	6.84	54	Q_RL
Dieldrin	11.5	12	ug/kg	16.7	ND	69.2	28-137	0.627	60	Q_RL

Client Name: FGL Environmental, Inc.
Contact: Cindy Aguirre
Address: 853 Corporation Street
Santa Paula, CA 93060

Report Date: 06-Nov-2013

Project Name: No Project
Project Number: CC1383751-(8-769)

Work Order Number: B3J1321

Received on Ice (Y/N): Yes Temp: 1 °C

Organochlorine Pesticides and PCBs by EPA 8000 Series - Batch Quality Control

Analyte(s)	Result	RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 13J3007 - EPA 3550B										
Matrix Spike Dup (13J3007-MSD1)		**Source: B3J2724-02**		Prepared: 10/30/13		Analyzed: 10/31/13				
Endosulfan I	11.9	12	ug/kg	16.7	ND	71.3	17.1-147	1.07	59	Q_RL
Endosulfan II	12.5	16	ug/kg	16.7	ND	74.7	15.9-132	0.612	60	Q_RL
Endrin	12.8	12	ug/kg	16.7	ND	77.0	32.1-150	2.73	60	
Endrin Aldehyde	12.7	28	ug/kg	16.7	ND	75.9	5-102	3.55	60	Q_RL
Heptachlor	12.0	12	ug/kg	16.7	ND	72.2	26.4-126	2.12	60	
Heptachlor Epoxide	11.7	12	ug/kg	16.7	ND	70.1	28.3-122	0.0103	60	Q_RL
Lindane	12.0	16	ug/kg	16.7	ND	71.8	6.65-134	5.29	60	Q_RL
Surrogate: Decachlorobiphenyl	*17*		ug/kg	*20.0*		*83.5*	*10-158*			

E.S.BABCOCK&Sons,Inc.
Environmental Laboratories est 1906

Client Name: FGL Environmental, Inc.
Contact: Cindy Aguirre
Address: 853 Corporation Street
Santa Paula, CA 93060

Report Date: 06-Nov-2013

Project Name: No Project
Project Number: CC1383751-(8-769)

Work Order Number: B3J1321

Received on Ice (Y/N): Yes Temp: 1 °C

Notes and Definitions

N_RLm	Due to sample matrix, the reporting limit has been raised.
Q_RL	Due to sample matrix, the reporting limit for this analyte in this QC sample has been raised.
ND:	Analyte NOT DETECTED at or above the Method Detection Limit **(if MDL is reported)**, otherwise at or above the Reportable Detection Limit (RDL)
NR:	Not Reported
RDL:	Reportable Detection Limit
MDL:	Method Detection Limit
* / '" :	NELAP does not offer accreditation for this analyte/method/matrix combination

Approval

Enclosed are the analytical results for the submitted sample(s). Babcock Laboratories certify the data presented as part of this report meet the minimum quality standards in the referenced analytical methods. Any exceptions have been noted. Babcock Laboratories and its officers and employees assume no responsibility and make no warranty, express or implied, for uses or interpretations made by any recipients, intended or unintended, of this report.

cc:

e-Standard.rpt

E.S.BABCOCK&Sons,Inc.
Environmental Laboratories est 1906

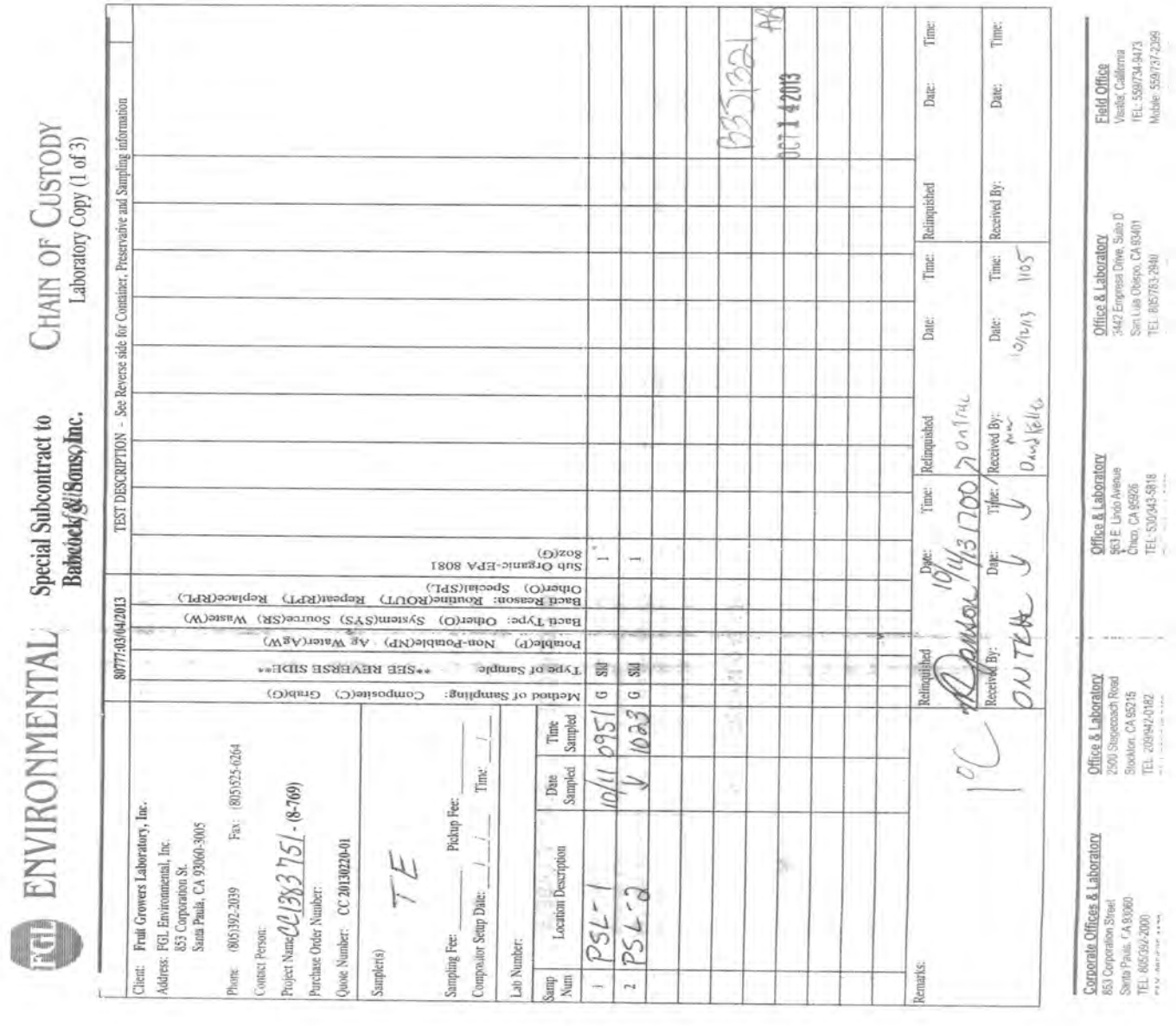
Client Name: FGL Environmental, Inc.
Contact: Cindy Aguirre
Address: 853 Corporation Street
Santa Paula, CA 93060

Report Date: 06-Nov-2013

Analytical Report: Page 1 of 1
Project Name: No Project
Project Number: CC1383751-(8-769)

Work Order Number: B3J1321

Received on Ice (Y/N): Yes Temp: 1 °C



E.S.BABCOCK&Sons,Inc.
Environmental Laboratories est 1906

Client Name: FGL Environmental, Inc.
Contact: Cindy Aguirre
Address: 853 Corporation Street
Santa Paula, CA 93060

Report Date: 06-Nov-2013

Analytical Report: Page 1 of 10
Project Name: No Project
Project Number: CC1383751-(8-769)

Work Order Number: B3J2724

Received on Ice (Y/N): Yes Temp: 1 °C

Attached is the analytical report for the sample(s) received for your project. Below is a list of the individual sample descriptions with the corresponding laboratory number(s). Also, enclosed is a copy of the Chain of Custody document (if received with your sample(s)). Please note any unused portion of the sample(s) may be responsibly discarded after 30 days from the above report date, unless you have requested otherwise.

