RO 342

CAMBRIA

March 17, 2004

Mr. Don Hwang
Alameda County Environmental Health Services
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Re: **Soil Profiling Investigation**
Chevron Station 9-4800
1700 Castro Street
Oakland, California

Dear Mr. Hwang:

Cambria Environmental Technology, Inc. (Cambria) is submitting this soil profiling report on behalf of Chevron Environmental Management Company (Chevron) to pre-profile soil prior to excavation and site upgrade activities at the referenced site (Figure 1). Chevron intends to upgrade the site facilities, including removing the underground storage tanks (USTs), piping and dispenser islands, and install two new USTs in a different location (Figure 2). The purpose of the pre-profile sampling program will determine whether soil excavated from the new UST installation can be reused on-site as part of the grading operations or if it needs to be properly disposed of at an off-site waste facility. To facilitate installation of the new USTs, Cambria advanced GeoProbe® soil borings B-1 through B-4 at the outer limits of the proposed UST location. The soil samples were submitted to an analytical laboratory where the samples were composited from each boring for chemical analyses. A brief discussion of the site description, proposed development and subsurface investigation are discussed below.

Site Description

The site is an active Chevron service station located on the southeast corner of Castro and 18th Streets in Oakland, California. The current facility consists of four gasoline USTs that share a common excavation in the northern portion of the site, a kiosk and five dispenser islands. Presently, there are six monitoring wells installed on the site and one well northwest of the property to monitor groundwater conditions related to a past hydrocarbon release. Locations of pertinent site features are shown on Figure 2.

Cambria Environmental Technology, Inc.

5900 Hollis Street
Suite A
Emeryville, CA 94608
Tel (510) 420-0700
Fax (510) 420-9170

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Proposed Redevelopment

As currently planned, the existing structures will be razed and replaced with a mini-mart, five dispenser islands and two UST's (one 15,000-gallon and one 20,000-gallon). The two new USTs will be located in the southern portion of the site (Figure 2). It is estimated that approximately 1,200-cubic yards of soil will be excavated as part of the installation of the new USTs. As part of the reconstruction plans the existing monitoring wells will not be removed.

Soil Borings

Permits: A copy of the Alameda County Public Works Agency Permit No. W04-0182 is presented as Attachment A.

Drilling Date: March 5, 2004.

Drilling Company: Woodward Drilling Company of Rio Vista, California (C-57# 710079).

Sampling Personnel: Senior Staff Scientist Daniel Glaze conducted all fieldwork under the supervision of California Registered Geologist Thomas Sparrowe.

Drilling: Per Chevron requirements, the first eight feet of each soil boring was cleared using a vacuum truck and water knife. The borings were then advanced with a GeoProbe® rig using 2-inch diameter macrocore barrels.

Soil Description: Soil encountered during this investigation consists of silty sand and sand. Boring logs are presented as Attachment B.

Soil Sampling: Four-foot depth samples were collected with a hand-auger and placed into 6-inch sections of acetate liners. Below 8-feet below grade (fbg), soil samples were collected by hydraulically pushing a 2-inch diameter, 4-foot long acetate lined macrocore barrel into undisturbed sediments. Additional samples were collected at 8, 12 and 16 fbg.

Soil Screening: Soil samples were screened in the field using a photoionization detector (PID). PID readings, stratigraphic location and pertinent information are described on the boring logs (Attachment B).

Laboratory Analyses: Table 1 summarizes the soil analytical results. The laboratory analytic report is presented as Attachment C. Soil samples were analyzed for the following analytes:

- Total petroleum hydrocarbons as gasoline (TPHg) by EPA Method 8015M,
- Benzene, toluene, ethylbenzene, xylenes (BTEX) and methyl tertiary butyl ether (MTBE) by 8021B, and
- Total Lead by EPA Method 6010B.

Soil Disposal: Soil cuttings and rinse water were stored onsite in 55-gallon DOT approved drums. Integrated Waste Management, Inc. of Milpitas, California, will transport the soil and rinse water to a Chevron-approved facility for disposal.

Laboratory Test Results and Discussion

No TPHg, BTEX, or MTBE were detected in any of the composited soil samples. Total lead was detected in each sample at concentrations ranging from 3.41 to 4.02 milligrams per kilogram (mg/kg) and are below background levels found in the area. The "arithmetic mean" concentration of lead in the soil is 7 mg/kg as referenced in Table 3 of the Lawrence Berkeley National Laboratory (LBNL) *Analysis of Background Distributions of Metals in Soil at LBNL* (June 2002). Since the lead concentrations in composite samples are below background levels, soil in the proposed new UST excavation can be used as suitable fill material provided that the soil can meet compaction standards.

Closing

Please call Mr. Thomas Sparrowe at (510) 420-3301 if you have any questions or comments.

Sincerely,
Cambria Environmental Technology, Inc.

