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TRANSMITTAL

DATE: February 26, 2010

REFERENCE NO.: 240898

PROJECT NAME: 510 East 14th Street (506-510 International Boulevard), Oakland

TO: Jerry Wickham
Alameda County Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Please find enclosed:
- ☐ Draft
- ☐ Originals
- ☐ Prints
- ☒ Final
- ☐ Other

Sent via:
- ☐ Mail
- ☐ Overnight Courier
- ☐ Same Day Courier
- ☒ Other GeoTracker and Alameda County FTP

QUANTITY	DESCRIPTION
1	Closure Request

- ☐ As Requested
- ☐ For Your Use
- ☒ For Review and Comment
- ☐
- ☐

COMMENTS:
If you have any questions regarding the contents of this document, please call Peter Schaefer at (510) 420-3319.

Copy to: Denis Brown, Shell Oil Products US, 20945 S. Wilmington Avenue, Carson, CA 90810
SF Data Room *(electronic copy)*

Completed by: Peter Schaefer Signed: Peter Schaefer

Filing: **Correspondence File**

Denis L. Brown
Shell Oil Products US
HSE – Environmental Services
20945 S. Wilmington Ave.
Carson, CA 90810-1039
Tel (707) 865 0251
Fax (707) 865 2542
Email denis.l.brown@shell.com

Jerry Wickham
Alameda County Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Re: Shell-branded Service Station
510 East 14th Street (506-510 International Boulevard)
Oakland, California
SAP Code 135695
Incident No. 97601734
ACEH Case No. RO0002853

Dear Mr. Wickham:

The attached document is provided for your review and comment. Upon information and belief, I declare, under penalty of perjury, that the information contained in the attached document is true and correct.

If you have any questions or concerns, please call me at (707) 865-0251.

Sincerely,

Denis L. Brown
Project Manager

CLOSURE REQUEST

SHELL-BRANDED SERVICE STATION
510 EAST 14TH STREET (506-510 INTERNATIONAL BOULEVARD)
OAKLAND, CALIFORNIA

SAP CODE	135695
INCIDENT NO.	97601734
AGENCY NO.	RO0002853

Prepared by:
Conestoga-Rovers & Associates

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FEBRUARY 26, 2010
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1.0 INTRODUCTION

Conestoga-Rovers & Associates (CRA) prepared this request on behalf of Equilon Enterprises LLC dba Shell Oil Products US (Shell).

The subject site is an active Shell-branded service station located on the east corner of the International Boulevard (formerly East 14th Street) and 5th Avenue intersection in a mixed commercial and residential area of Oakland, California (Figure 1). The site layout (Figure 2) includes one station building, three dispenser islands, and three underground storage tanks (USTs).

A summary of previous work performed at the site is contained in Appendix A. Historical soil analytical data are presented on Table 1 and historical groundwater data are presented on Table 2 and in Appendix B.

2.0 LOW-RISK CASE CRITERIA

Site data demonstrate that the site conditions meet the low-risk groundwater case criteria outlined in the San Francisco Bay Regional Water Quality Control Board's (RWQCB's) January 5, 1996 *Regional Board Supplemental Instructions to State Water Board December 8, 1995, Interim Guidance on Required Cleanup at Low-Risk Fuel Sites.* These criteria are addressed below.

Note that the RWQCB Groundwater Committee's June 1999 *East Bay Plain Groundwater Basin Beneficial Use Evaluation Report for Alameda and Contra Costa Counties, CA*, states that the City of Oakland (among other cities) "does not have plans to develop local groundwater resources for drinking water purposes, because of existing or potential saltwater intrusion, contamination, or poor or limited quantity". Although groundwater in this area cannot be precluded from being a potential future source of drinking water, it is not currently a source of drinking water, and given the shallow depth, it is unlikely that the first water-bearing zone would be used as a source of drinking water. Thus, RWQCB non-drinking water environmental screening levels (ESLs)[1] are the appropriate screening levels for this site.

---

1 *Screening for Environmental Concerns at Sites With Contaminated Soil and Groundwater,* California Regional Water Quality Control Board, Interim Final – November 2007 [Revised May 2008]

2.1 THE LEAK HAS BEEN STOPPED AND ONGOING SOURCES HAVE BEEN REMOVED OR REMEDIATED

No active leak has been identified. A waste oil tank was removed in 1993, and facility upgrades and dispenser modifications were completed in 1998 and 2004. As of January 1, 2003, methyl tertiary-butyl ether (MTBE) was no longer included in the formulation of Shell gasoline. Hydrocarbon, MTBE, and tertiary-butyl alcohol (TBA) concentrations in groundwater have decreased significantly, indicating that there is no ongoing source.

2.2 THE SITE HAS BEEN ADEQUATELY CHARACTERIZED

The five groundwater monitoring wells (MW-1 through MW-5) are adequate to monitor groundwater conditions.

The source area has been adequately characterized by soil samples collected during 2004 dispenser upgrades and soil and grab groundwater samples collected during a 2005 subsurface investigation. Only a single grab groundwater sample (SB-7-W1) collected on the northwest side of the USTs contained concentrations which exceeded the ESLs. Data from wells MW-1 and MW-2, located down gradient from the location of boring SB-7-W1, adequately define the extent of groundwater impacts in this area.

Current groundwater detections from the monitoring wells are all below ESLs (Figure 3 and Appendix B). Benzene, toluene, ethylbenzene, and xylenes (BTEX) are not currently detected in site wells. It should be noted that the ESL document states that "TPH ESLs must be used in conjunction with ESLs for related chemicals", in this case BTEX, MTBE, and TBA. Since BTEX is not currently detected, MTBE and TBA are the remaining constituents of concern (COCs). Historical data from monitoring wells MW-1 through MW-5 and grab groundwater samples from borings SB-1 through SB-7 in 2005 adequately define MTBE and TBA impacts in on-site groundwater to below ESLs. Based on these results, it is unlikely that deeper groundwater is impacted by TBA or MTBE at concentrations above ESLs.

Analyses of soil samples have shown that all petroleum hydrocarbon and fuel oxygenate detections are below commercial ESLs for shallow soils with the exception of two TPHg detections, one toluene detection, and one ethylbenzene detection. Two vadose zone soil sample analyses from the area of the dispenser islands (P-1-5' and P-3-5' collected in 2004) showed detections of TPHg above the ESLs for shallow soils. As stated above, the ESL document states that "TPH ESLs must be used in conjunction with ESLs for

related chemicals", in this case BTEX, MTBE, and TBA. Only ethylbenzene and toluene were detected above the ESL in one sample from the area of the southwestern dispenser island (420 milligrams per kilogram [mg/kg] ethylbenzene and 52 mg/kg toluene in P-3-5' collected in 2004). Since COC detections above ESLs are limited to the area of the southwestern dispenser island, vadose zone soil impacts are adequately defined by the 2005 soil borings. Based on grab groundwater data from SB-3, located less than 3 feet from sample P-3-5', and groundwater data from well MW-4, located down gradient from soil sample location P-3-5', groundwater is not significantly impacted due to this soil impact.

2.3 THE DISSOLVED HYDROCARBON PLUME IS NOT MIGRATING

As discussed above, all COCs are below ESLs in groundwater. Therefore, COCs are adequately defined on site. Decreasing COC concentrations in all wells indicate that the on-site plume is shrinking (see Figures 4 through 7).

2.4 MINIMAL GROUNDWATER IMPACT CURRENTLY EXISTS, FEW CONTAMINANTS ARE FOUND AT LEVELS ABOVE ESTABLISHED MCLS OR OTHER APPLICABLE WATER-QUALITY OBJECTIVES

As stated above, drinking water ESLs do not apply at this site. Maximum groundwater concentrations from samples collected during the fourth quarter of 2009 are compared with non-drinking water ESLs in the following table.

TABLE A

COCs	*Current Maximum Concentrations in Site Groundwater (11/09) Units in µg/l*	*ESLs Where Groundwater is not a Source of Drinking Water (Table B) Units in µg/l*
TPHg	140	210
Benzene	<0.50	46
Toluene	<1.0	130
Ethylbenzene	<1.0	43
Xylenes	<1.0	100
MTBE	90	1,800
TBA	34	18,000

Note: µg/l = Micrograms per liter

During the fourth quarter of 2009 all groundwater detections were below ESLs. As shown in Figure 4, TPHg and MTBE in well MW-1 are declining. As shown in Figure 5, TPHg in well MW-2 is declining. Figure 6 shows downward trends for MTBE and TBA in well MW-2. Figure 7 shows that MTBE in well MW-5 is declining. Current groundwater concentrations of BTEX, MTBE, and TBA are below non-drinking water ESLs and, based on long-term trends, are all projected to reach drinking water ESLs by 2017, a reasonable time frame.

2.5 NO WATER WELLS, DEEPER DRINKING WATER AQUIFERS, SURFACE WATER, OR OTHER SENSITIVE RECEPTORS ARE LIKELY TO BE IMPACTED

Cambria Environmental Technology, Inc.'s March 16, 2006 *Well Installation Work Plan and Well Survey* presented a well survey. California Department of Water Resources files indicated that no public or non-public water systems were located within 1 mile of the site.

The site is located approximately 1,700 feet cross-gradient (southeast) of Lake Merritt and approximately 2,800 feet up gradient (north-northeast) of Clinton Basin, both of which connect to the San Francisco Bay. As shown in the following table, no COCs were detected above surface water ESLs for estuarine habitats in wells during the fourth quarter 2009 groundwater sampling, demonstrating that surface water is not likely to be impacted by COCs originating from the site.

TABLE B

COCs	*Current Maximum Concentrations in Site Groundwater (11/09) Units in µg/l*	*Surface Water Screening Levels Estuarine Habitats (Table F) Units in µg/l*
TPHg	140	210
Benzene	<0.50	46
Toluene	<1.0	40
Ethylbenzene	<1.0	30
Xylenes	<1.0	100
MTBE	90	180
TBA	34	18,000

2.6 THE SITE PRESENTS NO SIGNIFICANT RISK TO HUMAN HEALTH OR THE ENVIRONMENT

No formal risk assessment has been performed for the site. A discussion of potential risks associated with COCs in groundwater, soil vapor, and soil is presented below.