Thank you for the opportunity to serve your analytical needs. If you have any questions or concerns regarding this report please contact our client service department.

Sample Identification

Lab Sample #	Client Sample ID	Matrix	Date Sampled	By	Date Submitted	By
B3J2724-01	CC1383751-(8-769) 1 PSL-1 Grab	Solid	10/11/13 09:51	TE	10/12/13 11:05	Courier (OnTrac)
B3J2724-02	CC1383751-(8-769) 2 PSL-2 Grab	Solid	10/11/13 10:23	TE	10/12/13 11:05	Courier (OnTrac)

Case Narrative-
Laboratory Number: B3J2724-01 and B3J2724-02
Analysis: EPA 8081
Reason for Amendment:
Due to a laboratory oversight, the incorrect analysis was logged-in, performed, and reported on work order B3J1321. Upon discovering the error, the hold time for the originally requested analysis had since passed. Under these circumstances, the client instructed the laboratory to continue with EPA 8081 past hold time.
This report supersedes the report issued on 21-Oct-2013.

E.S.BABCOCK&Sons,Inc.
Environmental Laboratories est 1906

Client Name: FGL Environmental, Inc.
Contact: Cindy Aguirre
Address: 853 Corporation Street
Santa Paula, CA 93060

Report Date: 06-Nov-2013

Project Name: No Project
Project Number: CC1383751-(8-769)

Work Order Number: B3J2724

Received on Ice (Y/N): Yes Temp: 1 °C

Laboratory Reference Number
B3J2724-01

Sample Description	Matrix	Sampled Date/Time	Received Date/Time
CC1383751-(8-769) 1 PSL-1	Solid	10/11/13 09:51	10/12/13 11:05

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Organochlorine Pesticides and PCBs by EPA 8000 Series							
4,4'-DDD	ND	16	ug/kg	EPA 8081A	10/31/13 13:35	sbart	N_HTa, N_RLm
4,4'-DDE	ND	12	ug/kg	EPA 8081A	10/31/13 13:35	sbart	N_HTa, N_RLm
4,4'-DDT	ND	16	ug/kg	EPA 8081A	10/31/13 13:35	sbart	N_HTa, N_RLm
a-BHC	ND	16	ug/kg	EPA 8081A	10/31/13 13:35	sbart	N_HTa, N_RLm
Aldrin	ND	8.0	ug/kg	EPA 8081A	10/31/13 13:35	sbart	N_HTa, N_RLm
b-BHC	ND	16	ug/kg	EPA 8081A	10/31/13 13:35	sbart	N_HTa, N_RLm
Chlordane	ND	100	ug/kg	EPA 8081A	10/31/13 13:35	sbart	N_HTa, N_RLm
d-BHC	ND	28	ug/kg	EPA 8081A	10/31/13 13:35	sbart	N_HTa, N_RLm
Dieldrin	ND	12	ug/kg	EPA 8081A	10/31/13 13:35	sbart	N_HTa, N_RLm
Endosulfan I	ND	12	ug/kg	EPA 8081A	10/31/13 13:35	sbart	N_HTa, N_RLm
Endosulfan II	ND	16	ug/kg	EPA 8081A	10/31/13 13:35	sbart	N_HTa, N_RLm
Endosulfan Sulfate	ND	40	ug/kg	EPA 8081A	10/31/13 13:35	sbart	N_HTa, N_RLm
Endrin	ND	12	ug/kg	EPA 8081A	10/31/13 13:35	sbart	N_HTa, N_RLm
Endrin Aldehyde	ND	28	ug/kg	EPA 8081A	10/31/13 13:35	sbart	N_HTa, N_RLm
Heptachlor	ND	12	ug/kg	EPA 8081A	10/31/13 13:35	sbart	N_HTa, N_RLm
Heptachlor Epoxide	ND	12	ug/kg	EPA 8081A	10/31/13 13:35	sbart	N_HTa, N_RLm
Hexachlorobenzene	ND	160	ug/kg	EPA 8081A	10/31/13 13:35	sbart	N_HTa, N_RLm
Lindane	ND	16	ug/kg	EPA 8081A	10/31/13 13:35	sbart	N_HTa, N_RLm
Methoxychlor	ND	110	ug/kg	EPA 8081A	10/31/13 13:35	sbart	N_HTa, N_RLm
Toxaphene	ND	320	ug/kg	EPA 8081A	10/31/13 13:35	sbart	N_HTa, N_RLm

E.S.BABCOCK&Sons,Inc.
Environmental Laboratories est 1906

Client Name: FGL Environmental, Inc.
Contact: Cindy Aguirre
Address: 853 Corporation Street
Santa Paula, CA 93060

Report Date: 06-Nov-2013

Project Name: No Project
Project Number: CC1383751-(8-769)

Work Order Number: B3J2724

Received on Ice (Y/N): Yes Temp: 1 °C

Laboratory Reference Number

B3J2724-01

Sample Description	Matrix	Sampled Date/Time	Received Date/Time
CC1383751-(8-769) 1 PSL-1	Solid	10/11/13 09:51	10/12/13 11:05

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Organochlorine Pesticides and PCBs by EPA 8000 Series							
Surrogate: Decachlorobiphenyl	77.7	10-158	%	EPA 8081A	10/31/13 13:35	sbart	*N_HTa*

E.S.BABCOCK&Sons,Inc.
Environmental Laboratories est 1906

Client Name: FGL Environmental, Inc.
Contact: Cindy Aguirre
Address: 853 Corporation Street
Santa Paula, CA 93060

Report Date: 06-Nov-2013

Project Name: No Project
Project Number: CC1383751-(8-769)

Work Order Number: B3J2724

Received on Ice (Y/N): Yes Temp: 1 °C

Laboratory Reference Number
B3J2724-02

Sample Description	Matrix	Sampled Date/Time	Received Date/Time
CC1383751-(8-769) 2 PSL-2	Solid	10/11/13 10:23	10/12/13 11:05

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Organochlorine Pesticides and PCBs by EPA 8000 Series							
4,4'-DDD	ND	16	ug/kg	EPA 8081A	10/31/13 14:21	sbart	N_HTa, N_RLm
4,4'-DDE	ND	12	ug/kg	EPA 8081A	10/31/13 14:21	sbart	N_HTa, N_RLm
4,4'-DDT	ND	16	ug/kg	EPA 8081A	10/31/13 14:21	sbart	N_HTa, N_RLm
a-BHC	ND	16	ug/kg	EPA 8081A	10/31/13 14:21	sbart	N_HTa, N_RLm
Aldrin	ND	8.0	ug/kg	EPA 8081A	10/31/13 14:21	sbart	N_HTa, N_RLm
b-BHC	ND	16	ug/kg	EPA 8081A	10/31/13 14:21	sbart	N_HTa, N_RLm
Chlordane	ND	100	ug/kg	EPA 8081A	10/31/13 14:21	sbart	N_HTa, N_RLm
d-BHC	ND	28	ug/kg	EPA 8081A	10/31/13 14:21	sbart	N_HTa, N_RLm
Dieldrin	ND	12	ug/kg	EPA 8081A	10/31/13 14:21	sbart	N_HTa, N_RLm
Endosulfan I	ND	12	ug/kg	EPA 8081A	10/31/13 14:21	sbart	N_HTa, N_RLm
Endosulfan II	ND	16	ug/kg	EPA 8081A	10/31/13 14:21	sbart	N_HTa, N_RLm
Endosulfan Sulfate	ND	40	ug/kg	EPA 8081A	10/31/13 14:21	sbart	N_HTa, N_RLm
Endrin	ND	12	ug/kg	EPA 8081A	10/31/13 14:21	sbart	N_HTa, N_RLm
Endrin Aldehyde	ND	28	ug/kg	EPA 8081A	10/31/13 14:21	sbart	N_HTa, N_RLm
Heptachlor	ND	12	ug/kg	EPA 8081A	10/31/13 14:21	sbart	N_HTa, N_RLm
Heptachlor Epoxide	ND	12	ug/kg	EPA 8081A	10/31/13 14:21	sbart	N_HTa, N_RLm
Hexachlorobenzene	ND	160	ug/kg	EPA 8081A	10/31/13 14:21	sbart	N_HTa, N_RLm
Lindane	ND	16	ug/kg	EPA 8081A	10/31/13 14:21	sbart	N_HTa, N_RLm
Methoxychlor	ND	110	ug/kg	EPA 8081A	10/31/13 14:21	sbart	N_HTa, N_RLm
Toxaphene	ND	320	ug/kg	EPA 8081A	10/31/13 14:21	sbart	N_HTa, N_RLm

