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

Re: Shell-branded Service Station
3600 Park Boulevard
Oakland, California
SAP Code 135689
Incident No. 97610341
ACHCSA Case No. RO0002855

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

CONESTOGA-ROVERS
& ASSOCIATES

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August 1, 2008

Mr. Jerry Wickham
Hazardous Materials Specialist
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Re: **Risk Evaluation and Request for Closure**
Shell-branded Service Station
3600 Park Boulevard
Oakland, California
Incident # 98995747
SAP Code 135689
CRA Project #240937-2008-11

Dear Mr. Wickham:

Conestoga-Rovers & Associates, Inc. (CRA) prepared this document on behalf of Equilon Enterprises LLC dba Shell Oil Products US (Shell) to present a risk evaluation and request closure of the site. The risk evaluation incorporates the most recent Regional Water Quality Control Board - San Francisco Bay Region Environmental Screening Levels (ESLs) based on the November 2007 (revised May 2008) publication. This document also includes an evaluation of the potential risk to receptors from the site and, based on the evaluation results, a request for case closure.

SITE LOCATION AND DESCRIPTION

The site is an operating Shell-branded service station located at the Park Boulevard and Chatham Road intersection in Oakland, California. The area surrounding the site is both commercial and residential. Interstate 580 is located across Chatham Road opposite the site's southwestern boundary (Figure 1). The service station layout includes a station building, four dispenser islands, and a gasoline underground storage tank (UST) complex (Figure 2).

SITE BACKGROUND AND PROJECT HISTORY

The locations of historical samples, borings, and wells discussed below are presented on Figure 2. The construction specifications for each boring and well are summarized on Table 1. Cumulative soil and grab groundwater analytical data are presented on Tables 2 and 3, respectively. The historical groundwater monitoring data table is included in Attachment A.

1998 Upgrade Soil Sampling: In February 1998, secondary containment was added to the existing dispensers and the turbine sumps. Cambria Environmental Technology, Inc. (Cambria) inspected the dispenser and tank pit areas. No field indications of hydrocarbons, such as staining or odor, were observed beneath dispensers D-3 or D-4 during the site visit. Since the City of Oakland Fire Department did not require sampling at dispensers during 1998 upgrade projects unless there was evidence of hydrocarbons, no sampling was performed at these dispensers. Cambria personnel observed staining and odor beneath dispensers D-1 and D-2 and collected soil samples beneath these dispensers at depths of approximately 2 feet into native soil. A second sample was collected from beneath dispenser D-2 at a depth of approximately 5 feet into native soil. Total petroleum hydrocarbons as gasoline (TPHg) was detected in all dispenser samples, with the maximum concentration of 2,703 milligrams per kilogram (mg/kg) detected in sample D-2 at 2.0 feet. Benzene was detected in all dispenser samples, with the maximum concentration of 1.3 mg/kg detected in sample D-2 at 5.0 feet. Methyl tertiary-butyl ether (MTBE) was detected in all dispenser samples, with the maximum concentration of 49 mg/kg detected in sample D-1 at 2.0 feet. On March 5, 1998, Shell filed an Underground Storage Tank Unauthorized Release Site Report. Cambria's April 7, 1998 *Dispenser Soil Sampling Report* documents these results.

2004 Well Survey: At Shell's request, Cambria performed a well survey for all water-producing wells within a 1/2-mile radius of the site. Cambria's search of the California Department of Water Resources and Geotracker database records did not return any records of water-producing wells within the search radius.

2004 Upgrade Activities: Paradiso Mechanical, Inc. (Paradiso) of San Leandro, California upgraded fuel dispensers in late June through mid-July 2004. Paradiso upgraded under-dispenser containment at the dispensers and installed enhanced vapor recovery equipment and improved sumps on the UST fuel fill ports. At the direction of the City of Oakland Fire Services Agency, Cambria collected soil samples at depths 1 to 2 feet into native soil beneath each dispenser on August 20, 2004. Four soil samples were collected at depths ranging from 4 to 5 feet below grade (fbg). Laboratory analysis of the samples indicated the presence of hydrocarbons in soils in and around the dispenser locations. As a result, Shell filed an Underground Storage Tank Unauthorized Release Report Form with the City of Oakland Fire Department on August 24, 2004. Cambria's October 15, 2004 *Dispenser Upgrade Sampling Report* includes details of the upgrade sampling.

2006 Subsurface Investigation: Cambria oversaw the advancement of eight soil borings (SB-1 through SB-8) and the installation of groundwater monitoring wells MW-2, MW-4, MW-7, and MW-8. Four of the borings (SB-1 through SB-4) were located in the vicinity of the dispensers, three (SB-5 through SB-7) in the vicinity of the UST complex, and one (SB-8) at a location in the assumed down-

gradient direction from both. Borings SB-2, SB-4, SB-7, and SB-8 were then over-drilled, and monitoring wells MW-2, MW-4, MW-7, and MW-8 installed.

TPHg was detected in three soil samples from boring SB-4 at concentrations ranging from 5.4 to 100 mg/kg. TPHg was also detected in soil boring SB-1 at a concentration of 1.1 mg/kg. Benzene, toluene, ethylbenzene, and xylenes (BTEX) were not detected in any soil sample. MTBE was detected in soil borings SB-1, SB-4, SB-5, SB-6, SB-7, and SB-8 at concentrations ranging from 0.0053 to 0.65 mg/kg. Tertiary-butyl alcohol (TBA) was detected in soil borings SB-1, SB-4, SB-6, SB-7, and SB-8 at concentrations ranging from 0.017 to 0.96 ppm. Fuel oxygenates di-isopropyl ether (DIPE), ethyl tertiary-butyl ether (ETBE), tertiary-amyl methyl ether (TAME), and lead scavengers 1,2-dichloroethane (1,2-DCA), and ethylene dibromide (EDB) were not detected in any soil samples.

TPHg was not detected in any grab groundwater samples. Benzene was detected in grab groundwater samples from borings SB-1, SB-2, and SB-3 at concentrations ranging from 0.065 to 0.86 micrograms per liter (µg/l). MTBE was detected in grab groundwater samples from borings SB-1, SB-3, SB-4, SB-5, SB-7, and SB-8 at concentrations ranging from 1.1 to 3,800 µg/l. TBA was detected in the grab groundwater sample from boring SB-8 at a concentration of 310 µg/l. Fuel oxygenates TAME, DIPE, ETBE, and lead scavengers 1,2-DCA and EDB were not detected in any grab groundwater samples.

Cambria's March 27, 2006 *Subsurface Investigation and First Quarter 2006 Groundwater Monitoring Report* documents these results.

2006- Present Groundwater Monitoring: Quarterly groundwater monitoring has been conducted at the site since January 2006. Maximum historical groundwater concentrations are 1,330 µg/l TPHg (well MW-4/January 24, 2006), 762 µg/l MTBE (well MW-4/January 24, 2006), 1.72 µg/l TAME (well MW-4/January 24, 2006), and 2.53 µg/l 1,2-DCA (well MW-2/April 27, 2006). In the most recent groundwater monitoring event (April 4, 2008), TPHg was not detected and the maximum groundwater concentration of MTBE was 21 µg/l in MW-4. BTEX, TBA, DIPE, ETBE, and EDB have not been detected in any groundwater monitoring samples.

RISK EVALUATION

In order to evaluate potential risks to human health and environment by the residual soil and groundwater impacts at the site, and thus the potential for case closure of this site, the most recent maximum concentrations of select constituents in soil and groundwater samples are compared to the most conservative Environmental Screening Levels (ESLs) published in San Francisco Bay RWQCB's *Screening For Environmental Concerns At Sites With Contaminated Soil and Groundwater* (Interim Final – November 2008 [Revised May 2008]) in the following table.

TABLE A

Constituents of Concern	Vadose Zone Soil Sample Maximum Concentrations Units in mg/kg	ESLs for Shallow Soils Where Groundwater is a source of drinking water, Residential Land Use (ESL Table A) Units in mg/kg	Current Maximum Concentrations in Site Groundwater [MW-4, 4/08] Units in µg/l	ESLs Where Groundwater is a source of drinking water (ESL Table A) Units in µg/l
TPHg	**180** (D-1-5')	83	<50	100
Benzene	<0.0050 (all)	0.044	<0.50	1.0
Toluene	<0.0050 (all)	2.9	<1.0	40
Ethylbenzene	<0.0050 (all)	2.3	<1.0	30
Xylenes	2.3 (D-1-5')	2.3	<1.0	20
MTBE	**0.37** (SB-1-10')	0.023	**21**	5.0
TBA	**0.96** (SB-6-5')	0.075	<10	12

Only TPHg, MTBE, and TBA concentrations in vadose zone soil and MTBE concentrations in groundwater exceed the most conservative ESLs. Additional evaluation of risk for these constituents follows.

TPHg, MTBE, and TBA in Soil: Since impact to groundwater is being evaluated directly by groundwater data, a comparison of the three constituents in soil that exceeded the drinking water ESLs to non drinking water ESLs is presented on the table below.

