Navdeep Singh Grewal
349 Brianne Court
Pleasanton, CA 94566

August 13, 2013

Mr. Mark Detterman
Alameda County Health Care Services Agency
Department of Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Re: CHEVRON #9-1851
451 Hegenberger Road
Oakland, California
ACEH Case No. 464

Dear Mr. Detterman:

I, Mr. Navdeep Singh Grewal, have retained Pangea Environmental Services, Inc. (Pangea) for environmental consulting services for the project referenced above. On my behalf, Pangea is submitting the attached *Imported Fill Certification Letter.*

I declare, under penalty of perjury, that the information and/or recommendations contained in the attached report is true and correct to the best of my knowledge.

Sincerely,

Navdeep Singh Grewal

August 12, 2013

VIA ALAMEDA COUNTY FTP SITE

Mr. Mark Detterman
Alameda County Environmental Health
1131 Harbor Bay Parkway, 2nd Floor
Alameda, California 94502

Re: **Imported Fill Certification Letter**
451 Hegenberger, Oakland, California
ACEH Case #464

Dear Mr. Dettermen:

Pangea Environmental Services, Inc. (Pangea) prepared this imported fill certification letter for soil and recycled concrete utilized as backfill at the subject site. This certification letter was required by the Alameda County Environmental Health (ACEH) letter dated July 24, 2013.

IMPORTED FILL

For geotechnical purposes, the property owner imported fill material and exported native soil beneath the planned site building. Otherwise, the planned building would have straddled both native clayey soil and permeable fill material within the soil remediation area performed by Chevron. The imported material was compacted in the following three layers:

- 0 to 2 ft bgs = imported roadbase with recycled asphalt,
- 2 to 4 ft bgs = soil from residential hillside development in San Jose, and
- 4 to 6 ft bgs = imported drain rock with recycled concrete (3/4" size).

SCOPE OF FILL CERTIFICATION

To assess imported fill for potential chemical impact, Pangea coordinated the installation and sampling of two shallow soil borings. Sampling was performed to address concerns described in two documents provided by ACEH: the *New Jersey Department of Environmental Protection for Guidance for Characterization of Concrete and Clean Material Certification for Recycling* dated January 2010, and the *DTSC Clean Imported Fill Material Information Advisory* dated 2001, which pertains to sensitive land use properties such as hospitals, homes, day care centers, and schools.

Boring B-23 was located in the southwestern portion of the backfilled area near former boring B-5, while boring B-24 was located in the northwestern portion near former boring B-7. Both borings were installed to approximately 6 feet below grade surface (bgs) and soil samples were collected from approximately 1, 3, and 5 ft depths from each boring. Sustainable Technologies (ST) of Alameda, California installed the borings using a Bobcat equipped with a nine-inch diameter auger.

Soil Sample Analyses

Based on our review of the ACEH-provided documents and a discussion with ACEH, select soil samples were analyzed for the following:

- Total petroleum hydrocarbons as diesel (TPHd) with silica gel clean up by EPA Method 8015;
- Polychlorinated biphenyls (PCBs) by EPA Method 8082;
- Volatile organic compounds (VOCs) by EPA Method 8260B;
- Polynuclear aromatic hydrocarbons (PAHs/PNAs) by EPA Method 8270;
- CAM 17 metals by EPA Method 6020;
- Total lead by EPA Method 6010; and
- Asbestos by EPA Method 600.

No staining or odors were observd during boring installation. The NJ guidance document identifies PCBs and PAHs as the primary constituents of concern for recycling of concrete as clean fill, so the lowest layer sample was analyzed by PCBs and PAHs. Since the hillside soil imported from San Jose contained from rocky material, the soil was analyzed for asbestos, which could be present in serpentite bedrock. This soil was also analyzed for VOCs, CAM 17 metals, and TPHd. The shallow baserock material was analyzed for PCBs, PAHs, and lead.

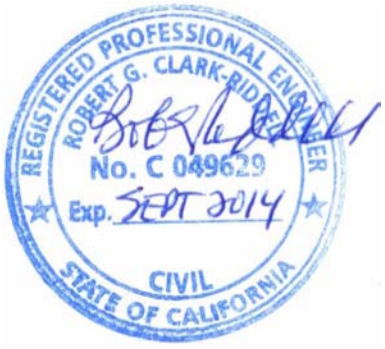
Soil Analytical Results

No PCBs, PAHs/PNAs, VOCs or asbestos was detected in any of the analyzed soil samples. Low metal concentrations detected in the sample from B-23 at 3 ft depth likely represent background conditions for the imported soil. TPHd was detected in soil from boring B-23 at a depth of approximately 3 ft bgs at a concentration of 120 mg/kg, and could be from existing site soil that was reused within the fill and compaction area. This detection is below commercial Environmental Screening Levels (ESLs) where groundwater is not a current/potential source of drinking water (500 mg/kg). The laboratory reports are included in Appendix A.