E.S.BABCOCK&Sons,Inc.
Environmental Laboratories est 1906

Client Name: FGL Environmental, Inc.
Contact: Cindy Aguirre
Address: 853 Corporation Street
Santa Paula, CA 93060

Report Date: 06-Nov-2013

Project Name: No Project
Project Number: CC1383751-(8-769)

Work Order Number: B3J2724

Received on Ice (Y/N): Yes Temp: 1 °C

Laboratory Reference Number

B3J2724-02

Sample Description	Matrix	Sampled Date/Time	Received Date/Time
CC1383751-(8-769) 2 PSL-2	Solid	10/11/13 10:23	10/12/13 11:05

Analyte(s)	Result	RDL	Units	Method	Analysis Date	Analyst	Flag
Organochlorine Pesticides and PCBs by EPA 8000 Series							
Surrogate: Decachlorobiphenyl	74.3	10-158	%	EPA 8081A	10/31/13 14:21	sbart	*N_HTa*

Client Name: FGL Environmental, Inc.
Contact: Cindy Aguirre
Address: 853 Corporation Street
Santa Paula, CA 93060

Report Date: 06-Nov-2013

Analytical Report: Page 6 of 10
Project Name: No Project
Project Number: CC1383751-(8-769)

Work Order Number: B3J2724

Received on Ice (Y/N): Yes Temp: 1 °C

Organochlorine Pesticides and PCBs by EPA 8000 Series - Batch Quality Control

Analyte(s)	Result	RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 13J3007 - EPA 3550B										
Blank (13J3007-BLK1)				Prepared: 10/30/13 Analyzed: 10/31/13						
4,4'-DDD	ND	4.0	ug/kg							
4,4'-DDE	ND	3.0	ug/kg							
4,4'-DDT	ND	4.0	ug/kg							
a-BHC	ND	4.0	ug/kg							
Aldrin	ND	2.0	ug/kg							
b-BHC	ND	4.0	ug/kg							
Chlordane	ND	25	ug/kg							
d-BHC	ND	7.0	ug/kg							
Dieldrin	ND	3.0	ug/kg							
Endosulfan I	ND	3.0	ug/kg							
Endosulfan II	ND	4.0	ug/kg							
Endosulfan Sulfate	ND	10	ug/kg							
Endrin	ND	3.0	ug/kg							
Endrin Aldehyde	ND	7.0	ug/kg							
Heptachlor	ND	3.0	ug/kg							
Heptachlor Epoxide	ND	3.0	ug/kg							
Hexachlorobenzene	ND	40	ug/kg							
Lindane	ND	4.0	ug/kg							
Methoxychlor	ND	27	ug/kg							
Toxaphene	ND	80	ug/kg							
Surrogate: Decachlorobiphenyl	*15*		ug/kg	*20.0*		*77.3*	*10-158*			
Blank (13J3007-BLK2)				Prepared: 10/15/13 Analyzed: 10/31/13						
4,4'-DDD	ND	4.0	ug/kg							
4,4'-DDE	ND	3.0	ug/kg							
4,4'-DDT	ND	4.0	ug/kg							
a-BHC	ND	4.0	ug/kg							
Aldrin	ND	2.0	ug/kg							
b-BHC	ND	4.0	ug/kg							
Chlordane	ND	25	ug/kg							
d-BHC	ND	7.0	ug/kg							
Dieldrin	ND	3.0	ug/kg							
Endosulfan I	ND	3.0	ug/kg							
Endosulfan II	ND	4.0	ug/kg							
Endosulfan Sulfate	ND	10	ug/kg							
Endrin	ND	3.0	ug/kg							

Client Name: FGL Environmental, Inc.
Contact: Cindy Aguirre
Address: 853 Corporation Street
Santa Paula, CA 93060

Report Date: 06-Nov-2013

Project Name: No Project
Project Number: CC1383751-(8-769)

Work Order Number: B3J2724

Received on Ice (Y/N): Yes Temp: 1 °C

Organochlorine Pesticides and PCBs by EPA 8000 Series - Batch Quality Control

Analyte(s)	Result	RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 13J3007 - EPA 3550B										
Blank (13J3007-BLK2)				Prepared: 10/15/13 Analyzed: 10/31/13						
Endrin Aldehyde	ND	7.0	ug/kg							
Heptachlor	ND	3.0	ug/kg							
Heptachlor Epoxide	ND	3.0	ug/kg							
Hexachlorobenzene	ND	40	ug/kg							
Lindane	ND	4.0	ug/kg							
Methoxychlor	ND	27	ug/kg							
Toxaphene	ND	80	ug/kg							
Surrogate: Decachlorobiphenyl	*47*		ug/kg	*66.7*		*71.2*	*10-158*			
LCS (13J3007-BS1)				Prepared: 10/30/13 Analyzed: 10/31/13						
4,4'-DDD	13.6	4.0	ug/kg	16.7		81.5	67.1-122			
4,4'-DDE	13.6	3.0	ug/kg	16.7		81.6	69.9-120			
4,4'-DDT	13.5	4.0	ug/kg	16.7		81.0	68.4-130			
a-BHC	12.5	4.0	ug/kg	16.7		74.9	54.3-108			
Aldrin	13.0	2.0	ug/kg	16.7		77.8	52.8-113			
b-BHC	13.9	4.0	ug/kg	16.7		83.7	36.6-124			
d-BHC	7.88	7.0	ug/kg	16.7		47.3	21.3-103			
Dieldrin	13.2	3.0	ug/kg	16.7		79.4	68.5-119			
Endosulfan I	13.7	3.0	ug/kg	16.7		82.4	64.8-127			
Endosulfan II	14.2	4.0	ug/kg	16.7		85.0	64.3-127			
Endrin	14.6	3.0	ug/kg	16.7		87.7	80.7-142			
Endrin Aldehyde	12.7	7.0	ug/kg	16.7		76.3	33.8-100			
Heptachlor	13.7	3.0	ug/kg	16.7		82.3	67.4-127			
Heptachlor Epoxide	13.5	3.0	ug/kg	16.7		81.0	67.4-121			
Lindane	12.8	4.0	ug/kg	16.7		77.0	54.7-114			
Surrogate: Decachlorobiphenyl	*16*		ug/kg	*20.0*		*77.6*	*10-158*			
LCS Dup (13J3007-BSD1)				Prepared: 10/30/13 Analyzed: 10/31/13						
4,4'-DDD	12.8	4.0	ug/kg	16.7		76.6	67.1-122	6.20	20	
4,4'-DDE	12.6	3.0	ug/kg	16.7		75.9	69.9-120	7.27	20	
4,4'-DDT	12.8	4.0	ug/kg	16.7		76.5	68.4-130	5.77	20	
a-BHC	12.0	4.0	ug/kg	16.7		71.8	54.3-108	4.16	20	
Aldrin	12.2	2.0	ug/kg	16.7		73.4	52.8-113	5.83	20	
b-BHC	13.3	4.0	ug/kg	16.7		79.9	36.6-124	4.67	20	
d-BHC	7.48	7.0	ug/kg	16.7		44.9	21.3-103	5.18	22.5	
Dieldrin	12.4	3.0	ug/kg	16.7		74.4	68.5-119	6.53	20	

Client Name: FGL Environmental, Inc.
Contact: Cindy Aguirre
Address: 853 Corporation Street
Santa Paula, CA 93060

Report Date: 06-Nov-2013

Project Name: No Project
Project Number: CC1383751-(8-769)

