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	Cł	neryl Dizon, Zon	e 7 Water A	gency, 100 Nor	th Can	yons Parkway, Livermore, CA 94551
Completed b	oy: Pe	ter Schaefer [Please I	Print]	Signed:	Pe	tenSchafen

Correspondence File Filing:



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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

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

Re:

Shell-branded Service Station 11989 Dublin Boulevard Dublin, California SAR Code 135243

SAP Code 135243 Incident No. 98995328 ACEH Case No. RO0000213

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

Senior Program Manager



### **CLOSURE REQUEST**

SHELL-BRANDED SERVICE STATION 11989 DUBLIN BOULEVARD DUBLIN, CALIFORNIA

SAP CODE 135243 INCIDENT NO. 98995328 AGENCY NO. RO0000213

> Prepared by: Conestoga-Rovers & Associates

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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 site is a Shell-branded service station located on the southwestern corner of Dublin Boulevard and San Ramon Road in Dublin, California (Figure 1). Currently, the site layout consists of a station building, three underground storage tanks (USTs), and two dispenser islands (Figure 2). The surrounding area is primarily commercial with retail businesses adjacent to the site. A Chevron service station is located on the northeast corner of the intersection.

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 Appendices B and C.

### 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.

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

A UST failed a tank-tightness test in 2004. The UST was repaired and returned to service. No active leak has since been identified. Facility upgrades and dispenser modifications were completed in 1997, and the USTs, piping, and dispensers were replaced in 2005. During the 2005 fuel system replacement, approximately 1,000 cubic yards of soil were over-excavated from the UST pit and disposed of off site. As of January 1, 2003, methyl tertiary-butyl ether (MTBE) is no longer included in the formulation of Shell gasoline. Total petroleum hydrocarbons as gasoline (TPHg) and tertiary-butyl alcohol (TBA), a degradation product of MTBE, concentrations in groundwater have decreased significantly. Total petroleum hydrocarbons as diesel (TPHd), benzene, toluene, ethylbenzene, and xylenes (BTEX), and MTBE have not been detected in groundwater samples at concentrations exceeding RWQCB's environmental

screening levels (ESLs) for groundwater where groundwater is a potential source of drinking water<sup>1</sup> since the first quarter of 2007 (Appendix C). This indicates that there is no ongoing source.

### 2.2 THE SITE HAS BEEN ADEQUATELY CHARACTERIZED

### 2.2.1 GROUNDWATER

Historical data from monitoring wells MW-1 and MW-4 through MW-7 and from grab groundwater samples from borings CPT-1 through CPT-3 and CPT-5 define TPHd, TPHg, BTEX, MTBE, and TBA impacts in groundwater down gradient and vertically to applicable ESLs. Historical grab groundwater analytical data are presented in Table 2 and historical groundwater monitoring data are presented in Appendix C.

The source area has been adequately characterized by data from monitoring wells MW-2 and MW-3 and from grab groundwater samples from borings SB-2 (1997), SB-1 (1998), SB-2 (1998), and CPT-4. Groundwater samples from monitoring wells and grab groundwater samples collected from the dispenser area and UST complex area have contained chemical of concern (COC) concentrations which exceeded the ESLs. 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. Of these, only the TBA concentration in MW-2 exceeded the ESL during the third quarter of 2010 groundwater monitoring event (Appendices B and C). CRA notes that TBA is a degradation product of MTBE, indicating that the groundwater plume is decaying.

### 2.2.2 <u>SOIL</u>

The source area has been adequately characterized by soil samples collected during 1997 dispenser upgrades and 2005 fuel system replacement and by soil samples collected during subsurface investigations conducted in 1997 through 1999 and 2005. Historical soil sampling locations are shown on Figures 2 through 4, and historical soil data are presented in Table 1.

Analyses of vadose zone soil samples (less than 20 feet below grade [fbg]) have shown that all TPHd, TPHg, BTEX, MTBE, and TBA concentrations are below commercial ESLs, with the exceptions listed in the following table.

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

Vadose zone samples from dispenser upgrades in 1997 (P-1 through P-4, D-1 and D-2, and TS-1 through TS-12) are not included because these locations were resampled during fuel system replacement in 2005. Initial vadose zone samples from fuel system replacement in 2005 (T-1 through T-8) are not included because these locations were resampled following over excavation of the tank pit. Therefore, the 2005 fuel system replacement results, excluding samples T-1 through T-8, represent residual soil concentrations in the area of the dispensers and USTs.

		TABLE A	
Sample Location/Year	Analyte	Concentration	ESL for Soil Where Groundwater is a Potential Source of Drinking Water with Commercial Land Use
SB-4 at 10 fbg/1997	MTBE	0.031 mg/kg	0.023 mg/kg
SB-1 at 15 fbg/1998	MTBE	0.074 mg/kg	0.023 mg/kg
B-4 at 15 fbg/2005	MTBE	0.29 mg/kg	0.023 mg/kg
-,	TBA	0.55 mg/kg	0.075 mg/kg
B-5 at 15 fbg/2005	МТВЕ	0.47 mg/kg	0.023 mg/kg

mg/kg = Milligrams per kilogram

Several deeper soil samples (20 fbg or deeper) contained COC concentrations which exceeded commercial ESLs; however, these samples are below groundwater and are likely due to groundwater impacts. Samples OX-11@20', OX-11@22', and OX-12@20' are not included since additional over excavation was conducted at these locations.

### 2.3 THE DISSOLVED HYDROCARBON PLUME IS NOT MIGRATING

As discussed above, all COCs are below ESLs in down-gradient groundwater monitoring wells MW-4 through MW-7. Therefore, the plume is not migrating. Decreasing COC concentrations in source area wells MW-2 and MW-3 indicate that the on-site plume is shrinking (see Figures 5 and 6).

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

Maximum groundwater concentrations from samples collected during the third quarter of 2010 are compared with drinking water ESLs in the following table.

	TABLE B	
COCs	Current Maximum Concentrations in Site Groundwater (7/6/10) Units in µg/l	ESLs Where Groundwater is a Source of Drinking Water (Tables A and C) Units in µg/l
TPHg	2,100	100
Benzene	0.52	1.0
Toluene	<1.0	40
Ethylbenzene	<1.0	30
Xylenes	<1.0	20
MTBE	<1.0	5
TBA	40	12

Note:  $\mu g/l = Micrograms per liter$ 

During the third quarter of 2010, all groundwater detections of COCs were at or below applicable drinking water ESLs with the exception of TPHg and TBA in well MW-2. Figure 5 shows TPHg and TBA concentrations in groundwater versus time for well MW-2, and Figure 6 shows TPHg and TBA concentrations in groundwater versus time for well MW-3. As shown on these figures, TPHg and TBA concentrations are decreasing in wells MW-2 and MW-3. Figures 5 and 6 also show first-order decay equations and projected times to reach ESLs for TPHg and TBA. As shown, groundwater concentrations of TPHg and TBA in MW-2 and MW-3 are projected to reach drinking water ESLs by the year 2028 or well before, which is 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 (Cambria's) November 8, 2000 Potential Receptor Survey and Conduit Study identified one irrigation well and six domestic wells within one-half mile of the site. The closest was a domestic well located 800 feet west (up gradient), and no water-supply wells were identified down gradient (east) of the site. Delta Environmental Consultants, Inc.'s (Delta's) February 21, 2006 Initial Site Conceptual Model (February 2006) included a well location map from Zone 7 Water Agency which identified nine "other designated" wells and one water-supply well within one-half mile of the site. The closest "other designated" well was identified 750 feet southwest (cross gradient) of the site, and the second "other designated" well

was identified 950 feet west of the site (up gradient). The water-supply well was identified 1,500 feet north of the site (cross gradient). None of these wells were located down gradient (east) of the site. In 2005, Delta was only able to field verify one well within one-half mile of the site. Well 3S/1W 2Q03 appeared to be a private domestic irrigation well approximately 1,900 feet southwest of the site. Well survey maps and tables from these reports are presented in Appendix D.

Cambria's report identified gas, storm drain, water, sanitary sewer, and electric lines in the site area. The deepest trench appeared to be associated with the sanitary sewer located on the north side of Dublin Boulevard, cross-gradient of the site (9.5 fbg). The deepest utility down gradient of the site was a storm drain of the eastern side of San Ramon Road (48 inches below grade). Potential utility conduits are well above the depth of shallowest groundwater (20 fbg) and would likely not act as preferential pathways for groundwater flow.

The closest surface water body is an engineered channel of Dublin Creek, located 500 feet cross gradient to the south of the site.

Based on the directions and distances to these potential receptors, it is unlikely that they would be impacted by residual soil and groundwater impacts at the site.

### 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 down-gradient groundwater concentrations are below the ESLs where groundwater is a current or potential drinking water source, demonstrating that they do not pose a risk to human health or the environment. As discussed above, only TPHg and TBA concentrations in well MW-2 exceed ESLs on site.

#### 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	
	Current Maximum Groundwater Concentrations (11/09)	Groundwater Screening Levels for Evaluation of Potential Vapor Intrusion Concerns - Residential Land Use (Table E-1)
COCs	Units in μg/l	Units in μg/l
Benzene	0.52	540
Toluene	<1.0	380,000
Ethylbenzene	<1.0	170,000
Xylenes	<1.0	160,000
MTBE	<1.0	24,000

Because vadose zone 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 vapor concentrations are unlikely to present significant risk to human health.

### 2.6.3 SOIL

As discussed above, vadose zone soil concentrations (based on 44 samples) do not exceed the commercial land use ESL for shallow soils (less than 20 fbg), with the exceptions of the detections listed in Table A. Vadose zone samples from dispenser upgrades in 1997 are not considered because these locations were resampled during fuel system replacement in 2005. Initial vadose zone samples from fuel system replacement in 2005 (T-1 through T-8) are not considered because these locations were resampled following over excavation of the tank pit. Therefore, the 2005 fuel system replacement

results, excluding T-1 through T-8, represent residual soil concentrations in the area of the dispensers and USTs. Maximum concentrations detected in residual vadose zone soils are compared with ESLs in the following table.

	TABLE D	
202	Vadose Zone Soil Sample Maximum Concentrations	ESLs for Soils Where Groundwater is a Source of Drinking Water, Commercial Land Use (Tables A and C)
COCs	Units in mg/kg	Units in mg/kg
ТРНд	Not Detected	83
	46	N
TPHd	S-4 at 3.5 fbg, collected 8/18/05	83
Benzene	Not Detected	0.044
Toluene	Not Detected	2.9
Ethylbenzene	Not Detected	3.3
Xylenes	Not Detected	2.3
	0.47	
MTBE	B-5 at 15 fbg/2005	0.023
	0.55	
TBA	B-4 at 15 fbg/2005	0.075

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 wearing personal protective equipment, as necessary. Therefore, the residual impacted soils do not appear to pose a significant threat to construction workers who 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 COC concentrations in site soil and groundwater compared to the ESLs as presented above and given the decreasing concentration trends in groundwater, 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. 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



