CAMBRIA
Environmental Technology, Inc.

January 18, 1996

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

Re: ***Fourth Quarter Monitoring Report***
3055 35th Avenue
Oakland, California
Cambria Project #20-105-104

Dear Mr. Klettke:

This report summarizes the fourth quarter 1995 ground water monitoring results for the site referenced above. The fourth quarter 1995 activities, anticipated first quarter 1996 activities, and the current hydrocarbon distribution in ground water are described below.

Fourth Quarter 1995 Activities:

Blaine Tech Services, Inc. of San Jose, California (BTS) collected ground water samples from wells MW-1, MW-2 and MW-3 on November 29, 1995. The samples were analyzed for total petroleum hydrocarbons as gasoline (TPHg) and benzene, toluene, ethylbenzene and xylenes (BTEX). BTS also gauged all site wells and checked them for liquid-phase hydrocarbons. No liquid-phase hydrocarbons were detected.

Anticipated First 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. We also anticipate performing remediation feasibility tests to evaluate the potential effectiveness of ground water extraction, soil vapor extraction, and air sparging technologies. We will then submit a corrective action plan presenting our recommended remedial approach.

1144 Sixty-Fifth Street Suite C Oakland, CA 94608 Fax (510) 420-9170 Phone (510) 420-0700

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Hydrocarbon Distribution in Ground Water:

TPHg and benzene were detected in all three of the site wells, at up to 220,000 and 25,000 parts per billion (ppb) (Table 1, Attachment A). Hydrocarbon concentrations in ground water are highest in well MW-3, southwest of the former underground gasoline tanks and the southernmost pump island. Ground water elevations this quarter are inconsistent with the historical ground water flow direction, which is toward the southwest. The current elevations indicate that ground water flows toward the northeast (Figure 1). Based on this flow direction, hydrocarbons are migrating away from the eastern property line and toward the former tank pit area.

Please call if you have any questions or comments.

Sincerely,
Cambria Environmental Technology, Inc.

Mari Reeves
Environmental Specialist

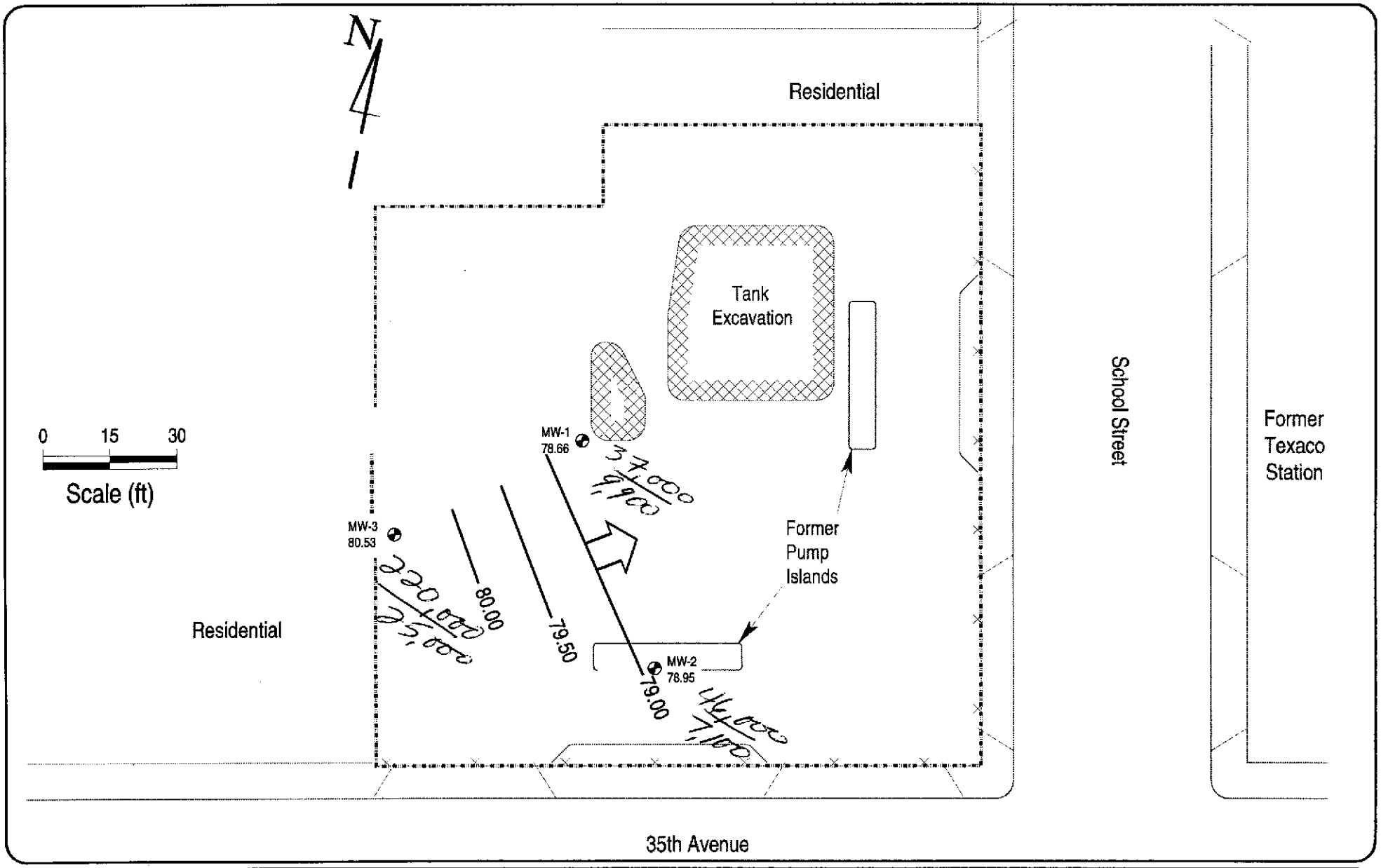
Joseph P. Theisen, C.E.G.
Principal Hydrogeologist

