

P&D ENVIRONMENTAL, INC.

55 Santa Clara Ave, Suite 240

Oakland, CA 94610

(510) 658-6916

August 15, 2012

Letter 0553.L2

ECDC Landfill

1111 West Highway 123

East Carbon, UT 84523

SUBJECT: AREA B AND C LEAD-IMPACTED SOIL CHARACTERIZATION

Cathedral Gardens

Oakland, CA

Dear Waste Approval Manager,

P&D Environmental Inc. (P&D) personnel collected two soil samples designated as 'Urban Soil 1' and 'Urban Soil 2' on August 8, 2012 from stockpiled soil in the western portion of Areas B and C at the Cathedral Gardens site located in Oakland, California. The location of the stockpiled soil and the sample collection locations are shown on the attached Site Plan, Figure 1. The estimated combined volume of soil for these stockpiles is 160 cubic yards. The soil appears to have been imported to the site as topsoil for use in a community garden. This black loamy soil is not related to the brown sand or black clayey organochlorine pesticide-impacted soil that is being managed separately as Class 1 waste in the northeast portion of Area A at the site.

The soil samples were analyzed for Total Lead, with additional WET and TCLP analysis. Urban Soil 1 and Urban Soil 2 TTLC results were 140 and 110 mg/kg, respectively. The WET results were 6.0 and 4.8 mg/L, respectively. The results of the TCLP analysis for each sample shows that no lead was detected in either TCLP analysis. Based on the similarity of the soil for both samples and the similarity of the sample results, all of the soil characterized by these two samples will be managed as California hazardous waste. Copies of the laboratory reports are attached with this letter.

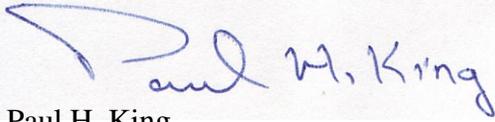
Based on our experience with similar soils in Oakland, the source of the lead is suspected to be aerially deposited lead from the combustion of lead-based gasoline in the vicinity of a highway such as the nearby Cypress Structure that was demolished following the 1989 Loma Prieta Earthquake. Alternatively the suspected source of lead is related to releases from lead-based paint associated with structures in older neighborhoods in Oakland. However, the similarities of the sample results suggest that aerially deposited lead is the source. For this reason no additional analysis was performed.

August 15, 2012
Letter 0553.L2

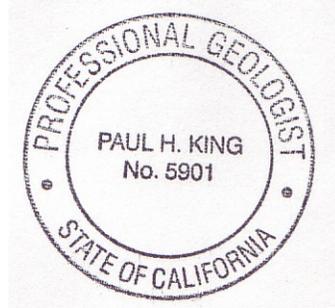
Should you have any questions please do not hesitate to contact us at 510-658-6916.

Sincerely,

P&D Environmental, Inc.

A handwritten signature in blue ink that reads "Paul H. King". The signature is written in a cursive style and is positioned over a light gray rectangular background.

Paul H. King
Professional Geologist #5901
Expires 12/31/13



Attachments:

Figure 1- Site Plan

Laboratory Reports (1208215, 1208215_addon_A, 1208215_addon_B)