Daniel Glaze
Senior Staff Scientist

Thomas Sparrowe, R.G.
Project Geologist

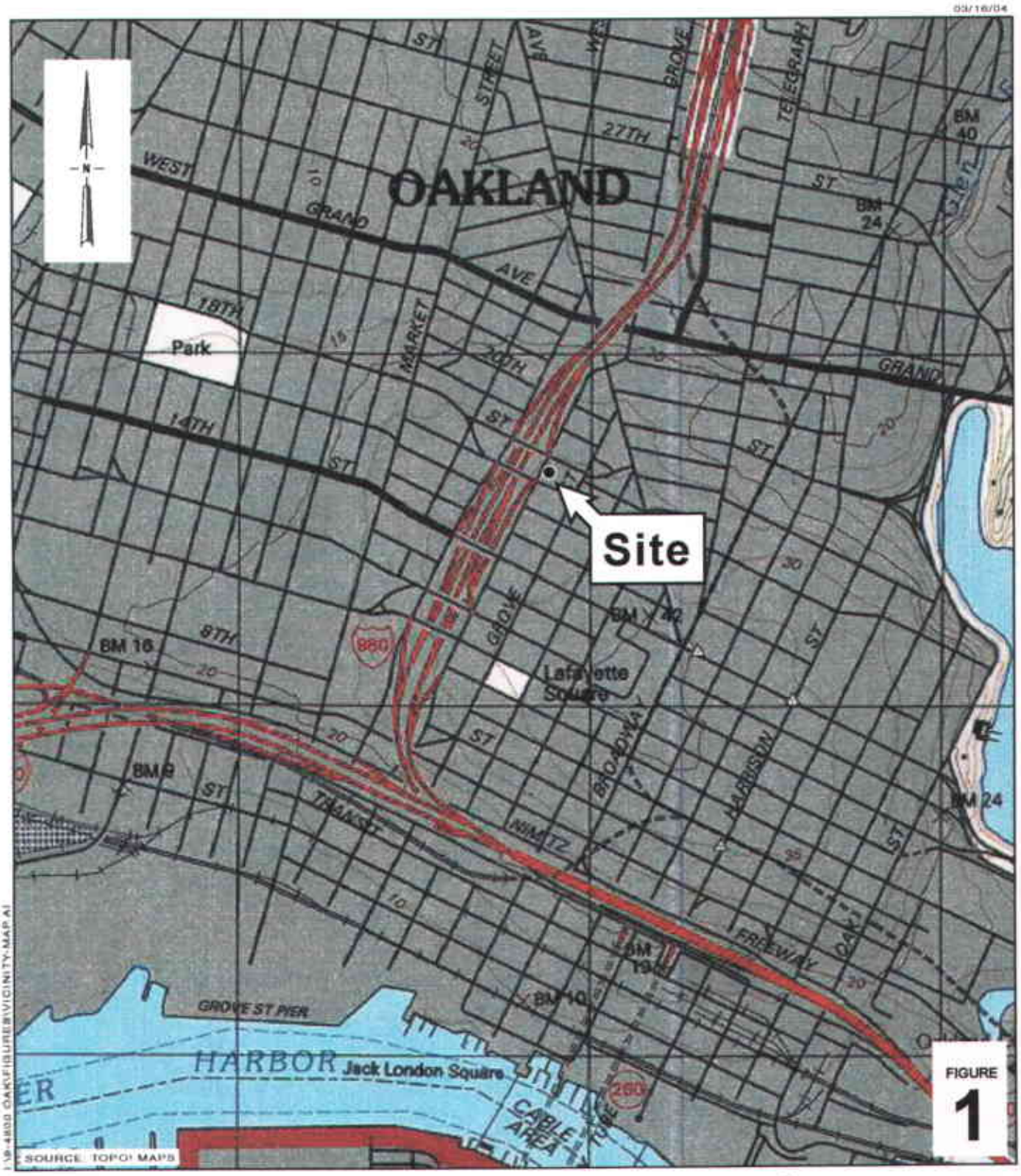
REGISTERED GEOLOGIST
THOMAS A. SPARROWE
5065
Exp. 12/31/04
STATE OF CALIFORNIA

Figures: 1 – Vicinity Map
2 – Site Plan

Table: 1 – Soil Analytical Results

Attachments: A – Boring Permit
B – Boring Logs
C – Laboratory Analytical Report

Cc: Ms. Karen Streich, Chevron Environmental Management Company, P.O. Box 6012, San Ramon, California 94583