2.6.1 GROUNDWATER

All groundwater concentrations are below the ESLs where groundwater is not a current or potential drinking water source, demonstrating that they do not pose a risk to human health or the environment.

2.6.2 SOIL VAPOR

Risk of soil vapor intrusion due to impacted groundwater can be evaluated by comparing groundwater concentrations with available ESLs. As shown in the following table, current groundwater concentrations meet the most stringent residential standards and do not present a risk for soil vapor intrusion.

TABLE C

COCs	*Current Maximum Groundwater Concentrations (11/09)* *Units in µg/l*	*Groundwater Screening Levels for Evaluation of Potential Vapor Intrusion Concerns - Residential Land Use (Table E-1)* *Units in µg/l*
Benzene	<0.50	540
Toluene	<1.0	380,000
Ethylbenzene	<1.0	170,000
Xylenes	<1.0	160,000
MTBE	90	24,000

Because soil impacts above ESLs are limited, there is little potential for soil vapor migration to impact on-site workers and potential future occupants of the site. Since the air-exchange from customers entering and exiting the station building during all business hours would not allow for significant buildup of vapors from subsurface migration, inhalation risk from vapor intrusion is considered to be low. It is anticipated that the site will remain a service station. This station is part of a service station sale with contract provisions for long term use of the Shell Brand and specific restrictions on site development to commercial uses excluding child day care, elder care, or other

similar sensitive uses. These data and site conditions suggest that soil concentrations are unlikely to present significant risk to human health.

2.6.3 SOIL

As shown in the following table only TPHg, ethylbenzene, and toluene exceeded the commercial land use ESL for vadose zone soils (<8 fbg).

TABLE D		
COCs	*Vadose Zone Soil Sample Maximum Concentrations* *Units in mg/kg*	*ESLs for Shallow Soils Where Groundwater is Not a Source of Drinking Water, Commercial Land Use (Table B)* *Units in mg/kg*
TPHg	**8,400** (P-3-5' @ 5 fbg, collected 7/22/04)	180
Benzene	0.045 (P-2-5' @ 5 fbg, collected 7/22/04)	0.27
Toluene	**52** (P-3-5' @ 5 fbg, collected 7/22/04)	9.3
Ethylbenzene	**420** (P-3-5' @ 5 fbg, collected 7/22/04)	4.7
Xylenes	0.21 (SB-3-5.0 @ 5 fbg, collected 10/19/05)	11
MTBE	0.155 (SB-4-5.0 @ 5 fbg, collected 10/18/05)	8.4
TBA	0.19 (MW-3-5 @ 5 fbg, collected 7/26/06)	110'

Two vadose zone soil sample analyses from the area of the dispenser islands (P-1-5' and P-3-5' collected in 2004) showed detections of TPHg above the ESLs for shallow soils. As stated above, the ESL document states that "TPH ESLs must be used in conjunction with ESLs for related chemicals", in this case BTEX, MTBE, and TBA. Only one of the 32 vadose zone soil samples collected at the site (P-3-5 collected in 2004) exceeded the ESL for sites with commercial land use for ethylbenzene and toluene. No other BTEX, MTBE, or TBA concentrations exceeded ESLs. The maximum concentrations in the other 31 samples were 0.52 mg/kg ethylbenzene and 0.57 mg/kg toluene. Vadose zone soil impacted at levels above the ESLs is limited to the area of southern-most dispenser. The site is paved, so the only direct exposures would likely occur during construction at the station. Any worker doing trenching or excavating at a current or former gasoline station would be properly trained, prepared for encountering potentially-impacted soil, and would wear personal protective equipment, as necessary. Therefore, the residual

impacted soils do not appear to pose a significant threat to construction workers that may occasionally come in contact with the potentially-impacted soils on site, and any work at this site would require contractors to have appropriate health and safety training to perform the work.

3.0 CLOSURE REQUEST

The site is likely to remain in use as a service station. This station is part of a service station sale with contract provisions for long term use of the Shell Brand and specific restrictions on site development to commercial uses excluding child day care, elder care, or other similar sensitive uses. Given the concentrations of COCs in site soil and groundwater compared to the ESLs presented above, and given the decreasing concentration trends, CRA concludes that the residual petroleum and fuel oxygenate impacts at this site pose very little or no risk to human health or the environment.

This site meets the RWQCB criteria for a low-risk fuel site, and groundwater data demonstrate the plume is shrinking and all COCs are below ESLs. Therefore, on behalf of Shell, we respectfully request closure of this case. CRA requests that Alameda County Environmental Health suspend the groundwater monitoring program during the closure review.

All of Which is Respectfully Submitted,
CONESTOGA-ROVERS & ASSOCIATES

Peter Schaefer, CHG, CEG

Aubrey K. Cool, PG

FIGURES

01/20/09

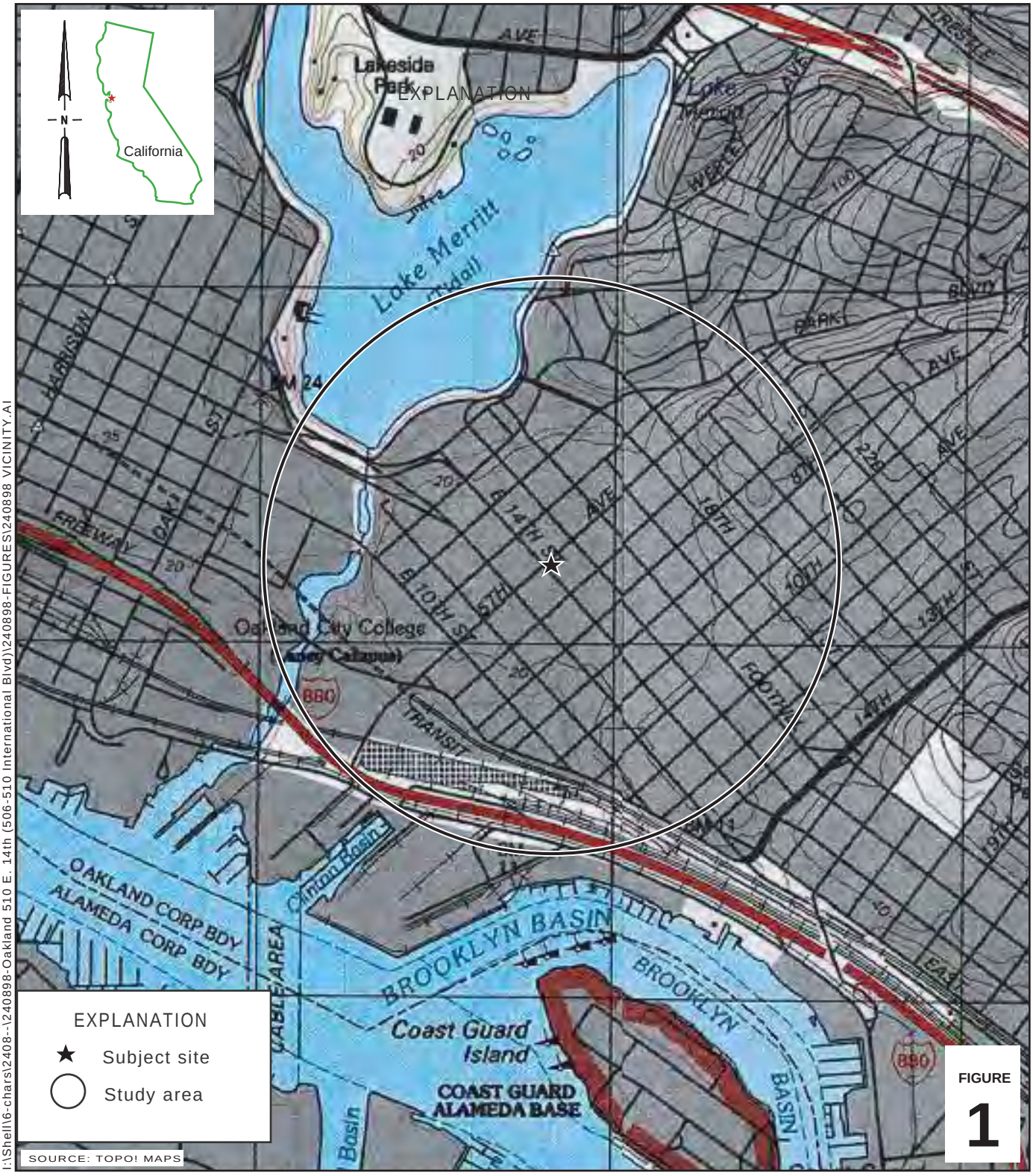

FIGURE
1

0 1/8 1/4 1/2 1

SCALE : 1" = 1/4 MILE

I:\Shell\6-chars\2408--\240898-Oakland 510 E. 14th (506-510 International Blvd)\240898-FIGURES\240898 VICINITY.AI

Shell-branded Service Station

510 E. 14th Street (506-510 International Blvd.)

Oakland, California

CONESTOGA-ROVERS & ASSOCIATES

Vicinity Map

01/29/10

Site Plan

EXPLANATION

- MW-1 — Monitoring well location
- SB-1 — Soil boring location (10/18-19/05)
- D-1-5' — Soil and groundwater sample location (7/22/04)
- T-1 — Soil sample location (1993)
- Electrical line (E)
- Telecommunication line (T)
- Sanitary sewer line (SAN)
- Water line (W)
- Product piping line (P)
- Vent line (V)

Service Station
442 & 450 International, & 1415 5th Ave.
APN 020-0133-006-01

5th AVENUE

Residential
1442 5th Ave.
APN 020-0134-010

Residential
1432-1436 5th Ave.
APN 020-0134-009

Residential
519-521 E. 15th St.
APN 020-0134-010

Air/Water

Planter

MW-5

Vents

Fence/Gate

Parking
APN 020-0134-007-01

SB-7

SB-1

MW-2

Planter

USTs

Shell Station
506-510 International Blvd.

