KINNETIC
LABORATORIES
INCORPORATED

P.O.BOX 1040
LABORATORY: 307 WASHINGTON STREET
SANTA CRUZ, CALIFORNIA 95061
(831) 457-3950
FAX (831) 426-0405

November 9, 2010

Rick Moe
1930 Ocean Street Extension
P.O. Box 3710
Santa Cruz, CA 95063

Subject: Mercury Results from Soil Samples Collected at 1930 Ocean Street Extension, Santa Cruz

Dear Mr. Moe,

As requested, Kinnetic Laboratories Inc. collected surface soil samples (top two inches) at six locations at the 1930 Ocean Street Extension property and at an offsite reference location on October 27, 2010. Samples were collected with stainless-steel utensils using clean hands/dirty hands sampling techniques required for trace mercury analyses. All sampling equipment was decontaminated with nitric acid and deionized water prior to sampling. The seven samples collected were delivered to Soil Control Lab of Watsonville, CA for total mercury analysis. Times, location coordinates, and location descriptions for each sampling location are provided in the following table:

Sample ID	Sample Name	Sample Date	Sample Time	Latitude	Longitude	Description
SCC-1	Bldg 3	10/27/2010	10:15	36° 59' 26.8"	122° 01' 41.8"	NW corner of property
SCC-2	Bldg 6	10/27/2010	10:20	36° 59' 24.5"	122° 01' 38.2"	
SCC-3	East	10/27/2010	10:25	36° 59' 24.2"	122° 01' 37.3"	42 feet from edge of crematory stack
SCC-4	South	10/27/2010	10:30	36° 59' 23.5"	122° 01' 37.6"	42 feet from edge of crematory building
SCC-5	Bldg 9	10/27/2010	10:35	36° 59' 26.9"	122° 01' 39.0"	37 feet east of tree
SCC-6	Reference	10/27/2010	10:50	36° 59' 27.5"	122° 01' 48.8"	NW corner of cemetery

The results of the total mercury analyses can be found in the attached report from Soils Control Lab and are summarized in the following table:

Sample ID	Dry Weight Mercury Concentration (mg/kg)
SCC-1	0.030
SCC-2	0.017
SCC-3	0.035
SCC-4	0.043
SCC-5	0.026
SCC-6	0.028

All results were below the laboratory reporting limit of 0.1 mg/kg but above the method detection limit of 0.005 mg/kg. The results can be compared to "California Human Health Screening Values (CHHSLs) for Evaluation of Contaminated Properties[1]" specific to total mercury (elemental mercury and associated compounds). The CHHSL for total mercury for the protection of human health in soils with residential land use designation is 18.0 mg/kg dry weight. All samples collected from the 1930 Ocean Street Extension property were well below the CHHSL screening value and were similar to the reference site sample. It is our opinion that the laboratory followed proper quality assurance/quality control procedures and all results met quality control objectives.

Please feel free to contact me if you have any questions or need additional information. It has been a pleasure conducting these services for you.

Sincerely,

Kenneth P. Kronschnabl
KLI Operations Manager

Attachment: Soil Control Lab Analytical Report

[1] California Environmental Protection Agency. 2005. Use of California Human Health Screening Values in Evaluation of Contaminated Properties. January 2005.

ANALYTICAL CHEMISTS
and
BACTERIOLOGISTS
Approved by State of California

SOIL CONTROL LAB

42 HANGAR WAY
WATSONVILLE
CALIFORNIA
95076
USA

TEL: 831-724-5422
FAX: 831-724-3188

Rick Moe
P.O. Box 3710
Santa Cruz, CA 95063
Attn: Rcik Moe

November 09, 2010

RE: 1930 Ocean St. / None
Workorder: 0100688

Dear Rcik Moe,

Enclosed is a copy of your laboratory report for test samples received by our laboratory on 10/27/2010 11:25:00 AM.

Unless otherwise noted in an attached project narrative, all samples were received in acceptable condition and processed in accordance with the referenced methods.

If you have any questions or require further information, please do not hesitate to contact me.