CONCLUSIONS

Based on the analytical results from this investigation and the prior documentation provided by the backfill material provider and the Bay Area Concrete Recycling certification letter dated July 26, 2013, Pangea certifies that the imported material is appropriate for use at the subject. If you have any questions, feel free to contact me at (510) 435-8664 or briddell@pangeaenv.com.

Sincerely,
Pangea Environmental Services, Inc.



Bob Clark-Riddell, P.E.
Principal Engineer

ATTACHMENTS

Appendix A – Analytical Reports

APPENDIX A

Laboratory Analytical Reports

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Pangea Environmental Svcs., Inc. 1710 Franklin Street, Ste. 200 Oakland, CA 94612	Client Project ID: #1465.001; Grewal - 451 Hegenberger	Date Sampled: 08/05/13
		Date Received: 08/05/13
	Client Contact: Tina De La Fuente	Date Reported: 08/08/13
	Client P.O.:	Date Completed: 08/08/13

WorkOrder: 1308159

August 08, 2013

Dear Tina:

Enclosed within are:

1) The results of the **3** analyzed samples from your project: **#1465.001; Grewal - 451 Hegenberger,**
2) QC data for the above samples, and
3) A copy of the chain of custody.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing McCampbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius
Laboratory Manager
McCampbell Analytical, Inc.

The analytical results relate only to the items tested.

McCAMPBELL ANALYTICAL, INC.

1534 Willow Pass Road
Pittsburg, CA 94565
1308159
Website: www.mccampbell.com Email: main@mccampbell.com
Telephone: (925) 252-9262 Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD

TURN AROUND TIME ☐ RUSH ☐ 24 HR ☐ 48 HR ☒ 72 HR ☒ 5 DAY

EDF Required? Coelt (Normal) No Write On (DW) No

Report To: Tina de la Fuente	Bill To: Pangea
Company: Pangea Environmental Services, Inc.	
1710 Franklin Street, Suite 200, Oakland, CA 94612	E-Mail: tdelafuente@pangeaenv.com
Tele: (510) 836-3700	Fax: (510) 836-3709
Project #: 1465.001	Project Name: Grewal - 451 Hegenberger
Project Location: 451 Hegenberger Road, Oakland	
Sampler Signature:	

RUSH

SAMPLE ID	LOCATION (Field Point Name)	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	MATRIX Soil	MATRIX Air	MATRIX Sludge	MATRIX Other	METHOD PRESERVED ICE	METHOD PRESERVED HCL	METHOD PRESERVED HNO_3	METHOD PRESERVED Other	BTEX & TPH as Gas (602/8020 + 8015)/MTBE	TPH as Diesel (8015) w/ Silica Gel Cleanup	Total Petroleum Oil & Grease (5520 E&F/B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 601 / 8010 / 8021	BTEX ONLY (EPA 602 / 8020)	EPA 608 / 8081	EPA 608 / 8082 PCB's ONLY	EPA 8140 / 8141	EPA 8150 / 8151	EPA 524.2 / 624 / 8260	EPA 525 / 625 / 8270	PAH's / PNA's by EPA 625 / 8270 / 8310	CAM-17 Metals (6010 / 6020)	LUFT 5 Metals (6010 / 6020)	Lead (200.8 / 200.9 / 6010)	Other: Asbestos 3	Comments
B-23-1	B-23	8/5/13	0945	2	SST		X				X											X				X				X		
B-23-3	↓		0955	↓	↓		↓				↓					X									X		X			X	
B-23-5	↓		1030																			X				X					
B-24-1	B-24		1039																												HOLD
B-24-3	↓		1045																												HOLD
B-24-5	↓	↓	1100	↓	↓		↓				↓																					HOLD

	Date:	Time:	
Relinquished By:	8/5/13	1805	Received By:
Relinquished By:	8/5/13	1820	Received By:
Relinquished By:	Date:	Time:	Received By:

