July 5, 1994

Ms. Susan Hugo
Alameda County Department
of Environmental Health
80 Swan Way, Rm. 200
Oakland, CA 94621

Re: 3055 35th Avenue
Oakland, California

Dear Ms. Hugo:

As you requested in your March 18, 1994 letter, I have retained Cambria Environmental Technology, Inc. of Oakland, California to complete a subsurface investigation at the site referenced above. The enclosed report presents the results of their investigation. I have reviewed the report and concur with their conclusions.

Please call me if you have any questions or comments.

Sincerely,

Lynn Worthington

Enclosures: Investigation Report

cc: Rich Hiett, RWQCB - SF Bay Region, 2101 Webster Street, Suite 500, Oakland, CA 94612

SUBSURFACE INVESTIGATION REPORT

for:

Former Exxon Service Station
3055 35th Avenue
Oakland, California

prepared for:

Mr. Lynn Worthington
Better Homes Realty
5942 MacArthur Boulevard, Suite B
Oakland, California 94605

July 1, 1994

CAMBRIA
Environmental Technology, Inc.

CAMBRIA
Environmental Technology, Inc.

SUBSURFACE INVESTIGATION REPORT

for:

Former Exxon Service Station
3055 35th Avenue
Oakland, California

prepared by:

Cambria Environmental Technology, Inc.
1144 65th Street, Suite C
Oakland, California 94608
Cambria Project #20-105-20

All work performed by Cambria Environmental Technology, Inc. for the project at 3055 35th Avenue, Oakland, California was conducted under my supervision. To the best of my knowledge, the data contained herein are true and accurate and satisfy the scope of work prescribed by the client for this project. The data, findings, recommendations, specifications or professional opinions presented herein were prepared in accordance with generally accepted professional engineering and geologic practice. We make no other warranty, either expressed or implied.

N. Scott MacLeod, R.G. #5747
Principal Geologist

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TABLES

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EXECUTIVE SUMMARY

This report presents the results of the subsurface investigation conducted by Cambria Environmental Technology, Inc. (Cambria) at the former Exxon service station at 3055 35th Avenue in Oakland, California (Figure 1). The site is located in a mixed commercial and residential area and is downgradient of one former and one active service station.

Between May 5 and 9, 1994, Cambria drilled seven soil borings and installed three ground water monitoring wells at the site. Total petroleum hydrocarbons as gasoline (TPHg) were detected in soil samples from six of the seven borings, at concentrations up to 2,900 parts per million (ppm). TPHg and benzene, ethylbenzene, toluene and xylenes (BETX) were detected in ground water samples from all borings, at up to 130,000 parts per billion (ppb) TPHg and 22,000 ppb benzene. In addition, a hydrocarbon sheen was observed on several soil samples and on water in two of the three wells. Ground water is about 15 ft below grade and flows westward.

Based on the distribution of hydrocarbons in soil and ground water and the ground water flow direction, hydrocarbons appear to extend offsite in several directions including to the west, which is downgradient of the site. Since boring SB-A is upgradient of the potential onsite hydrocarbon sources and no significant hydrocarbon concentrations were detected in unsaturated soil, the hydrocarbons detected in soil and ground water from this boring may originate from the former Texaco station that is upgradient of the site.

INTRODUCTION

OBJECTIVES

This report presents the results of the subsurface investigation conducted by Cambria Environmental Technology (Cambria) at the former Exxon Service Station at 3055 35th Avenue in Oakland, California. The objectives of this investigation were to summarize the available site history and previous environmental investigations, assess the extent of hydrocarbons in soil and ground water beneath the property, and to determine whether hydrocarbons are migrating onto the site from upgradient sources.

SITE BACKGROUND

Site Location: The site is located at the northeast corner of 35th Avenue and School Street in Oakland, California (Figure 1). Topography in the area slopes generally westward. The nearest surface water is Peralta Creek, which is about 0.1 miles north of the site and flows westward.

Adjacent Hydrocarbon Sources: Two active or former gasoline service stations are located within one block of the site. A British Petroleum (BP) site is on 35th Avenue one block east (upgradient) of the site and appears to have a remediation system installed. We could not determine whether the remediation system was operating at the time of this investigation. A former Texaco station is located across School Street immediately east (upgradient) of the former Exxon site. According to discussions with the current owner of the former Texaco property, the underground storage tanks were removed by Texaco about 15 years ago. Apparently, no soil samples were collected during the tank removal and no investigation has been conducted at the former Texaco site.

PREVIOUS INVESTIGATIONS

October 1990 Geotechnical Investigation: In October 1990, Geotechnical Engineering of Fremont, California drilled two soil borings at the site for an engineering analysis. Although a variety of geotechnical tests were performed on soil samples collected from the borings, no chemical analyses were performed.

January 1991 Tank Removal: In January 1991, Pacific Excavators removed four underground gasoline storage tanks and one 500-gallon waste oil tank from the site. The former gasoline tanks appear to have capacities between 4,000 and 6,000 gallons. According to a September 24, 1992 workplan prepared by Consolidated Technologies of San Jose, California (CT), soil samples were collected during the tank removal, but were not analyzed or reported by Pacific Excavators (CT, 1992).

November 1991 Subsurface Investigation: In November 1991, CT drilled twelve soil borings to depths of up to 35 ft (Figure 2). Total petroleum hydrocarbons as gasoline (TPHg) were detected in soil samples collected from 11 of the 12 soil borings, at up to 2,100 parts per million (ppm). No total petroleum hydrocarbons as diesel (TPHd) or oil and grease (O&G) were detected in boring B-7, which is immediately downgradient of the former waste oil tank.

INVESTIGATION RESULTS

The results of Cambria's May 1994 subsurface investigation are summarized below. Copies of monitoring well permits are presented in Appendix A. Boring log and well construction diagrams are presented in Appendix B. Analytic results for soil and ground water are presented in Tables 1 and 2, respectively, and the analytic reports are presented in Appendix C.

SOIL BORINGS

Permits: No permits required for soil borings. Monitoring well permits are presented in Appendix A.

Drilling Dates: May 5 to 9, 1994.

Drilling Methods: Solid flight augers for borings used only for soil and grab water sampling and hollow-stem augers for borings converted to wells.

Number of Borings: Seven (Figure 2).

Boring Depths: 20 to 26.5 ft below grade (Appendix B).

Sediment Lithology: The site is underlain by gravelly silts to about 12 ft depth, and by interbedded silty sands and clayey silts to the total depth explored of 26.5 ft depth (Appendix B).

Soil Analyses: Selected soil samples were analyzed for:

- TPHg by modified EPA Method 8015,
- TPHd by modified EPA Method 8015,
- TPH as motor oil (TPHmo) by modified EPA Method 8015, and
- Benzene, ethylbenzene, toluene and xylenes (BETX) by EPA Method 8020.

Waste Disposal: Soil cuttings were stockpiled on and covered with plastic sheeting. Soil will be disposed at a later date.

WELL CONSTRUCTION

Wells MW-1 and MW-2 were installed west of the tanks and southernmost pump island, respectively, to monitor water quality downgradient of these possible hydrocarbon source areas (Figure 3). Well MW-3 was installed along the downgradient property line to determine whether hydrocarbons were migrating offsite and for triangulation. Well MW-3 was installed in boring SB-C because a hydrocarbon sheen was observed on soil samples from the capillary fringe in this boring.

Well Materials: Wells MW-1 and MW-2 were constructed using four-inch diameter, 0.010-inch slotted Schedule 40 PVC well screen and well casing. Well MW-3 was constructed using two-inch diameter, 0.010-inch slotted Schedule 40 PVC well screen and well casing.

Screened Interval: Ground water stabilized in the soil borings at 15 ft depth and a hydrocarbon sheen was observed on soil samples collected near the water table from several borings. Therefore, we constructed all three wells to screen between five ft above and ten ft below the water table (Appendix B).

Development Method: Wells were developed using surge block agitation and purged using submersible electric pumps.

Ground Water Analyses: Ground water samples from the borings and wells were analyzed for:

- TPHg by modified EPA Method 8015,
- TPHd by modified EPA Method 8015,
- TPHmo by modified EPA Method 8015, and
- BETX by EPA Method 8020.

Gradient and Flow Direction: Ground water flows westward at about 0.013 ft/ft (Figure 3).

Waste Disposal: Purge water from the borings and wells and steam clean rinseate were stored in D.O.T. approved 55-gallon drums pending disposal. Water is scheduled for transport and recycling to the Gibson recycling facility in Redwood City, California.

HYDROCARBON DISTRIBUTION IN SOIL

The highest hydrocarbon concentrations are located near the water table at about 15 ft depth near the former underground gasoline storage tanks and the southernmost pump island (Figure 4, Table 1). A hydrocarbon sheen was observed on soil samples collected near the water table from several borings including the boring for downgradient well MW-3. Well MW-3 was installed in boring SB-C because a hydrocarbon sheen was observed on soil samples collected near the water table in this boring. No sheen was observed on the other downgradient borings.

Gasoline-range hydrocarbons were detected in six of the seven borings drilled for this investigation and in all but one boring drilled during the previous investigation. The extent of hydrocarbons in soil is defined to the northwest by borings SB-D and B-8 (Figure 4, Table 1). The southeastern extent of hydrocarbons is nearly defined by boring SB-A. Based on the hydrocarbon concentrations detected in soil samples collected from the downgradient borings, hydrocarbons are likely in soil downgradient of the site.

Although TPHd were detected in most of the soil samples, the analytic laboratory indicated that all of the positive TPHd results were due to hydrocarbons that are lighter than diesel. Therefore, the TPHd detected is likely due to the gasoline-range hydrocarbons.

HYDROCARBON DISTRIBUTION IN GROUND WATER

Hydrocarbon concentrations in ground water are highest downgradient of the former underground gasoline tanks and the southernmost pump island (Figures 5 and 6, Table 2). 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 and hydrocarbon concentrations at the downgradient property line, it appears that aqueous-phase hydrocarbons are migrating offsite to the west.

Up to 1,600 ppm TPHg were detected in soil from upgradient boring SB-A and 7,000 parts per billion (ppb) TPHg were detected in grab ground water samples from the boring. The hydrocarbons detected in this boring could either have migrated in soil and/or ground water from onsite source areas or, alternately, could have originated from the upgradient former Texaco station.

REFERENCES

GEI, 1990, Soil Investigation Report, 3055 35th Avenue, Oakland, California, Consultant's letter-report prepared for Lynn Worthington, November 19, 1990, 10 pages plus attachments.

CT, 1991, Workplan for Preliminary Subsurface Site Investigation, 3055 35th Avenue, Oakland, California, Consultant's workplan prepared for Lynn Worthington, not dated, 19 pages plus attachments.

CT, 1991, Results for Preliminary Subsurface Site Investigation, 3055 35th Avenue, Oakland, California, Consultant's report prepared for Lynn Worthington, not dated, 9 pages plus attachments.

CT, 1992, Workplan for a Subsurface Petroleum Hydrocarbon Contamination Assessment, 3055 35th Avenue, Oakland, California, Consultant's workplan prepared for Lynn Worthington, September 24, 1992, 5 pages plus attachments.

CT, 1993, Addendum to Workplan for a Subsurface Petroleum Hydrocarbon Contamination Assessment, 3055 35th Avenue, Oakland, California, Consultant's workplan prepared for Lynn Worthington, September 24, 1993, 4 pages.

