CONESTOGA-ROVERS & ASSOCIATES

5900 Hollis Street, Suite A
Emeryville, California 94608
Telephone: (510) 420-0700 Fax: (510) 420-9170
www.CRAworld.com

TRANSMITTAL

DATE: September 26, 2013

REFERENCE NO.: 240724

PROJECT NAME: 8999 San Ramon Road, Dublin

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

RECEIVED
By Alameda County Environmental Health at 4:25 pm, Sep 26, 2013

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

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

QUANTITY	DESCRIPTION
1	Updated Site Conceptual Model

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

COMMENTS:
If you have any questions regarding the contents of this document, please call the CRA project manager Peter Schaefer at (510) 420-3319 or the Shell program manager Perry Pineda at (425) 413-1164.

Copy to: Perry Pineda, Shell Oil Products US (electronic copy)
Colleen Winey, Zone 7 Water Agency (electronic copy)
Carl Cox, C and J Cox Corporation (property owner), 4431 Stoneridge Drive, Pleasanton, CA 94588

Completed by: Peter Schaefer Signed: Peter Schaefer

Filing: **Correspondence File**

Shell Oil Products US
Soil and Groundwater Focus Delivery Group
20945 S. Wilmington Avenue
Carson, CA 90810
Tel (425) 413 1164
Fax (425) 413 0988
Email perry.pineda@shell.com
Internet http://www.shell.com

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

Re: 8999 San Ramon Road
Dublin, California
SAP Code 135244
Incident No. 97565995
Agency No. RO0002744

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.

As always, please feel free to contact me directly at (425) 413-1164 with any questions or concerns.

Sincerely,
Shell Oil Products US

Perry Pineda
Senior Environmental Program Manager

UPDATED SITE CONCEPTUAL MODEL

SHELL-BRANDED SERVICE STATION
8999 SAN RAMON ROAD
DUBLIN, CALIFORNIA

SAP CODE	135244
INCIDENT NO.	97565995
AGENCY NO.	RO0002744

Prepared by:
Conestoga-Rovers & Associates

5900 Hollis Street, Suite A
Emeryville, California
U.S.A. 94608

Office: (510) 420-0700
Fax: (510) 420-9170

web: http://www.CRAworld.com

SEPTEMBER 26, 2013
REF. NO. 240724 (12)
This report is printed on recycled paper.

TABLE OF CONTENTS

LIST OF FIGURES
(Following Text)

LIST OF TABLES
(Following Text)

LIST OF APPENDICES

EXECUTIVE SUMMARY

- BTEX, MTBE, and TBA in soil at concentrations exceeding ESLs are adequately defined both vertically and horizontally down gradient.
- As of the most recent groundwater sampling event in January 2013, TPHd, TPHg, toluene, ethylbenzene, and total xylenes in groundwater are below drinking water ESLs. Benzene in groundwater is below ESLs, with the exception of up to 7.7 µg/L detected in wells MW-1R, MW-8, MW-11B, and MW-12.
- During the groundwater sampling event in January 2013, MTBE in groundwater (up to 140 µg/L) exceeded ESLs in six wells. The highest MTBE concentration was in well MW-13C.
- The nearest water-producing well is 2,500 feet down gradient south of the site. No other receptors have been identified.
- CRA recommends conducting an updated well survey and completing a groundwater model to characterize the potential for site groundwater impacts to reach the down-gradient well prior to proposing additional investigation.

1.0 INTRODUCTION

Conestoga-Rovers & Associates (CRA) prepared this site conceptual model (SCM) on behalf of Equilon Enterprises LLC dba Shell Oil Products US (Shell). Alameda County Environmental Health's (ACEH's) June 17, 2013 letter requested an SCM and work plan for additional groundwater investigation. CRA presents the SCM in Section 2.0, and as discussed below, we do not recommend a groundwater investigation at this time. ACEH's August 14, 2013 electronic correspondence extended the due date for an SCM to September 27, 2013.

The site is an operating Shell-branded service station located at the southeast corner of San Ramon Road and Alcosta Boulevard in Dublin, California (Figure 1). The site layout (Figure 2) includes a kiosk, store, a car wash, three dispenser islands, and four fuel underground storage tanks (USTs).

A summary of previous work performed at the site and additional background information is contained in Appendix A.

2.0 UPDATED SCM

ITEM	*EVALUATION CRITERIA*	*COMMENTS/DISCUSSION*
2.1	**Hydrocarbon Source**	
2.1.1	Identify/Describe Release Source and Volume (if known)	Unknown. During the 2004 dispenser and piping replacement, separate-phase hydrocarbons (SPHs) were observed beneath geo-textile fabric near sample location P-6-5.0, at the northeastern-most corner of the original fuel piping layout.
2.1.2	Discuss Steps Taken to Stop Release	In 2004, dispensers and product lines were replaced, and over excavation was performed in the vicinity of the dispensers and piping.
2.2	**Site Characterization**	
2.2.1	Current Site Use/Status	The site is currently an active Shell-branded service station.
2.2.2	Soil Definition Status	No total petroleum hydrocarbons as diesel (TPHd), total petroleum hydrocarbons as gasoline (TPHg) or benzene, toluene, ethylbenzene, and total xylenes (BTEX) were detected in soil above San Francisco Bay

ITEM	EVALUATION CRITERIA	COMMENTS/DISCUSSION
		Regional Water Quality Control Board (RWQCB) environmental screening levels (ESLs)[1], with the following exceptions: • Six soil samples collected during the 2004 dispenser and product line replacement contained up to 16,000 milligrams per kilogram (mg/kg) TPHd, 8,500 mg/kg TPHg, 130 mg/kg toluene, 57 mg/kg ethylbenzene, and 440 mg/kg total xylenes; • GP-5@4.5' (1,000 mg/kg TPHg, 3.3 mg/kg toluene, 10 mg/kg ethylbenzene, and 76 mg/kg total xylenes at 4.5 feet below grade [fbg]); and • MW-13C-5.5 (3,600 mg/kg TPHd at 5.5 fbg). 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, methyl tertiary-butyl ether (MTBE), and tertiary-butyl alcohol (TBA). No benzene was detected above ESLs, and toluene, ethylbenzene, and total xylenes detections are vertically and horizontally delineated by adjacent well borings and Geoprobe® borings. MTBE and/or TBA were detected above ESLs in 107 of 178 soil samples. MTBE and TBA in soils are horizontally defined below ESLs by borings GP-12 and GP-13 and well borings MW-2R, MW-3, MW-4, MW-13C, and MW-14C. The constituent detections in soil at depths below groundwater in some of these wells and borings are most likely due to impacted groundwater. Soil samples D-1-2.5, D-2-2.5, D-3-2.5, D-4-2.5, D-5-2.5, D-6-2.5, D-7-2.5, P-6-5.0, and T-1-4' are not considered since these locations were subsequently over excavated.

1 *Screening for Environmental Concerns at Site With Contaminated Soil and Groundwater,* California Regional Water Quality Control Board, Interim Final – November 2007 [Revised May 2008] – Updated May 2013

ITEM	EVALUATION CRITERIA	COMMENTS/DISCUSSION
		Table 1 presents historical soil analytical data, and sample locations are shown on Figure 2 and in Appendix B.
2.2.3	SPH Definition Status	SPHs have not been observed in wells at the site. During the 2004 dispenser and piping replacement, SPHs were observed beneath geo-textile fabric near sample location P-6-5.0, at the northeastern-most corner of the original fuel piping layout.
2.2.4	Groundwater Definition Status (TPHd/TPHg/BTEX)	As of the January 2013 groundwater sampling event, TPHd in groundwater is below drinking water ESLs, with the exception of up to 470 micrograms per liter (µg/L) in wells MW-2R, MW-2RB, MW-2RC, MW-5B, MW-8, MW-13B, MW-14B, and MW-14C. TPHg in groundwater is below drinking water ESLs, with the exception of up to 300 µg/L in wells MW-2RB, MW-5C, MW-8, and MW-13C. As noted above, "TPH ESLs must be used in conjunction with ESLs for related chemicals", in this case BTEX. Toluene, ethylbenzene, and total xylenes in groundwater are below ESLs. Benzene in groundwater is below ESLs, with the exception of up to 7.7 µg/L detected in wells MW-1R, MW-8, MW-11B, and MW-12. Groundwater contour and chemical concentration maps are included as Figures 3 through 5. Historical groundwater analytical results are presented in Table 2, and historical grab groundwater data are presented in Table 3.
2.2.5	BTEX Plume Stability and Concentration Trends	As discussed above, during the most recent groundwater sampling event in January 2013, no toluene, ethylbenzene, and total xylenes exceeded ESLs. Since groundwater monitoring began in May 2005, benzene has only been detected 12 times, with the maximum (7.7 µg/L in well MW-8) during the January 2013 groundwater sampling event. Additional groundwater monitoring will establish whether benzene is a chemical of concern (COC) at the site.
2.2.6	Groundwater Definition Status (MTBE)	Shallow grab groundwater samples collected from borings drilled in 2005 contained up to 89,000 µg/L MTBE. MTBE was not detected in shallow wells at concentrations above ESLs during the January 2013 groundwater monitoring event.

ITEM	EVALUATION CRITERIA	COMMENTS/DISCUSSION
		MTBE in intermediate groundwater is currently defined horizontally to the east and southeast to below applicable ESLs by wells MW-11B and MW-14B. MTBE is not defined down gradient from MW-13B, which contains 63 µg/L MTBE. The horizontal extent of MTBE in deep groundwater is not currently defined down gradient from wells MW-13C or MW-14C, which contain up to 140 µg/L MTBE. Groundwater contour and chemical concentration maps are included as Figures 3 through 5. Historical groundwater analytical results are presented in Table 2, and historical grab groundwater data are presented in Table 3.
2.2.7	MTBE Plume Stability and Concentration Trends	Shallow groundwater samples did not contain MTBE at concentrations exceeding ESLs during the January 2013 groundwater monitoring. MTBE concentration trends for intermediate and deep wells are presented in Figures 6 through 11. As discussed above, MTBE in intermediate groundwater is not defined down gradient from MW-13B; however, concentrations in MW-13B are relatively stable and concentrations in well MW-5B, located between the source and MW-13B, are steadily declining and will reach ESLs by September 2030, which indicates a shrinking plume. Also, as stated above, the horizontal extent of MTBE in deep groundwater is not currently defined down gradient from wells MW-13C or MW-14C; however, concentrations in wells MW-2RC, MW-13C, and MW-14C appear to be stable and concentrations in well MW-5C, which has the longest history of monitoring data, are stable.
2.2.8	Groundwater Flow Direction, Depth Trends and Gradient	Since May 2005, depth to water in the groundwater monitoring wells has ranged from 18.31 to 43.24 fbg. The groundwater flow direction is typically easterly to southeasterly with a variable gradient at all