Chevron Service Station 9-4800

1700 Castro Street

Oakland, California

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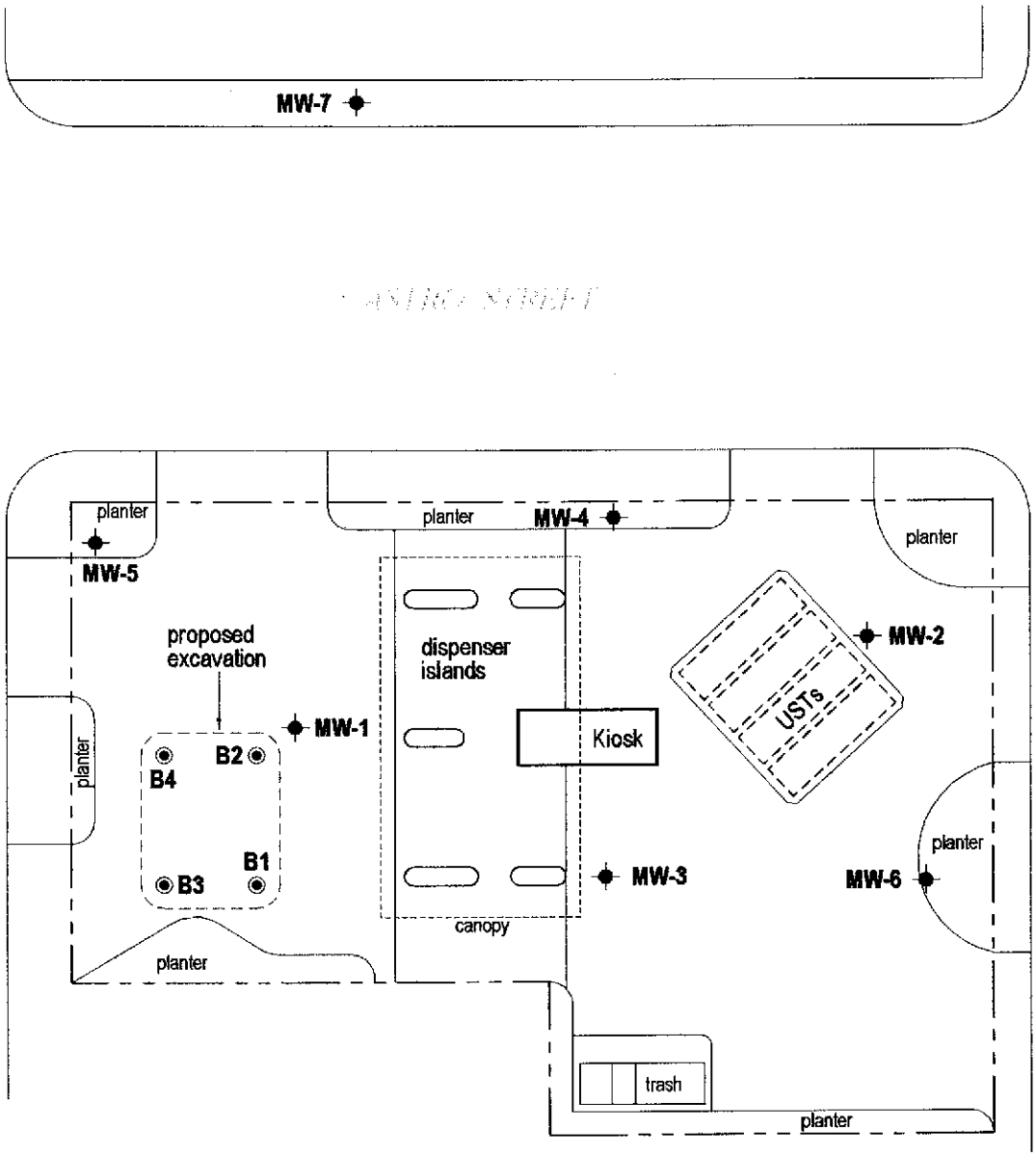
Vicinity Map



EXPLANATION

MW-1 ✦ Monitoring well location

SB-1 ◉ Soil boring location

0 20 40

Scale (ft)

FIGURE

2

Chevron Service Station 9-4800

1700 Castro Street

Oakland, California

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Site Plan

Table 3. Analytical Results for Soil - Chevron Station 9-4800, 1700 Castro Street, Oakland, California

Sample ID	Sample Date	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Total Lead
		(concentrations reported in mg/kg)						
Comp-1 (B-1)	3/5/2004	<1.0	<0.005	<0.005	<0.005	<0.02	<0.05	**3.57**
Comp-2 (B-2)	3/5/2004	<1.0	<0.005	<0.005	<0.005	<0.02	<0.05	**3.41**
Comp-3 (B-3)	3/5/2004	<1.0	<0.005	<0.005	<0.005	<0.02	<0.05	**3.70**
Comp-4 (B-4)	3/5/2004	<1.0	<0.005	<0.005	<0.005	<0.02	<0.05	**4.02**

Abbreviations/Notes:

TPHg = Total petroleum hydrocarbons as gasoline analyzed using modified EPA Method 8015B.
Benzene, Toluene, Ethylbenzene, Xylenes (BTEX) and Methyl Tertiary Butyl Ether (MTBE) analyzed using EPA Method 8021B.
mg/kg = milligrams per kilogram.
< = Results not detected above method detection limits.
Total lead analyzed using EPA Method 6010B.

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ATTACHMENT A

Boring Permit

ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION
399 ELMHURST ST. HAYWARD CA. 94544-1395
PHONE (510) 670-6633 James Yoo
FAX (510) 782-1939
APPLICANTS: PLEASE ATTACH A SITE MAP FOR ALL DRILLING PERMIT APPLICATIONS
DESTRUCTION OF WELLS OVER 45 FEET REQUIRES A SEPARATE PERMIT APPLICATION

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT 1700 Castro Street Oakland

CLIENT
Name Chevron Texaco
Address Po Box 6012 Phone
City San Ramon CA Zip 94583

APPLICANT
Name Dan Glaze w/ Cambria
Fax 510-420-9170
Address 5900 Hollis St. Ste A. Phone 510-420-3318
City Emeryville CA Zip 94608

TYPE OF PROJECT
Well Construction
Cathodic Protection
Water Supply
Monitoring
Geotechnical Investigation
General ☐
Contamination ☒
Well Destruction ☐

PROPOSED WATER SUPPLY WELL USE
New Domestic ☐ Replacement Domestic ☐
Municipal ☐ Irrigation ☐
Industrial ☐ Other ☐

DRILLING METHOD:
Mud Rotary ☐ Air Rotary ☐ Auger ☐
Cable ☐ Other ☒ GeoProbe

DRILLER'S NAME Woodward Drilling Co.
DRILLER'S LICENSE NO. C57 710879

WELL PROJECTS
Drill Hole Diameter ___ in. Maximum
Casing Diameter ___ in. Depth ___ ft.
Surface Seal Depth ___ ft. Owner's Well Number ___

GEOTECHNICAL PROJECTS
Number of Borings 4
Hole Diameter 2 in. Maximum Depth 20 ft.