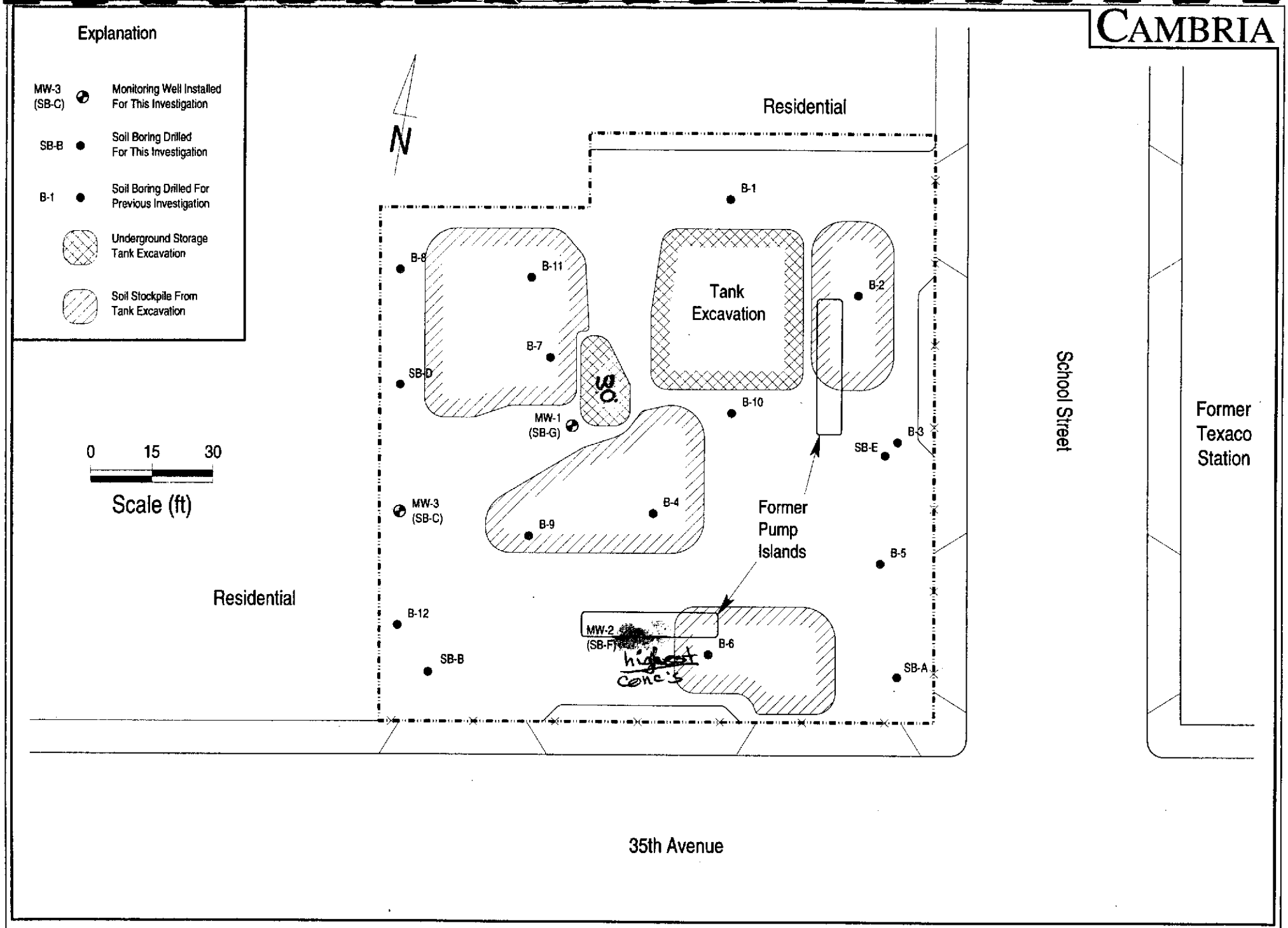


Figure 2. Soil Boring and Well Locations - 3055 35th Avenue, Oakland, California

NSM 6/17/94
D(NSM):\PROJECT\ROSE\OAKL-022\BOR-WELL.DWG

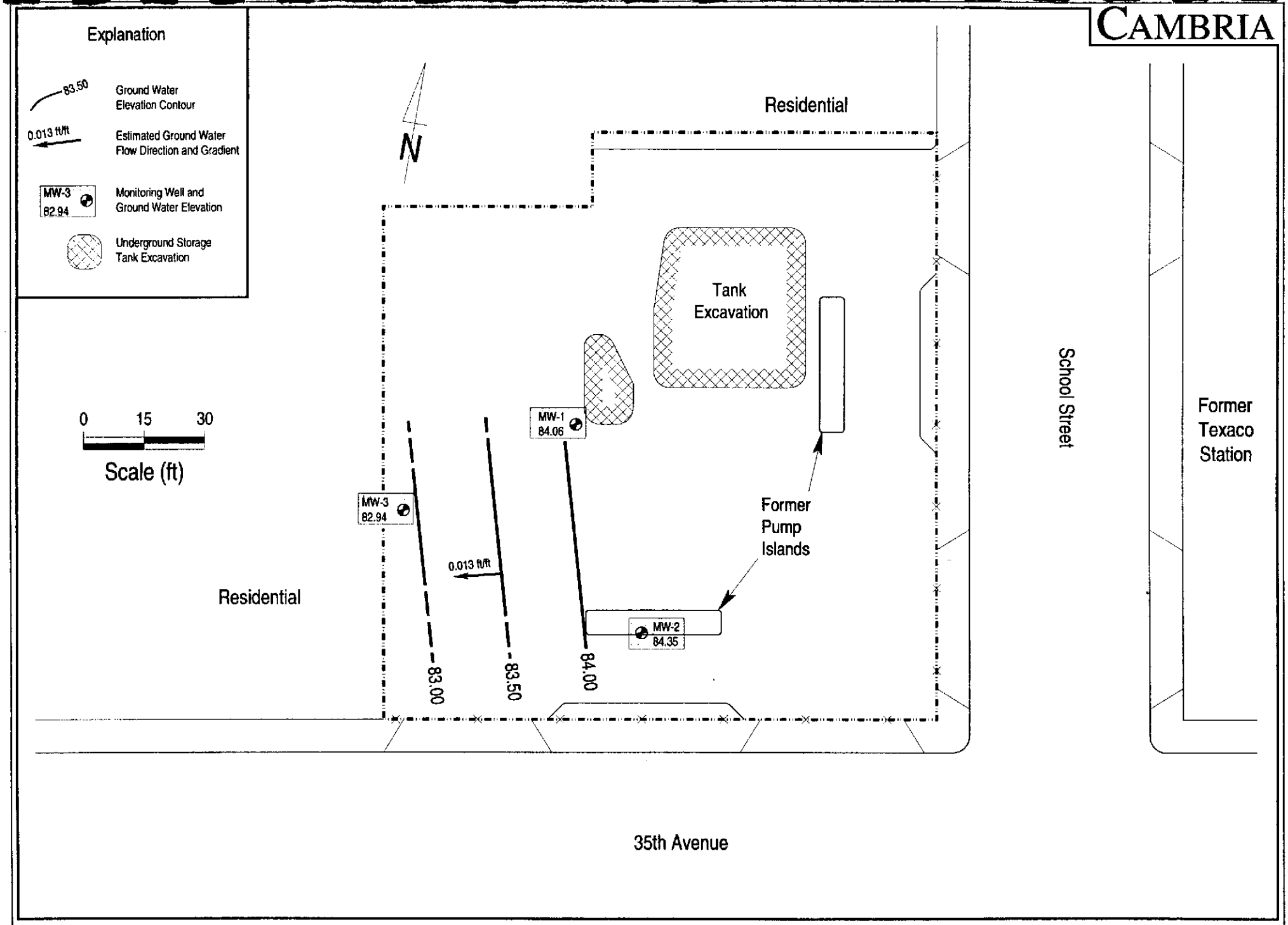


Figure 3. Ground Water Elevations - May 17, 1994 - 3055 35th Avenue, Oakland, California

NSM 6/17/94
D(NSM)\PROJECT\ROSE\OAKL-022\GW-5-94.DWG

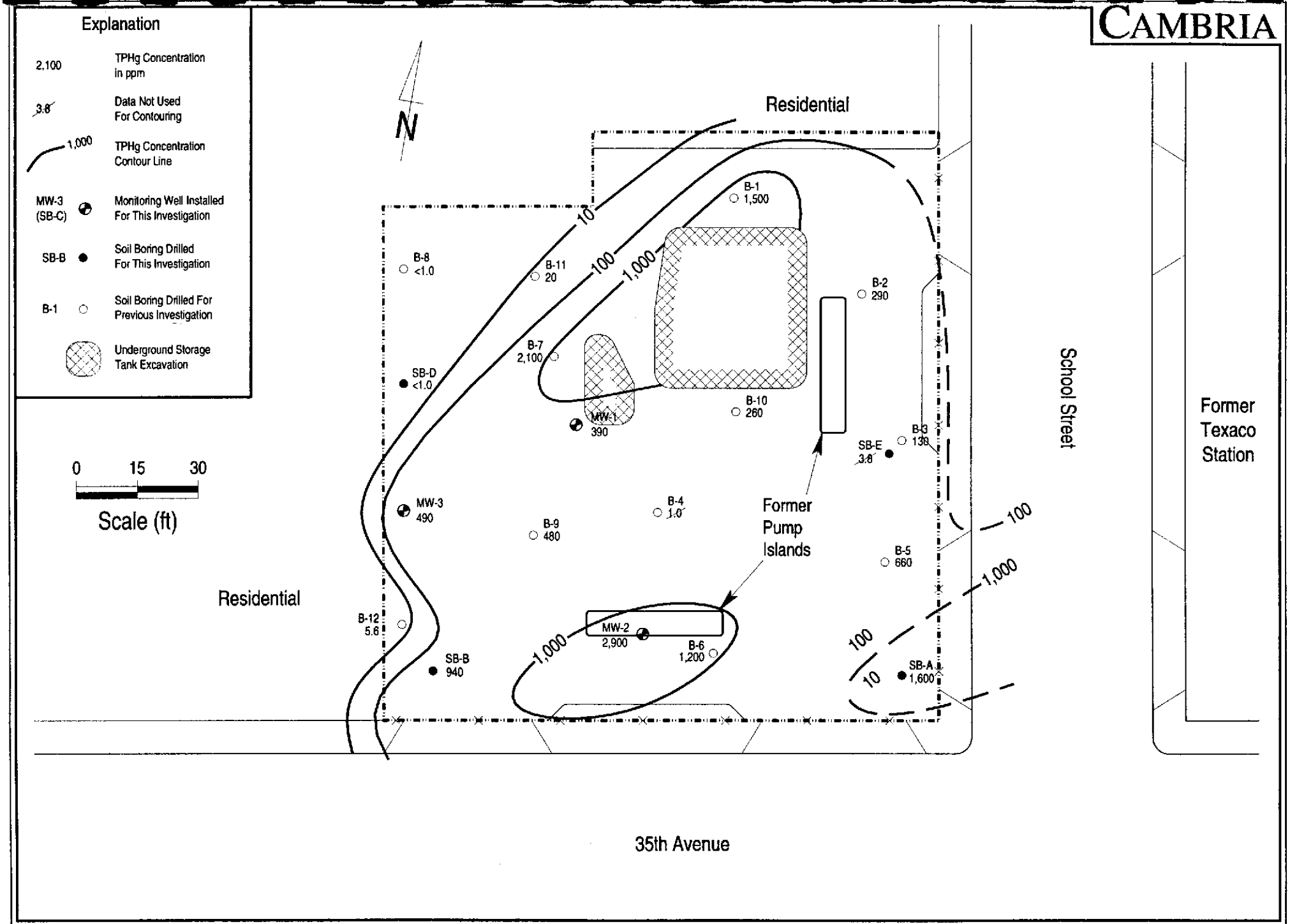


Figure 4. Maximum TPHg Concentrations (ppm) in Soil at 15 ft Depth - 3055 35th Avenue, Oakland, California

NSM 6/17/94
D(NSM)\PROJECT\ROSE\OAKL-022\TPH-SOIL.DWG

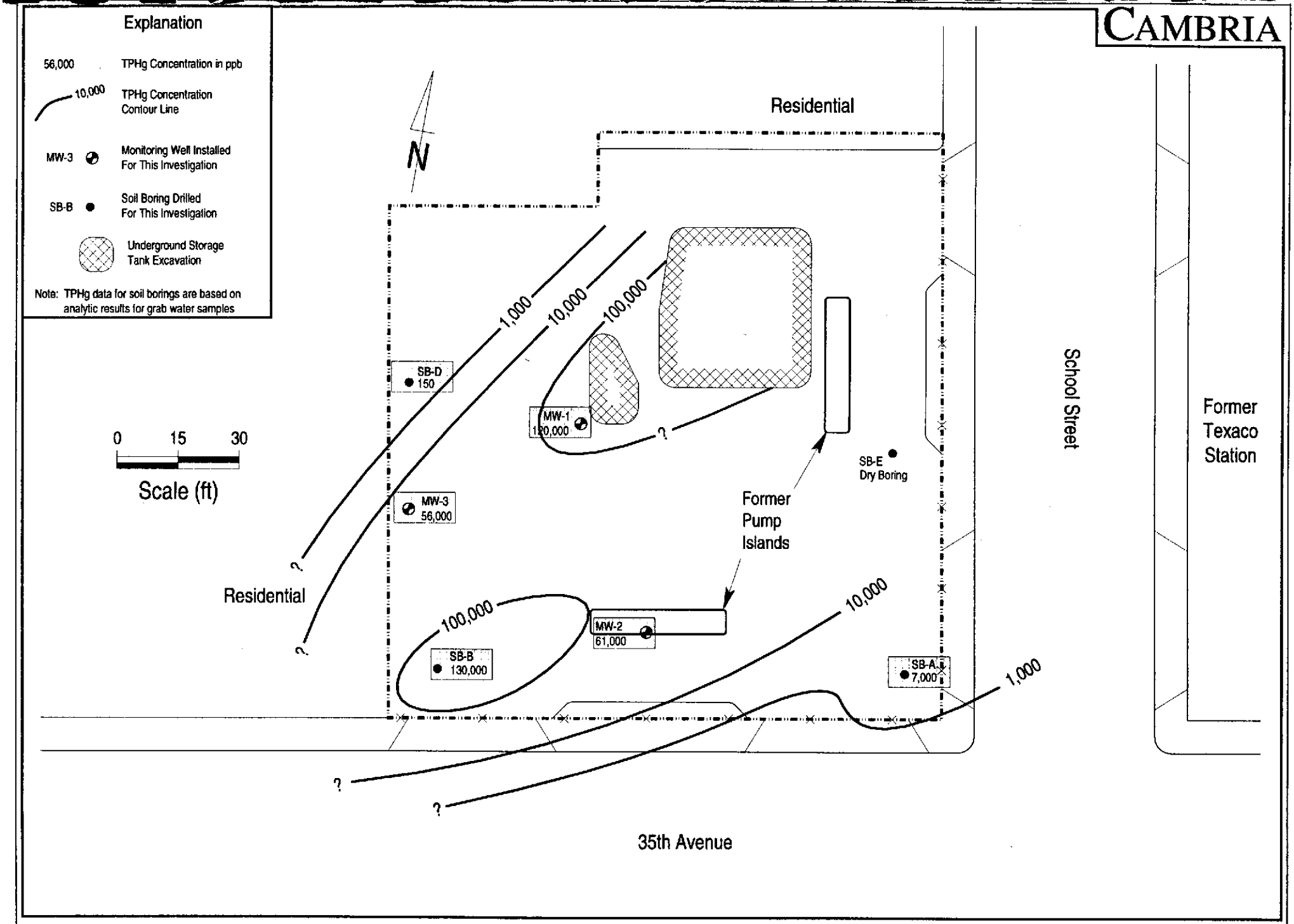


Figure 5. TPHg Concentrations in Ground Water (ppb) - May 1994 - 3055 35th Avenue, Oakland, California

NSM 6/17/94
D(NSM)\PROJECT\ROSE\OAKL-022\TPH-5-94.DWG

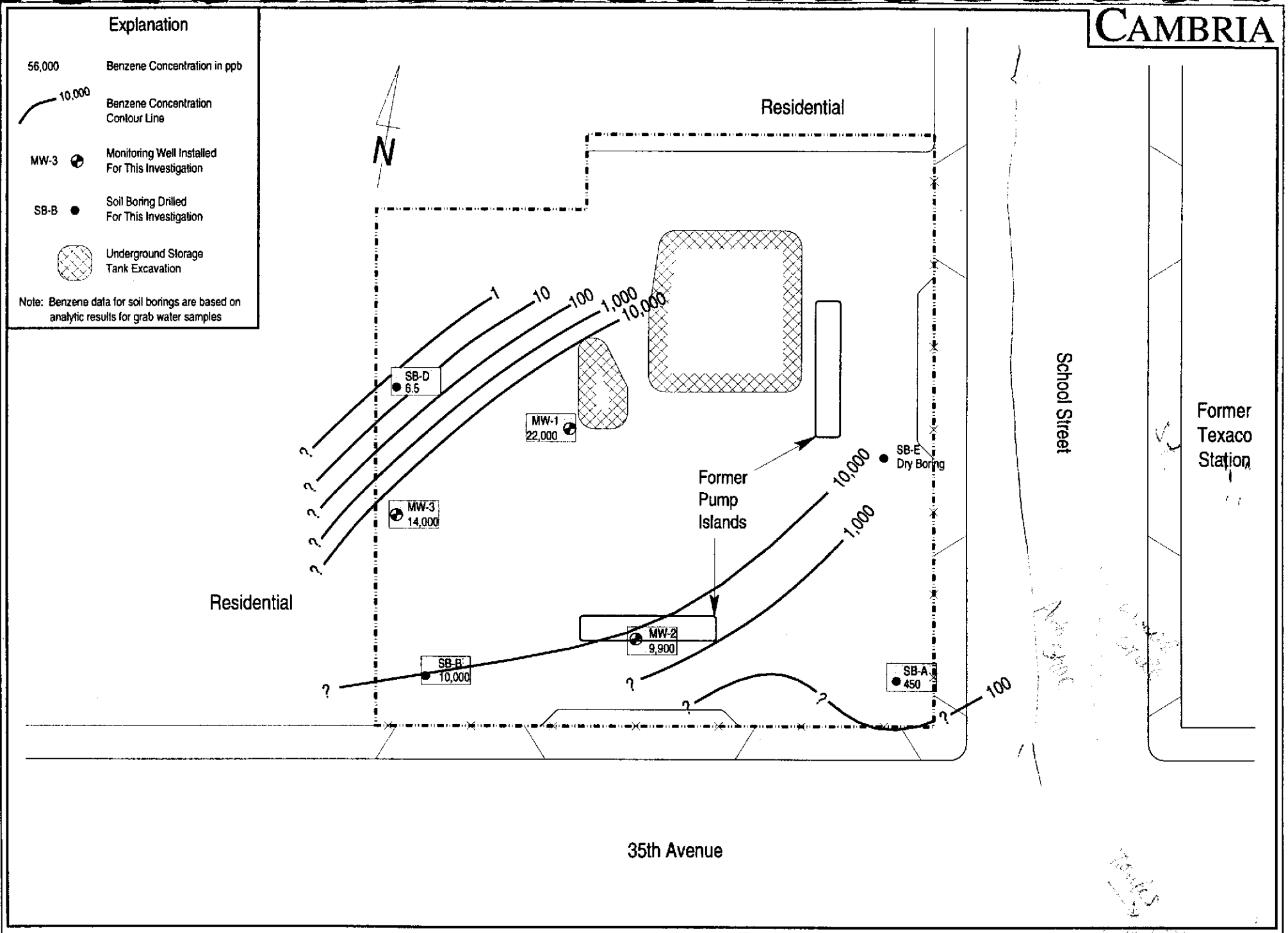


Figure 6. Benzene Concentrations in Ground Water (ppb) - May 1994 - 3055 35th Avenue, Oakland, California

