CAMBRIA

THE 39 PPM

POWAITE OCAMERIA

CAMBRIA

To: Amir Gholami

Company: ACDEH

Fax: (510) 337-9335

Phone: (510) 567-6700



From:	Paul Waite
Phone:	(510) 420-3305, fax (510) 420-9170
Pages:	6, including this page
Date	June 7, 1999
Re:	Results, 2856 Helen Street, Oakland.

Fax

Amir.

Attached are the analytical results of the soil and groundwater sampling conducted on May 24, 1999 at 2856 Helen Street, Oakland, California 9460 attached is a draft site plan showing the locations of the five Geoprobe borings.

The soil samples were labeled by boring number and depth (e.g., S-1, 5-6 ft). Borings S-1 and S-2 were near the southern former tank location, and borings N-1, N-2, and N-3 were near the northern former tank location. Groundwater samples were labeled by boring number only.

No TPHg, MTBE, or BTEX were detected in any of the soil or groundwater samples, and lead concentrations present in the samples were low.

Because a potential property transaction is pending, we would like to pursue closure for this site as quickly as possible. Any efforts to expedite this request would be greatly appreciated. If you have any questions or would like more information, please contact me at (510) 420-3305.

Thank you for your continued assistance with this project. Sincerely,

Paul Waite

ce: W. Taylor Partch, Fax (510) 521-2970

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
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http://www.mccampbell.com E-mail: main@mccampbell.com

Cambria Environmental Technology	Client Project ID: #193-1521-3;	Date Sampled: 05/24/99
1144 65 <sup>th</sup> Street, Suite C	Partch 2856	Date Received: 05/26/99
Oakland, CA 94608	Client Contact: Paul Waite	Date Extracted: 05/26/99
}	Client P.O:	Date Analyzed: 05/28-06/03/99

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline\*, with Methyl tert-Butyl Ether\* & BTEX\*

EPA methods 5030, modified 8015, and 8020 or 602; California RWQCB (SF Bay Region) method GCFID(5030)

Lab ID	ods 5030, modified Client ID	Matrix	TPH(g)⁺	MTBE	Benzene	Toluene	Ethylben- zene	Xylenes	% Recovery Surrogate
11939	S-1, 5-6	S	ND	ND	ND	ND	ND	ND	107
11941	S-1, 10-11	s	ND	ND	ND	ND	ND	ND	94
11946	S-1, 19-20	S	ND	ND	ND	ND	ND	ND	104
11947	S-1	w	ND,i	ND	ND	ND	ND	ND	107 .
11949	S-2, 5-6	S	ND	ND	ND	ND	ND	ND	101
11950	S-2, 7-8	S	ND	ND	ND	ND	ND	ND	100
11955	S-2	w	ND	ND	ND	ND	ND	ND	109
11957	N-1, 5-6	S	ND	ND	ND	ND	ND	ND	101
11959	N-1, 9-10	S	ND	ND	ND	ND	ND	ND	102
11967	N-1	w	ND,i	ND	ND	ND	ND	ND	106
11970	N-2, 7-8	S	ND	ND	ND	ND	ND	ND	101
11978	N-2	w	ND,i	ND	ND	ND	ND	ND	105
11981	N-3, 7-8	S	ND	ND	ND	ND	ND	ND	96
11988	N-3, 23-24	S	ND	ND	ND	ND	ND	ND	100
otherwi	g Limit unless se stated; ND	w	50 ug/L	5.0	0.5	0.5	0.5	0.5	
	t detected above porting limit	s	1.0 mg/kg	0.05	0.005	0.005	0.005	0.005	

 $<sup>\</sup>Upsilon$  water and vapor samples are reported in ug/L, wipe samples in ug wipe soil and sludge samples in mg/kg, and all TCLP and SPLP extracts in ug/L

<sup>\*</sup> cluttered chromatogram, sample peak coefutes with surrogate peak

The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation as unmodified or weakly modified gasoline is significant, b) heavier gasoline range compounds are significant, aged gasoline"), c) lighter gasoline range compounds (the most mobile fraction) are significant, d) gasoline range compounds having broad chromatographic peaks are significant, biologically altered gasoline", e) TPH pattern that does not appear to be derived from gasoline (1), f) one to a few isolated peaks present, g) strongly aged gasoline or diesel range compounds are significant, h) lighter than water immiscible sheen is present and disample that contains greater than ~5 vol % sediment, j) no recognizable nattern

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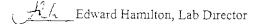
Cambria Environmental Technology	Client Project ID: #193-1521-3;	Date Sampled: 05/24/99		
1144 65 <sup>th</sup> Street, Suite C	Partch 2856	Date Received: 05/26/99		
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	Client P.O:	Date Analyzed: 05/28-06/03/99		

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline\*, with Methyl tert-Butyl Ether\* & BTEX\*