ICE/t° 4 5
GOOD CONDITION
HEAD SPACE ABSENT
DECHLORINATED IN LAB
APPROPRIATE CONTAINERS
PRESERVED IN LAB

VOAS O&G METALS OTHER
PRESERVATION pH<2

COMMENTS: D'd to 3 day TAT on 8/6 per email

McCampbell Analytical, Inc.
1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1308159 **ClientCode: PEO**

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ EQuIS ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Report to:
Tina De La Fuente
Pangea Environmental Svcs., Inc.
1710 Franklin Street, Ste. 200
Oakland, CA 94612
(510) 836-3700 FAX: (510) 836-3709

Email: tdelafuente@pangeaenv.com
cc:
PO:
ProjectNo: #1465.001; Grewal - 451 Hegenberger

Bill to:
Bob Clark-Riddell
Pangea Environmental Svcs., Inc.
1710 Franklin Street, Ste. 200
Oakland, CA 94612

Requested TAT: 3 days

Date Received: **08/05/2013**
Date Printed: **08/06/2013**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
1308159-001	B-23-1	Soil	8/5/2013 9:45	☐	A		A			A						
1308159-002	B-23-3	Soil	8/5/2013 9:55	☐		A		A	A		A					
1308159-003	B-23-5	Soil	8/5/2013 10:30	☐	A		A									

Test Legend:

1	8082A_PCB_S	2	8260B_S	3	8270D-PNA_S	4	ASBESTOS_S	5	CAM17MS_S
6	PB_S	7	TPH(D)WSG_S	8		9		10	
11		12							

Prepared by: Zoraida Cortez

Comments: TAT changed to 3 day per Tina on 08/06/13 per email

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.

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"When Quality Counts"

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http://www.mccampbell.com / E-mail: main@mccampbell.com

Sample Receipt Checklist

Client Name: **Pangea Environmental Svcs., Inc.**
Date and Time Received: **8/5/2013 7:18:45 PM**

Project Name: **#1465.001; Grewal - 451 Hegenberger**
LogIn Reviewed by: Zoraida Cortez

WorkOrder N°: **1308159** Matrix: Soil
Carrier: Rob Pringle (MAI Courier)

Chain of Custody (COC) Information

Chain of custody present?	Yes ☑	No ☐
Chain of custody signed when relinquished and received?	Yes ☑	No ☐
Chain of custody agrees with sample labels?	Yes ☑	No ☐
Sample IDs noted by Client on COC?	Yes ☑	No ☐
Date and Time of collection noted by Client on COC?	Yes ☑	No ☐
Sampler's name noted on COC?	Yes ☑	No ☐

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	NA ☑
Shipping container/cooler in good condition?	Yes ☑	No ☐	
Samples in proper containers/bottles?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature	Cooler Temp: 4.8°C		NA ☐
Water - VOA vials have zero headspace / no bubbles?	Yes ☐	No ☐	No VOA vials submitted ☑
Sample labels checked for correct preservation?	Yes ☑	No ☐	
Metal - pH acceptable upon receipt (pH<2)?	Yes ☐	No ☐	NA ☑
Samples Received on Ice?	Yes ☑	No ☐	

(Ice Type: WET ICE)

** NOTE: If the "No" box is checked, see comments below.*

Comments:

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http://www.mccampbell.com / E-mail: main@mccampbell.com

Pangea Environmental Svcs., Inc. 1710 Franklin Street, Ste. 200 Oakland, CA 94612	Client Project ID: #1465.001; Grewal - 451 Hegenberger	Date Sampled: 08/05/13
		Date Received: 08/05/13
	Client Contact: Tina De La Fuente	Date Extracted: 08/05/13
	Client P.O.:	Date Analyzed: 08/08/13

Polychlorinated Biphenyls (PCBs) Aroclors by GC-ECD*

Extraction Method: SW3550B | Analytical Method: SW8082 | Work Order: 1308159

Lab ID	1308159-001A	1308159-003A			Reporting Limit for DF =1	
Client ID	B-23-1	B-23-5				
Matrix	S	S				
DF	5	2			S	W
Compound	**Concentration**				mg/kg	ug/L
Aroclor1016	ND<0.25	ND<0.10			0.05	NA
Aroclor1221	ND<0.25	ND<0.10			0.05	NA
Aroclor1232	ND<0.25	ND<0.10			0.05	NA
Aroclor1242	ND<0.25	ND<0.10			0.05	NA
Aroclor1248	ND<0.25	ND<0.10			0.05	NA
Aroclor1254	ND<0.25	ND<0.10			0.05	NA
Aroclor1260	ND<0.25	ND<0.10			0.05	NA
PCBs, total	ND<0.25	ND<0.10			0.05	NA
Surrogate Recoveries (%)						
%SS:	129	111				
Comments	h4,a3	h4,a3				

