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Environmental Technology, Inc.

September 16, 1994

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

Re: Third Quarter Monitoring Report
Former Exxon Service Station
3055 35th Avenue
Oakland, California
Cambria Project #20-105-104

Dear Ms. Hugo:

This report summarizes the third quarter 1994 ground water monitoring results for the site referenced above (Figure 1). Described below are the third quarter of 1994 activities, anticipated fourth quarter 1994 activities and a discussion of the hydrocarbon distribution in ground water.

THIRD QUARTER 1994 ACTIVITIES

Blaine Tech Services, Inc. of San Jose, California (BTS) collected ground water samples from wells MW-1, MW-2 and MW-3 on August 18, 1994. The samples were analyzed for total petroleum hydrocarbons as gasoline (TPHg) and benzene, ethylbenzene, toluene and xylenes (BETX). Samples were not analyzed for TPH as diesel (TPHd) because the laboratory indicated that the TPHd detected during the second quarter sampling was due to gasoline-range hydrocarbons. BTS also gauged all site wells and checked them for liquid-phase hydrocarbons.

ANTICIPATED FOURTH QUARTER 1994 ACTIVITIES

BTS will gauge all site wells, check the wells for liquid-phase hydrocarbons, and collect water samples from the wells in the fourth quarter. Cambria will tabulate the data and prepare a quarterly monitoring report.

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HYDROCARBON DISTRIBUTION IN GROUND WATER

TPHg and benzene were detected in all three of the site wells, at up to 925,000 and 28,300 parts per billion (ppb), respectively (Table 1, Attachment A). Hydrocarbon concentrations in ground water are highest downgradient of the former underground gasoline tanks and the southernmost pump island (Figures 2 and 3). A hydrocarbon sheen was observed in two of the three wells during sampling and TPHg/BETX concentrations detected in ground water are near the saturation concentrations of these compounds in ground water. Based on the ground water flow direction (Figure 4) and hydrocarbon concentrations at the downgradient property line, it appears that aqueous-phase hydrocarbons are migrating offsite to the southwest.

We trust that this submittal meets your requirements. Please call if you have any questions or comments.

Sincerely,
Cambria Environmental Technology, Inc.

N. Scott MacLeod, R.G.
Principal Geologist

D:\PROJECT\SB-2004\OAKL-002\QUARTRLY\QM-3-94.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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Figure 1. Site Location Map - 3055 35th Avenue, Oakland, California