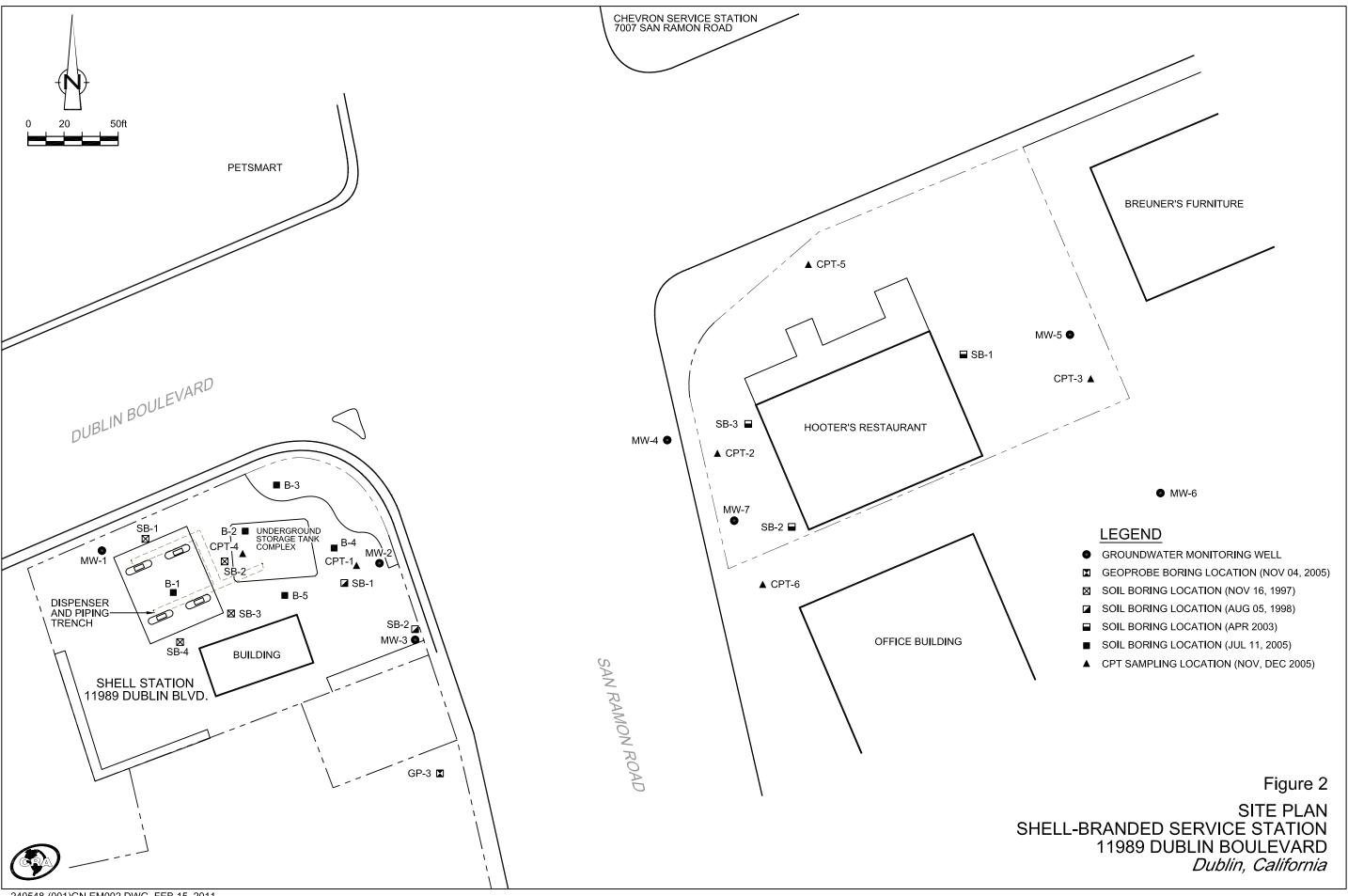
**FIGURES** 

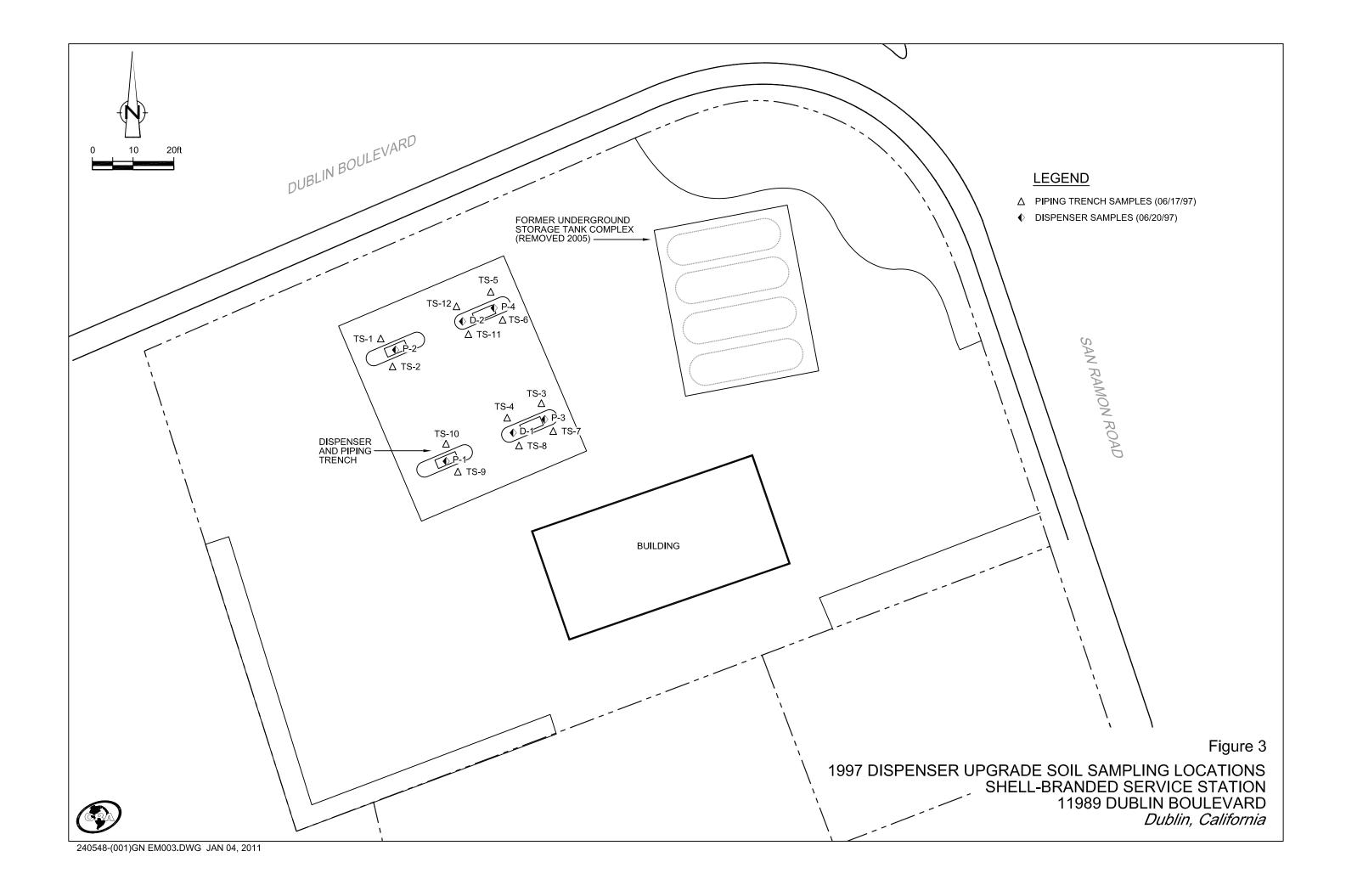
**Shell-branded Service Station** 

11989 Dublin Boulevard Dublin, California



**Vicinity Map** 





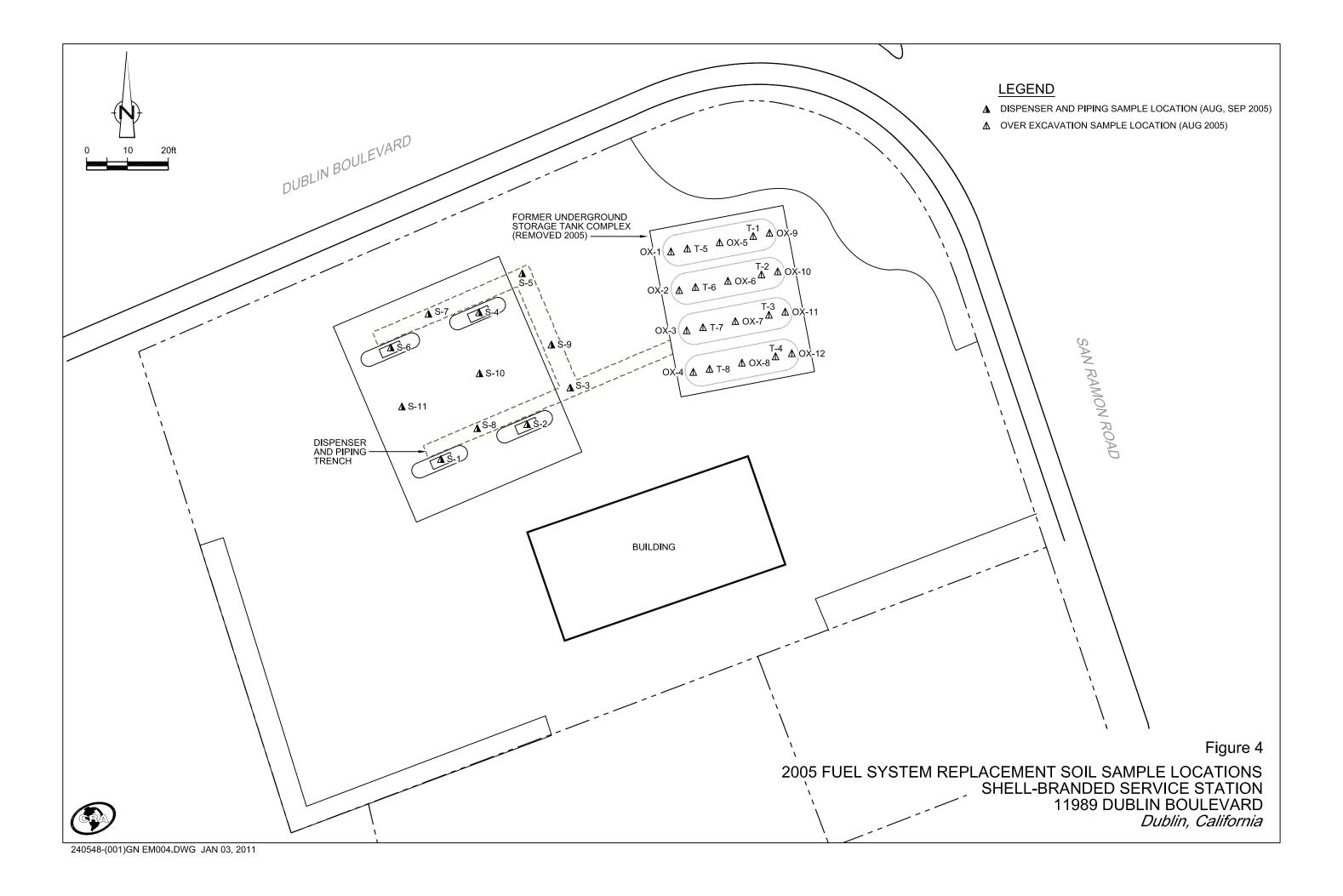
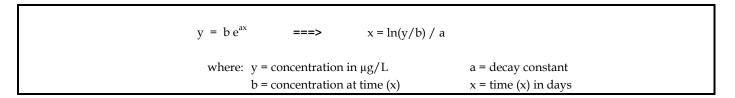


Figure 5: Predicted Time to Reach Environmental Screening Levels (ESLs) in Well MW-2

Shell-branded Service Station, 11989 Dublin Blvd., Dublin, California



**Total Petroleum** Hydrocarbons as Tertiary-butyl alcohol Constituent Gasoline (TPHg) (TBA) Given ESL: 100 12 y 8.36E+10 8.66E+54 Constant: b Constant: -4.37E-04 -3.09E-03 Starting date for current trend: 1/6/2006 1/26/2005 Calculate Attenuation Half Life (years): (-ln(2)/a)/365.254.34 0.61 Estimated Date to Reach ESL:  $(x = \ln(y/b) / a)$ Aug 2028 Dec 2009

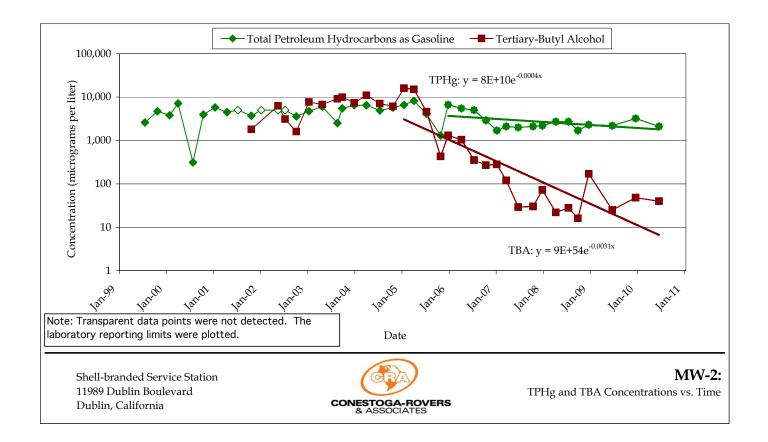
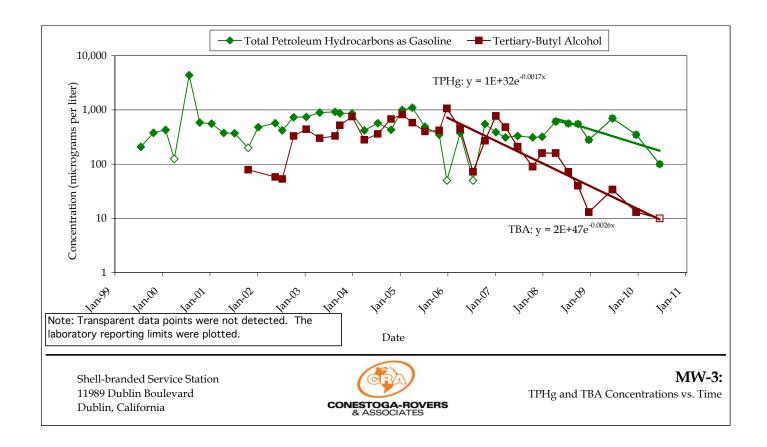


Figure 6: Predicted Time to Reach Environmental Screening Levels (ESLs) in Well MW-3 Shell-branded Service Station, 11989 Dublin Blvd., Dublin, California

 $y = b e^{ax}$  ===> x = ln(y/b) / awhere:  $y = concentration in \mu g/L$  a = decay constantb = concentration at time (x) x = time (x) in days

**Total Petroleum** Hydrocarbons as Tertiary-butyl alcohol Constituent Gasoline (TPHg) (TBA) Given ESL: 100 12 y 1.11E+32 1.59E+47 Constant: b Constant: -1.70E-03 -2.64E-03 4/24/2008 Starting date for current trend: 1/6/2006 Calculate Attenuation Half Life (years): (-ln(2)/a)/365.251.12 0.72 Estimated Date to Reach ESL:  $(x = \ln(y/b) / a)$ Jun 2011 Apr 2010



TABLES

TABLE 1

Sample ID	Date	Depth (fbg)	ТРНа	трнд	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE	TBA	DIPE	ETBE	TAME	1,2- DCA	EDB	Ethanol	Total Lead
P-1	6/17/1997	5	97	24	<0.025	0.27	0.098	2.5	6.3								
P-2	6/17/1997	5	<1.0	<1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	<0.025								
P-3	6/17/1997	5	1.4	<1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.025								
P-4	6/17/1997	5	160	2	< 0.0050	< 0.0050	< 0.0050	0.015	0.027								
D-1	6/17/1997	5	9.9	<1.0	< 0.0050	0.014	0.0062	0.068	0.060								
D-2	6/17/1997	5	20	86	0.55	3.3	0.99	7.8	8.9								
TS-1	6/20/1997	5	<1.0	<1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.025								
TIO 6																	
TS-2	6/20/1997	5	<1.0	<1.0	<0.0050	<0.0050	< 0.0050	<0.0050	< 0.025								
TS-3	( /20 /400E	_		.4.0	.0.0050	-0.0050	-0.0050	·0.0050	·0.005								
15-3	6/20/1997	5	<1.0	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025								
TS-4	6/20/1997	5	<1.0	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.025								
10 1	0/20/1997	3	<b>\1.0</b>	<b>\1.</b> 0	<b>\0.0050</b>	<b>\0.0030</b>	<b>\0.0030</b>	<b>\0.0030</b>	NO.025								
TS-5	6/20/1997	5	4.6	<1.0	<0.0050	<0.0050	< 0.0050	< 0.0050	< 0.025								
	0/20/1997	J	1.0	11.0	10.0000	10.0000	10.0000	10.0000	40.025								
TS-6	6/20/1997	5	1.7	<1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.025								
	, ,																
TS-7	6/20/1997	5	12,000	690	< 0.25	< 0.25	< 0.25	2.2	<1.2								
TS-8	6/20/1997	5	1.3	<1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.025								
TS-9	6/20/1997	5	2.2	<1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.025								
TS-10	6/20/1997	5	2.6	<1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.025								