TABLE B

Constituents of Concern	Vadose Zone Soil Sample Maximum Concentrations Units in mg/kg	ESLs for Shallow Soils Where Groundwater is not a source of drinking water, Commercial/Industrial Land Use (ESL Table B) Units in mg/kg
TPHg	180 (D-1-5')	180
MTBE	0.37 (SB-1-10')	8.4
TBA	0.96 (SB-6-5')	110

As shown above, concentrations of TPHg, MTBE, and TBA were equal to or below the Table B ESLs (for shallow soils where groundwater is not a source of drinking water, commercial/industrial land use) in all vadose zone soil samples. Because the site is an operating service station and is expected to continue to operate into the foreseeable future, additional investigation of subsurface vapor migration to onsite commercial indoor air is not recommended unless site use changes.

MTBE in Groundwater: When comparing the maximum concentrations in groundwater to the most conservative ESLs (Table A), only MTBE in MW-4 exceeded the ESL for potential drinking water use. Cambria's California Department of Water Resources (DWR) file review conducted for Shell in 2004 indicated that no public or non-public water systems were located within ½ mile of the site. A current check of Geotracker indicates that there are no public water wells nearby the site. 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 in the foreseeable future. Further, in accordance with the June 1999 California Regional Water Quality Control Board, San Francisco Bay Region Groundwater Committee *East Bay Plain Groundwater Basin Beneficial Use Evaluation Report for Alameda and Contra Costa Counties, CA*, 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. Thus, drinking water ELS's do not necessarily apply at this site. The next applicable ESL for sites where

groundwater is not a source of drinking water is 1,800 µg/L for MTBE. The MTBE concentration in MW-4 (21 µg/l) is well below this B ESL.

Risk Evaluation Conclusions

The site is likely to remain in use as a gasoline station for the foreseeable future. Given the concentrations of contaminants in site soil and groundwater in relation to the ESLs presented above, and given the decreasing concentration trends and natural attenuation that is occurring, CRA concludes that the residual petroleum impacts at this site pose very little, or no risk to human health or the environment currently, or in the foreseeable future.

RECOMMENDATION FOR CASE CLOSURE

Petroleum impacts have been adequately delineated and the risk evaluation effectively demonstrates that the residual petroleum impacted soil and groundwater at the site do not pose a threat to human health or the environment currently, or in the foreseeable future. Natural attenuation is occurring at this site and is expected to continue to reduce residual concentrations of petroleum constituents. Therefore, additional investigation and monitoring at this site are not warranted. **CRA recommends that the ACHCSA consider granting case closure. Since additional monitoring is not warranted and would not provide new data for the site, CRA recommends that the monitoring program be suspended during the agency's review of this submittal and consideration of closure.** To assist with the closure review, a Site Closure Summary Form with attachments is included in Attachment B, for reference.

CONESTOGA-ROVERS
& ASSOCIATES

CLOSING

Please contact Peter Schaefer at (510) 420-3319 if you have any questions or comments regarding this report.

Sincerely,

Conestoga-Rovers & Associates, Inc.

PROFESSIONAL GEOLOGIST
PETER L SCHAEFER
NO. 5612
STATE OF CALIFORNIA

Peter Schaefer, CEG, CHG
Project Manager

for: Ana Friel, PG
Professional Geologist

Attachments

Figure 1. Vicinity Map
Figure 2. Groundwater Contour and Chemical Concentration Map

Table 1. Well and Boring Data
Table 2. Historical Soil Analytical Results
Table 3. Grab Groundwater Analytical Results

Attachment A. Well Concentrations
Attachment B. Site Closure Summary

cc: Mr. Denis Brown, Shell Oil Products US

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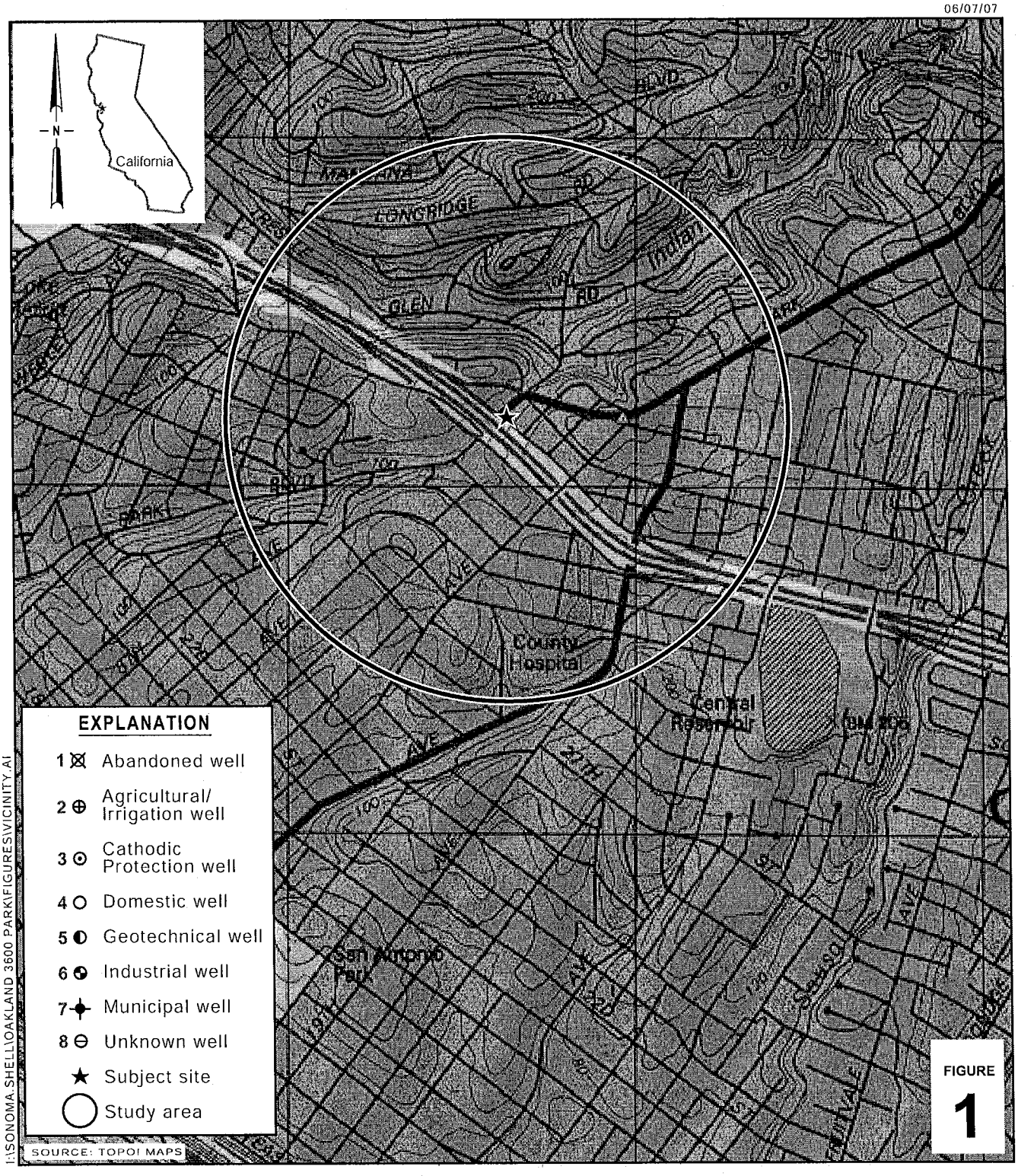