Work Order Number: B3J2724

Received on Ice (Y/N): Yes Temp: 1 °C

Organochlorine Pesticides and PCBs by EPA 8000 Series - Batch Quality Control

Analyte(s)	Result	RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 13J3007 - EPA 3550B										
LCS Dup (13J3007-BSD1)				Prepared: 10/30/13		Analyzed: 10/31/13				
Endosulfan I	12.9	3.0	ug/kg	16.7		77.4	64.8-127	6.30	20	
Endosulfan II	13.4	4.0	ug/kg	16.7		80.4	64.3-127	5.55	20	
Endrin	13.7	3.0	ug/kg	16.7		82.1	80.7-142	6.60	20	
Endrin Aldehyde	12.2	7.0	ug/kg	16.7		72.9	33.8-100	4.52	30.9	
Heptachlor	13.1	3.0	ug/kg	16.7		78.6	67.4-127	4.52	20	
Heptachlor Epoxide	12.7	3.0	ug/kg	16.7		76.2	67.4-121	6.10	20	
Lindane	12.3	4.0	ug/kg	16.7		73.8	54.7-114	4.16	20	
Surrogate: Decachlorobiphenyl	*16*		ug/kg	*20.0*		*78.4*	*10-158*			
Matrix Spike (13J3007-MS1)		**Source: B3J2724-02**		Prepared: 10/30/13		Analyzed: 10/31/13				
4,4'-DDD	12.3	16	ug/kg	16.7	ND	73.6	5-169			Q_RL
4,4'-DDE	11.0	12	ug/kg	16.7	ND	66.0	20.8-133			Q_RL
4,4'-DDT	11.9	16	ug/kg	16.7	ND	71.3	5-172			Q_RL
a-BHC	13.3	16	ug/kg	16.7	ND	79.8	5-141			Q_RL
Aldrin	11.3	8.0	ug/kg	16.7	ND	68.0	23.1-110			
b-BHC	14.9	16	ug/kg	16.7	ND	89.6	5-134			Q_RL
d-BHC	8.43	28	ug/kg	16.7	ND	50.6	5-106			Q_RL
Dieldrin	11.6	12	ug/kg	16.7	ND	69.7	28-137			Q_RL
Endosulfan I	11.7	12	ug/kg	16.7	ND	70.5	17.1-147			Q_RL
Endosulfan II	12.4	16	ug/kg	16.7	ND	74.3	15.9-132			Q_RL
Endrin	13.2	12	ug/kg	16.7	ND	79.1	32.1-150			
Endrin Aldehyde	12.2	28	ug/kg	16.7	ND	73.3	5-102			Q_RL
Heptachlor	12.3	12	ug/kg	16.7	ND	73.7	26.4-126			
Heptachlor Epoxide	11.7	12	ug/kg	16.7	ND	70.1	28.3-122			Q_RL
Lindane	12.6	16	ug/kg	16.7	ND	75.7	6.65-134			Q_RL
Surrogate: Decachlorobiphenyl	*15*		ug/kg	*20.0*		*76.3*	*10-158*			
Matrix Spike Dup (13J3007-MSD1)		**Source: B3J2724-02**		Prepared: 10/30/13		Analyzed: 10/31/13				
4,4'-DDD	12.4	16	ug/kg	16.7	ND	74.2	5-169	0.852	55	Q_RL
4,4'-DDE	11.2	12	ug/kg	16.7	ND	67.5	20.8-133	2.28	50	Q_RL
4,4'-DDT	11.8	16	ug/kg	16.7	ND	71.1	5-172	0.308	34	Q_RL
a-BHC	12.9	16	ug/kg	16.7	ND	77.6	5-141	2.79	60	Q_RL
Aldrin	11.1	8.0	ug/kg	16.7	ND	66.7	23.1-110	1.82	60	
b-BHC	16.7	16	ug/kg	16.7	ND	100	5-134	11.2	60	
d-BHC	7.88	28	ug/kg	16.7	ND	47.3	5-106	6.84	54	Q_RL
Dieldrin	11.5	12	ug/kg	16.7	ND	69.2	28-137	0.627	60	Q_RL

Client Name: FGL Environmental, Inc.
Contact: Cindy Aguirre
Address: 853 Corporation Street
Santa Paula, CA 93060

Report Date: 06-Nov-2013

Project Name: No Project
Project Number: CC1383751-(8-769)

Work Order Number: B3J2724

Received on Ice (Y/N): Yes Temp: 1 °C

Organochlorine Pesticides and PCBs by EPA 8000 Series - Batch Quality Control

Analyte(s)	Result	RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 13J3007 - EPA 3550B										
Matrix Spike Dup (13J3007-MSD1)		**Source: B3J2724-02**		Prepared: 10/30/13		Analyzed: 10/31/13				
Endosulfan I	11.9	12	ug/kg	16.7	ND	71.3	17.1-147	1.07	59	Q_RL
Endosulfan II	12.5	16	ug/kg	16.7	ND	74.7	15.9-132	0.612	60	Q_RL
Endrin	12.8	12	ug/kg	16.7	ND	77.0	32.1-150	2.73	60	
Endrin Aldehyde	12.7	28	ug/kg	16.7	ND	75.9	5-102	3.55	60	Q_RL
Heptachlor	12.0	12	ug/kg	16.7	ND	72.2	26.4-126	2.12	60	
Heptachlor Epoxide	11.7	12	ug/kg	16.7	ND	70.1	28.3-122	0.0103	60	Q_RL
Lindane	12.0	16	ug/kg	16.7	ND	71.8	6.65-134	5.29	60	Q_RL
Surrogate: Decachlorobiphenyl	*17*		ug/kg	*20.0*		*83.5*	*10-158*			

E.S.BABCOCK&Sons,Inc.
Environmental Laboratories est 1906

Client Name: FGL Environmental, Inc.
Contact: Cindy Aguirre
Address: 853 Corporation Street
Santa Paula, CA 93060

Report Date: 06-Nov-2013

Project Name: No Project
Project Number: CC1383751-(8-769)

Work Order Number: B3J2724

Received on Ice (Y/N): Yes Temp: 1 °C

Notes and Definitions

N_HTa	Sample analyzed outside of the EPA recommended holding time.
N_RLm	Due to sample matrix, the reporting limit has been raised.
Q_RL	Due to sample matrix, the reporting limit for this analyte in this QC sample has been raised.
ND:	Analyte NOT DETECTED at or above the Method Detection Limit **(if MDL is reported)**, otherwise at or above the Reportable Detection Limit (RDL)
NR:	Not Reported
RDL:	Reportable Detection Limit
MDL:	Method Detection Limit
* / '" :	NELAP does not offer accreditation for this analyte/method/matrix combination

Approval

Enclosed are the analytical results for the submitted sample(s). Babcock Laboratories certify the data presented as part of this report meet the minimum quality standards in the referenced analytical methods. Any exceptions have been noted. Babcock Laboratories and its officers and employees assume no responsibility and make no warranty, express or implied, for uses or interpretations made by any recipients, intended or unintended, of this report.

cc:

e-Standard.rpt

E.S.BABCOCK&Sons,Inc.
Environmental Laboratories est 1906

Client Name: FGL Environmental, Inc.
Contact: Cindy Aguirre
Address: 853 Corporation Street
Santa Paula, CA 93060

Report Date: 06-Nov-2013

Analytical Report: Page 1 of 1
Project Name: No Project
Project Number: CC1383751-(8-769)

Work Order Number: B3J2724

Received on Ice (Y/N): Yes Temp: 1 °C

E.S.BABCOCK&Sons,Inc.
Environmental Laboratories est 1906

RELOG Request

Client: FGL Environmental

Person Requesting Relog: Lorenzo

Previous Work Order #: B3J1321 -01 & -02

Analysis Requested: 8081 -01 CC1383751-(8-769)1 PSL-1 10.11.13 0951 by TE
SOLID -02 CC1383751-(8-769)2 PSL-2 10.11.13 1025 by TE

TAT: 3 day OK per FK/Scott

Notes: R: 10.12.13 @ 1105 by Davin Kelley
Courier ON TRAC

Date/Signature: 10.29.13

NEW WORK ORDER # B3J2724 KW

OCT 29 2013

mailing
P.O. Box 432
Riverside, CA 92502-0432

location
6100 Quail Valley Court
Riverside, CA 92507-0704

P 951 653 3351
F 951 653 1662
www.babcocklabs.com

NELAP no. 02101CA
CA Elap no. 2698
EPA no. CA00102

ENVIRONMENTAL FGL AGRICULTURAL
Analytical Chemists

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www.fglinc.com

Laboratory Copy (1 of 3)