TABLE 1

Sample ID	Date	Depth (fbg)	ТРНа	ТРНд	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE	TBA	DIPE	ETBE	TAME	1,2- DCA	EDB	Ethanol	Total Lead
		y - <b>G</b> /		0				<i>J</i>									
TS-11	6/20/1997	5	11	<1.0	< 0.0050	< 0.0050	< 0.0050	0.0051	< 0.025								
TS-12	6/20/1997	5	3.7	<1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.025								
SB-1, 10'	11/19/1997	10	1.3	<1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.025								
SB-1, 20'	11/19/1997	20	<1.0	<1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	0.025								
SB-1, 35'	11/19/1997	35	<1.0	<1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.025								
SB-2, 10'	11/19/1997	10	<1.0	<1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.025								
SB-2, 20'	11/19/1997	20	19	1.8	< 0.0050	< 0.0050	< 0.0050	< 0.0050	0.11								
SB-3, 10'	11/19/1997	10	<1.0	<1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.025								
SB-3, 25'	11/19/1997	25	300	11	0.0051	0.18	< 0.0050	0.013	0.069								
SB-3, 35'	11/19/1997	35	<1.0	<1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.025								
SB-4, 10'	11/19/1997	10	1.8	<1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	0.031								
SB-4, 25'	11/19/1997	25	<1.0	<1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.025								
SB-1 (5')	8/5/1998	5	13	<1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.025								
SB-1 (10')	8/5/1998	10	2.4	<1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.025								
SB-1 (15')	8/5/1998	15	1.6	<1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	0.074								
SB-1 (20')	8/5/1998	20	<1.0	<1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	0.90								
SB-1 (25')	8/5/1998	25	120	46	< 0.025	1.0	< 0.025	0.052	1.4								
SB-1 (30')	8/5/1998	30	2.3	26	< 0.025	0.35	0.037	0.093	1.1								
SB-2 (5')	8/5/1998	5	3.2	<1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.025								
SB-2 (10')	8/5/1998	10	1.3	<1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.025								
SB-2 (15')	8/5/1998	15	<1.0	<1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.025								

TABLE 1

Sample ID	Date	Depth (fbg)	TPHd	ТРНд	Benzene	Toluene	Ethyl- benzene	Total Xylenes	МТВЕ	TBA	DIPE	ЕТВЕ	TAME	1,2- DCA	EDB	Ethanol	Total Lead
SB-2 (20')	8/5/1998	20	<1.0	<1.0	<0.0050	<0.0050	< 0.0050	<0.0050	< 0.025								
SB-2 (25')	8/5/1998	25	13	91	1.0	0.26	< 0.025	0.22	0.43								
SB-2 (30')	8/5/1998	30	42	250	2.8	0.72	< 0.10	0.69	< 0.50								
MW-1 (5.0)	6/9/1999	5	< 5.0	< 0.40	< 0.0020	< 0.0020	< 0.0040	< 0.010	< 0.0020								
MW-1 (10.0)	6/9/1999	10	< 5.0	< 0.40	< 0.0020	< 0.0020	< 0.0040	< 0.010	< 0.0020								
MW-1 (15.0)	6/9/1999	15	< 5.0	< 0.40	< 0.0020	< 0.0020	< 0.0040	< 0.010	< 0.0020								
MW-1 (20.0)	6/9/1999	20	< 5.0	< 0.40	< 0.0020	< 0.0020	< 0.0040	< 0.010	< 0.0020								
MW-2-10.5	6/8/1999	10.5	<5.0	< 0.80	< 0.0040	< 0.0040	< 0.0040	< 0.0080	< 0.020								
MW-2-15.5	6/8/1999	15.5	<5.0	< 0.80	< 0.0040	< 0.0040	< 0.0040	< 0.0080	< 0.020								
MW-2-20.5	6/8/1999	20.5	<5.0	< 0.80	< 0.0040	< 0.0040	< 0.0040	< 0.0080	< 0.020								
MW-2-25.5	6/8/1999	25.5	103	< 0.80	< 0.0040	< 0.0040	< 0.0040	< 0.0080	1.28/1.14 <sup>a</sup>								
MW-2-30.5	6/8/1999	30.5	< 5.0	< 0.80	< 0.0040	< 0.0040	< 0.0040	<0.0080	1.76/0.90 <sup>a</sup>								
MW-3-10.5	6/8/1999	10.5	<5.0	< 0.80	< 0.0040	< 0.0040	< 0.0040	< 0.0080	< 0.020								
MW-3-15.5	6/8/1999	15.5	<5.0	< 0.80	< 0.0040	< 0.0040	< 0.0040	< 0.0080	< 0.020								
MW-3-20.5	6/8/1999	20.5	<5.0	< 0.80	< 0.0040	< 0.0040	< 0.0040	< 0.0080	< 0.020								
MW-3-25.5	6/8/1999	25.5	35.2	4.1	< 0.0040	< 0.0040	< 0.0040	<0.0080	0.0597								
MW-3-30.5	6/8/1999	30.5	< 5.0	1.39	< 0.0040	< 0.0040	< 0.0040	< 0.0080	0.063/0.0622 <sup>a</sup>								
MW-4-25.5	7/26/2001	25.5		<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050								
CD 1 FI	4 /1 /2000	_		-1.0	<0.00E0	<0.00E0	<0.00E0	<0.00E0	<b>40.0050</b>								
SB-1-5'	4/1/2003	5		<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050								
SB-1-10'	4/1/2003	10		<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050								
SB-1-15'	4/1/2003	15		<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050								
SB-1-20'	4/1/2003	20		<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050								
SB-1-25'	4/1/2003	25		<1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	<0.0050								

TABLE 1

C1- ID	D-4-	Depth		TDII -	D	T-1	Ethyl-	Total	MTDE	TD 4	DIDE	FTDF	TAME	1,2-	FDD	F41 1	Total
Sample ID	Date	(fbg)	TPHd	ТРНд	Benzene	Toluene	benzene	Xylenes	MTBE	TBA	DIPE	ETBE	TAME	DCA	EDB	Ethanol	Leaa
SB-1-30'	4/1/2003	30		<1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050								
SB-1-35'	4/1/2003	35		7.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	0.0099								
SB-2-5'	4/1/2003	5		<1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050								
SB-2-10'	4/1/2003	10		<1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050								
SB-2-15'	4/1/2003	15		<1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050								
SB-2-20'	4/1/2003	20		<1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050								
SB-2-25'	4/1/2003	25		<1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050								
SB-2-30'	4/1/2003	30		<1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050								
SB-2-35'	4/1/2003	35		<1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	0.250								
SB-3-5'	4/1/2003	5		<1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050								
SB-3-10'	4/1/2003	10		<1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050								
SB-3-15'	4/1/2003	15		<1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050								
SB-3-20'	4/1/2003	20		<1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050								
SB-3-25'	4/1/2003	25		<1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050								
SB-3-30'	4/1/2003	30		<1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050								
B-1@5'	7/8/2005	5	<1.0	<1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.010	< 0.0050							
B-1@10'	7/11/2005	10	1.5 <sup>b</sup>	<1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	0.011	< 0.0050							
B-2@20'	7/11/2005	20		<1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	0.017								
B-4@5'	7/8/2005	5	<1.0	<1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.010	< 0.0050							
B-4@15'	7/11/2005	15	2.3 <sup>b</sup>	<5.0	< 0.0025	< 0.0025	< 0.0025	< 0.0025	0.29	0.55							
B-4@20'	7/11/2005	20	15 <sup>b</sup>	<1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	0.0052	2.5°							
B-5@15'	7/11/2005	15		<4.8	< 0.024	< 0.024	< 0.024	< 0.024	0.47								

TABLE 1

Sample ID	Date	Depth (fbg)	ТРНа	трнд	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE	TBA	DIPE	ETBE	TAME	1,2- DCA	EDB	Ethanol	Total Lead
B-5@20'	7/11/2005	20		<1.0	<0.0050	<0.0050	<0.0050	<0.0050	0.017								
T-1@15 <sup>'g</sup>	8/18/2005	15	<1.0	<5.0	<0.025	<0.025	<0.025	<0.025	<0.025	11°	<0.050	<0.025	<0.025	<0.025	<0.025	<0.50	6.5
T-2@15' T-2@19'	8/18/2005 8/18/2005	15 19	<1.0 1.4 <sup>b</sup>	<5.0 <50	<0.025 <0.50	<0.025 <0.50	<0.025 <0.50	<0.025 <0.50	<0.025 <0.50	7.5 3.8	<0.050 <1.0	<0.025 <0.50	<0.025 <0.50	<0.025 <0.50	<0.025 <0.50	<0.50 <25	6.3 6.1
	, ,																
T-3@15' T-3@17'	8/18/2005 8/18/2005	15 17	<1.0 21 <sup>d</sup>	<50 <50	<0.50 <0.50	<0.50 <0.50	<0.50 <0.50	<0.50 <0.50	<0.50 <0.50	<b>3.1</b> <2.5	<1.0 <1.0	<0.50 <0.50	<0.50 <0.50	<0.50 <0.50	<0.50 <0.50	<25 <25	4.3 6.6
T-4@15'	8/18/2005	15	<1.0	<50	<0.50	<0.50	<0.50	<0.50	<0.50	5.9	<1.0	<0.50	<0.50	<0.50	<0.50	<25	5.7
T-5@15'	8/18/2005	15	<1.0	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	0.013	1.4	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1	5.3
T-5@17'	8/18/2005	17	<1.0	<50	<0.50	<0.50	<0.50	0.68	<0.50	<2.5	<1.0	<0.50	<0.50	<0.50	< 0.50	<25	5.7
T-6@15'	8/18/2005	15	7.2 <sup>b</sup>	<50	<0.50	<0.50	<0.50	<0.50	<0.50	12	<1.0	<0.50	<0.50	<0.50	<0.50	<25	5.4
T-7@15'	8/18/2005	15	48 <sup>d</sup>	<b>2,4</b> 00 <sup>e</sup>	<2.5	<2.5	9.3	11	<2.5	21	<5.0	<2.5	<2.5	<2.5	<2.5	<130	6.4
T-8@15'	8/18/2005	15	700 <sup>d</sup>	4,600 <sup>e</sup>	<2.5	<2.5	8.8	45	<2.5	16	<5.0	<2.5	<2.5	<2.5	<2.5	<130	5.6
T-8@20'	8/18/2005	20	5.3 <sup>b</sup>	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.5	<1.0	< 0.50	< 0.50	< 0.50	<0.50	<25	4.0
S-1@3'	8/18/2005	3	17 <sup>b</sup>	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1	5.8
S-2@3'	8/18/2005	3	25 <sup>b</sup>	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1	10
S-3@4'	8/18/2005	4	<1.0	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1	5.5

TABLE 1

Sample ID	Date	Depth (fbg)	ТРНа	ТРНд	Benzene	Toluene	Ethyl- benzene	Total Xylenes	МТВЕ	TBA	DIPE	ETBE	TAME	1,2- DCA	EDB	Ethanol	Total Lead
S-4@3.5'	8/18/2005	3.5	46 <sup>b</sup>	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1	6.8
S-5@4.5'	8/18/2005	4.5	1.3 <sup>b</sup>	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1	6.0
S-6@4'	8/18/2005	4	28 <sup>b</sup>	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1	5.7
S-7@3'	8/18/2005	3	<1.0	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1	6.3
S-8@4'	8/18/2005	4	<1.0	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1	5.2
OX-1@22'	8/25/2005	22	41 <sup>b</sup>	<4.7	<0.024	<0.024	<0.024	<0.024	<0.024	<0.047	<0.047	<0.024	<0.024	<0.024	<0.024		6.5
OX-2@22.5	8/25/2005	22.5	32 <sup>b</sup>	2.2	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.018	<0.010	<0.0050	<0.0050	<0.0050	<0.0050		7.7
OX-3@22'	8/25/2005	22	2.3 <sup>b</sup>	2.3	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.031	<0.010	<0.0050	<0.0050	<0.0050	<0.0050		7.1
OX-4@22'	8/25/2005	22	<1.0	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.081	<0.010	<0.0050	<0.0050	<0.0050	<0.0050		7.3
OX-5@20'	8/26/2005	20	<1.0	<6.0	<0.023	<0.023	<0.023	<0.023	<0.023	0.10	<0.047	<0.023	<0.023	<0.023	<0.023		6.5
OX-6@20'	8/26/2005	20	<1.0	<4.6	<0.023	<0.023	<0.023	<0.023	<0.023	0.38	<0.046	<0.023	<0.023	<0.023	<0.023		4.3
OX-7@20'	8/26/2005	20	6.9 <sup>d</sup>	420	<0.50	<0.50	1.4	<0.50	0.59	6.0	<1.0	<0.50	<0.50	<0.50	<0.50		5.9
OX-8@20'	8/26/2005	20	<1.0	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	0.012	0.91	<0.010	<0.0050	<0.0050	<0.0050	<0.0050		5.7
OX-9@20'	8/30/2005	20	<1.0	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.17	<0.010	<0.0050	<0.0050	<0.0050	<0.0050		6.4

TABLE 1

Sample ID	Date	Depth (fbg)	ТРНа	ТРНд	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE	TBA	DIPE	ETBE	ТАМЕ	1,2- DCA	EDB	Ethanol	Total Lead
OV 10@201	8 /20 /200E		12 <sup>d</sup>	J	<0.F0	<0.F0	<0.F0	<0.E0	<0.50	√2 F	~1.0	<0.50	<0.E0	<0.E0	<0.F0		6.6
OX-10@20'	8/30/2005	20	12	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.5	<1.0	<0.50	<0.50	<0.50	<0.50		6.6
OX-11@20'	8/30/2005	20	600 <sup>b</sup>	<50	< 0.50	<0.50	< 0.50	< 0.50	< 0.50	<2.5	<1.0	< 0.50	< 0.50	< 0.50	< 0.50		4.8
OX-11@22'	8/30/2005	22	100 <sup>b</sup>	190	< 0.50	< 0.50	1.0	< 0.50	< 0.50	<2.5	<1.0	< 0.50	< 0.50	< 0.50	< 0.50		5.7
OX-11@24.5'	8/30/2005	24.5	240 <sup>b</sup>	340 <sup>e</sup>	<0.50	< 0.50	<0.50	<0.50	<0.50	<2.5	<1.0	<0.50	<0.50	<0.50	<0.50		5.6
OX-12@20'	8/30/2005	20	79 <sup>b</sup>	<50	<0.50	<0.50	< 0.50	<0.50	<0.50	2.8	<1.0	<0.50	<0.50	<0.50	< 0.50		6.5
OX-12@22'	8/30/2005	22	51 <sup>b</sup>	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.5	<1.0	<0.50	<0.50	<0.50	< 0.50		6.3
S-9@4'	9/26/2005	4	4.4	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010					<0.0050	<0.10	5.9
S-10@42"	9/27/2005	3.5	<1.0	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010					<0.0050	<0.10	6.4
S-11@39"	9/27/2005	3.25	<1.0	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010					<0.0050	<0.10	6.9
GP-3	11/4/2005	9	<1.0	<1.0	<0.0050	<0.0050	<0.0050	< 0.0050	<0.0050	<0.010							
GP-3	11/4/2005	14	<1.0	<1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.010							
GP-3	11/4/2005	19	<1.0	<1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.010							
GP-3	11/4/2005	24	<1.0	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010							
Shallow Soil	! (≤10 fbg) ESL	f:	83	83	0.044	2.9	3.3	2.3	0.023	0.075	NA	NA	NA	0.0045	0.00033	NA	750
Deep Soil (>1	$10  fbg)  ESL^f$ :		83	83	0.044	2.9	3.3	2.3	0.023	0.075	NA	NA	NA	0.0045	0.00033	NA	750

### Notes:

All results in milligrams per kilogram (mg/kg) unless otherwise indicated.

fbg = Feet below grade

TPHd = Total petroleum hydrocarbons as diesel, analyzed by EPA Method 8015

TPHg = Total petroleum hydrocarbons as gasoline analyzed by EPA Method 8260B; before July 26, 2001, analyzed by EPA Method 8015

#### TABLE 1

### HISTORICAL SOIL ANALYTICAL DATA SHELL-BRANDED SERVICE STATION 11989 DUBLIN BOULEVARD, DUBLIN, CALIFORNIA

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

Benzene, toluene, ethylbenzene, and xylenes analyzed by EPA Method 8260B; before July 26, 2001, analyzed by EPA Method 8020

MTBE = Methyl tertiary-butyl ether analyzed by EPA Method 8260B; before July 26, 2001, analyzed by EPA Method 8020 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 analyzed by EPA Method 8260B

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

Ethanol analyzed by EPA Method 8260B

Total lead analyzed by EPA Method 6010B

<x = Not detected at reporting limit x

--- = Not analyzed

ESL = Environmental screening level

NA = No applicable ESL

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

Shading indicates that sample location subsequently over-excavated, results are not representative of residual soil.