Sincerely,

Mike Galloway

Lab Director

Enclosure(s)

Rick Moe
P.O. Box 3710
Santa Cruz, CA 95063
Attn: Rcik Moe

Work Order #: 0100688
Reporting Date: November 9, 2010

SAMPLE SUMMARY

Laboratory ID	Client ID	Station ID	Matrix	Sampled	Received
0100688-01	SCC-1	Bldg. 3	Sediment	10/27/10 10:15	10/27/10 11:25
0100688-02	SCC-2	Bldg. 6	Sediment	10/27/10 10:20	10/27/10 11:25
0100688-03	SCC-3	East	Sediment	10/27/10 10:25	10/27/10 11:25
0100688-04	SCC-4	South	Sediment	10/27/10 10:30	10/27/10 11:25
0100688-05	SCC-5	Bldg. 9	Sediment	10/27/10 10:35	10/27/10 11:25
0100688-06	SCC-6	Ref	Sediment	10/27/10 10:50	10/27/10 11:25

RL - are levels down to which we can quantify with reliability, a result below this level is reported as "ND" for Not Detected.

Rick Moe
P.O. Box 3710
Santa Cruz, CA 95063
Attn: Rcik Moe

Work Order #: 0100688
Reporting Date: November 9, 2010

Date Received: October 27, 2010
Project # / Name: 1930 Ocean St. / None
Sample Identification: SCC-1
Matrix: Sediment
Laboratory #: 0100688-01

	Results	Units	RL	MDL	Dilution Factor	Analysis Method	Date Analyzed	Flags
Percent Solids	87	% by Wt	0.10	0.0050	1	SM2540B	10/29/10	
Total Mercury (Hg)	0.030	mg/kg dry	0.033	0.0065	1.31	EPA 7471A	11/02/10	J

RL - are levels down to which we can quantify with reliability, a result below this level is reported as "ND" for Not Detected.

Rick Moe
P.O. Box 3710
Santa Cruz, CA 95063
Attn: Rcik Moe

Work Order #: 0100688
Reporting Date: November 9, 2010

Date Received: October 27, 2010
Project # / Name: 1930 Ocean St. / None
Sample Identification: SCC-2
Matrix: Sediment
Laboratory #: 0100688-02

	Results	Units	RL	MDL	Dilution Factor	Analysis Method	Date Analyzed	Flags
Percent Solids	84	% by Wt	0.10	0.0050	1	SM2540B	10/29/10	
Total Mercury (Hg)	0.017	mg/kg dry	0.039	0.0077	1.55	EPA 7471A	11/02/10	J

RL - are levels down to which we can quantify with reliability, a result below this level is reported as "ND" for Not Detected.

Rick Moe
P.O. Box 3710
Santa Cruz, CA 95063
Attn: Rcik Moe

Work Order #: 0100688
Reporting Date: November 9, 2010

Date Received: October 27, 2010
Project # / Name: 1930 Ocean St. / None
Sample Identification: SCC-3
Matrix: Sediment
Laboratory #: 0100688-03

	Results	Units	RL	MDL	Dilution Factor	Analysis Method	Date Analyzed	Flags
Percent Solids	80	% by Wt	0.10	0.0050	1	SM2540B	10/29/10	
Total Mercury (Hg)	0.035	mg/kg dry	0.042	0.0083	1.66	EPA 7471A	11/02/10	J

RL - are levels down to which we can quantify with reliability, a result below this level is reported as "ND" for Not Detected.

Rick Moe
P.O. Box 3710
Santa Cruz, CA 95063
Attn: Rcik Moe

Work Order #: 0100688
Reporting Date: November 9, 2010

Date Received: October 27, 2010
Project # / Name: 1930 Ocean St. / None
Sample Identification: SCC-4
Matrix: Sediment
Laboratory #: 0100688-04

	Results	Units	RL	MDL	Dilution Factor	Analysis Method	Date Analyzed	Flags
Percent Solids	84	% by Wt	0.10	0.0050	1	SM2540B	10/29/10	
Total Mercury (Hg)	0.043	mg/kg dry	0.043	0.0086	1.72	EPA 7471A	11/02/10	J

RL - are levels down to which we can quantify with reliability, a result below this level is reported as "ND" for Not Detected.