Lab ID	ds 5030, modified Client ID	Matrix	TPH(g)⁺	MTBE	Benzene	Toluene	Ethylben- zene	Xylenes	% Recovery Surrogate
11989	N-3	w	ND,i	ND	ND	ND	ND	ND	106
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-									
						<u> </u>			
				<del> </del>	-	<del> </del>			
			<u> </u>						
								<u> </u>	
				<u> </u>		-		<del></del>	
Reporting	g Limit unless se stated; ND	W	50 ug/L	5.0	0.5	0.5	0.5	0.5	
means not	detected above orting limit	S	1.0 mg/kg	0.05	0.005	0.005	0.005	0.005	

<sup>\*</sup> water and vapor samples are reported in ug L, wipe samples in ug/wipe, soil and sludge samples in rig kg, and all TCLP and SPLP extracts in ug L

The following descriptions of the TPH chromatogram are cursor, in nature and McCampbell Analytical is not responsible for their interpretation a unmodified or weakly modified gasoline is significant, b) heavier gasoline range compounds are significant(aged gasoline), collighter gasoline range compounds (the most mobile fraction) are significant, d) gasoline range compounds having broad chromatographic peaks are significant, biologically altered gasoline?, e) TPH pattern that does not appear to be derived from gasoline (?), f) one to a few isolated peaks present, g) strongly aged gasoline or diesel range compounds are significant, h) lighter than water immiscible sheen is present. I liquid sample that contains greater than -5 vol. % sed ment, j) no recognizable pattern.



<sup>&</sup>quot; cluttered chromatogram, sample peak coelutes with surrogate beak

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Cambria Environmental Technology		logy	Client Project ID: #193-1521-3; Partch 2856		Date Sampled: 05		
1144 65 <sup>th</sup> Str	reet, Suite C				Date Received: 05/26/99		
Oakland, CA	94608	ļ	Client Contact: Pa	ul Waite	Date Extracted: 0.	5/26/99	
İ		Ī	Client P.O:		Date Analyzed: 0	6/01-06/04/99	
EPA analytical	methods 6010/200.7, 239	.2+	Lea	d*	<u> </u>	<del></del>	
Lab ID	Client ID	Matri	x Extraction °	Lea	ad*	% Recovery Surrogate	
11939	S-1, 5-6	S	TTLC	4.	5	101	
11941	S-1, 10-11	s	TTLC	4.	.0	102	
11946	S-1, 19-20	s	TTLC	1	9	101	
11947	S-1	W	Dissolved	0.0	46	NA	
11949	S-2, 5-6	s	TTLC	5.	2	101	
11950	S-2, 7-8	S	TTLC	3	9	100	
11955	S-2	W	Dissolved	0.4	43	NA	
11957	N-1, 5-6	S	TTLC	9.	.0	97	
11959	N-1, 9-10	S	TTLC	5.	4	101	
11967	N-1	W	Dissolved	0.0	71	NA	
11970	N-2, 7-8	S	TTLC	4.	0	101	
11978	N-2	w	Dissolved	0.	21	NA	
11981	N-3, 7-8	S	TTLC	5	.6	101	
	<del></del>						

TTLC

TTLC

TTLC

STLC,TCLP

S

S

w

N-3, 23-24

6.6

3.0 mg/kg

0.005 mg/L

0.2 mg/L

101

Reporting Limit unless otherwise

stated; ND means not detected above

the reporting limit

11988

<sup>\*</sup> soil and sludge samples are reported in mg/kg, wide samples in ug/wipe, and water samples and all STLC / SPLP / TCLP extracts in mg/L library is analysed using EPA method 6010 (ICP) for soils sludges, STLC & TCLP extracts and method 239.2 (AA Furnace) for water samples

<sup>6</sup> FPA extraction methods 1311(TCLP) 3010 3020(water, TTLC), 3040(organic matrices, TTLC), 3050(solids, TTLC), STLC - CA Title 22

 $<sup>^{-7}</sup>$  surrogate diluted out of range, N A means surrogate not applicable to this analysis

tenoming limit raised due matrix interference

t) liquid sample that contains greater than ~2 vol. % sediment, tois sediment is extracted with the liquid, in accordance with EPA methodologies and car significantly effect reported metal concentrations.



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Oakland, CA 94608	Client Contact: Paul Waite	Date Extracted: 05/26/99
	Client P.O:	Date Analyzed: 06/01-06/04/99
EPA analytical methods 6010/200.7, 239.2*	Lead*	<u></u>

PA analytical r	nethods 6010/200.7, 23	9.2 <sup>+</sup>	Lead*		
Lab ID	Client ID	Matrix	Extraction °	Lead*	% Recovery Surrogate
11989	N-3	w	Dissolved	0.12	NA
	<u></u>				
Renorting Lin	nit unless otherwise	S	TTLC	3.0 mg/kg	
tated; ND mea	nit unless otherwise ns not detected above porting limit	w	TTLC	0.005 mg/L	
and rep	wime mint		STLC,TCLP	0.2 mg/L	

<sup>\*</sup> soil and sludge samples are reported in mg/kg, wipe samples in ug/wipe, and water samples and all STLC / SPLP / TCLP extracts in mg/L

