

April 15, 1996

Dale Klettke
Alameda County Department of
Environmental Health
UST Local Oversight Program
1131 Harbor Bay Parkway, 2nd Floor
Alameda, CA 94502

Re: **First Quarter 1996 Monitoring Report**
3055 35th Avenue
Oakland, California
Cambria Project #13-105-104

Dear Mr. Klettke:

This report summarizes the first quarter 1996 ground water monitoring results for the site referenced above. We also describe the anticipated second quarter 1996 activities and the current hydrocarbon distribution in ground water.

First Quarter 1996 Activities

Blaine Tech Services, Inc. of San Jose, California (BTS) collected ground water samples from wells MW-1, MW-2, and MW-3 on February 21, 1996. The samples were analyzed for total petroleum hydrocarbons as gasoline (TPHg), benzene, toluene, ethylbenzene and xylenes (BTEX), and methyl tertiary-butyl ether (MTBE). BTS also gauged all site wells and checked them for liquid-phase hydrocarbons. No liquid-phase hydrocarbons were detected.

On February 15, 1996, Cambria installed air sparge well AS-1 using the Geoprobe cuttingless drilling method. The remediation well is screened from 15 feet to 17 feet below ground surface. Although we anticipated performing remediation feasibility tests during the first quarter 1996, the seasonally elevated ground water table prevented testing by submerging the screened portion of the onsite monitoring wells. We gauged the wells last week, but the well screens were not sufficiently above the water table to allow soil vapor extraction (SVE). We will continue gauging the wells every two weeks and begin our SVE test once we have sufficient well screen above the water table.

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ENVIRONMENTAL
PROTECTION

Anticipated Second Quarter 1996 Activities

BTS will gauge all site wells, check the wells for liquid-phase hydrocarbons, and collect water samples from the wells. Cambria will tabulate the data and prepare a quarterly monitoring report. Cambria plans to perform the remediation feasibility tests to evaluate the potential effectiveness of ground water extraction, soil vapor extraction, and air sparging once ground water has subsided enough to expose the monitoring well screens. We will then submit a corrective action plan presenting our recommended remedial approach.

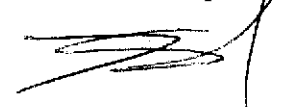
Hydrocarbon Distribution in Ground Water

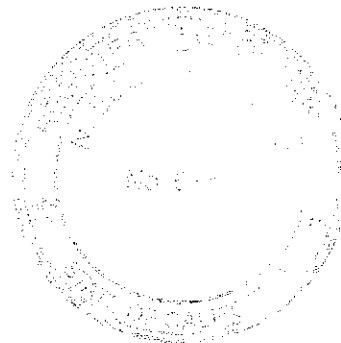
TPHg and benzene were detected in all three of the site wells, at concentrations up to 60,000 and 10,000 parts per billion (ppb) (Table 1). Hydrocarbon concentrations in ground water are highest in well MW-3, southwest of the former underground gasoline tanks. Ground water elevations this quarter indicate that ground water flows toward the northwest (Figure 1). Based on this flow direction, hydrocarbons are migrating offsite to the west.

Please call if you have any questions or comments.

Sincerely,
Cambria Environmental Technology, Inc.