ITEM	EVALUATION CRITERIA	COMMENTS/DISCUSSION
		groundwater depths. Groundwater contour and chemical concentration maps are included as Figures 3 through 5.
2.2.9	Stratigraphy and Hydrogeology	According to the California Department of Water Resources (DWR) Bulletin 118-2, shallow sediments are semi-consolidated alluvial deposits of gravel, sand, silt and clay (generally fine-grained in the northeastern portion of the Livermore Valley where the site is located). The regional groundwater flow direction is southeasterly. Soils beneath the site consist primarily of silts and clays with thin, discontinuous, interbedded layers of sands and gravel to the maximum explored depth of 111.5 fbg. The boring logs are included in Appendix C. Geologic cross-sections are included as Figures 12 and 13.
2.2.10	Preferential Pathways Analysis	Depth to water is sufficiently deep (greater than 18 fbg) that underground utility corridors would not likely act as preferential pathways.
2.2.11	Other Pertinent Issues	None.
2.3	**Remediation Status**	
2.3.1	Remedial Actions Taken	During dispenser and piping replacement in 2004, approximately 4 gallons of SPHs were removed for recycling, and 225 tons of soil were over excavated for off-site disposal.
2.3.2	Area Remediated	SPH removal and over excavation were conducted on site in the area of the dispenser islands and piping.
2.3.3	Remediation Effectiveness	Unknown.
2.4	**Well and Sensitive Receptor Survey**	
2.4.1	Groundwater Water Use	The site located on the northwestern edge of the Dublin sub-basin of the Livermore Valley Groundwater Basin. According to the RWQCB Basin Plan, groundwater in the Livermore Valley Groundwater Basin is used for domestic and municipal/irrigation purposes.
2.4.2	Well Survey Results	In 2004 and 2005, DWR and Zone 7 Water Agency records were reviewed for water-producing wells within one-half mile of the site. The nearest water

ITEM	EVALUATION CRITERIA	COMMENTS/DISCUSSION
		supply well identified was approximately 2,500 feet south of the site.
2.4.3	Likelihood of Impact to Wells	Due to the distance to the water supply well and the magnitude of COC concentrations in groundwater monitoring wells, it is unlikely that any impacts from the site will reach the well.
2.4.4	Likelihood of Impact to Surface Water	The closest surface water body, Big Canyon Creek, is approximately 500 feet west (cross-gradient) from the site. Due to the depth to groundwater and its cross-gradient location, it is not likely that groundwater impacts from the site will impact Big Canyon Creek.
2.5	**Risk Assessment**	
2.5.1	Site Conceptual Exposure Model (current and future uses)	The subject site is currently an active Shell-branded service station. The area surrounding the site is mixed commercial and residential. Future use of the parcel is assumed to be similar to previous use.
2.5.2	Exposure Pathways	Potential complete exposure pathways include dermal contact of impacted soil by on-site construction workers. Ingestion of impacted groundwater off site as an exposure pathway is not likely complete based on the conditions discussed in Section 2.4.3. Because the site is an active service station, there is no reasonable concern that subsurface contamination poses unacceptable indoor inhalation health risk. Since shallow soil impacts are limited to the area of the site and off-site shallow groundwater concentrations are all below RWQCB groundwater screening levels for evaluation of potential vapor intrusion, there is no reasonable concern that subsurface contamination poses unacceptable indoor inhalation health risk at adjacent properties.
2.5.3	Risk Assessment Status	No formal risk assessment has been performed for the site.
2.5.4	Identified Human Exceedances	Not applicable.
2.5.5	Identified Ecological Exceedances	Not applicable.

3.0 CONCLUSIONS AND RECOMMENDATIONS

MTBE concentrations in the deeper down-gradient wells are the primary remaining concern. The nearest water-producing well is 2,500 feet south of the site. No other receptors have been identified. CRA recommends conducting an updated well survey and completing a groundwater model to characterize the potential for site groundwater impacts to reach the water supply well prior to proposing additional investigation.

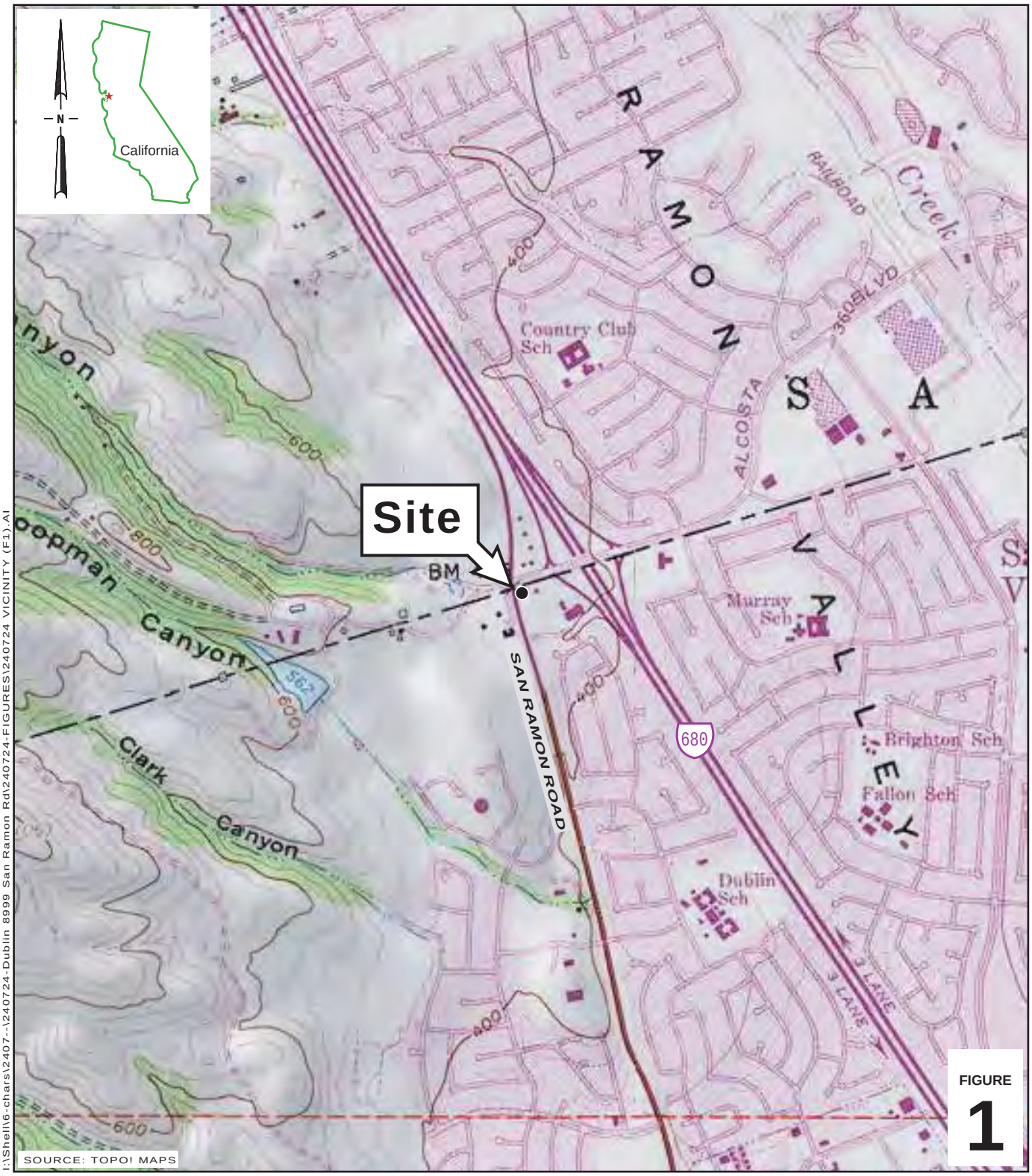
All of Which is Respectfully Submitted,
CONESTOGA-ROVERS & ASSOCIATES

Peter Schaefer, CEG, CHG

Aubrey K. Cool, PG

FIGURES

02/08/2011



I:\Shell\6-chars\2407-\240724-Dublin 8999 San Ramon Rd\240724-FIGURES\240724 VICINITY (F1).AI