- a = Analyzed by EPA Method 8260B
- b = Hydrocarbon reported does not match the pattern of the laboratory's Diesel standard.
- c = Estimated value. The concentration exceeded the calibration of analysis.
- d = Hydrocarbon reported is in the early Diesel range, and does not match the pattern of the laboratory's Diesel standard.
- e = Quantity of unknown hydrocarbon(s) in sample based on gasoline
- f = San Francisco Bay Regional Water Quality Control Board commercial/industrial ESL for soil where groundwater is a source of drinking water (Tables A and C 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

Sample ID	Date	Depth (fbg)	ТРНа	ТРНд	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE	TBA	DIPE	ETBE	TAME
SB-2	11/19/1997	22	4,900	470	17	2.4	<1.0	1.1	370				
SB-1	8/5/1998	25	54,000	140,000	<1,000	<1,000	<1,000	<1,000	16,000/14,000 a				
SB-2	8/5/1998	25	7,000	10,000	<25	210	<25	<25	8,400				
SB-1-W1	4/1/2003	32		100 <sup>b</sup>	<0.50	<0.50	<0.50	<1.0	38				
SB-2-W1	4/1/2003	31		200 <sup>b</sup>	<0.50	<0.50	<0.50	<1.0	17				
SB-3-W1	4/1/2003	27		120 <sup>b</sup>	<0.50	<0.50	<0.50	<1.0	8.5				
SB-3-W2	4/1/2003	32 - 36		3,000 <sup>b</sup>	< 0.50	<0.50	< 0.50	<1.0	12				
CPT-1@64'	11/1/2005	64	58°	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<5.0	<2.0	<2.0	<2.0
CPT-1@73'	11/1/2005	73	100°	<50	< 0.50	< 0.50	< 0.50	<1.0	< 0.50	<5.0	<2.0	<2.0	<2.0
CPT-2@68'	12/20/2005	68		<50	< 0.50	< 0.50	< 0.50	<1.0	< 0.50	<5.0			
CPT-2@75'	12/20/2005	75		<50	< 0.50	< 0.50	< 0.50	<1.0	< 0.50	<5.0			
CPT-3@48'	12/20/2005	48		<50	<0.50	< 0.50	< 0.50	<1.0	< 0.50	<5.0			
CPT-3@67'	12/20/2005	67		<50	< 0.50	< 0.50	< 0.50	<1.0	< 0.50	<5.0			
CPT-4@38'	11/1/2005	38		68	<0.50	<0.50	<0.50	<1.0	55	330	<2.0	<2.0	<2.0
CPT-5@50'	12/19/2005	50		<50	< 0.50	< 0.50	< 0.50	<1.0	< 0.50	<5.0			
CPT-5@60'	12/19/2005	60		< 50	< 0.50	< 0.50	< 0.50	<1.0	< 0.50	< 5.0			
CPT-5@75'	12/19/2005	75		<50	<0.50	< 0.50	< 0.50	<1.0	<0.50	<5.0			
GP-3	11/4/2005	26	130c	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<5.0	<2.0	<2.0	<2.0
Groundwate	<mark>er (≤10 fbg) ESI</mark>	∑ <sup>d</sup> :	100	100	1.0	40	30	20	5.0	12	NA	NA	NA

#### TABLE 2

### HISTORICAL GRAB GROUNDWATER ANALYTICAL DATA SHELL-BRANDED SERVICE STATION 11989 DUBLIN BOULEVARD, DUBLIN, CALIFORNIA

#### 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; before April 1, 2003, analyzed by EPA Method 8015

TPHd = Total petroleum hydrocarbons as diesel, analyzed by EPA Method 8015

Benzene, toluene, ethylbenzene, and xylenes analyzed by EPA Method 8260B; before April 1, 2003, analyzed by EPA Method 8020

MTBE = Methyl tertiary-butyl ether analyzed by analyzed by EPA Method 8260B; April 1, 2003, analyzed by EPA Method 8020 unless otherwise no

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

<x = Not detected at reporting limit x

--- = Not analyzed

ESL = Environmental screening level

NA = No applicable ESL

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

- a = Analyzed by EPA Method 8260
- b = Hydrocarbon reported in the gasoline range does not match the laboratory gasoline standard
- c = Hydrocarbon reported does not match the pattern of the laboratory's Diesel standard.
- d = San Francisco Bay Regional Water Quality Control Board Environmental Screening Level for groundwater where groundwater is a source of drinking water (Tables A and C 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**

1997 Dispenser and Piping Removal and Replacement: In June 1997, Cambria Environmental Technology, Inc. (Cambria) collected soil samples from beneath each of the dispensers and in product piping trenches during dispenser and piping replacement. The soil samples contained up to 12,000 milligrams per kilogram (mg/kg) total petroleum hydrocarbons as diesel (TPHd), 690 mg/kg total petroleum hydrocarbons as gasoline (TPHg), 0.55 mg/kg benzene, and 8.9 mg/kg methyl tertiary-butyl ether (MTBE). Cambria's August 4, 1997 Stockpile, Piping, and Dispenser Soil Sampling Report provides details of the investigation.

1997 Underground Storage Tank (UST) Backfill Well Destruction: In August 1997, Cambria destroyed six UST backfill wells (BW-1 through BW-6). Water was not encountered in the backfill wells at a maximum depth of 12 feet below grade (fbg). Cambria's August 20, 1997 Tank Backfill Well Abandonment Report details the well destructions.

1997 Subsurface Investigation: In November 1997, Cambria drilled four soil borings (SB-1 though SB-4) at the site to define the extent of hydrocarbons in soil and groundwater in the area of the dispenser islands. Soil samples contained up to 300 mg/kg TPHd, 11 mg/kg TPHg, 0.0051 mg/kg benzene, and 0.11 mg/kg MTBE. A grab groundwater sample collected from SB-2 contained 4,900 micrograms per liter ( $\mu$ g/l) TPHd,  $470 \mu$ g/l TPHg,  $17 \mu$ g/l benzene, and  $370 \mu$ g/l MTBE. No groundwater was encountered in the other borings to the total explored depth of 41 fbg. Cambria's February 24, 1998 Subsurface Investigation Report provides investigation details.

1998 Subsurface Investigation: In August 1998, Cambria drilled two soil borings (SB-1 and SB-2) to evaluate soil and groundwater conditions in the area of the UST complex. Soil samples contained up to 120 mg/kg TPHd, 250 mg/kg TPHg, 2.8 mg/kg benzene, and 1.4 mg/kg MTBE. Grab groundwater samples contained up to 54,000  $\mu$ g/l TPHd, 140,000  $\mu$ g/l TPHg, 210  $\mu$ g/l toluene, and 14,000  $\mu$ g/l MTBE. Benzene was not detected in the grab groundwater samples. Cambria's February 3, 1999 Secondary Subsurface Investigation Report documents the investigation.

1999 Subsurface Investigation: In June 1999, Cambria installed three on-site groundwater monitoring wells (MW-1 though MW-3). Saturated soil samples contained up to 103 mg/kg TPHd, 4.1 mg/kg TPHg, and 1.76 mg/kg MTBE. No TPHd, TPHg, benzene, toluene, ethylbenzene, and xylenes (BTEX), or MTBE were detected in soil samples collected from well boring MW-1 or in vadose zone soil samples collected from

wells MW-2 and MW-3. Cambria's February 29, 2000 Well Installation Report provides investigation details.

2000 Receptor Survey and Conduit Study: Cambria's November 8, 2000 Potential Receptor Survey and Conduit Study identified one irrigation well and six domestic wells within one-half mile of the site. The closest was a domestic well located 800 feet west (up gradient), and no water-supply wells were identified down gradient (east) of the site.

Cambria's report identified gas, storm drain, water, sanitary sewer, and electric lines in the site area. The deepest trench appeared to be associated with the sanitary sewer located on the north side of Dublin Boulevard, cross gradient of the site (9.5 fbg). The deepest utility down gradient of the site was a storm drain of the eastern side of San Ramon Road (48 inches below grade). Potential utility conduits are well above the depth of shallowest groundwater (20 fbg) and would likely not act as preferential pathways for groundwater flow.

2001 Subsurface Investigation: In July 2001, Cambria installed down-gradient monitoring well (MW-4) on a property across San Ramon Road from the site. A soil sample collected at the soil-groundwater interface contained no TPHg, BTEX, or MTBE. Cambria's September 26, 2001 Off-Site Monitoring Well Installation Report and Site Conceptual Model provides details of the investigation.

2003 Subsurface Investigation: In April 2003, Cambria drilled three off-site soil borings (SB-1 through SB-3) on private property directly down gradient and east of the site across San Ramon Road. No BTEX compounds were detected in soil samples. TPHg was detected in one soil sample (SB-1-35') at 7.0 mg/kg. MTBE was detected in two soil samples (SB-1-35' and SB-2-35') at up to 0.250 mg/kg. Four grab groundwater samples were collected from the borings. No BTEX compounds were detected in the grab groundwater water samples. Grab groundwater samples contained up to 3,000  $\mu$ g/1 TPHg and 38  $\mu$ g/1 of MTBE. Cambria's June 19, 2003 Subsurface Investigation and Groundwater Monitoring Report documents the investigation.

2004 UST Unauthorized Release Report (URR): In October 2004, Shell received a periodic test failure alarm for one of the gasoline USTs, and a subsequent tank tightness test on the UST failed. On November 11, 2004, Shell filed a URR with Alameda County Environmental Health. The tank was subsequently inspected, repaired, upgraded, and returned to service.

**2005** Subsurface Investigation: In July 2005, Delta Consultants (Delta) drilled five soil borings (B-1 through B-5) in the area of the USTs. Soil samples contained up to 15 mg/kg TPHd, 0.47 mg/kg MTBE, and 2.5 mg/kg tertiary-butyl alcohol (TBA). TPHg and BTEX were not detected in the soil samples. Delta's February 21, 2006 Initial Site Conceptual Model (SCM) documents this investigation.

2005 UST, Piping, and Dispenser Replacement: In August 2005, Paradiso Mechanical, Inc. removed four USTs and associated dispensers and product piping. In August and September 2005, Delta collected 12 soil samples from the UST excavation, 4 soil samples from beneath the dispensers, 5 soil samples from the piping trenches, and 2 soil samples from beneath piping from a previous fuel system. Soil samples from the UST excavation contained up to 700 mg/kg TPHd, 4,600 mg/kg TPHg, 9.3 mg/kg ethylbenzene, 11 mg/kg xylenes, 0.013 mg/kg MTBE, and 21 mg/kg TBA. Benzene and toluene were not detected in the excavation samples. Soil samples collected beneath the dispensers and from the piping trenches contained up to 46 mg/kg TPHd. TPHg, BTEX, MTBE, and TBA were not detected in the dispenser and piping soil samples. Based on the soil sample results from the UST excavation, approximately 1,000 cubic yards of soil were over-excavated and 15 additional soil samples were collected from the excavation. Soil samples collected following over-excavation contained up to 240 mg/kg TPHd, 420 mg/kg TPHg, 1.4 mg/kg ethylbenzene, 0.59 mg/kg MTBE, and 6.0 mg/kg TBA. Over-excavated soil was sampled, profiled, and transported by Phillipwest Industrial Services to Forward Landfill in Stockton, California for disposal. Delta's October 25, 2005 UST, Product Piping, and Dispenser Removals Report provides details of the fuel system removal.

2005 Subsurface Investigations: In November and December 2005, Delta installed a down-gradient well (MW-5) on a property east of the site across San Ramon Road, drilled one Geoprobe® soil boring (GP-3) to assess soil and groundwater conditions on the property south of the site, drilled two on-site cone penetrometer test (CPT) borings (CPT-1 and CPT-4), and drilled four off-site CPT borings (CPT-2, CPT-3, CPT-5, and CPT-6) on the property east of the site across San Ramon Road to assess deeper groundwater conditions. TPHd, TPHg, BTEX, MTBE, and TBA were not detected in the soil samples from the Geoprobe® soil boring. A grab groundwater sample from the Geoprobe® boring contained up to 130  $\mu$ g/1 TPHd. TPHg, BTEX, MTBE, and TBA were not detected in the grab groundwater sample from the Geoprobe® boring. Grab groundwater samples from the on-site CPT borings contained up to 100  $\mu$ g/1 TPHd, 68  $\mu$ g/1 TPHg, 55  $\mu$ g/1 MTBE, and 330  $\mu$ g/1 TBA. BTEX were not detected in the grab groundwater samples from the on-site CPT borings. TPHg, BTEX, MTBE, and TBA were not detected in the grab groundwater samples from the off-site CPT borings. Delta's February 21, 2006 SCM presents details of these investigations.

Delta's SCM also included a well location map from Zone 7 Water Agency which identified 9 "other designated" wells and one water-supply well within one-half mile of the site. The closest "other designated" well was identified 750 feet southwest (cross gradient) of the site and second "other designated" well was identified 950 feet west of the site (up gradient). The water-supply well was identified 1,500 feet north of the site (cross gradient). None of these wells were located down gradient (east) of the site. In 2005, Delta was only able to field verify one well within one-half mile of the site. Well 3S/1W 2Q03 appeared to be a private domestic irrigation well approximately 1,900 feet southwest of the site.