REGISTERED GEOLOGIST
JOSEPH P. THEISEN
No. EG-1645
CERTIFIED
ENGINEERING
GEOLOGIST
STATE OF CALIFORNIA

D:\PROJECT\MISC\ROSE\OAKL-002\QM-4-95.WPD

Attachments: A - Analytic Reports for Ground Water

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



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EXPLANATION

MW-3 85.01 — Monitoring Well and Ground Water Elevation

79.25 — Ground Water Elevation Contour

Estimated Ground Water Flow Direction

Ground Water Elevations
November 29, 1995

3055 35th Avenue
Oakland, California

FIGURE
1

TPHg/Benzene (Conc. in ppb)

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

Well/ Boring ID	Date	Casing Elev. (ft)	GW Depth (ft)	LPH (ft)	GW Elev. (ft)	TPHg	TPHd	TPHmo	B	T	E	X	Notes
						(Concentration in parts per billion)							
Wells													
MW-1	5/25/94	100.85	16.79	Sheen	84.06	120,000	25,000	<50,000	22,000	17,000	2,800	16,000	a
	7/19/94		20.77	0	80.08	---	---	---	---	---	---	---	
	8/18/94		21.04	Sheen	79.81	925,000	---	---	16,500	6,200	1,000	9,400	
	11/11/94		15.80	0	85.05	57,000	---	---	14,000	4,400	1,400	6,400	
	2/27/95		15.53	0	85.32	45,000	---	---	2,900	2,500	760	4,100	
	5/23/95		15.29	0	85.56	22,000	---	---	9,900	990	790	2,000	
	8/22/95		20.90	0	79.95	23,000	---	---	6,900	340	1,200	1,900	
	11/29/95		22.19	0	78.66	37,000	---	---	9,900	530	1,600	2,900	
MW-2	5/25/94	100.00	15.65	0	84.35	61,000	6,900	<5,000	9,900	7,400	960	4,600	a
	7/19/94		19.81	0	80.19	---	---	---	---	---	---	---	
	8/18/94		20.37	0	79.63	88,000	---	---	10,750	10,500	1,850	9,600	
	11/11/94		15.52	0	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	0	85.83	33,000	---	---	8,200	5,600	900	6,600	
	8/22/95		19.80	0	80.20	38,000	---	---	6,400	5,000	1,100	5,600	
	11/29/95		21.05	0	78.95	46,000	---	---	7,100	5,300	1,300	6,000	
MW-3	5/25/94	96.87	13.93	Sheen	82.94	56,000	14,000	<50,000	14,000	14,000	1,300	11,000	a
	7/19/94		17.04	0	79.83	---	---	---	---	---	---	---	
	8/18/94		17.75	0	79.12	116,000	---	---	28,300	26,000	2,400	15,000	
	11/11/94		17.80	0	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	0	79.77	74,000	---	---	14,000	13,000	1,900	11,000	
	11/29/95		16.34	0	80.53	220,000	---	---	25,000	25,000	3,500	19,000	