Mari Reeves
Environmental Specialist

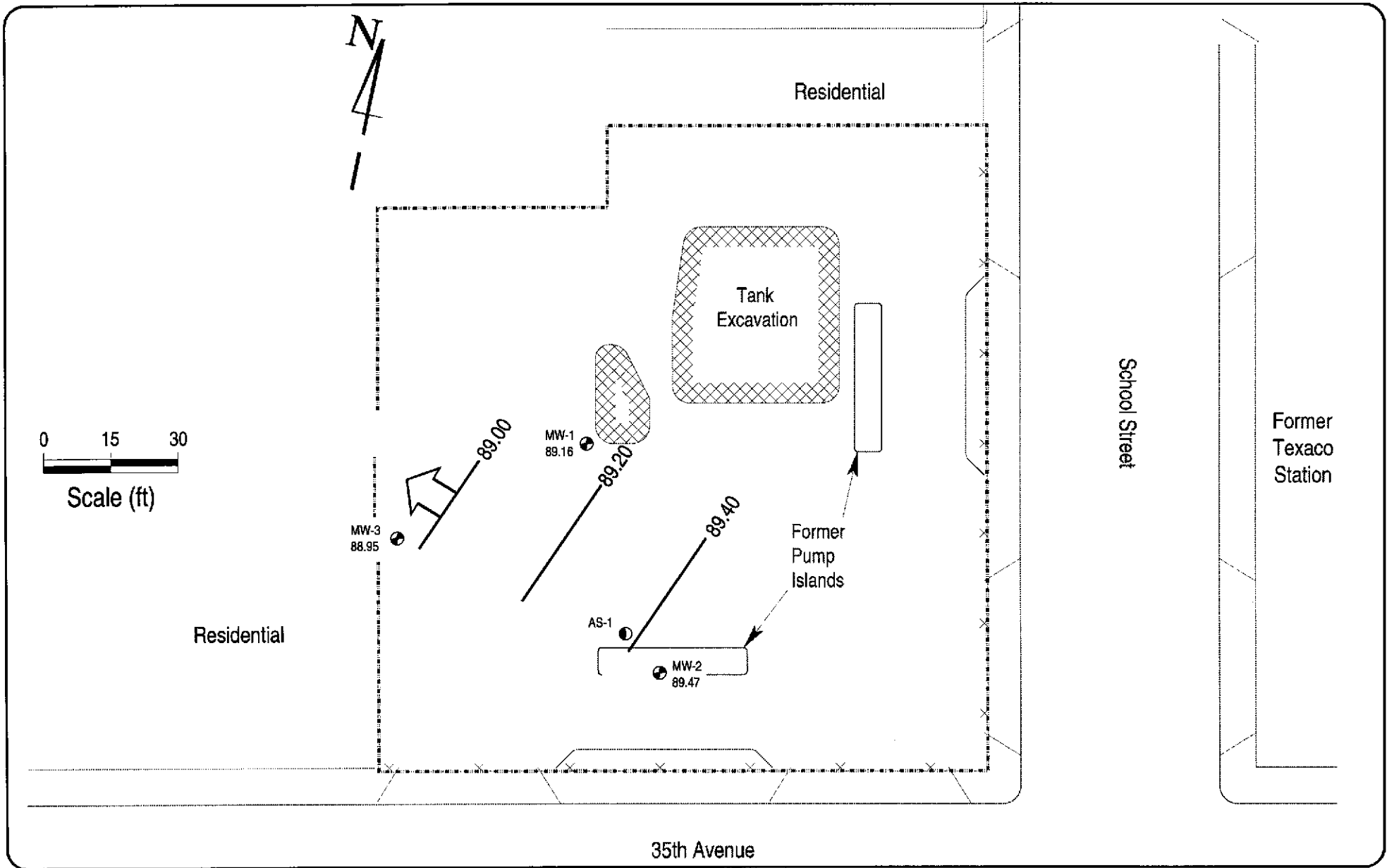

N. Scott MacLeod, R.G.
Principal Geologist



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Attachments: A - Analytic Reports for Ground Water

cc: Lynn Worthington, Better Homes Realty, 5942 MacArthur Boulevard, Suite B, Oakland, CA 94605



CAMBRIA
Environmental Technology, Inc.