NSM 6/29/94
D(NSM):\PROJECT\ROSE\OAKL-002\SITE-LOC.DWG

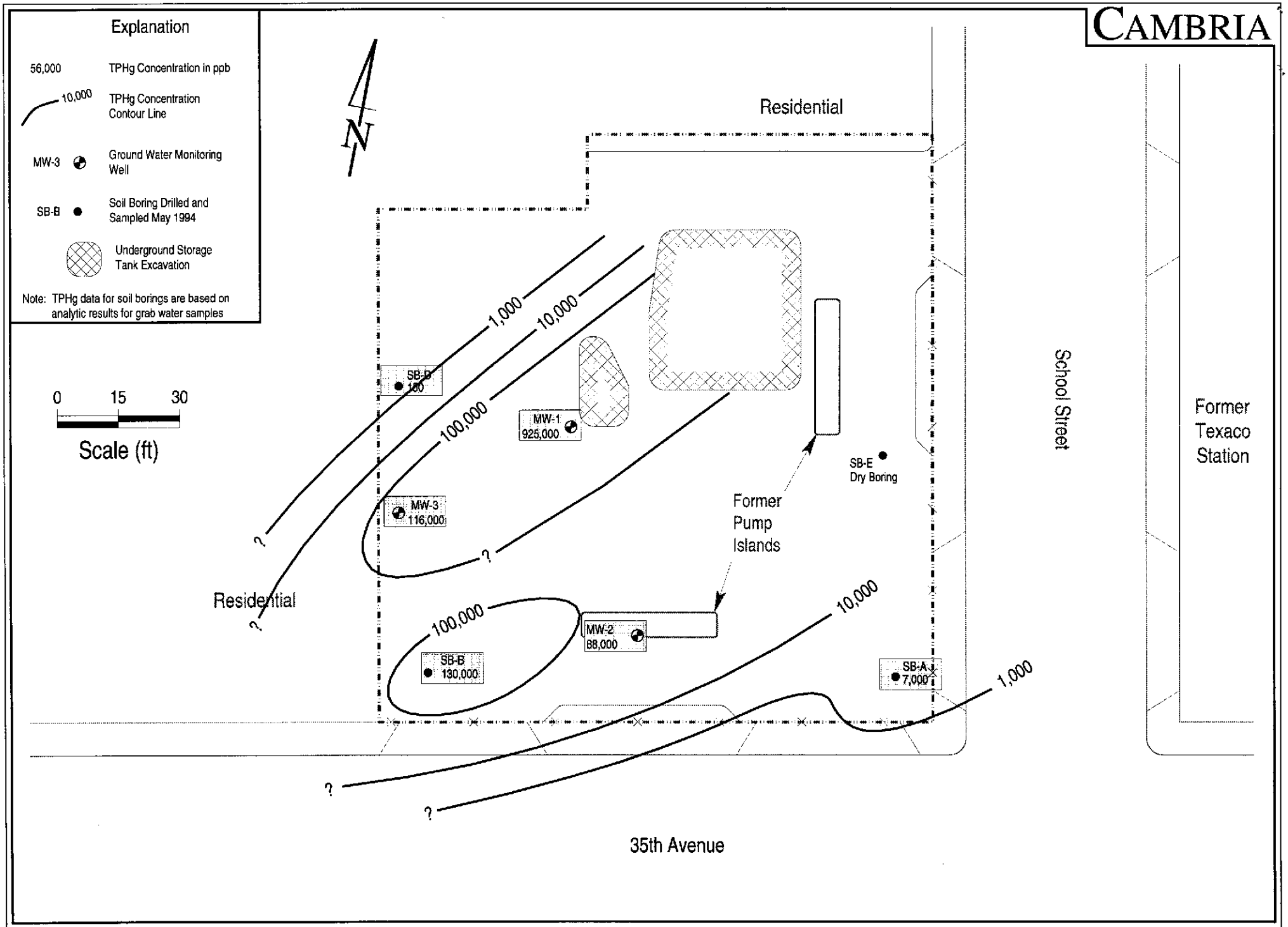

Figure 2. TPHg Concentrations in Ground Water (ppb) - August 18, 1994 - 3055 35th Avenue, Oakland, California