80777:10/07/2013

TEST DESCRIPTION - See Reverse side for Container, Preservative and Sampling information

Client: **Tenera Environmental**

Address: 141 Suburban Rd., Suite A2
San Luis Obispo, CA 93401

Phone: (805)541-0310 Fax:

Contact Person: Fred Steinert

Project Name: **Port San Luis Sediment**

Purchase Order Number:

Quote Number: **CC 20130220-01**

Sampler(s) Tenera Environmental

Sampling Fee: _____ Pickup Fee: _____

Compositor Setup Date: ___/___/___ Time: ___/___

Lab Number: CC 1383751 8-769

Samp Num	Location Description	Date Sampled	Time Sampled	Method of Sampling: Composite(C) Grab(G)	Type of Sample **SEE REVERSE SIDE**	Potable(P) Non-Potable(NP) Ag Water(AgW)	Bacti Type: Other(O) System(SYS) Source(SR) Waste(W)	Bacti Reason: Routine(ROUT) Repeat(RPT) Replace(RPL) Other(O) Special(SPL)	Metals, Total-As,Cd,Cr,Cu,Pb,Hg,Ni,Se,Ag,Zn 8oz(G)	EPA 8270 8oz(G)	Sub Inorganic-H2S 8oz(G) → ASSOCIATED LAB	Sub Organic-EPA 8081 8oz(G) → BABCOCK LAB	Sub Contracted-Oil & Grease - SGT by EPA 9071B → ASSOCIATED LAB	Sub Contracted-Oil & Grease - HEM by EPA 9071B → ASSOCIATED LAB
1	PSL - 1	10/1/13	0951	G	Sld				1	1	Sub-1	Sub-1	Sub-1	Sub-1
2	PSL - 2	10/1/13	1023	G	Sld				1	1	Sub-1	Sub-1	Sub-1	Sub-1

Remarks:

Relinquished	Date:	Time:	Relinquished	Date:	Time:	Relinquished	Date:	Time:
	10/1/13	1150		10/1/13	1330		10/4/13	1700
Received By:	**Date:**	**Time:**	**Received By:**	**Date:**	**Time:**	**Received By:**	**Date:**	**Time:**
			OATAC			ON TRK		

Corporate Offices & Laboratory
853 Corporation Street
Santa Paula, CA 93060
Phone: (805) 392-2000
Env Fax: (805) 525-4172 / Ag Fax: (805) 392-2063

Office & Laboratory
2500 Stagecoach Road
Stockton, CA 95215
Phone: (209) 942-0182
Fax: (209) 942-0423

Office & Laboratory
563 E. Lindo
Chico, CA 95926
Phone: (530) 343-5818
Fax: (530) 343-3807

Office & Laboratory
3442 Empresa Drive, Suite D
San Luis Obispo, CA 93401
Phone: (805) 783-2940
Fax: (805) 783-2912

Office & Laboratory
9415 W. Goshen Avenue
Visalia, CA 93291
Phone: (559) 734-9473
Fax: (559) 734-8435

ENVIRONMENTAL

Special Subcontract to Babcock & Sons, Inc.

www.fglinc.com

CHAIN OF CUSTODY

Field Copy (3 of 3)

80777:03/04/2013

TEST DESCRIPTION - See Reverse side for Container, Preservative and Sampling information

Client: **Fruit Growers Laboratory, Inc.**

Address: FGL Environmental, Inc.
853 Corporation St.
Santa Paula, CA 93060-3005

Phone: (805)392-2039 Fax: (805)525-6264

Contact Person:

Project Name: CC13S751 - (8-769)

Purchase Order Number:

Quote Number: CC 20130220-01

Sampler(s): TE

Sampling Fee: _____ Pickup Fee: _____

Compositor Setup Date: ___/___/___ Time: ___/___

Lab Number:

Samp Num	Location Description	Date Sampled	Time Sampled	Method of Sampling: Composite(C) Grab(G)	Type of Sample **SEE REVERSE SIDE**	Potable(P) Non-Potable(NP) Ag Water(AgW)	Bacti Type: Other(O) System(SYS) Source(SR) Waste(W)	Bacti Reason: Routine(ROUT) Repeat(RPT) Replace(RPL) Other(O) Special(SPL)	Sub Organic-EPA 8081 8oz(G)									
1	PSL-1	10/11	0951	G	Sld				1			→ ASSOCIATED SMPLS		→ ASSOCIATED SMPLS		→ ASSOCIATED SMPLS		
2	PSL-2	V	1023	G	Sld				1									

Remarks:

Relinquished	Date:	Time:	Relinquished	Date:	Time:	Relinquished	Date:	Time:
MRDanson	10/11/13	1700			1330	MRDanson	10/11/13	1700
Received By:	**Date:**	**Time:**	**Received By:**	**Date:**	**Time:**	**Received By:**	**Date:**	**Time:**
ONTRAC			MRDanson			ONTRAC		

Corporate Offices & Laboratory
853 Corporation Street
Santa Paula, CA 93060
TEL: 805/392-2000
FAX: 805/525-4172

Office & Laboratory
2500 Stagecoach Road
Stockton, CA 95215
TEL: 209/942-0182
FAX: 209/942-0423

Office & Laboratory
563 E. Lindo Avenue
Chico, CA 95926
TEL: 530/343-5818
FAX: 530/343-3807

Office & Laboratory
3442 Empresa Drive, Suite D
San Luis Obispo, CA 93401
TEL: 805/783-2940
FAX: 805/525-4172

Field Office
Visalia, California
TEL: 559/734-9473
Mobile: 559/737-2399
FAX: 559/734-8435

ENVIRONMENTAL

Special Subcontract to Babcock Laboratories, Inc.

CHAIN OF CUSTODY

Customer Copy (2 of 3)

80777:03/04/2013

TEST DESCRIPTION - See Reverse side for Container, Preservative and Sampling information

Client: **Fruit Growers Laboratory, Inc.**
Address: FGL Environmental, Inc.
853 Corporation St.
Santa Paula, CA 93060-3005

Phone: (805)392-2039 Fax: (805)525-6264

Contact Person:

Project Name: CC13337S1 - (8-769)

Purchase Order Number:

Quote Number: CC 20130220-01

Sampler(s): TE

Sampling Fee: _____ Pickup Fee: _____

Compositor Setup Date: ___/___/___ Time: ___/___

Lab Number:

Samp. Num	Location Description	Date Sampled	Time Sampled	Method of Sampling: Composite(C) Grab(G)	Type of Sample **SEE REVERSE SIDE**	Potable(P) Non-Potable(NP) Ag Water(AgW)	Bacti Type: Other(O) System(SYS) Source(SR) Waste(W)	Bacti Reason: Routine(ROUT) Repeat(RPT) Replace(RPL) Other(O) Special(SPL)	Sub Organic-EPA 8081 8oz(G)
1	PSL-1	10/11	0951	G	Sld				1
2	PSL-2	"	1023	G	Sld				1

Remarks:

Relinquished	Date:	Time:	Relinquished	Date:	Time:	Relinquished	Date:	Time:
R Dawson	10/11/13	1700						
Received By:	**Date:**	**Time:**	**Received By:**	**Date:**	**Time:**	**Received By:**	**Date:**	**Time:**
ONTKE	"	"						

10/12/13

14

Corporate Offices & Laboratory
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TEL: 559/734-9473
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FAX: 559/734-8435

Santa Paula - Condition Upon Receipt (Attach to COC)

Sample Receipt:

1. Number of ice chests/packages received: 1
   Note as OTC if received over the counter unpackaged.
2. Were samples received in a chilled condition? Temps: 1 / ____ / ____ / ____ / ____
   Acceptable is 2° to 6° C. Also acceptable is received on ice (ROI) for the same day of sampling or received at room temperature (RRT) if sampled within one hour of receipt. Client contact for temperature failures must be documented below. If many packages are received at one time check for tests/H.T.'s/rushes/Bacti's to prioritize further review. Please notify Microbiology personnel immediately of bacti samples received.
3. Do the number of bottles received agree with the COC? (Yes) No N/A
4. Were samples received intact? (i.e. no broken bottles, leaks etc.) (Yes) No
5. Were sample custody seals intact? (N/A) Yes No

Sign and date the COC, obtain LIMS sample numbers, select methods/tests and print labels.