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EXPLANATION	
MW-3 85.01	Monitoring Well and Ground Water Elevation
←	Estimated Ground Water Flow Direction
AS-1	Air Sparge Well
— 89.25	Ground Water Elevation Contour

Ground Water Elevations
February 21, 1996

3055 35th Avenue
Oakland, California

FIGURE
1

Table 1. Ground Water Elevation and Analytic Data - 3055 35th Avenue, Oakland, California

Well ID (quarters sampled)	Date	GW Depth (ft)	LPH (ft)	GW Elev. (ft) ----->	TPHg	TPHd	O & G	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
MW-1	5/25/94	16.79	Sheen	84.06	120,000	25,000	<50,000	22,000	17,000	2,800	16,000	---
(all)	7/19/94	20.77	---	80.08	---	---	---	---	---	---	---	---
<i>TOC = 100.85</i>	8/18/94	21.04	Sheen	79.81	925,000	---	---	16,500	6,200	1,000	9,400	---
	11/11/94	15.80	---	85.05	57,000	---	---	14,000	4,400	1,400	6,400	---
	2/27/95	15.53	---	85.32	45,000	---	---	2,900	2,500	760	4,100	---
	5/23/95	15.29	---	85.56	22,000	---	---	9,900	990	790	2,000	---
	8/22/95	20.90	---	79.95	23,000	---	---	6,900	340	1,200	1,900	---
	11/29/95	22.19	---	78.66	37,000	---	---	9,900	530	1,600	2,900	---
	2/21/96	11.69	---	89.16	33,000	4,300	---	10,000	480	1,000	1,800	3,300
MW-2	5/25/94	15.65	---	84.35	61,000	6,900	<5,000	9,900	7,400	960	4,600	---
(all)	7/19/94	19.81	---	80.19	---	---	---	---	---	---	---	---
<i>TOC = 100.00</i>	8/18/94	20.37	---	79.63	88,000	---	---	10,750	10,500	1,850	9,600	---
	11/11/94	15.52	---	84.48	54,000	---	---	5,900	6,700	1,300	7,500	---
	2/27/95	14.46	Sheen	85.54	44,000	---	---	5,100	5,300	930	6,400	---
	5/23/95	14.17	---	85.83	33,000	---	---	8,200	5,600	900	6,600	---
	8/22/95	19.80	---	80.20	38,000	---	---	6,400	5,000	1,100	5,600	---
	11/29/95	21.05	---	78.95	46,000	---	---	7,100	5,300	1,300	6,000	---
	2/21/96	10.53	---	89.47	59,000	---	---	8,000	6,000	1,800	8,900	4,500
MW-3	5/25/94	13.93	Sheen	82.94	56,000	14,000	<50,000	14,000	14,000	1,300	11,000	---
(all)	7/19/94	17.04	---	79.83	---	---	---	---	---	---	---	---
<i>TOC = 96.87</i>	8/18/94	17.75	---	79.12	116,000	---	---	28,300	26,000	2,400	15,000	---
	11/11/94	17.80	---	79.07	89,000	---	---	1,600	1,900	1,900	14,000	---
	2/27/95	11.86	Sheen	85.01	250,000	---	---	22,000	26,000	7,800	21,000	---
	5/23/95	11.60	Sheen	85.27	310,000	---	---	18,000	17,000	4,500	2,800	---
	8/22/95	17.10	---	79.77	74,000	---	---	14,000	13,000	1,900	11,000	---
	11/29/95	16.34	---	80.53	220,000	---	---	25,000	25,000	3,500	19,000	---
	2/21/96	7.92	---	88.95	60,000	---	---	10,000	7,800	1,500	8,800	3,400

Table 1. Ground Water Elevation and Analytic Data - 3055 35th Avenue, Oakland, California

Abbreviations

TOC = Top of casing elevation with respect to an onsite benchmark
 GW = Ground water
 LPH = Liquid-phase hydrocarbons
 TPHg = Total petroleum hydrocarbons as gasoline by modified EPA Method 8015
 TPHd = Total petroleum hydrocarbons as diesel by modified EPA Method 8015
 TPHmo = Total petroleum hydrocarbons as motor oil by modified EPA Method 8015
 MTBE = Methyl Tertiary-Butyl Ether by modified EPA Method 8020

Notes

Benzene by EPA Method 8020
 Ethylbenzene by EPA Method 8020
 Toluene by EPA Method 8020
 Xylenes by EPA Method 8020
 DTSC MCLs = Department of Toxic Substances Control maximum contaminant levels for drinking water
 NE = Not established