* water samples in µg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, filter samples in µg/filter, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis; %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor

surrogate diluted out of range or surrogate coelutes with another peak.

a3) sample diluted due to high organic content.
h4) sulfuric acid permanganate (EPA 3665) cleanup

CDPH ELAP 1644 ♦ NELAP 12283CA CK Analyst's Initial  Angela Rydelius, Lab Manager

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Pangea Environmental Svcs., Inc.	Client Project ID: #1465.001; Grewal - 451 Hegenberger	Date Sampled: 08/05/13
		Date Received: 08/05/13
1710 Franklin Street, Ste. 200	Client Contact: Tina De La Fuente	Date Extracted: 08/05/13
Oakland, CA 94612	Client P.O.:	Date Analyzed: 08/07/13

Volatile Organics by P&T and GC/MS (Basic Target List)*

Extraction Method: SW5030B | Analytical Method: SW8260B | Work Order: 1308159

Lab ID	1308159-002A
Client ID	B-23-3
Matrix	Soil

Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acetone	ND	1.0	0.05	tert-Amyl methyl ether (TAME)	ND	1.0	0.005
Benzene	ND	1.0	0.005	Bromobenzene	ND	1.0	0.005
Bromochloromethane	ND	1.0	0.005	Bromodichloromethane	ND	1.0	0.005
Bromoform	ND	1.0	0.005	Bromomethane	ND	1.0	0.005
2-Butanone (MEK)	ND	1.0	0.02	t-Butyl alcohol (TBA)	ND	1.0	0.05
n-Butyl benzene	ND	1.0	0.005	sec-Butyl benzene	ND	1.0	0.005
tert-Butyl benzene	ND	1.0	0.005	Carbon Disulfide	ND	1.0	0.005
Carbon Tetrachloride	ND	1.0	0.005	Chlorobenzene	ND	1.0	0.005
Chloroethane	ND	1.0	0.005	Chloroform	ND	1.0	0.005
Chloromethane	ND	1.0	0.005	2-Chlorotoluene	ND	1.0	0.005
4-Chlorotoluene	ND	1.0	0.005	Dibromochloromethane	ND	1.0	0.005
1,2-Dibromo-3-chloropropane	ND	1.0	0.004	1,2-Dibromoethane (EDB)	ND	1.0	0.004
Dibromomethane	ND	1.0	0.005	1,2-Dichlorobenzene	ND	1.0	0.005
1,3-Dichlorobenzene	ND	1.0	0.005	1,4-Dichlorobenzene	ND	1.0	0.005
Dichlorodifluoromethane	ND	1.0	0.005	1,1-Dichloroethane	ND	1.0	0.005
1,2-Dichloroethane (1,2-DCA)	ND	1.0	0.004	1,1-Dichloroethene	ND	1.0	0.005
cis-1,2-Dichloroethene	ND	1.0	0.005	trans-1,2-Dichloroethene	ND	1.0	0.005
1,2-Dichloropropane	ND	1.0	0.005	1,3-Dichloropropane	ND	1.0	0.005
2,2-Dichloropropane	ND	1.0	0.005	1,1-Dichloropropene	ND	1.0	0.005
cis-1,3-Dichloropropene	ND	1.0	0.005	trans-1,3-Dichloropropene	ND	1.0	0.005
Diisopropyl ether (DIPE)	ND	1.0	0.005	Ethylbenzene	ND	1.0	0.005
Ethyl tert-butyl ether (ETBE)	ND	1.0	0.005	Freon 113	ND	1.0	0.1
Hexachlorobutadiene	ND	1.0	0.005	Hexachloroethane	ND	1.0	0.005
2-Hexanone	ND	1.0	0.005	Isopropylbenzene	ND	1.0	0.005
4-Isopropyl toluene	ND	1.0	0.005	Methyl-t-butyl ether (MTBE)	ND	1.0	0.005
Methylene chloride	ND	1.0	0.005	4-Methyl-2-pentanone (MIBK)	ND	1.0	0.005
Naphthalene	ND	1.0	0.005	n-Propyl benzene	ND	1.0	0.005
Styrene	ND	1.0	0.005	1,1,1,2-Tetrachloroethane	ND	1.0	0.005
1,1,2,2-Tetrachloroethane	ND	1.0	0.005	Tetrachloroethene	ND	1.0	0.005
Toluene	ND	1.0	0.005	1,2,3-Trichlorobenzene	ND	1.0	0.005
1,2,4-Trichlorobenzene	ND	1.0	0.005	1,1,1-Trichloroethane	ND	1.0	0.005
1,1,2-Trichloroethane	ND	1.0	0.005	Trichloroethene	ND	1.0	0.005
Trichlorofluoromethane	ND	1.0	0.005	1,2,3-Trichloropropane	ND	1.0	0.005
1,2,4-Trimethylbenzene	ND	1.0	0.005	1,3,5-Trimethylbenzene	ND	1.0	0.005
Vinyl Chloride	ND	1.0	0.005	Xylenes, Total	ND	1.0	0.005