PHK/hd
0553.L2

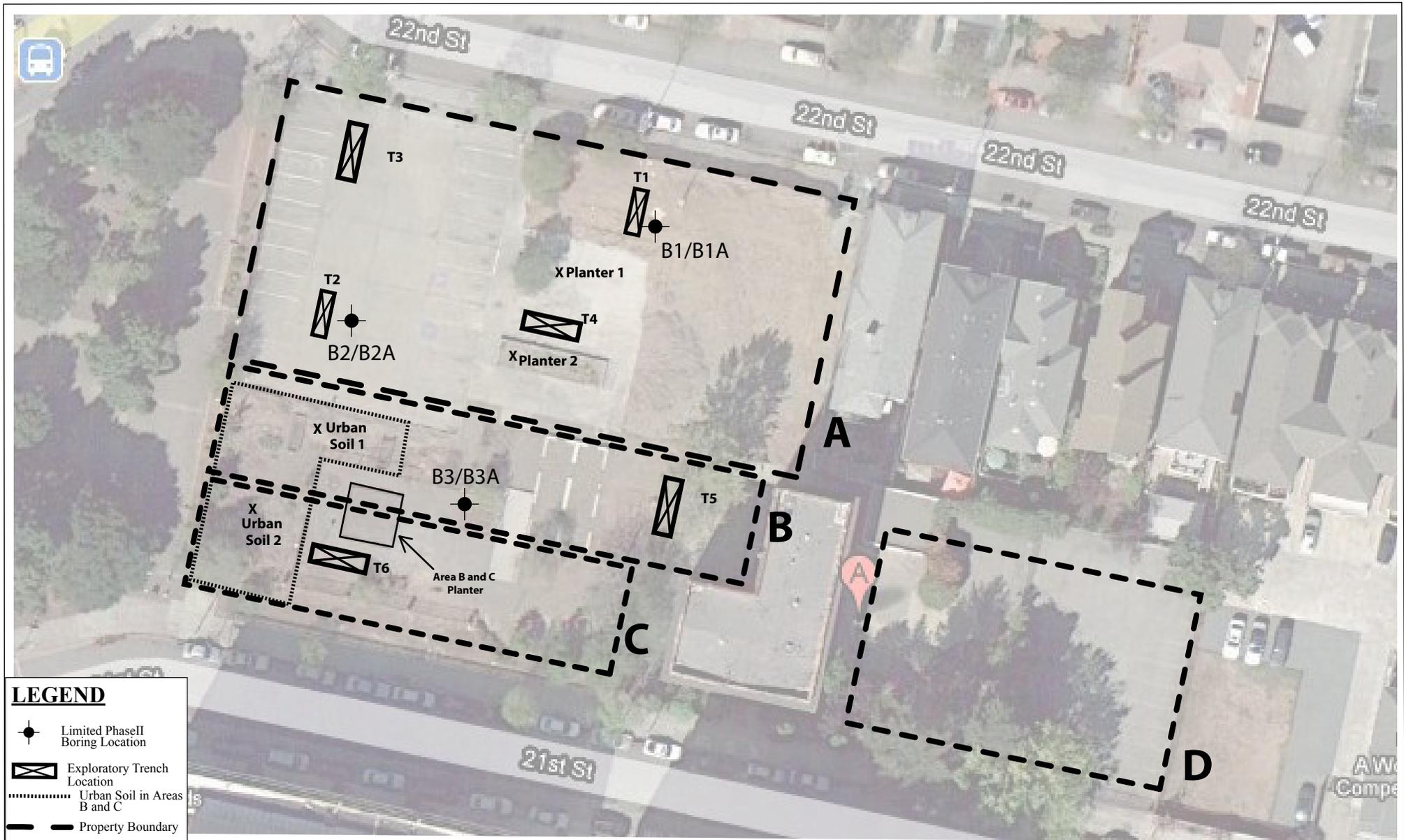


Figure 1
 Aerial Photograph Site Plan Showing Urban Soil in Areas B and C
 2100 Martin Luther King Jr. Way
 616-634 21st Street and 635 22nd Street
 Oakland, California

Base Map From:
 Basics Environmental, Limited Phase II
 Environmental Site Sampling Report,
 dated June 27, 2011

P&D Environmental, Inc.
 55 Santa Clara Avenue
 Oakland, CA 94610

0 25 50
 Approximate Scale In Feet





Analytical Report

P & D Environmental 55 Santa Clara, Ste.240 Oakland, CA 94610	Client Project ID: #0553; Cathedral Gardens-Oakland	Date Sampled: 08/08/12
		Date Received: 08/08/12
	Client Contact: Paul King	Date Reported: 08/09/12
	Client P.O.:	Date Completed: 08/09/12

WorkOrder: 1208215

August 09, 2012

Dear Paul:

Enclosed within are:

- 1) The results of the **2** analyzed samples from your project: **#0553; Cathedral Gardens-Oakland,**
- 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

McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius
Laboratory Manager
McC Campbell Analytical, Inc.

The analytical results relate only to the items tested.

CHAIN OF CUSTODY RECORD

1208215

P&D ENVIRONMENTAL, INC.
55 Santa Clara Ave., Suite 240
Oakland, CA 94610
(510) 658-6916

PROJECT NUMBER:

0553

PROJECT NAME:

Cathedral Gardens-
Oakland

NUMBER OF CONTAINERS

ANALYSIS(ES):
Total Lead

RUSH

PRESERVATIVE

REMARKS

SAMPLED BY: (PRINTED & SIGNATURE)

Paul H. King

Paul H. King

SAMPLE NUMBER

DATE

TIME

TYPE

SAMPLE LOCATION

Urban Soil 1

8/8/12

Soil

Urban Soil 2

8/8/12

Soil

1

X

ICE

24 Hour Rush TAT

1

X

"