CAMBRIA

ATTACHMENT A

Analytic Reports for Ground Water



NATIONAL
ENVIRONMENTAL
TESTING, INC.®

Santa Rosa Division
3636 North Laughlin Road
Suite 110
Santa Rosa, CA 95403-8226
Tel: (707) 526-7200
Fax: (707) 541-2333

Scott Macleod
Cambria Env. Technology
1144 65th Street
Suite C
Oakland, CA 94608

Date: 02/29/1996
NET Client Acct. No: 98900
NET Job No: 96.00649
Received: 02/23/1996

Client Reference Information

Cambria Env. 3055 35th Ave., Oakland, CA/960221-K2

Sample analysis in support of the project referenced above has been completed and results are presented on the following pages. Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety. Please refer to the enclosed "Key to Abbreviations" for definition of terms. Should you have questions regarding procedures or results, please feel free to call me at (707) 541-2305.

Submitted by:


Ginger Brinlee
Project Coordinator

Enclosure (s)



Client Name: Cambria Env. Technology
Client Acct: 98900
NET Job No: 96.00649

Date: 02/29/1996
ELAP Cert: 1386
Page: 2 of 8

Ref: Cambria Env. 3055 35th Ave., Oakland, CA/960221-K2

SAMPLE DESCRIPTION: MW1
Date Taken: 02/21/1996
Time Taken: 13:20
NET Sample No: 260824

Parameter	Results	Flags	Reporting		Method	Date	Date	Run
			Limit	Units		Extracted	Analyzed	Batch
No.								
TPH (Gas/BTXE,Liquid)								
5030/M8015	--						02/28/1996	3564
DILUTION FACTOR*	200						02/28/1996	3564
as Gasoline	33		10	mg/L	5030		02/28/1996	3564
8020 (GC,Liquid)								
Benzene	10,000		100	ug/L	8020		02/28/1996	3564
Toluene	480		100	ug/L	8020		02/28/1996	3564
Ethylbenzene	1,000		100	ug/L	8020		02/28/1996	3564
Xylenes (Total)	1,800		100	ug/L	8020		02/28/1996	3564
Methyl-tert-butyl ether	3,300		400	ug/L	8020		02/28/1996	3564
SURROGATE RESULTS								
Bromofluorobenzene (SURR)	114			% Rec.	5030		02/28/1996	3564
M8015 (EXT., Liquid)								
DILUTION FACTOR*	1					02/27/1996		
as Diesel	4.3	DL	0.05	mg/L	3510		02/28/1996	1197

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.

Client Name: Cambria Env. Technology
 Client Acct: 98900
 NET Job No: 96.00649

Date: 02/29/1996
 ELAP Cert: 1386
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Ref: Cambria Env. 3055 35th Ave., Oakland, CA/960221-K2

SAMPLE DESCRIPTION: MW2
 Date Taken: 02/21/1996
 Time Taken: 12:40
 NET Sample No: 260825

Parameter	Results	Flags	Reporting		Method	Date	Date	Run
			Limit	Units		Extracted	Analyzed	Batch No.
TPH (Gas/BTXE, Liquid)								
5030/M8015	--						02/28/1996	3564
DILUTION FACTOR*	200						02/28/1996	3564
as Gasoline	59		10	mg/L	5030		02/28/1996	3564
8020 (GC, Liquid)								
Benzene	8,000		100	ug/L	8020		02/28/1996	3564
Toluene	6,000		100	ug/L	8020		02/28/1996	3564
Ethylbenzene	1,800		100	ug/L	8020		02/28/1996	3564
Xylenes (Total)	8,900		100	ug/L	8020		02/28/1996	3564
Methyl-tert-butyl ether	4,500		400	ug/L	8020		02/28/1996	3564
SURROGATE RESULTS								
Bromofluorobenzene (SURR)	113			% Rec.	5030		02/28/1996	3564
M8015 (EXT., Liquid)								
DILUTION FACTOR*	5					02/27/1996		
as Diesel	8.3	DL	1	mg/L	3510		02/28/1996	1197

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.