Surrogate Recoveries (%)			
%SS1:	110	%SS2:	114
%SS3:	99		

Comments:

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis; %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor

surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.

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Pangea Environmental Svcs., Inc. 1710 Franklin Street, Ste. 200 Oakland, CA 94612	Client Project ID: #1465.001; Grewal - 451 Hegenberger Client Contact: Tina De La Fuente Client P.O.:	Date Sampled: 08/05/13 Date Received: 08/05/13 Date Extracted: 08/06/13 Date Analyzed: 08/06/13

Polynuclear Aromatic Hydrocarbons (PAHs / PNAs) using SIM Mode by GC/MS

Extraction Method: SW3550B | Analytical Method: SW8270C-SIM | Work Order: 1308159

Lab ID	1308159-001A	1308159-003A			Reporting Limit for DF =1	
Client ID	B-23-1	B-23-5				
Matrix	S	S				
DF	50	20			S	W
Compound	**Concentration**				mg/kg	ug/L
Acenaphthene	ND<0.50	ND<0.20			0.01	NA
Acenaphthylene	ND<0.50	ND<0.20			0.01	NA
Anthracene	ND<0.50	ND<0.20			0.01	NA
Benzo (a) anthracene	ND<0.50	ND<0.20			0.01	NA
Benzo (b) fluoranthene	ND<0.50	ND<0.20			0.01	NA
Benzo (k) fluoranthene	ND<0.50	ND<0.20			0.01	NA
Benzo (g,h,i) perylene	ND<0.50	ND<0.20			0.01	NA
Benzo (a) pyrene	ND<0.50	ND<0.20			0.01	NA
Chrysene	ND<0.50	ND<0.20			0.01	NA
Dibenzo (a,h) anthracene	ND<0.50	ND<0.20			0.01	NA
Fluoranthene	ND<0.50	ND<0.20			0.01	NA
Fluorene	ND<0.50	ND<0.20			0.01	NA
Indeno (1,2,3-cd) pyrene	ND<0.50	ND<0.20			0.01	NA
1-Methylnaphthalene	ND<0.50	ND<0.20			0.01	NA
2-Methylnaphthalene	ND<0.50	ND<0.20			0.01	NA
Naphthalene	ND<0.50	ND<0.20			0.01	NA
Phenanthrene	ND<0.50	ND<0.20			0.01	NA
Pyrene	ND<0.50	ND<0.20			0.01	NA
Surrogate Recoveries (%)						
%SS1	111	106				
%SS2	106	104				
Comments	a3	a3				

* water samples in µg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this ND means not detected at or above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis; %SS = Percent Recovery of Surrogate Standard; DF = Dilution Factor

#) surrogate diluted out of range or surrogate coelutes with another peak.; &) low or no surrogate due to matrix interference.

a3) sample diluted due to high organic content.

CDPH ELAP 1644 ♦ NELAP 12283CA HK Analyst's Initial  Angela Rydelius, Lab Manager

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Pangea Environmental Svcs., Inc.	Client Project ID: #1465.001; Grewal - 451 Hegenberger	Date Sampled: 08/05/13
		Date Received 08/05/13
1710 Franklin Street, Ste. 200	Client Contact: Tina De La Fuente	Date Extracted 08/05/13
Oakland, CA 94612	Client P.O.:	Date Analyzed 08/07/13

CAM / CCR 17 Metals*

					Reporting Limit for DF =1; ND means not detected above the reporting limit	
Lab ID	1308159-002A					
Client ID	B-23-3					
Matrix	S				S	W
Extraction Type	TOTAL				mg/Kg	mg/L