APN
020-0134-007-03

Station Building

SB-2

MW-1

SB-4

P-3-5'

MW-3

SB-5

D-2-5'

Dispensers

D-3-5'

SB-3

P-2-5'

Canopy

D-1-5'

SB-6

P-1-5'

MW-4

T-1

T-2

Former W/O UST Excavation Area

Fence/Gate

Planter

Phone

INTERNATIONAL BOULEVARD (EAST 14th STREET)

Parking Lot
APN 020-0124-001

507-513 International
APN 020-0124-002-00

515-519 International
APN 020-0124-003-00

Commercial
530 & 544 International
APN 020-0134-006

N

0 15 30 60

Scale (ft)

FIGURE

2

Shell-branded Service Station

510 East 14th Street (506-510 International Boulevard)

Oakland, California

CONESTOGA-ROVERS & ASSOCIATES

I:\Shell.TEMP\6-chars\2408--\240898-Oakland 510 E. 14th (506-510 International Blvd)\240898-FIGURES\241898 3QM08.DWG

01/29/10

Groundwater Contour and Chemical Concentration Map

November 3, 2009

EXPLANATION

- MW-1 — Monitoring well location
- Electrical line (E)
- Telecommunication line (T)
- Sanitary sewer line (SAN)
- Water line (W)
- Product piping line (P)
- Vent line (V)
- XX.XX — Groundwater elevation contour, in feet above mean sea level (msl)

Well
ELEV
Benzene
MTBE

- Well designation
- Groundwater elevation, in feet above msl
- Benzene and MTBE concentrations are in micrograms per liter

Notes:
ND = Not detected

Service Station
442 & 450 International, & 1415 5th Ave.
APN 020-0133-006-01

Residential
1442 5th Ave.
APN 020-0134-010

Residential
1432-1436 5th Ave.
APN 020-0134-009

Residential
519-521 E. 15th St.
APN 020-0134-010

5th AVENUE

Air/Water

Planter

MW-5
21.83
ND
74

21.75

21.75

Vents

Fence/Gate

Parking
APN 020-0134-007-01

MW-2
21.48
ND
14

Planter

21.25

USTs

Shell Station
506-510 International Blvd.

APN
020-0134-007-03

Station
Building

20.75

MW-1
20.56
ND
90

MW-3
21.61
ND
ND

20.75

Dispensers

Canopy

Fence/Gate

21.25

MW-4
21.53
ND
1.5

Planter

Former W/O UST
Excavation Area

Phone

Parking Lot
APN 020-0124-001

INTERNATIONAL BOULEVARD (EAST 14th STREET)

Commercial
530 & 544 International
APN 020-0134-006

507-513 International
APN 020-0124-002-00

515-519 International
APN 020-0124-003-00

N

0 15 30 60

Scale (ft)

FIGURE

3

Shell-branded Service Station
510 East 14th Street (506-510 International Boulevard)
Oakland, California

CONESTOGA-ROVERS & ASSOCIATES

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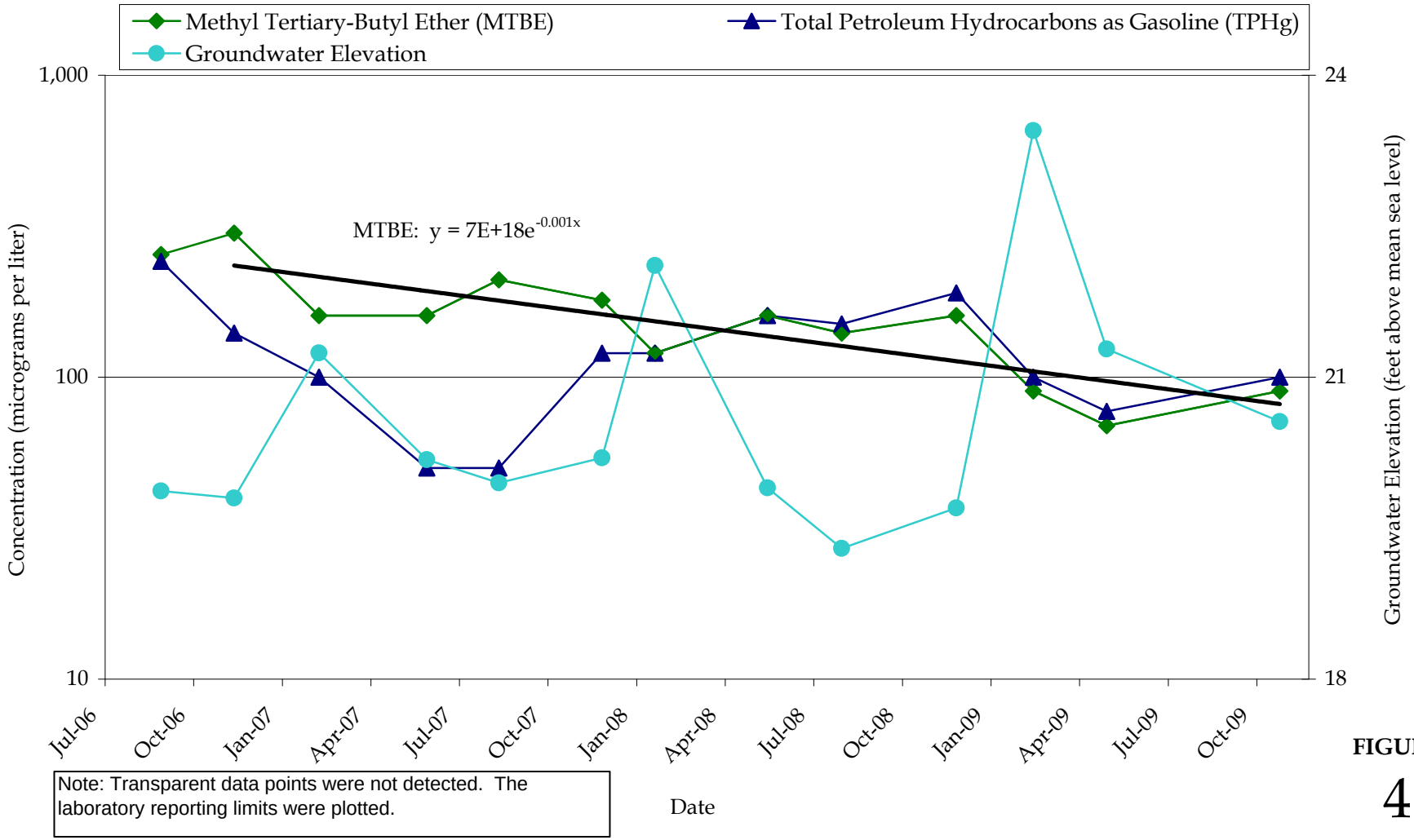


Note: Transparent data points were not detected. The laboratory reporting limits were plotted.

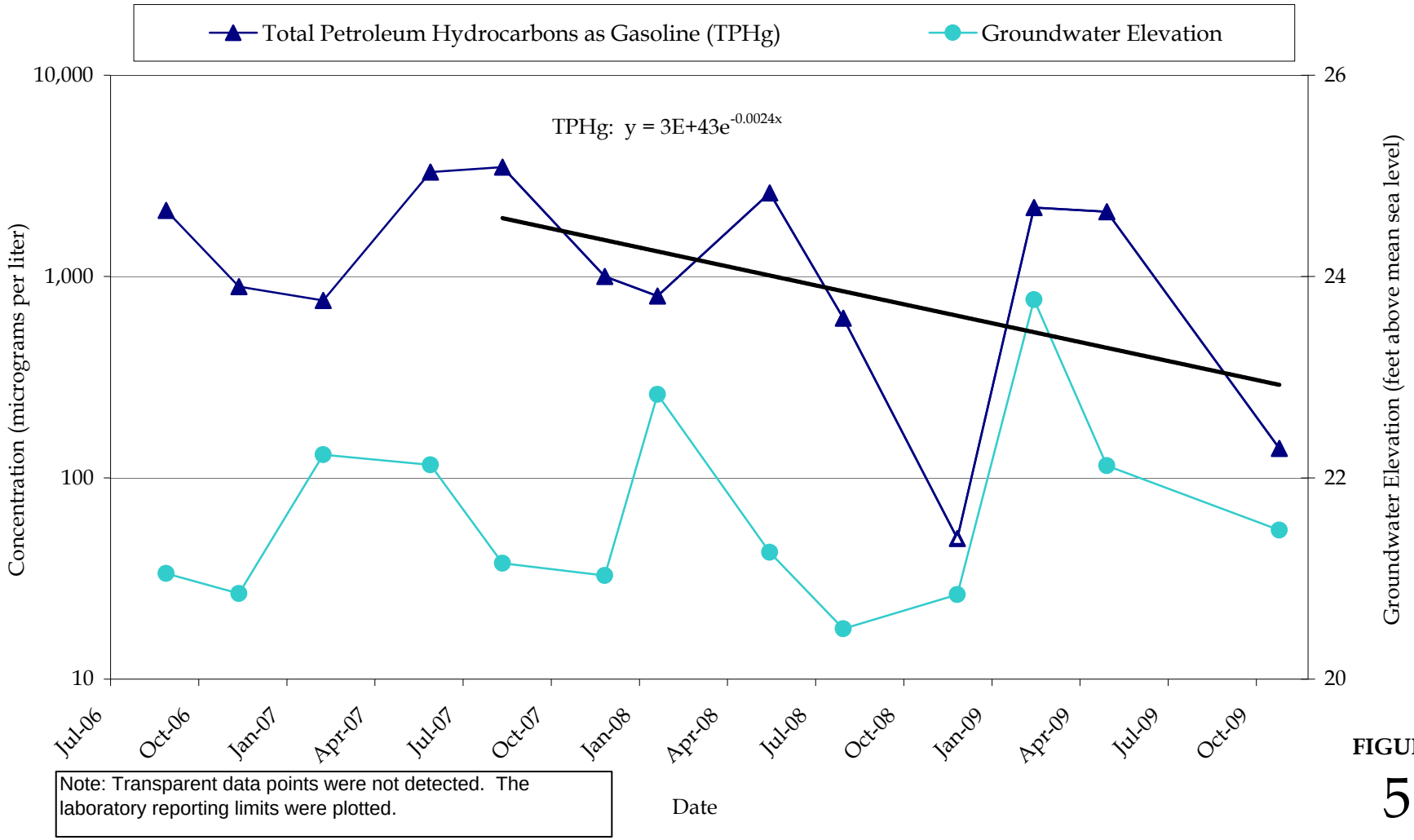
FIGURE

4

Shell-branded Service Station
510 E. 14th Street (506-510 International Boulevard)
Oakland, California

CONESTOGA-ROVERS & ASSOCIATES

MW-1: TPHg and MTBE Concentrations and Groundwater Elevation versus Time



Note: Transparent data points were not detected. The laboratory reporting limits were plotted.