Sample Verification, Labeling and Distribution:

1. Were all requested analyses understood and acceptable? (Yes) No
2. Did bottle labels correspond with the client's ID's? (Yes) No
3. Were all bottles requiring sample preservation properly preserved? Yes No (N/A) FGL
4. VOAs checked for Headspace? Yes No (N/A)
5. Were all analyses within holding times at time of receipt? (Yes) No
6. Have rush or project due dates been checked and accepted? (N/A) Yes No

Attach labels to the containers and include a copy of the COC for lab delivery.

Sample Receipt, Login and Verification completed by (initials): CLO

Discrepancy Documentation:

Any items above which are "No" or do not meet specifications (i.e. temps) must be resolved.

1. Person Contacted:_____ Phone Number:_____
   Initiated By:_____ Date:_____
   Problem:

   Resolution:

2. Person Contacted:_____ Phone Number:_____
   Initiated By:_____ Date:_____
   Problem:

   Resolution:

(8-769)
Tenera Environmental
CC 1383751
IV-10/14/2013-10:45:11

Appendix B

Particle Size Analysis

Copies of Original Laboratory Data Reports

Mr. Fred Steinert
Tenera Environmental
141 Suburban Road, Suite A-2
San Luis Obispo, CA 93401

October 17, 2013
File No.: SL-11150-TA
Doc. No.: 1310-034.LAB

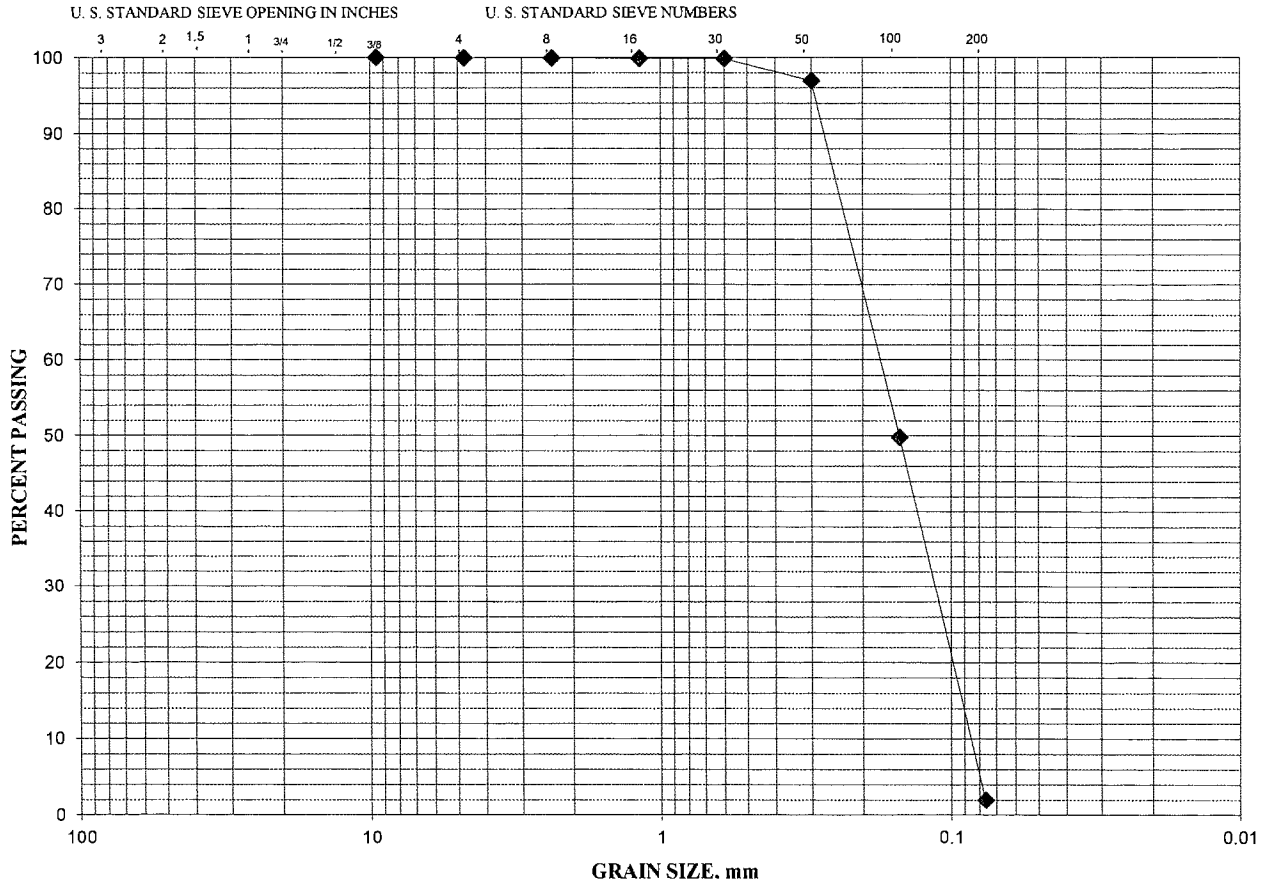
PROJECT: Project No. 122076-03

SAMPLE I.D.: DSP1

PARTICLE SIZE ANALYSIS

ASTM D 422-63/07; D 1140-00/06

Sieve size	% Retained	% Passing
3/8"	0	100
#4	0	100
#8	0	100
#16	0	100
#30	0	100
#50	3	97
#100	50	50
#200	98.0	2.0



Mr. Fred Steinert
Tenera Environmental
141 Suburban Road, Suite A-2
San Luis Obispo, CA 93401