**2006** Subsurface Investigation: In June and July 2006, Delta installed two groundwater monitoring wells (MW-6 [shallow] and MW-7 [deeper]) on a property east of the site across San Ramon Road to monitor groundwater conditions down gradient from the site. Delta's August 24, 2006 Off-Site Well Installation Report presents details of the well installations.

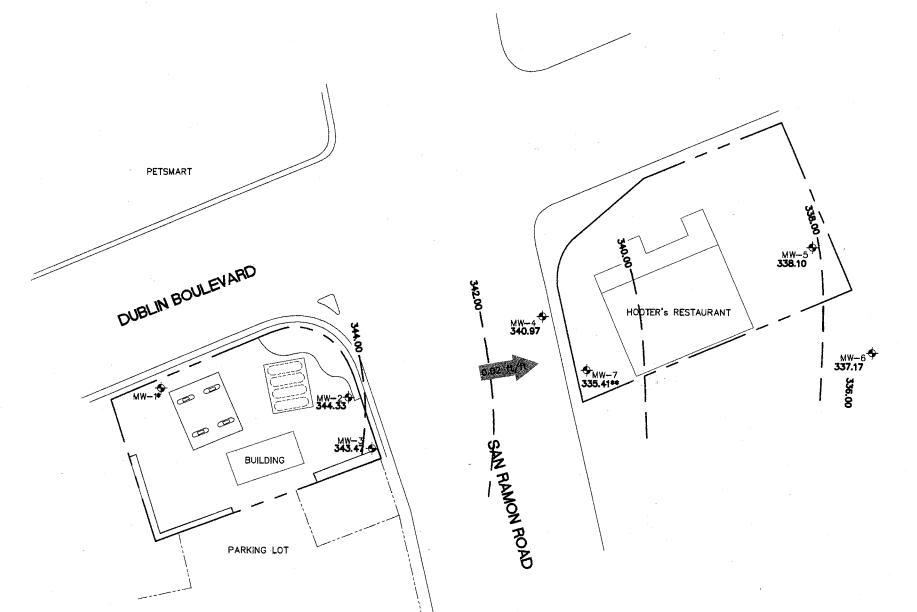
*Groundwater Monitoring:* Groundwater monitoring has been conducted at the site since July 1999.

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DELTA CONSULTANTS - THIRD QUARTER 2010 GROUNDWATER MONITORING MAPS







#### LEGEND

MW-1 <del>♦</del>

GROUNDWATER MONITORING WELL LOCATION AND DESIGNATION

344.71

GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL (Ft/MSL)

340.00 — — GROUNDWATER CONTOUR IN FEET ABOVE MEAN SEA LEVEL (Ft/MSL)

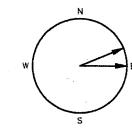
CONTOUR INTERVAL=2.00 FEET APPROXIMATE GROUNDWATER

GRADIENT DIRECTION (ft/ft)

REMOVED FROM SAMPLING PROGRAM

DEEP WELL - NOT USED FOR CONTOURING

HISTORIC GROUNDWATER FLOW DIRECTIONS



DATE	FLOW
10/27/2006	E
1/19/2007	E, ENE
4/3/2007	E. ENE
7/6/2007	E. ENE
10/30/2007	E. ENE
1/10/2008	E
4/24/2008	E
7/31/2008	ENE
10/13/2008	ENE
1/5/2009	ENE
7/7/2009	ENE
1/6/2010	ENE
7/6/2010	ENE



SHELL OIL PRODUCTS US SHELL—BRANDED SERVICE STATION DUBLIN, CALIFORNIA

#### FIGURE 2

#### **GROUNDWATER ELEVATION CONTOUR MAP** 7/6/2010

11989 DUBLIN BOULEVARD DUBLIN, CALIFORNIA

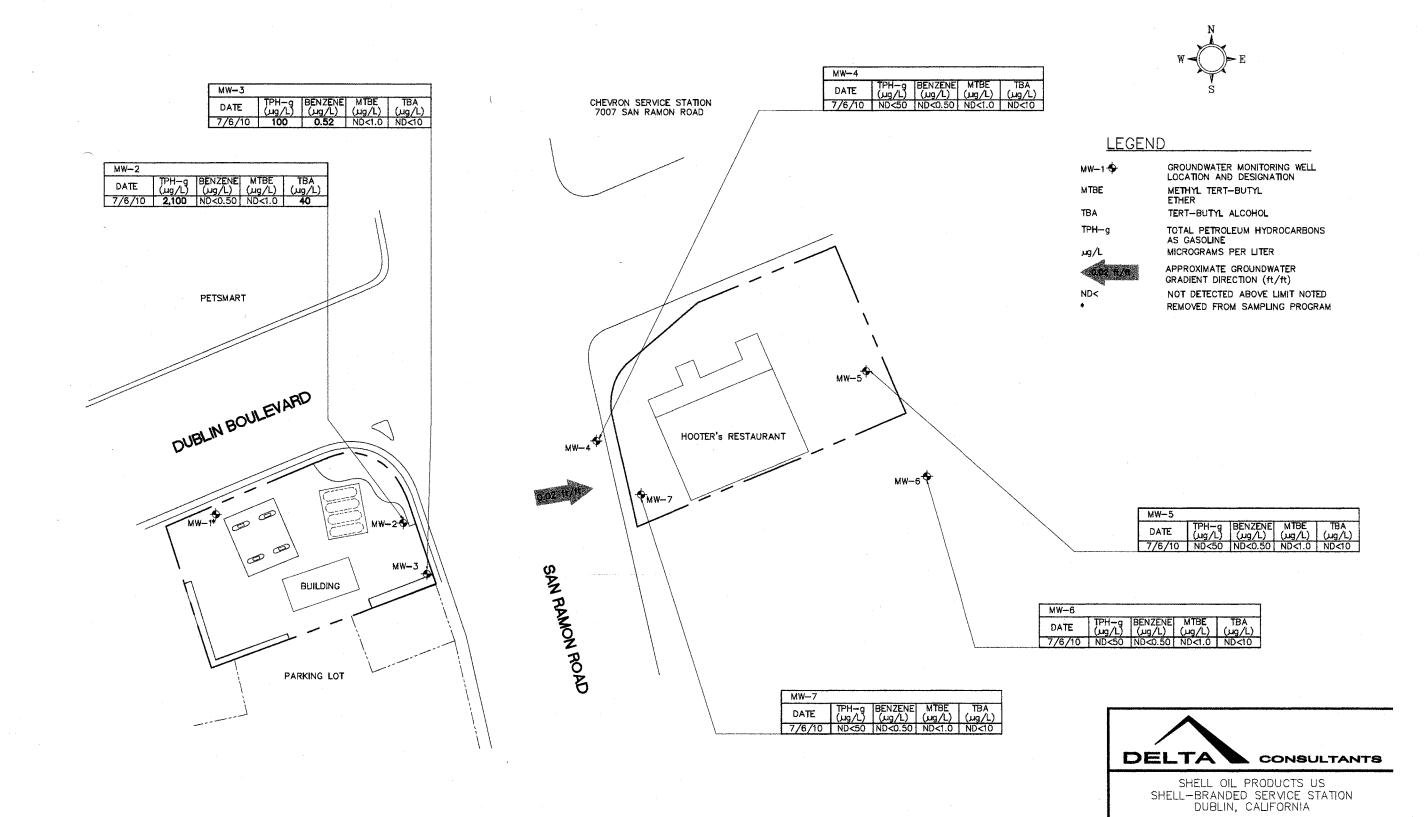


FIGURE 3
GROUNDWATER HYDROCARBON
DISTRIBUTION MAP
7/6/2010
11989 DUBLIN BOULEVARD
DUBLIN, CALIFORNIA

#### APPENDIX C

BLAINE TECH SERVICES, INC. - HISTORICAL GROUNDWATER MONITORING DATA

				7	<del>,</del>		1		ubiiii, C		<del>,</del>	<del>,</del>				<b>B</b> 71 7		
					_	_		MTBE	i e	DID=	FTSF			F41.	T00	Depth to	GW	DO
Well ID	Date	TPPH	TEPH	В	T	E	X	8020	8260	DIPE	ETBE	TAME	TBA	Ethanol	TOC	Water	Elevation	Reading
		(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(MSL)	(ft.)	(MSL)	(ppm)
																		•
MW-1	7/20/1999	<50.0	<50.0	<0.500	<0.500	<0.500	<0.500	<5.00	NA	NA	NA	NA	NA	NA	367.99	6.24	361.75	NA
MVV-1	10/25/1999	<50.0	<50.0	<0.500	<0.500	<0.500	<0.500	<5.00	NA	NA	NA	NA	NA	NA	367.99	6.36	361.63	NA
MW-1	1/27/2000	<50.0	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	NA	NA	NA	NA	NA	NA	367.99	5.65	362.34	NA
MW-1	4/3/2000	<50.0	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	NA	- NA	NA	NA	NA	NA	367.99	5.68	362.31	1.2/1.6
MVV-1	7/27/2000	<50.0	NA	<0.500	<0.500	<0.500	<0.500	<2.50	NA	NA	NA	NA	NA	NA	367.99	5.69	362.30	1.0/1.1
MW-1	10/16/2000	<50.0	NA	<0.500	<0.500	<0.500	<0.500	<2.50	NA	NA	NA	NA	NA	NA	367.99	5.74	362.25	1.2/0.8
MW-1	1/16/2001	<50.0	NA	<0.500	<0.500	<0.500	<0.500	<2.50	NA	NA	NA	NA	NA	NA	367.99	5.71	362.28	0.59/2.8
MW-1	4/19/2001	<50.0	NA	<0.500	<0.500	<0.500	<0.500	<2.50	NA	NA	NA	NA	NA	NA	367.99	5.63	362.36	1.4/1.5
MW-1	7/13/2001	<50	NA	<0.50	<0.50	<0.50	<0.50	NA	<5.0	NA	NA	NA	NA	NA	367.99	5.70	362.29	2.3/3.1
MW-1	8/13/2001	NA	· NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	367.99	5.72	362.27	NA .
MW-1	10/26/2001	<50	NA	<0.50	<0.50	<0.50	<0.50	NA	<5.0	NA	NA	NA	NA	NA	367.99	5.73	362.26	0.4/0.0
MW-1	1/11/2002	<50	NA	<0.50	<0.50	<0.50	<0.50	NA	<5.0	NA	NA	NA	NA	NA	367.99	5.55	362.44	5.4/2.0
MW-1	5/22/2002	<50	NA	<0.50	<0.50	<0.50	<0.50	NA	<5.0	· NA	NA	NA	NA	NA	367.99	5.55	362.44	NA
MW-1	7/15/2002	<50	NA	<0.50	<0.50	<0.50	<0.50	NA	<5.0	NA NA	NA	NA	NA	NA	367.99	5.70	362.29	NA
MW-1	10/11/2002	<50	NA	<0.50	<0.50	<0.50	<0.50	NA	<5.0	NA	NA	NA	NA	NA	367.99	5.87	362.12	NA
MW-1	1/17/2003	<50	NA	<0.50	<0.50	< 0.50	<0.50	NA	<5.0	NA	NA	NA	NA	NA	367.99	5.79	362.20	NA
MVV-1	5/1/2003	52	. NA	<0.50	<0.50	< 0.50	<1.0	NA	<5.0	NA	NA	NA	NA	NA	367.99	5.61	362.38	NA
MVV-1	8/27/2003	<50	NA	<0.50	<0.50	<0.50	<1.0	NA	<0.50	NA	NA	NA -	NA	NA	367.99	5.84	362.15	NA
MVV-1	10/3/2003	<50	NA	<0.50	<0.50	<0.50	<1.0°	NA	<0.50	NA	NA	NA	NA	NA	367.99	5.95	362.04	NA
MW-1	1/5/2004	<50	NA	<0.50	<0.50	<0.50	<1.0	NA	<0.50	NA	NA	NA	NA	NA	367.99	5.66	362.33	NA
MVV-1	4/9/2004	<50	NA	<0.50	<0.50	<0.50	<1.0	NA	<0.50	NA	NA	NA	NA .	NA	367.99	5.55	362.44	NA
MVV-1	7/22/2004	<50	NA	<0.50	<0.50	<0.50	<1.0	NA	<0.50	NA	NA	NA	NA	NA	367.99	5.73	362.26	NA.
MVV-1	11/1/2004	<50	NA	<0.50	<0.50	<0.50	<1.0	NA	<0.50	NA	NA	NA	NA	. NA	367.99	5.73	362.26	NA
MVV-1	1/26/2005	<50	NA	<0.50	<0.50	<0.50	<1.0	NA	<0.50	NA	NA	NA	NA	NA	367.99	5.50	362.49	NA
MW-1	4/14/2005	<50	NA	<0.50	<0.50	<0.50	<1.0	NA	<0.50	NA	NA	NA	NA	NA	367.99	5.60	362.39	NA
MVV-1	7/21/2005	<50	NA	<0.50	<0.50	<0.50	<1.0	NA	<0.50	NA	NA	NA	NA	NA	367.99	6.14	361.85	NA
MW-1	11/8/2005	<50.0	NA	<0.500	<0.500	<0.500	<0.500	NA	<0.500	<0.500	<0.500	<0.500	<10.0	NA	367.99	6.33	361.66	NA
																		,
MW-2	7/20/1999	2,600	699	55.0	<2.50	59.5	<2.50	9,370	NA	NA	NA	NA	NA	NA	365.43	20.31	345.12	NA
MW-2	10/25/1999	4,710	761	61.1	<10.0	74.6	<10.0	22,800	NA	NA ·	NA	NA	NA	NA	365.43	22.80	342.63	NA
MW-2	1/27/2000	3,820	1490	60.8	<10.0	156	<10.0	13,400	15,000 a	NA	NA	NA	NA	NA	365.43	19.17	346.26	NA
		1							Dogo 1									