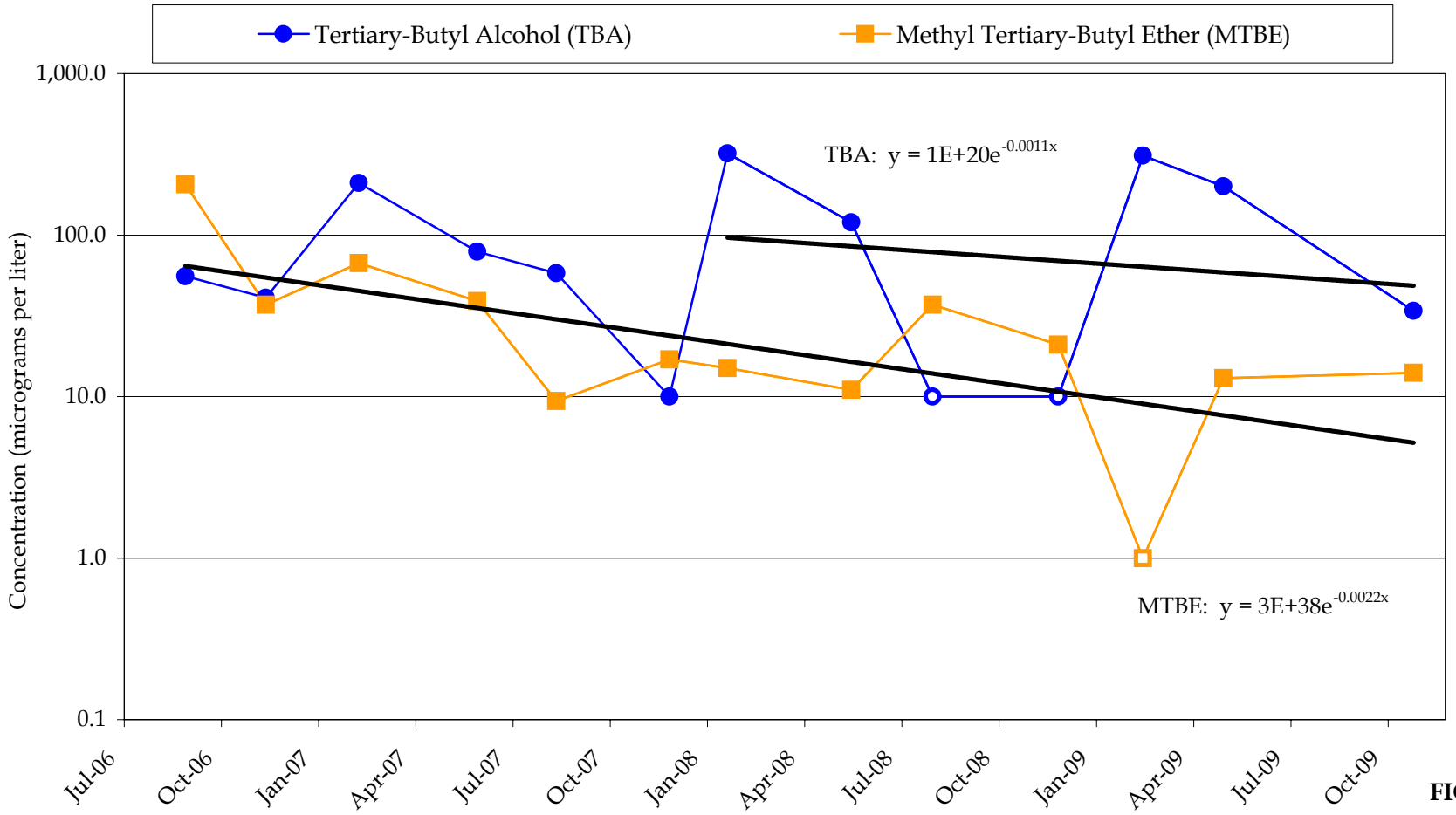
FIGURE

5

Shell-branded Service Station
510 E. 14th Street (506-510 International Boulevard)
Oakland, California

CONESTOGA-ROVERS & ASSOCIATES

MW-2: TPHg Concentration and Groundwater Elevation versus Time



Note: Transparent data points were not detected. The laboratory reporting limits were plotted.

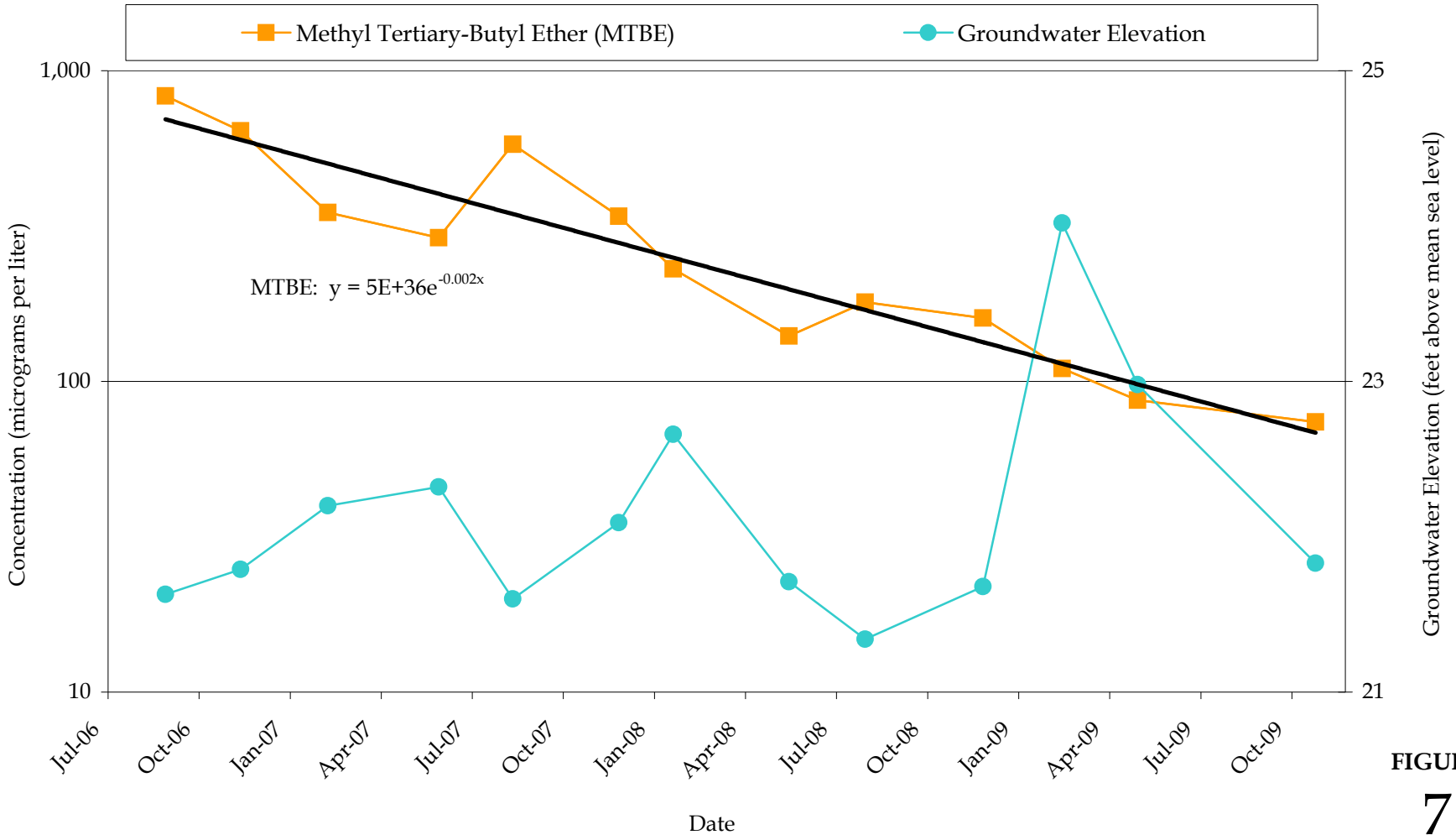
FIGURE

6

Shell-branded Service Station
510 E. 14th Street (506-510 International Boulevard)
Oakland, California

CONESTOGA-ROVERS & ASSOCIATES

MW-2: MTBE and TBA Concentrations versus Time



FIGURE

7

Shell-branded Service Station
510 E. 14th Street (506-510 International Boulevard)
Oakland, California

CONESTOGA-ROVERS & ASSOCIATES

MW-5: MTBE Concentration and Groundwater Elevation versus Time

TABLES

TABLE 1

HISTORICAL SOIL ANALYTICAL DATA
SHELL-BRANDED SERVICE STATION
510 EAST 14TH STREET (506-510 INTERNATIONAL BOULEVARD),
OAKLAND, CALIFORNIA