STARTING DATE 3/5/2004
COMPLETION DATE 3/5/2004

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.
APPLICANT'S SIGNATURE Dan A Glaze DATE 3/1/04
PLEASE PRINT NAME Daniel A. Glaze

Rev.9-18-02

FOR OFFICE USE

PERMIT NUMBER W04-0182
WELL NUMBER
APN

PERMIT CONDITIONS
Circled Permit Requirements Apply

A. GENERAL
1. A permit application should be submitted so as to arrive at the ACPWA office five days prior to proposed starting date.
2. Submit to ACPWA within 60 days after completion of permitted original Department of Water Resources-Well Completion Report.
3. Permit is void if project not begun within 90 days of approval date.

B. WATER SUPPLY WELLS
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 and irrigation wells unless a lesser depth is specially approved.

C. GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

D. GEOTECHNICAL / Contamination
Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings.

E. CATHODIC
Fill hole anode zone with concrete placed by tremie.

F. WELL DESTRUCTION
Send a map of work site. A separate permit is required for wells deeper than 45 feet.

G. SPECIAL CONDITIONS B #1

NOTE: One application must be submitted for each well or well destruction. Multiple borings on one application are acceptable for geotechnical and contamination investigations.

APPROVED [signature] DATE 3-3-04

ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION
399 ELMHURST ST. HAYWARD, CA. 94544-1395
PHONE (510) 670-6633 James Yoo FAX (510) 782-1939

PERMIT NO. W04-0182

WATER RESOURCES SECTION
GROUNDWATER PROTECTION ORDINANCE
B#1-GENERAL CONDITIONS: GEOTECHNICAL & CONTAMINATION BOREHOLES

1. Prior to any drilling activities shall be the applicants responsibilities to contact and coordinate a Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits required for that Federal, State, County or to the City and follow all City or County Ordinances. No work shall begin until all the permits and requirements have been approved or obtained.

2. Boreholes shall not be left open for a period of more than **24 hours**. All boreholes left open more than 24 hours will need approval from Alameda County Public Works Agency, Water Resources Section. All boreholes shall be backfilled according to permit destruction requirements and all concrete material and asphalt material shall be to Caltrans Spec or County/City Codes. No borehole(s) shall be left in a manner to act as a conduit at any time.

3. Permitte, permittee's, contractors, consultants or agents shall be responsible to assure that all material or waters generated during drilling, boring destruction, and/or other activities associated with this Permit will be safely handled, properly managed, and disposed of according to all applicable federal, state, and local statues regulating such. In no case shall these materials and/or waters be allowed to enter, or potentially enter, on-or off site storm sewers, dry wells, or waterways or be allowed to move off the property where work is being completed.

4. Permit is valid only for the purpose specified herein **March 5 to March 5, 2004**. No changes in construction procedures, as described on this permit application. Boreholes shall not be converted to monitoring wells, without a permit application process.

5. Drilling Permit(s) can be voided/ canceled only in writing. It is the applicants responsibilities to notify Alameda County Public Works Agency, Water Resources Section in writing for an extension or to cancel the drilling permit application. No drilling permit application(s) shall be extended beyond ninety (90) days from the original start date. Applicants may not cancel a drilling permit application after the completion date of the permit issued has passed.

6. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.

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ATTACHMENT B

Boring Logs

Cambria Environmental Technology, Inc.
5900 Hollis Street, Suite A
Emeryville, CA 94608
Telephone: (510) 420-0700
Fax: (510) 420-9170

BORING/WELL LOG

CLIENT NAME	Chevron Products Company	**BORING/WELL NAME**	B1
JOB/SITE NAME	9-4800	**DRILLING STARTED**	05-Mar-04
LOCATION	1700 Castro Street, Oakland, California	**DRILLING COMPLETED**	05-Mar-04
PROJECT NUMBER	61D-1966	**WELL DEVELOPMENT DATE (YIELD)**	NA
DRILLER	Woodward Drilling	**GROUND SURFACE ELEVATION**	Not Surveyed
DRILLING METHOD	Hydraulic push	**TOP OF CASING ELEVATION**	Not Surveyed
BORING DIAMETER	2"	**SCREENED INTERVAL**	NA
LOGGED BY	Dan Glaze	**DEPTH TO WATER (First Encountered)**	NA ▽
REVIEWED BY	Tom Sparrowe	**DEPTH TO WATER (Static)**	NA ▼
REMARKS	Vacuum cleared to 8 fbg		

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
							Asphalt:	0.5	
1.5		B1 @ 4		5	SM		**Silty SAND:** Light brown; dry; loose; 75% well graded sand, 25% silt; non-plastic; medium estimated permeability.	4.0 4.5	
1.2		B1 @ 8					**Silty SAND:** Light brown; dry; loose; 85% well graded sand, 10% silt, 5% clay; non-plastic; high estimated permeability.	8.0	Portland Type I/II
1.1		B1 @ 12		10	SM				
0		B1 @ 16		15				16.0	Bottom of Boring @ 16 ft