<sup>\*</sup>Lead is analysed using EPA method 6010 (ICP) for soils, sludges. STLC & TCLP extracts and method 239.2 (AA Furnace) for water samples

<sup>&</sup>lt;sup>e</sup> EPA extraction methods 1311/TC LP1, 3010-3020/water,T1LC) 3040(organic matrices,TTLC), 3050(solids,TTLC), STLC - CA Title 22

<sup>&</sup>quot; surrogate d luted out of range, N A means surrogate not applicable to this analysis

a reporting limit raised due matrix interference

<sup>1)</sup> I quid sample that contains greater than  $\sim$ 2 vol. % sediment, this sediment is extracted with the bound, in accordance with EPA methodologies and can significantly effect reported metal concentrations

W.T. Partch

2862 Helen Street Oakland, California



**Geoprobe Boring Locations** 

CAMBRIA

## QC REPORT FOR HYDROCARBON ANALYSES

Date: 05/28/99-05/29/99 Matrix: WATER

	Concent	ration	(ug/L)		% Reco	very	
Analyte	Sample			Amount			RPD
 	(#12050)	MS	MSD	Spiked	MS	MSD	
!						· <u>·</u>	
TPH (gas)	0.0	106.2	103.5	100.0	106.2	103.5	2.6
Benzene	0.0	9.4	9.2	[ 10.0	94.0	92.0	2.2
Toluene	0.0	9.8	9.5	10.0	98.0	95.0	3.1
Ethyl Benzene	0.0	9.9	9.7	10.0	99.0	97.0	2.0
Xylenes 	0.0	29.8	29.1	30.0	99.3	97.0	2.4
  TPH(diesel)	0.0	8954	8664	7500	119	116	3.3
TRPH (oil & grease)	N/A	N/A	N/A	   N/A 	N/A	N/A	N/A

<sup>%</sup> Rec. = (MS - Sample) / amount spiked x 100

 $RPD = (MS - MSD) / (MS + MSD) \times 2 \times 100$ 

## QC REPORT FOR HYDROCARBON ANALYSES

Date: 05/28/99-05/29/99 Matrix: SOIL

	Concent	ration	(mg/kg)		% Reco	very	
Analyte	Sample			Amount			RPD
Ì	(#02399)	MS	MSD	Spiked	MS	MSD	
				 	<del></del> -		<del></del>
TPH (gas)	0.000	2.169	2.130	2.03	107	105	1.8
Benzene	0.000	0.202	0.192	0.2	101	96	5.1
Toluene	0.000	0.208	0.198	0.2	104	99	4.9
Ethylbenzene	0.000	0.208	0.202	0.2	104	101	2.9
Xylenes 	0.000	0.624	0.604	0.6	104	101	3.3
TPH(diesel)	0	269	271	300	90	90	0.7
TRPH (oil and grease)	0.0	23.0	22.6	20.8	111	109	1.8

 $RPD = (MS - MSD) / (MS + MSD) \times 2 \times 100$ 

<sup>%</sup> Rec. = (MS - Sample) / amount spiked x 100

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## QC REPORT FOR ICP and/or AA METALS

Date: 06/01/99

Matrix: WATER

Extraction:

DISSOLVED

	Concent	ration	(mg/L)		% Reco	very ·	
Analyte	  Sample 	MS	MSD	Amount   	]   MS 	MSD	RPD
Total Lead Total Cadmium Total Chromium Total Nickel	0.00 N/A N/A N/A	4.48 N/A N/A N/A	4.57 N/A N/A N/A	5.00 N/A N/A N/A	90 N/A N/A N/A	91 N/A N/A N/A	2.1 N/A N/A N/A
Total Zinc	N/A N/A	N/A 	N/A N/A	N/A	N/A N/A	N/A N/A	N/A N/A
  Total Organic Le	N/A	N/A	N/A	   N/A	N/A	N/A	N/A

% Rec. = (MS - Sample) / amount spiked x 100

RPD  $\approx$  (MS - MSD) / (MS + MSD)  $\times$  2  $\times$  100

## QC REPORT FOR ICP and/or AA METALS

Date: 06/04/99-06/05/99

Matrix: SOIL

Extraction:

TTLC

]	Concentr	ation	·		% Reco	% Recovery		
Analyte	(mg/kg,mg/L)     Sample MS MSD			Amount   Spiked 	MS	MSD	RPD 	
Total Lead Total Cadmium Total Chromium Total Nickel Total Zinc	0.0 N/A N/A N/A N/A	5.17 N/A N/A N/A N/A	5.15 N/A N/A N/A N/A	5.0   N/A   N/A   N/A   N/A	103   N/A   N/A   N/A   N/A	103 N/A N/A N/A N/A	0.4 N/A N/A N/A N/A	
  Total Copper	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Organic Lead	N/A	N/A	n/A	N/A	N/A	A/N	N/A	

% Rec. = (MS - Sample) / amount spiked x 100

 $RPD = (MS - MSD) / (MS + MSD) \times 2 \times 100$