Table 1. Soil Analytic Data - 3055 35th Avenue, Oakland, California

Boring/ Well ID	Date Sampled	Sample Depth (ft)	GW Depth (ft)	TPHg	TPHd	TPHmo	B	T	E	X	Notes
				(Concentration in mg/kg)							
SB-A	5/5/94	11	14.5	3.4	4.2	<10	0.0072	0.0015	0.015	0.031	a
	5/5/94	16		1,600	620	<1,000	1.8	3.4	17	54	a
SB-B	5/6/94	11	15.0	170	52	<100	0.45	2.5	1.7	11	a
	5/6/94	16		940	120	<100	6.3	28	12	70	a
SB-C	5/6/94	11	13.9	25	6.7	<10	0.22	0.62	0.49	2.1	a
(MW-3)	5/6/94	16		490	280	<500	1.9	14	7.4	42	a
SB-D	5/6/94	11	19.5	<1	5.2	<10	<0.0025	<0.0025	<0.0025	<0.0025	
	5/6/94	16		<1	<1	<10	<0.0025	<0.0025	<0.0025	<0.0025	
SB-E	5/9/94	11	dry boring	220	56	<10	0.55	2.1	1.7	2.8	a
	5/9/94	16		3.8	1.4	<10	0.19	0.20	0.059	0.20	a
SB-F	5/9/94	11	13.3	370	57	<10	<0.25	<0.25	3.9	6.2	a
(MW-2)	5/9/94	15		2,900	450	<100	24	41	48	196	a
SB-G	5/9/94	11	14.5	20	18	<10	0.061	0.014	0.093	0.34	a
(MW-1)	5/9/94	15		390	52	<10	1.4	6.1	3.9	16	b

Abbreviations

GW = Ground water
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

Notes

a = The positive TPHd response appears to be a lighter hydrocarbon than diesel
b = The positive TPHd result has an atypical chromatographic pattern

Table 2. Ground Water Elevation and Analytic Data - 3055 35th Avenue, Oakland, California

Well/ Boring ID	Date	Casing Elevation (ft)	GW Depth (ft)	LPH (ft)	GW Elev. (ft)	TPHg	TPHd	TPHmo	B	T	E	X	Notes
						(Concentration in µg/l)							
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
MW-2	5/25/94	100.00	15.65	---	84.35	61,000	6,900	<5,000	9,900	7,400	960	4,600	a
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
Borings													
SB-A	5/6/94	---	14.50	---	---	7,000	9,100	<25,000	450	75	180	330	
SB-B	5/6/94	---	15.00	---	---	130,000	3,800	<5,000	10,000	11,000	2,200	11,000	
SB-D	5/9/94	---	19.30	---	---	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 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 resul appears to be a hydrocarbon lighter than diesel

ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

5997 PARKSIDE DRIVE ♦ PLEASANTON, CALIFORNIA 94566 ♦ (415) 484-2600

GROUNDWATER PROTECTION ORDINANCE PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

1) LOCATION OF PROJECT 3055 35TH AVE
OAKLAND, CA 94619

2) CLIENT
Name LYNN WORTHINGTON
Address 5942 MACARTHUR BLVD Phone (510) 521-9600
City OAKLAND Zip 94605

3) APPLICANT
Name SCOTT MACLEOD
CAMBRIA ENVIRONMENTAL
Address 1144 65TH ST, STE C Phone (510) 420-0200
City OAKLAND Zip 94608

4) DESCRIPTION OF PROJECT
Water Well Construction X Geotechnical Investigation
Cathodic Protection ___ General ___
Well Destruction ___ Contamination ___

5) PROPOSED WATER WELL USE
Domestic ___ Industrial ___ Irrigation ___
Municipal ___ Monitoring X Other ___

6) PROPOSED CONSTRUCTION
Drilling Method:
Mud Rotary ___ Air Rotary ___ Auger X
Cable ___ Other ___

DRILLER'S LICENSE NO. C57-582696

WELL PROJECTS
Drill Hole Diameter 10 in. Maximum
Casing Diameter 4 in. Depth 25 ft.
Surface Seal Depth 18 ft. Number 3

GEOTECHNICAL PROJECTS
Number of Borings ___ Maximum
Hole Diameter ___ in. Depth ___ ft.

7) ESTIMATED STARTING DATE APRIL 28, 1994
ESTIMATED COMPLETION DATE " 29 "

8) I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE [signature] Date 4/21/94

FOR OFFICE USE

PERMIT NUMBER 94278
LOCATION NUMBER ___

PERMIT CONDITIONS

Circled Permit Requirements Apply

(A.) GENERAL
1. A permit application should be submitted so as to arrive at the Zone 7 office five days prior to proposed starting date.
2. Submit to Zone 7 within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report or equivalent for well projects, or drilling logs and location sketch for geotechnical projects.
3. Permit is void if project not begun within 90 days of approval date.

(B.) WATER WELLS, INCLUDING PIEZOMETERS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic, irrigation, and monitoring wells unless a lesser depth is specially approved.

C. GEOTECHNICAL. Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tremied cement grout shall be used in place of compacted cuttings.

D. CATHODIC. Fill hole above anode zone with concrete placed by tremie.

E. WELL DESTRUCTION. See attached.

Approved Wyman Hong Date 9 May 94
Wyman Hong

21985

APPENDIX B

Boring and Well Construction Logs

BORING LOG

Client: **Lynn Worthington**

Project No: **20-105-20** Phase **4** Task **4**

Boring ID **SB-A**

Location **3055 35th Ave, Oakland**

Surface Elev. **N/A ft,**

Depth Feet	Blow Count	Sample	Interval	Lithologic Description
0	Ground Surface			
				Silty GRAVEL Orange-brown; hard; damp; 5% clay, 30% silt, 20% sand, 45% angular gravel to 1" diam.; no to low plasticity; low estimated hydraulic conductivity.
5	9 21 25	X		
				Sandy to Clayey SILT Brown with green mottling; hard; damp; 20% clay, 50% silt, 20% sand, 10% gravel; medium to high plasticity; very low to low estimated hydraulic conductivity. Strong weathered gasoline odor.
10	5 10 25	X		
				Silty SAND Brownish green; very stiff; moist; <5% clay, 40% silt, 55% sand, <5% gravel; low plasticity; low estimated hydraulic conductivity. Very strong weathered gasoline odor.
15	6 9 10	X		
				Clayey to Sandy SILT Dark green to brown; hard; damp; 15% clay, 45% silt, 30% sand, 10% gravel; medium plasticity, low estimated hydraulic conductivity. Slight to moderate weathered gasoline odor.
20	10 15 18	X		
25	11 18 20	X		No hydrocarbon odor
30				

TPHg (ppm)
3
1,600

Graphic Log

Boring Completion Graphics

Depth Feet	Additional Comments
0	
5	
10	
15	
20	
25	
30	Bottom of boring

Driller **Soils Exploration**

Logged By **N. Scott MacLeod**

Water-Bearing Zones **12 to 18 ft**

Drilling Started **5/5/94**

Drilling Completed **5/5/94**

Grout Type **Portland cement**

Notes:

BOR 20105 6/27/94

Cambria Environmental Technology, Inc.

BORING LOG

Client: **Lynn Worthington**

Project No: **20-105-20** Phase **4** Task **4**

Boring ID **SB-B**

Location **3055 35th Ave, Oakland**

Surface Elev. **N/A ft,**

Page **1** of **1**

Depth Feet	Blow Count	Sample	Interval	Lithologic Description	TPHg (ppm)	Graphic Log	Boring Completion Graphics	Depth Feet	Additional Comments
0	Ground Surface							0	
5	6 15 34			**Sandy to gravelly SILT** Brown with green mottled fractures; hard; damp; 5-10% clay, 50-55% silt, 15-20% sand, 10-20% angular gravel to 1.5" diam.; no to low plasticity; low to moderate estimated hydraulic conductivity. No hydrocarbon odor.				5	
10	10 15 24			Strong weathered gasoline odor.	170			10	
15	15 16 18			Strong, fresh to slightly weathered gasoline odor.	940			15	
20	11 18 16			**Silty SAND** Brown; hard; wet; 40% silt, 50% sand, 10% gravel; no plasticity, moderate estimated hydraulic conductivity. Strong, fresh to slightly weathered gasoline odor				20	
25	8 15 21							25	
30								30	Bottom of boring

Driller **Soils Exploration**

Logged By **N. Scott MacLeod**

Water-Bearing Zones **17 to 26.5 ft**

Drilling Started **5/6/94**

Drilling Completed **5/6/94**

Grout Type **Portland cement**

Notes:

BOR 20105 6/27/94

Cambria Environmental Technology, Inc.

DRILLING LOG

Client: **Lynn Worthington**

Project No: **20-105-20** Phase **4** Task **4**

Boring ID **SB-C** Well ID **MW-3**

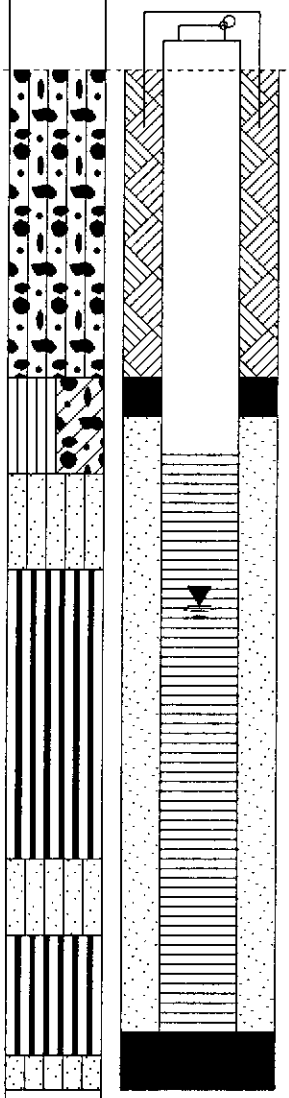
Location **3055 35th Ave, Oakland**

Surface Elev. --- **ft.** Page **1** of **2**

Depth Feet	Blow Count	Sample	Interval	Lithologic Description
0	Ground Surface			
5	25 23 31	X		**Silty GRAVEL** Light brown; hard; damp; 5% clay, 40% silt, 15% sand, 40% angular gravel to 1" diam.; low to moderate plasticity; moderate estimated hydraulic conductivity. No hydrocarbon odor.
10	11 18 35	X		**Clayey to Gravelly SILT** Rust brown with green mottling; hard; moist; 30% clay, 30% silt, 10% sand, 30% gravel; high plasticity; low estimated hydraulic conductivity. Moderate weathered gasoline odor.
15	7 10 16	X		**Silty SAND** Brownish-green; hard; moist; <5% clay, 35% silt, 40% sand, 15% gravel; no plasticity; moderate estimated hydraulic conductivity. Very strong fresh to weathered gasoline odor.
20	7 11 20	X		**Sandy to Clayey SILT** Brown; very stiff; wet; 20% clay, 50% silt, 20% sand, 10% gravel; medium to high plasticity; low estimated hydraulic conductivity. Very strong fresh gasoline odor. Hydrocarbon sheen on soil samples.
25	N/A	X		**Silty SAND** Brown; very stiff; wet; 5% clay, 35% silt, 60% sand, 10% gravel; no to low plasticity; moderate estimated hydraulic conductivity. Very strong fresh gasoline odor. Hydrocarbon sheen on soil samples.
30				**Clayey SILT** Brown; very stiff; wet; 25% clay, 60% silt, 15% sand; high plasticity; very low estimated hydraulic conductivity. Very strong fresh gasoline odor. Hydrocarbon sheen on soil samples.
				Silty SAND Brown; very stiff; wet; <5% clay, 20% silt, 60% sand, 20%

Continued Next Page

TPHg (ppm): 25, 490



Depth Feet	Well Construction Details
0	T.O.C. Elev. 96.87
0	Locking well plug and above-grade steel stovepipe

Driller **Soils Exploration**

Logged By **N. Scott MacLeod**

Drilling Started **5/6/94**

Drilling Completed **5/6/94**

Construction Completed **5/9/94**

Development Completed **5/17/94**

Water Bearing Zones **20.5 to 26.5 ft**

Development Yield **N/A**

Well Casing **2** Dia. **0** to **10**

Casing Type **Schedule 40 PVC**

Well Screen **2** Dia. **10** to **25**

Screen Type **Schedule 40 PVC**

Slot Size **0.010-inch**

Drilling Mud **N/A**

Grout Type **Portland cement**

Bentonite Seal **7 to 9 ft**

Sand Pack **Monterey sand**

Sand Pack Type **#2/16**

Static Water Level **13.93** ft Depth

Date **5/25/94**

Notes:

WELL 20105 6/27/94

Cambria Environmental Technology, Inc.

DRILLING LOG

Client: **Lynn Worthington**

Project No: **20-105-20** Phase **4** Task **4**

Boring ID **SB-C** Well ID **MW-3**

Location **3055 35th Ave, Oakland**

Surface Elev. **--- ft,** Page **2** of **2**

Depth Feet	Blow Count	Sample	Interval	Lithologic Description	TPHg (ppm)	Graphic Log	Well Construction Graphics	Depth Feet	Well Construction Details
30				Continued from previous page				30	
				gravel; no plasticity; moderate to high estimated hydraulic conductivity. Very strong fresh gasoline odor. Hydrocarbon sheen on soil samples.					
35								35	
40								40	
45								45	
50								50	
55								55	
60								60	
65								65	
70								70	

WELL 20105 6/27/94

Cambria Environmental Technology, Inc.