Client Name: Cambria Env. Technology
 Client Acct: 98900
 NET Job No: 96.00649

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 ELAP Cert: 1386
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Ref: Cambria Env. 3055 35th Ave., Oakland, CA/960221-K2

SAMPLE DESCRIPTION: MW3

Date Taken: 02/21/1996

Time Taken: 13:10

NET Sample No: 260826

Parameter	Results	Flags	Reporting		Method	Date	Date	Run
			Limit	Units		Extracted	Analyzed	Batch
TPH (Gas/BTEXE,Liquid)								
5030/M8015	--						02/27/1996	3562
DILUTION FACTOR*	100						02/27/1996	3562
as Gasoline	60		5	mg/L	5030		02/27/1996	3562
8020 (GC,Liquid)	--						02/27/1996	3562
Benzene	10,000	FI	500	ug/L	8020		02/28/1996	3564
Toluene	7,800	FI	500	ug/L	8020		02/28/1996	3564
Ethylbenzene	1,500		50	ug/L	8020		02/27/1996	3562
Xylenes (Total)	8,800		50	ug/L	8020		02/27/1996	3562
Methyl-tert-butyl ether	3,400		200	ug/L	8020		02/27/1996	3562
SURROGATE RESULTS	--						02/27/1996	3562
Bromofluorobenzene (SURR)	114			% Rec.	5030		02/27/1996	3562
M8015 (EXT., Liquid)						02/27/1996		
DILUTION FACTOR*	5						02/28/1996	1197
as Diesel	10	DL	1	mg/L	3510		02/28/1996	1197

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.

Client Name: Cambria Env. Technology
 Client Acct: 98900
 NET Job No: 96.00649

Date: 02/29/1996
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Ref: Cambria Env. 3055 35th Ave., Oakland, CA/960221-K2

CONTINUING CALIBRATION VERIFICATION STANDARD REPORT

Parameter	CCV	CCV	CCV	Flags	Units	Date Analyzed	Analyst Initials	Run Batch Number
	Standard % Recovery	Standard Amount Found	Standard Amount Expected					
TPH (Gas/BTXE,Liquid)								
as Gasoline	100.0	0.50	0.50		mg/L	02/27/1996	lss	3562
Benzene	103.4	5.17	5.00		ug/L	02/27/1996	lss	3562
Toluene	101.2	5.06	5.00		ug/L	02/27/1996	lss	3562
Ethylbenzene	103.6	5.18	5.00		ug/L	02/27/1996	lss	3562
Xylenes (Total)	106.0	15.9	15.0		ug/L	02/27/1996	lss	3562
Bromofluorobenzene (SURR)	106.0	106	100		% Rec.	02/27/1996	lss	3562
TPH (Gas/BTXE,Liquid)								
as Gasoline	102.0	0.51	0.50		mg/L	02/28/1996	lss	3564
Benzene	95.4	4.77	5.00		ug/L	02/28/1996	lss	3564
Toluene	93.0	4.65	5.00		ug/L	02/28/1996	lss	3564
Ethylbenzene	94.8	4.74	5.00		ug/L	02/28/1996	lss	3564
Xylenes (Total)	97.3	14.6	15.0		ug/L	02/28/1996	lss	3564
Bromofluorobenzene (SURR)	101.0	101	100		% Rec.	02/28/1996	lss	3564
M8015 (EXT., Liquid)								
as Diesel	107.7	1077	1000		mg/L	02/28/1996	dla	1197

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Ref: Cambria Env. 3055 35th Ave., Oakland, CA/960221-K2