Abbreviations

Casing Elevation = 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
B = Benzene by EPA Method 8020
E = Ethylbenzene by EPA Method 8020
T = Toluene by EPA Method 8020
X = Xylenes by EPA Method 8020
DTSC MCLs = Department of Toxic Substances Control maximum contaminant level for drinking water
NE = Not established

Notes

a = The positive TPHd result appears to be a hydrocarbon lighter than diesel.

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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: 12/11/1995
NET Client Acct. No: 98900
NET Job No: 95.04609
Received: 12/01/1995

Client Reference Information

Cambria Environmental/951129-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)

Ref: Cambria Environmental/951129-K2

SAMPLE DESCRIPTION: MW1
Date Taken: 11/29/1995
Time Taken: 15:40
NET Sample No: 256605

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed	Run Batch No.
TPH (Gas/BTXE,Liquid)								
METHOD 5030/M8015	--						12/05/1995	3394
DILUTION FACTOR*	200						12/05/1995	3394
as Gasoline	37		10	mg/L	5030		12/05/1995	3394
METHOD 8020 (GC,Liquid)	--						12/05/1995	3394
Benzene	9,900		100	ug/L	8020		12/05/1995	3394
Toluene	530		100	ug/L	8020		12/05/1995	3394
Ethylbenzene	1,600		100	ug/L	8020		12/05/1995	3394
Xylenes (Total)	2,900		100	ug/L	8020		12/05/1995	3394
SURROGATE RESULTS	--						12/05/1995	3394
Bromofluorobenzene (SURR)	95			% Rec.	5030		12/05/1995	3394

Ref: Cambria Environmental/951129-K2

SAMPLE DESCRIPTION: MW2
Date Taken: 11/29/1995
Time Taken: 15:10
NET Sample No: 256606

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed	Run Batch No.
TPH (Gas/BTXE,Liquid)								
METHOD 5030/M8015	--						12/05/1995	3394
DILUTION FACTOR*	200						12/05/1995	3394
as Gasoline	46		10	mg/L	5030		12/05/1995	3394
METHOD 8020 (GC,Liquid)	--						12/05/1995	3394
Benzene	7,100		100	ug/L	8020		12/05/1995	3394
Toluene	5,300		100	ug/L	8020		12/05/1995	3394
Ethylbenzene	1,300		100	ug/L	8020		12/05/1995	3394
Xylenes (Total)	6,000		100	ug/L	8020		12/05/1995	3394
SURROGATE RESULTS	--						12/05/1995	3394
Bromofluorobenzene (SURR)	96			% Rec.	5030		12/05/1995	3394

Ref: Cambria Environmental/951129-K2

SAMPLE DESCRIPTION: MW3
Date Taken: 11/29/1995
Time Taken: 15:25
NET Sample No: 256607