NSM 9/8/94
D(NSM)\PROJECT\ROSE\OAKL-022\TPH-8-94.DWG

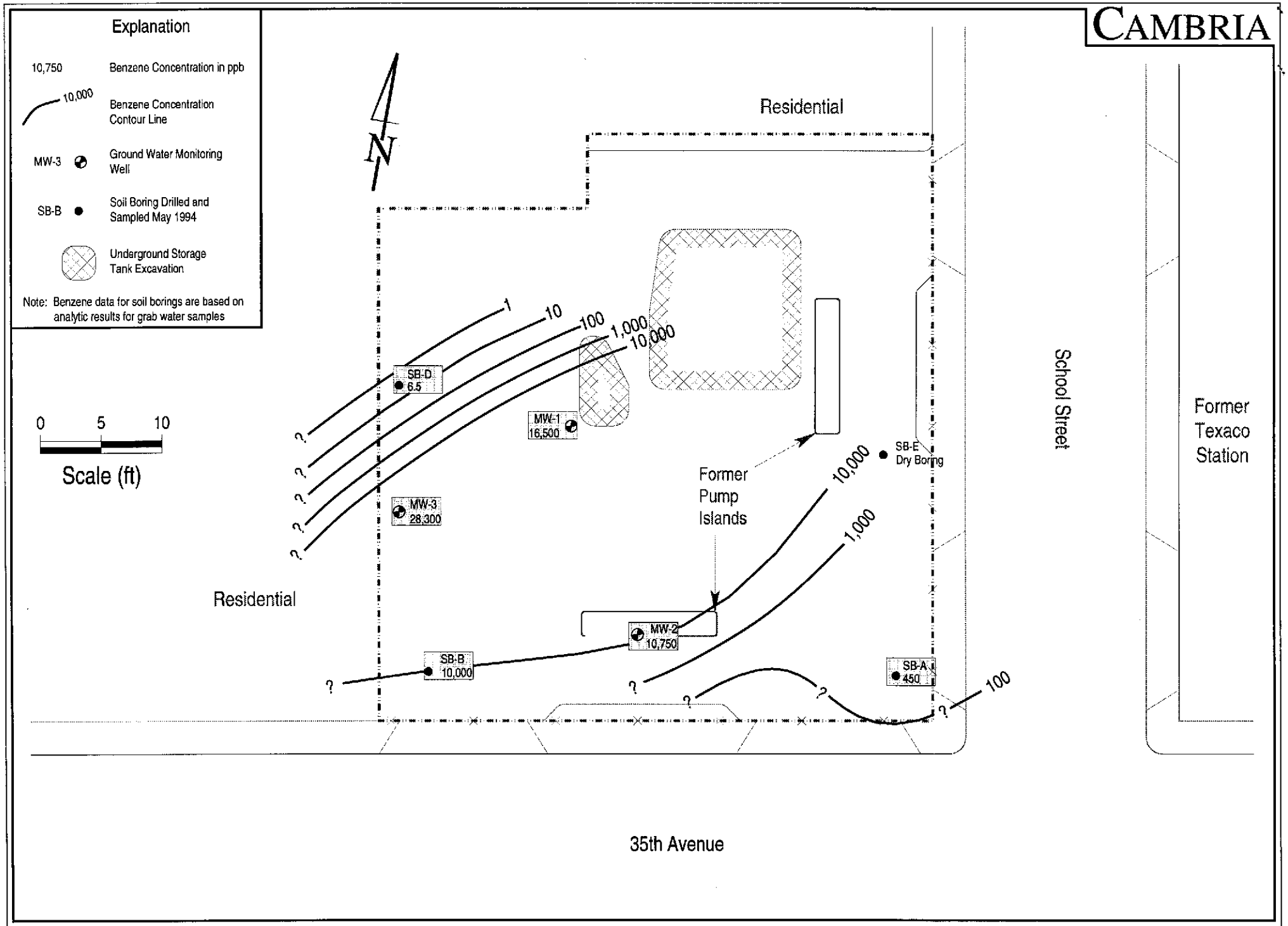

Figure 3. Benzene Concentrations in Ground Water (ppb) - August 18, 1994 - 3055 35th Avenue, Oakland, California