FIGURE
1

0 1/8 1/4 1/2 1

SCALE : 1" = 1/4 MILE

Shell-branded Service Station

8999 San Ramon Road

Dublin, California

CONESTOGA-ROVERS & ASSOCIATES

Vicinity Map

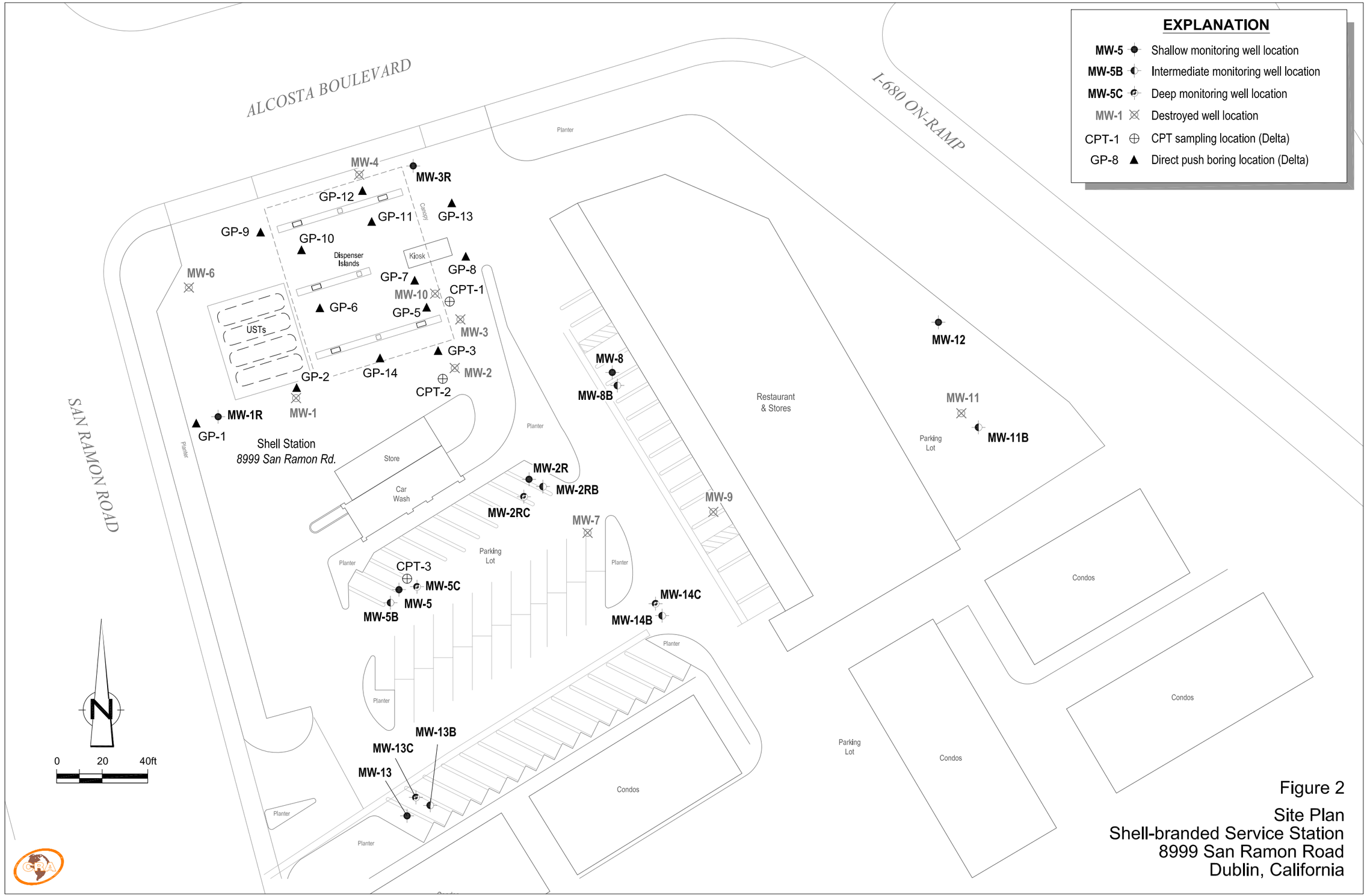
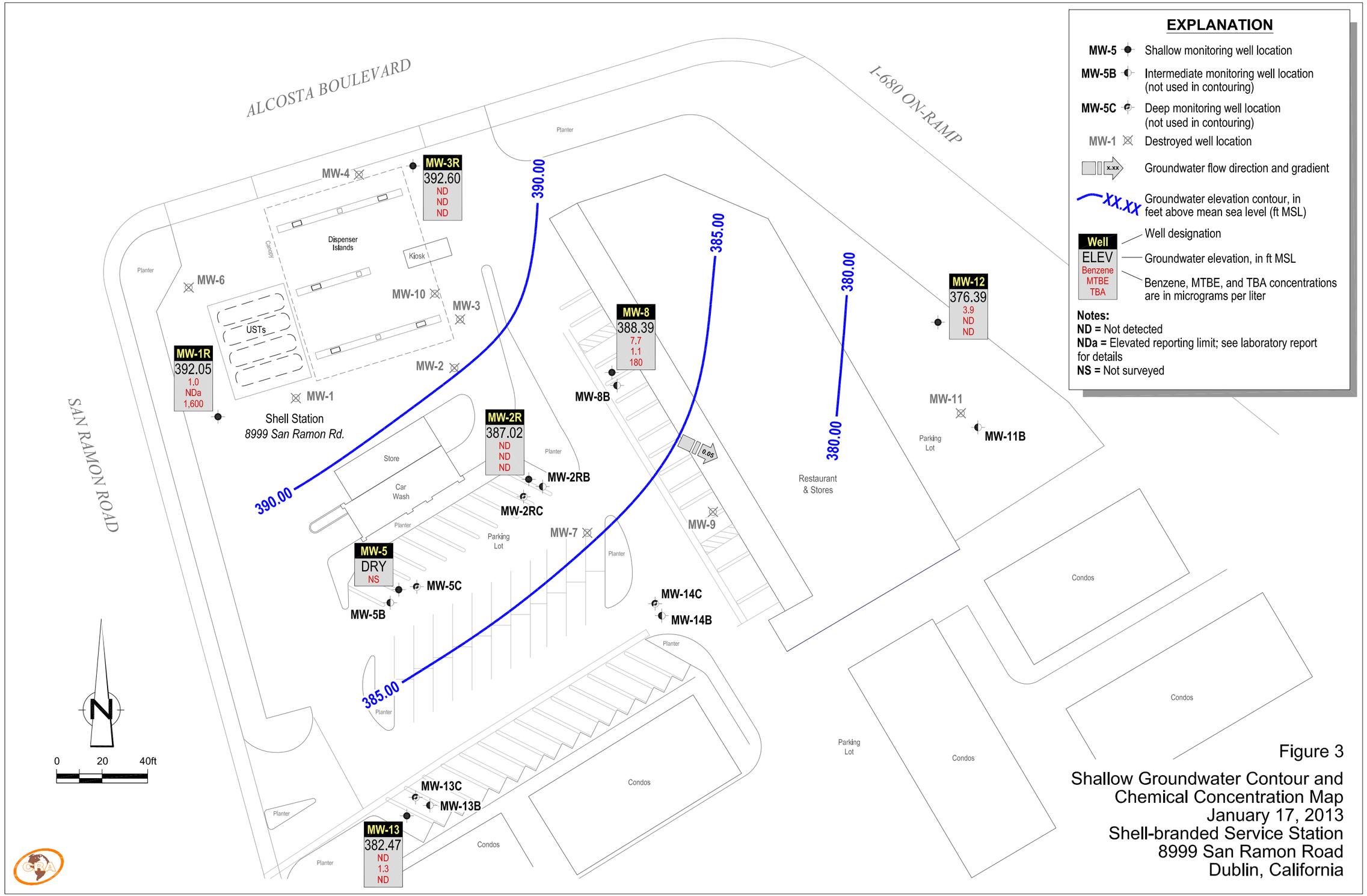


Figure 2

Site Plan
Shell-branded Service Station
8999 San Ramon Road
Dublin, California

I:\Shell\6-chars\2407--\240724-Dublin 8999 San Ramon Rd\240724-FIGURES\240724 SITE PLAN.DWG (09/19/2013)



EXPLANATION

- **MW-5** — Shallow monitoring well location
- **MW-5B** — Intermediate monitoring well location (not used in contouring)
- **MW-5C** — Deep monitoring well location (not used in contouring)
- **MW-1** — Destroyed well location
- Groundwater flow direction and gradient
- XX.XX — Groundwater elevation contour, in feet above mean sea level (ft MSL)

Well
ELEV
Benzene
MTBE
TBA

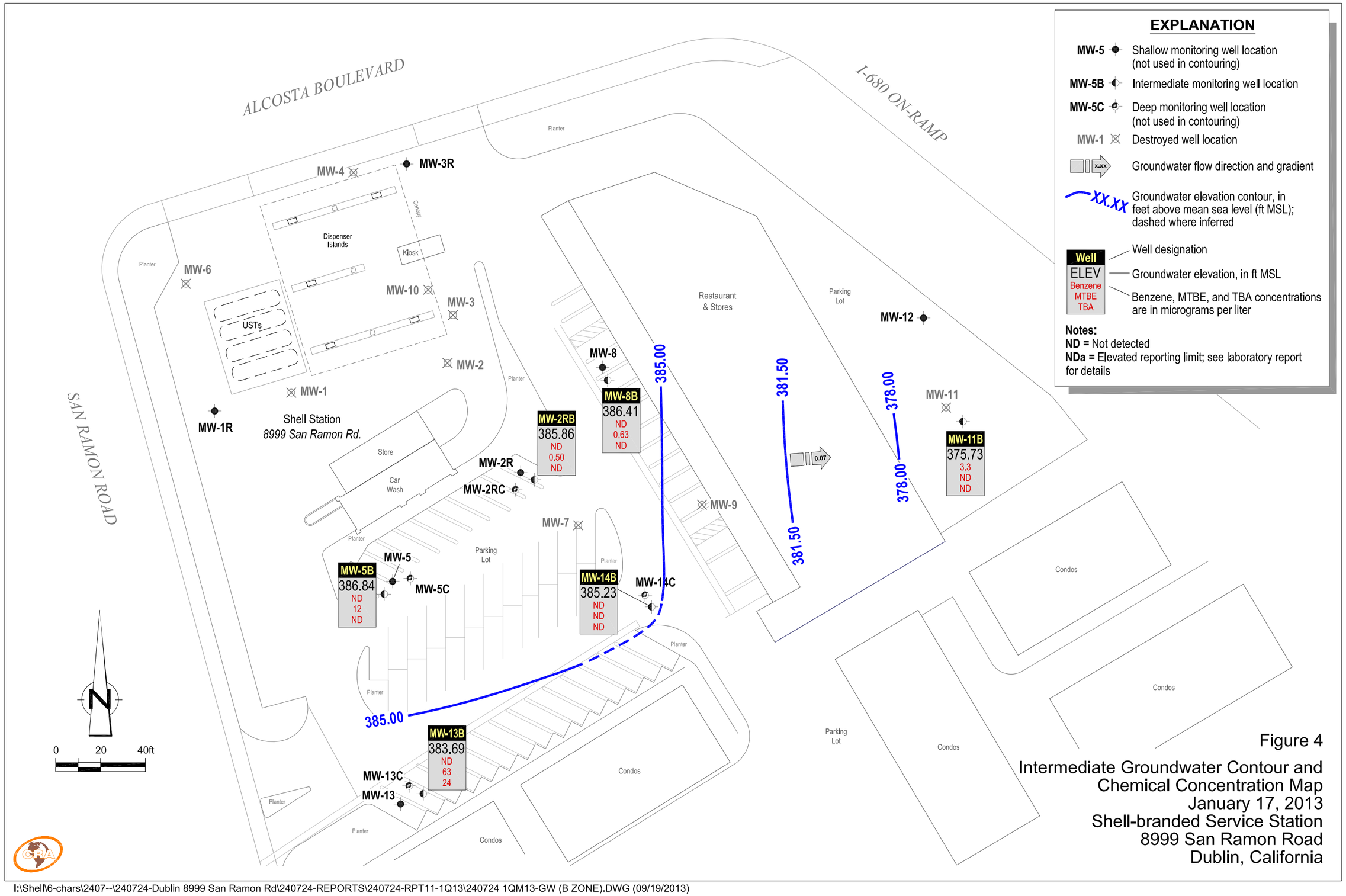
- Well designation
- Groundwater elevation, in ft MSL
- Benzene, MTBE, and TBA concentrations are in micrograms per liter

Notes:
ND = Not detected
NDa = Elevated reporting limit; see laboratory report for details
NS = Not surveyed

Figure 3

Shallow Groundwater Contour and Chemical Concentration Map
January 17, 2013
Shell-branded Service Station
8999 San Ramon Road
Dublin, California

I:\Shell\6-chars\2407--\240724-Dublin 8999 San Ramon Rd\240724-REPORTS\240724-RPT11-1Q13\240724 1QM13-GW (A ZONE).DWG (09/19/2013)



EXPLANATION

- **MW-5** — Shallow monitoring well location (not used in contouring)
- **MW-5B** — Intermediate monitoring well location
- **MW-5C** — Deep monitoring well location (not used in contouring)
- **MW-1** — Destroyed well location
- Groundwater flow direction and gradient
- XX.XX — Groundwater elevation contour, in feet above mean sea level (ft MSL); dashed where inferred

Well
ELEV
Benzene
MTBE
TBA

- Well designation
- Groundwater elevation, in ft MSL
- Benzene, MTBE, and TBA concentrations are in micrograms per liter

Notes:
ND = Not detected
NDa = Elevated reporting limit; see laboratory report for details

Figure 4

Intermediate Groundwater Contour and Chemical Concentration Map
January 17, 2013
Shell-branded Service Station
8999 San Ramon Road
Dublin, California