Sample ID	*Date*	*Depth (fbg)*	*TPHg*	*TPHd*	*Oil and Grease*	*Benzene*	*Toluene*	*Ethyl-benzene*	*Total Xylenes*	*MTBE*	*TBA*	*DIPE*	*ETBE*	*TAME*	*1,2-DCA*	*EDB*
1993 Tank Excavation Sampling																
T-1	3/30/1993	7.5	<0.5[a]	<10	<30	<0.0050 [a]	<0.0050 [a]	<0.0050 [a]	<0.0050 [a]	---	---	---	---	---	---	---
T-2	3/30/1993	7.5	<0.5[a]	<10	<30	<0.0050 [a]	<0.0050 [a]	<0.0050 [a]	<0.0050 [a]	---	---	---	---	---	---	---
2004 Upgrade Activities																
P-1-5'	7/22/2004	5	**220**	---	---	<0.50	<0.50	<0.50	<0.50	---	---	---	---	---	---	---
P-2-5'	7/22/2004	5	4.8	---	---	0.045	0.021	0.14	0.020	---	---	---	---	---	---	---
P-3-5'	7/22/2004	5	**8,400**	---	---	<5.0	**52**	**420**	<5.0	---	---	---	---	---	---	---
D-1-5'	7/22/2004	5	92	---	---	<0.50	0.57	0.52	<0.50	---	---	---	---	---	---	---
D-2-5'	7/22/2004	5	<1.0	---	---	<0.0050	<0.0050	<0.0050	0.015	---	---	---	---	---	---	---
D-3-5'	7/22/2004	5	1.4	---	---	<0.0050	0.0082	0.12	<0.0050	---	---	---	---	---	---	---
2005 Subsurface Investigation																
SB-1-5.0	10/19/2005	5	<1.0	---	---	<0.0050	<0.0050	<0.0050	<0.0050	0.11[b]	0.12	<0.010	<0.0050	<0.0050	---	---
SB-1-9.5	10/19/2005	9.5	<1.0	---	---	<0.0050	<0.0050	<0.0050	<0.0050	0.096[b]	0.025	<0.010	<0.0050	<0.0050	---	---
SB-1-14.5	10/19/2005	14.5	<1.0	---	---	<0.0050	<0.0050	<0.0050	<0.0050	0.071[b]	0.026	<0.010	<0.0050	<0.0050	---	---
SB-1-19.5	10/19/2005	19.5	<1.0	---	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050[b]	0.38	<0.010	<0.0050	<0.0050	---	---
SB-1-24.5	10/19/2005	24.5	<1.0	---	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050[b]	<0.010	<0.010	<0.0050	<0.0050	---	---
SB-2-5.0	10/18/2005	5	<1.0	---	---	<0.0050	<0.0050	<0.0050	<0.0050	0.017[b]	<0.010	<0.010	<0.0050	<0.0050	---	---
SB-2-10.0	10/18/2005	10	<1.0	---	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050[b]	<0.010	<0.010	<0.0050	<0.0050	---	---
SB-2-14.5	10/18/2005	15.5	<1.0	---	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050[b]	<0.010	<0.010	<0.0050	<0.0050	---	---
SB-2-19.5	10/18/2005	19.5	<1.0	---	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050[b]	<0.010	<0.010	<0.0050	<0.0050	---	---
SB-2-24.5	10/18/2005	24.5	<1.0	---	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050[b]	<0.010	<0.010	<0.0050	<0.0050	---	---

TABLE 1

HISTORICAL SOIL ANALYTICAL DATA
SHELL-BRANDED SERVICE STATION
510 EAST 14TH STREET (506-510 INTERNATIONAL BOULEVARD),
OAKLAND, CALIFORNIA

Sample ID	*Date*	*Depth (fbg)*	*TPHg*	*TPHd*	*Oil and Grease*	*Benzene*	*Toluene*	*Ethyl-benzene*	*Total Xylenes*	*MTBE*	*TBA*	*DIPE*	*ETBE*	*TAME*	*1,2-DCA*	*EDB*
SB-3-5.0	10/19/2005	5	14	---	---	<0.025	<0.025	0.078	0.21	0.15[b]	0.11	<0.050	<0.025	<0.025	---	---
SB-3-9.5	10/19/2005	9.5	18	---	---	0.013	<0.0050	0.22	0.030	0.22[b]	0.059	<0.010	<0.0050	<0.0050	---	---
SB-3-11.5	10/19/2005	11.5	18	---	---	<0.025	<0.025	0.034	<0.025	0.038[b]	0.15	<0.050	<0.025	<0.025	---	---
SB-3-14.5	10/19/2005	14.5	1.0	---	---	0.0074	<0.0050	0.0091	<0.0050	0.034[b]	0.056	<0.010	<0.0050	<0.0050	---	---
SB-3-19.5	10/19/2005	19.5	<1.0	---	---	<0.0050	<0.0050	<0.0050	<0.0050	0.018[b]	0.064	<0.010	<0.0050	<0.0050	---	---
SB-3-24.5	10/19/2005	24.5	<1.0	---	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050[b]	<0.010	<0.010	<0.0050	<0.0050	---	---
SB-3-29.5	10/19/2005	29.5	<1.0	---	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050[b]	<0.010	<0.010	<0.0050	<0.0050	---	---
SB-4-5.0	10/18/2005	5	<1.0	---	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050[b]	0.19	<0.010	<0.0050	<0.0050	---	---
SB-4-9.5	10/18/2005	9.5	<1.0	---	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050[b]	0.26	<0.010	<0.0050	<0.0050	---	---
SB-4-14.5	10/18/2005	14.5	<1.0	---	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050[b]	<0.010	<0.010	<0.0050	<0.0050	---	---
SB-4-19.5	10/18/2005	19.5	<5.0	---	---	<0.025	<0.025	<0.025	<0.025	0.18[b]	2.7	<0.050	<0.050	<0.050	---	---
SB-4-23.5	10/18/2005	23.5	<1.0	---	---	<0.0050	<0.0050	<0.0050	<0.0050	0.016[b]	<0.010	<0.010	<0.0050	<0.0050	---	---
SB-5-5.0	10/18/2005	5	<1.0	---	---	<0.0050	<0.0050	<0.0050	<0.0050	0.0054[b]	<0.010	<0.010	<0.0050	<0.0050	---	---
SB-5-9.5	10/18/2005	9.5	<1.0	---	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050[b]	<0.010	<0.010	<0.0050	<0.0050	---	---
SB-5-14.5	10/18/2005	14.5	<1.0	---	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050[b]	<0.010	<0.010	<0.0050	<0.0050	---	---
SB-5-19.5	10/18/2005	19.5	<1.0	---	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050[b]	0.031	<0.010	<0.0050	<0.0050	---	---
SB-5-24.5	10/18/2005	24.5	<1.0	---	---	<0.0050	<0.0050	<0.0050	<0.0050	0.063[b]	0.15	<0.010	<0.0050	<0.0050	---	---
SB-6-5.0	10/18/2005	5	120[c]	---	---	<0.50	<0.50	<0.50	<0.50	<0.50[b]	<2.5	<1.0	<0.50	<0.50	---	---
SB-6-9.5	10/18/2005	9.5	<1.0	---	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050[b]	<0.010	<0.010	<0.0050	<0.0050	---	---
SB-6-14.5	10/18/2005	14.5	<1.0	---	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050[b]	<0.010	<0.010	<0.0050	<0.0050	---	---
SB-6-19.5	10/18/2005	19.5	<1.0	---	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050[b]	<0.010	<0.010	<0.0050	<0.0050	---	---
SB-6-24.5	10/18/2005	24.5	<1.0	---	---	<0.0050	<0.0050	<0.0050	<0.0050	0.16[b]	0.024	<0.010	<0.0050	<0.0050	---	---

TABLE 1

HISTORICAL SOIL ANALYTICAL DATA
SHELL-BRANDED SERVICE STATION
510 EAST 14TH STREET (506-510 INTERNATIONAL BOULEVARD),
OAKLAND, CALIFORNIA

Sample ID	*Date*	*Depth (fbg)*	*TPHg*	*TPHd*	*Oil and Grease*	*Benzene*	*Toluene*	*Ethyl-benzene*	*Total Xylenes*	*MTBE*	*TBA*	*DIPE*	*ETBE*	*TAME*	*1,2-DCA*	*EDB*
SB-7-5.0	10/19/2005	5	<1.0	---	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050[b]	0.016	<0.010	<0.0050	<0.0050	---	---
SB-7-10.0	10/19/2005	10	<1.0	---	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050[b]	0.10	<0.010	<0.0050	<0.0050	---	---
SB-7-14.5	10/19/2005	14.5	4.4	---	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050[b]	0.045	<0.010	<0.0050	<0.0050	---	---
SB-7-19.5	10/19/2005	19.5	<1.0	---	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050[b]	0.14	<0.010	<0.0050	<0.0050	---	---
SB-7-24.0	10/19/2005	24	<1.0	---	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050[b]	<0.010	<0.010	<0.0050	<0.0050	---	---
2006 Well Installation																
MW-1-5	7/26/2006	5	<0.100	---	---	<0.00200	<0.0020	<0.00200	<0.0050	<0.00200	<0.0500	<0.00200	<0.00500	<0.00200	<0.00200	<0.00200
MW-1-10	7/28/2006	10	<0.100	---	---	<0.00200	<0.0020	<0.00200	<0.0050	<0.00200	<0.0500	<0.00200	<0.00500	<0.00200	<0.00200	<0.00200
MW-1-15	7/28/2006	15	<0.100	---	---	<0.00200	<0.0020	<0.00200	<0.0050	<0.00200	<0.0500	<0.00200	<0.00500	<0.00200	<0.00200	<0.00200
MW-1-20	7/28/2006	20	<0.100	---	---	<0.00200	<0.0020	<0.00200	<0.0050	0.0114	<0.0500	<0.00200	<0.00500	<0.00200	<0.00200	<0.00200
MW-2-5	7/26/2006	5	<0.100	---	---	<0.00200	<0.0020	<0.00200	<0.0050	<0.00200	<0.0500	<0.00200	<0.00500	<0.00200	<0.00200	<0.00200
MW-2-10	7/27/2006	10	<0.100	---	---	<0.00200	<0.0020	<0.00200	<0.0050	<0.00200	<0.0500	<0.00200	<0.00500	<0.00200	<0.00200	<0.00200
MW-2-14	7/27/2006	14	2.74	---	---	<0.00200	<0.0020	<0.00200	<0.0050	0.0028	<0.0500	<0.00200	<0.00500	<0.00200	<0.00200	<0.00200
MW-3-5	7/26/2006	5	0.403	---	---	<0.00200	<0.0020	<0.00200	<0.0050	0.155	<0.0500	<0.00200	<0.00500	<0.00200	<0.00200	<0.00200
MW-3-10	7/28/2006	10	0.507	---	---	0.00514	<0.0020	<0.00200	<0.0050	0.089	0.0588	<0.00200	<0.00500	<0.00200	<0.00200	<0.00200
MW-3-15	7/28/2006	15	0.107	---	---	<0.00200	0.0102	0.00296	0.0134	0.0212	<0.0500	<0.00200	<0.00500	<0.00200	<0.00200	<0.00200
MW-3-20	7/28/2006	20	<0.100	---	---	<0.00200	<0.0020	<0.00200	<0.0050	0.00571	<0.0500	<0.00200	<0.00500	<0.00200	<0.00200	<0.00200
MW-4-5	7/28/2006	5	<0.100	---	---	<0.00200	<0.0020	<0.00200	<0.0050	<0.00200	<0.0500	<0.00200	<0.00500	<0.00200	<0.00200	<0.00200
MW-4-10	7/28/2006	10	**339**	---	---	<0.00200	<0.0020	0.137	0.00505	<0.00200	<0.0500	<0.00200	<0.00500	<0.00200	<0.00200	<0.00200
MW-4-15	7/28/2006	15	<0.100	---	---	<0.00200	<0.0020	<0.00200	<0.0050	<0.00200	<0.0500	<0.00200	<0.00500	<0.00200	<0.00200	<0.00200