NSM 9/8/94
D(NSM):\PROJECT\ROSE\OAKL-022\BNZ-8-94.DWG

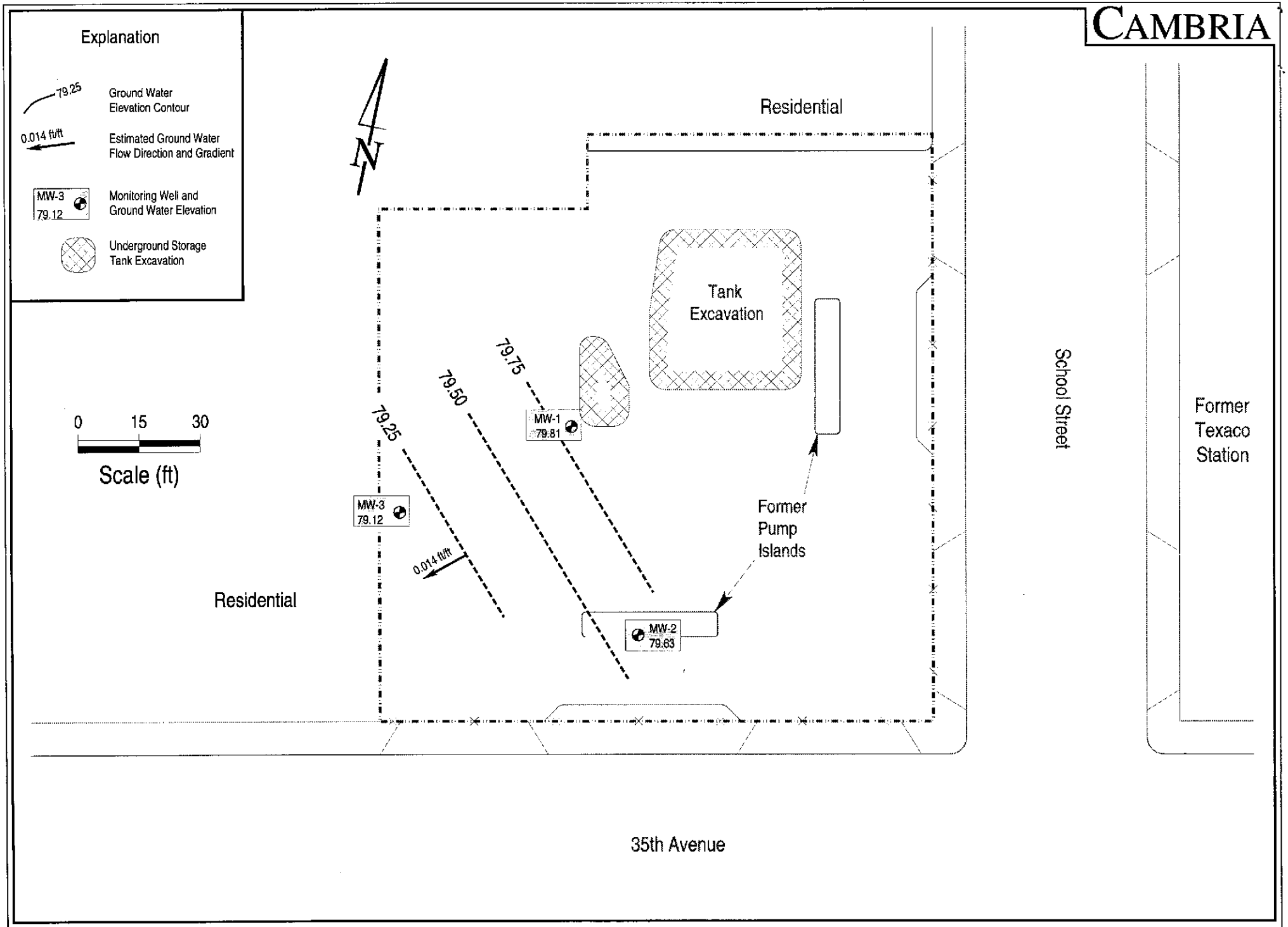

Figure 4. Ground Water Elevations - August 18, 1994 - 3055 35th Avenue, Oakland, California

NSM 9/8/94
D:\NSM\PROJECT\ROSE\OAKL-022\GW-8-94.DWG

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	
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	
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	
May 1994 Borings													
SB-A	5/6/94	---	14.50	0	---	7,000	9,100	<25,000	450	75	180	330	
SB-B	5/6/94	---	15.00	0	---	130,000	3,800	<5,000	10,000	11,000	2,200	11,000	
SB-D	5/9/94	---	19.30	0	---	150	210	<500	6.5	10	2.9	12	
DTSC MCLs or State Action Level						NE	NE	NE	1	100	680	1,750	