I:\Shell\6-chars\2407--\240724-Dublin 8999 San Ramon Rd\240724-REPORTS\240724-RPT11-1Q13\240724 1QM13-GW (B ZONE).DWG (09/19/2013)

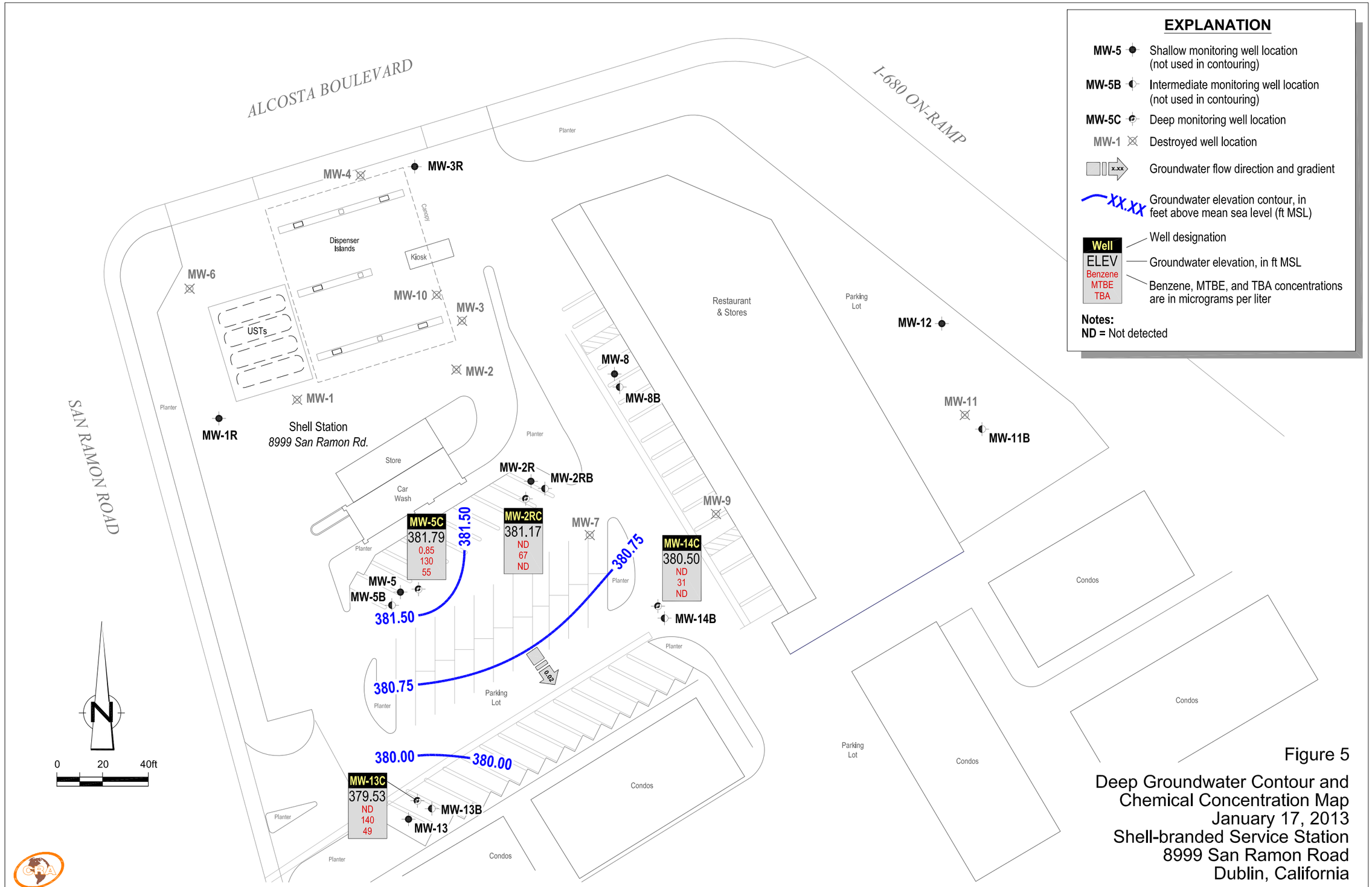


Figure 5

Deep Groundwater Contour and Chemical Concentration Map
January 17, 2013
Shell-branded Service Station
8999 San Ramon Road
Dublin, California

I:\Shell\6-chars\2407--\240724-Dublin 8999 San Ramon Rd\240724-REPORTS\240724-RPT11-1Q13\240724 1QM13-GW (C ZONE).DWG (09/19/2013)

Predicted Time to Water Quality Objectives in Well MW-2RC

Shell-branded Service Station, 8999 San Ramon Road, Dublin, California

$y = b\,e^{ax}$ ===> $x = \ln(y/b) / a$

where: y = concentration in µg/L, a = decay constant
b = concentration at time (x), x = time (x) in days

	Consituent	Methyl tertiary-Butyl Ether
Given		
Water Quality Objective (WQO):	y	5.0
Constant:	b	
Constant:	a	
Starting date for current trend:		5/23/2011
Calculate		
Attenuation Half Life (years):	(-ln(2)/a)/365.25	Stable
Estimated Date to Reach WQO:	(x = ln(y/b) / a)	Stable

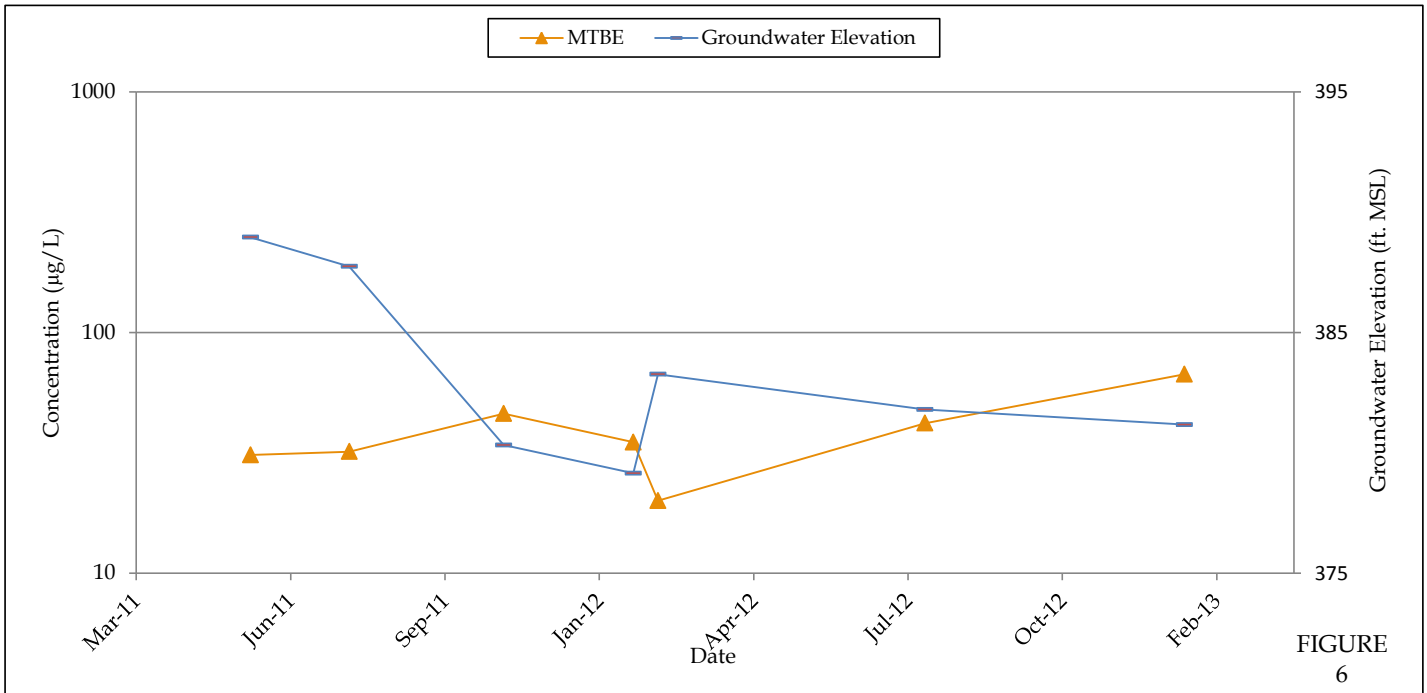


FIGURE 6

SHELL-BRANDED SERVICE STATION
8999 SAN RAMON ROAD
DUBLIN, CALIFORNIA

CONESTOGA-ROVERS & ASSOCIATES

MW-2RC: MTBE CONCENTRATIONS AND GROUNDWATER ELEVATIONS VERSUS TMIE

Predicted Time to Water Quality Objectives in Well MW-5B

Shell-branded Service Station, 8999 San Ramon Road, Dublin, California

$y = b\,e^{ax}$ ===> $x = \ln(y/b) / a$

where: y = concentration in µg/L; a = decay constant
b = concentration at time (x); x = time (x) in days

	Consituent	Methyl tertiary-Butyl Ether
Given		
Water Quality Objective (WQO):	y	5.0
Constant:	b	8.00E+40
Constant:	a	-2.00E-03
Starting date for current trend:		2/15/2008
Calculate		
Attenuation Half Life (years):	(-ln(2)/a)/365.25	0.95
Estimated Date to Reach WQO:	(x = ln(y/b) / a)	Sep 2030