" " " "

ICE 54

GOOD CONDITION

APPROPRIATE

HEAD SPACE ABSENT

CONTAINERS

DECHLORINATED IN LAB

PRESERVED IN LAB

PRESERVATION

VOAS | O & C | METALS | OTHER |

RELINQUISHED BY: (SIGNATURE)

Paul H. King

DATE

TIME

RECEIVED BY: (SIGNATURE)

Total No. of Samples (Plus Shipment)

2

LABORATORY:

Total No. of Containers (This Shipment)

2

McCampbell Analytical

RELINQUISHED BY: (SIGNATURE)

[Signature]

DATE

TIME

RECEIVED BY: (SIGNATURE)

upel Vall

LABORATORY CONTACT:

Angela Rydelius

LABORATORY PHONE NUMBER:

(877) 252-9262

RELINQUISHED BY: (SIGNATURE)

DATE

TIME

RECEIVED FOR LABORATORY BY: (SIGNATURE)

SAMPLE ANALYSIS REQUEST SHEET

ATTACHED: () YES (X) NO

Results and billing to:
P&D Environmental, Inc.
lab@pdenviro.com

REMARKS:



1534 Willow Pass Rd
 Pittsburg, CA 94565-1701
 (925) 252-9262

WorkOrder: 1208215

ClientCode: PDEO

WaterTrax
 WriteOn
 EDF
 Excel
 EQulS
 Email
 HardCopy
 ThirdParty
 J-flag

Report to:	Paul King P & D Environmental 55 Santa Clara, Ste.240 Oakland, CA 94610 (510) 658-6916 FAX: 510-834-0152	Email: lab@pdenviro.com cc: PO: ProjectNo: #0553; Cathedral Gardens-Oakland	Bill to:	Accounts Payable P & D Environmental 55 Santa Clara, Ste.240 Oakland, CA 94610	Requested TAT:	1 day
					<i>Date Received:</i>	08/08/2012
					<i>Date Printed:</i>	08/08/2012

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	
1208215-001	Urban Soil 1	Soil	8/8/2012	<input type="checkbox"/>	A												
1208215-002	Urban Soil 2	Soil	8/8/2012	<input type="checkbox"/>	A												

Test Legend:

1	PB_S	2		3		4		5	
6		7		8		9		10	
11		12							

Prepared by: Melissa Valles

Comments:

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.



Sample Receipt Checklist

Client Name: **P & D Environmental** Date and Time Received: **8/8/2012 4:56:47 PM**
 Project Name: **#0553; Cathedral Gardens-Oakland** LogIn Reviewed by: **Melissa Valles**
 WorkOrder N°: **1208215** 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: 5.4°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:



McC Campbell 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.mcccampbell.com / E-mail: main@mcccampbell.com

P & D Environmental 55 Santa Clara, Ste.240 Oakland, CA 94610	Client Project ID: #0553; Cathedral Gardens-Oakland	Date Sampled: 08/08/12
	Client Contact: Paul King	Date Received: 08/08/12
	Client P.O.:	Date Extracted: 08/08/12
		Date Analyzed: 08/09/12

Lead by ICP*

Extraction method: SW3050B

Analytical methods: SW6010B

Work Order: 1208215

Lab ID	Client ID	Matrix	Extraction Type	Lead	DF	% SS	Comments
1208215-001A	Urban Soil 1	S	TOTAL	140	1	N/A	
1208215-002A	Urban Soil 2	S	TOTAL	100	1	N/A	

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

 Angela Rydelius, Lab Manager



QC SUMMARY REPORT FOR 6010B

W.O. Sample Matrix: Soil

QC Matrix: Soil

BatchID: 69715

WorkOrder: 1208215

EPA Method: SW6010B		Extraction: SW3050B					Spiked Sample ID: 1208163-004A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS	
Lead	5.9	50	97.6	106	7.43	108	75 - 125	25	75 - 125	
%SS:	96	500	99	99	0	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 69715 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1208215-001A	08/08/12	08/08/12	08/09/12 3:43 PM	1208215-002A	08/08/12	08/08/12	08/09/12 3:45 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.
 $\% \text{ Recovery} = 100 * (\text{MS} - \text{Sample}) / (\text{Amount Spiked})$; $\text{RPD} = 100 * (\text{MS} - \text{MSD}) / ((\text{MS} + \text{MSD}) / 2)$.
 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.