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

NET NATIONAL ENVIRONMENTAL TESTING, INC.®

Santa Rosa Division
435 Tesconi Circle
Santa Rosa, CA 95401
Tel: (707) 526-7200
Fax: (707) 526-9623

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

Date: 09/06/1994
NET Client Acct. No: 98900
NET Pacific Job No: 94.03713
Received: 08/20/1994

Client Reference Information

3055 35th Ave, Oakland, Project No: 20-105-04

Sample analysis in support of the project referenced above has been completed and results are presented on 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 welcome to contact Client Services.

Approved by:

Judy Ridley
Project Coordinator

Jim Hoch
Operations Manager

Enclosure(s)

Ref: 3055 35th Ave, Oakland, Project No: 20-105-04

SAMPLE DESCRIPTION: MW-1
Date Taken: 08/18/1994
Time Taken: 15:50
NET Sample No: 212421

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed
TPH (Gas/BTXE,Liquid)							
METHOD 5030/M8015	--						08/27/1994
DILUTION FACTOR*	240						08/27/1994
as Gasoline	925		200	mg/L	5030		08/27/1994
METHOD 8020 (GC,Liquid)	--						08/27/1994
Benzene	16,500	FG	200	ug/L	8020		08/27/1994
Toluene	6,200	FG	200	ug/L	8020		08/27/1994
Ethylbenzene	1,000	FG	200	ug/L	8020		08/27/1994
Xylenes (Total)	9,400	FG	200	ug/L	8020		08/27/1994
SURROGATE RESULTS	--						08/27/1994
Bromofluorobenzene (SURR)	96			% Rec.	5030		08/27/1994

FG : Compound quantitated at a 200X dilution factor.

Ref: 3055 35th Ave, Oakland, Project No: 20-105-04

SAMPLE DESCRIPTION: MW-2
Date Taken: 08/18/1994
Time Taken: 15:25
NET Sample No: 212422

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed
TPH (Gas/BTXE,Liquid)							
METHOD 5030/M8015	--						08/27/1994
DILUTION FACTOR*	240						08/27/1994
as Gasoline	88		200	mg/L	5030		08/27/1994
METHOD 8020 (GC,Liquid)	--						08/27/1994
Benzene	10,750	FG	200	ug/L	8020		08/27/1994
Toluene	10,500	FG	200	ug/L	8020		08/27/1994
Ethylbenzene	1,850	FG	200	ug/L	8020		08/27/1994
Xylenes (Total)	9,600	FG	200	ug/L	8020		08/27/1994
SURROGATE RESULTS	--						08/27/1994
Bromofluorobenzene (SURR)	96			% Rec.	5030		08/27/1994

FG : Compound quantitated at a 200X dilution factor.

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Client Name: Cambria Env. Technology
Client Acct: 98900
NET Job No: 94.03713

Date: 09/06/1994
ELAP Cert: 1386
Page: 4

Ref: 3055 35th Ave, Oakland, Project No: 20-105-04

SAMPLE DESCRIPTION: MW-3
Date Taken: 08/18/1994
Time Taken: 16:10
NET Sample No: 212423

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed
TPH (Gas/BTXE,Liquid)							
METHOD 5030/M8015	--						08/27/1994
DILUTION FACTOR*	100						08/27/1994
as Gasoline	116		5	mg/L	5030		08/27/1994
METHOD 8020 (GC,Liquid)	--						08/27/1994
Benzene	28,300	FJ	500	ug/L	8020		08/27/1994
Toluene	26,000	FJ	500	ug/L	8020		08/27/1994
Ethylbenzene	2,400		500	ug/L	8020		08/27/1994
Xylenes (Total)	15,000		500	ug/L	8020		08/27/1994
SURROGATE RESULTS	--						08/27/1994
Bromofluorobenzene (SURR)	99			% Rec.	5030		08/27/1994

FJ : Compound quantitated at a greater than 1000X dilution factor.