BORING LOG

Client: **Lynn Worthington**

Project No: **20-105-20** Phase **4** Task **4**

Boring ID **SB-D**

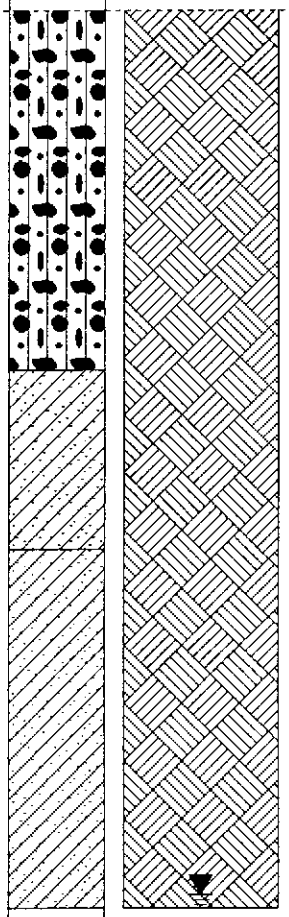
Location **3055 35th Ave, Oakland**

Surface Elev. **N/A ft.**

Page **1** of **1**

Depth Feet	Blow Count	Sample	Interval	Lithologic Description	TPHg (ppm)
0	Ground Surface				
5	13 19 21			**Silty GRAVEL** Tan to brown; hard; damp; <5% clay, 40% silt, 20% sand, 40% angular gravel to 1" diam.; no plasticity; moderate estimated hydraulic conductivity. No hydrocarbon odor.	
10	11 21 31			**Clayey to Silty SAND** Light brown; hard; damp; 10-20% clay, 20-30% silt, 40% sand, 10% gravel; medium plasticity; low estimated hydraulic conductivity. No hydrocarbon odor.	<1
15	11 13 22			**Silty SAND** Brown; hard; moist; <5% clay, 40% silt, 55% sand, <5% gravel; low plasticity; low estimated hydraulic conductivity. Very strong weathered gasoline odor.	<1
20				**Clayey to Sandy SILT** Dark green to brown; hard; wet; 15% clay, 30% silt, 45% sand, 10% gravel; medium plasticity, low estimated hydraulic conductivity. No hydrocarbon odor.	
25					
30					

Graphic Log / Boring Completion Graphics



Depth Feet	Additional Comments
0	
5	
10	
15	
20	Bottom of boring
25	
30	

Driller **Soils Exploration**

Logged By **N. Scott MacLeod**

Water-Bearing Zones **N/A**

Drilling Started **5/6/94**

Drilling Completed **5/6/94**

Grout Type **Portland cement**

Notes: **Boring did not recharge overnight**

BOR 20105 6/27/94

Cambria Environmental Technology, Inc.

BORING LOG

Client: **Lynn Worthington**

Project No: **20-105-20** Phase **4** Task **4**

Boring ID **SB-E**

Location **3055 35th Ave, Oakland**

Surface Elev. **N/A ft.**

Page **1** of **1**

Depth Feet	Blow Count	Sample Interval	Lithologic Description	TPHg (ppm)	Graphic Log	Boring Completion Graphics	Depth Feet	Additional Comments
0	Ground Surface						0	
			Gravelly SILT Greenish brown; hard; damp; 10% clay, 45% silt, 20% sand, 25% angular gravel to 1.2" diam.; medium plasticity; low to moderate estimated hydraulic conductivity. No hydrocarbon odor.					
5	10 15 23						5	
			Clayey SILT Brown with orange and green mottling; very stiff; damp; 30% clay, 60% silt, 10% sand; high plasticity; very low estimated hydraulic conductivity. Moderate weathered gasoline odor, especially from green mottled areas.	220				
10	5 8 14						10	
			Slight weathered gasoline odor.	4				
15	5 20 30						15	
20	3 7 9		Slight weathered gasoline odor.				20	Bottom of boring
25							25	
30							30	

Driller **Soils Exploration**

Logged By **N. Scott MacLeod**

Water-Bearing Zones **Dry boring**

Drilling Started **5/9/94**

Drilling Completed **5/9/94**

Grout Type **Portland cement**

Notes: **Dry boring**

BOR 20105 6/27/94

Cambria Environmental Technology, Inc.

DRILLING LOG

Client: **Lynn Worthington**

Project No: **20-105-20** Phase **4** Task **4**

Boring ID **SB-F** Well ID **MW-2**

Location **3055 35th Ave, Oakland**

Surface Elev. **--- ft,** Page **1** of **1**

Depth Feet	Blow Count	Sample	Interval	Lithologic Description
0	Ground Surface			
				Clayey to Sandy SILT Orange brown; hard; damp; 15% clay, 60% silt, 15% sand, 10% angular gravel to 1" diam.; medium plasticity; low to moderate estimated hydraulic conductivity. No hydrocarbon odor.
5	8 15 27	X		
				Sandy SILT Grey green; hard; damp; 5% clay, 55% silt, 30% sand, 10% gravel; no to low plasticity; moderate estimated hydraulic conductivity. Strong weathered gasoline odor.
10	7 17 22	X		
				Silty SAND Brownish green; hard; wet; 30% silt, 50% sand, 10% angular gravel to 0.4"; no plasticity; moderate to high estimated hydraulic conductivity. Very strong fresh gasoline odor. Hydrocarbon sheen on soil samples.
15	9 13 21	X		
20	7 10 11	X		Moderate gasoline odor.
				Clayey SILT Brown; very stiff; moist; 30% clay, 60% silt, 10% sand; high plasticity; very low estimated hydraulic conductivity. Very strong fresh gasoline odor. Hydrocarbon sheen on soil samples.
25	10 18 19	X		
				Silty SAND Brownish; hard; wet; 30% silt, 50% sand, 20% angular gravel to 1"; no plasticity; moderate to high estimated hydraulic conductivity. no hydrocarbon odor.
30				

TPHg (ppm)	Graphic Log	Well Construction Graphics	Depth Feet	Well Construction Details
			0	T.O.C. Elev. 100.00
				Locking well plug and above-grade steel stovepipe
			5	
370			10	
2,900			15	
			20	
			25	
			30	

Driller **Soils Exploration**

Logged By **N. Scott MacLeod**

Drilling Started **5/9/94**

Drilling Completed **5/9/94**

Construction Completed **5/9/94**

Development Completed **5/17/94**

Water Bearing Zones **13 to 20.5 ft**

Development Yield **N/A**

Well Casing **4** Dia. **0** to **10**

Casing Type **Schedule 40 PVC**

Well Screen **4** Dia. **10** to **25**

Screen Type **Schedule 40 PVC**

Slot Size **0.010-inch**

Drilling Mud **N/A**

Grout Type **Portland cement**

Bentonite Seal **7.5 to 8.5 ft**

Sand Pack **Monterey sand**

Sand Pack Type **#2/16**

Static Water Level **13.29** ft Depth

Date **5/25/94**

Notes:

WELL 20105 6/27/94

Cambria Environmental Technology, Inc.

DRILLING LOG

Client: **Lynn Worthington**

Project No: **20-105-20** Phase **4** Task **4**

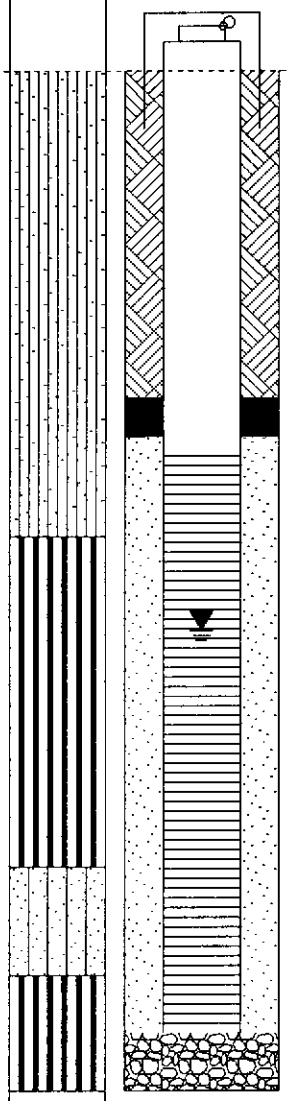
Boring ID **SB-G** Well ID **MW-1**

Location **3055 35th Ave, Oakland**

Surface Elev. --- ft, Page **1** of **1**

Depth Feet	Blow Count	Sample	Interval	Lithologic Description
0	Ground Surface			
5	10 20 32			**Sandy SILT** Brown; hard; damp; 10% clay, 60% silt, 20% sand, 10% angular gravel to 1" diam.; low to medium plasticity; low to moderate estimated hydraulic conductivity. No hydrocarbon odor.
10	9 16 18			Strong weathered gasoline odor.
15	5 9 15			**Clayey SILT** Brown; very stiff; damp to moist; 40% clay, 55% silt, 5% sand; high plasticity; very low estimated hydraulic conductivity. Moderate weathered gasoline odor.
20	6 13 20			Moderate gasoline odor. **Silty SAND** Dark green; very stiff; moist; 30% clay, 60% silt, 10% sand; no plasticity; moderate to high estimated hydraulic conductivity. Moderate to strong weathered gasoline odor.
25	5 7 12			**Clayey SILT** Brown mottled green; very stiff; moist; 40% clay, 55% silt, 5% sand; high plasticity; very low estimated hydraulic conductivity. No odor to very slight weathered gasoline odor.
30				

TPHg (ppm): 20, 390



Depth Feet	Well Construction Details
0	T.O.C. Elev. 100.85
0	Locking well plug and above-grade steel stovepipe
5	
10	
15	
20	
25	
30	

Driller **Soils Exploration**

Logged By **N. Scott MacLeod**

Drilling Started **5/9/94**

Drilling Completed **5/9/94**

Construction Completed **5/9/94**

Development Completed **5/17/94**

Water Bearing Zones **21 to 23.5 ft**

Development Yield **N/A**

Well Casing **4** Dia. **0** to **10**

Casing Type **Schedule 40 PVC**

Well Screen **4** Dia. **10** to **25**

Screen Type **Schedule 40 PVC**

Slot Size **0.010-inch**

Drilling Mud **N/A**

Grout Type **Portland cement**

Bentonite Seal **7.5 to 9.5 ft**

Sand Pack **Monterey sand**

Sand Pack Type **#2/16**

Static Water Level **14.53** ft Depth

Date **5/25/94**

Notes:

WELL 20105 6/27/94

Cambria Environmental Technology, Inc.

APPENDIX C

Analytic Results for Soil and Ground Water

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
1144 65th Street
Suite C
Oakland, CA 94608

Date: 05/25/1994
NET Client Acct. No: 98900
NET Pacific Job No: 94.01914
Received: 05/06/1994

Client Reference Information

35th Ave., Oakland

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: 35th Ave., Oakland

SAMPLE DESCRIPTION: SB-A 11'
Date Taken: 05/05/1994
Time Taken: 15:15
NET Sample No: 193713

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed
TPH (Gas/BTXE,Solid)							
METHOD 5030/M8015	--						05/18/1994
DILUTION FACTOR*	1						05/18/1994
as Gasoline	3.4		1	mg/kg	5030		05/18/1994
METHOD 8020 (GC,Solid)	--						05/18/1994
Benzene	7.2		2.5	ug/kg	8020		05/18/1994
Toluene	1.5		2.5	ug/kg	8020		05/18/1994
Ethylbenzene	15		2.5	ug/kg	8020		05/18/1994
Xylenes (Total)	31		2.5	ug/kg	8020		05/18/1994
SURROGATE RESULTS	--						05/18/1994
Bromofluorobenzene (SURR)	96			% Rec.	5030		05/18/1994
METHOD 3550/M8015						05/17/1994	
DILUTION FACTOR*	1						05/19/1994
as Diesel	4.2	DL	1	mg/kg	3550		05/19/1994
as Motor Oil	ND		10	mg/kg	3550		05/19/1994

DL : The positive result appears to be a lighter hydrocarbon than Diesel.

Ref: 35th Ave., Oakland

SAMPLE DESCRIPTION: SB-A 16'
Date Taken: 05/05/1994
Time Taken: 15:50
NET Sample No: 193714

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed
TPH (Gas/BTXE,Solid)							
METHOD 5030/M8015	--						05/19/1994
DILUTION FACTOR*	200						05/19/1994
as Gasoline	1,600		200	mg/kg	5030		05/19/1994
METHOD 8020 (GC,Solid)	--						05/19/1994
Benzene	1,800		500	ug/kg	8020		05/19/1994
Toluene	3,400		500	ug/kg	8020		05/19/1994
Ethylbenzene	17,000		500	ug/kg	8020		05/19/1994
Xylenes (Total)	54,000		500	ug/kg	8020		05/19/1994
SURROGATE RESULTS	--						05/19/1994
Bromofluorobenzene (SURR)	77			% Rec.	5030		05/19/1994
METHOD 3550/M8015						05/17/1994	
DILUTION FACTOR*	100						05/19/1994
as Diesel	620	DL	100	mg/kg	3550		05/19/1994
as Motor Oil	ND		1000	mg/kg	3550		05/19/1994

DL : The positive result appears to be a lighter hydrocarbon than Diesel.