FIGURE 1

0 1/8 1/4 1/2 1

SCALE : 1" = 1/4 MILE

Shell-branded Service Station

3600 Park Boulevard

Oakland, California

CONESTOGA-ROVERS & ASSOCIATES

Vicinity Map

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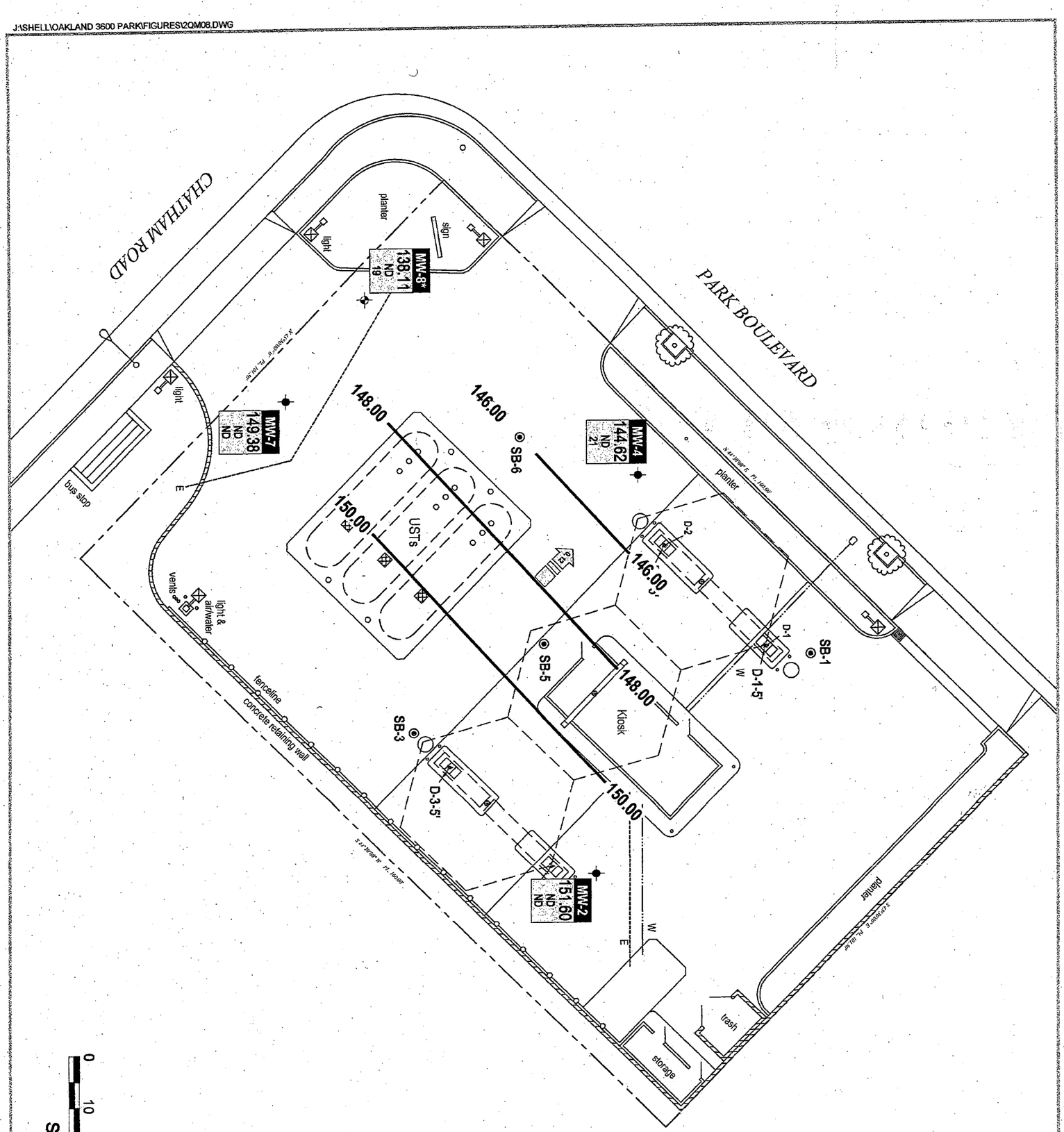

EXPLANATION

- MW-2 — Monitoring well location
- MW-8* — Monitoring well with different screen interval; not used for contouring
- SB-1 — Soil boring location (1/3-6/06)
- D-1-5' — Dispenser soil sample location (8/20/04)
- D-1 — Dispenser soil sample location (02/20/98)
- Electrical line (E)
- Water line (W)
- Groundwater flow direction and gradient
- XX.XX — Groundwater elevation contour, In feet above mean sea level (msl)
- Well — Well designation
- ELEV — Groundwater elevation, In feet above msl
- Benzene / MTBE — Benzene and MTBE concentrations are in micrograms per liter

Note:
ND = Not detected

05/27/08

FIGURE 2

Shell-branded Service Station
3600 Park Boulevard
Oakland, California

CONESTOGA-ROVERS & ASSOCIATES

Groundwater Contour and Chemical Concentration Map

April 8, 2008

Table 1. Well and Boring Data, Shell-branded Service Station, 3600 Park Boulevard, Oakland, California

Name	Type	Boring Date	TOC Elev (ft msl)	Total Depth (fbg)	Soil Sampling Interval (ft)	First Encountered Groundwater Depth (fbg)	First Encountered Groundwater Elev (ft msl)	Screen Diam. (in)	Screen Depth (fbg) Top	Screen Depth (fbg) Bottom
SB-1	3" Geoprobe boring	1/4/2006	-	28	5	25	-	-	-	-
MW-2	3" Geoprobe boring converted to 4" monitoring well	1/3/2006	156.92	30	5	24	145.69	4	20	30
SB-3	3" Geoprobe boring	1/3/2006	-	12	5	8 (a)	-	-	-	-
MW-4	3" Geoprobe boring converted to 4" monitoring well	1/3/2006	155.00	30	5	24	145.08	4	20	30
SB-5	3" Geoprobe boring	1/3/2006	-	12	5	8 (a)	-	-	-	-
SB-6	3" Geoprobe boring	1/3/2006	-	40	5	39	-	-	-	-
MW-7	3" Geoprobe boring converted to 4" monitoring well	1/4/2006	154.00	40	5	35	144.36	4	28	38
MW-8	3" Geoprobe boring converted to 4" monitoring wel	1/4/2006	152.61	50	5	33	135.53	4	40	50

Abbreviations:

ft msl = Feet referenced to mean sea level

TOC = Top of casing

fbg = feet below grade

a = perched water zone, possibly the result of leaking water pipe on property

Table 2. Historical Soil Analytical Results - Shell-branded Service Station, 3600 Park Blvd., Oakland, California,

Sample ID	Depth (fbg)	Date Sampled	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB
			(ppm) parts per million											
D-1	2	2/20/1998	**930**	**1.0**	**20**	**11**	**78**	---	**49**	---	---	---	---	---
D-2	2	2/20/1998	**2,703**	**1.2**	**1.1**	**1.9**	**14**	---	**4.5**	---	---	---	---	---
D-2	5	2/20/1998	**180**	**1.3**	**0.46**	**1.7**	**4.0**	---	**1.6**	---	---	---	---	---
D-1-5'	5	8/20/2004	**180**	<0.50	<0.50	<0.50	**2.3**	---	<0.50	---	---	---	---	---
D-2-5'	5	8/20/2004	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	---	---	---	---	---
D-3-5'	5	8/20/2004	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	---	---	---	---	---
D-4-5'	5	8/20/2004	**30**	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	---	---	---	---	---
SB-1-5	5	1/3/2006	**1.1**	<0.0050	<0.0050	<0.0050	<0.0050	**0.27**	**0.25**	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
SB-1-10	10	1/3/2006	<2.5	<0.012	<0.012	<0.012	<0.012	**0.37**	**0.33**	<0.025	<0.012	<0.012	<0.012	<0.012
SB-1-15	15	1/3/2006	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	**0.36**	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
SB-1-20	20	1/3/2006	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	**0.023**	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
SB-1-25	25	1/3/2006	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
SB-2-5	5	1/3/2006	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
SB-2-10	10	1/3/2006	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
SB-2-15	15	1/3/2006	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
SB-2-20	20	1/3/2006	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
SB-3-5	5	1/3/2006	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
SB-3-10	10	1/3/2006	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
SB-4-5	5	1/3/2006	**150**	<0.50	<0.50	<0.50	<0.50	<2.5	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50
SB-4-10	10	1/3/2006	**5.4**	<0.025	<0.025	<0.025	<0.025	**0.092**	<0.025	<0.050	<0.025	<0.025	<0.025	<0.025

Table 2. Historical Soil Analytical Results - Shell-branded Service Station, 3600 Park Blvd., Oakland, California,

Sample ID	Depth (fbg)	Date Sampled	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB
			(ppm) parts per million											
SB-4-15	15	1/3/2006	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	**0.030**	**0.13**	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
SB-4-20	20	1/3/2006	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	**0.0053**	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
SB-4-25	25	1/3/2006	**100**	<0.50	<0.50	<0.50	<0.50	<2.5	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50
SB-5-5	5	1/3/2006	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	**0.011**	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
SB-5-10	10	1/3/2006	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	**0.012**	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
SB-6-5	5	1/3/2006	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	**0.96**	**0.0085**	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
SB-6-10	10	1/3/2006	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
SB-6-15	15	1/3/2006	<5.0	<0.025	<0.025	<0.025	<0.025	<0.050	**0.24**	<0.050	<0.025	<0.025	<0.025	<0.025
SB-6-20	20	1/3/2006	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	**0.032**	**0.33**	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
SB-6-25	25	1/3/2006	<5.0	<0.025	<0.025	<0.025	<0.025	<0.050	**0.48**	<0.050	<0.025	<0.025	<0.025	<0.025
SB-6-30	30	1/3/2006	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	**0.075**	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
SB-6-35	35	1/3/2006	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	**0.018**	**0.19**	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
SB-6-39.5	39.5	1/3/2006	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
SB-7-5	5	1/4/2006	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
SB-7-10	10	1/4/2006	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
SB-7-15	15	1/4/2006	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	**0.32**	**0.026**	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
SB-7-20	20	1/4/2006	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	**0.035**	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
SB-7-25	25	1/4/2006	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	**0.032**	**0.030**	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
SB-7-30	30	1/4/2006	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
SB-7-35	35	1/4/2006	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050

Table 2. Historical Soil Analytical Results - Shell-branded Service Station, 3600 Park Blvd., Oakland, California,

Sample ID	Depth (fbg)	Date Sampled	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB
			(ppm) parts per million											
SB-8-5	5	1/4/2006	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	**0.0054**	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
SB-8-10	10	1/4/2006	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
SB-8-15	15	1/4/2006	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
SB-8-20	20	1/4/2006	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	**0.17**	**0.65** [a]	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
SB-8-25	25	1/4/2006	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	**0.017**	**0.54** [a]	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
SB-8-30	30	1/4/2006	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	**0.034**	**0.42** [a]	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
SB-8-35	35	1/4/2006	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	**0.027**	**0.44** [a]	<0.010	<0.0050	<0.0050	<0.0050	<0.0050

Abbreviations and Notes:

TPHg = Total petroleum hydrocarbons as gasoline analyzed by EPA Method 8260B; prior to 2004, analyzed by EPA Mehtod 8015

Benzene, toluene, ethylbenzene, and xylenes analyzed by EPA Method 8260B; prior to 2004, analyzed by EPA Method 8020

TBA = Tert-butyl alcohol analyzed by EPA Method 8260B.