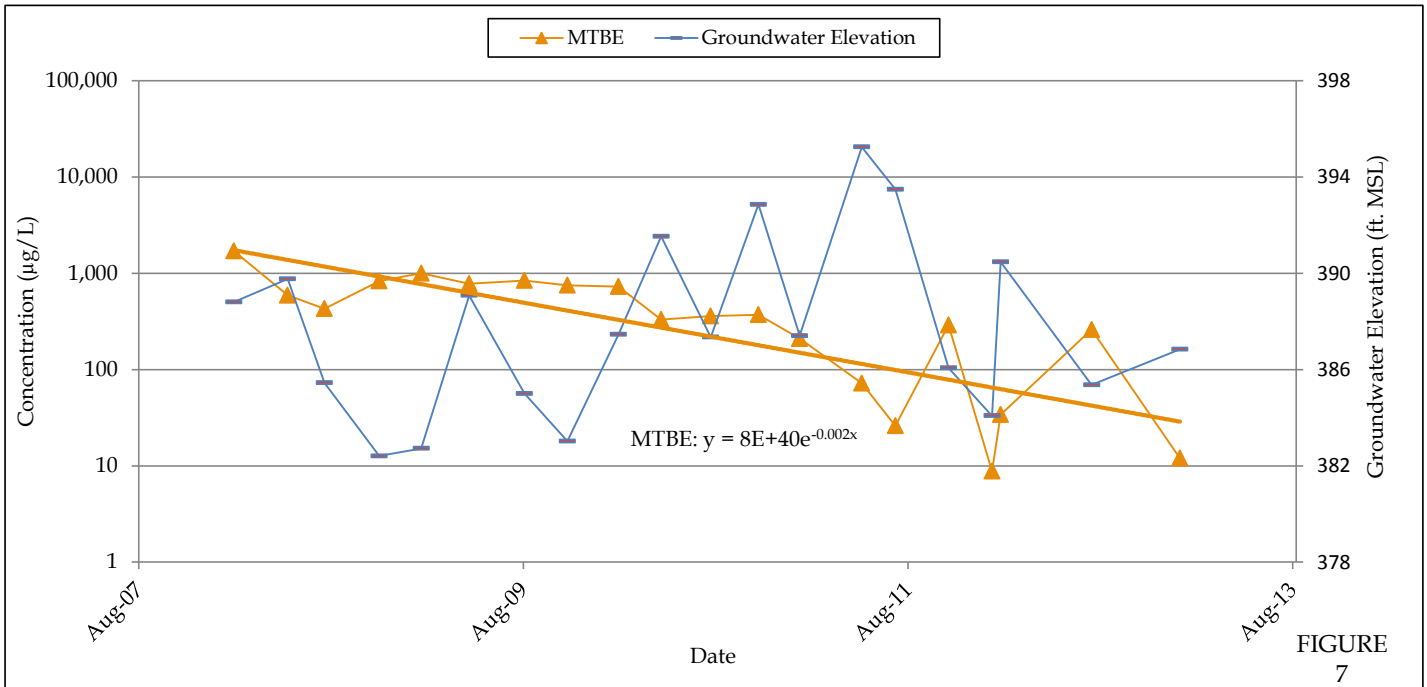


FIGURE 7

SHELL-BRANDED SERVICE STATION
8999 SAN RAMON ROAD
DUBLIN, CALIFORNIA

CONESTOGA-ROVERS & ASSOCIATES

MW-5B: MTBE CONCENTRATIONS AND GROUNDWATER ELEVATIONS VERSUS TIME

Predicted Time to Water Quality Objectives in Well MW-5C

Shell-branded Service Station, 8999 San Ramon Road, Dublin, California

$y = b\,e^{ax}$ ===> $x = \ln(y/b) / a$

where: y = concentration in µg/L; a = decay constant
b = concentration at time (x); x = time (x) in days

	Consituent	Methyl tertiary-Butyl Ether
Given		
Water Quality Objective (WQO):	y	5.0
Constant:	b	
Constant:	a	
Starting date for current trend:		2/15/2008
Calculate		
Attenuation Half Life (years):	(-ln(2)/a)/365.25	Stable
Estimated Date to Reach WQO:	(x = ln(y/b) / a)	Stable

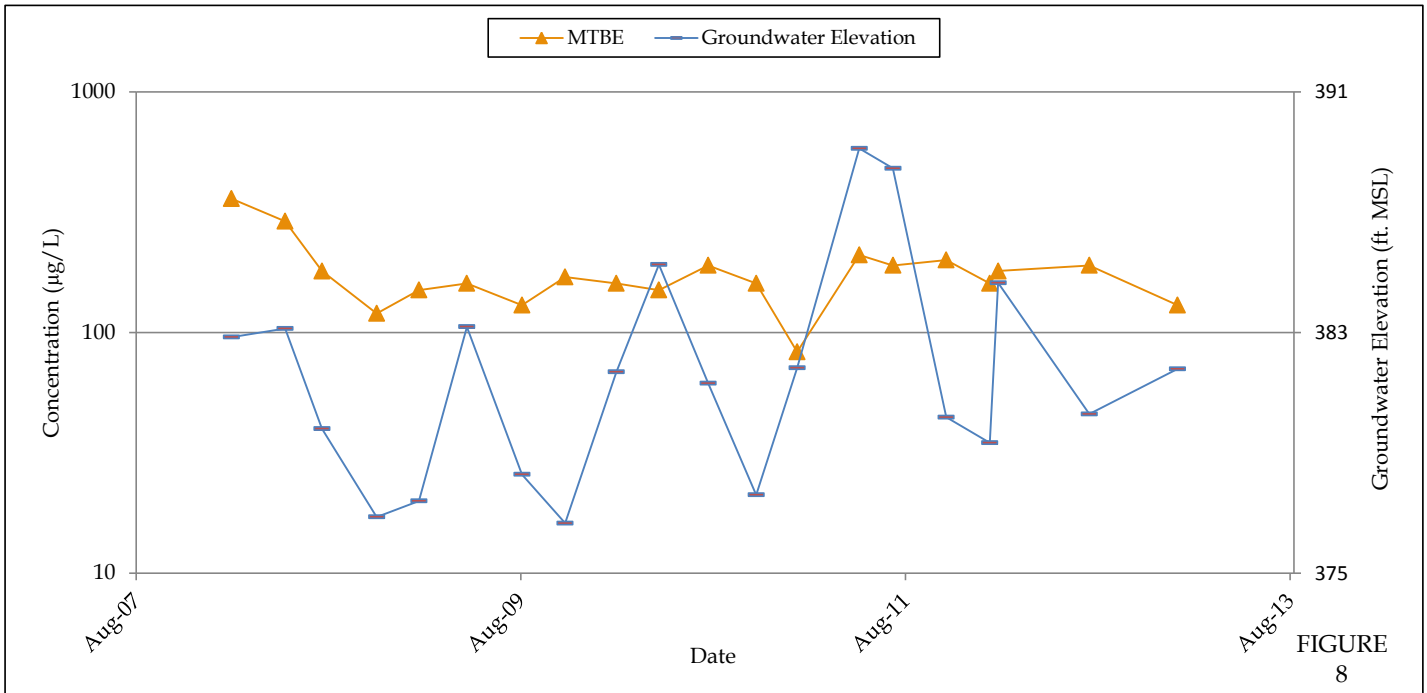


FIGURE 8

SHELL-BRANDED SERVICE STATION
8999 SAN RAMON ROAD
DUBLIN, CALIFORNIA

CONESTOGA-ROVERS & ASSOCIATES

MW-5C: MTBE CONCENTRATIONS AND GROUNDWATER ELEVATIONS VERSUS TIME

Predicted Time to Water Quality Objectives in Well MW-13B

Shell-branded Service Station, 8999 San Ramon Road, Dublin, California

$y = b\,e^{ax}$ ===> $x = \ln(y/b) / a$

where: y = concentration in µg/L; a = decay constant
b = concentration at time (x); x = time (x) in days

	Consituent	Methyl tertiary-Butyl Ether
Given		
Water Quality Objective (WQO):	y	5.0
Constant:	b	
Constant:	a	
Starting date for current trend:		5/23/2011
Calculate		
Attenuation Half Life (years):	(-ln(2)/a)/365.25	Stable
Estimated Date to Reach WQO:	(x = ln(y/b) / a)	Stable

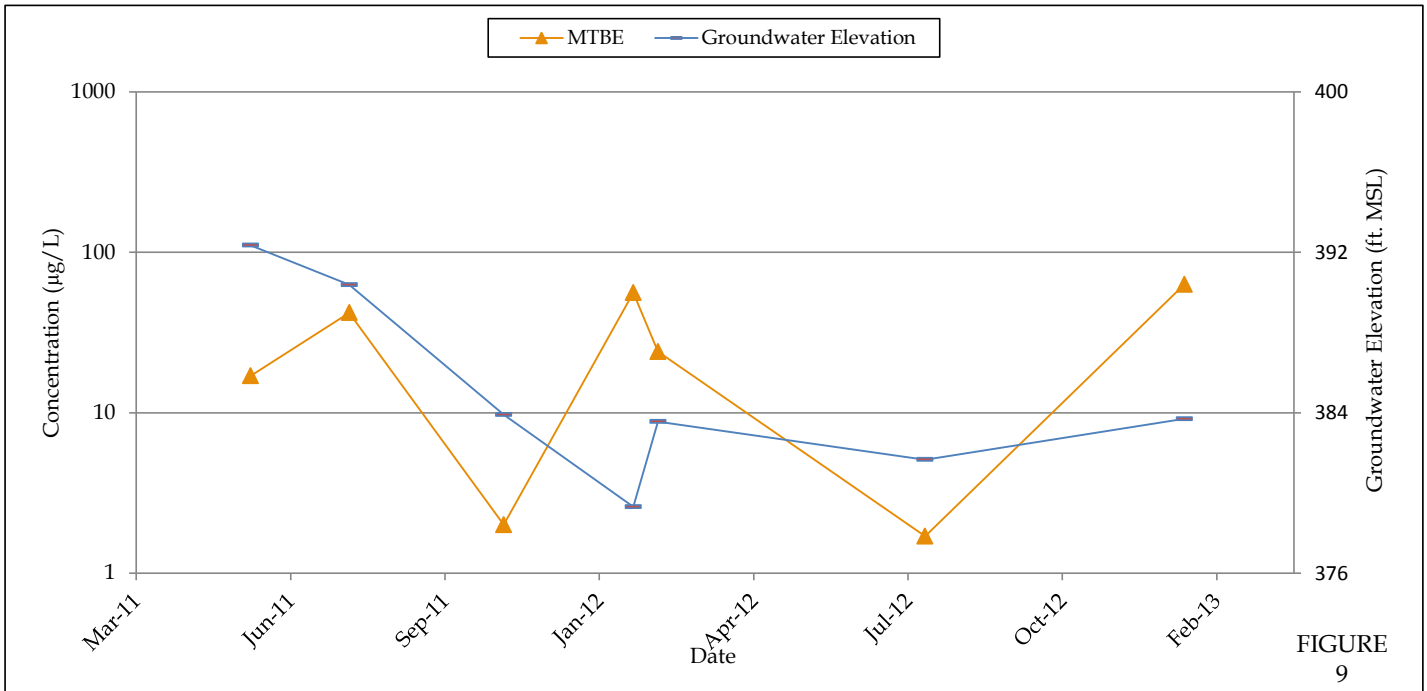


FIGURE 9

SHELL-BRANDED SERVICE STATION
8999 SAN RAMON ROAD
DUBLIN, CALIFORNIA

CONESTOGA-ROVERS & ASSOCIATES

MW-13B: MTBE CONCENTRATIONS AND GROUNDWATER ELEVATIONS VERSUS TIME

Predicted Time to Water Quality Objectives in Well MW-13C

Shell-branded Service Station, 8999 San Ramon Road, Dublin, California

$y = b\,e^{ax}$ ===> $x = \ln(y/b) / a$

where: y = concentration in µg/L; a = decay constant
b = concentration at time (x); x = time (x) in days

	Consituent	Methyl tertiary-Butyl Ether
Given		
Water Quality Objective (WQO):	y	5.0
Constant:	b	
Constant:	a	
Starting date for current trend:		5/23/2011
Calculate		
Attenuation Half Life (years):	(-ln(2)/a)/365.25	Stable
Estimated Date to Reach WQO:	(x = ln(y/b) / a)	Stable