# TABLE 2 HISTORIC WELL CONCENTRATIONS Shell-branded Service Station 11989 Dublin Boulevard

#### Dublin, CA

		1						MTBE	MTBE							Depth to	GW	DO
Well ID	Date	TPPH	TEPH	В	Т	E	х	8020	8260	DIPE	ETBE	TAME	TBA	Ethanol	тос	Water	Elevation	1 1
	•	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(MSL)	(ft.)	(MSL)	(ppm)
<u> </u>	<del></del>		<u>`</u>									<u></u>			<del></del>	<del></del>		
MW-2	4/3/2000	7,130	NA	184	14.9	238	.18.8	34,200	28,000	NA	NA	NA	NA	NA	365.43	19.03	346.40	1.6/1.7
MW-2	7/27/2000	311	NA	10.0	<0.500	<0.500	<0.500	280	NA	ŅΑ	NA	NA	NA	NA	365.43	19.09	346.34	1.9/1.7
MW-2	10/16/2000	3,970	NA	123	<5.00	68.5	<5.00	14,000	15,600	NA	NA	NA	NA	NA	365.43	23.98	341.45	0.5/0.5
MW-2	1/16/2001	5,780	NA.	125	9.71	139	6.93	7,660	7,810	NA	NA	NA	NA	NA	365.43	22.12	343.31	0.90/2.61
MW-2	4/19/2001	4,460	NA	114	7.61	115	4.87	15,200	18,400	NA	NA	NA	NA	NA	365.43	20.95	344.48	1.6/1.5
MW-2	7/13/2001	<5,000	NA	<25	<25	110	<25	NA	15,000	NA .	NA	NA	NA	NA	365.43	22.62	342.81	2.7/1.8
MW-2	8/13/2001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	365.43	22.33	343.10	NA
MW-2	10/26/2001	3,700	NA	<20	<20	66	<20	NA	9,200	<20	<20	<20	1,800	<500	365.43	22.32	343.11	0.7/0.8
MW-2	1/11/2002	<5,000	NA	<50	<50	54	<50	NA	15,000	NA	NA	NA	NA	NA	365.43	18.72	346.71	5.1/c
MW-2	5/22/2002	<5,000	NA	53	<50	57	<50	NA	20,000	<50	<50	<50	6,300	NA	365.43	20.59	344.84	NA
MW-2	7/15/2002	<5,000	NA	<50	<50	<50	<50	NA	16,000	<50	<50	<50	3,100	NA	365.43	21.90	343.53	NA
MW-2	10/11/2002	3,600	NA	<20	<20	48	<20	NA	8,200	<20	<20	<20	1,600	NA	365.43	22.45	342.98	NA
MW-2	1/17/2003	4,700	NA	<25	<25	87	<25	NA	13,000	<25	<25	<25	7,700	NA	365.43	19.27	346.16	NA
MW-2	5/1/2003	6,000	NA	<50	<50	110	<100	NA	12,000	<200	<200	<200	6,700	NA	365.43	19.09	346.34	NA
MW-2	8/27/2003	2,500	NA	32	<25	100	<50	NA	4,800	<100	<100	<100	9,100	NA	365.43	22.53	342.90	NA
MW-2	10/3/2003	5,500 d	NA	32	<13	86	<25	NA	2,200	<50	<50	<50	9,900	NA	365.43	23.02	342.41	NA
MW-2	1/5/2004	6,500	NA	22	<13	58	<25	. NA	1,200	<50	<50	<50	7,400	NA	365.43	19.08	346.35	NA
MW-2	4/9/2004	6,500	NA	72	<13	30	<25	NA	1,600	<50	<50	<50	11,000	NA	365.43	20.22	345.21	NA
MW-2	7/22/2004	4,900	NA	32	<13	19	<25	. NA	180	<50	<50	<50	7,100	NA	365.43	22.14	343.29	NA
MW-2	11/1/2004	5,700	NA	42	<13	13	<25	NA	190	<50	<50	<50	6,100	NA	365.43	20.72	344.71	NA
MW-2	1/26/2005	6,600	NA	94	<13	13	<25	NA	1,700	<50	<50	<50	16,000	NA	365.43	17.95	347.48	NA
MW-2	4/14/2005	8,200	NA	170	<10	92	<20	NA	1,300	<40	<40	<40	15,000	NA	365.43	18.10	347.33	NA
MW-2	7/21/2005	4,100	NA	- 23	<10	13	<20	NA	96	<40	<40	<40	4,600	NA	365.43	22.72	342.71	NA
MW-2	11/8/2005	1,290	NA	1.66	0.990	2.56	1.25	NA	11.9	<0.500	<0.500	<0.500	428	NA	365.43	21.77	343.66	NA
MW-2	1/6/2006	6,650	NA	<0.500	<0.500	2.69	<0.500	NA	9.23 g	<0.500	<0.500	<0.500	1,300 g	NA	365.43	18.94	346.49	. NA
MW-2	4/19/2006	5,490	NA	3.58	0.890	4.32	<0.500	NA	19.0	<0.500	<0.500	<0.500	1,040	NA	365.43	18.34	347.09	NA
MW-2	7/26/2006	4,990	NA	<0.500	<0.500	<0.500	<0.500	. NA	4.66	NA	NA	NA	353	NA	365.43	22.53	342.90	NA
MW-2	10/27/2006	2,900	NA	<0.50	<0.50	<0.50	1.2	NA	<0.50	<2.0	<2.0	<2.0	270	NA	365.43	23.08	342.35	NA
MW-2	1/19/2007	1,700	NA	<0.50	0.72	<0.50	<0.50	- NA	<0.50	NA	NA	NA	280	NA	365.43	18.91	346.52	NA
MW-2	4/3/2007	2,100 h,i	NA	<0.50	<1.0	<1.0	<1.0	NA	<1.0	NA.	NA	NA	120	NA	365.43	19.37	346.06	NA
MW-2	7/6/2007	2,000 h,i	NA _	<0.50	<1.0	0.90 j	7.72 j	NA	<1.0	NA	NA	NA	29	NA	365.43	21.24	344.19	NA

								MTBE	MTBE							Depth to	GW	DO
Well ID	Date	TPPH	TEPH	В	Т	E	х	8020	8260	DIPE	ETBE	TAME	TBA	Ethanol	TOC	Water	Elevation	Reading
		(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(MSL)	(ft.)	(MSL)	(ppm)
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MW-2	10/30/2007	2,100 h	NA	<0.50	<1.0	<1.0	<1.0	NA	<1.0	<2.0	<2.0	<2.0	30	NA	365.43	21.38	344.05	NA
MW-2	1/10/2008	2,200 h,i	NA	<0.50	<1.0	<1.0	<1.0	NA	<1.0	NA	NA	NA	72	NA	365.43	17.95	347.48	NA
MW-2	4/24/2008	2,700	NA	<0.50	<1.0	<1.0	<1.0	NA	<1.0	NA	NA	NA	22	NA	365.43	20.72	344.71	NA
MW-2	7/31/2008	2,700	NA	<0.50	<1.0	<1.0	<1.0	NA	<1.0	NA	NA.	NA	28	NA	365.43	21.25	344.18	NA
MW-2	10/13/2008	1,700	NA	<0.50	<1.0	<1.0	<1.0	NA	<1.0	<2.0	<2.0	<2.0	16	NA	365.43	20.42	345.01	NA
MW-2	1/5/2009	2,300	NA	<0.50	. <1.0	<1.0	<1.0	NA	1.0	NA	NA	NA	170	NA	365.43	17.71	347.72	NA
MW-2	7/7/2009	2,200	NA	<0.50	<1.0	<1.0	<1.0	NA	<1.0	<2.0	<2.0	<2.0	25	NA	365.43	22.43	343.00	NA
MW-2	1/6/2010	3,200	NA	<0.50	<1.0	<1.0	<1.0	NA	<1.0	NA	NA	NA	48	NA	365.43	22.22	343.21	NA
MW-2	7/6/2010	2,100	NA	<0.50	<1.0	<1.0	<1.0	ÑΑ	<1.0	<2.0	<2.0	<2.0	40	NA	365.43	21.10	344.33	NA
MW-3	7/20/1999	208	177	4.69	<0.500	<0.500	<0.500	664	NA	NA	NA	NA	NA	NA	364.97	24.23	340.74	NA
MW-3	10/25/1999	378	182	9.49	<0.500	<0.500	<0.500	1,410	NA	NA	NA	NA	NA	NA	364.97	23.26	341.71	NA
MW-3	1/27/2000	428	100	29.4	<0.500	<0.500	<0.500	941	NA	NA	NA	NA	NA	NA	364.97	19.53	345.44	NA
MW-3	4/3/2000	<125	NA	11.4	<1.25	<1.25	<1.25	639	NA	NA	NA	NA	NA	NA	364.97	19.13	345.84	1.4/1.9
MW-3	7/27/2000	4,360	NA	78.4	6.95	85.8	2.61	26,600	25,200 b	NA	NA	NA	NA	NA:	364.97	19.10	345.87	1.9/2.0
- MW-3	10/16/2000	586	NA .	21.3	<0.500	<0.500	<0.500	3,310	NA	NA	NA	NA	NA	NA	364.97	24.11	340.86	1.1/0.8
MW-3	1/16/2001	558	NA	14.7	<0.500	<0.500	<0.500	2,210	NA	NA	NA	NA	NA	NA	364.97	22.19	342.78	0.87/3.5
MW-3	4/19/2001	376	NA	9.08	<0.500	<0.500	<0.500	667	NA	NA	NA	NA	NA	NA	364.97	20.96	344.01	1.7/1.4
MW-3	7/13/2001	370	NA	<2.0	<2.0	<2.0	<2.0	NA	670	NA	NA	NA	NA	NA	364.97	22.77	342.20	3.1/4.8
MW-3	8/13/2001	NA	NA NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	364.97	22.59	342.38	NA
MW-3	10/26/2001	<200	NA	<2.0	<2.0	<2.0	<2.0	NA	680	<2.0	<2.0	<2.0	79	<500	364.97	22.81	342.16	1.0/3.2
MW-3	1/11/2002	480	NA	<2.0	<2.0	<2.0	<2.0	NA	830	NA	NA	NA	NA	NA	364.97	18.88	346.09	1.1/3.2
MW-3	5/22/2002	570	NA NA	<1.0	<1.0	<1.0	<1.0	NA	680	<2.0	<2.0	<2.0	58	NA	364.97	20.75	344.22	NA _
MW-3	7/15/2002	420	NA	1.1	<1.0	<1.0	1.1	NA	520	<2.0	<2.0	<2.0	53	NA NA	364.97	22.09	342.88	NA NA
MW-3	10/11/2002	730	NA	<0.50	<0.50	<0.50	<0.50	NA	320	<2.0	<2.0	<2.0	330	NA NA	364.97	22.68	342.29	NA NA
MW-3	1/17/2003	740	NA	<0.50	<0.50	<0.50	<0.50	NA	150	<2.0	<2.0	<2.0	440	NA NA	364.97	19.34	345.63	NA NA
MW-3	5/1/2003	890	NA	<0.50	<0.50	<0.50	<1.0	NA	78	<2.0	<2.0	<2.0	300	NA NA	364.97	19.27	345.70	NA NA
MW-3	8/27/2003	920 d	NA_	<0.50	<0.50	<0.50	<1.0	NA	52	<2.0	<2.0	<2.0	330	NA NA	364.97	22.73	342.24	NA NA
MW-3	10/3/2003	870 d	NA	<0.50	<0.50	<0.50	<1.0	NA	65	<2.0	<2.0	<2.0	520	NA NA	364.97	23.15	341.82	NA NA
MW-3	1/5/2004	860 d	NA	<0.50	<0.50	<0.50	<1.0	NA	40	<2.0	<2.0	<2.0	750	NA_	364.97	19.60	345.37	NA NA
MW-3	4/9/2004	420 d	NA	<0.50	<0.50	<0.50	<1.0	NA	58	<2.0	<2.0	<2.0	280	NA	364.97	20.30	344.67	NA

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								MTBE							}	Depth to	GW	DO
Well ID	Date	TPPH	TEPH	В	Т	Е	Х	8020	8260	DIPE	ETBE	TAME	TBA	Ethanol	TOC	Water	Elevation	Reading
		(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(MSL)	(ft.)	(MSL)	(ppm)
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MW-3	7/22/2004	570 e	NA	<0.50	<0.50	<0.50	<1.0	NA	20	<2.0	<2.0	<2.0	360	NA	364.97	22.42	342.55	NA
MW-3	11/1/2004	430	NA	<0.50	<0.50	<0.50	<1.0	NA	28	<2.0	<2.0	<2.0	680	NA	364.97	21.00	343.97	NA
MW-3	1/26/2005	1000	NA	0.53	<0.50	<0.50	<1.0	NA	20	<2.0	<2.0	<2.0	820	NA	364.97	17.92	347.05	NA
MW-3	4/14/2005	1,100	NA	1.3	<0.50	<0.50	<1.0	NA	16	<2.0	<2.0	<2.0	580	NA	364.97	18.11	346.86	NA
MW-3	7/21/2005	490	NA	<0.50	<0.50	<0.50	<1.0	NA	4.2	<2.0	<2.0	<2.0	400	NA	364.97	22.95	342.02	NA
MW-3	11/8/2005	349	NA	<0.500	<0.500	<0.500	<0.500	NA	10.1	<0.500	<0.500	<0.500	418	NA	364.97	22.18	342.79	NA
MW-3	1/6/2006	<50.0	NA	<0.500	<0.500	<0.500	<0.500	NA	13.7	<0.500	<0.500	<0.500	1,060	NA	364.97	19.40	345.57	NA
MW-3	4/19/2006	376	NA	0.580	<0.500	<0.500	<0.500	NA	4.44	<0.500	<0.500	<0.500	452	NA	364.97	18.62	346.35	NA
MW-3	7/26/2006	<50.0	NA -	<0.500	<0.500	<0.500	<0.500	NA	5.98	NA	NA	NA	72.1	NA	364.97	22.79	342.18	NA
MW-3	10/27/2006	550	NA	<0.50	<0.50	<0.50	<1.0	NA	3.8	<2.0	<2.0	<2.0	270	NA	364.97	23.41	341.56	NA
MW-3	1/19/2007	390	NA	<0.50	<0.50	<0.50	<0.50	NA	6.0	NA	NA	NA	770	NA	364.97	19.88	345.09	NA
MW-3	4/3/2007	310 h,i	NA	<0.50	<1.0	<1.0	<1.0	NA	4.1	NA	NA	NA	480	NA	364.97	20.23	344.74	NA
MW-3	7/6/2007	330 h,i	NA	<0.50	<1.0	0.24 j	2.09 j	NA	1.3	NA	NA	NA	210	NA	364.97	21.85	343.12	NA
MW-3	10/30/2007	310 h	NA	<0.50	<1.0	<1.0	<1.0	NA	2.2	<2.0	<2.0	<2.0	90	NA	364.97	22.00	342.97	NA
MW-3	1/10/2008	320 h,i	NA	<0.50	<1.0	<1.0	<1.0	NA	2.3	NA	NA	NA	160	NA	364.97	18.81	346.16	- NA
MW-3	4/24/2008	610	NA	<0.50	<1.0	<1.0	<1.0	NA	<1.0	NA	NA	NA.	160	NA	364.97	21.15	343.82	NA.
MW-3	7/31/2008	560	NA	<0.50	<1.0	<1.0	<1.0	NA	1.9	NA	NA	NA	72	NA	364.97	21.90	343.07	NA
MW-3	10/13/2008	550	NA -	<0.50	<1.0	<1.0	<1.0	NA	<1.0	<2.0	<2.0	<2.0	40	NA	364.97	21.04	343.93	NA
MW-3	1/5/2009	280	NA	<0.50	<1.0	<1.0	<1.0	NA	<1.0	NA	NA	NA	13	NA	364.97	18.12	346.85	NA
MW-3	7/7/2009	700	NA	<0.50	<1.0	<1.0	<1.0	NA	<1.0	<2.0	<2.0	<2.0	34	NA	364.97	22.95	342.02	NA
MW-3	1/6/2010	350	NA	<0.50	<1.0	<1.0	<1.0	NA NA	<1.0	NA	NA	NA	13	NA	364.97	22.74	342.23	NA
MW-3	7/6/2010	100	NA	0.52	<1.0	<1.0	<1.0	NA	<1.0	<2.0	<2.0	<2.0	<10	- NA	364.97	21.50	343.47	NA
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MW-4	8/10/2001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	364.01	25.63	338.38	NA
MW-4	8/13/2001	2,400	NA	<10	<10	<10	<10	NA	8,300	NA	NA	NA	NA	NA	364.01	26.32	337.69	4.2/2.7
MW-4	10/26/2001	<2,000	NA	<20	<20	<20	<20	NA	8,600	NA	NA	NA	NA	NA	364.01	26.02	337.99	3.1/2.8
MW-4	1/11/2002	<2,000	NA	<20	<20	<20	<20	NA	5,100	NA	NA	NA	NA	NA	364.01	22.25	341.76	7.9/3.0
MW-4	5/22/2002	<500	NA	<5.0	<5.0	<5.0	<5.0	NA	3,200	<5.0	<5.0	<5.0	2,500	NA	364.01	23.96	340.05	NA
MW-4	7/15/2002	<2,500	NA	<20	<20	<20	<20	NA	7,000	<20	<20	<20	2,000	NA	363.97	25.18	338.79	NA
MW-4	10/11/2002	1,900	NA	<5.0	<5.0	<5.0	<5.0	NA	2,900	<5.0	<5.0	<5.0	5,100	NA	363.97	25.91	338.06	NA
MW-4	1/17/2003	580	NA.	<2.5	<2.5	<2.5	<2.5	NA	59	<2.5	<2.5	<2.5	7,000	NA	363.97	22.38	341.59	NA
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#### **Shell-branded Service Station** 11989 Dublin Boulevard Dublin, CA