TABLE 1

HISTORICAL SOIL ANALYTICAL DATA
SHELL-BRANDED SERVICE STATION
510 EAST 14TH STREET (506-510 INTERNATIONAL BOULEVARD),
OAKLAND, CALIFORNIA

Sample ID	*Date*	*Depth (fbg)*	*TPHg*	*TPHd*	*Oil and Grease*	*Benzene*	*Toluene*	*Ethyl-benzene*	*Total Xylenes*	*MTBE*	*TBA*	*DIPE*	*ETBE*	*TAME*	*1,2-DCA*	*EDB*
MW-4-20	7/28/2006	20	<0.100	---	---	<0.00200	<0.0020	<0.00200	<0.0050	<0.00200	<0.0500	<0.00200	<0.00500	<0.00200	<0.00200	<0.00200
MW-5-5	7/26/2006	5	<0.100	---	---	<0.00200	<0.0020	<0.00200	<0.0050	<0.00200	<0.0500	<0.00200	<0.00500	<0.00200	<0.00200	<0.00200
MW-5-10	7/27/2006	10	<0.100	---	---	<0.00200	<0.0020	<0.00200	<0.0050	<0.00200	<0.0500	<0.00200	<0.00500	<0.00200	<0.00200	<0.00200
MW-5-15	7/27/2006	15	0.136	---	---	<0.00200	<0.0020	<0.00200	<0.0050	0.0387	<0.0500	<0.00200	<0.00500	<0.00200	<0.00200	<0.00200
MW-5-20	7/27/2006	20	0.222	---	---	<0.00200	<0.0020	<0.00200	<0.0050	0.112	<0.0500	<0.00200	<0.00500	<0.00200	<0.00200	<0.00200
Shallow Soil (≤10 fbg) ESL [d]:			180	180	NA	0.27	9.3	4.7	11	8.4	110	NA	NA	NA	0.48	0.044
Deep Soil (>10 fbg) ESL [d]:			180	180	NA	2.0	9.3	4.7	11	8.4	110	NA	NA	NA	1.8	1.0

Notes:

All results in milligrams per kilograms (mg/kg) unless otherwise indicated.
fbg = Feet below grade
TPHg = Total petroleum hydrocarbons as gasoline analyzed by EPA Method 8260B unless otherwise indicated.
TPHd = Total petroleum hydrocarbons as diesel, analysis method unknown.
Oil and Grease analysis method unknown.
Benzene, toluene, ethylbenzene, and xylenes analyzed by EPA Method 8260B unless otherwise noted.
MTBE = Methyl tertiary-butyl ether analyzed by EPA Method 8260B unless otherwise noted.
TBA = Tertiary-butyl alcohol analyzed by EPA Method 8260B
DIPE = Di-isopropyl ether analyzed by EPA Method 8260B
ETBE = Ethyl tertiary-butyl ether analyzed by EPA Method 8260B
TAME = Tertiary-amyl methyl ether analyzed by EPA Method 8260B
1,2-DCA = 1,2-Dichloroethane by EPA Method 8260B
EDB = 1,2,-Dibromoethane by EPA Method 8260B
<x = Not detected at reporting limit x
--- = Not analyzed
ESL = Environmental screening level
NA = No applicable ESL

TABLE 1

HISTORICAL SOIL ANALYTICAL DATA
SHELL-BRANDED SERVICE STATION
510 EAST 14TH STREET (506-510 INTERNATIONAL BOULEVARD),
OAKLAND, CALIFORNIA

Sample ID	*Date*	*Depth (fbg)*	*TPHg*	*TPHd*	*Oil and Grease*	*Benzene*	*Toluene*	*Ethyl-benzene*	*Total Xylenes*	*MTBE*	*TBA*	*DIPE*	*ETBE*	*TAME*	*1,2-DCA*	*EDB*

Results in **bold** equal or exceed applicable ESL

a = Analysis method unknown.
b = Analyzed by EPA Method 8260B and 8260B C6-12. Highest concentration reported.
c = Quantity of unknown hydrocarbon(s) in sample based on gasoline
d = San Francisco Bay Regional Water Quality Control Board commercial land use ESL for soil where groundwater is not a current or potential source of drinking water (Tables B and D of *Screening for Environmental Concerns at Sites With Contaminated Soil and Groundwater,* California Regional Water Quality Control Board, Interim Final - November 2007 [Revised May 2008]).

TABLE 2

HISTORICAL GRAB GROUNDWATER ANALYTICAL DATA
SHELL-BRANDED SERVICE STATION
510 EAST 14TH STREET (506-510 INTERNATIONAL BOULEVARD),
OAKLAND, CALIFORNIA

Sample ID	*Date*	*Depth (fbg)*	*TPHg*	*Benzene*	*Toluene*	*Ethyl-benzene*	*Total Xylenes*	*MTBE*	*TBA*	*DIPE*	*ETBE*	*TAME*	1,2-DCA	EDB
SB-1-W1	10/19/2005	20-25	<50	<0.50	<0.50	<0.50	<1.0	19	<5.0	<2.0	<2.0	<2.0	--	--
SB-2-W	10/18/2005	20-25	<50	<0.50	<0.50	<0.50	<1.0	1.6	<5.0	<2.0	<2.0	<2.0	--	--
SB-3-W1	10/19/2005	20-25	**560**	3.0	<0.50	22	18	6.3	<5.0	<2.0	<2.0	<2.0	--	--
SB-4-W	10/18/2005	15-20	<50	<0.50	<0.50	<0.50	<1.0	70	270	<2.0	<2.0	<2.0	--	--
SB-5-W	10/18/2005	15-20	**250**	<2.5	<2.5	<2.5	<5.0	5.9	3,200	<10	<10	<10	--	--
SB-6-W	10/18/2005	20-25	**270**	<2.5	<2.5	<2.5	<5.0	820	<25	<10	<10	<10	--	--
SB-6-W2	10/18/2005	25-27	**1,200**	<5.0	<5.0	15	29	1,400	<50	<20	<20	<20	--	--
SB-7-W1	10/19/2005	20-25	**3,800**	24	**140**	**110**	**1,000**	2.7	<20	<8.0	<8.0	<8.0	--	--
MW-1W[a]	7/28/2006	4.3-10	145	<0.500	<0.500	<0.500	<0.500	<0.500	<10	<0.500	<0.500	<0.500	<0.500	<0.500
MW-4W[a]	7/28/2006	9.71-10	**373**	<0.500	<0.500	<0.500	<0.500	1.49	<10	<0.500	<0.500	<0.500	<0.500	<0.500
Groundwater ESL[b]:			*210*	*46*	*130*	*43*	*100*	*1,800*	*18,000*	*NA*	*NA*	*NA*	*200*	*150*

Notes:

All results in micrograms per liter (µg/l) unless otherwise indicated.
fbg = Feet below grade
TPHg = Total petroleum hydrocarbons as gasoline; analyzed by EPA Method 8260B
Benzene, toluene, ethylbenzene, and xylenes analyzed by EPA Method 8260B
MTBE = Methyl tertiary-butyl ether analyzed by EPA Method 8260B
TBA = Tertiary-butyl alcohol analyzed by EPA Method 8260B
DIPE = Di-isopropyl ether analyzed by EPA Method 8260B
ETBE = Ethyl tertiary-butyl ether analyzed by EPA Method 8260B
TAME = Tertiary-amyl methyl ether analyzed by EPA Method 8260B
1,2-DCA = 1,2-Dichloroethane by EPA Method 8260B

TABLE 2

HISTORICAL GRAB GROUNDWATER ANALYTICAL DATA
SHELL-BRANDED SERVICE STATION
510 EAST 14TH STREET (506-510 INTERNATIONAL BOULEVARD),
OAKLAND, CALIFORNIA

EDB = 1,2-Dibromoethane by EPA Method 8260B
<x = Not detected at reporting limit x
--- = Not analyzed
ESL = Environmental screening level
NA = No applicable ESL

a = Samples were collected from boreholes that were 10 fbg and left open overnight.
b = San Francisco Bay Regional Water Quality Control Board ESL for groundwater where groundwater is not a source of drinking water (Table B of *Screening for Environmental Concerns at Sites With Contaminated Soil and Groundwater*, California Regional Water Quality Control Board, Interim Final - November 2007 [Revised May 2008]).