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed	Run Batch No.
TPH (Gas/BTXE,Liquid)								
METHOD 5030/M8015	--						12/06/1995	3397
DILUTION FACTOR*	1,000						12/06/1995	3397
as Gasoline	220		50	mg/L	5030		12/06/1995	3397
METHOD 8020 (GC,Liquid)	--						12/06/1995	3397
Benzene	25,000		500	ug/L	8020		12/06/1995	3397
Toluene	25,000		500	ug/L	8020		12/06/1995	3397
Ethylbenzene	3,500		500	ug/L	8020		12/06/1995	3397
Xylenes (Total)	19,000		500	ug/L	8020		12/06/1995	3397
SURROGATE RESULTS	--						12/06/1995	3397
Bromofluorobenzene (SURR)	93			% Rec.	5030		12/06/1995	3397

Ref: Cambria Environmental/951129-K2

CONTINUING CALIBRATION VERIFICATION STANDARD REPORT

Parameter	CCV Standard % Recovery	CCV Standard Amount Found	CCV Standard Amount Expected	Units	Date Analyzed	Analyst Initials	Run Batch Number
TPH (Gas/BTXE,Liquid)							
as Gasoline	96.0	0.48	0.50	mg/L	12/05/1995	dat3	3394
Benzene	92.8	4.64	5.00	ug/L	12/05/1995	dat3	3394
Toluene	90.8	4.54	5.00	ug/L	12/05/1995	dat3	3394
Ethylbenzene	97.8	4.89	5.00	ug/L	12/05/1995	dat3	3394
Xylenes (Total)	99.5	14.92	15.0	ug/L	12/05/1995	dat3	3394
Bromofluorobenzene (SURR)	102.0	102	100	% Rec.	12/05/1995	dat3	3394
TPH (Gas/BTXE,Liquid)							
as Gasoline	100.0	0.50	0.50	mg/L	12/06/1995	lss	3397
Benzene	94.4	4.72	5.00	ug/L	12/06/1995	lss	3397
Toluene	92.2	4.61	5.00	ug/L	12/06/1995	lss	3397
Ethylbenzene	94.6	4.73	5.00	ug/L	12/06/1995	lss	3397
Xylenes (Total)	95.3	14.3	15.0	ug/L	12/06/1995	lss	3397
Bromofluorobenzene (SURR)	91.0	91	100	% Rec.	12/06/1995	lss	3397

Ref: Cambria Environmental/951129-K2

METHOD BLANK REPORT

Parameter	Method Blank Amount Found	Reporting Limit	Units	Date Analyzed	Analyst Initials	Run Batch Number
TPH (Gas/BTXE,Liquid)						
as Gasoline	ND	0.05	mg/L	12/05/1995	dat3	3394
Benzene	ND	0.5	ug/L	12/05/1995	dat3	3394
Toluene	ND	0.5	ug/L	12/05/1995	dat3	3394
Ethylbenzene	ND	0.5	ug/L	12/05/1995	dat3	3394
Xylenes (Total)	ND	0.5	ug/L	12/05/1995	dat3	3394
Bromofluorobenzene (SURR)	101		% Rec.	12/05/1995	dat3	3394
TPH (Gas/BTXE,Liquid)						
as Gasoline	ND	0.05	mg/L	12/06/1995	lss	3397
Benzene	ND	0.5	ug/L	12/06/1995	lss	3397
Toluene	ND	0.5	ug/L	12/06/1995	lss	3397
Ethylbenzene	ND	0.5	ug/L	12/06/1995	lss	3397
Xylenes (Total)	ND	0.5	ug/L	12/06/1995	lss	3397
Bromofluorobenzene (SURR)	89		% Rec.	12/06/1995	lss	3397

Ref: Cambria Environmental/951129-K2

MATRIX SPIKE / MATRIX SPIKE DUPLICATE

Parameter	Matrix Spike % Rec.	Matrix Spike Dup % Rec.	RPD	Spike Amount	Sample Conc.	Matrix Spike Conc.	Matrix Spike Dup. Conc.	Units	Date Analyzed	Run Batch	Sample Spiked
TPH (Gas/BTXE,Liquid)											256782
as Gasoline	94.0	94.0	0.0	0.50	ND	0.47	0.47	mg/L	12/05/1995	3394	256782
Benzene	99.6	98.6	1.0	7.78	ND	7.75	7.67	ug/L	12/05/1995	3394	256782
Toluene	99.5	98.8	0.7	22.54	ND	22.43	22.27	ug/L	12/05/1995	3394	256782
TPH (Gas/BTXE,Liquid)											256796
as Gasoline	96.0	96.0	0.0	0.50	0.29	0.77	0.77	mg/L	12/06/1995	3397	256796
Benzene	93.6	82.1	13.1	7.80	14	21.3	20.4	ug/L	12/06/1995	3397	256796
Toluene	101.2	94.5	6.7	25.4	1.5	27.2	25.5	ug/L	12/06/1995	3397	256796