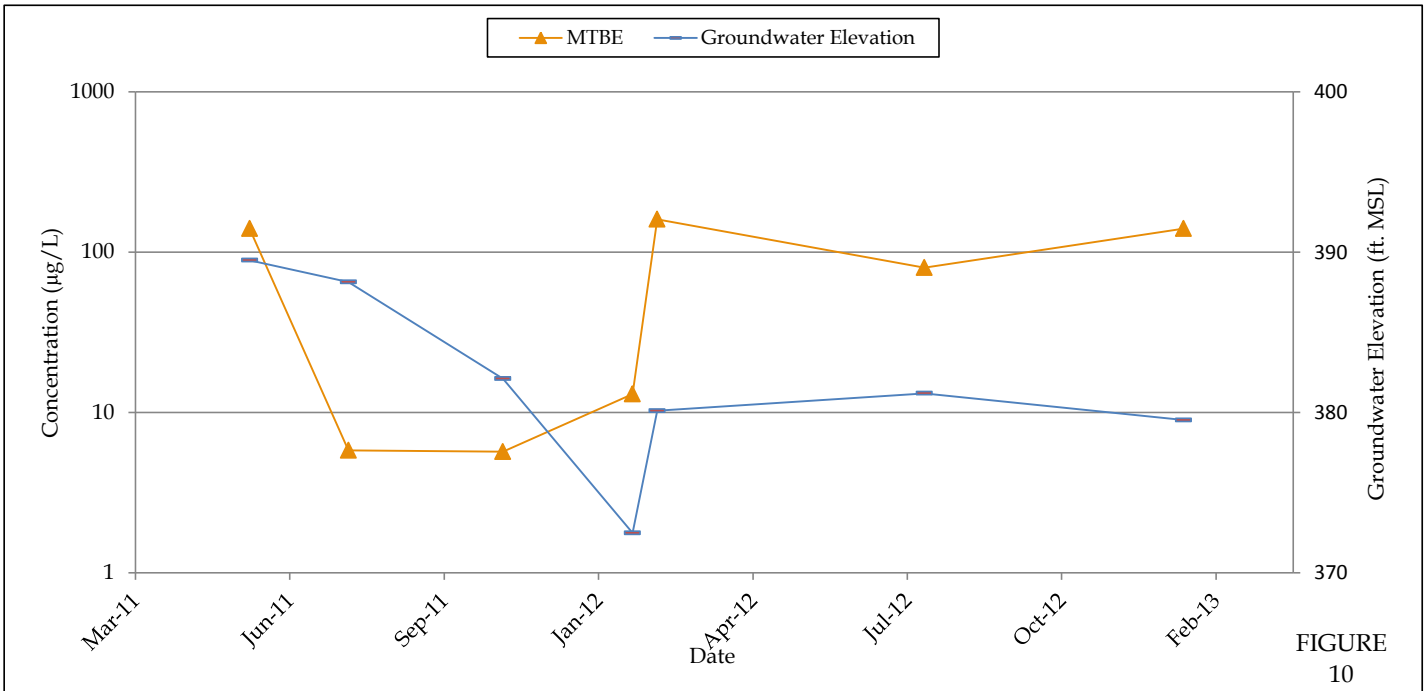


FIGURE 10

SHELL-BRANDED SERVICE STATION
8999 SAN RAMON ROAD
DUBLIN, CALIFORNIA

CONESTOGA-ROVERS & ASSOCIATES

MW-13C: MTBE CONCENTRATIONS AND GROUNDWATER ELEVATIONS VERSUS TIME

Predicted Time to Water Quality Objectives in Well MW-14C

Shell-branded Service Station, 8999 San Ramon Road, Dublin, California

$y = b\,e^{ax}$ ===> $x = \ln(y/b) / a$

where: y = concentration in µg/L, a = decay constant
b = concentration at time (x), x = time (x) in days

	Consituent	Methyl tertiary-Butyl Ether
Given		
Water Quality Objective (WQO):	y	5.0
Constant:	b	
Constant:	a	
Starting date for current trend:		5/23/2011
Calculate		
Attenuation Half Life (years):	(-ln(2)/a)/365.25	Stable
Estimated Date to Reach WQO:	(x = ln(y/b) / a)	Stable

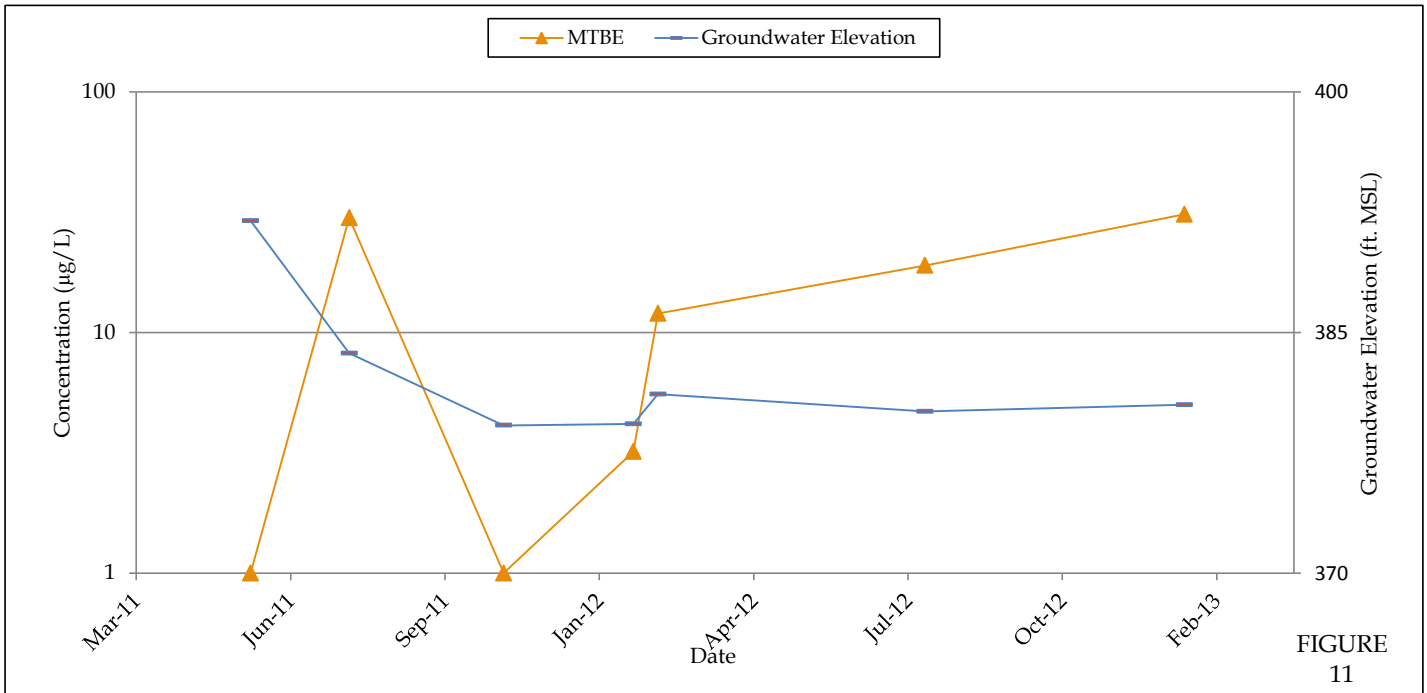
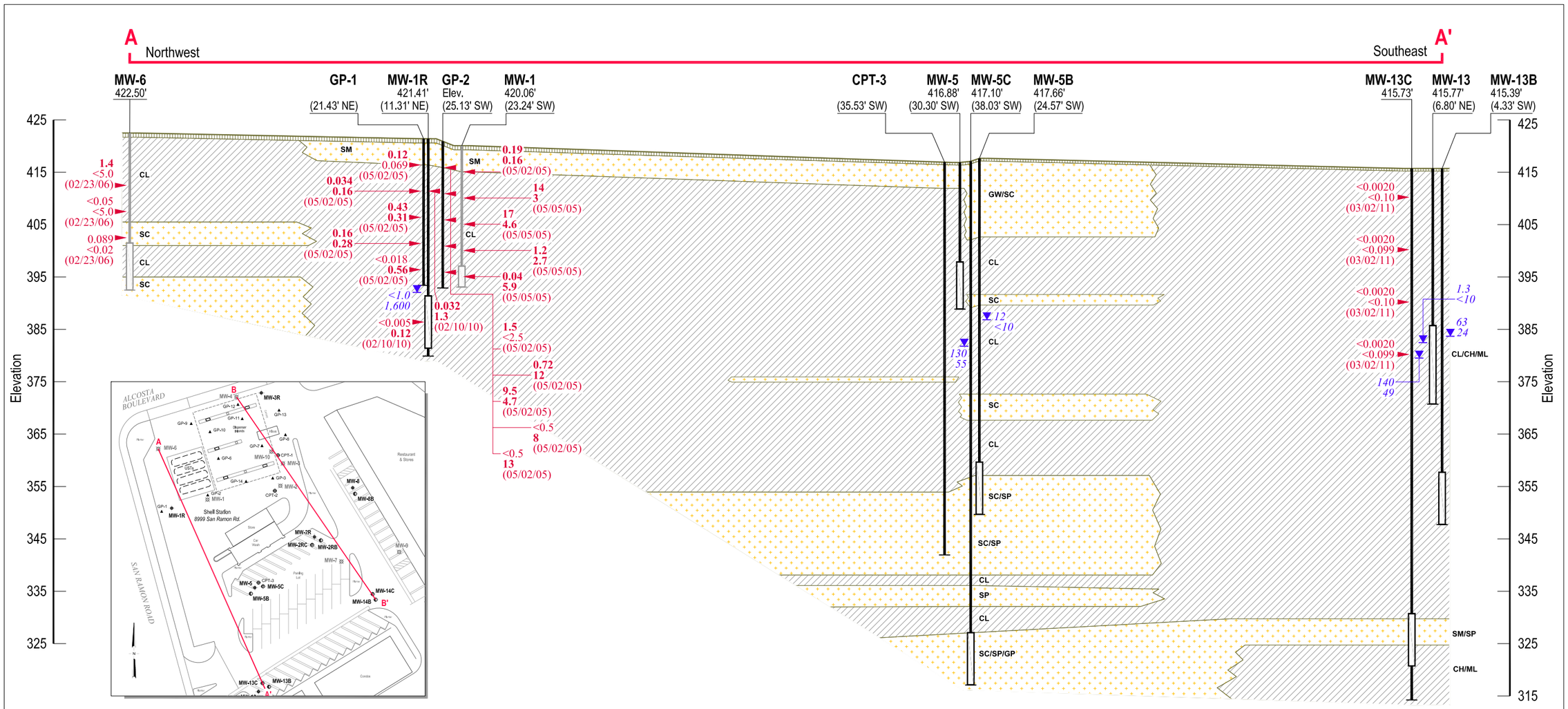