WELL LOG (PID) I:\9-4800 OAKLAND\9-4800 GINT\9-4800 SOIL PROFILE 3.04.GPJ DEFAULT.GDT 3/16/04

Cambria Environmental Technology, Inc.
5900 Hollis Street, Suite A
Emeryville, CA 94608
Telephone: (510) 420-0700
Fax: (510) 420-9170

BORING/WELL LOG

CLIENT NAME	Chevron Products Company	**BORING/WELL NAME**	B2
JOB/SITE NAME	9-4800	**DRILLING STARTED**	05-Mar-04
LOCATION	1700 Castro Street, Oakland, California	**DRILLING COMPLETED**	05-Mar-04
PROJECT NUMBER	61D-1966	**WELL DEVELOPMENT DATE (YIELD)**	NA
DRILLER	Woodward Drilling	**GROUND SURFACE ELEVATION**	Not Surveyed
DRILLING METHOD	Hydraulic push	**TOP OF CASING ELEVATION**	Not Surveyed
BORING DIAMETER	2"	**SCREENED INTERVAL**	NA
LOGGED BY	Dan Glaze	**DEPTH TO WATER (First Encountered)**	NA
REVIEWED BY	Tom Sparrowe	**DEPTH TO WATER (Static)**	NA
REMARKS	Vacuum cleared		

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
							Asphalt:	0.5	
1.3		B2 @ 4		5	SM		**Silty SAND:** Light brown; dry; loose; 75% well graded sand, 25% silt; non-plastic; medium estimated permeability.	4.0 4.5	
1.6		B2 @ 8		10			**Silty SAND:** Light brown; dry; loose; 85% well graded sand, 15% silt; non-plastic; medium estimated permeability.	8.0	Portland Type I/II
1.4		B2 @ 12			SM				
0		B2 @ 16		15				16.0	Bottom of Boring @ 16 ft

WELL LOG (PID) I:\9-4800 OAKLAND\9-4800 GINT\9-4800 SOIL PROFILE 3.04.GPJ DEFAULT.GDT 3/16/04

Cambria Environmental Technology, Inc.
5900 Hollis Street, Suite A
Emeryville, CA 94608
Telephone: (510) 420-0700
Fax: (510) 420-9170

BORING/WELL LOG

CLIENT NAME	Chevron Products Company	**BORING/WELL NAME**	B3
JOB/SITE NAME	9-4800	**DRILLING STARTED**	05-Mar-04
LOCATION	1700 Castro Street, Oakland, California	**DRILLING COMPLETED**	05-Mar-04
PROJECT NUMBER	61D-1966	**WELL DEVELOPMENT DATE (YIELD)**	NA
DRILLER	Woodward Drilling	**GROUND SURFACE ELEVATION**	Not Surveyed
DRILLING METHOD	Hydraulic push	**TOP OF CASING ELEVATION**	Not Surveyed
BORING DIAMETER	2"	**SCREENED INTERVAL**	NA
LOGGED BY	Dan Glaze	**DEPTH TO WATER (First Encountered)**	NA
REVIEWED BY	Tom Sparrowe	**DEPTH TO WATER (Static)**	NA
REMARKS	Vacuum cleared		

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
							Asphalt:	0.5	
2.9		B3 @ 4		5			**Silty SAND:** Light brown; dry; loose; 75% well graded sand, 25% silt; non-plastic; medium estimated permeability.	4.0	
2.1		B3 @ 8							Portland Type I/II
				10	SM				
2.2		B3 @ 12							
				15					
0		B3 @ 16						16.0	Bottom of Boring @ 16 ft

WELL LOG (PID) I:\9-4800 OAKLAND\9-4800 GINT\9-4800 SOIL PROFILE 3.04.GPJ DEFAULT.GDT 3/16/04

Cambria Environmental Technology, Inc.
5900 Hollis Street, Suite A
Emeryville, CA 94608
Telephone: (510) 420-0700
Fax: (510) 420-9170

BORING/WELL LOG

CLIENT NAME	Chevron Products Company	**BORING/WELL NAME**	B4
JOB/SITE NAME	9-4800	**DRILLING STARTED**	05-Mar-04
LOCATION	1700 Castro Street, Oakland, California	**DRILLING COMPLETED**	05-Mar-04
PROJECT NUMBER	61D-1966	**WELL DEVELOPMENT DATE (YIELD)**	NA
DRILLER	Woodward Drilling	**GROUND SURFACE ELEVATION**	Not Surveyed
DRILLING METHOD	Hydraulic push	**TOP OF CASING ELEVATION**	Not Surveyed
BORING DIAMETER	2"	**SCREENED INTERVAL**	NA
LOGGED BY	Dan Glaze	**DEPTH TO WATER (First Encountered)**	NA
REVIEWED BY	Tom Sparrowe	**DEPTH TO WATER (Static)**	NA
REMARKS	Vacuum cleared		

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
							Asphalt:	0.5	
1.0		B4 @ 4		5	SM		**Silty SAND:** Light brown; dry; loose; 75% well graded sand, 25% silt; non-plastic; medium estimated permeability.	4.0 4.5	
1.2		B4 @ 8					**Silty SAND:** Light brown; dry; loose; 90% well graded sand, 10% silt; non-plastic; medium estimated permeability.	8.0	Portland Type I/II
1.0		B4 @ 12		10	SM				
1.4		B4 @ 16		15				16.0	Bottom of Boring @ 16 ft

WELL LOG (PID) I:\9-4800 OAKLAND\9-4800 GINT\9-4800 SOIL PROFILE 3.04.GPJ DEFAULT.GDT 3/16/04

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ATTACHMENT C

Laboratory Analytical Report

Lancaster Laboratories

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Analysis Report

ANALYTICAL RESULTS

Prepared for:

ChevronTexaco C/O Cambria
4111 Citrus Avenue
Suite 9
Rocklin CA 95677
916-630-1855

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

SAMPLE GROUP

The sample group for this submittal is 887373. Samples arrived at the laboratory on Saturday, March 06, 2004. The PO# for this group is 99011184 and the release number is MTI.