MTBE = methyl tertiary butyl ether analyzed by EPA Method 8260B; prior to 2004, analyzed by EPA Method 8020

DIPE = Di-isopropyl ether analyzed by EPA Method 8260B.

ETBE = ethyl tert butyl ether analyzed by EPA Method 88260b.

TAME = Tert-amyl methyl ether analyzed by EPA Method 8260B.

1,2-DCA = 1,2-dichloroethane analyzed by EPA Method 8260B.

EDB = 1,2-dibromomethane analyzed by EPA Method 8260B.

fbg = Feet below grade

--- = Not analyzed

a = Estimated value. The concentration exceeded the calibration of analysis.

Table 3. Grab Groundwater Analytical Results - Shell-branded Service Station, 3600 Park Blvd., Oakland, California

Sample	Date Sampled	Depth (fbg)	TPHg µg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Xylenes µg/L	TBA µg/L	MTBE µg/L	DIPE µg/L	ETBE µg/L	TAME µg/L	1,2-DCA µg/L	EDB µg/L
			← (ppb) parts per billion →											
SB-1-25W	1/4/2006	25	<50	**0.86**	<0.50	<0.50	<1.0	<5.0	**22**	<2.0	<2.0	<2.0	<0.50	<0.50
SB-2-23W	1/3/2006	23	<50	**0.53**	<0.50	<0.50	<1.0	<5.0	<0.50	<2.0	<2.0	<2.0	<0.50	<0.50
SB-3-5W	1/3/2006	5.5	<50	**0.065**	<0.50	<0.50	<1.0	<5.0	**1.1**	<2.0	<2.0	<2.0	<0.50	<0.50
SB-4-24W	1/3/2006	24	<50	<0.50	<0.50	<0.50	<1.0	<5.0	**3.0**	<2.0	<2.0	<2.0	<0.50	<0.50
SB-5-10.5W	1/3/2006	5	<50	<0.50	<0.50	<0.50	<1.0	<5.0	**8.5**	<2.0	<2.0	<2.0	<0.50	<0.50
SB-6-25W	1/3/2006	25	<50	<0.50	<0.50	<0.50	<1.0	**37**	<0.50	<2.0	<2.0	<2.0	**0.75**	<0.50
SB-7-29W	1/4/2006	29	<50	<0.50	<0.50	<0.50	<1.0	<5.0	**8.9**	<2.0	<2.0	<2.0	<0.50	<0.50
SB-8-32W	1/4/2006	32	<2500	<25	<25	<25	<50	<250	**3,400**	<100	<100	<100	<25	<25
SB-8-50W	1/4/2006	50	<2500	<25	<25	<25	<50	**310**	**3,800**	<100	<100	<100	<25	<25

Abbreviations and Notes:

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

TBA = Tert-butyl alcohol analyzed by EPA Method 8260B.

MTBE = methyl tertiary butyl ether analyzed by EPA Method 8260B

DIPE = Di-isopropyl ether analyzed by EPA Method 8260B.

ETBE = ethyl tert butyl ether analyzed by EPA Method 8260B.

TAME = Tert-amyl methyl ether analyzed by EPA Method 8260B.

1,2-DCA = 1,2-dichloroethane analyzed by EPA Method 8260B.

EDB = 1,2-dibromomethane analyzed by EPA Method 8260B.

Attachment A

Well Concentrations

WELL CONCENTRATIONS
Shell Service Station
3600 Park Boulevard
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-2	1/12/2006	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	156.92	11.62	145.30
MW-2	1/19/2006	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	156.92	8.72	148.20
MW-2	1/24/2006	<50.0	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<10.0	<0.500	<0.500	156.92	11.23	145.69
MW-2	4/27/2006	<50.0	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<10.0	2.53	<0.500	156.92	4.43	152.49
MW-2	7/11/2006	<50.0	<0.500	<0.500	<0.500	<1.50	<0.500	<0.500	<0.500	<0.500	<10.0	<0.500	<0.500	156.92	4.48	152.44
MW-2	10/26/2006	<50.0	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<10.0	<0.500	<0.500	156.92	4.64	152.28
MW-2	1/19/2007	<50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<10	<0.50	<0.50	156.92	4.73	152.19
MW-2	4/2/2007	<50 a	<0.50	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<10	<0.50	<1.0	156.92	4.70	152.22
MW-2	7/18/2007	<50 a	<0.50	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<10	<0.50	<1.0	156.92	4.77	152.15
MW-2	10/30/2007	<50 a	<0.50	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<10	<0.50	<1.0	156.92	5.31	151.61
MW-2	2/6/2008	53 a	<0.50	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<10	<0.50	<1.0	156.92	5.37	151.55
MW-2	**4/8/2008**	**<50 a**	**<0.50**	**<1.0**	**<1.0**	**<1.0**	**<1.0**	**<2.0**	**<2.0**	**<2.0**	**<10**	**<0.50**	**<1.0**	**156.92**	**5.32**	**151.60**
MW-4	1/12/2006	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	155.00	9.43	145.57
MW-4	1/19/2006	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	155.00	9.45	145.55
MW-4	1/24/2006	1,330	<0.500	<0.500	<0.500	<0.500	762	<0.500	<0.500	1.72	<10.0	1.35	<0.500	155.00	9.92	145.08
MW-4	4/27/2006	<50.0	<0.500	<0.500	<0.500	<0.500	72.7	<0.500	<0.500	<0.500	<10.0	1.00	<0.500	155.00	9.33	145.67
MW-4	7/11/2006	<50.0	<0.500	<0.500	<0.500	<0.500	38.8	<0.500	<0.500	<0.500	<10.0	<0.500	<0.500	155.00	9.68	145.32
MW-4	10/26/2006	<50.0	<0.500	<0.500	<0.500	<0.500	39.8	<0.500	<0.500	<0.500	<10.0	<0.500	<0.500	155.00	10.28	144.72
MW-4	1/19/2007	<50	<0.50	<0.50	<0.50	<1.0	28	<1.0	<1.0	<1.0	<10	0.68	<0.50	155.00	10.26	144.74
MW-4	4/2/2007	<50 a	<0.50	<1.0	<1.0	<1.0	20	<2.0	<2.0	<2.0	<10	0.39 b	<1.0	155.00	9.93	145.07
MW-4	7/18/2007	<50 a	<0.50	<1.0	<1.0	<1.0	59	<2.0	<2.0	<2.0	<10	0.35 b	<1.0	155.00	10.34	144.66
MW-4	10/30/2007	<50 a	<0.50	<1.0	<1.0	<1.0	28	<2.0	<2.0	<2.0	<10	0.41 b	<1.0	155.00	10.68	144.32
MW-4	2/6/2008	57 a	<0.50	<1.0	<1.0	<1.0	72	<2.0	<2.0	<2.0	<10	<0.50	<1.0	155.00	10.27	144.73
MW-4	**4/8/2008**	**<50 a**	**<0.50**	**<1.0**	**<1.0**	**<1.0**	**21**	**<2.0**	**<2.0**	**<2.0**	**<10**	**<0.50**	**<1.0**	**155.00**	**10.38**	**144.62**
MW-7	1/12/2006	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	154.00	5.97	148.03
MW-7	1/19/2006	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	154.00	6.40	147.60