October 17, 2013
File No.: SL-11150-TA
Doc. No.: 1310-035.LAB

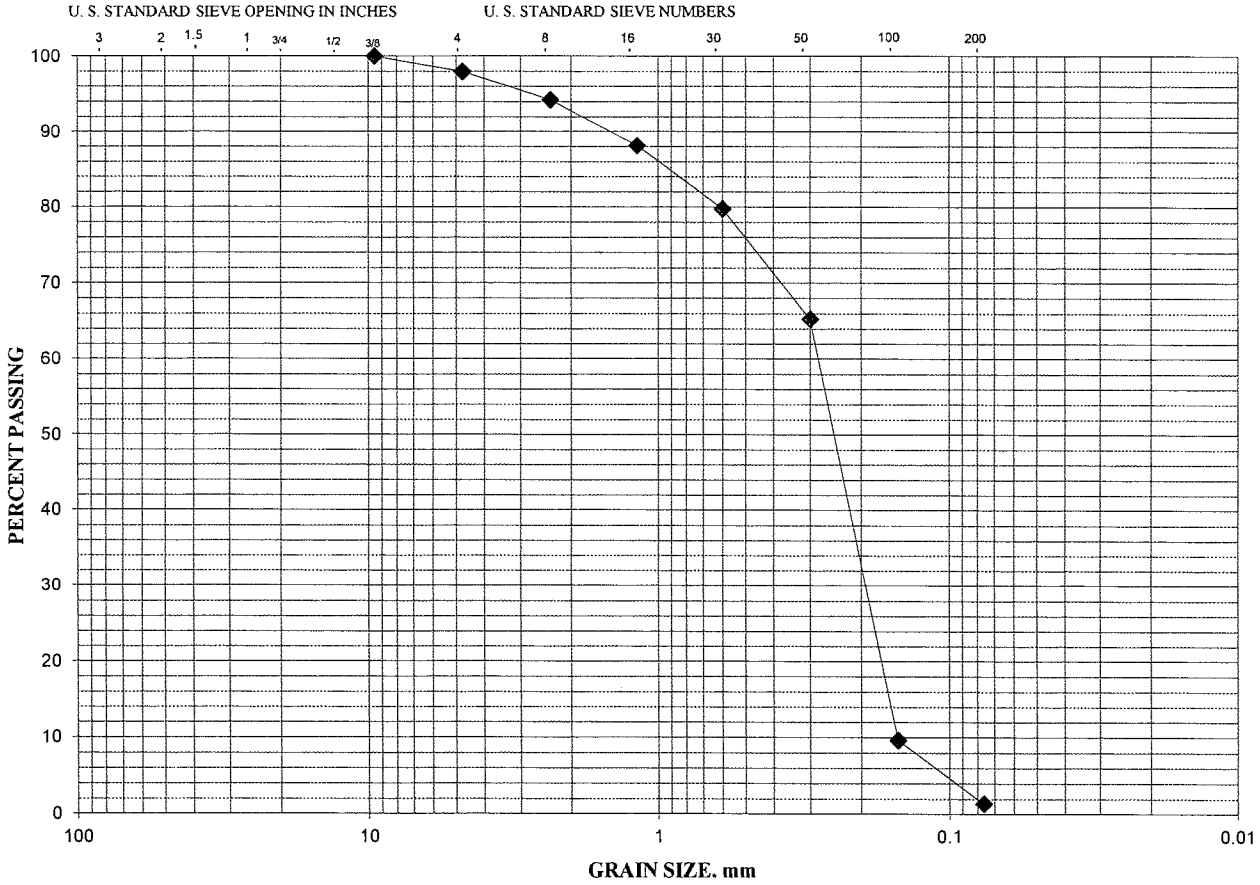
PROJECT: Project No. 122076-03

SAMPLE I.D.: DSP2

PARTICLE SIZE ANALYSIS

ASTM D 422-63/07; D 1140-00/06

Sieve size	% Retained	% Passing
3/8"	0	100
#4	2	98
#8	6	94
#16	12	88
#30	20	80
#50	35	65
#100	90	10
#200	98.6	1.4



Mr. Fred Steinert
Tenera Environmental
141 Suburban Road, Suite A-2
San Luis Obispo, CA 93401

October 17, 2013
File No.: SL-11150-TA
Doc. No.: 1310-036.LAB

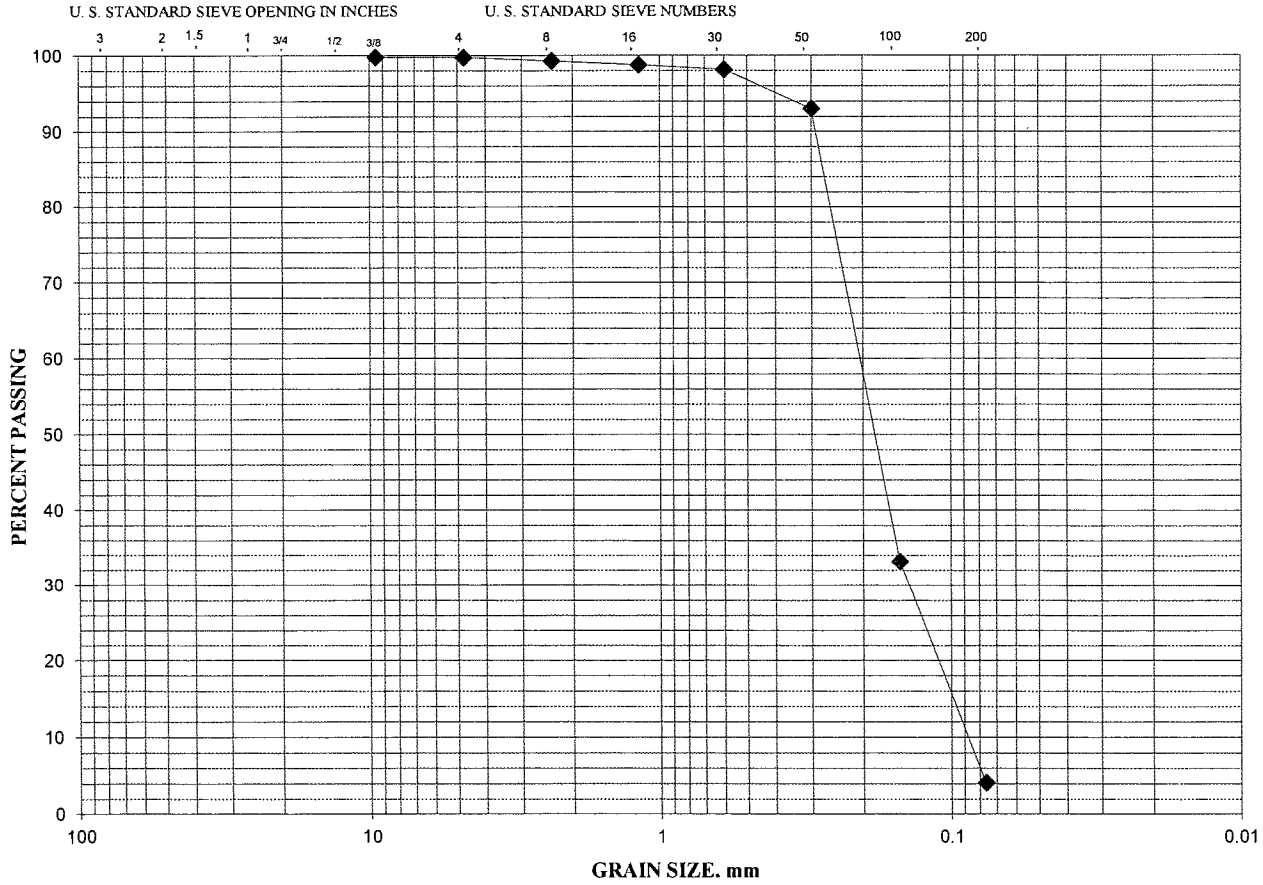
PROJECT: Project No. 122076-03

SAMPLE I.D.: PSL1

PARTICLE SIZE ANALYSIS

ASTM D 422-63/07; D 1140-00/06

Sieve size	% Retained	% Passing
3/8"	0	100
#4	0	100
#8	1	99
#16	1	99
#30	2	98
#50	7	93
#100	67	33
#200	95.9	4.1



Mr. Fred Steinert
Tenera Environmental
141 Suburban Road, Suite A-2
San Luis Obispo, CA 93401