Ref: 35th Ave., Oakland

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,Solid)						
as Gasoline	102.0	5.10	5.00	mg/kg	05/18/1994	pbg
Benzene	93.2	23.3	25.0	ug/kg	05/18/1994	pbg
Toluene	94.8	23.7	25.0	ug/kg	05/18/1994	pbg
Ethylbenzene	93.2	23.3	25.0	ug/kg	05/18/1994	pbg
Xylenes (Total)	93.5	70.1	75.0	ug/kg	05/18/1994	pbg
Bromofluorobenzene (SURR)	89.0	89	100	% Rec.	05/18/1994	pbg
TPH (Gas/BTXE,Solid)						
as Gasoline	106.8	5.34	5.00	mg/kg	05/19/1994	pbg
Benzene	100.0	25.0	25.0	ug/kg	05/19/1994	pbg
Toluene	101.2	25.3	25.0	ug/kg	05/19/1994	pbg
Ethylbenzene	98.4	24.6	25.0	ug/kg	05/19/1994	pbg
Xylenes (Total)	98.4	73.8	75.0	ug/kg	05/19/1994	pbg
Bromofluorobenzene (SURR)	910.0	910	100	% Rec.	05/19/1994	pbg
METHOD 3550/M8015						
as Diesel	112.9	1129	1000	mg/kg	05/19/1994	fyh
as Motor Oil	103.2	1032	1000	mg/kg	05/19/1994	fyh

Ref: 35th Ave., Oakland

METHOD BLANK REPORT

Parameter	Method Blank Amount Found	Reporting Limit	Units	Date Analyzed	Analyst Initials
TPH (Gas/BTXE,Solid)					
as Gasoline	ND	1	mg/kg	05/18/1994	pbg
Benzene	ND	2.5	ug/kg	05/18/1994	pbg
Toluene	ND	2.5	ug/kg	05/18/1994	pbg
Ethylbenzene	ND	2.5	ug/kg	05/18/1994	pbg
Xylenes (Total)	ND	2.5	ug/kg	05/18/1994	pbg
Bromofluorobenzene (SURR)	85		% Rec.	05/18/1994	pbg
TPH (Gas/BTXE,Solid)					
as Gasoline	ND	1	mg/kg	05/19/1994	pbg
Benzene	ND	2.5	ug/kg	05/19/1994	pbg
Toluene	ND	2.5	ug/kg	05/19/1994	pbg
Ethylbenzene	ND	2.5	ug/kg	05/19/1994	pbg
Xylenes (Total)	ND	2.5	ug/kg	05/19/1994	pbg
Bromofluorobenzene (SURR)	82		% Rec.	05/19/1994	pbg
METHOD 3550/M8015					
as Diesel	ND	1	mg/kg	05/18/1994	fyh
as Motor Oil	ND	10	mg/kg	05/18/1994	fyh

Client Acct: 98900
Client Name: Cambria
NET Job No: 94.01914

Date: 05/25/1994
ELAP Certificate: 1386
Page: 6

Ref: 35th Ave., Oakland

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	Analyst Initials
TPH (Gas/BTXE,Solid)										
as Gasoline	90.2	90.4	0.2	6.04	ND	5.45	5.46	mg/kg dw	05/18/1994	pbg
Benzene	92.7	89.8	3.2	214	ND	198	192	ug/kg dw	05/18/1994	pbg
Toluene	92.1	89.9	2.4	611	ND	562	549	ug/kg dw	05/18/1994	pbg
TPH (Gas/BTXE,Solid)										
as Gasoline	57.4	55.8	2.8	5.00	ND	2.87	2.79	mg/kg dw	05/19/1994	pbg
Benzene	71.3	70.8	0.7	171	ND	122	121	ug/kg dw	05/19/1994	pbg
Toluene	67.5	66.9	0.9	493	ND	333	330	ug/kg dw	05/19/1994	pbg
METHOD 3550/M8015										
as Diesel	119.8	77.8	42.4	16.7	18	38	31	mg/kg	05/18/1994	fyh

Ref: 35th Ave., Oakland

LABORATORY CONTROL SAMPLE REPORT

Parameter	LCS % Recovery	RPD	LCS Amount Found	LCS Amount Expected	Units	Date Analyzed	Analyst Initials
METHOD 3550/M8015							
as Diesel	95.8		16.0	16.7	mg/kg	05/18/1994	fyh

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

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. 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

NET NATIONAL ENVIRONMENTAL TESTING, INC.

CHAIN OF CUSTODY RECORD

9196

COMPANY CAMBRIA
ADDRESS 1144 65th ST, SUITE C OAKLAND 94608
PHONE (510) 420-0700 FAX (510) 420-9170
PROJECT NAME/LOCATION 35th AVE, OAKLAND
PROJECT NUMBER
PROJECT MANAGER SCOTT MACLEOD

REPORT TO: SCOTT MACLEOD
INVOICE TO: CAMBRIA
P.O. NO.
NET QUOTE NO. CALL

SAMPLED BY
SCOTT MACLEOD (PRINT NAME) SIGNATURE
(PRINT NAME) SIGNATURE

DATE	TIME	SAMPLE ID/DESCRIPTION	GRAB	COMP	# OF CONTAINERS TYPE	MATRIX	PRESERVED Y/N	ANALYSES: 8260 PNA	COMMENTS
5/5/94	14:55	SB-14 6'	X		1 TUBE	SOIL	N	hold	HOLD - WILL CALL MONDAY
	15:15	11						X X	
	15:50	16						X X	
	16:25	21						hold	
	16:52	26						hold	
									Standard Tat per Scott M to NPS 5/9

CONDITION OF SAMPLE: BOTTLES INTACT? YES / NO
FIELD FILTERED? YES / NO
COC SEALS PRESENT AND INTACT? YES / NO
VOLATILES FREE OF HEADSPACE? YES / NO
TEMPERATURE UPON RECEIPT: 1.4°C

SAMPLE REMAINDER DISPOSAL: RETURN SAMPLE REMAINDER TO CLIENT VIA
I REQUEST NET TO DISPOSE OF ALL SAMPLE REMAINDERS
DATE

RELINQUISHED BY:	DATE/TIME	RECEIVED BY:	RELINQUISHED BY:	DATE/TIME	RECEIVED FOR NET BY:
	5/6/94 7:15	3/6/94 1025		5/6/94 11:45	

METHOD OF SHIPMENT

REMARKS:

PT 1 - ORIGINAL - WHITE PT 2 - NET PROJECT MANAGER - YELLOW PT 3 - CUSTOMER COPY - PINK

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
1144 65th Street
Suite C
Oakland, CA 94608

Date: 05/25/1994
NET Client Acct. No: 98900
NET Pacific Job No: 94.01905
Received: 05/10/1994

Client Reference Information

35th Ave., Oakland

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: 35th Ave., Oakland

SAMPLE DESCRIPTION: SB-B 11'
Date Taken: 05/06/1994
Time Taken: 08:40
NET Sample No: 193646

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed
TPH (Gas/BTXE,Solid)							
METHOD 5030/M8015	--						05/18/1994
DILUTION FACTOR*	50						05/18/1994
as Gasoline	170		50	mg/kg	5030		05/18/1994
METHOD 8020 (GC,Solid)	--						05/18/1994
Benzene	450		120	ug/kg	8020		05/18/1994
Toluene	2,500		120	ug/kg	8020		05/18/1994
Ethylbenzene	1,700		120	ug/kg	8020		05/18/1994
Xylenes (Total)	11,000		120	ug/kg	8020		05/18/1994
SURROGATE RESULTS	--						05/18/1994
Bromofluorobenzene (SURR)	87			% Rec.	5030		05/18/1994
METHOD 3550/M8015						05/17/1994	
DILUTION FACTOR*	10						05/18/1994
as Diesel	52	DL	10	mg/kg	3550		05/18/1994
as Motor Oil	ND		100	mg/kg	3550		05/18/1994

DL : The positive result appears to be a lighter hydrocarbon than Diesel.

Ref: 35th Ave., Oakland

SAMPLE DESCRIPTION: SB-B 16'
Date Taken: 05/06/1994
Time Taken: 08:50
NET Sample No: 193647

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed
TPH (Gas/BTXE,Solid)							
METHOD 5030/M8015	--						05/18/1994
DILUTION FACTOR*	200						05/18/1994
as Gasoline	940		200	mg/kg	5030		05/18/1994
METHOD 8020 (GC,Solid)	--						05/18/1994
Benzene	6,300		500	ug/kg	8020		05/18/1994
Toluene	28,000		500	ug/kg	8020		05/18/1994
Ethylbenzene	12,000		500	ug/kg	8020		05/18/1994
Xylenes (Total)	70,000		500	ug/kg	8020		05/18/1994
SURROGATE RESULTS	--						05/18/1994
Bromofluorobenzene (SURR)	93			% Rec.	5030		05/18/1994
METHOD 3550/M8015						05/17/1994	
DILUTION FACTOR*	10						05/19/1994
as Diesel	120	DL	10	mg/kg	3550		05/19/1994
as Motor Oil	ND		100	mg/kg	3550		05/19/1994

DL : The positive result appears to be a lighter hydrocarbon than Diesel.

Ref: 35th Ave., Oakland

SAMPLE DESCRIPTION: SB-C 11'
Date Taken: 05/06/1994
Time Taken: 10:00
NET Sample No: 193648

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed
TPH (Gas/BTXE,Solid)							
METHOD 5030/M8015	--						05/19/1994
DILUTION FACTOR*	10						05/19/1994
as Gasoline	25		10	mg/kg	5030		05/19/1994
METHOD 8020 (GC,Solid)	--						05/19/1994
Benzene	220		25	ug/kg	8020		05/19/1994
Toluene	620		25	ug/kg	8020		05/19/1994
Ethylbenzene	490		25	ug/kg	8020		05/19/1994
Xylenes (Total)	2,100		25	ug/kg	8020		05/19/1994
SURROGATE RESULTS	--						05/19/1994
Bromofluorobenzene (SURR)	84			% Rec.	5030		05/19/1994
METHOD 3550/M8015						05/17/1994	
DILUTION FACTOR*	1						05/19/1994
as Diesel	6.7	DL	1	mg/kg	3550		05/19/1994
as Motor Oil	ND		10	mg/kg	3550		05/19/1994

DL : The positive result appears to be a lighter hydrocarbon than Diesel.

Ref: 35th Ave., Oakland

SAMPLE DESCRIPTION: SB-C 16'
Date Taken: 05/06/1994
Time Taken: 10:15
NET Sample No: 193649

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed
TPH (Gas/BTXE,Solid)							
METHOD 5030/M8015	--						05/19/1994
DILUTION FACTOR*	200						05/19/1994
as Gasoline	490		200	mg/kg	5030		05/19/1994
METHOD 8020 (GC,Solid)	--						05/19/1994
Benzene	1,900		500	ug/kg	8020		05/19/1994
Toluene	14,000		500	ug/kg	8020		05/19/1994
Ethylbenzene	7,400		500	ug/kg	8020		05/19/1994
Xylenes (Total)	42,000		500	ug/kg	8020		05/19/1994
SURROGATE RESULTS	--						05/19/1994
Bromofluorobenzene (SURR)	83			% Rec.	5030		05/19/1994
METHOD 3550/M8015						05/17/1994	
DILUTION FACTOR*	50						05/18/1994
as Diesel	280	DL	50	mg/kg	3550		05/18/1994
as Motor Oil	ND		500	mg/kg	3550		05/18/1994

DL : The positive result appears to be a lighter hydrocarbon than Diesel.

Ref: 35th Ave., Oakland

SAMPLE DESCRIPTION: SB-D 11'
Date Taken: 05/06/1994
Time Taken: 11:55
NET Sample No: 193650

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed
TPH (Gas/BTXE,Solid)							
METHOD 5030/M8015	--						05/18/1994
DILUTION FACTOR*	1						05/18/1994
as Gasoline	ND		1	mg/kg	5030		05/18/1994
METHOD 8020 (GC,Solid)	--						05/18/1994
Benzene	ND		2.5	ug/kg	8020		05/18/1994
Toluene	ND		2.5	ug/kg	8020		05/18/1994
Ethylbenzene	ND		2.5	ug/kg	8020		05/18/1994
Xylenes (Total)	ND		2.5	ug/kg	8020		05/18/1994
SURROGATE RESULTS	--						05/18/1994
Bromofluorobenzene (SURR)	70			% Rec.	5030		05/18/1994
METHOD 3550/M8015						05/17/1994	
DILUTION FACTOR*	1						05/19/1994
as Diesel	5.2		1	mg/kg	3550		05/19/1994
as Motor Oil	ND		10	mg/kg	3550		05/19/1994

Ref: 35th Ave., Oakland

SAMPLE DESCRIPTION: SB-D 16'
Date Taken: 05/06/1994
Time Taken: 12:20
NET Sample No: 193651

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed
TPH (Gas/BTXE,Solid)							
METHOD 5030/M8015	--						05/18/1994
DILUTION FACTOR*	1						05/18/1994
as Gasoline	ND		1	mg/kg	5030		05/18/1994
METHOD 8020 (GC,Solid)	--						05/18/1994
Benzene	ND		2.5	ug/kg	8020		05/18/1994
Toluene	ND		2.5	ug/kg	8020		05/18/1994
Ethylbenzene	ND		2.5	ug/kg	8020		05/18/1994
Xylenes (Total)	ND		2.5	ug/kg	8020		05/18/1994
SURROGATE RESULTS	--						05/18/1994
Bromofluorobenzene (SURR)	73			% Rec.	5030		05/18/1994
METHOD 3550/M8015						05/17/1994	
DILUTION FACTOR*	1						05/19/1994
as Diesel	ND		1	mg/kg	3550		05/19/1994
as Motor Oil	ND		10	mg/kg	3550		05/19/1994

Ref: 35th Ave., Oakland

SAMPLE DESCRIPTION: SB-A GW
Date Taken: 05/06/1994
Time Taken: 08:20
NET Sample No: 193652

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed
TPH (Gas/BTXE,Liquid)							
METHOD 5030/M8015	--						05/20/1994
DILUTION FACTOR*	50						05/20/1994
as Gasoline	7.0		2	mg/L	5030		05/20/1994
METHOD 8020 (GC,Liquid)	--						05/20/1994
Benzene	450		20	ug/L	8020		05/20/1994
Toluene	75		20	ug/L	8020		05/20/1994
Ethylbenzene	180		20	ug/L	8020		05/20/1994
Xylenes (Total)	330		20	ug/L	8020		05/20/1994
SURROGATE RESULTS	--						05/20/1994
Bromofluorobenzene (SURR)	101			% Rec.	5030		05/20/1994

Ref: 35th Ave., Oakland

SAMPLE DESCRIPTION: SB-B GW
Date Taken: 05/06/1994
Time Taken: 11:30
NET Sample No: 193653

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed
TPH (Gas/BTXE,Liquid)							
METHOD 5030/M8015	--						05/16/1994
DILUTION FACTOR*	100						05/16/1994
as Gasoline	130		5	mg/L	5030		05/16/1994
METHOD 8020 (GC,Liquid)	--						05/16/1994
Benzene	10,000	FI	50	ug/L	8020		05/16/1994
Toluene	11,000	FI	50	ug/L	8020		05/16/1994
Ethylbenzene	2,200		50	ug/L	8020		05/16/1994
Xylenes (Total)	11,000		50	ug/L	8020		05/16/1994
SURROGATE RESULTS	--						05/16/1994
Bromofluorobenzene (SURR)	170	MI		% Rec.	5030		05/16/1994

FI : Compound quantitated at a 1000X dilution factor.
MI : Matrix Interference Suspected