ICP Metals, Concentration*

Analytical Method: SW6020 Extraction Method: SW3050B Work Order: 1308159

Dilution Factor	1				1	1
Antimony	0.59				0.5	NA
Arsenic	11				0.5	NA
Barium	190				5.0	NA
Beryllium	0.51				0.5	NA
Cadmium	ND				0.25	NA
Chromium	46				0.5	NA
Cobalt	12				0.5	NA
Copper	40				0.5	NA
Lead	11				0.5	NA
Mercury	0.14				0.05	NA
Molybdenum	0.87				0.5	NA
Nickel	43				0.5	NA
Selenium	ND				0.5	NA
Silver	ND				0.5	NA
Thallium	ND				0.5	NA
Vanadium	68				0.5	NA
Zinc	83				5.0	NA
%SS:	98					

Comments

*water samples are reported in µg/L, product/oil/non-aqueous liquid samples and all TCLP / STLC / DISTLC / SPLP extracts are reported in mg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, filter samples in µg/filter.

means surrogate diluted out of range; ND means not detected above the reporting limit/method detection limit; N/A means not applicable to this sample or instrument.

TOTAL = Hot acid digestion of a representative sample aliquot.
TRM = Total recoverable metals is the "direct analysis" of a sample aliquot taken from its acid-preserved container.
DISS = Dissolved metals by direct analysis of 0.45 µm filtered and acidified sample.
%SS = Percent Recovery of Surrogate Standard
DF = Dilution Factor

CDPH ELAP 1644 ♦ NELAP 12283CA DB Analyst's Initial Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.
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http://www.mccampbell.com / E-mail: main@mccampbell.com

Pangea Environmental Svcs., Inc. 1710 Franklin Street, Ste. 200 Oakland, CA 94612	Client Project ID: #1465.001; Grewal - 451 Hegenberger	Date Sampled: 08/05/13
		Date Received: 08/05/13
	Client Contact: Tina De La Fuente	Date Extracted: 08/05/13
	Client P.O.:	Date Analyzed: 08/07/13

Lead by ICP*

Extraction method: SW3050B | Analytical methods: SW6010B | Work Order: 1308159

Lab ID	Client ID	Matrix	Extraction Type	Lead	DF	% SS	Comments
1308159-001A	B-23-1	S	TOTAL	11	1	96	

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	TOTAL	NA	µg/L
	S	TOTAL	5.0	mg/Kg

*water samples are reported in µg/L, product/oil/non-aqueous liquid samples and all TCLP / STLC / DISTLC / SPLP extracts are reported in mg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, filter samples in µg/filter.

means surrogate diluted out of range; ND means not detected above the reporting limit/method detection limit; N/A means not applicable to this sample or instrument.

TOTAL = Hot acid digestion of a representative sample aliquot.
TRM = Total recoverable metals is the "direct analysis" of a sample aliquot taken from its acid-preserved container.
DISS = Dissolved metals by direct analysis of 0.45 µm filtered and acidified sample.

%SS = Percent Recovery of Surrogate Standard
DF = Dilution Factor

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AR Analyst's Initial

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Pangea Environmental Svcs., Inc.	Client Project ID: #1465.001; Grewal - 451 Hegenberger	Date Sampled: 08/05/13
		Date Received: 08/05/13
1710 Franklin Street, Ste. 200	Client Contact: Tina De La Fuente	Date Extracted 08/05/13
Oakland, CA 94612	Client P.O.:	Date Analyzed 08/07/13

Total Extractable Petroleum Hydrocarbons with Silica Gel Clean-Up*

Extraction method: SW3550B/3630C Analytical methods: SW8015B Work Order: 1308159

Lab ID	Client ID	Matrix	TPH-Diesel (C10-C23)	DF	% SS	Comments
1308159-002A	B-23-3	S	120	50	98	e7,e2

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	NA	NA
	S	1.0	mg/Kg

* water samples are reported in µg/L, wipe samples in µg/wipe, soil/solid/sludge samples in mg/kg, product/oil/non-aqueous liquid samples in mg/L, and all DISTLC / STLC / SPLP / TCLP extracts are reported in µg/L.

cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

%SS = Percent Recovery of Surrogate Standard. DF = Dilution Factor

The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation:
e2) diesel range compounds are significant; no recognizable pattern
e7) oil range compounds are significant

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QC SUMMARY REPORT FOR SW8082