Client Description	Lancaster Labs Number
Comp 1 Composite Soil Sample	4229736
Comp 2 Composite Soil Sample	4229738
Comp 3 Composite Soil Sample	4229740
Comp 4 Composite Soil Sample	4229742

1 COPY TO	IWM, Inc.	Attn: Jay DeLeon
1 COPY TO	Cambria Emeryville	Attn: Ms. Dorothy Truslow

Questions? Contact your Client Services Representative
Alison M O'Connor at (717) 656-2300.

Respectfully Submitted,

Tina L. Thoman
Senior Chemist, Coordinator

Lancaster Laboratories

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Analysis Report

Lancaster Laboratories Sample No. SW 4229736

Comp 1 Composite Soil Sample
Facility# 94800
1700 Castro St.; Oakland, CA
Collected:03/05/2004 13:00 by DG

Account Number: 10880

Submitted: 03/06/2004 09:30
Reported: 03/15/2004 at 09:43
Discard: 04/15/2004

ChevronTexaco C/O Cambria
4111 Citrus Avenue
Suite 9
Rocklin CA 95677

ARCM1

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
06955	Lead	7439-92-1	3.57	0.775	mg/kg	1
01726	TPH-GRO - Soils					
01727	TPH-GRO - Soils	n.a.	N.D.	1.0	mg/kg	25
	The analysis for volatiles was performed on a sample which was preserved in methanol. The reporting limits were adjusted appropriately. The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time.					
02160	BTEX/MTBE					
02174	Benzene	71-43-2	N.D.	0.005	mg/kg	25
02177	Toluene	108-88-3	N.D.	0.005	mg/kg	25
02178	Ethylbenzene	100-41-4	N.D.	0.005	mg/kg	25
02182	Total Xylenes	1330-20-7	N.D.	0.02	mg/kg	25
02199	MTBE	1634-04-4	N.D.	0.05	mg/kg	25
	The analysis for volatiles was performed on a sample which was preserved in methanol. The reporting limits were adjusted appropriately.					

State of California Lab Certification No. 2116

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
06955	Lead	SW-846 6010B	1	03/09/2004 06:44	Joanne M Gates	1
01726	TPH-GRO - Soils	N. CA LUFT Gasoline Method	1	03/13/2004 23:52	Stephanie A Selis	25
02160	BTEX/MTBE	SW-846 8021B	1	03/13/2004 23:52	Stephanie A Selis	25
01150	GC VOA Soil Prep	SW-846 5035	1	03/08/2004 14:10	Jesse L Mertz	n.a.
05708	SW SW846 ICP Digest	SW-846 3050B	1	03/08/2004 13:35	Megan L Ross	1

Lancaster Laboratories

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Analysis Report

Lancaster Laboratories Sample No. SW 4229738

Comp 2 Composite Soil Sample
Facility# 94800
1700 Castro St.; Oakland, CA
Collected:03/05/2004 13:10 by DG

Account Number: 10880

Submitted: 03/06/2004 09:30
Reported: 03/15/2004 at 09:43
Discard: 04/15/2004

ChevronTexaco C/O Cambria
4111 Citrus Avenue
Suite 9
Rocklin CA 95677

ARCM2

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
06955	Lead	7439-92-1	3.41	0.790	mg/kg	1
01726	TPH-GRO - Soils					
01727	TPH-GRO - Soils	n.a.	N.D.	1.0	mg/kg	25

The analysis for volatiles was performed on a sample which was preserved in methanol. The reporting limits were adjusted appropriately.
The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time.

02160	BTEX/MTBE					
02174	Benzene	71-43-2	N.D.	0.005	mg/kg	25
02177	Toluene	108-88-3	N.D.	0.005	mg/kg	25
02178	Ethylbenzene	100-41-4	N.D.	0.005	mg/kg	25
02182	Total Xylenes	1330-20-7	N.D.	0.02	mg/kg	25
02199	MTBE	1634-04-4	N.D.	0.05	mg/kg	25

The analysis for volatiles was performed on a sample which was preserved in methanol. The reporting limits were adjusted appropriately.