Ref: 35th Ave., Oakland

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	86.0	0.86	1.00	mg/L	05/20/1994	aal
Benzene	99.6	4.98	5.00	ug/L	05/20/1994	aal
Toluene	95.8	4.79	5.00	ug/L	05/20/1994	aal
Ethylbenzene	93.4	4.67	5.00	ug/L	05/20/1994	aal
Xylenes (Total)	94.0	14.1	15.0	ug/L	05/20/1994	aal
Bromofluorobenzene (SURR)	96.0	96	100	% Rec.	05/20/1994	aal
TPH (Gas/BTXE,Liquid)						
as Gasoline	104.0	1.04	1.00	mg/L	05/20/1994	klh
Benzene	102.2	5.11	5.00	ug/L	05/20/1994	klh
Toluene	102.0	5.10	5.00	ug/L	05/20/1994	klh
Ethylbenzene	98.8	4.94	5.00	ug/L	05/20/1994	klh
Xylenes (Total)	104.7	15.7	15.0	ug/L	05/20/1994	klh
Bromofluorobenzene (SURR)	94.0	94	100	% Rec.	05/20/1994	klh
TPH (Gas/BTXE,Solid)						
as Gasoline	102.0	5.10	5.00	mg/kg	05/18/1994	pbg
Benzene	93.2	23.3	25.0	ug/kg	05/18/1994	pbg
Toluene	94.8	23.7	25.0	ug/kg	05/18/1994	pbg
Ethylbenzene	93.2	23.3	25.0	ug/kg	05/18/1994	pbg
Xylenes (Total)	93.5	70.1	75.0	ug/kg	05/18/1994	pbg
Bromofluorobenzene (SURR)	89.0	89	100	% Rec.	05/18/1994	pbg
TPH (Gas/BTXE,Solid)						
as Gasoline	106.8	5.34	5.00	mg/kg	05/19/1994	pbg
Benzene	100.0	25.0	25.0	ug/kg	05/19/1994	pbg
Toluene	101.2	25.3	25.0	ug/kg	05/19/1994	pbg
Ethylbenzene	98.4	24.6	25.0	ug/kg	05/19/1994	pbg
Xylenes (Total)	98.4	73.8	75.0	ug/kg	05/19/1994	pbg
Bromofluorobenzene (SURR)	910.0	910	100	% Rec.	05/19/1994	pbg
METHOD 3550/M8015						
as Diesel	113.3	1133	1000	mg/kg	05/18/1994	fyh
as Motor Oil	101.0	1010	1000	mg/kg	05/18/1994	fyh

Ref: 35th Ave., Oakland

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	05/20/1994	aal
Benzene	ND	0.5	ug/L	05/20/1994	aal
Toluene	ND	0.5	ug/L	05/20/1994	aal
Ethylbenzene	ND	0.5	ug/L	05/20/1994	aal
Xylenes (Total)	ND	0.5	ug/L	05/20/1994	aal
Bromofluorobenzene (SURR)	93		% Rec.	05/20/1994	aal
TPH (Gas/BTXE,Liquid)					
as Gasoline	ND	0.05	mg/L	05/20/1994	klh
Benzene	ND	0.5	ug/L	05/20/1994	klh
Toluene	ND	0.5	ug/L	05/20/1994	klh
Ethylbenzene	ND	0.5	ug/L	05/20/1994	klh
Xylenes (Total)	ND	0.5	ug/L	05/20/1994	klh
Bromofluorobenzene (SURR)	82		% Rec.	05/20/1994	klh
TPH (Gas/BTXE,Solid)					
as Gasoline	ND	1	mg/kg	05/18/1994	pbg
Benzene	ND	2.5	ug/kg	05/18/1994	pbg
Toluene	ND	2.5	ug/kg	05/18/1994	pbg
Ethylbenzene	ND	2.5	ug/kg	05/18/1994	pbg
Xylenes (Total)	ND	2.5	ug/kg	05/18/1994	pbg
Bromofluorobenzene (SURR)	85		% Rec.	05/18/1994	pbg
TPH (Gas/BTXE,Solid)					
as Gasoline	ND	1	mg/kg	05/19/1994	pbg
Benzene	ND	2.5	ug/kg	05/19/1994	pbg
Toluene	ND	2.5	ug/kg	05/19/1994	pbg
Ethylbenzene	ND	2.5	ug/kg	05/19/1994	pbg
Xylenes (Total)	ND	2.5	ug/kg	05/19/1994	pbg
Bromofluorobenzene (SURR)	82		% Rec.	05/19/1994	pbg
METHOD 3550/M8015					
as Diesel	ND	1	mg/kg	05/18/1994	fyh
as Motor Oil	ND	10	mg/kg	05/18/1994	fyh

Ref: 35th Ave., Oakland

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	Analyst Initials
TPH (Gas/BTXE,Liquid)										
as Gasoline	87.0	85.0	2.3	1.00	ND	0.87	0.85	mg/L	05/20/1994	aal
Benzene	100.8	98.2	2.5	39.0	ND	39.3	38.3	ug/L	05/20/1994	aal
Toluene	101.2	98.1	3.0	100.5	ND	101.7	98.6	ug/L	05/20/1994	aal
TPH (Gas/BTXE,Liquid)										
as Gasoline	104.0	87.0	17.7	1.00	ND	1.04	0.87	mg/L	05/20/1994	klh
Benzene	102.1	91.2	11.2	33.1	ND	33.8	30.2	ug/L	05/20/1994	klh
Toluene	98.6	90.5	8.6	80.9	ND	79.8	73.2	ug/L	05/20/1994	klh
TPH (Gas/BTXE,Solid)										
as Gasoline	90.2	90.4	0.2	6.04	ND	5.45	5.46	mg/kg dw	05/18/1994	pbg
Benzene	92.7	89.8	3.2	214	ND	198	192	ug/kg dw	05/18/1994	pbg
Toluene	92.1	89.9	2.4	611	ND	562	549	ug/kg dw	05/18/1994	pbg
TPH (Gas/BTXE,Solid)										
as Gasoline	57.4	55.8	2.8	5.00	ND	2.87	2.79	mg/kg dw	05/19/1994	pbg
Benzene	71.3	70.8	0.7	171	ND	122	121	ug/kg dw	05/19/1994	pbg
Toluene	67.5	66.9	0.9	493	ND	333	330	ug/kg dw	05/19/1994	pbg
METHOD 3550/M8015										
as Diesel	119.8	77.8	42.4	16.7	18	38	31	mg/kg	05/18/1994	fyh

Ref: 35th Ave., Oakland

LABORATORY CONTROL SAMPLE REPORT

Parameter	LCS % Recovery	RPD	LCS Amount Found	LCS Amount Expected	Units	Date Analyzed	Analyst Initials
METHOD 3550/M8015							
as Diesel	95.8		16.0	16.7	mg/kg	05/18/1994	fyh

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. 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

6244

NET NATIONAL ENVIRONMENTAL TESTING, INC.

CHAIN OF CUSTODY RECORD

COMPANY: CAMBRIA
ADDRESS: 1144 65TH ST OAKLAND 94608
PHONE: (510) 420-0700 FAX: 420-9170
PROJECT NAME/LOCATION: 35TH AVE, OAKLAND
PROJECT NUMBER:
PROJECT MANAGER: SCOTT MACLEOD

REPORT TO: SCOTT MACLEOD
INVOICE TO: CAMBRIA
P.O. NO.:
NET QUOTE NO.:

SAMPLED BY: SCOTT MACLEOD (PRINT NAME) SIGNATURE: [signature]
(PRINT NAME) SIGNATURE:

DATE	TIME	SAMPLE ID/DESCRIPTION	GRAB	COMP	# OF CONTAINERS/TYPE	MATRIX	PRESERVED Y/N	TPH-G/BTEX	TPH-D + motor oil	~~O&G~~ / ~~Res BTEX~~ 5/11/94	COMMENTS
5/9/94	8:30	SB-B 6'	X		1 TUBE	SOIL	N				HOLD
	8:40	↓ 11'	↓		↓	↓	↓	X	X	X	
	8:50	16'						X	X	X	
	9:05	21'									HOLD
	9:20	26'									HOLD
	9:45	SB-C 6'									HOLD
	10:00	↓ 11'						X	X	X	
	10:15	16'						X	X	X	
	10:30	21'									HOLD
	11:45	SB-D 6									HOLD
	11:55	↓ 11						X	X	X	
	12:20	16	↓		↓	↓	↓	X	X	X	
	8:20	SB-A GW	X		3 VOA	H_2O	Y	X	(X)		
	11:30	SB-B GW	X		"	"	"	X	(X)		

→ only have VOAs — no ambers for diesel analysis [illegible] 5/10

CUSTODY SEALED 5/9/94 @ [signature] — seal intact

CONDITION OF SAMPLE: BOTTLES INTACT? YES / NO — FIELD FILTERED? YES / NO — COC SEALS PRESENT AND INTACT? YES / NO — VOLATILES FREE OF HEADSPACE? YES / NO — TEMPERATURE UPON RECEIPT: 1.0°C

SAMPLE REMAINDER DISPOSAL: RETURN SAMPLE REMAINDER TO CLIENT VIA ______
I REQUEST NET TO DISPOSE OF ALL SAMPLE REMAINDERS ______ DATE ______
LOCKED IN SECURE SAMPLE STORAGE [illegible]

RELINQUISHED BY:	DATE/TIME	RECEIVED BY:	RELINQUISHED BY:	DATE/TIME	RECEIVED FOR NET BY:
[signature]	5/9/94 3:00 pm	[signature] 5/9/94 2:25	[signature]	5/9/94 16:45	[signature] 5/10/94 0800

METHOD OF SHIPMENT: Via NCS

REMARKS:

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
1144 65th Street
Suite C
Oakland, CA 94608

Date: 05/25/1994
NET Client Acct. No: 98900
NET Pacific Job No: 94.01945
Received: 05/11/1994

Client Reference Information

3055 35th Ave., Oakland

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

SAMPLE DESCRIPTION: SB-E 11'
Date Taken: 05/09/1994
Time Taken: 07:40
NET Sample No: 193983

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed
TPH (Gas/BTXE,Solid)							
METHOD 5030/M8015	--						05/19/1994
DILUTION FACTOR*	10						05/20/1994
as Gasoline	220		10	mg/kg	5030		05/20/1994
METHOD 8020 (GC,Solid)	--						05/20/1994
Benzene	550		25	ug/kg	8020		05/20/1994
Toluene	2,100		25	ug/kg	8020		05/20/1994
Ethylbenzene	1,700		25	ug/kg	8020		05/20/1994
Xylenes (Total)	2,800	FF	25	ug/kg	8020		05/23/1994
SURROGATE RESULTS	--						05/20/1994
Bromofluorobenzene (SURR)	98			% Rec.	5030		05/20/1994
METHOD 3550/M8015						05/17/1994	
DILUTION FACTOR*	1						05/18/1994
as Diesel	56	DL	1	mg/kg	3550		05/18/1994
as Motor Oil	ND		10	mg/kg	3550		05/18/1994

DL : The positive result appears to be a lighter hydrocarbon than Diesel.
FF : Compound quantitated at a 100X dilution factor.

Ref: 3055 35th Ave., Oakland

SAMPLE DESCRIPTION: SB-E 16'
Date Taken: 05/09/1994
Time Taken: 07:45
NET Sample No: 193984

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed
TPH (Gas/BTXE,Solid)							
METHOD 5030/M8015	--						05/19/1994
DILUTION FACTOR*	1						05/19/1994
as Gasoline	3.8		1	mg/kg	5030		05/19/1994
METHOD 8020 (GC,Solid)	--						05/19/1994
Benzene	190	FC	2.5	ug/kg	8020		05/20/1994
Toluene	200	FC	2.5	ug/kg	8020		05/20/1994
Ethylbenzene	59		2.5	ug/kg	8020		05/19/1994
Xylenes (Total)	200		2.5	ug/kg	8020		05/19/1994
SURROGATE RESULTS	--						05/19/1994
Bromofluorobenzene (SURR)	97			% Rec.	5030		05/19/1994
METHOD 3550/M8015						05/17/1994	
DILUTION FACTOR*	1						05/18/1994
as Diesel	1.4	DL	1	mg/kg	3550		05/18/1994
as Motor Oil	ND		10	mg/kg	3550		05/18/1994

DL : The positive result appears to be a lighter hydrocarbon than Diesel.
FC : Compound quantitated at a 10X dilution factor.

Ref: 3055 35th Ave., Oakland

SAMPLE DESCRIPTION: SB-F 11'
Date Taken: 05/09/1994
Time Taken: 08:35
NET Sample No: 193985

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed
TPH (Gas/BTXE,Solid)							
METHOD 5030/M8015	--						05/19/1994
DILUTION FACTOR*	100						05/19/1994
as Gasoline	370		100	mg/kg	5030		05/19/1994
METHOD 8020 (GC,Solid)	--						05/19/1994
Benzene	ND		250	ug/kg	8020		05/19/1994
Toluene	ND		250	ug/kg	8020		05/19/1994
Ethylbenzene	3,900		250	ug/kg	8020		05/19/1994
Xylenes (Total)	6,200		250	ug/kg	8020		05/19/1994
SURROGATE RESULTS	--						05/19/1994
Bromofluorobenzene (SURR)	97			% Rec.	5030		05/19/1994
METHOD 3550/M8015						05/17/1994	
DILUTION FACTOR*	1						05/18/1994
as Diesel	57	DL	1	mg/kg	3550		05/18/1994
as Motor Oil	ND		10	mg/kg	3550		05/18/1994

DL : The positive result appears to be a lighter hydrocarbon than Diesel.

Ref: 3055 35th Ave., Oakland

SAMPLE DESCRIPTION: SB-F 15'
Date Taken: 05/09/1994
Time Taken: 09:00
NET Sample No: 193986

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed
TPH (Gas/BTXE,Solid)							
METHOD 5030/M8015	--						05/20/1994
DILUTION FACTOR*	1,000						05/20/1994
as Gasoline	2,900		1000	mg/kg	5030		05/20/1994
METHOD 8020 (GC,Solid)	--						05/20/1994
Benzene	24,000		2500	ug/kg	8020		05/20/1994
Toluene	41,000		2500	ug/kg	8020		05/20/1994
Ethylbenzene	48,000		2500	ug/kg	8020		05/20/1994
Xylenes (Total)	196,000		2500	ug/kg	8020		05/20/1994
SURROGATE RESULTS	--						05/20/1994
Bromofluorobenzene (SURR)	96			% Rec.	5030		05/20/1994
METHOD 3550/M8015						05/17/1994	
DILUTION FACTOR*	10						05/18/1994
as Diesel	450	DL	10	mg/kg	3550		05/18/1994
as Motor Oil	ND		100	mg/kg	3550		05/18/1994

DL : The positive result appears to be a lighter hydrocarbon than Diesel.

Ref: 3055 35th Ave., Oakland

SAMPLE DESCRIPTION: SB-G 11'
Date Taken: 05/09/1994
Time Taken: 11:00
NET Sample No: 193987

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed
TPH (Gas/BTXE,Solid)							
METHOD 5030/M8015	--						05/19/1994
DILUTION FACTOR*	1						05/19/1994
as Gasoline	20		1	mg/kg	5030		05/19/1994
METHOD 8020 (GC,Solid)	--						05/19/1994
Benzene	61		2.5	ug/kg	8020		05/19/1994
Toluene	14		2.5	ug/kg	8020		05/19/1994
Ethylbenzene	93		2.5	ug/kg	8020		05/19/1994
Xylenes (Total)	340	FC	2.5	ug/kg	8020		05/20/1994
SURROGATE RESULTS	--						05/19/1994
Bromofluorobenzene (SURR)	117			% Rec.	5030		05/19/1994
METHOD 3550/M8015						05/17/1994	
DILUTION FACTOR*	1						05/18/1994
as Diesel	18	DL	1	mg/kg	3550		05/18/1994
as Motor Oil	ND		10	mg/kg	3550		05/18/1994

DL : The positive result appears to be a lighter hydrocarbon than Diesel.
FC : Compound quantitated at a 10X dilution factor.