Rick Moe
P.O. Box 3710
Santa Cruz, CA 95063
Attn: Rcik Moe

Work Order #: 0100688
Reporting Date: November 9, 2010

Date Received: October 27, 2010
Project # / Name: 1930 Ocean St. / None
Sample Identification: SCC-5
Matrix: Sediment
Laboratory #: 0100688-05

	Results	Units	RL	MDL	Dilution Factor	Analysis Method	Date Analyzed	Flags
Percent Solids	82	% by Wt	0.10	0.0050	1	SM2540B	10/29/10	
Total Mercury (Hg)	0.026	mg/kg dry	0.038	0.0077	1.54	EPA 7471A	11/02/10	J

RL - are levels down to which we can quantify with reliability, a result below this level is reported as "ND" for Not Detected.

Rick Moe
P.O. Box 3710
Santa Cruz, CA 95063
Attn: Rcik Moe

Work Order #: 0100688
Reporting Date: November 9, 2010

Date Received: October 27, 2010
Project # / Name: 1930 Ocean St. / None
Sample Identification: SCC-6
Matrix: Sediment
Laboratory #: 0100688-06

	Results	Units	RL	MDL	Dilution Factor	Analysis Method	Date Analyzed	Flags
Percent Solids	82	% by Wt	0.10	0.0050	1	SM2540B	10/29/10	
Total Mercury (Hg)	0.028	mg/kg dry	0.058	0.012	2.31	EPA 7471A	11/02/10	J

RL - are levels down to which we can quantify with reliability, a result below this level is reported as "ND" for Not Detected.

Rick Moe
P.O. Box 3710
Santa Cruz, CA 95063
Attn: Rcik Moe

Work Order #: 0100688
Reporting Date: November 9, 2010

Classical Chemistry Parameters - Quality Control

Soil Control Lab

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch PK00075 - Default Prep GenChem											
Blank (PK00075-BLK1)					Prepared & Analyzed: 29-Oct-10						
Percent Solids	ND	0.0050	0.10	% by Wt							
Duplicate (PK00075-Dup1)		**Source: 0100561-01**			Prepared & Analyzed: 29-Oct-10						
Percent Solids	35.44	0.0050	0.10	% by Wt		35.57			0.391	20	

RL - are levels down to which we can quantify with reliability, a result below this level is reported as "ND" for Not Detected.

Rick Moe
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Santa Cruz, CA 95063
Attn: Rcik Moe

Work Order #: 0100688
Reporting Date: November 9, 2010

Metals - Quality Control

Soil Control Lab

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch PK00011 - EPA 7471A Prep											
Blank (PK00011-BLK1)					Prepared & Analyzed: 02-Nov-10						
Total Mercury (Hg)	ND	0.010	0.050	mg/kg wet							
Duplicate (PK00011-DUP1)		**Source: 0100561-02**			Prepared & Analyzed: 02-Nov-10						
Total Mercury (Hg)	0.04561	0.0078	0.039	mg/kg dry		0.04678			2.53	25	
Duplicate (PK00011-DUP2)		**Source: 0100688-01**			Prepared & Analyzed: 02-Nov-10						
Total Mercury (Hg)	0.03204	0.0068	0.034	mg/kg dry		0.02990			6.89	25	J
Matrix Spike (PK00011-MS1)		**Source: 0100561-02**			Prepared & Analyzed: 02-Nov-10						
Total Mercury (Hg)	0.7040	0.0096	0.048	mg/kg dry	0.762	0.04678	86.3	75-125			
Matrix Spike (PK00011-MS2)		**Source: 0100688-01**			Prepared & Analyzed: 02-Nov-10						
Total Mercury (Hg)	0.1917	0.0065	0.033	mg/kg dry	0.188	0.02990	86.3	75-125			
Matrix Spike Dup (PK00011-MSD1)		**Source: 0100561-02**			Prepared & Analyzed: 02-Nov-10						
Total Mercury (Hg)	0.7055	0.0096	0.048	mg/kg dry	0.762	0.04678	86.5	75-125	0.216	25	
Matrix Spike Dup (PK00011-MSD2)		**Source: 0100688-01**			Prepared & Analyzed: 02-Nov-10						
Total Mercury (Hg)	0.1932	0.0065	0.033	mg/kg dry	0.188	0.02990	87.1	75-125	0.780	25	
Reference (PK00011-SRM1)					Prepared & Analyzed: 02-Nov-10						
Total Mercury (Hg)	1.806	0.027	0.13	mg/kg wet	2.45		73.7	51-149			