FIGURE 11

SHELL-BRANDED SERVICE STATION
8999 SAN RAMON ROAD
DUBLIN, CALIFORNIA

CONESTOGA-ROVERS & ASSOCIATES

MW-14C: MTBE CONCENTRATIONS AND GROUNDWATER ELEVATIONS VERSUS TIME



EXPLANATION

- Asphalt

Fine-grained Soils

- CL - Inorganic clays of low plasticity, gravelly, sandy, or silty clays, lean clays
- CH - Inorganic clays of high plasticity, fat clays
- ML - Inorganic silts and very fine sand, silty sands of slight plasticity

Coarse-grained Soils

- GP - Poorly graded gravels, <5% fines
- GW - Well graded gravels, <5% fines
- SC - Clayey sands, >12% fines
- SM - Silty sands, >12% fines
- SP - Poorly graded sands, or gravelly sand, < 5% fines

Depth of Groundwater - 01/17/13

Well ID — Well Designation
Elev. (offset) — Top of Casing Elevation

Groundwater Monitoring Well

Well Screen Interval

Bottom of boring
(Greyed out wells have been destroyed)

Approximate sample location

MTBE / TBA / (DATE) — Concentrations in soil, in milligrams per kilogram (mg/kg)

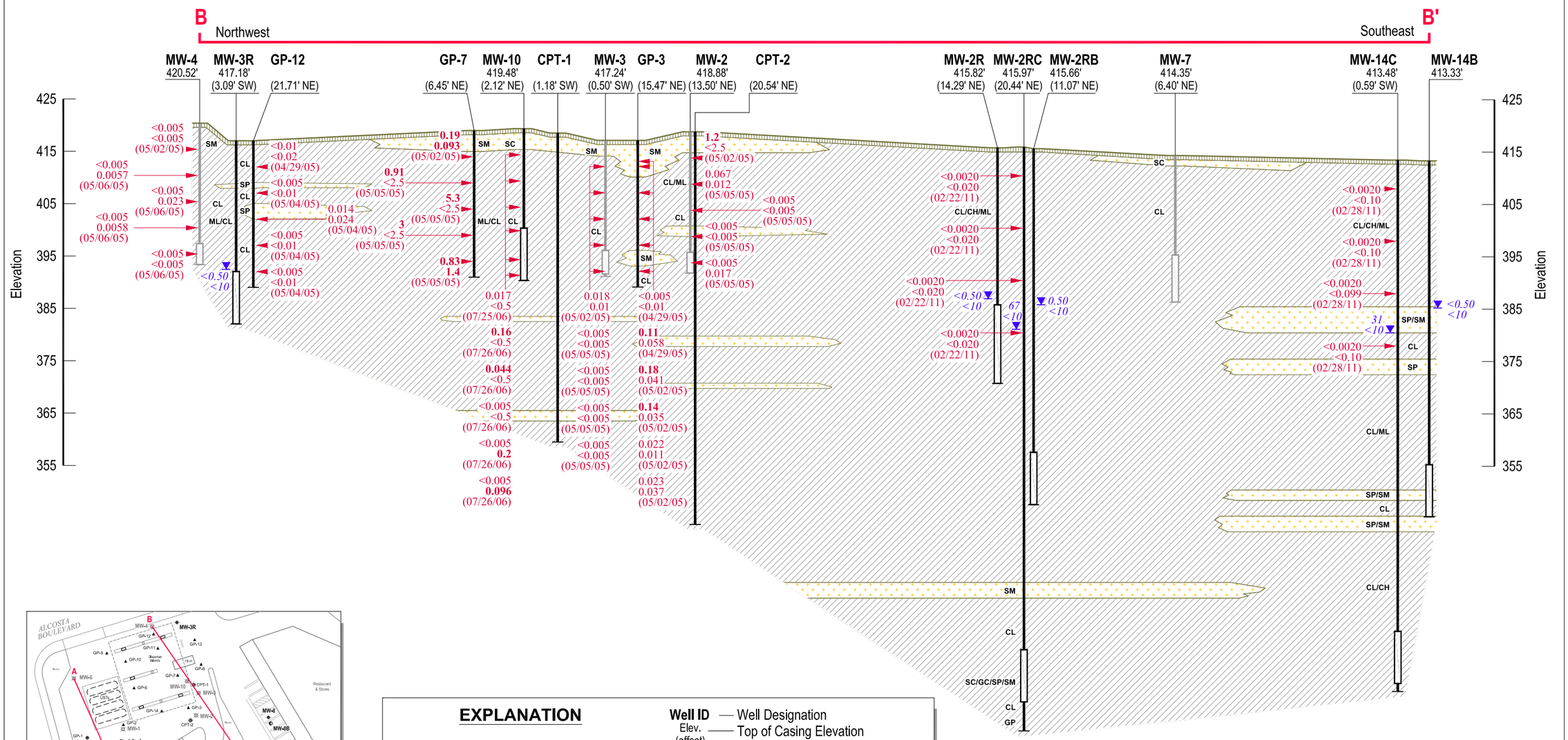
MTBE / TBA / (Date) — Concentrations in groundwater, in micrograms per liter (µg/L)

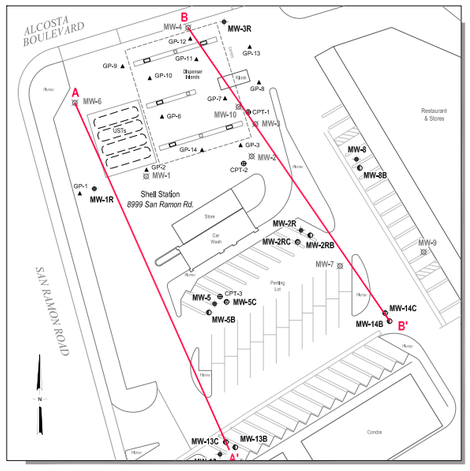
Scale (ft)
0
20
20

Figure 12

Geologic Cross Section A-A'
Shell-branded Service Station
8999 San Ramon Road
Dublin, California

240724-2013(012)GN-EM012 SEP 19/2013





EXPLANATION

- Asphalt

Fine-grained Soils

- **CL** - Inorganic clays of low plasticity, gravelly, sandy, or silty clays, lean clays
- **CH** - Inorganic clays of high plasticity, fat clays
- **ML** - Inorganic silts and very fine sand, silty sands of slight plasticity

Coarse-grained Soils

- **GP** - Poorly graded gravels, <5% fines
- **GW** - Well graded gravels, <5% fines
- **SC** - Clayey sands, >12% fines
- **SM** - Silty sands, >12% fines
- **SP** - Poorly graded sands, or gravelly sand, < 5% fines

Depth of Groundwater - 01/17/13

Well ID — Well Designation
Elev. (offset) — Top of Casing Elevation
Groundwater Monitoring Well
Well Screen Interval
Bottom of boring
(Greyed out wells have been destroyed)
Approximate sample location
MTBE TBA (DATE) — Concentrations in soil, in milligrams per kilogram (mg/kg)
MTBE TBA (Date) — Concentrations in groundwater, in micrograms per liter (µg/L)

Scale (ft)
20
0
20

Figure 13

Geologic Cross Section B-B'
Shell-branded Service Station
8999 San Ramon Road
Dublin, California

TABLES

TABLE 1

HISTORICAL SOIL ANALYTICAL DATA
SHELL-BRANDED SERVICE STATION
8999 SAN RAMON ROAD, DUBLIN, CALIFORNIA

Sample ID	*Date*	*Depth (fbg)*	*TPHd (mg/kg)*	*TPHg (mg/kg)*	*B (mg/kg)*	*T (mg/kg)*	*E (mg/kg)*	*X (mg/kg)*	*MTBE (mg/kg)*	*TBA (mg/kg)*	*DIPE (mg/kg)*	*ETBE (mg/kg)*	*TAME (mg/kg)*	*1,2-DCA (mg/kg)*	*EDB (mg/kg)*	*Ethanol (mg/kg)*	*Lead (mg/kg)*
D-1-2.5	7/30/2004	2.5	---	17	<0.020	<0.020	0.10	0.49	**0.038**	0.062	<0.039	<0.020	<0.020	<0.020	<0.020	---	4.7
D-2-2.5	7/30/2004	2.5	170[a]	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	---	7.0
D-3-2.5	7/30/2004	2.5	---	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	---	6.2
D-4-2.5	7/30/2004	2.5	---	**4,700**	<5.0	**130**	**57**	**440**	<5.0	<25	<10	<5.0	<5.0	<5.0	<5.0	---	6.8
D-5-2.5	7/30/2004	2.5	---	<50	<0.50	<0.50	<0.50	<0.50	**9.0**	**11**	<1.0	<0.50	<0.50	<0.50	<0.50	---	6.9
D-6-2.5	7/30/2004	2.5	<1.0	---	<0.50	<0.50	<0.50	<0.50	**1.5**	**20**	<1.0	<0.50	<0.50	<0.50	<0.50	---	7.6
D-7-2.5	7/30/2004	2.5	---	<50	<0.50	<0.50	<0.50	<0.50	**1.4**	**3.3**	<1.0	<0.50	<0.50	<0.50	<0.50	---	4.6
P-1-5.0	8/25/2004	5	<1.0	<50	<0.50	<0.50	<0.50	<0.50	**4.2**	**3.8**	<1.0	<0.50	<0.50	<0.50	<0.50	<25	6.1
P-2-5.0	8/25/2004	5	28[a]	<50	<0.50	<0.50	<0.50	<0.50	<0.50	**8.4**	<1.0	<0.50	<0.50	<0.50	<0.50	<25	8.0
P-3-5.0	8/25/2004	5	<1.0	<50	<0.50	<0.50	<0.50	<0.50	**2.1**	**8.3**	<1.0	<0.50	<0.50	<0.50	<0.50	<25	4.3
P-4-5.0	8/25/2004	5	<1.0	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	**0.095**	**0.71**	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1	6.4
P-5-5.0	8/25/2004	5	<1.0	<4.7	<0.023	<0.023	<0.023	<0.023	**0.11**	<0.047	<0.047	<0.023	<0.023	<0.023	<0.023	<0.47	4.6
P-6-5.0	8/25/2004	5	<1.0	<1.0	<0.0050	0.018	<0.0050	0.0082	**0.048**	<0.010	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1	6.0
P-7-4.0	8/25/2004	4	1.7[c]	210	<0.50	<0.50	<0.50	1.0	<0.50	<2.5	<1.0	<0.50	<0.50	<0.50	<0.50	<25	3.6
P-8-4.5	8/25/2004	4.5	<1.0	<50	<0.50	<0.50	<0.50	<0.50	**4.6**	**8.1**	<1.0	<0.50	<0.50	<0.50	<0.50	<25	7.0
SW-1-3.5'	8/27/2004	3.5	<1.0	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	0.031	<0.010	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1	---
SW-1-6'	8/27/2004	6	<1.0	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	0.021	<0.010	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1	---
SW-2-3.5'	8/27/2004	3.5	<1.0	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	0.010	<0.010	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1	---
SW-2-6'	8/27/2004	6	<1.0	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	**0.12**	0.026	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1	---
SW-3-2'	8/27/2004	2	<1.0	<1.0	<0.0050	<0.0050	<0.0050	0.0065	<0.0050	<0.010	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1	---
SW-3-6'	8/27/2004	6	7.5[b]	<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	---
SW-4-2.5'	8/27/2004	2.5	<1.0	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	**0.10**	0.023	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1	---