Analytical Report

P & D Environmental 55 Santa Clara, Ste.240 Oakland, CA 94610	Client Project ID: #0553; Cathedral Gardens-Oakland	Date Sampled: 08/08/12
		Date Received: 08/08/12
	Client Contact: Paul King	Date Reported: 08/13/12
	Client P.O.:	Date Completed: 08/13/12

WorkOrder: 1208215 A

August 13, 2012

Dear Paul:

Enclosed within are:

- 1) The results of the **2** analyzed samples from your project: **#0553; Cathedral Gardens-Oakland,**
- 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

McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius
 Laboratory Manager
 McC Campbell Analytical, Inc.

The analytical results relate only to the items tested.

CHAIN OF CUSTODY RECORD

1208215

P&D ENVIRONMENTAL, INC.

55 Santa Clara Ave., Suite 240
Oakland, CA 94610
(510) 658-6916

PROJECT NUMBER:

0553

PROJECT NAME:

Cathedral Gardens-
Oakland

NUMBER OF CONTAINERS

ANALYSIS(ES):

Total Lead
Step Pb 8/9/12 24hr

PRESERVATIVE

RUSH

SAMPLED BY: (PRINTED & SIGNATURE)

Paul H. King

Paul H. King

SAMPLE NUMBER

DATE

TIME

TYPE

SAMPLE LOCATION

REMARKS

Urban Soil 1

8/8/12

Soil

1

X

ICE

24 Hour Rush Test

Urban Soil 2

8/8/12

Soil

1

X

"

" " " "

ICE 11" 54"
 GOOD CONDITION APPROPRIATE
 HEAD SPACE ABSENT CONTAINERS
 DECHLORINATED IN LAB PRESERVED IN LAB
 PRESERVATION VOAS | O & C | METALS | OTHER

RELINQUISHED BY: (SIGNATURE)

Paul H. King

DATE

TIME

RECEIVED BY: (SIGNATURE)

Total No. of Samples (This Shipment)

2

LABORATORY:

McCampbell Analytical

RELINQUISHED BY: (SIGNATURE)

[Signature]

DATE

TIME

RECEIVED BY: (SIGNATURE)

Muel Vall

Total No. of Containers (This Shipment)

2

LABORATORY CONTACT:
Angela Rydelius

LABORATORY PHONE NUMBER:

(877) 252-9262

RELINQUISHED BY: (SIGNATURE)

DATE

TIME

RECEIVED FOR LABORATORY BY: (SIGNATURE)

SAMPLE ANALYSIS REQUEST SHEET

ATTACHED: () YES (X) NO

Results and billing to:
P&D Environmental, Inc.
lab@pdenviro.com

REMARKS:



1534 Willow Pass Rd
 Pittsburg, CA 94565-1701
 (925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1208215 **A** ClientCode: PDEO

WaterTrax
 WriteOn
 EDF
 Excel
 Fax
 Email
 HardCopy
 ThirdParty
 J-flag

Report to:
 Paul King
 P & D Environmental
 55 Santa Clara, Ste.240
 Oakland, CA 94610
 (510) 658-6916 FAX: 510-834-0152

Email: lab@pdenviro.com
 cc:
 PO:
 ProjectNo: #0553; Cathedral Gardens-Oakland

Bill to:
 Accounts Payable
 P & D Environmental
 55 Santa Clara, Ste.240
 Oakland, CA 94610

Requested TAT: 1 day
Date Received: 08/08/2012
Date Add-On: 08/09/2012
Date Printed: 08/09/2012

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	
1208215-001	Urban Soil 1	Soil	8/8/2012	<input type="checkbox"/>	A												
1208215-002	Urban Soil 2	Soil	8/8/2012	<input type="checkbox"/>	A												

Test Legend:

1	STLC_PB_S	2		3		4		5	
6		7		8		9		10	
11		12							

Prepared by: Melissa Valles

Comments: STLC Pb added 8/9/12 24hr 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.



QC SUMMARY REPORT FOR SW6010B

W.O. Sample Matrix: Soil

QC Matrix: Soil

BatchID: 69708

WorkOrder: 1208215

EPA Method: SW6010B		Extraction: CA Title 22					Spiked Sample ID: N/A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)			
	mg/L	mg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS	
Lead	N/A	1	N/A	N/A	N/A	92.9	N/A	N/A	75 - 125	

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

BATCH 69708 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1208215-001A	08/08/12	08/11/12	08/13/12 1:24 PM	1208215-002A	08/08/12	08/11/12	08/13/12 1:27 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.
 $\% \text{ Recovery} = 100 * (\text{MS} - \text{Sample}) / (\text{Amount Spiked})$; $\text{RPD} = 100 * (\text{MS} - \text{MSD}) / ((\text{MS} + \text{MSD}) / 2)$.
 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.