State of California Lab Certification No. 2116

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
06955	Lead	SW-846 6010B	1	03/09/2004 06:50	Joanne M Gates	1
01726	TPH-GRO - Soils	N. CA LUFT Gasoline Method	1	03/14/2004 00:28	Stephanie A Selis	25
02160	BTEX/MTBE	SW-846 8021B	1	03/14/2004 00:28	Stephanie A Selis	25
01150	GC VOA Soil Prep	SW-846 5035	1	03/08/2004 14:11	Jesse L Mertz	n.a.
05708	SW SW846 ICP Digest	SW-846 3050B	1	03/08/2004 13:35	Megan L Ross	1

Lancaster Laboratories

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Analysis Report

Lancaster Laboratories Sample No. SW 4229740

Comp 3 Composite Soil Sample
Facility# 94800
1700 Castro St.; Oakland, CA
Collected:03/05/2004 13:20 by DG

Account Number: 10880

Submitted: 03/06/2004 09:30
Reported: 03/15/2004 at 09:43
Discard: 04/15/2004

ChevronTexaco C/O Cambria
4111 Citrus Avenue
Suite 9
Rocklin CA 95677

ARCM3

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
06955	Lead	7439-92-1	3.70	0.782	mg/kg	1
01726	TPH-GRO - Soils					
01727	TPH-GRO - Soils	n.a.	N.D.	1.0	mg/kg	25
	The analysis for volatiles was performed on a sample which was preserved in methanol. The reporting limits were adjusted appropriately. The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time.					
02160	BTEX/MTBE					
02174	Benzene	71-43-2	N.D.	0.005	mg/kg	25
02177	Toluene	108-88-3	N.D.	0.005	mg/kg	25
02178	Ethylbenzene	100-41-4	N.D.	0.005	mg/kg	25
02182	Total Xylenes	1330-20-7	N.D.	0.02	mg/kg	25
02199	MTBE	1634-04-4	N.D.	0.05	mg/kg	25
	The analysis for volatiles was performed on a sample which was preserved in methanol. The reporting limits were adjusted appropriately.					

State of California Lab Certification No. 2116

Laboratory Chronicle

CAT No.	Analysis Name	Method	Analysis Trial#	Analysis Date and Time	Analyst	Dilution Factor
06955	Lead	SW-846 6010B	1	03/09/2004 06:55	Joanne M Gates	1
01726	TPH-GRO - Soils	N. CA LUFT Gasoline Method	1	03/14/2004 01:04	Stephanie A Selis	25
02160	BTEX/MTBE	SW-846 8021B	1	03/14/2004 01:04	Stephanie A Selis	25
01150	GC VOA Soil Prep	SW-846 5035	1	03/08/2004 14:12	Jesse L Mertz	n.a.
05708	SW SW846 ICP Digest	SW-846 3050B	1	03/08/2004 13:35	Megan L Ross	1

Lancaster Laboratories

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Analysis Report

Lancaster Laboratories Sample No. SW 4229742

Comp 4 Composite Soil Sample
Facility# 94800
1700 Castro St.; Oakland, CA
Collected:03/05/2004 13:30 by DG

Account Number: 10880

Submitted: 03/06/2004 09:30
Reported: 03/15/2004 at 09:43
Discard: 04/15/2004

ChevronTexaco C/O Cambria
4111 Citrus Avenue
Suite 9
Rocklin CA 95677

ARCM4

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
06955	Lead	7439-92-1	4.02	0.775	mg/kg	1
01726	TPH-GRO - Soils					
01727	TPH-GRO - Soils	n.a.	N.D.	1.0	mg/kg	25
	The analysis for volatiles was performed on a sample which was preserved in methanol. The reporting limits were adjusted appropriately. The reported concentration of TPH-GRO does not include MTBE or other gasoline constituents eluting prior to the C6 (n-hexane) TPH-GRO range start time.					
02160	BTEX/MTBE					
02174	Benzene	71-43-2	N.D.	0.005	mg/kg	25
02177	Toluene	108-88-3	N.D.	0.005	mg/kg	25
02178	Ethylbenzene	100-41-4	N.D.	0.005	mg/kg	25
02182	Total Xylenes	1330-20-7	N.D.	0.02	mg/kg	25
02199	MTBE	1634-04-4	N.D.	0.05	mg/kg	25
	The analysis for volatiles was performed on a sample which was preserved in methanol. The reporting limits were adjusted appropriately.					

State of California Lab Certification No. 2116

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
06955	Lead	SW-846 6010B	1	03/09/2004 07:01	Joanne M Gates	1
01726	TPH-GRO - Soils	N. CA LUFT Gasoline Method	1	03/13/2004 19:39	Stephanie A Selis	25
02160	BTEX/MTBE	SW-846 8021B	1	03/13/2004 19:39	Stephanie A Selis	25
01150	GC VOA Soil Prep	SW-846 5035	1	03/08/2004 14:13	Jesse L Mertz	n.a.
05708	SW SW846 ICP Digest	SW-846 3050B	1	03/08/2004 13:35	Megan L Ross	1

Lancaster Laboratories

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Analysis Report

Quality Control Summary

Client Name: ChevronTexaco C/O Cambria
Reported: 03/15/04 at 09:43 AM

Group Number: 887373

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 040685708002	Sample number(s): 4229736,4229738,4229740,4229742							
Lead	N.D.	0.790	mg/kg	96		86-109		
Batch number: 04073A31A	Sample number(s): 4229736,4229738,4229740,4229742							
TPH-GRO - Soils	N.D.	1.0	mg/kg	102		67-119		
Benzene	N.D.	0.005	mg/kg	107		86-113		
Toluene	N.D.	0.005	mg/kg	90		88-113		
Ethylbenzene	N.D.	0.005	mg/kg	99		89-112		
Total Xylenes	N.D.	0.02	mg/kg	99		90-112		
MTBE	N.D.	0.05	mg/kg	116		70-131		