METHOD BLANK REPORT

Parameter	Method	Reporting	Flags	Units	Date	Analyst	Run
	Blank						
	Found	Limit			Analyzed	Initials	Number
TPH (Gas/BTXE,Liquid)							
as Gasoline	ND	0.05		mg/L	02/27/1996	lss	3562
Benzene	ND	0.5		ug/L	02/27/1996	lss	3562
Toluene	ND	0.5		ug/L	02/27/1996	lss	3562
Ethylbenzene	ND	0.5		ug/L	02/27/1996	lss	3562
Xylenes (Total)	ND	0.5		ug/L	02/27/1996	lss	3562
Methyl-tert-butyl ether	ND	2		ug/L	02/27/1996	lss	3562
Bromofluorobenzene (SURR)	106			% Rec.	02/27/1996	lss	3562
TPH (Gas/BTXE,Liquid)							
as Gasoline	ND	0.05		mg/L	02/28/1996	lss	3564
Benzene	ND	0.5		ug/L	02/28/1996	lss	3564
Toluene	ND	0.5		ug/L	02/28/1996	lss	3564
Ethylbenzene	ND	0.5		ug/L	02/28/1996	lss	3564
Xylenes (Total)	ND	0.5		ug/L	02/28/1996	lss	3564
Methyl-tert-butyl ether	ND	2		ug/L	02/28/1996	lss	3564
Bromofluorobenzene (SURR)	99			% Rec.	02/28/1996	lss	3564
M8015 (EXT., Liquid)							
as Diesel	ND	0.05		mg/L	02/28/1996	dla	1197

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Client Name: Cambria Env. Technology
 Client Acct: 98900
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Ref: Cambria Env. 3055 35th Ave., Oakland, CA/960221-K2

MATRIX SPIKE / MATRIX SPIKE DUPLICATE

Parameter	Matrix Spike				Matrix Spike				Date Analyzed	Run Batch	Sample Spiked	
	Spike % Rec.	Dup % Rec.	RPD	Spike Amount	Sample Conc.	Spike Conc.	Dup. Conc.	Flags				Units
TPH (Gas/BTEX, Liquid)												260709
as Gasoline	102.0	100.0	2.0	0.50	ND	0.51	0.50		mg/L	02/27/1996	3562	260709
Benzene	103.6	102.5	1.1	8.24	ND	8.54	8.45		ug/L	02/27/1996	3562	260709
Toluene	104.0	102.9	1.1	27.4	ND	28.5	28.2		ug/L	02/27/1996	3562	260709
TPH (Gas/BTEX, Liquid)												260912
as Gasoline	102.0	94.0	8.1	0.50	0.10	0.61	0.57		mg/L	02/28/1996	3564	260912
Benzene	102.9	99.3	3.5	8.39	ND	8.63	8.33		ug/L	02/28/1996	3564	260912
Toluene	100.0	96.4	3.6	28.0	0.6	28.6	27.6		ug/L	02/28/1996	3564	260912
MS015 (EXT., Liquid)												260864
as Diesel	88.0	82.0	7.1	1.00	ND	0.88	0.82		mg/L	02/28/1996	1197	260864

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.

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Ref: Cambria Env. 3055 35th Ave., Oakland, CA/960221-K2

LABORATORY CONTROL SAMPLE REPORT

Parameter	LCS		RPD	DUP			Flags	Units	Date Analyzed	Analyst Initials	Run Batch
	% Rec.	% Rec.		LCS Amount Found	LCS Amount Found	LCS Amount Exp.					
M8015 (EXT., Liquid) as Diesel	59.0			0.59		1.00		mg/L	02/28/1996	dla	1197

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.