W.O. Sample Matrix: Soil | QC Matrix: Soil | BatchID: 80149 | WorkOrder: 1308159

EPA Method: SW8082 **Extraction: SW3550B** **Spiked Sample ID: N/A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	mg/kg	mg/kg	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
Aroclor1260	N/A	0.15	N/A	N/A	N/A	106	N/A	N/A	70 - 130
%SS:	N/A	0.050	N/A	N/A	N/A	100	N/A	N/A	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 80149 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1308159-001A	08/05/13 9:45 AM	08/05/13	08/08/13 6:30 PM	1308159-003A	08/05/13 10:30 AM	08/05/13	08/08/13 6:15 AM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

surrogate diluted out of range or surrogate coelutes with another peak.

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QA/QC Officer

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QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Soil | QC Matrix: Soil | BatchID: 80177 | WorkOrder: 1308159

EPA Method: SW8260B **Extraction: SW5030B** **Spiked Sample ID: 1308159-002A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
tert-Amyl methyl ether (TAME)	ND	0.050	69.3	72.6	4.58	70.3	56 - 94	30	70 - 130
Benzene	ND	0.050	75.7	78.6	3.76	86.2	60 - 106	30	70 - 130
t-Butyl alcohol (TBA)	ND	0.20	86.5	85.2	1.46	85.8	56 - 140	30	70 - 130
Chlorobenzene	ND	0.050	74.4	79.3	6.38	86.6	61 - 108	30	70 - 130
1,2-Dibromoethane (EDB)	ND	0.050	75.2	78.6	4.33	85	54 - 119	30	70 - 130
1,2-Dichloroethane (1,2-DCA)	ND	0.050	70.4	73.3	4.03	81.4	48 - 115	30	70 - 130
1,1-Dichloroethene	ND	0.050	83.4	87.5	4.69	96.5	46 - 111	30	70 - 130
Diisopropyl ether (DIPE)	ND	0.050	76.5	79.8	4.18	84.7	53 - 111	30	70 - 130
Ethyl tert-butyl ether (ETBE)	ND	0.050	74.6	77.2	3.54	83.7	61 - 104	30	70 - 130
Methyl-t-butyl ether (MTBE)	ND	0.050	73.7	76.8	4.14	80.6	58 - 107	30	70 - 130
Toluene	ND	0.050	79.9	84.7	5.78	91	64 - 114	30	70 - 130
Trichloroethene	ND	0.050	101	109	7.29	87.6	60 - 116	30	70 - 130
%SS1:	110	0.12	95	95	0	94	70 - 130	30	70 - 130
%SS2:	114	0.12	97	97	0	99	70 - 130	30	70 - 130
%SS3:	99	0.012	98	100	1.63	100	70 - 130	30	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 80177 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1308159-002A	08/05/13 9:55 AM	08/05/13	08/07/13 10:34 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.

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QC SUMMARY REPORT FOR SW8270C

W.O. Sample Matrix: Soil | QC Matrix: Soil | BatchID: 80162 | WorkOrder: 1308159

EPA Method: SW8270C-SIM **Extraction: SW3550B** **Spiked Sample ID: 1308107-009A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	mg/kg	mg/kg	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
Benzo (a) pyrene	ND<1	0.20	NR	NR	NR	50	N/A	N/A	30 - 130
Chrysene	ND<1	0.20	NR	NR	NR	58.4	N/A	N/A	30 - 130
1-Methylnaphthalene	1.2	0.20	NR	NR	NR	71.4	N/A	N/A	30 - 130
2-Methylnaphthalene	1.5	0.20	NR	NR	NR	60.4	N/A	N/A	30 - 130
Phenanthrene	1.4	0.20	NR	NR	NR	68.4	N/A	N/A	30 - 130
Pyrene	ND<1	0.20	NR	NR	NR	63.1	N/A	N/A	30 - 130
%SS1:	---#	0.50	NR	NR	NR	90	N/A	N/A	30 - 130
%SS2:	---#	0.50	NR	NR	NR	87	N/A	N/A	30 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 80162 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1308159-001A	08/05/13 9:45 AM	08/06/13	08/06/13 8:43 PM	1308159-003A	08/05/13 10:30 AM	08/06/13	08/06/13 9:08 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.