Ref: 3055 35th Ave., Oakland

SAMPLE DESCRIPTION: SB-G 15'
Date Taken: 05/09/1994
Time Taken: 11:00
NET Sample No: 193988

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed
TPH (Gas/BTXE,Solid)							
METHOD 5030/M8015	--						05/19/1994
DILUTION FACTOR*	100						05/19/1994
as Gasoline	390		100	mg/kg	5030		05/19/1994
METHOD 8020 (GC,Solid)	--						05/19/1994
Benzene	1,400		250	ug/kg	8020		05/19/1994
Toluene	6,100		250	ug/kg	8020		05/19/1994
Ethylbenzene	3,900		250	ug/kg	8020		05/19/1994
Xylenes (Total)	16,000		250	ug/kg	8020		05/19/1994
SURROGATE RESULTS	--						05/19/1994
Bromofluorobenzene (SURR)	98			% Rec.	5030		05/19/1994
METHOD 3550/M8015						05/17/1994	
DILUTION FACTOR*	1						05/18/1994
as Diesel	52	D-	1	mg/kg	3550		05/18/1994
as Motor Oil	ND		10	mg/kg	3550		05/18/1994

D- : The positive result has an atypical pattern for Diesel analysis.

Client Acct: 98900
Client Name: Cambria
NET Job No: 94.01945

Date: 05/25/1994
ELAP Certificate: 1386
Page: 8

Ref: 3055 35th Ave., Oakland

SAMPLE DESCRIPTION: SB-A GW
Date Taken: 05/09/1994
Time Taken: 07:20
NET Sample No: 193989

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed
METHOD 3510/M8015							
DILUTION FACTOR*	50						
as Diesel	9.1		2.5	mg/L	3510		05/18/1994
as Motor Oil	ND		25	mg/L	3510		

Ref: 3055 35th Ave., Oakland

SAMPLE DESCRIPTION: SB-D GW
Date Taken: 05/09/1994
Time Taken: 08:00
NET Sample No: 193991

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed
TPH (Gas/BTXE,Liquid)							
METHOD 5030/M8015	--						05/23/1994
DILUTION FACTOR*	1						05/23/1994
as Gasoline	0.15		0.05	mg/L	5030		05/23/1994
METHOD 8020 (GC,Liquid)	--						05/23/1994
Benzene	6.5		0.5	ug/L	8020		05/23/1994
Toluene	10		0.5	ug/L	8020		05/23/1994
Ethylbenzene	2.9		0.5	ug/L	8020		05/23/1994
Xylenes (Total)	12		0.5	ug/L	8020		05/23/1994
SURROGATE RESULTS	--						05/23/1994
Bromofluorobenzene (SURR)	100			% Rec.	5030		05/23/1994
METHOD 3510/M8015							
DILUTION FACTOR*	1						
as Diesel	0.21		0.05	mg/L	3510		05/18/1994
as Motor Oil	ND		0.5	mg/L	3510		

Ref: 3055 35th Ave., Oakland

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	85.0	0.85	1.00	mg/L	05/23/1994	aal
Benzene	103.4	5.17	5.00	ug/L	05/23/1994	aal
Toluene	100.0	5.00	5.00	ug/L	05/23/1994	aal
Ethylbenzene	95.4	4.77	5.00	ug/L	05/23/1994	aal
Xylenes (Total)	96.7	14.5	15.0	ug/L	05/23/1994	aal
Bromofluorobenzene (SURR)	96.7	96.7	100	% Rec.	05/23/1994	aal
METHOD 3510/M8015						
as Diesel	105.0	845	805	mg/L	05/17/1994	sub/port
TPH (Gas/BTXE,Solid)						
as Gasoline	112.2	5.61	5.00	mg/kg	05/19/1994	pbg
Benzene	85.2	21.3	25.0	ug/kg	05/19/1994	pbg
Toluene	94.4	23.6	25.0	ug/kg	05/19/1994	pbg
Ethylbenzene	91.6	22.9	25.0	ug/kg	05/19/1994	pbg
Xylenes (Total)	95.1	71.3	75.0	ug/kg	05/19/1994	pbg
Bromofluorobenzene (SURR)	880.0	880	100	% Rec.	05/19/1994	pbg
TPH (Gas/BTXE,Solid)						
as Gasoline	114.4	5.72	5.00	mg/kg	05/20/1994	aal
Benzene	89.2	22.3	25.0	ug/kg	05/20/1994	aal
Toluene	98.4	24.6	25.0	ug/kg	05/20/1994	aal
Ethylbenzene	96.0	24.0	25.0	ug/kg	05/20/1994	aal
Xylenes (Total)	98.7	74.0	75.0	ug/kg	05/20/1994	aal
Bromofluorobenzene (SURR)	91.0	91	100	% Rec.	05/20/1994	aal
TPH (Gas/BTXE,Solid)						
as Gasoline	107.6	5.38	5.00	mg/kg	05/23/1994	lss
Benzene	98.8	24.7	25.0	ug/kg	05/23/1994	lss
Toluene	108.8	27.2	25.0	ug/kg	05/23/1994	lss
Ethylbenzene	106.8	26.7	25.0	ug/kg	05/23/1994	lss
Xylenes (Total)	109.6	82.2	75.0	ug/kg	05/23/1994	lss
Bromofluorobenzene (SURR)	100.0	100	100	% Rec.	05/23/1994	lss
METHOD 3550/M8015						
as Diesel	113.3	1133	1000	mg/kg	05/18/1994	fyh
as Motor Oil	101.0	1010	1000	mg/kg	05/18/1994	fyh

Ref: 3055 35th Ave., Oakland

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	05/23/1994	aal
Benzene	ND	0.5	ug/L	05/23/1994	aal
Toluene	ND	0.5	ug/L	05/23/1994	aal
Ethylbenzene	ND	0.5	ug/L	05/23/1994	aal
Xylenes (Total)	ND	0.5	ug/L	05/23/1994	aal
Bromofluorobenzene (SURR)	98		% Rec.	05/23/1994	aal
METHOD 3510/M8015					
as Diesel	ND	0.05	mg/L	05/17/1994	sub/port
TPH (Gas/BTXE,Solid)					
as Gasoline	ND	1	mg/kg	05/19/1994	pbg
Benzene	ND	2.5	ug/kg	05/19/1994	pbg
Toluene	ND	2.5	ug/kg	05/19/1994	pbg
Ethylbenzene	ND	2.5	ug/kg	05/19/1994	pbg
Xylenes (Total)	ND	2.5	ug/kg	05/19/1994	pbg
Bromofluorobenzene (SURR)	99		% Rec.	05/19/1994	pbg
TPH (Gas/BTXE,Solid)					
as Gasoline	ND	1	mg/kg	05/20/1994	aal
Benzene	ND	2.5	ug/kg	05/20/1994	aal
Toluene	ND	2.5	ug/kg	05/20/1994	aal
Ethylbenzene	ND	2.5	ug/kg	05/20/1994	aal
Xylenes (Total)	ND	2.5	ug/kg	05/20/1994	aal
Bromofluorobenzene (SURR)	92		% Rec.	05/20/1994	aal
TPH (Gas/BTXE,Solid)					
as Gasoline	ND	1	mg/kg	05/23/1994	lss
Benzene	ND	2.5	ug/kg	05/23/1994	lss
Toluene	ND	2.5	ug/kg	05/23/1994	lss
Ethylbenzene	ND	2.5	ug/kg	05/23/1994	lss
Xylenes (Total)	ND	2.5	ug/kg	05/23/1994	lss
Bromofluorobenzene (SURR)	89		% Rec.	05/23/1994	lss
METHOD 3550/M8015					
as Diesel	ND	1	mg/kg	05/18/1994	fyh
as Motor Oil	ND	10	mg/kg	05/18/1994	fyh

Ref: 3055 35th Ave., Oakland

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	Analyst Initials
TPH (Gas/BTXE,Liquid)										
as Gasoline	88.0	89.0	1.1	1.00	0.15	1.03	1.04	mg/L	05/23/1994	aal
Benzene	101.3	101.8	0.5	39.0	6.5	46.0	46.2	ug/L	05/23/1994	aal
Toluene	100.0	100.2	0.2	101.3	10	111.3	111.5	ug/L	05/23/1994	aal
METHOD 3510/M8015										
as Diesel			1.9**					mg/L	05/17/1994	sub/port
TPH (Gas/BTXE,Solid)										
as Gasoline	107.4	100.0	7.1	5.00	ND	5.37	5.00	mg/kg	05/19/1994	pbg
Benzene	98.9	97.8	1.1	183	ND	181	179	ug/kg	05/19/1994	pbg
Toluene	99.8	101.8	2.00	507	2.7	508	498	ug/kg	05/19/1994	pbg
TPH (Gas/BTXE,Solid)										
as Gasoline	100.6	104.0	3.3	5.00	ND	5.03	5.20	mg/kg	05/20/1994	aal
Benzene	92.6	94.2	1.7	190	ND	176	179	ug/kg	05/20/1994	aal
Toluene	95.0	95.4	0.4	517	ND	491	493	ug/kg	05/20/1994	aal
TPH (Gas/BTXE,Solid)										
as Gasoline	94.0	94.4	0.4	5.00	ND	4.70	4.72	mg/kg	05/23/1994	lss
Benzene	80.2	85.8	6.7	197	ND	158	169	ug/kg	05/23/1994	lss
Toluene	87.2	90.2	3.4	523	ND	456	472	ug/kg	05/23/1994	lss
METHOD 3550/M8015										
as Diesel	119.8	77.8	42.4	16.7	18	38	31	mg/kg	05/18/1994	fyh

** Sample duplicates RPD.

Ref: 3055 35th Ave., Oakland

LABORATORY CONTROL SAMPLE REPORT

Parameter	LCS % Recovery	RPD	LCS Amount Found	LCS Amount Expected	Units	Date Analyzed	Analyst Initials
METHOD 3510/M8015 as Diesel	82.9		834	1006	mg/L	05/17/1994	sub/port
METHOD 3550/M8015 as Diesel	95.8		16.0	16.7	mg/kg	05/18/1994	fyh

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. 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

NET NATIONAL ENVIRONMENTAL TESTING, INC.

CHAIN OF CUSTODY RECORD

9269

COMPANY CAMBRIA ENVIRONMENTAL
ADDRESS 1144 65th AVE OAKLAND 94608
PHONE (510) 420-0700 FAX (510) 420-9170
PROJECT NAME/LOCATION 3055 35th AVE, OAKLAND
PROJECT NUMBER
PROJECT MANAGER SCOTT MALLEOD

REPORT TO: SCOTT MALLEOD
INVOICE TO: CAMBRIA
P.O. NO.
NET QUOTE NO.

SAMPLED BY
SCOT MALLEOD (PRINT NAME) SIGNATURE
(PRINT NAME) SIGNATURE

DATE	TIME	SAMPLE ID DESCRIPTION	GRAB	COMP	# OF CONTAINERS TYPE	MATRIX	PRESERVED Y/N	ANALYSES: TPH-G BTEX, TPH-D, Lead	
5/9/94	7:30	SB-E 6 ft	X		1 TUBE	SOIL	N		HOLD
	7:40	11						X X X	
	7:45	16						X X X	
	7:50	21							HOLD
	8:20	SB-F 6							HOLD
	8:35	11						X X X	
	9:00	15						X X X	
	9:00	16							HOLD
	9:15	21							HOLD
	10:45	SB-G 6							HOLD
	11:00	11						X X X	
	11:10	15						X X X	
	11:25	21							HOLD

CUSTODY SEALED 5/10/94

CONDITION OF SAMPLE: BOTTLES INTACT? YES / NO
FIELD FILTERED? YES / NO
COC SEALS PRESENT AND INTACT? YES / NO
VOLATILES FREE OF HEADSPACE? YES / NO
TEMPERATURE UPON RECEIPT: 0.9°C
seal intact

SAMPLE REMAINDER DISPOSAL: RETURN SAMPLE REMAINDER TO CLIENT VIA
LOCKED IN SECURE STORAGE REQUEST NET TO DISPOSE OF ALL SAMPLE REMAINDERS
DATE

RELINQUISHED BY:	DATE/TIME	RECEIVED BY:	RELINQUISHED BY:	DATE/TIME	RECEIVED FOR NET BY:
	5/9/94 14:20	5/10/94 09:50		5/10/94 16:00	5/11/94 0800

METHOD OF SHIPMENT: via NCS
REMARKS:

PT 1 - ORIGINAL - WHITE PT 2 - NET PROJECT MANAGER - YELLOW PT 3 - CUSTOMER COPY - PINK

NET NATIONAL ENVIRONMENTAL TESTING, INC.