WELL CONCENTRATIONS
Shell Service Station
3600 Park Boulevard
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-7	1/24/2006	<50.0	<0.500	<0.500	<0.500	<0.500	3.08	<0.500	<0.500	<0.500	<10.0	<0.500	<0.500	154.00	9.64	144.36
MW-7	4/27/2006	<50.0	<0.500	<0.500	<0.500	<0.500	0.690	<0.500	<0.500	<0.500	<10.0	2.32	<0.500	154.00	3.49	150.51
MW-7	7/11/2006	<50.0	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<10.0	<0.500	<0.500	154.00	3.96	150.04
MW-7	10/26/2006	<50.0	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<10.0	<0.500	<0.500	154.00	5.11	148.89
MW-7	1/19/2007	<50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<10	<0.50	<0.50	154.00	4.62	149.38
MW-7	4/2/2007	<50 a	<0.50	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<10	<0.50	<1.0	154.00	4.23	149.77
MW-7	7/18/2007	<50 a	<0.50	<1.0	<1.0	<1.0	0.31 b	<2.0	<2.0	<2.0	<10	<0.50	<1.0	154.00	5.08	148.92
MW-7	10/30/2007	<50 a	<0.50	<1.0	<1.0	<1.0	0.84 b	<2.0	<2.0	<2.0	<10	<0.50	<1.0	154.00	5.58	148.42
MW-7	2/6/2008	<50 a	<0.50	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<10	<0.50	<1.0	154.00	5.15	148.85
MW-7	**4/8/2008**	**<50 a**	**<0.50**	**<1.0**	**<1.0**	**<1.0**	**<1.0**	**<2.0**	**<2.0**	**<2.0**	**<10**	**<0.50**	**<1.0**	**154.00**	**4.62**	**149.38**
MW-8	1/12/2006	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	152.61	16.84	135.77
MW-8	1/19/2006	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	152.61	16.00	136.61
MW-8	1/24/2006	1,120	<0.500	<0.500	<0.500	<0.500	592	<0.500	<0.500	<0.500	<10.0	<0.500	<0.500	152.61	17.08	135.53
MW-8	4/27/2006	<50.0	<0.500	<0.500	<0.500	<0.500	26.4	<0.500	<0.500	<0.500	<10.0	2.32	<0.500	152.61	12.97	139.64
MW-8	7/11/2006	<50.0	<0.500	<0.500	<0.500	<0.500	16.8	<0.500	<0.500	<0.500	<10.0	<0.500	<0.500	152.61	12.91	139.70
MW-8	10/26/2006	<50.0	<0.500	<0.500	<0.500	<0.500	6.09	<0.500	<0.500	<0.500	<10.0	<0.500	<0.500	152.61	14.28	138.33
MW-8	1/19/2007	<50	<0.50	<0.50	<0.50	<1.0	8.3	<1.0	<1.0	<1.0	<10	<0.50	<0.50	152.61	14.45	138.16
MW-8	4/2/2007	<50 a	<0.50	<1.0	<1.0	<1.0	23	<2.0	<2.0	<2.0	<10	<0.50	<1.0	152.61	14.54	138.07
MW-8	7/18/2007	<50 a	<0.50	<1.0	<1.0	<1.0	24	<2.0	<2.0	<2.0	<10	<0.50	<1.0	152.61	14.71	137.90
MW-8	10/30/2007	<50 a	<0.50	<1.0	<1.0	<1.0	14	<2.0	<2.0	<2.0	<10	<0.50	<1.0	152.61	15.45	137.16
MW-8	2/6/2008	57 a	<0.50	<1.0	<1.0	<1.0	8.1	<2.0	<2.0	<2.0	<10	<0.50	<1.0	152.61	15.27	137.34
MW-8	**4/8/2008**	**<50 a**	**<0.50**	**<1.0**	**<1.0**	**<1.0**	**19**	**<2.0**	**<2.0**	**<2.0**	**<10**	**<0.50**	**<1.0**	**152.61**	**14.50**	**138.11**

WELL CONCENTRATIONS
Shell Service Station
3600 Park Boulevard
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)

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 = Analyzed by EPA Method 8015B (M).
b = Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
Site surveyed on February 2, 2006 by Virgil Chavez Land Surveying of Vallejo, CA.

Attachment B

Site Closure Summary

SITE CLOSURE SUMMARY

I. AGENCY INFORMATION

Date: June 19, 2008

Agency Name: Alameda County Health Care Services Agency	Address: 1131 Harbor Bay Parkway, Suite 250
City/State/Zip: Alameda, CA 95402-6577	Phone: (510) 567-6791
Responsible Staff Person: Mr. Jerry Wickham	Title: Hazardous Material Specialist

II. SITE INFORMATION

Site Facility Name: Shell branded Service Station		
Site Facility Address: 3600 Park Boulevard, Oakland, California		
RB Case Nos.:	Local or LOP Case No.: RO-2855	Priority:
URF Filing Date: 3/5/98	SWEEPS No.	
Responsible Parties (include addresses and phone numbers)		
Shell Oil Products US, 20945 S. Wilmington Avenue, Carson, CA 90810, (707) 865-0251		

Tank No.	Size in Gallons	Contents	Closed In—Place/Removed?	Date
1	10,000	Gasoline		
2	10,000	Gasoline		
3	10,000	Gasoline		

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and Type of Release: Petroleum Hydrocarbon (Gasoline) release from loss of integrity of dispensers at site.		
Site characterization complete? YES	Date Approved by Oversight Agency:	
Monitoring wells installed? YES	Number: 4	Proper screened interval? YES
Highest GW Depth Below Ground Surface: 3.49 ft	Lowest Depth: 17.08 ft	Flow Direction: Northwesterly
Most Sensitive Current Use: Commercial		
Drinking water potential = Unlikely Most Sensitive Potential Use and Probability of Use = Based on the *Final Report, June 1999 East Bay Plain Groundwater Basin Beneficial Use Evaluation Report* by the California Regional Water Quality Control Board San Francisco Bay Region Groundwater Committee, the City of Oakland does not have "any plans to develop local groundwater resources for drinking water purposes, because of existing or potential saltwater intrusion, contamination, or poor or limited quantity."		
Are drinking water wells affected? NO	Aquifer Name: NA	
Is surface water affected? NO	Nearest surface water name: Central Reservoir - approximately	

	3,000 feet southeast of site.
Off-Site Beneficial Use Impacts (Addresses/Locations): NONE	
Report(s) on file? YES	Where is report(s) filed? ACHCSA

TREATMENT AND DISPOSAL OF AFFECTED MATERIAL

Material	Amount (Include Units)	Action (Treatment or Disposal w/Destination)	Date
Tank	NA		
Dispensers/Piping	NA		
Free Product	NA		
Soil	5 cubic yards	Hauled to Forward Landfill in Manteca, California	9/7/04
Groundwater	12,000 gallons	Transported to Martinez Refining Company for treatment	8/04 to 9/04

MAXIMUM DOCUMENTED POLLUTANT CONCENTRATIONS—BEFORE AND AFTER CLEANUP

POLLUTANT	Soil (ppm)		Water (ppb)		POLLUTANT	Soil (ppm)		Water (ppb)	
	Before 2004	After 2004	Max. 1/06 – 1/08	Apr.2008		Before 2004	After 2004	Max. 1/06 – 1/08	Apr. 2008
TPHg	2,703	180	1,330	<50	Xylenes	78	<0.50	<50	<1.0
TPHd	na	na	na	na	MTBE	49	0.48	3,800	21
Benzene	1.3	<0.50	0.86	<0.50	TBA	na	0.96	310	<10
Toluene	20	<0.50	<25	<1.0					
Ethylbenzene	11	<0.50	<25	<1.0					

Comments (Depth of Remediation, etc.):

Approximately 5 cubic yards of soil and 12,000 gallons of groundwater were removed during dispenser upgrade activities in 2004.

The extent of impact at the site is has been delineated and does not indicate significant offsite impact. Site investigations have shown that onsite concentrations of petroleum hydrocarbon constituents are continuing to decline through natural attenuation processes. Residual concentrations in soil and groundwater pose no threat to current onsite use or anticipated future uses, to occasional onsite construction worker, or to nearest receptor, therefore pose little or no risk to human health or the environment.

IV. CLOSURE

Does completed corrective action protect existing beneficial uses per the Regional Board Basin Plan? YES		
Does completed corrective action protect potential beneficial uses per the Regional Board Basin Plan? YES		
Does corrective action protect public health for current land use? YES		
Site Management Requirements: Destroy wells upon receipt of Agency approval.		
Monitoring Wells Decommissioned: No	Number Decommissioned: NA	Number Retained: 7
List Enforcement Actions Taken: NA		

List Enforcement Actions Rescinded: NA

TECHNICAL REPORTS, CORRESPONDENCE, ETC., WHICH THIS CLOSURE RECOMMENDATION WAS BASED UPON:

1998 Upgrade Soil Sampling: In February 1998, secondary containment was added to the existing dispensers and the turbine sumps. Cambria Environmental Technology, Inc. (Cambria) inspected the dispenser and tank pit areas. No field indications of hydrocarbons, such as staining or odor, were observed beneath dispensers D-3 or D-4 during the site visit. Since the City of Oakland Fire Department did not require sampling at dispensers during 1998 upgrade projects unless there was evidence of hydrocarbons, no sampling was performed at these dispensers. Cambria personnel observed staining and odor beneath dispensers D-1 and D-2 and collected soil samples beneath these dispensers at depths of approximately 2 feet into native soil. A second sample was collected from beneath dispenser D-2 at a depth of approximately 5 feet into native soil. Total petroleum hydrocarbons as gasoline (TPHg) was detected in all dispenser samples, with the maximum concentration of 2,703 milligrams per kilogram (mg/kg) detected in sample D-2 at 2.0 feet. Benzene was detected in all dispenser samples, with the maximum concentration of 1.3 mg/kg detected in sample D-2 at 5.0 feet. Methyl tertiary-butyl ether (MTBE) was detected in all dispenser samples, with the maximum concentration of 49 mg/kg detected in sample D-1 at 2.0 feet. On March 5, 1998, Shell filed an Underground Storage Tank Unauthorized Release Site Report. Cambria's April 7, 1998 *Dispenser Soil Sampling Report* documents these results.

2004 Well Survey: At Shell's request, Cambria performed a well survey for all water-producing wells within a 1/2-mile radius of the site. Cambria's search of the California Department of Water Resources and Geotracker database records did not return any records of water-producing wells within the search radius.