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QC SUMMARY REPORT FOR SW6020

W.O. Sample Matrix: Soil | QC Matrix: Soil | BatchID: 80174 | WorkOrder: 1308159

EPA Method: SW6020 **Extraction: SW3050B** **Spiked Sample ID: 1308157-005A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
Antimony	0.84	50	99.9	111	10.1	98.3	75 - 125	20	75 - 125
Arsenic	11	50	99.8	106	5.29	96.1	75 - 125	20	75 - 125
Barium	210	500	104	116	7.74	86.7	75 - 125	20	75 - 125
Beryllium	0.50	50	90	96.7	7.12	92.3	75 - 125	20	75 - 125
Cadmium	ND	50	94.5	102	7.81	92.1	75 - 125	20	75 - 125
Chromium	63	50	NR	NR	NR	96.5	N/A	N/A	75 - 125
Cobalt	14	50	89.7	97	6.04	93.4	75 - 125	20	75 - 125
Copper	92	50	NR	NR	NR	97.4	N/A	N/A	75 - 125
Lead	25	50	96.8	109	8.03	92.9	75 - 125	20	75 - 125
Mercury	0.064	1.25	98.8	106	6.70	97.4	75 - 125	20	75 - 125
Molybdenum	0.66	50	102	112	9.34	98.2	75 - 125	20	75 - 125
Nickel	89	50	NR	NR	NR	97.4	N/A	N/A	75 - 125
Selenium	ND	50	97	106	9.18	101	75 - 125	20	75 - 125
Silver	ND	50	91.1	98.5	7.79	90	75 - 125	20	75 - 125
Thallium	ND	50	87.3	94.8	8.20	84.1	75 - 125	20	75 - 125
Vanadium	47	50	122	129,F1	3.46	96.7	75 - 125	20	75 - 125
Zinc	80	500	97.6	107	8.12	98.1	75 - 125	20	75 - 125
%SS:	91	500	94	104	9.37	93	70 - 130	20	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

F1 = MS/MSD recovery and/or %RPD was out of acceptance criteria; LCS validated the prep batch.

BATCH 80174 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1308159-002A	08/05/13 9:55 AM	08/05/13	08/07/13 10:26 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not applicable to this method.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

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QA/QC Officer

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QC SUMMARY REPORT FOR 6010B

W.O. Sample Matrix: Soil | QC Matrix: Soil | BatchID: 80175 | WorkOrder: 1308159

EPA Method: SW6010B **Extraction: SW3050B** **Spiked Sample ID: 1308159-001A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
Lead	11	50	96.8	104	5.99	87.7	75 - 125	25	75 - 125
%SS:	96	500	99	103	3.67	101	70 - 130	20	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 80175 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1308159-001A	08/05/13 9:45 AM	08/05/13	08/07/13 7:43 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not applicable to this method.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

CDPH ELAP 1644 ♦ NELAP 12283CA

QA/QC Officer

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QC SUMMARY REPORT FOR SW8015B

W.O. Sample Matrix: Soil | QC Matrix: Soil | BatchID: 80176 | WorkOrder: 1308159

EPA Method: SW8015B | **Extraction: SW3550B/3630C** | **Spiked Sample ID: 1308159-002A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)		
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS
TPH-Diesel (C10-C23)	120	40	NR	NR	NR	115	N/A	N/A	70 - 130
%SS:	98	25	NR	NR	NR	106	N/A	N/A	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 80176 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1308159-002A	08/05/13 9:55 AM	08/05/13	08/07/13 8:52 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

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QA/QC Officer

Forensic Analytical Laboratories

Final Report

Bulk Asbestos Analysis

(EPA Method 600/R-93-116, Visual Area Estimation)

McCampbell Analytical, Inc.
Account Payable
1534 Wilow Pass Rd

Pittsburg, CA 94565

Client ID: A31409
Report Number: B180462
Date Received: 08/07/13
Date Analyzed: 08/09/13
Date Printed: 08/09/13
First Reported: 08/09/13

Job ID/Site: 1465.001 - Grewal - 451 Hegenberger

Date(s) Collected: 08/05/2013

FALI Job ID: A31409
Total Samples Submitted: 1
Total Samples Analyzed: 1

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
B-23-3	11411785						
Layer: Brown Soil			**ND**				
Total Composite Values of Fibrous Components:		**Asbestos (ND)**					
Cellulose (Trace)							

Tad Thrower

Tad Thrower, Laboratory Supervisor, Hayward Laboratory

Note: Limit of Quantification ('LOQ') = 1%. 'Trace' denotes the presence of asbestos below the LOQ. 'ND' = 'None Detected'.

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