Analytical Report

P & D Environmental 55 Santa Clara, Ste.240 Oakland, CA 94610	Client Project ID: #0553; Cathedral Gardens-Oakland	Date Sampled: 08/08/12
		Date Received: 08/08/12
	Client Contact: Paul King	Date Reported: 08/15/12
	Client P.O.:	Date Completed: 08/15/12

WorkOrder: 1208215 B

August 15, 2012

Dear Paul:

Enclosed within are:

- 1) The results of the **2** analyzed samples from your project: **#0553; Cathedral Gardens-Oakland,**
- 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

McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius
 Laboratory Manager
 McC Campbell Analytical, Inc.

The analytical results relate only to the items tested.



1534 Willow Pass Rd
 Pittsburg, CA 94565-1701
 (925) 252-9262

WorkOrder: 1208215 B ClientCode: PDEO

WaterTrax
 WriteOn
 EDF
 Excel
 Fax
 Email
 HardCopy
 ThirdParty
 J-flag

Report to:
 Paul King
 P & D Environmental
 55 Santa Clara, Ste.240
 Oakland, CA 94610
 (510) 658-6916 FAX: 510-834-0152

Email: lab@pdenviro.com
cc:
PO:
ProjectNo: #0553; Cathedral Gardens-Oakland

Bill to:
 Accounts Payable
 P & D Environmental
 55 Santa Clara, Ste.240
 Oakland, CA 94610

Requested TAT: 1 day
Date Received: 08/08/2012
Date Add-On: 08/13/2012
Date Printed: 08/13/2012

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	
1208215-001	Urban Soil 1	Soil	8/8/2012	<input type="checkbox"/>	A												
1208215-002	Urban Soil 2	Soil	8/8/2012	<input type="checkbox"/>	A												

Test Legend:

1	TCLP_PB_S	2		3		4		5	
6		7		8		9		10	
11		12							

Prepared by: Melissa Valles

Comments: STLC Pb added 8/9/12 24hr per email. TCLP Pb added 8/13/12 24hr 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.



McC Campbell 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.mcccampbell.com / E-mail: main@mcccampbell.com

P & D Environmental 55 Santa Clara, Ste.240 Oakland, CA 94610	Client Project ID: #0553; Cathedral Gardens-Oakland	Date Sampled: 08/08/12
	Client Contact: Paul King	Date Received: 08/08/12
	Client P.O.:	Date Extracted: 08/13/12-08/14/12
		Date Analyzed: 08/15/12

Lead by ICP*

Extraction method: SW1311/SW3050B

Analytical methods: SW6010B

Work Order: 1208215

Lab ID	Client ID	Matrix	Extraction Type	Lead	DF	% SS	Comments
1208215-001A	Urban Soil 1	S	TCLP	ND	1	N/A	
1208215-002A	Urban Soil 2	S	TCLP	ND	1	N/A	

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	TOTAL	NA	µg/L
	S	TCLP	0.2	mg/L

*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.

TCLP = Toxicity Characteristic Leaching Procedure.
DI TCLP = Toxicity Characteristic Leaching Procedure using DI water.

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

DHS ELAP Certification 1644

 Angela Rydelius, Lab Manager



QC SUMMARY REPORT FOR SW6010B

W.O. Sample Matrix: Soil

QC Matrix: Soil

BatchID: 69769

WorkOrder: 1208215

EPA Method: SW6010B		Extraction: SW1311/SW3050B					Spiked Sample ID: N/A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)			
	mg/L	mg/L	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS	
Lead	N/A	1	N/A	N/A	N/A	108	N/A	N/A	75 - 125	

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

BATCH 69769 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1208215-001A	08/08/12	08/13/12	08/15/12 11:16 AM	1208215-002A	08/08/12	08/13/12	08/15/12 11:18 AM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.
 $\% \text{ Recovery} = 100 * (\text{MS} - \text{Sample}) / (\text{Amount Spiked})$; $\text{RPD} = 100 * (\text{MS} - \text{MSD}) / ((\text{MS} + \text{MSD}) / 2)$.
 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.