October 17, 2013
File No.: SL-11150-TA
Doc. No.: 1310-037.LAB

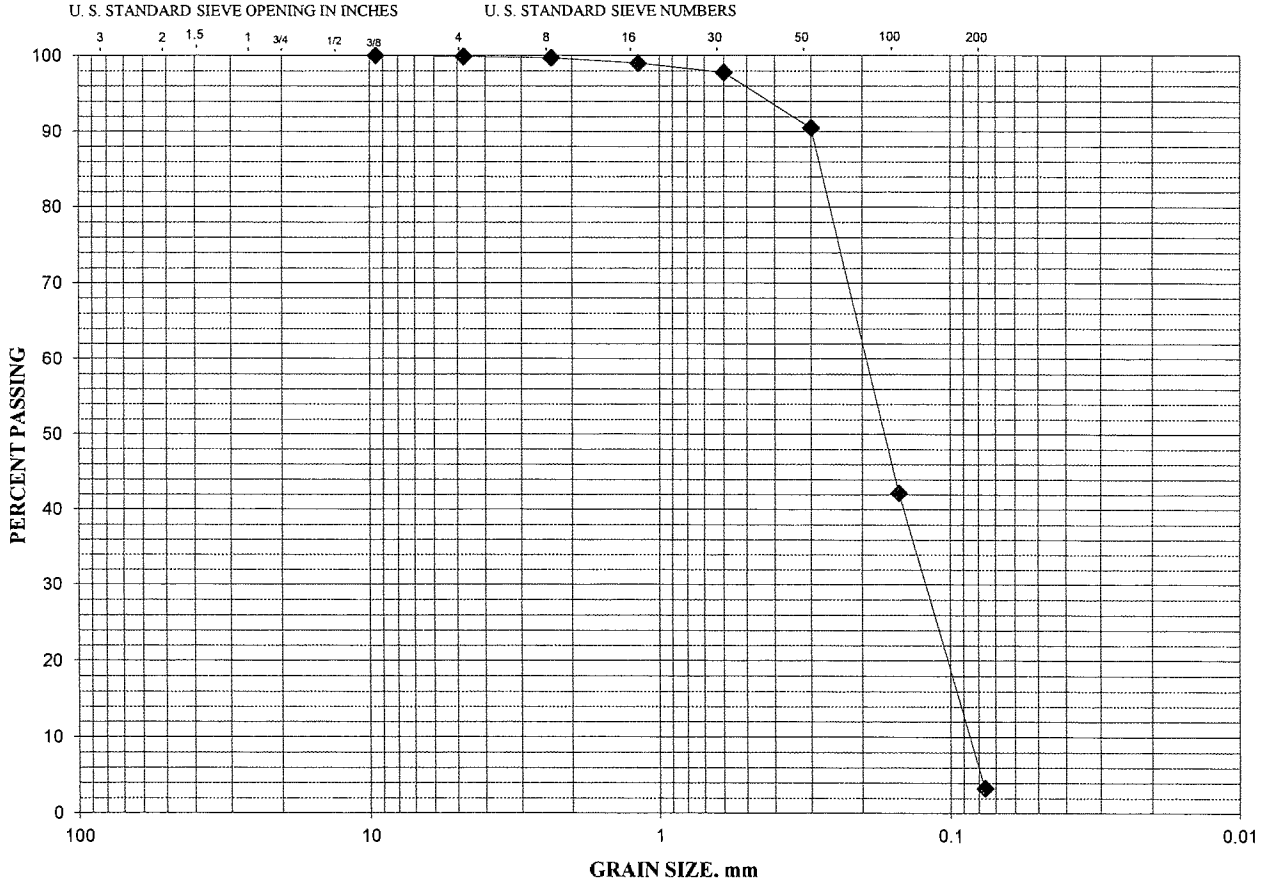
PROJECT: Project No. 122076-03

SAMPLE I.D.: PSL2

PARTICLE SIZE ANALYSIS

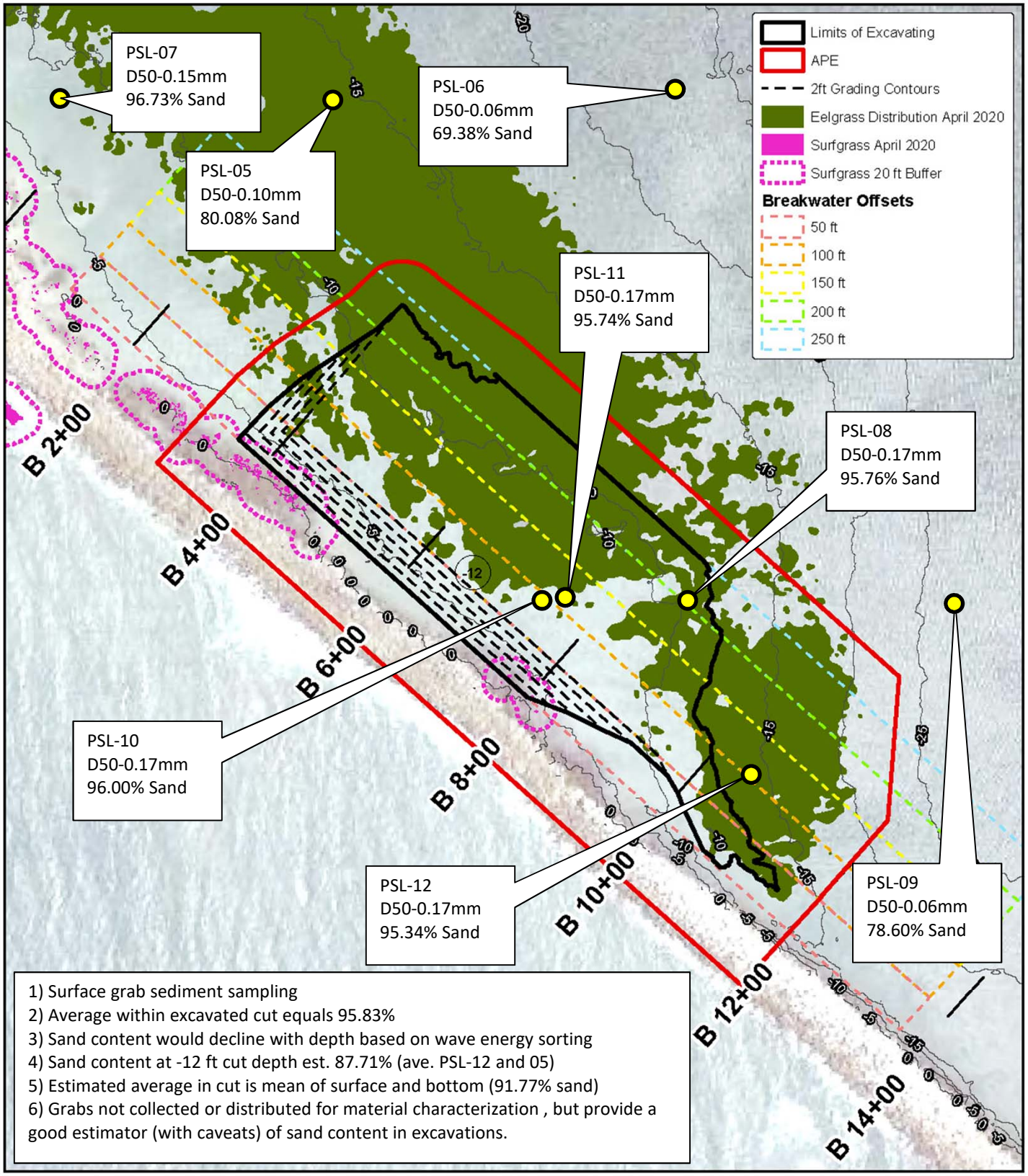
ASTM D 422-63/07; D 1140-00/06

Sieve size	% Retained	% Passing
3/8"	0	100
#4	0	100
#8	0	100
#16	1	99
#30	2	98
#50	9	91
#100	58	42
#200	96.7	3.3

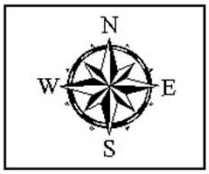


2020 Discount Grain Size Analyses and Figure, Port San Luis Harbor Breakwater O&M Repair
(Source: Eelgrass Mitigation and Monitoring Plan In Support Of The Port San Luis Breakwater Repairs Port San Luis, San Luis Obispo County, California, Merkel and Associates, 2020)

The data from surface grab samples that were gathered from within the eelgrass can be used to perform a ***discount*** weighted average grain size analysis. The results, when coupled with all other factors of littoral sediment source, lack of contaminant sources in the area, a general knowledge of the driver of accumulation being the breakwater, and the planned immediate area reuse, and believe it would support a Tier 1. To make use of the surface grab data to estimate the weighted sand percentage it is necessary to consider the energetics of the environment as part of the accumulation process and note that the sand content at depth will be lower than that at the surface of the dredge area. This is because the surface sediments in shallower water are exposed to greater swell and overtopping wave energy than would be the case if the site were deeper. Since the site was deeper and has filled with sand over time, it is expected that grain size and percent sand has risen with accumulation. To develop a volume based average sand content, Keith Merkel (Merkel and Associates) averaged the surface percent sand for the three samples taken within the dredge footprint (PSL 08, 10, and 11 = 95.83%) [Figure 2]. Keith Merkel then averaged the westerly sample PSL-12 (-14.65 ft) and the easterly PSL-05 (-14.33 ft) deeper samples as surrogates of what the percent sand may look like at the bottom of the cut (87.71%). This is expected to be a low percent sand estimate for two reasons. First both samples were taken deeper than the design cut and second, PSL-05 is much more protected and within eelgrass that would retain fines than would be the case in the proposed dredge footprint. This results in an estimated (91.77%) for volume weighting.



1) Surface grab sediment sampling
2) Average within excavated cut equals 95.83%
3) Sand content would decline with depth based on wave energy sorting
4) Sand content at -12 ft cut depth est. 87.71% (ave. PSL-12 and 05)
5) Estimated average in cut is mean of surface and bottom (91.77% sand)
6) Grabs not collected or distributed for material characterization , but provide a good estimator (with caveats) of sand content in excavations.



Project Impact Area Seagrass
Port San Luis Breakwater Repair Sections
San Luis Obispo County, California

Figure 2