2004 Upgrade Activities: Paradiso Mechanical, Inc. (Paradiso) of San Leandro, California upgraded fuel dispensers in late June through mid-July 2004. Paradiso upgraded under-dispenser containment at the dispensers and installed enhanced vapor recovery equipment and improved sumps on the UST fuel fill ports. At the direction of the City of Oakland Fire Services Agency, Cambria collected soil samples at depths 1 to 2 feet into native soil beneath each dispenser on August 20, 2004. Four soil samples were collected at depths ranging from 4 to 5 feet below grade (fbg). Laboratory analysis of the samples indicated the presence of hydrocarbons in soils in and around the dispenser locations. As a result, Shell filed an Underground Storage Tank Unauthorized Release Report Form with the City of Oakland Fire Department on August 24, 2004. Cambria's October 15, 2004 *Dispenser Upgrade Sampling Report* includes details of the upgrade sampling.

2006 Subsurface Investigation: Cambria oversaw the advancement of eight soil borings (SB-1 through SB-8) and the installation of groundwater monitoring wells MW-2, MW-4, MW-7, and MW-8. Four of the borings (SB-1 through SB-4) were located in the vicinity of the dispensers, three (SB-5 through SB-7) in the vicinity of the UST complex, and one (SB-8) at a location in the assumed downgradient direction from both. Borings SB-2, SB-4, SB-7, and SB-8 were then over-drilled, and monitoring wells MW-2, MW-4, MW-7, and MW-8 installed.

TPHg was detected in three soil samples from boring SB-4 at concentrations ranging from 5.4 to 100 mg/kg. TPHg was also detected in soil boring SB-1 at a concentration of 1.1 mg/kg. Benzene, toluene, ethylbenzene, and xylenes (BTEX) were not detected in any soil sample. MTBE was detected in soil borings SB-1, SB-4, SB-5, SB-6, SB-7, and SB-8 at concentrations ranging from 0.0053 to 0.65 mg/kg. Tertiary-butyl alcohol (TBA) was detected in soil borings SB-1, SB-4, SB-6, SB-7, and SB-8 at concentrations ranging from 0.017 to 0.96 ppm. Fuel oxygenates di-isopropyl ether (DIPE), ethyl tertiary-butyl ether (ETBE), tertiary-amyl methyl ether (TAME), and lead scavengers 1,2-dichloroethane (1,2-DCA), and ethylene dibromide (EDB) were not detected in any soil samples.

TPHg was not detected in any grab groundwater samples. Benzene was detected in grab groundwater samples from borings SB-1, SB-2 and SB-3 at concentrations ranging from 0.065 to 0.86 micrograms per liter (µg/l). MTBE was detected in grab groundwater samples from borings SB-1, SB-3, SB-4, SB-5, SB-7, and SB-8 at concentrations ranging from 1.1 to 3,800 µg/l. TBA was detected in the grab groundwater sample from boring SB-8 at a concentration of 310 µg/l. Fuel oxygenates TAME, DIPE, ETBE and lead scavengers 1,2-DCA and EDB were not detected in any grab groundwater samples.

2006- Present Groundwater Monitoring: Quarterly groundwater monitoring has been conducted at the site since January 2006. Maximum historical groundwater concentrations are 1,330 µg/l TPHg (well MW-4/January 24, 2006), 762 µg/l MTBE (well MW-4/January 24, 2006), 1.72 µg/l TAME (well MW-4/January 24, 2006), and 2.53 µg/l 1,2-DCA (well MW-2/April 27, 2006). In the most recent groundwater monitoring event (April 4, 2008), TPHg was not detected and the maximum groundwater concentration of MTBE was 21 µg/l in MW-4. BTEX, TBA, DIPE, ETBE, and EDB have not been detected in any groundwater monitoring samples.

Attachments:

Figures: Vicinity Map
Groundwater Contour and Chemical Concentration Map - April 8, 2008

Tables: Table 1 - Well and Boring Data
Table 2 - Historical Soil Analytical Results
Table 3 - Grab Groundwater Analytical Results
Well Concentrations

This document and the related CASE CLOSURE LETTER shall be retained by the lead agency as part of the official site file.