RL - are levels down to which we can quantify with reliability, a result below this level is reported as "ND" for Not Detected.

Rick Moe
P.O. Box 3710
Santa Cruz, CA 95063
Attn: Rcik Moe

Work Order #: 0100688
Reporting Date: November 9, 2010

Notes and Definitions

J Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).

RL - are levels down to which we can quantify with reliability, a result below this level is reported as "ND" for Not Detected.

DISCLAIMER

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APN 028-044-02

REVISIONS

BOWMAN & WILLIAMS
CONSULTING CIVIL ENGINEERS
1011 CEDAR STREET
SANTA CRUZ, CA 95060
(831) 426-3560

REGISTERED CIVIL ENGINEER NO. 53369

GRADING AND DRAINAGE PLAN

FOR STANNER SERRANES
OCEAN STREET EXTENSION
SOLARI, JR.
SANTA CRUZ, CALIFORNIA

SCALE 1"=30'	DRAWN TPC	JOB NO. 03742-B	SHEET C1
DATE JANUARY 13, 2016	CHECKED JFR	BASIS	
DESIGN JFR/TPC	DWG NAME 03742DP	FILE NO.	OF 6

Chain of Custody Record

To:		From:
Soil Control Lab 42 Hangar Way Watsonville,CA 95076 (831) 724-5422 (831) 724-3188 Fax Contact: Mike Galloway	Date Received: 10-27-10 Lab #: 0100688	Kinnetic Laboratories, Inc 307 Washington St. Santa Cruz, CA 95060 (831) 457-3950 (831) 426-0405 Fax Contact: Amy Howk

Project: Santa Cruz Crematorium **Matrix:** Sediment **Project #:** 5720.46

Complete by: 3 weeks

SampleID	StationID	Sample Date	Sample Time	Sample Type	Analysis *	Container	Pres	No. of Bottles	LabID	Condition Upon Receipt
SCC-1	Bldg 3	10-27-10	~~10:27-10~~ 10:15	Grab	Total Hg, % Moisture	16 oz WMGJ	4°c	1	0100688-01	INTACT
SCC-2	Bldg 6	"	10:20	Grab	Total Hg, % Moisture	16 oz WMGJ	4°c	1	-02	"
SCC-3	East	"	10:25	Grab	Total Hg, % Moisture	16 oz WMGJ	4°c	1	-03	"
SCC-4	South	"	10:30	Grab	Total Hg, % Moisture	16 oz WMGJ	4°c	1	-04	"
SCC-5	Bldg 9	"	10:35	Grab	Total Hg, % Moisture	16 oz WMGJ	4°c	1	-05	"
SCC-6	Ref	"	10:50	Grab	Total Hg, % Moisture	16 oz WMGJ	4°c	1	-06	"

Data Report MUST include the following: Sample ID, Analytical Method, Detection Limit, Date of Extraction if applicable, Date of Analysis, Analytical Results and Signature of QA Reviewer. Submit all data in paper and digital formats to KLI. Email digital to edd@kinneticlabs.com. All times on this sheet are military time.

Special Instructions/Comments: Please Report in Dry Weight.

* lowest possible detection limits

method 7471

Sampled and Relinquished By:	Date/Time:	Transporter	Received By:	Date/Time:
Greg Cotten	10-27-10 / 11:25	KLI	Lonnie Wyatt	10/27/10 1125
Relinquished By:	**Date/Time:**	**Transporter**	**Received By:**	**Date/Time:**

e-mail to: kerouse@aol.com
craigrowell@gmail.com

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