								MTBE	MTBE							Depth to	GW	DO
Well ID	Date	TPPH	TEPH	В	Т	E	Х	8020	8260	DIPE	ETBE	TAME	TBA	Ethanol	TOC	Water	Elevation	Reading
		(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(MSL)	(ft.)	(MSL)	(ppm)
								****		· · · · · · · · · · · · · · · · · · ·				-				
MW-4	5/1/2003	770	NA	<5.0	<5.0	<5.0	<10	NA	73	<20	<20	<20	4,300	NA	363.97	21.92	342.05	NA
MW-4	8/27/2003	<1,000	NA	<10	<10	<10	<20	NA	370	<40	<40	<40	11,000	NA	363.97	25.31	338.66	NA
MW-4	10/3/2003	<1,000	NA	<10	<10	<10	<20	NA	190	<40	<40	<40	11,000	NA	363.97	26.00	337.97	NA
MW-4	1/5/2004	<1,000	NA	<10	<10	<10	<20	NA	<10	<40	<40	<40	7,400	NA	363.97	23.48	340.49	NA
MW-4	4/9/2004	<1,000	NA	<10	<10	<10	<20	NA	<10	<40	<40	<40	5,700	NA	363.97	· 23.45	340.52	NA
MW-4	7/22/2004	Well inac	cessible	NA	NA	NA	NA	NA	363.97	NA	NA	NA						
MW-4	11/1/2004	Well inac	cessible	NA	NA	NA	NA	NA	363.97	NA	· NA	NA						
MW-4	1/26/2005	1200 f	NA	<10	<10	<10	<20	NA	<10	<40	<40	<40	3700	NA	363.97	21.44	342.53	NA
MW-4	4/14/2005	1,000 f	NA	<0.50	<0.50	<0.50	<1.0	NA	6.2	<2.0	<2.0	<2.0	5,800	NA	363.97	20.69	343.28	NA
MW-4	7/21/2005	390	NA	<2.5	<2.5	<2.5	<5.0	NA	<2.5	<10	<10	<10	2,400	NA	363.97	25.55	338.42	NA
MW-4	11/8/2005	489	NA	<0.500	<0.500	<0.500	<0.500	NA	3.23	<0.500	<0.500	<0.500	1,710	NA	363.97	25.46	338.51	NA
MW-4	1/6/2006	<50.0	NA	<0.500	<0.500	<0.500	<0.500	NA	2.75 g	<0.500	<0.500	<0.500	302	NA	363.97	22.55	341.42	NA
MW-4	4/19/2006	<50.0	NA	<0.500	<0.500	<0.500	<0.500	NA	0.630	<0.500	<0.500	<0.500	301	NA	363.97	21.59	342.38	NA
MW-4	7/26/2006	785	NA	<0.500	<0.500	<0.500	<0.500	NA .	1.47	NA	NA	NA	1,810	NA	363.97	25.67	338.30	NA
MW-4	10/27/2006	270	NA	<0.50	<0.50	<0.50	<1.0	. NA	0.98	<2.0	<2.0	<2.0	3,000	NA	363.97	26.41	337.56	NA
MW-4	1/19/2007	79	NA	<0.50	<0.50	<0.50	<0.50	NA	<0.50	NA	NA	NA	550	NA	363.97	23.79	340.18	NA
MW-4	4/3/2007	63 h,i	NA	<0.50	<1.0	<1.0	<1.0	NA	<1.0	NA	NA	NA	13	NA	363.97	23.36	340.61	NA
MW-4	7/6/2007	130 h,i	NA	<0.50	<1.0	<1.0	1.0	NA	<1.0	NA	NA	NA	750	NA	363.97	24.47	339.50	NA
MW-4	10/30/2007	150 h,i	NA	<0.50	<1.0	<1.0	<1.0	NA	<1.0	<2.0	<2.0	<2.0	530	NA	363.97	24.66	339.31	NA
MW-4	1/10/2008	Well inac	cessible	NA	NA	NA	NA_	NA	363.97	NA	NA	NA						
MW-4	4/24/2008	230	NA	<0.50	<1.0	<1.0	<1.0	NA	<1.0	NA	NA	NA	170	NA	363.97	23.49	340.48	NA
MW-4	7/31/2008	67	NA	<0.50	<1.0	<1.0	<1.0	NA	<1.0	NA	NA	NA	29	NA	363.97	24.63	339.34	NA
MW-4	10/13/2008	170	NA	<0.50	<1.0	<1.0	<1.0	NA	<1.0	<2.0	<2.0	<2.0	120	NA	363.97	24.52	339.45	NA
MW-4	1/5/2009	<50	NA	<0.50	<1.0	<1.0	<1.0	- NA	<1.0	NA	NA	NA	<10	NA	363.97	23.18	340.79	NA
MW-4	7/7/2009	<50	NA	<0.50	<1.0	<1.0	<1.0	NA	<1.0	<2.0	<2.0	<2.0	<10	NA	363.97	24.98	338.99	NA
MW-4	1/6/2010	75	NA	<0.50	<1.0	<1.0	<1.0	NA	<1.0	NA	NA	NA	<10	NA NA	363.97	24.94	339.03	NA NA
MW-4	7/6/2010	<50	NA	<0.50	<1.0	<1.0	<1.0	NA	<1.0	<2.0	<2.0	<2.0	<10	NA	363.97	23.00	340.97	NA
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MW-5	1/3/2006	NA	NA	NA	NA	NA	NA NA	NA	NA	NA	NA	NA	NA	NA	361.00	22.95	338.05	NA
MW-5	1/6/2006	<50.0	280	<0.500	<0.500	<0.500	<0.500	NA	<0.500	<0.500		<0.500	<10.0	NA	361.00	22.77	338.23	NA
MW-5	4/19/2006	<50.0	NA	<0.500	<0.500	<0.500	<0.500	NA	<0.500	<0.500	<0.500	<0.500	32.1	NA	361.00	21.06	339.94	NA

								MTBE	MTBE							Depth to	GW	DO
Well ID	Date	TPPH	TEPH	В	Т	E	Х	8020	8260	DIPE	ETBE	TAME	TBA	Ethanol	TOC	Water	Elevation	Reading
		(ug/L)	(MSL)	(ft.)	(MSL)	(ppm)												
L		1																
MW-5	7/26/2006	<50.0	NA	<0.500	<0.500	<0.500	<0.500	NA	<0.500	NA	NA	NA	<10.0	NA	361.00	24.68	336.32	NA
MW-5	10/27/2006	170	NA	<0.50	<0.50	<0.50	<1.0	NA	<0.50	<2.0	<2.0	<2.0	<5.0	NA	361.00	25.57	335.43	NA
MW-5	1/19/2007	230	. NA	<0.50	<0.50	<0.50	<0.50	NA	<0.50	NA	NA	NA	<20	NA	361.00	24.24	336.76	NA
MW-5	4/3/2007	76 h	NA	<0.50	<1.0	<1.0	<1.0	NA	<1.0	NA	NA	NA	<10	NA	361.00	23.64	337.36	NA
MW-5	7/6/2007	<50 h	ΝA	<0.50	<1.0	<1.0	0.84 j	NA	<1.0	NA	NA	NA	<10	NA	361.00	24.74	336.26	NA
MW-5	10/30/2007	<50 h	NA	<0.50	<1.0	<1.0	<1.0	NA	<1.0	<2.0	<2.0	<2.0	<10	NA	361.00	24.84	336.16	NA
MW-5	1/10/2008	<50 h	NA	<0.50	<1.0	<1.0	<1.0	NA	<1.0	NA	NA	NA	<10	NA	361.00	22.95	338.05	NA
MW-5	4/24/2008	<50	NA	<0.50	<1.0	<1.0	<1.0	NA	<1.0	NA	NA	NA	<10	NA	361.00	23.58	337.42	NA
MW-5	7/31/2008	<50	NA	<0.50	<1.0	<1.0	<1.0	NA -	<1.0	NA	NA	NA	<10	NA	361.00	24.88	336.12	NA
MW-5	10/13/2008	<50	NA	<0.50	<1.0	<1.0	<1.0	NA	<1.0	<2.0	<2.0	<2.0	<10	NA	361.00	25.02	335.98	NA
MW-5	1/5/2009	<50	NA	<0.50	<1.0	<1.0	<1.0	NA	<1.0	NA	NA	NA	<10	NA	361.00	24.06	336.94	NA
MW-5	7/7/2009	<50	NA	<0.50	<1.0	<1.0	<1.0	NA	<1.0	<2.0	<2.0	<2.0	<10	NA	361.00	24.75	336.25	NA
MW-5	1/6/2010	<50	NA -	<0.50	<1.0	<1.0	<1.0	NA	<1.0	NA	NA	NA	<10	NA	361.00	24.57	336.43	NA
MW-5	7/6/2010	<50	. NA	<0.50	<1.0	<1.0	<1.0	NA	<1.0	<2.0	<2.0	<2.0	<10	NA	361.00	22.90	338.10	NA
										1								
MW-6	7/21/2006	NA	361.15	25.33	335.82	NA												
MW-6	7/26/2006	<50.0	NA	<0.500	<0.500	<0.500	<0.500	NA	<0.500	<0.500	<0.500	<0.500	<10.0	NA .	361.15	25.45	335.70	NA
MW-6	10/27/2006	<50	NA	<0.50	<0.50	<0.50	<1.0	NA	0.63	<2.0	<2.0	<2.0	<5.0	NA	361.15	26.41	334.74	NA
MW-6	1/19/2007	<50	NA	<0.50	<0.50	<0.50	<0.50	NA	1.1	NA	NA	NA	<20	NA	361.15	25.50	335.65	NA
MW-6	4/3/2007	<50 h	NA	<0.50	<1.0	<1.0	<1.0	NA	0.70 j	NA	NA	NA	<10	NA	361.15	25.00	336.15	NA
MW-6	7/6/2007	<50 h	NA	<0.50	<1.0	<1.0	<1.0	NA	0.34 j	NA	NA	NA	<10	NA	361.15	25.93	335.22	NA
MW-6	10/30/2007	<50 h	NA	<0.50	<1.0	<1.0	<1.0	NA	0.30 j	<2.0	<2.0	<2.0	<10	NA	361.15	26.10	335.05	NA
MW-6	1/10/2008	<50 h	NA	<0.50	<1.0	<1.0	<1.0	NA	<1.0	NA	NA	NA	<10	NA	361.15	24.43	336.72	NA
MW-6	4/24/2008	<50	NA	<0.50	<1.0	<1.0	<1.0	NA	<1.0	NA	NA	NA	<10	NA	361.15	24.76	336.39	NA
MW-6	7/31/2008	<50	NA	<0.50	<1.0	<1.0	<1.0	NA	<1.0	NA	NA	NA	<10	NA	361.15	26.00	335.15	NA
MW-6	10/13/2008	<50	NA	<0.50	<1.0	<1.0	<1.0	NA	<1.0	<2.0	<2.0	<2.0	<10	NA	361.15	26.28	334.87	NA
MW-6	1/5/2009	<50	NA	<0.50	<1.0	<1.0	<1.0	NA	<1.0	NA_	NA	NA	<10	NA	361.15	25.18	335.97	NA ·
MW-6	7/7/2009	<50	NA	<0.50	<1.0	<1.0	<1.0	NA	<1.0	<2.0	<2.0	<2.0	<10	NA	361.15	25.70	335.45	NA
MW-6	1/6/2010	89	NA	<0.50	<1.0	<1.0	<1.0	NA	<1.0	NA	NA	NA	<10	NA	361.15	25.41	335.74	NA
MW-6	5/13/2010	<50	NA	<0.50	<1.0	<1.0	<1.0	NA	<1.0	NA	NA	NA	<10	NA	361.15	22.75	338.40	NA
MW-6	7/6/2010	<50	NA	<0.50	<1.0	<1.0	<1.0	NA	<1.0	<2.0	<2.0	<2.0	<10	NA	361.15	23.98	337.17	NA