06/07/07

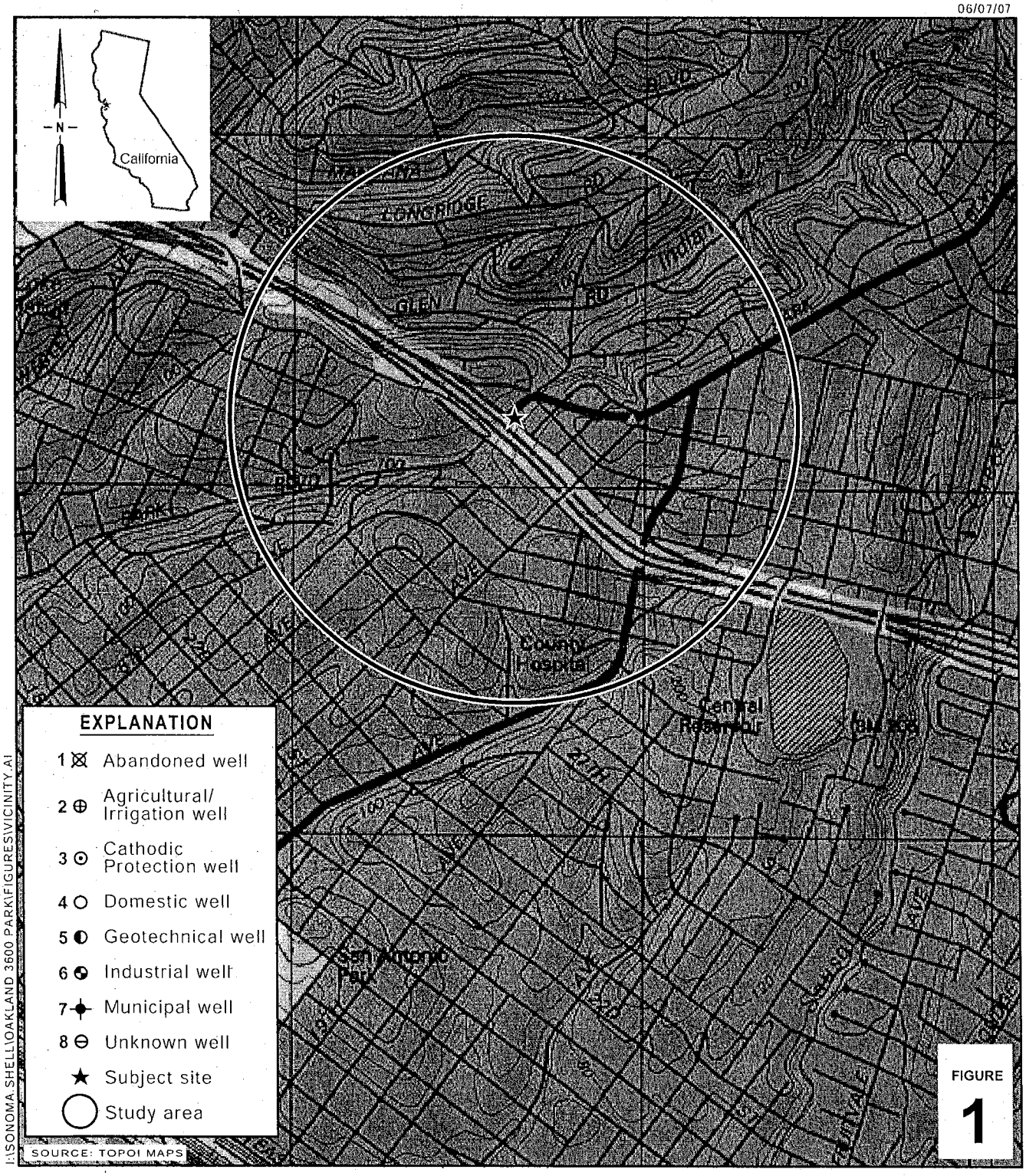

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FIGURE 1

Shell-branded Service Station

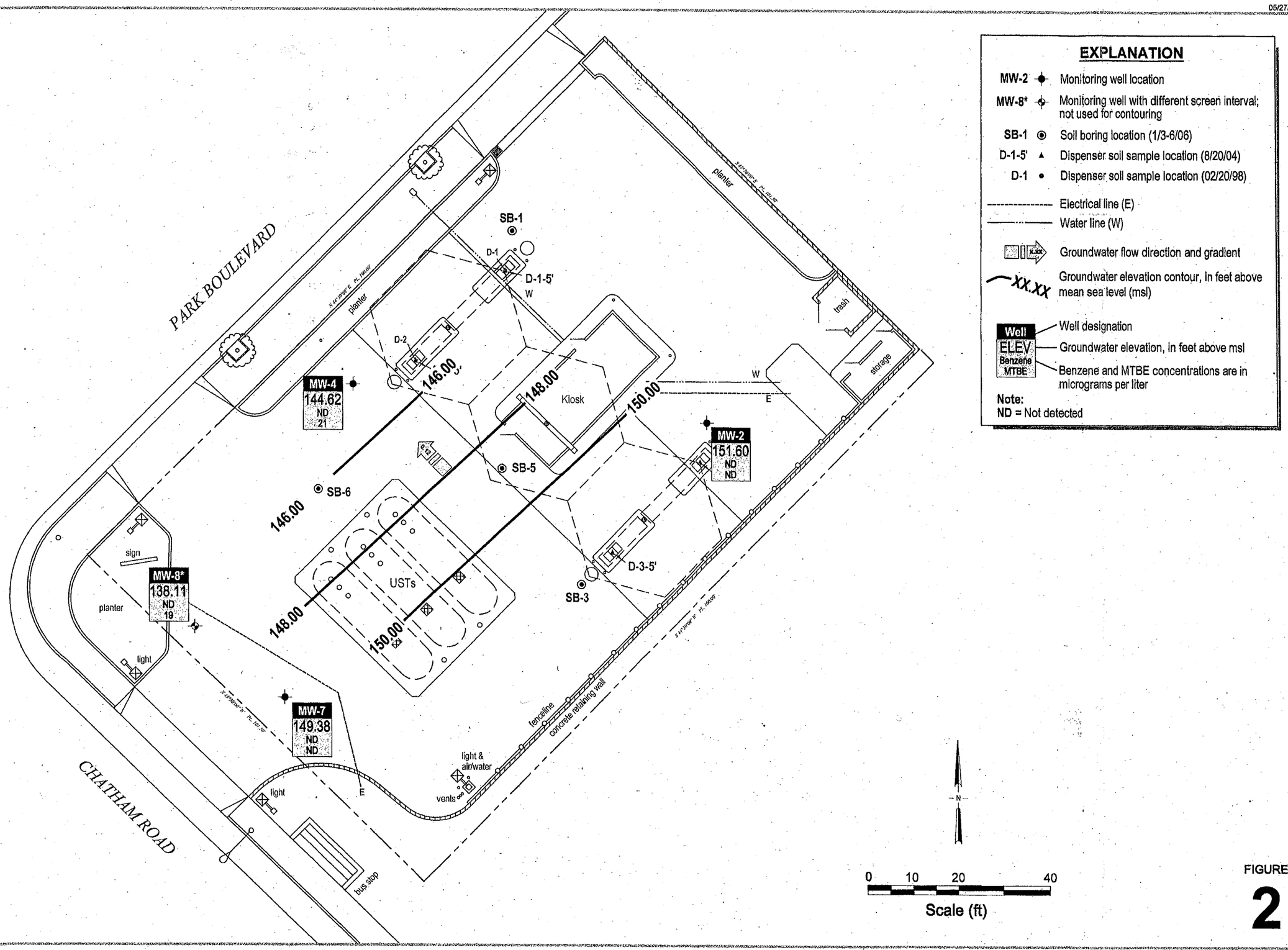
3600 Park Boulevard

Oakland, California

CONESTOGA-ROVERS & ASSOCIATES

Vicinity Map

05/27/08



EXPLANATION

- MW-2 — Monitoring well location
- MW-8* — Monitoring well with different screen interval; not used for contouring
- SB-1 — Soil boring location (1/3-6/06)
- D-1-5' — Dispenser soil sample location (8/20/04)
- D-1 — Dispenser soil sample location (02/20/98)
- Electrical line (E)
- Water line (W)
- Groundwater flow direction and gradient
- 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

Note:
ND = Not detected

Groundwater Contour and Chemical Concentration Map

April 8, 2008

CONESTOGA-ROVERS & ASSOCIATES

Shell-branded Service Station
3600 Park Boulevard
Oakland, California

FIGURE
2

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Table 1. Well and Boring Data, Shell-branded Service Station, 3600 Park Boulevard, Oakland, California

Name	Type	Boring Date	TOC Elev (ft msl)	Total Depth (fbg)	Soil Sampling Interval (ft)	First Encountered Groundwater Depth (fbg)	First Encountered Groundwater Elev (ft msl)	Screen Diam. (in)	Screen Depth (fbg) Top	Screen Depth (fbg) Bottom
SB-1	3" Geoprobe boring	1/4/2006	-	28	5	25	-	-	-	-
MW-2	3" Geoprobe boring converted to 4" monitoring well	1/3/2006	156.92	30	5	24	145.69	4	20	30
SB-3	3" Geoprobe boring	1/3/2006	-	12	5	8 (a)	-	-	-	-
MW-4	3" Geoprobe boring converted to 4" monitoring well	1/3/2006	155.00	30	5	24	145.08	4	20	30
SB-5	3" Geoprobe boring	1/3/2006	-	12	5	8 (a)	-	-	-	-
SB-6	3" Geoprobe boring	1/3/2006	-	40	5	39	-	-	-	-
MW-7	3" Geoprobe boring converted to 4" monitoring well	1/4/2006	154.00	40	5	35	144.36	4	28	38
MW-8	3" Geoprobe boring converted to 4" monitoring wel	1/4/2006	152.61	50	5	33	135.53	4	40	50

Abbreviations:
ft msl = Feet referenced to mean sea level
TOC = Top of casing
fbg = feet below grade
a = perched water zone, possibly the result of leaking water pipe on property

Table 2. Historical Soil Analytical Results - Shell-branded Service Station, 3600 Park Blvd., Oakland, California,

Sample ID	Depth (fbg)	Date Sampled	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB
			(ppm) parts per million											
D-1	2	2/20/1998	**930**	**1.0**	**20**	**11**	**78**	---	**49**	---	---	---	---	---
D-2	2	2/20/1998	**2,703**	**1.2**	**1.1**	**1.9**	**14**	---	**4.5**	---	---	---	---	---
D-2	5	2/20/1998	**180**	**1.3**	**0.46**	**1.7**	**4.0**	---	**1.6**	---	---	---	---	---
D-1-5'	5	8/20/2004	**180**	<0.50	<0.50	<0.50	**2.3**	---	<0.50	---	---	---	---	---
D-2-5'	5	8/20/2004	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	---	---	---	---	---
D-3-5'	5	8/20/2004	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	---	---	---	---	---
D-4-5'	5	8/20/2004	**30**	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	---	---	---	---	---
SB-1-5	5	1/3/2006	**1.1**	<0.0050	<0.0050	<0.0050	<0.0050	**0.27**	**0.25**	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
SB-1-10	10	1/3/2006	<2.5	<0.012	<0.012	<0.012	<0.012	**0.37**	**0.33**	<0.025	<0.012	<0.012	<0.012	<0.012
SB-1-15	15	1/3/2006	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	**0.36**	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
SB-1-20	20	1/3/2006	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	**0.023**	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
SB-1-25	25	1/3/2006	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
SB-2-5	5	1/3/2006	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
SB-2-10	10	1/3/2006	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
SB-2-15	15	1/3/2006	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
SB-2-20	20	1/3/2006	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
SB-3-5	5	1/3/2006	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
SB-3-10	10	1/3/2006	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
SB-4-5	5	1/3/2006	**150**	<0.50	<0.50	<0.50	<0.50	<2.5	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50
SB-4-10	10	1/3/2006	**5.4**	<0.025	<0.025	<0.025	<0.025	**0.092**	<0.025	<0.050	<0.025	<0.025	<0.025	<0.025

Table 2. Historical Soil Analytical Results - Shell-branded Service Station, 3600 Park Blvd., Oakland, California,

Sample ID	Depth (fbg)	Date Sampled	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB
			(ppm) parts per million											
SB-4-15	15	1/3/2006	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	**0.030**	**0.13**	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
SB-4-20	20	1/3/2006	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	**0.0053**	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
SB-4-25	25	1/3/2006	**100**	<0.50	<0.50	<0.50	<0.50	<2.5	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50
SB-5-5	5	1/3/2006	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	**0.011**	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
SB-5-10	10	1/3/2006	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	**0.012**	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
SB-6-5	5	1/3/2006	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	**0.96**	**0.0085**	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
SB-6-10	10	1/3/2006	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
SB-6-15	15	1/3/2006	<5.0	<0.025	<0.025	<0.025	<0.025	<0.050	**0.24**	<0.050	<0.025	<0.025	<0.025	<0.025
SB-6-20	20	1/3/2006	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	**0.032**	**0.33**	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
SB-6-25	25	1/3/2006	<5.0	<0.025	<0.025	<0.025	<0.025	<0.050	**0.48**	<0.050	<0.025	<0.025	<0.025	<0.025
SB-6-30	30	1/3/2006	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	**0.075**	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
SB-6-35	35	1/3/2006	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	**0.018**	**0.19**	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
SB-6-39.5	39.5	1/3/2006	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
SB-7-5	5	1/4/2006	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
SB-7-10	10	1/4/2006	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
SB-7-15	15	1/4/2006	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	**0.32**	**0.026**	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
SB-7-20	20	1/4/2006	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	**0.035**	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
SB-7-25	25	1/4/2006	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	**0.032**	**0.030**	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
SB-7-30	30	1/4/2006	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
SB-7-35	35	1/4/2006	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050

Table 2. Historical Soil Analytical Results - Shell-branded Service Station, 3600 Park Blvd., Oakland, California,

Sample ID	Depth (fbg)	Date Sampled	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB
			(ppm) parts per million											
SB-8-5	5	1/4/2006	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	**0.0054**	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
SB-8-10	10	1/4/2006	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
SB-8-15	15	1/4/2006	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
SB-8-20	20	1/4/2006	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	**0.17**	**0.65** [a]	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
SB-8-25	25	1/4/2006	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	**0.017**	**0.54** [a]	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
SB-8-30	30	1/4/2006	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	**0.034**	**0.42** [a]	<0.010	<0.0050	<0.0050	<0.0050	<0.0050
SB-8-35	35	1/4/2006	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	**0.027**	**0.44** [a]	<0.010	<0.0050	<0.0050	<0.0050	<0.0050

Abbreviations and Notes:

TPHg = Total petroleum hydrocarbons as gasoline analyzed by EPA Method 8260B; prior to 2004, analyzed by EPA Mehtod 8015

Benzene, toluene, ethylbenzene, and xylenes analyzed by EPA Method 8260B; prior to 2004, analyzed by EPA Method 8020

TBA = Tert-butyl alcohol analyzed by EPA Method 8260B.