KEY TO RESULT FLAGS

* : RPD between sample duplicates exceeds 30%.
*M : RPD between sample duplicates or MS/MSD exceeds 20%.
+ : Correlation coefficient for the Method of Standard Additions is less than 0.995.
< : Sample result is less than reported value.
B-I : Value is between Method Detection Limit and Reporting Limit.
B-0 : Analyte found in blank and sample.
C : The result confirmed by secondary column or GC/MS analysis.
CNA : Cr+6 not analyzed; Total Chromium concentration below Cr+6 regulatory level.
COMP : Sample composited by equal volume prior to analysis.
D- : The result has an atypical pattern for Diesel analysis.
D1 : The result for Diesel is an unknown hydrocarbon which consists of a single peak.
DH : The result appears to be a heavier hydrocarbon than Diesel.
DL : The result appears to be a lighter hydrocarbon than Diesel.
DR : Elevated Reporting Limit due to Matrix.
DS : Surrogate diluted out of range.
DX : The result for Diesel is an unknown hydrocarbon which consists of several peaks.
FA : Compound quantitated at a 2X dilution factor.
FB : Compound quantitated at a 5X dilution factor.
FC : Compound quantitated at a 10X dilution factor.
FD : Compound quantitated at a 20X dilution factor.
FE : Compound quantitated at a 50X dilution factor.
FF : Compound quantitated at a 100X dilution factor.
FG : Compound quantitated at a 200X dilution factor.
FH : Compound quantitated at a 500X dilution factor.
FI : Compound quantitated at a 1000X dilution factor.
FJ : Compound quantitated at a greater than 1000x dilution factor.
FK : Compound quantitated at a 25X dilution factor.
FL : Compound quantitated at a 250X dilution factor.
G- : The result has an atypical pattern for Gasoline.
G1 : The result for Gasoline is an unknown hydrocarbon which consists of a single peak.
GH : The result appears to be a heavier hydrocarbon than Gasoline.
GL : The result appears to be a lighter hydrocarbon than Gasoline.
GX : The result for Gasoline is an unknown hydrocarbon which consists of several peaks.
HX : Peaks detected within the quantitation range do not match standard used.
J : Value is estimated.
MI : Matrix Interference Suspected.
MSA : Value determined by Method of Standard Additions.
MSA* : Value obtained by Method of Standard Additions; Correlation coefficient is <0.995.
NI1 : Sample spikes outside of QC limits; matrix interference suspected.
NI2 : Sample concentration is greater than 4X the spiked value; the spiked value is considered insignificant.
NI3 : Matrix Spike values exceed established QC limits, post digestion spike is in control.
P7 : pH of sample > 2; sample analyzed past 7 days.
RSC : Refer to subcontract laboratory report for QC data.
S2 : Matrix interference confirmed by repeat analysis.
SCN : Thiocyanate not analyzed separately; total value is below the Reporting Limit for Free Cyanide.
UMDL : Undetected at the Method Detection Limit.

BLAINE TECH SERVICES INC.

985 TIMOTHY DRIVE
SAN JOSE, CA 95133
(408) 995-5535
FAX (408) 293-8773

#0398

LAB Net DHS #

ALL ANALYSES MUST MEET SPECIFICATIONS AND DETECTION LIMITS SET BY CALIFORNIA DHS AND

- EPA
- LIA
- OTHER

RWQCB REGION

SPECIAL INSTRUCTIONS

CHAIN OF CUSTODY
 960221-162
 CLIENT Cambria Env.
 SITE 3055 35th Ave
 Oakland

C = COMPOSITE ALL CONTAINERS

CONDUCT ANALYSIS TO DETECT					
	TPH Gas	BTEX			
	TPH Diesel				
	MTBE				

SAMPLE I.D.	MATRIX S = SOIL W = H2O	CONTAINERS		ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
		TOTAL	✓ Amber				
MW1 - 1320	W	5	↓				
MW2 - 1340	↓	↓	↓				
MW3 - 1310	↓	↓	↓				

CUSTODY SEALED
 Date 2/22/96 Time 1700 Initials BS
 SEAL INTACT?
 Yes No Initials CA

SAMPLING COMPLETED	DATE	TIME	SAMPLING PERFORMED BY	RESULTS NEEDED NO LATER THAN	
	2/21/96	1400	Keith Brown	As Contracted	
RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
<u>[Signature]</u>	2/22/96	1035	<u>[Signature]</u>	2/22/96	1035
RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
<u>[Signature]</u>	2/22/96	1710	<u>[Signature]</u>	2/23/96	09:40
SHIPPED VIA	DATE SENT	TIME SENT	COOLER #		
NC5				Temp 1°	