Ref: 3055 35th Ave, Oakland, Project No: 20-105-04

CONTINUING CALIBRATION VERIFICATION STANDARD REPORT

Parameter	CCV Standard % Recovery	CCV Standard Amount Found	CCV Standard Amount Expected	Units	Date Analyzed	Analyst Initials
TPH (Gas/BTXE,Liquid)						
as Gasoline	107.0	1.07	1.00	mg/L	08/27/1994	jar
as Gasoline	101.6	0.711	0.7	mg/L	08/27/1994	jar
Benzene	90.6	4.53	5.00	ug/L	08/27/1994	jar
Benzene	94.5	18.9	20.0	ug/L	08/27/1994	jar
Toluene	89.8	4.49	5.00	ug/L	08/27/1994	jar
Toluene	97.5	19.5	20.0	ug/L	08/27/1994	jar
Ethylbenzene	90.2	4.51	5.00	ug/L	08/27/1994	jar
Xylenes (Total)	89.3	13.4	15.0	ug/L	08/27/1994	jar
Bromofluorobenzene (SURR)	95.0	95	100	% Rec.	08/27/1994	jar
Bromofluorobenzene (SURR)	100.0	100	100	% Rec.	08/27/1994	jar

Ref: 3055 35th Ave, Oakland, Project No: 20-105-04

METHOD BLANK REPORT

Parameter	Method Blank Amount Found	Reporting Limit	Units	Date Analyzed	Analyst Initials
TPH (Gas/BTXE,Liquid)					
as Gasoline	ND	0.05	mg/L	08/27/1994	jar
Benzene	ND	0.5	ug/L	08/27/1994	jar
Toluene	ND	0.5	ug/L	08/27/1994	jar
Ethylbenzene	ND	0.5	ug/L	08/27/1994	jar
Xylenes (Total)	ND	0.5	ug/L	08/27/1994	jar
Bromofluorobenzene (SURR)	94		% Rec.	08/27/1994	jar

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. Actual reporting limits and results have been multiplied by the listed dilution factor. Do not multiply the reporting limits or reported values by the dilution factor.
dw	:	Result expressed as dry weight.
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 the 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., Rev. 1, December 1987.

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

Revised September, 1993
abb.93

BLAINE TECH SERVICES INC.

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

CONDUCT ANALYSIS TO DETECT

LAB NET DHS #

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

☐ EPA ☐ RWQCB REGION ____
☐ LIA (2059)
☐ OTHER

CHAIN OF CUSTODY 940818 F3

CLIENT Cambria Environmental

SITE 3055 35th Ave Oakland CA.

SPECIAL INSTRUCTIONS
Invoice & Report to
Cambria Environmental
Attn: Scott MacLeod
Proj # 20-105-04
cc report to BTS

SAMPLE I.D.			MATRIX S = SOIL W = H2O	CONTAINERS TOTAL	40 ml VOA HCl	C = COMPOSITE ALL CONTAINERS	TPH/BTEX	ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
MW-1	8/18/94	1530	W	3			X				
MW-2	↓	1525	W	3			X				
MW-3	↓	1610	W	3			X				

(RECEIVED SEALED 8/19/94 G Lambert seals intact.)

SAMPLING COMPLETED	DATE	TIME	SAMPLING PERFORMED BY	RESULTS NEEDED NO LATER THAN
	8/18/94		Tom Flory	As Contracted.

RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
Tom Flory	8/19	10:40	G Lambert	8/19	10:40
G Lambert	8/19	16:00	A. Lopez via NCS	8/20/94	08:30

SHIPPED VIA	DATE SENT	TIME SENT	COOLER #	
NCS			temp. -0.5°C	Recvd 1 of 3 voas broken MW-3. AL 8/20/94