APPENDIX A

SITE HISTORY

SITE HISTORY

1993 Tank Excavation Sampling: On March 30, 1993, Gettler-Ryan, Inc. removed a 550-gallon waste oil underground storage tank (UST). No holes or leaks were identified during the removal. Weiss Associates (Weiss) collected two soil samples from the excavation floor. Total petroleum hydrocarbons as gasoline (TPHg), total petroleum hydrocarbons as diesel (TPHd), benzene, toluene, ethylbenzene, and xylenes (BTEX), and oil and grease were detected in the samples. Details of the excavation sampling are included in Weiss' August 17, 1993 *Tank Excavation Sampling Report.*

1998 Upgrade Site Inspection: On March 24, 1998, Paradiso Mechanical, Inc. (Paradiso) added secondary containment to the UST turbine sumps. Cambria Environmental Technology, Inc. (Cambria) inspected the turbine sump and tank pit areas and found no field indication of hydrocarbons, such as staining or odor. No sampling was performed. Details of the investigation are presented in Cambria's April 9, 1998 *Upgrade Site Inspection Reports.*

2004 Well Survey: In February 2004, Cambria conducted a well survey for a ½-mile radius of the site. Department of Water Resources files and the California Geotracker database did not identify any potential receptor wells within a ½-mile radius of the site.

2004 Upgrade Activities: In late June through mid-July 2004, Paradiso upgraded under-dispenser sumps, installed enhanced vapor-recovery equipment, and improved sumps on the UST fuel fill ports. On July 22, 2004, Cambria collected soil samples from beneath the dispensers and adjacent piping. The samples contained up to 8,400 milligrams per kilogram (mg/kg) TPHg (P-3-5'), 0.045 mg/kg benzene (P-2-5'), 52 mg/kg toluene (P-3-5'), 420 mg/kg ethylbenzene (P-3-5'), and 0.020 mg/kg xylenes (P-2-5'). As a result, on July 29, 2004 Equilon Enterprises LLC dba Shell Oil Products US (Shell) filed an UST Unauthorized Release Report Form with the City of Oakland Fire Department's Office of Emergency Services. Cambria's October 4, 2004 *Dispenser and Piping Upgrade Sampling Report* presents details of the upgrade sampling.

2005 Subsurface Investigation: On October 18 and 19, 2005, Cambria advanced soil borings SB-1 through SB-7 and collected soil and grab groundwater samples. All soil sample analytical results were below San Francisco Bay Regional Water Quality Control Board (RWQCB) environmental screening levels (ESLs) for sites at which groundwater is not a current or potential source of drinking water. Grab groundwater samples contained up to 3,800 micrograms per liter (µg/l) TPHg (SB-7: 20-25 feet below grade [fbg]), 24 µg/l benzene (SB-7: 20-25 fbg), 140 µg/l toluene (SB-7: 20-25 fbg), 110 µg/l ethylbenzene (SB-7: 20-25 fbg), 1,000 µg/l xylenes (SB-7: 20-25 fbg), 1,400 µg/l Methyl tertiary-butyl ether (MTBE; SB-6: 25-27 fbg), and

3,200 µg/l tertiary-butyl alcohol (TBA; S-5: 15-25 fbg). Cambria's December 19, 2005 *Subsurface Investigation Report* presents details of the investigation.

2006 Well Survey Report: In February 2006, Cambria obtained an Environmental Data Resources (EDR) Report to identify potential receptor wells and research the site's historical use. No potential receptor wells were identified within a 1-mile radius. Sanborn Maps from between 1903 and 1969 indicate a structure was present on the site which was expanded circa 1953 and is marked as 'UNDERTKR' from this point forward. Adjacent properties appear to have been used for both commercial and residential purposes. The survey data and results are presented in Cambria's March 16, 2006 *Well Installation Work Plan and Well Survey Report.*

2006 Monitoring Well Installation: In July 2006, Cambria installed five groundwater monitoring wells (MW-1 through MW-5) in the area around the dispensers and UST complex. All analytical results for soil samples were below ESLs with the exception of 339 mg/kg TPHg detected in MW-4 at 10 fbg, below groundwater. Details of the well installations are presented in Cambria's October 5, 2006 *Site Investigation and Third Quarter 2006 Groundwater Monitoring Report.*

2006-Present Groundwater Monitoring: Quarterly groundwater monitoring began in August 2006. Depths to water have ranged from 6.24 to 11.55 feet below the top of well casings. During the November 2009 sample event, wells contained up to 140 µg/l TPHg (MW-2), 90 µg/l MTBE (MW-1), and 34 µg/l TBA (MW-2). No constituents of concern were detected in well MW-3.

APPENDIX B

HISTORICAL GROUNDWATER ANALYTICAL DATA

BLAINE
TECH SERVICES INC.

GROUNDWATER SAMPLING SPECIALISTS
SINCE 1985

November 20, 2009

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Shell Oil Products US
20945 South Wilmington Avenue
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Fourth Quarter 2009 Groundwater Monitoring at
Shell Service Station
510 E. 14th Street
Oakland, CA

Monitoring performed on November 3, 2009

Groundwater Monitoring Report **091103-RM-2**

This report covers the routine monitoring of groundwater wells at this Shell facility. In accordance with standard procedures that conform to Regional Water Quality Control Board requirements, routine field data collection includes depth to water, total well depth, thickness of any separate immiscible layer, water column volume, calculated purge volume (if applicable), elapsed evacuation time (if applicable), total volume of water removed (if applicable), and standard water parameter instrument readings. Sample material is collected, contained, stored, and transported to the laboratory in conformance with EPA standards. Purgewater (if applicable) is, likewise, collected and transported to the Martinez Refining Company.

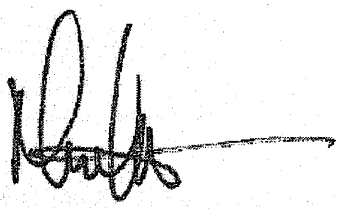
Basic field information is presented alongside analytical values excerpted from the laboratory report in the cumulative table of **WELL CONCENTRATIONS**. The full analytical report for the most recent samples and the field data sheets are attached to this report.

At a minimum, Blaine Tech Services, Inc. field personnel are certified on completion of a forty-hour Hazardous Materials and Emergency Response training course per 29 CFR 1910.120. Field personnel are also enrolled in annual eight-hour refresher courses.

Blaine Tech Services, Inc. conducts sampling and documentation assignments of this type as an independent third party. Our activities at this site consisted of objective data and sample collection only. No interpretation of analytical results, defining of hydrological conditions or formulation of recommendations was performed.

Please call if you have any questions.

Yours truly,



Mike Ninokata
Project Manager

MN/np

attachments: Cumulative Table of WELL CONCENTRATIONS
Certified Analytical Report
Field Data Sheets

cc: Anni Kreml
Conestoga-Rovers & Associates
5900 Hollis Street, Suite A
Emeryville, CA 94608

WELL CONCENTRATIONS
Shell Service Station
510 E. 14th Street
Oakland, CA

Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	1,2-DCA (ug/L)	EDB (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)
MW-1	08/24/2006	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	30.85	10.98	19.87
MW-1	08/29/2006	242	<0.500	<0.500	<0.500	<0.500	255	<0.500	<0.500	<0.500	54.1	<0.500	<0.500	30.85	10.98	19.87
MW-1	11/13/2006	140 a	<2.5	<2.5	<2.5	<2.5	300	<2.5	<2.5	<2.5	<100	NA	NA	30.85	11.05	19.80
MW-1	02/09/2007	100	<0.50	0.86	<0.50	<1.0	160	<2.0	<2.0	<2.0	95	NA	NA	30.85	9.61	21.24
MW-1	06/01/2007	<50 b	<0.50	<1.0	<1.0	<1.0	160	<2.0	<2.0	<2.0	<10	NA	NA	30.85	10.67	20.18
MW-1	08/15/2007	<50 b	<0.50	<1.0	<1.0	<1.0	210	<2.0	<2.0	<2.0	5.8 c	NA	NA	30.85	10.90	19.95
MW-1	11/30/2007	120 b,d	<1.0	<2.0	<2.0	<2.0	180	<4.0	<4.0	<4.0	<02	NA	NA	30.85	10.65	20.20
MW-1	01/24/2008	120 b,d	<0.50	<1.0	<1.0	<1.0	120	<2.0	<2.0	<2.0	<10	NA	NA	30.85	8.74	22.11
MW-1	05/20/2008	160	<0.50	<1.0	<1.0	<1.0	160	<2.0	<2.0	<2.0	<10	NA	NA	30.85	10.95	19.90
MW-1	08/05/2008	150	<0.50	<1.0	<1.0	<1.0	140	<2.0	<2.0	<2.0	<10	NA	NA	30.85	11.55	19.30
MW-1	12/02/2008	190	<0.50	<1.0	<1.0	<1.0	160	<2.0	<2.0	<2.0	<10	NA	NA	30.85	11.15	19.70
MW-1	02/20/2009	100	<0.50	<1.0	<1.0	<1.0	90	<2.0	<2.0	<2.0	<10	NA	NA	30.85	7.40	23.45
MW-1	05/07/2009	77	<0.50	<1.0	<1.0	<1.0	69	<2.0	<2.0	<2.0	<10	NA	NA	30.85	9.57	21.28
MW-1	**11/03/2009**	**100**	**<0.50**	**<1.0**	**<1.0**	**<1.0**	**90**	**<2.0**	**<2.0**	**<2.0**	**<10**	**NA**	**NA**	**30.85**	**10.29**	**20.56**
MW-2	08/24/2006	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	30.96	9.91	21.05
MW-2	08/29/2006	2,130	1.18	0.660	1.67	0.960	206	<0.500	<0.500	<0.500	55.5	<0.500	<0.500	30.96	9.91	21.05
MW-2	11/13/2006	890	<0.50	1.4	4.1	4.5	37	<0.50	<0.50	<0.50	41	NA	NA	30.96	10.11	20.85
MW-2	02/09/2007	760	0.84	3.0	5.0	6.7	67	<2.0	<2.0	<2.0	210	NA	NA	30.96	8.73	22.23
MW-2	06/01/2007	3,300 b	0.48 c	0.98 c	12	3.89 c	39	<2.0	<2.0	<2.0	79	NA	NA	30.96	8.83	22.13
MW-2	08/15/2007	3,500 b	0.40 c	0.78 c	11	3.4	9.4	<2.0	<2.0	<2.0	58	NA	NA	30.96	9.81	21.15
MW-2	11/30/2007	1,000 b	<0.50	0.34 c	<1.0	1.1	17	<2.0	<2.0	<2.0	<10	NA	NA	30.96	9.93	21.03
MW-2	01/24/2008	800 b	<0.50	<1.0	2.5	1.8	15	<2.0	<2.0	<2.0	320	NA	NA	30.96	8.13	22.83
MW-2	05/20/2008	2,600	<0.50	<1.0	11	2.6	11	<2.0	<2.0	<2.0	120	NA	NA	30.96	9.70	21.26
MW-2	08/05/2008	620	<0.50	<1.0	3.4	<1.0	37	<2.0	<2.0	<2.0	<10	NA	NA	30.96	10.46	20.50
MW-2	12/02/2008	<50	<0.50	<1.0	<1.0	<1.0	21	<2.0	<2.0	<2.0	<10	NA	NA	30.96	10.12	20.84
MW-2	02/20/2009	2,200	<0.50	<1.0	8.9	1.9	<1.0	<2.0	<2.0	<2.0	310	NA	NA	30.96	7.19	23.77
MW-2	05/07/2009	2,100	<0.50	1.2	6.8	1.7	13	<2.0	<2.0	<2.0	200	NA	NA	30.96	8.84	22.12
MW-2	**11/03/2009**	**140**	**<0.50**	**<1.0**	**<1.0**	**<1.0**	**14**	**<2.0**	**<2.0**	**<2.0**	**34**	**NA**	**NA**	**30.96**	**9.48**	**21.48**