#### Shell-branded Service Station 11989 Dublin Boulevard Dublin CA

									ubiiii, C	7.								
								MTBE	MTBE							Depth to	GW	DO
Well ID	Date	TPPH	TEPH	ıΒ	T	E	Х	8020	8260	DIPE	ETBE	TAME	TBA	Ethanol	TOC	Water	Elevation	Reading
		(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(MSL)	(ft.)	(MSL)	(ppm)							
•																		
						-								,				····
MW-7	7/21/2006	NA	NA	NA	NA	NA	NA	365.21	25.93	339.28	NA							
MW-7	7/26/2006	<50.0	NA	<0.500	<0.500	<0.500	<0.500	NA	<0.500	<0.500	<0.500	<0.500	<10.0	NA	365.21	30.53	334.68	NA .
MW-7	10/27/2006	<50	NA	<0.50	<0.50	<0.50	<1.0	NA	<0.50	<2.0	<2.0	<2.0	<5.0	· NA	365.21	31.97	333.24	NA
MW-7	1/19/2007	<50	NA	<0.50	<0.50	<0.50	<0.50	NA	<0.50	NA	NA	NA	<20	NA	365.21	31.61	333.60	NA
MW-7	4/3/2007	<50 h	NA	<0.50	<1.0	<1.0	<1.0	NA	<1.0	NA	NA	NA	<10	NA	365.21	30.80	334.41	NA
MW-7	7/6/2007	<50 h	· NA	<0.50	<1.0	<1.0	<1.0	NA	<1.0	NA	NA	NA	<10	NA	365.21	31.86	333.35	NA
MW-7	10/30/2007	<50 h	NA	<0.50	<1.0	<1.0	<1.0	NA	<1.0	<2.0	<2.0	<2.0	<10	NA	365.21	32.32	332.89	NA
MW-7	1/10/2008	<50 h	NA	<0.50	<1.0	<1.0	<1.0	NA	<1.0	NA	NA	NA	<10	NA	365.21	31.40	333.81	NA
MW-7	4/24/2008	<50	NA	<0.50	<1.0	<1.0	<1.0	NA	<1.0	NA	NA	NA	<10	NA	365.21	30.60	334.61	NA
MW-7	7/31/2008	<50	NA	<0.50	<1.0	<1.0	<1.0	NA	<1.0	NA	NA	NA	<10	NA	365.21	32.14	333.07	NA
MW-7	10/13/2008	<50	NA	<0.50	<1.0	<1.0	<1.0	NA	<1.0	<2.0	<2.0	<2.0	<10	NA	365.21	32.80	332.41	NA
MW-7	1/5/2009	<50	NA	<0.50	<1.0	<1.0	<1.0	NA	<1.0	NA	NA	NA	<10	NA	365.21	31.86	333.35	NA
MW-7	7/7/2009	<50	NA	<0.50	<1.0	<1.0	<1.0	· NA	<1.0	<2.0	<2.0	<2.0	<10	NA	365.21	31.49	333.72	NA
MW-7	1/6/2010	160	NA	<0.50	<1.0	<1.0	<1.0	NA	<1.0	NA	NA	NA	<10	NA	365.21	31.52	333.69	NA
MW-7	5/13/2010	<50	NA	<0.50	<1.0	<1.0	<1.0	NA	<1.0	NA	NA	NA	<10	NA	365.21	28.65	336.56	NA

<1.0

<2.0

<2.0

<2.0

<10

NA

365.21

29.80

335.41

NA

NA

<1.0

7/6/2010

<50

NA

MW-7

<0.50

<1.0

<1.0

## Shell-branded Service Station

## 11989 Dublin Boulevard

#### Dublin, CA

								MTBE	MTBE			Ì				Depth to	GW	DO
Well ID	Date	TPPH	TEPH	В	T	E	X	8020	8260	DIPE	ETBE	TAME	TBA	Ethanol	TOC	Water	Elevation	Reading
		(ug/L)	(MSL)	(ft.)	(MSL)	(ppm)												

#### Abbreviations:

TPPH = Total petroleum hydrocarbons as gasoline by EPA Method 8260B; prior to July 13, 2001, analyzed by EPA Method 8015.

TEPH = Total petroleum hydrocarbons as diesel by modified EPA Method 8015.

BTEX = Benzene, toluene, ethylbenzene, xylenes by EPA Method 8260B; prior to July 13, 2001, analyzed by EPA Method 8020.

MTBE = Methyl tertiary butyl ether

DIPE = Di-isopropyl ether, analyzed by EPA Method 8260

ETBE = Ethyl tertiary butyl ether, analyzed by EPA Method 8260

TAME = Tertiary amyl methyl ether, analyzed by EPA Method 8260

TBA = Tertiary butyl alcohol, analyzed by EPA Method 8260

TOC = Top of Casing Elevation

GW = Groundwater

DO = Dissolved Oxygen

n/n = Pre-purge/Post-purge DO Readings

ug/L = Parts per billion

ppm = Parts per million

MSL = Mean sea level

ft. = Feet

<n = Below detection limit

NA = Not applicable

#### Shell-branded Service Station 11989 Dublin Boulevard Dublin, CA

								MTBE	MTBE							Depth to	GW	DO
Well ID	Date	TPPH	TEPH	В	T	E	X.	8020	8260	DIPE	ETBE	TAME	TBA	Ethanol	TOC	Water	Elevation	Reading
		(ug/L)	(MSL)	(ft.)	(MSL)	(ppm)												

#### Notes:

- a = Sample was analyzed outside the EPA recommended holding time.
- b = Concentration is an estimate.
- c = DO meter malfunctioning.
- d = Hydrocarbon does not match pattern of laboratory's standard.
- e = Sample contains discrete pæk in addition to gasoline.
- f = Quantity of unknown hydrocarbon(s) in sample based on gasoline.
- g = Secondary ion abundances were outside method requirements. Identification based on analytical judgement.
- h = Analyzed by EPA Method 8015B (M).
- i = 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.
- j = Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.

Ethanol analyzed by EPA Method 8260B.

Wells surveyed June 21, 1999 by Virgil Chavez Land Surveying of Vallejo, CA.

Wells surveyed August 23, 2001 and February 18, 2002 by Virgil Chavez Land Surveying of Vallejo, CA.

Well MW-5 surveyed on March 3, 2006 by Mid Coast Engineers.

Well MW-6 and MW-7 surveyed data provided by Delta Environmental Consultants, Inc, CA. on August 15, 2006.

APPENDIX D

WELL SURVEYS



ZONE 7 WATER AGENCY 100 NORTH CANYONS PARKWAY LIVERMORE, CA 94551

**WELL LOCATION MAP** 

SCALE: 1 in = 1000 ft

RADIUS = 1/2 mi

11989 DUBLIN BLVD
H:1FLOODIREFERALLS:WOR

#### **WELLGEOG MAP LEGEND**

- Supply Well
- △ Destroyed Supply Well
- Monitoring Well
- Destroyed Monitoring Well
- Other Designated Well
- Destroyed Other Designated Well
- Injection Well
- Destroyed Injection Well
  - **Abandoned or Unlocatable Well**
- Unknown Use or Undesignated Well
- Destroyed Unknown Use or Undesignated Well
- Borehole
- Stream Gaging Station
- \* Climatological Station
- Septic Tank Permit

### **Shell-branded Service Station**

11989 Dublin Boulevard Dublin, California



**Vicinity Map** 

Table 1. Well Survey Results - Shell-branded Service Station, 11989 Dublin Blvd. Dublin California. Incident # 98995328

					Depth	Screened	Sealed
OCATION	Well ID	Installation Date	Owner	Use	(fbg)	Interval (fbg)	Interval (fbg)
				1			
Vell Location			rtment of Water Resources				
1	01-488A	February 20, 1991	Target Stores Inc.	MON	20.5	5-20	0-3
2	01-488B	February 20, 1991	Target Stores Inc.	MON	20.5	5-20	0-3
3	01-488C	February 19, 1991	Target Stores Inc.	MON	20.5	5-20	0-3
4	01-488D	February 19, 1991	Target Stores Inc.	MON	23	5-20	0-3
5	01-217M	November 8, 2000	Montgomery Ward	DEST	18		
6	285520	June 13, 1991	Target Stores Inc.	MON	20	5-20	0-3
7	285529	September 19, 1991	Target Stores Inc.	MON	15	4.5-14.5	0-3
8	01-413R	January 11, 1989	Montgomery Ward	MON	21	6-21_	0-5
9	01-413S	January 20, 1989	Montgomery Ward	MON	12.5	2-12.5	.1-2
10	01-413T	January 12, 1989	Montgomery Ward	MON	12.5	2-12.5	.1-2
11	01-413U	January 12, 1989	Montgomery Ward	MON	12.5	2-12.5	.1-2
12	01-413V	February 8, 1989	Montgomery Ward	MON	22	6.5-22	0-4
13	01-413W	December 2, 1988	Montgomery Ward	MON	26.5	10.5-26.5	0-9.5
14	01-413X	December 1, 1988	Montgomery Ward	MON	13.5	1-13.5	0-1
15	01-217N	August 15, 1989	Montgomery Ward	MON	23	8-23	0-6
16	01-2170	August 15, 1989	Montgomery Ward	MON	25	10-25	0-8
17	01-555R	December 13, 1993	Enea Plaza	MON	23	8-23	0-8
18	01-490H	May 10, 1991	Stoneridge Chrysler/Plymouth	MON	30	15-30	0-15
19	01-490I	May 10, 1991	Stoneridge Chrysler/Plymouth	MON	30	15-30	0-15
20	01-490J	May 11, 1991	Stoneridge Chrysler/Plymouth	MON	30	15-30	0-15
21	01-490K	May 11, 1991	Stoneridge Chrysler/Plymouth	MON	30	15-30	0-15
22	372623	November 20, 1991	Bedford Properties	MON	30	20-30	0-18
23	3S/1W-2B 1	December 13, 1950	R. Banke	IRR	200		
24	253972D	June 1, 1976	Zone 7 WaterAgency	MON	47	37-42	24-26
25	337044	July 27, 1990	Public Storage Inc.	DEST	80		

Table 1. Well Survey Results - Shell-branded Service Station, 11989 Dublin Blvd. Dublin California. Incident # 98995328

					Depth	Screened	Sealed
OCATION	Well ID	Installation Date	Owner	Use	(fbg)	Interval (fbg)	Interval (fbg)
				· · · · · · · · · · · · · · · · · · ·			
26	337045	July 27, 1990	Public Storage Inc.	DEST	60		
27	107240	August 7, 1992	Dougherty Regional Fire Authority	DEST	30		
28	107241	August 7, 1992	Dougherty Regional Fire Authority	DEST	30		
29	107242	August 7, 1992	Dougherty Regional Fire Authority	DEST	30		
30	412699A	April 3, 1996	Exxon Company, USA	DEST	25		
31	412699B	April 3, 1996	Exxon Company, USA	DEST	26		
32	412699C	April 3, 1996	Exxon Company, USA	DEST	28	<u> </u>	
33	412699D	April 3, 1996	Exxon Company, USA	DEST	26		
34	471514	September 21, 1993	Chevron USA, Inc.	MON	18	3-18	0-2.5
35	425488	September 23, 1993	Dougherty Regional Fire Authority	MON	25	9-24	0-7
36	425486	September 22, 1993	Dougherty Regional Fire Authority	MON	26	10-25	0-8
37	425487	September 24, 1993	Dougherty Regional Fire Authority	MON	26	9-24	0-7
38	340308	March 27, 1990	Chevron USA, Inc.	MON	37	21-36	0-20
39	340307	March 26, 1990	Chevron USA, Inc.	MON	37	22-37	0-20
40	340306	March 26, 1990	Chevron USA, Inc.	MON	37.5	21-36	0-20
41	340305	March 28, 1990	Chevron USA, Inc.	MON	37.5	21-36	0-20
42	364661A	November 7, 1990	Unocal Corp.	MON	20	4-20	0-3
43	364661B	November 6, 1990	Unocal Corp.	MON	24	4-23	0-3
44	364661C	November 6, 1990	Unocal Corp.	MON	20	4-20	0-3
45	364661D	November 6, 1990	Unocal Corp.	MON	20	4-20	0-3
46	33973	July 5, 1979	Dublin Historical Society	DOM	110	60-110	0-30
47	423799	December 6, 1991	Chevron USA, Inc.	MON	35.5	15-35	0-14
48	482155A	November 25, 1992	Chevron USA, Inc.	MON	51.5	22.5-50	0-22
49	482155B	November 24, 1992	Chevron USA, Inc.	MON	31.5	25-30	0-23
50	482155C	November 25, 1992	Chevron USA, Inc.	MON	31.5	25-30	0-23
51	495421A	October 4, 1993	Unocal Corp.	MON	25	10-25	0-8

Table 1. Well Survey Results - Shell-branded Service Station, 11989 Dublin Blvd. Dublin California. Incident # 98995328

LOCATION	Well ID	Installation Date	Owner	Use	Depth (fbg)	Screened Interval (fbg)	Sealed Interval (fbg)
		installation Date	OWIG	Osc	(rog)	Interval (10g)	Interval (fbg)
52	495421B	October 4, 1993	Unocal Corp.	MON	25	10-25	0-8
53	405163	September 15, 1992	US Geological Survey	MON	503		0-503
54	11746	November 19, 1948	DeLucci	DOM	72		
55	3S/1W-2B2		C.R. Nisen	UNK	33		
56	3S/1W-2K		C.R. Nisen	UNK	35		
57	107488	December 27, 1978	R.B. Furniture	DEST	57		
58	120078	September 25, 1975	Blank	DOM	150	50-150	0-50
59	3S/1W-2 SE		Joe Martin	UNK	204	84-96	
60	3S/1W-2 SE		Joe Martin	UNK	112	32-108	
61	62404	July 12, 1963	Volk-McLain Communities Inc.	TEST	568		0-568
62	62405	August 29, 1963	Volk-McLain Communities Inc.	DOM	593	189-517	0-82
63	162222	March 30, 1985	Walter Panganiban	DOM	400	40-400	0-20
64	162220	March 25, 1985	Walter Panganiban	TEST	300		
65	3S/1W-2 SW		Jim Nutt	UNK	80	30~50	
66	3S/1W-2	November 7, 1958	Roy Neidt	UNK	76	35-72	
67	24364		Coffee	DOM	44		

#### Notes and Abbreviations:

Location = Column number refers to map location on Figure 1.

Well ID = California State well identification number as recorded by the Department of Water Resources in Sacramento, California.

MON = Monitoring well

DEST = Destroyed well. (Wells do not have screens or seals)

IRR = Irrigation well.

DOM = Domestic well.

TEST = Test well (Wells do not have screens or seals)

UNK = Unknown or unspecified type of well