CHAIN OF CUSTODY RECORD

9269

COMPANY: CAMBRIA ENVIRONMENTAL
ADDRESS:
PHONE: FAX:
PROJECT NAME/LOCATION:
PROJECT NUMBER:
PROJECT MANAGER:

REPORT TO: SC
INVOICE TO:
P.O. NO.:
NET QUOTE NO.:

SAMPLED BY
(PRINT NAME) SIGNATURE
(PRINT NAME) SIGNATURE

ANALYSES: BTEX (struck out); TPH-D/motor oil; TPH-G/BTEX

DATE	TIME	SAMPLE ID DESCRIPTION	GRAB	COMP	# OF CONTAINERS TYPE	MATRIX	PRESERVED Y/N	BTEX (struck) / TPH-D/motor oil	TPH-G/BTEX		COMMENTS
5/6/94	7:20	SB-A GW	Y		1 l	H2O	Y	X			
↓	7:20	↓	↓		1 l	↓	N		X		
	7:20				3 VOA		Y				HOLD
	7:30	SB-B GW			1 l		Y	X			
	7:30				1 l		N		X		
	7:30				3 VOA		Y				← HOLD * 2 of 3 voas w/headspace. AL 5/11
	8:00	SB-D GW			1 l		Y	X (struck)	X		
↓	8:00	"	↓		3 VOA	↓	Y			X	

** IF POSSIBLE, ANALYZE SB-D GW SAMPLE IN 1 l BOTTLE FOR TPH-D.

* 1 l amber for SB-D GW rec'd preserved w/ H2SO4. AL 5/11

(CUSTODY SEALED 5/10/94 @ [signature])

CONDITION OF SAMPLE: BOTTLES INTACT? YES / NO
FIELD FILTERED? YES / NO
COC SEALS PRESENT AND INTACT? YES / NO
VOLATILES FREE OF HEADSPACE? YES / NO
TEMPERATURE UPON RECEIPT: 0.9°C
seal intact

SAMPLE REMAINDER DISPOSAL: RETURN SAMPLE REMAINDER TO CLIENT VIA
I REQUEST NET TO DISPOSE OF ALL SAMPLE REMAINDERS DATE
LOCKED IN SECURE SAMPLE STORAGE AREA

RELINQUISHED BY:	DATE/TIME	RECEIVED BY:	RELINQUISHED BY:	DATE/TIME	RECEIVED FOR NET BY:
[signature]	5/5/94 14:20	[signature] 5/10/94 09:50	[signature]	5/10/94 16:00	[signature] 5/11/94 08:00

METHOD OF SHIPMENT: VIA NCS

REMARKS:

PT 1 - ORIGINAL - WHITE PT 2 - NET PROJECT MANAGER - YELLOW PT 3 - CUSTOMER COPY - PINK

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: 06/08/1994
NET Client Acct. No: 98900
NET Pacific Job No: 94.02247
Received: 05/28/1994

Client Reference Information

3055 35th Ave., Oakland

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

SAMPLE DESCRIPTION: MW-1
Date Taken: 05/25/1994
Time Taken: 10:30
NET Sample No: 195737

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed
TPH (Gas/BTXE,Liquid)							
METHOD 5030/M8015	--						06/02/1994
DILUTION FACTOR*	1,000						06/02/1994
as Gasoline	120		50	mg/L	5030		06/02/1994
METHOD 8020 (GC,Liquid)	--						06/02/1994
Benzene	22,000		500	ug/L	8020		06/02/1994
Toluene	17,000		500	ug/L	8020		06/02/1994
Ethylbenzene	2,800		500	ug/L	8020		06/02/1994
Xylenes (Total)	16,000		500	ug/L	8020		06/02/1994
SURROGATE RESULTS	--						06/02/1994
Bromofluorobenzene (SURR)	102			% Rec.	5030		06/02/1994
METHOD M8015 (EXT., Liquid)						06/01/1994	
DILUTION FACTOR*	100						06/03/1994
as Diesel	25	DL	5	mg/L	3510		06/03/1994
as Motor Oil	ND		50	mg/L	3510		06/03/1994

DL : The positive result appears to be a lighter hydrocarbon than Diesel.

Ref: 3055 35th Ave., Oakland

SAMPLE DESCRIPTION: MW-2
Date Taken: 05/25/1994
Time Taken: 11:30
NET Sample No: 195738

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed
TPH (Gas/BTXE,Liquid)							
METHOD 5030/M8015	--						06/03/1994
DILUTION FACTOR*	1						06/03/1994
as Gasoline	61		0.05	mg/L	5030		06/03/1994
METHOD 8020 (GC,Liquid)	--						06/03/1994
Benzene	9,900		0.5	ug/L	8020		06/03/1994
Toluene	7,400		0.5	ug/L	8020		06/03/1994
Ethylbenzene	960		0.5	ug/L	8020		06/03/1994
Xylenes (Total)	4,600		0.5	ug/L	8020		06/03/1994
SURROGATE RESULTS	--						06/03/1994
Bromofluorobenzene (SURR)	103			% Rec.	5030		06/03/1994
METHOD M8015 (EXT., Liquid)						06/01/1994	
DILUTION FACTOR*	10						06/03/1994
as Diesel	6.9	DL	0.5	mg/L	3510		06/03/1994
as Motor Oil	ND		5	mg/L	3510		06/03/1994

DL : The positive result appears to be a lighter hydrocarbon than Diesel.

Ref: 3055 35th Ave., Oakland

SAMPLE DESCRIPTION: MW-3
Date Taken: 05/25/1994
Time Taken: 11:00
NET Sample No: 195739

Parameter	Results	Flags	Reporting Limit	Units	Method	Date Extracted	Date Analyzed
TPH (Gas/BTXE,Liquid)							
METHOD 5030/M8015	--						06/02/1994
DILUTION FACTOR*	1,000						06/02/1994
as Gasoline	56		50	mg/L	5030		06/02/1994
METHOD 8020 (GC,Liquid)	--						06/02/1994
Benzene	14,000		500	ug/L	8020		06/02/1994
Toluene	14,000		500	ug/L	8020		06/02/1994
Ethylbenzene	1,300		500	ug/L	8020		06/02/1994
Xylenes (Total)	11,000		500	ug/L	8020		06/02/1994
SURROGATE RESULTS	--						06/02/1994
Bromofluorobenzene (SURR)	70			% Rec.	5030		06/02/1994
METHOD M8015 (EXT., Liquid)						06/01/1994	
DILUTION FACTOR*	100						06/03/1994
as Diesel	14	DL	5	mg/L	3510		06/03/1994
as Motor Oil	ND		50	mg/L	3510		06/03/1994

DL : The positive result appears to be a lighter hydrocarbon than Diesel.

Ref: 3055 35th Ave., Oakland

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	94.0	0.94	1.00	mg/L	06/03/1994	aal
Benzene	114.4	5.72	5.00	ug/L	06/03/1994	aal
Toluene	107.6	5.38	5.00	ug/L	06/03/1994	aal
Ethylbenzene	105.8	5.29	5.00	ug/L	06/03/1994	aal
Xylenes (Total)	104.0	15.6	15.0	ug/L	06/03/1994	aal
Bromofluorobenzene (SURR)	100.0	100	100	% Rec.	06/03/1994	aal
TPH (Gas/BTXE,Liquid)						
as Gasoline	101.0	1.01	1.00	mg/L	06/02/1994	aal
Benzene	112.2	5.61	5.00	ug/L	06/02/1994	aal
Toluene	110.2	5.51	5.00	ug/L	06/02/1994	aal
Ethylbenzene	108.4	5.42	5.00	ug/L	06/02/1994	aal
Xylenes (Total)	107.3	16.1	15.0	ug/L	06/02/1994	aal
Bromofluorobenzene (SURR)	104.0	104	100	% Rec.	06/02/1994	aal
METHOD M8015 (EXT., Liquid)						
as Diesel	102.0	1020	1000	mg/L	06/03/1994	fyh
as Motor Oil	107.6	1076	1000	mg/L	06/03/1994	fyh

Ref: 3055 35th Ave., Oakland

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	06/03/1994	aal
Benzene	ND	0.5	ug/L	06/03/1994	aal
Toluene	ND	0.5	ug/L	06/03/1994	aal
Ethylbenzene	ND	0.5	ug/L	06/03/1994	aal
Xylenes (Total)	ND	0.5	ug/L	06/03/1994	aal
Bromofluorobenzene (SURR)	100		% Rec.	06/03/1994	aal
TPH (Gas/BTXE,Liquid)					
as Gasoline	ND	0.05	mg/L	06/02/1994	aal
Benzene	ND	0.5	ug/L	06/02/1994	aal
Toluene	ND	0.5	ug/L	06/02/1994	aal
Ethylbenzene	ND	0.5	ug/L	06/02/1994	aal
Xylenes (Total)	ND	0.5	ug/L	06/02/1994	aal
Bromofluorobenzene (SURR)	105		% Rec.	06/02/1994	aal
METHOD M8015 (EXT., Liquid)					
as Diesel	ND	0.05	mg/L	06/03/1994	fyh
as Motor Oil	ND	0.5	mg/L	06/03/1994	fyh

Ref: 3055 35th Ave., Oakland

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	Analyst Initials
TPH (Gas/BTXE,Liquid)										
as Gasoline	82.0	82.0	0.0	1.00	0.33	1.15	1.15	mg/L	06/02/1994	klh
Benzene	N/A	N/A	1.6	34.2	62	39.2	38.8	ug/L	06/03/1994	aal
Toluene	99.4	98.5	0.9	96.5	1.1	97.0	96.2	ug/L	06/02/1994	klh
TPH (Gas/BTXE,Liquid)										
as Gasoline	101.0	100.0	1.0	1.00	ND	1.01	1.00	mg/L	06/02/1994	aal
Benzene	102.6	101.2	1.4	34.5	ND	35.4	34.9	ug/L	06/02/1994	aal
Toluene	102.5	100.5	2.0	99.5	ND	102	100	ug/L	06/02/1994	aal
METHOD M8015 (EXT., Liquid)										
as Diesel	80.5	69.5	14.7	2.00	0.21	1.82	1.60	mg/L	06/03/1994	fyh

Ref: 3055 35th Ave., Oakland

LABORATORY CONTROL SAMPLE REPORT

Parameter	LCS % Recovery	RPD	LCS Amount Found	LCS Amount Expected	Units	Date Analyzed	Analyst Initials
METHOD M8015 (EXT., Liquid) as Diesel	64.0		0.64	1.00	mg/L	06/03/1994	fyh

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
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(408) 995-5535
FAX (408) 293-8773

CHAIN OF CUSTODY 940525F1

CLIENT Cambria

SITE 3055 35th Ave
Oakland CA.

CONDUCT ANALYSIS TO DETECT

LAB NET (9581) DHS #

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

- ☐ EPA
- ☐ LIA
- ☐ OTHER
- ☑ RWQCB REGION 2

SPECIAL INSTRUCTIONS

Invoice & Report to:
Cambria Environmental

SAMPLE I.D.	DATE	TIME	MATRIX S = SOIL W = H2O	CONTAINERS TOTAL	40 ml VOA HCl / 1 LTR unple	C = COMPOSITE ALL CONTAINERS	TPHG - BTEX 8015/8020	TPHD & TPHMO modified 8015	ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
MW-1	5/25/94	1030		5			X	X		Routine		
MW-2	↓	1130		5	↓		X	X		↓		
MW-3	↓	1100		5	↓		X	X		↓		

CUSTODY SEALED @ 5/27/94 [signature]

SAMPLING COMPLETED DATE 5/25/94 TIME 1130

SAMPLING PERFORMED BY Tom Flory

RESULTS NEEDED NO LATER THAN NORMAL TURNAROUND

RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
[signature]	5/27/94	10:00 Am	[signature]	5/27/94	10:00
[signature]	5/27/94	11:30			
			[signature]	5/28/94	1000

SHIPPED VIA	DATE SENT	TIME SENT	COOLER #	
NCS				Temp Read: 9.1°C

CAMBRIA

APPENDIX D

Standard Field Procedures

STANDARD FIELD PROCEDURES

This document describes standard field methods for drilling and sampling soil borings and installing, developing and sampling ground water monitoring wells. These procedures are designed to comply with Federal, State and local regulatory guidelines. Specific field procedures are summarized below.

SOIL BORING AND SAMPLING

Objectives

Soil samples are collected to characterize subsurface lithology, assess whether the soils exhibit obvious hydrocarbon or other compound vapor or staining, and to collect samples for analysis at a State-certified laboratory. All borings are logged using the Unified Soil Classification System by a trained geologist working under the supervision of a California Registered Geologist (RG) or a Certified Engineering Geologist (CEG).

Soil Boring and Sampling

Soil borings are typically drilled using solid flight or hollow-stem augers. Soil samples are collected at least every five ft to characterize the subsurface sediments and for possible chemical analysis. Additional soil samples are collected near the water table and at lithologic changes. Samples are collected using split-barrel samplers lined with steam-cleaned brass or stainless steel tubes that are driven through the hollow auger stem into undisturbed sediments at the bottom of the borehole. Samples are driven using a 140 pound hammer dropped 30 inches.

Drilling and sampling equipment is steam-cleaned prior to drilling and between borings to prevent cross-contamination. Sampling equipment is washed between samples with trisodium phosphate or an equivalent EPA-approved detergent.

Sample Analysis

Sampling tubes chosen for analysis are trimmed of excess soil and capped with Teflon tape and plastic end caps. Soil samples are labelled and stored at or below 4°C on either crushed or dry ice, depending upon local regulations. Samples are transported under chain-of-custody to a State-certified analytic laboratory.

Field Screening

One of the remaining tubes is partially emptied leaving about one-third of the soil in the tube. The tube is capped with plastic end caps and set aside to allow hydrocarbons to volatilize from the soil. After ten to fifteen minutes, a portable photoionization detector (PID) measures volatile hydrocarbon vapor

concentrations in the tube headspace, extracting the vapor through a slit in the cap. PID measurements are used along with the stratigraphy and ground water depth to select soil samples for analysis.

Grouting

If the borings are not completed as wells, the borings are filled to the ground surface with cement grout poured or pumped through a tremie pipe. If wells are completed in the borings, the well installation, development and sampling procedures summarized below are followed.

MONITORING WELL INSTALLATION, DEVELOPMENT AND SAMPLING

Well Construction and Surveying

Wells are installed to monitor ground water quality and determine the ground water elevation, flow direction and gradient. Well depths and screen lengths are based on ground water depth, occurrence of hydrocarbons or other compounds in the borehole, stratigraphy and State and local regulatory guidelines. Well screens typically extend 10 to 15 ft below and 5 ft above the static water level at the time of drilling. However, the well screen will generally not extend into or through a clay layer that is at least three ft thick.

Well casing and screen are flush-threaded, Schedule 40 PVC. Screen slot size varies according to the sediments screened, but slots are generally 0.010 or 0.020 inches wide. A rinsed and graded sand occupies the annular space between the boring and the well screen to about one to two ft above the well screen. A two ft thick hydrated bentonite seal separates the sand from the overlying sanitary surface seal composed of Portland type I,II cement.

Well-heads are secured by locking well-caps inside traffic-rated vaults finished flush with the ground surface. A stovepipe may be installed between the well-head and the vault cap for additional security.

The well top-of-casing elevation is surveyed with respect to mean sea level and the well is surveyed for horizontal location with respect to an onsite or nearby offsite landmark.

Well Development

Wells are generally developed using a combination of ground water surging and extraction. Surging agitates the ground water and dislodges fine sediments from the sand pack. After about ten minutes of surging, ground water is extracted from the well using bailing, pumping and/or reverse air-lifting through an eductor pipe to remove the sediments from the well. Surging and extraction continue until at least ten well-casing volumes of ground water are extracted and the sediment volume in the ground water is negligible. This process usually occurs prior to installing the sanitary surface seal to ensure sand pack stabilization. If development occurs after surface seal installation, then development occurs 24 to 72 hours after seal installation to ensure that the Portland cement has set up correctly.

All equipment is steam-cleaned prior to use and air used for air-lifting is filtered to prevent oil entrained in the compressed air from entering the well. Wells that are developed using air-lift evacuation are not sampled until at least 24 hours after they are developed.

Ground Water Sampling

Depending on local regulatory guidelines, three to four well-casing volumes of ground water are purged prior to sampling. Purging continues until ground water pH, conductivity, and temperature have stabilized. Ground water samples are collected using bailers or pumps and are decanted into the appropriate containers supplied by the analytic laboratory. Samples are labelled, placed in protective foam sleeves, stored on crushed ice at or below 4°C, and transported under chain-of-custody to the laboratory. Laboratory-supplied trip blanks accompany the samples and are analyzed to check for cross-contamination. An equipment blank may be analyzed if non-dedicated sampling equipment is used.