MTBE = methyl tertiary butyl ether analyzed by EPA Method 8260B; prior to 2004, analyzed by EPA Method 8020

DIPE = Di-isopropyl ether analyzed by EPA Method 8260B.

ETBE = ethyl tert butyl ether analyzed by EPA Method 88260b.

TAME = Tert-amyl methyl ether analyzed by EPA Method 8260B.

1,2-DCA = 1,2-dichloroethane analyzed by EPA Method 8260B.

EDB = 1,2-dibromomethane analyzed by EPA Method 8260B.

fbg = Feet below grade

--- = Not analyzed

a = *Estimated value. The concentration exceeded the calibration of analysis.*

WELL CONCENTRATIONS
Shell Service Station
3600 Park Boulevard
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-2	1/12/2006	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	156.92	11.62	145.30
MW-2	1/19/2006	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	156.92	8.72	148.20
MW-2	1/24/2006	<50.0	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<10.0	<0.500	<0.500	156.92	11.23	145.69
MW-2	4/27/2006	<50.0	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<10.0	2.53	<0.500	156.92	4.43	152.49
MW-2	7/11/2006	<50.0	<0.500	<0.500	<0.500	<1.50	<0.500	<0.500	<0.500	<0.500	<10.0	<0.500	<0.500	156.92	4.48	152.44
MW-2	10/26/2006	<50.0	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<10.0	<0.500	<0.500	156.92	4.64	152.28
MW-2	1/19/2007	<50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<10	<0.50	<0.50	156.92	4.73	152.19
MW-2	4/2/2007	<50 a	<0.50	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<10	<0.50	<1.0	156.92	4.70	152.22
MW-2	7/18/2007	<50 a	<0.50	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<10	<0.50	<1.0	156.92	4.77	152.15
MW-2	10/30/2007	<50 a	<0.50	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<10	<0.50	<1.0	156.92	5.31	151.61
MW-2	2/6/2008	53 a	<0.50	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<10	<0.50	<1.0	156.92	5.37	151.55
MW-2	**4/8/2008**	**<50 a**	**<0.50**	**<1.0**	**<1.0**	**<1.0**	**<1.0**	**<2.0**	**<2.0**	**<2.0**	**<10**	**<0.50**	**<1.0**	**156.92**	**5.32**	**151.60**
MW-4	1/12/2006	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	155.00	9.43	145.57
MW-4	1/19/2006	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	155.00	9.45	145.55
MW-4	1/24/2006	1,330	<0.500	<0.500	<0.500	<0.500	762	<0.500	<0.500	1.72	<10.0	1.35	<0.500	155.00	9.92	145.08
MW-4	4/27/2006	<50.0	<0.500	<0.500	<0.500	<0.500	72.7	<0.500	<0.500	<0.500	<10.0	1.00	<0.500	155.00	9.33	145.67
MW-4	7/11/2006	<50.0	<0.500	<0.500	<0.500	<0.500	38.8	<0.500	<0.500	<0.500	<10.0	<0.500	<0.500	155.00	9.68	145.32
MW-4	10/26/2006	<50.0	<0.500	<0.500	<0.500	<0.500	39.8	<0.500	<0.500	<0.500	<10.0	<0.500	<0.500	155.00	10.28	144.72
MW-4	1/19/2007	<50	<0.50	<0.50	<0.50	<1.0	28	<1.0	<1.0	<1.0	<10	0.68	<0.50	155.00	10.26	144.74
MW-4	4/2/2007	<50 a	<0.50	<1.0	<1.0	<1.0	20	<2.0	<2.0	<2.0	<10	0.39 b	<1.0	155.00	9.93	145.07
MW-4	7/18/2007	<50 a	<0.50	<1.0	<1.0	<1.0	59	<2.0	<2.0	<2.0	<10	0.35 b	<1.0	155.00	10.34	144.66
MW-4	10/30/2007	<50 a	<0.50	<1.0	<1.0	<1.0	28	<2.0	<2.0	<2.0	<10	0.41 b	<1.0	155.00	10.68	144.32
MW-4	2/6/2008	57 a	<0.50	<1.0	<1.0	<1.0	72	<2.0	<2.0	<2.0	<10	<0.50	<1.0	155.00	10.27	144.73
MW-4	**4/8/2008**	**<50 a**	**<0.50**	**<1.0**	**<1.0**	**<1.0**	**21**	**<2.0**	**<2.0**	**<2.0**	**<10**	**<0.50**	**<1.0**	**155.00**	**10.38**	**144.62**
MW-7	1/12/2006	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	154.00	5.97	148.03
MW-7	1/19/2006	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	154.00	6.40	147.60

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MW-7	1/24/2006	<50.0	<0.500	<0.500	<0.500	<0.500	3.08	<0.500	<0.500	<0.500	<10.0	<0.500	<0.500	154.00	9.64	144.36
MW-7	4/27/2006	<50.0	<0.500	<0.500	<0.500	<0.500	0.690	<0.500	<0.500	<0.500	<10.0	2.32	<0.500	154.00	3.49	150.51
MW-7	7/11/2006	<50.0	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<10.0	<0.500	<0.500	154.00	3.96	150.04
MW-7	10/26/2006	<50.0	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<10.0	<0.500	<0.500	154.00	5.11	148.89
MW-7	1/19/2007	<50	<0.50	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<10	<0.50	<0.50	154.00	4.62	149.38
MW-7	4/2/2007	<50 a	<0.50	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<10	<0.50	<1.0	154.00	4.23	149.77
MW-7	7/18/2007	<50 a	<0.50	<1.0	<1.0	<1.0	0.31 b	<2.0	<2.0	<2.0	<10	<0.50	<1.0	154.00	5.08	148.92
MW-7	10/30/2007	<50 a	<0.50	<1.0	<1.0	<1.0	0.84 b	<2.0	<2.0	<2.0	<10	<0.50	<1.0	154.00	5.58	148.42
MW-7	2/6/2008	<50 a	<0.50	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<10	<0.50	<1.0	154.00	5.15	148.85
MW-7	**4/8/2008**	**<50 a**	**<0.50**	**<1.0**	**<1.0**	**<1.0**	**<1.0**	**<2.0**	**<2.0**	**<2.0**	**<10**	**<0.50**	**<1.0**	**154.00**	**4.62**	**149.38**
MW-8	1/12/2006	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	152.61	16.84	135.77
MW-8	1/19/2006	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	152.61	16.00	136.61
MW-8	1/24/2006	1,120	<0.500	<0.500	<0.500	<0.500	592	<0.500	<0.500	<0.500	<10.0	<0.500	<0.500	152.61	17.08	135.53
MW-8	4/27/2006	<50.0	<0.500	<0.500	<0.500	<0.500	26.4	<0.500	<0.500	<0.500	<10.0	2.32	<0.500	152.61	12.97	139.64
MW-8	7/11/2006	<50.0	<0.500	<0.500	<0.500	<0.500	16.8	<0.500	<0.500	<0.500	<10.0	<0.500	<0.500	152.61	12.91	139.70
MW-8	10/26/2006	<50.0	<0.500	<0.500	<0.500	<0.500	6.09	<0.500	<0.500	<0.500	<10.0	<0.500	<0.500	152.61	14.28	138.33
MW-8	1/19/2007	<50	<0.50	<0.50	<0.50	<1.0	8.3	<1.0	<1.0	<1.0	<10	<0.50	<0.50	152.61	14.45	138.16
MW-8	4/2/2007	<50 a	<0.50	<1.0	<1.0	<1.0	23	<2.0	<2.0	<2.0	<10	<0.50	<1.0	152.61	14.54	138.07
MW-8	7/18/2007	<50 a	<0.50	<1.0	<1.0	<1.0	24	<2.0	<2.0	<2.0	<10	<0.50	<1.0	152.61	14.71	137.90
MW-8	10/30/2007	<50 a	<0.50	<1.0	<1.0	<1.0	14	<2.0	<2.0	<2.0	<10	<0.50	<1.0	152.61	15.45	137.16
MW-8	2/6/2008	57 a	<0.50	<1.0	<1.0	<1.0	8.1	<2.0	<2.0	<2.0	<10	<0.50	<1.0	152.61	15.27	137.34
MW-8	**4/8/2008**	**<50 a**	**<0.50**	**<1.0**	**<1.0**	**<1.0**	**19**	**<2.0**	**<2.0**	**<2.0**	**<10**	**<0.50**	**<1.0**	**152.61**	**14.50**	**138.11**

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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 = Analyzed by EPA Method 8015B (M).

b = Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.

Site surveyed on February 2, 2006 by Virgil Chavez Land Surveying of Vallejo, CA.