NET®

KEY TO ABBREVIATIONS and METHOD REFERENCES

<	:	Less than; When appearing in results column indicates analyte not detected at the value following. This datum supercedes the listed Reporting Limit.
*	:	Reporting Limits are a function of the dilution factor for any given sample. To obtain the actual reporting limits for this sample, multiply the stated Reporting Limits by the dilution factor (but do not multiply reported values).
ICVS	:	Initial Calibration Verification Standard (External Standard).
mean	:	Average; sum of measurements divided by number of measurements.
mg/Kg (ppm)	:	Concentration in units of milligrams of analyte per kilogram of sample, wet-weight basis (parts per million).
mg/L	:	Concentration in units of milligrams of analyte per liter of sample.
mL/L/hr	:	Milliliters per liter per hour.
MPN/100 mL	:	Most probable number of bacteria per one hundred milliliters of sample.
N/A	:	Not applicable.
NA	:	Not analyzed.
ND	:	Not detected; the analyte concentration is less than applicable listed reporting limit.
NTU	:	Nephelometric turbidity units.
RPD	:	Relative percent difference, 100 [Value 1 - Value 2]/mean value.
SNA	:	Standard not available.
ug/Kg (ppb)	:	Concentration in units of micrograms of analyte per kilogram of sample, wet-weight basis (parts per billion).
ug/L	:	Concentration in units of micrograms of analyte per liter of sample.
umhos/cm	:	Micromhos per centimeter.

Method References

Methods 100 through 493: see "Methods for Chemical Analysis of Water & Wastes", U.S. EPA, 600/4-79-020, rev. 1983.

Methods 601 through 625: see "Guidelines Establishing Test Procedures for the Analysis of Pollutants" U.S. EPA, 40 CFR, Part 136, rev. 1988.

Methods 1000 through 9999: see "Test Methods for Evaluating Solid Waste", U.S. EPA SW-846, 3rd edition, 1986.

SM: see "Standard Methods for the Examination of Water & Wastewater, 17th Edition, APHA, 1989.

BLAINE TECH SERVICES INC.

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

LAB NET #9442 DHS #

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

☐ EPA ☐ RWQCB REGION ____
☐ LIA
☐ OTHER

CHAIN OF CUSTODY 95129-KZ

CLIENT Cambria Environmental

SITE 3055 35th St.
Oakland, CA.

SPECIAL INSTRUCTIONS

Invoice & Report to
Cambria Environmental
Attn: Scott Meleod
20-105-04

CONDUCT ANALYSIS TO DETECT

C = COMPOSITE ALL CONTAINERS

SAMPLE I.D.		MATRIX S = SOIL W = H2O	CONTAINERS TOTAL	VOA	TPHg, BTEX	ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
MW1	1540	W	3	-	X				
MW2	1510	↓	↓	-	X				
MW3	1525	↓	↓	✓	X				

CUSTODY SEALED
Date 11/30/95 Time 1715 Initials [illegible]
SEAL INTACT?
Yes ✓ No ____ Initials [illegible]

SAMPLING COMPLETED	DATE	TIME
	11/29/95	1600

SAMPLING PERFORMED BY Keith Brown

RESULTS NEEDED NO LATER THAN Routine

RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
[signature]	11-30-95	1137	[signature]	11/30/95	11:37
[signature]	11/30/95	1715	[signature]	12/1/95	08:00

SHIPPED VIA	DATE SENT	TIME SENT	COOLER #
NC			Temp 0°