WELL CONCENTRATIONS
Shell Service Station
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Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	1,2-DCA (ug/L)	EDB (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)
MW-3	08/24/2006	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	32.02	10.00	22.02
MW-3	08/29/2006	<50.0	<0.500	<0.500	<0.500	<0.500	28.8	<0.500	<0.500	<0.500	11.9	<0.500	<0.500	32.02	10.00	22.02
MW-3	11/13/2006	<50	<0.50	<0.50	<0.50	<0.50	1.5	<0.50	<0.50	<0.50	<20	NA	NA	32.02	10.85	21.17
MW-3	02/09/2007	<50	<0.50	2.4	0.81	5.8	2.6	<2.0	<2.0	<2.0	<5.0	NA	NA	32.02	9.90	22.12
MW-3	06/01/2007	<50 b	<0.50	<1.0	<1.0	<1.0	0.98 c	<2.0	<2.0	<2.0	<10	NA	NA	32.02	9.72	22.30
MW-3	08/15/2007	<50 b	<0.50	<1.0	<1.0	<1.0	1.3	<2.0	<2.0	<2.0	<10	NA	NA	32.02	10.69	21.33
MW-3	11/30/2007	<50 b	<0.50	<1.0	<1.0	<1.0	0.90 c	<2.0	<2.0	<2.0	<10	NA	NA	32.02	10.69	21.33
MW-3	01/24/2008	<50 b	<0.50	<1.0	<1.0	<1.0	1.1	<2.0	<2.0	<2.0	<10	NA	NA	32.02	9.00	23.02
MW-3	05/20/2008	<50	<0.50	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<10	NA	NA	32.02	10.70	21.32
MW-3	08/05/2008	<50	<0.50	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<10	NA	NA	32.02	11.22	20.80
MW-3	12/02/2008	<50	0.68	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<10	NA	NA	32.02	10.38	21.64
MW-3	02/20/2009	<50	<0.50	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<10	NA	NA	32.02	7.79	24.23
MW-3	05/07/2009	<50	<0.50	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<10	NA	NA	32.02	9.62	22.40
MW-3	**11/03/2009**	**<50**	**<0.50**	**<1.0**	**<1.0**	**<1.0**	**<1.0**	**<2.0**	**<2.0**	**<2.0**	**<10**	**NA**	**NA**	**32.02**	**10.41**	**21.61**
MW-4	08/24/2006	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	31.10	9.91	21.19
MW-4	08/29/2006	375	<0.500	<0.500	3.10	0.660	6.53	<0.500	<0.500	<0.500	<10.0	<0.500	<0.500	31.10	9.91	21.19
MW-4	11/13/2006	120	<0.50	<0.50	0.87	<0.50	4.6	<0.50	<0.50	<0.50	<20	NA	NA	31.10	10.05	21.05
MW-4	02/09/2007	130	<0.50	0.92	1.6	<1.0	5.2	<2.0	<2.0	<2.0	11	NA	NA	31.10	8.62	22.48
MW-4	06/01/2007	580 b	0.30 c	<1.0	5.5	0.57 c	3.4	<2.0	<2.0	<2.0	<10	NA	NA	31.10	6.94	24.16
MW-4	08/15/2007	430 b	<0.50	<1.0	0.48 c	<1.0	<1.0	<2.0	<2.0	<2.0	<10	NA	NA	31.10	9.01	22.09
MW-4	11/30/2007	87 b	<0.50	<1.0	0.25 c	<1.0	1.7	<2.0	<2.0	<2.0	<10	NA	NA	31.10	9.89	21.21
MW-4	01/24/2008	350 b,d	<0.50	<1.0	1.7	<1.0	2.5	<2.0	<2.0	<2.0	<10	NA	NA	31.10	7.52	23.58
MW-4	05/20/2008	200	<0.50	<1.0	<1.0	<1.0	1.8	<2.0	<2.0	<2.0	<10	NA	NA	31.10	9.85	21.25
MW-4	08/05/2008	<50	<0.50	<1.0	<1.0	<1.0	1.1	<2.0	<2.0	<2.0	<10	NA	NA	31.10	10.54	20.56
MW-4	12/02/2008	86	0.53	<1.0	<1.0	<1.0	1.4	<2.0	<2.0	<2.0	<10	NA	NA	31.10	10.20	20.90
MW-4	02/20/2009	240	<0.50	<1.0	4.5	<1.0	2.0	<2.0	<2.0	<2.0	<10	NA	NA	31.10	6.24	24.86
MW-4	05/07/2009	230	<0.50	<1.0	1.7	<1.0	1.7	<2.0	<2.0	<2.0	<10	NA	NA	31.10	8.14	22.96

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MW-4	**11/03/2009**	**71**	**<0.50**	**<1.0**	**<1.0**	**<1.0**	**1.5**	**<2.0**	**<2.0**	**<2.0**	**<10**	**NA**	**NA**	**31.10**	**9.57**	**21.53**
MW-5	08/24/2006	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	31.61	9.98	21.63
MW-5	08/29/2006	1,260	<0.500	<0.500	<0.500	<0.500	829	<0.500	<0.500	<0.500	<10.0	<0.500	<0.500	31.61	9.98	21.63
MW-5	11/13/2006	290 a	<5.0	<5.0	<5.0	<5.0	640	<5.0	<5.0	<5.0	<200	NA	NA	31.61	9.82	21.79
MW-5	02/09/2007	260	<0.50	1.1	<0.50	1.1	350	<2.0	<2.0	<2.0	270	NA	NA	31.61	9.41	22.20
MW-5	06/01/2007	<50 b	<1.0	<2.0	<2.0	<2.0	290	<4.0	<4.0	<4.0	<20	NA	NA	31.61	9.29	22.32
MW-5	08/15/2007	<50 b	<0.50	<1.0	<1.0	<1.0	580	<2.0	<2.0	<2.0	<10	NA	NA	31.61	10.01	21.60
MW-5	11/30/2007	210 b,d	<2.5	<5.0	<5.0	<5.0	340	<10	<10	<10	<50	NA	NA	31.61	9.52	22.09
MW-5	01/24/2008	82 b,d	<0.50	<1.0	<1.0	<1.0	230	<2.0	<2.0	<2.0	<10	NA	NA	31.61	8.95	22.66
MW-5	05/20/2008	160	<1.0	<2.0	<2.0	<2.0	140	<4.0	<4.0	<4.0	<20	NA	NA	31.61	9.90	21.71
MW-5	08/05/2008	190	<0.50	<1.0	<1.0	<1.0	180	<2.0	<2.0	<2.0	<10	NA	NA	31.61	10.27	21.34
MW-5	12/02/2008	180	<0.50	<1.0	<1.0	<1.0	160	<2.0	<2.0	<2.0	<10	NA	NA	31.61	9.93	21.68
MW-5	02/20/2009	120	<0.50	<1.0	<1.0	<1.0	110	<2.0	<2.0	<2.0	<10	NA	NA	31.61	7.59	24.02
MW-5	05/07/2009	92	<0.50	<1.0	<1.0	<1.0	87	<2.0	<2.0	<2.0	<10	NA	NA	31.61	8.63	22.98
MW-5	**11/03/2009**	**82**	**<0.50**	**<1.0**	**<1.0**	**<1.0**	**74**	**<2.0**	**<2.0**	**<2.0**	**<10**	**NA**	**NA**	**31.61**	**9.78**	**21.83**

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Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	1,2-DCA (ug/L)	EDB (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)

Abbreviations:
TPPH = Total petroleum hydrocarbons as gasoline by modified EPA Method 8260B.
BTEX = Benzene, toluene, ethylbenzene, xylenes by EPA Method 8260B.
MTBE = Methyl tertiary butyl ether
DIPE = Di-isopropyl ether, analyzed by EPA Method 8260B
ETBE = Ethyl tertiary butyl ether, analyzed by EPA Method 8260B
TAME = Tertiary amyl methyl ether, analyzed by EPA Method 8260B
TBA = Tertiary butyl alcohol or tertiary butanol, analyzed by EPA Method 8260B
1,2-DCA = 1,2-Dichloroethane, analyzed by EPA Method 8260B
EDB = Ethylene Dibromide, analyzed by EPA Method 8260B
TOC = Top of Casing Elevation
GW = Groundwater
ug/L = Parts per billion
MSL = Mean sea level
ft. = Feet
<n = Below detection limit
NA = Not applicable

Notes:
a = The result for this hydrocarbon is elevated due to the presence of single analyte peak(s) in the quantitation range.
b = Analyzed by EPA Method 8015B (M).
c = Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
d = The sample chromatographic pattern for TPH does not match the chromatographic pattern of the specified standard. Quantitation of the unknown hydrocarbon(s) in the sample was based upon the specified standard.
Site surveyed September 7, 2006 by Virgil Chavez of Vallejo, CA.