Sample Matrix Quality Control

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 040685708002	Sample number(s): 4229736,4229738,4229740,4229742								
Lead	90	91	75-125	1	20	7.71	8.20	6 (1)	20
Batch number: 04073A31A	Sample number(s): 4229736,4229738,4229740,4229742								
TPH-GRO - Soils	93	86	39-118	8	30				
Benzene	89	93	60-111	5	30				
Toluene	77	80	61-114	4	30				
Ethylbenzene	86	89	66-110	3	30				
Total Xylenes	87	90	66-112	3	30				
MTBE	93	91	50-119	2	30				

Surrogate Quality Control

Analysis Name: BTEX/MTBE
Batch number: 04073A31A

	Trifluorotoluene-F	Trifluorotoluene-P
4229736	95	104
4229738	92	102
4229740	95	102
4229742	92	103
Blank	103	110
LCS	119	111

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The background result was more than four times the spike added.

Lancaster Laboratories

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Analysis Report

Quality Control Summary

Client Name: ChevronTexaco C/O Cambria Group Number: 887373
Reported: 03/15/04 at 09:43 AM

Surrogate Quality Control

MS	103	95
MSD	102	96
Limits:	71-122	72-122

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The background result was more than four times the spike added.

Lancaster Laboratories
2425 New Holland Pike • Lancaster, PA 17601

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

N.D.	none detected	**BMQL**	Below Minimum Quantitation Level
TNTC	Too Numerous To Count	**MPN**	Most Probable Number
IU	International Units	**CP Units**	cobalt-chloroplatinate units
umhos/cm	micromhos/cm	**NTU**	nephelometric turbidity units
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
ug	microgram(s)	**mg**	milligram(s)
ml	milliliter(s)	**l**	liter(s)
m3	cubic meter(s)	**ul**	microliter(s)

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

J estimated value – The result falls within the Method Detection Limit (MDL) and Limit of Quantitation (LOQ).

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
C	Pesticide result confirmed by GC/MS
D	Compound quantitated on a diluted sample
E	Concentration exceeds the calibration range of the instrument
N	Presumptive evidence of a compound (TICs only)
P	Concentration difference between primary and confirmation columns >25%
U	Compound was not detected
X,Y,Z	Defined in case narrative

Inorganic Qualifiers

B	Value is <CRDL, but ≥IDL
E	Estimated due to interference
M	Duplicate injection precision not met
N	Spike sample not within control limits
S	Method of standard additions (MSA) used for calculation
U	Compound was not detected
W	Post digestion spike out of control limits
*****	Duplicate analysis not within control limits
+	Correlation coefficient for MSA <0.995

Analytical test results for methods listed on the laboratories' accreditation scope meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

Chevron California Region Analysis Request/Chain of Custody

Lancaster Laboratories — Where quality is a science

RUSH 030504-05

Acct. #: 10880 — For Lancaster Laboratories use only — Sample #: 4229736-43 — SCR#: 887373

Facility #: 9-4800
Site Address: 1700 Castro St. Oakland CA
Chevron PM: Karen Streich — Lead Consultant: Cambria
Consultant/Office: Cambria 5900 Hollis St, Emeryville
Consultant Prj. Mgr.: Tom Sparrowe
Consultant Phone #: 510-420-0700 — Fax #: 510-420-9170
Sampler: Dan Glaze
Service Order #: ____ ☐ Non SAR: ____

Analyses Requested

Preservation Codes

Preservative Codes
H = HCl — T = Thiosulfate
N = HNO_3 — B = NaOH
S = H_2SO_4 — O = Other

☐ J value reporting needed
☐ Must meet lowest detection limits possible for 8260 compounds
8021 MTBE Confirmation
☐ Confirm highest hit by 8260
☐ Confirm all hits by 8260
☐ Run ____ oxy's on highest hit
☐ Run ____ oxy's on all hits

Field Point Name	Matrix	Repeat Sample	Top Depth	Year Month Day	Time Collected	New Field Pt.	Grab	Composite	Total Number of Containers	BTEX + MTBE 8260 ☐ 8021 ☒	TPH 8015 MOD GRO	TPH 8015 MOD DRO ☐ Silica Gel Cleanup	8260 full scan	Oxygenates	Lead 7420 ☐ 7421 ☐	Total Lead
Comp 1	Soil			04-03-05	1300	NO		X	4	X	X					X
Comp 2	"			"	1310	"		"	"	"	"					"
Comp 3	"			"	1320	"		"	"	"	"					"
Comp 4	"			"	1330	"		"	"	"	"					"

4 sleeves each

Comments / Remarks
Run STLC if necessary

Turnaround Time Requested (TAT) (please circle)
STD. TAT — 72 hour — 48 hour
24 hour — 4 day — (5 day)

Data Package Options (please circle if required)
(QC Summary) — Type I – Full
Type VI (Raw Data) — ☒ Coelt Deliverable not needed
WIP (RWQCB)
Disk

	Date	Time		Date	Time
Relinquished by:	3/5/04	1600	Received by:	3/5/04	1600
Relinquished by:	3/5/04	1630	Received by: Airborne	3/5/04	
Relinquished by:			Received by:		
Relinquished by Commercial Carrier: UPS FedEx Other			Received by:	3/6/04	0930
Temperature Upon Receipt 4 C°			Custody Seals Intact? (Yes) No		