TABLE 1

HISTORICAL SOIL ANALYTICAL DATA
SHELL-BRANDED SERVICE STATION
8999 SAN RAMON ROAD, DUBLIN, CALIFORNIA

Sample ID	*Date*	*Depth (fbg)*	*TPHd (mg/kg)*	*TPHg (mg/kg)*	*B (mg/kg)*	*T (mg/kg)*	*E (mg/kg)*	*X (mg/kg)*	*MTBE (mg/kg)*	*TBA (mg/kg)*	*DIPE (mg/kg)*	*ETBE (mg/kg)*	*TAME (mg/kg)*	*1,2-DCA (mg/kg)*	*EDB (mg/kg)*	*Ethanol (mg/kg)*	*Lead (mg/kg)*
SW-4-6'	8/27/2004	6	<1.0	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	0.016	<0.010	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1	---
EB-1-7.5'	8/27/2004	7.5	<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	---
T-1-4'	8/27/2004	4	<1.0	<4.6	<0.023	0.27	0.070	0.50	**0.10**	**0.078**	<0.046	<0.023	<0.023	<0.023	<0.023	<0.46	---
T-2-4'	8/27/2004	4	**9,300**[c]	**3,900**	<1.0	**32**	**7.4**	**44**	<1.0	<5.0	<2.0	<1.0	<1.0	<1.0	<1.0	<50	---
T-3-4'	8/27/2004	4	<1.0	<4.6	<0.023	<0.023	<0.023	<0.023	**0.25**	**0.34**	<0.046	<0.023	<0.023	<0.023	<0.023	<0.46	---
T-4-4'	8/27/2004	4	<1.0	<1.0	<0.0050	0.013	<0.0050	0.0089	**0.096**	0.047	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1	---
TX-1-4'	9/2/2004	4	<1.0	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	**0.048**	<0.010	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1	---
TX-2-4'	9/2/2004	4	<1.0	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	**0.25**	**0.42**	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1	---
TX-3-3.5'	9/2/2004	3.5	5.2[a]	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	**1.2**	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1	---
TX-4-4'	9/2/2004	4	44[a]	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	**0.92**	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1	---
TX-5-4'	9/2/2004	4	130[a]	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	**0.72**	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1	---
TX-7-4'	9/2/2004	4	<1.0	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	**0.028**	**0.43**	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1	---
TX-8-4.5'	9/2/2004	5	29[a]	280	<0.50	<0.50	<0.50	3.0	<0.50	<2.5	<1.0	<0.50	<0.50	<0.50	<0.50	<25	---
TX-9-3.5'	9/2/2004	5	5.3[a]	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	**0.30**	**0.30**	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1	---
TX-10-3.5'	9/2/2004	5	<1.0	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	**0.034**	<0.010	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1	---
TX-11-3	9/2/2004	3	<1.0	<4.5	<0.023	<0.023	<0.023	<0.023	**0.73**	**0.71**	<0.045	<0.023	<0.023	<0.023	<0.023	<0.45	---
TX-12-3'	9/2/2004	3	**1,200**[a]	<50	<0.50	<0.50	<0.50	**2.4**	**1.2**	**7.1**	<1.0	<0.50	<0.50	<0.50	<0.50	<25	---
TX-13-2.5'	9/2/2004	5	140[a]	3.9	<0.0050	0.0070	0.015	0.088	0.0058	<0.010	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1	---
TX-14-3.5'	9/2/2004	5	9.8[a]	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	**0.071**	<0.010	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1	---
TX-15-3.5'	9/2/2004	5	48[a]	<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	---
TX-16-3.5'	9/2/2004	5	<1.0	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	0.023	**0.15**	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1	---
TX-17-3.5'	9/2/2004	5	25[b]	<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	---
TX-6-1'	9/2/2004	1	3.4[a]	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	**0.24**	**0.49**	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1	---

TABLE 1

HISTORICAL SOIL ANALYTICAL DATA
SHELL-BRANDED SERVICE STATION
8999 SAN RAMON ROAD, DUBLIN, CALIFORNIA

Sample ID	*Date*	*Depth (fbg)*	*TPHd (mg/kg)*	*TPHg (mg/kg)*	*B (mg/kg)*	*T (mg/kg)*	*E (mg/kg)*	*X (mg/kg)*	*MTBE (mg/kg)*	*TBA (mg/kg)*	*DIPE (mg/kg)*	*ETBE (mg/kg)*	*TAME (mg/kg)*	*1,2-DCA (mg/kg)*	*EDB (mg/kg)*	*Ethanol (mg/kg)*	*Lead (mg/kg)*
TX-6-2'	9/2/2004	2	<1.0	<4.8	<0.024	<0.024	<0.024	<0.024	**0.52**	**1.8**	<0.048	<0.024	<0.024	<0.024	<0.024	<0.48	---
TX-6-3'	9/2/2004	3	<1.0	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	**0.24**	**0.32**	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1	---
TX-6-4'	9/2/2004	4	4.7[a]	<1.0	<0.0050	<0.0050	<0.0050	0.031	**0.22**	**0.22**	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1	---
TX-6-1a'	9/2/2004	1	30[d]	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	**0.15**	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1	---
TX-6-2a'	9/2/2004	2	1.1[c]	<4.8	<0.024	<0.024	<0.024	0.10	**0.098**	**0.13**	<0.048	<0.024	<0.024	<0.024	<0.024	<0.48	---
TX-6-3a'	9/2/2004	3	290[c]	**2,000**	<1.0	**11**	**29**	**180**	<1.0	<5.0	<2.0	<1.0	<1.0	<1.0	<1.0	<50	---
SW-5-2.5'	9/7/2004	2.5	<1.0	<3.2	<0.016	<0.016	<0.016	<0.016	**0.061**	**0.95**	<0.032	<0.016	<0.016	<0.016	<0.016	---	---
SW-6-2.5'	9/7/2004	2.5	**16,000[a]**	**8,500[e]**	<5.0	<5.0	<5.0	<5.0	<5.0	**170**	<10	<5.0	<5.0	<5.0	<5.0	---	---
SW-7-2'	9/7/2004	2	22[c]	440[e]	<0.50	<0.50	<0.50	<0.50	<0.50	**3.3**	<1.0	<0.50	<0.50	<0.50	<0.50	---	---
SW-8-2'	9/7/2004	2	9.9[c]	8.1[e]	<0.019	<0.019	0.019	0.11	**0.38**	**0.12**	<0.38	<0.019	<0.019	<0.019	<0.019	---	---
SW-9-1.5	9/7/2004	1.5	**540[a]**	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	**0.033**	**0.15**	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	---	---
SW-10-1.5'	9/7/2004	1.5	270[a]	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	**0.026**	**0.18**	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	---	---
SW-11-3.5'	9/7/2004	3.5	1.4[a]	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	**0.30**	<0.010	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	---	---
SW-12-3.5'	9/7/2004	3.5	<1.0	<3.3	<0.017	<0.017	<0.017	<0.017	<0.017	**2.3**	<0.033	<0.017	<0.017	<0.017	<0.017	---	---
SW-13-2'	9/7/2004	2	14[b]	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	---	---
SW-14-2.5'	9/7/2004	2.5	200[a]	<4.5	<0.022	<0.022	<0.022	<0.022	0.023	**6.5**	<0.045	<0.022	<0.022	<0.022	<0.022	---	---
GP-1@5'	5/2/2005	5	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	**0.12**	0.069	---	---	---	---	---	---	---
GP-1@10'	5/2/2005	10	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	**0.034**	**0.16**	---	---	---	---	---	---	---
GP-1@15'	5/2/2005	15	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	**0.43**	**0.31**	---	---	---	---	---	---	---
GP-1@20'	5/2/2005	20	<1.0	<4.0	<0.02	<0.02	<0.02	<0.02	**0.16**	**0.28**	---	---	---	---	---	---	---
GP-1@25'	5/2/2005	25	<1.0	<3.7	<0.018	<0.018	<0.018	<0.018	<0.018	**0.56**	---	---	---	---	---	---	---
GP-2@5'	5/2/2005	5	<1.0	<50	<0.05	<0.05	<0.05	<0.05	**1.5**	<2.5	---	---	---	---	---	---	---
GP-2@10'	5/2/2005	10	1.7	<50	<0.05	<0.05	<0.05	<0.05	**0.72**	**12**	---	---	---	---	---	---	---

HISTORICAL SOIL ANALYTICAL DATA
SHELL-BRANDED SERVICE STATION
8999 SAN RAMON ROAD, DUBLIN, CALIFORNIA

Sample ID	*Date*	*Depth (fbg)*	*TPHd (mg/kg)*	*TPHg (mg/kg)*	*B (mg/kg)*	*T (mg/kg)*	*E (mg/kg)*	*X (mg/kg)*	*MTBE (mg/kg)*	*TBA (mg/kg)*	*DIPE (mg/kg)*	*ETBE (mg/kg)*	*TAME (mg/kg)*	*1,2-DCA (mg/kg)*	*EDB (mg/kg)*	*Ethanol (mg/kg)*	*Lead (mg/kg)*
GP-2@15'	5/2/2005	15	<1.0	<50	<0.05	<0.05	<0.05	<0.05	**9.5**	**4.7**	---	---	---	---	---	---	---
GP-2@20'	5/2/2005	20	<1.0	<50	<0.05	<0.05	<0.05	<0.05	<0.05	**8**	---	---	---	---	---	---	---
GP-2@25'	5/2/2005	25	<1.0	<50	<0.05	<0.05	<0.05	<0.05	<0.05	**13**	---	---	---	---	---	---	---
GP-3@4'	4/29/2005	4	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	---	---	---	---	---	---	---
GP-3@5'	4/29/2005	5	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	**0.11**	0.058	---	---	---	---	---	---	---
GP-3@10'	5/2/2005	10	2.2	<1.0	<0.005	<0.005	<0.005	<0.005	**0.18**	0.041	---	---	---	---	---	---	---
GP-3@15'	5/2/2005	15	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	**0.14**	0.035	---	---	---	---	---	---	---
GP-3@20'	5/2/2005	20	1.2	<1.0	<0.005	<0.005	<0.005	<0.005	0.022	0.011	---	---	---	---	---	---	---
GP-3@25'	5/2/2005	25	3.3	<1.0	<0.005	<0.005	<0.005	<0.005	0.023	0.037	---	---	---	---	---	---	---
GP-5@4.5'	4/29/2005	4.5	14	**1,000**	<0.5	**3.3**	**10**	**76**	<0.5	<2.5	---	---	---	---	---	---	---
GP-5@5'	4/29/2005	5	<1.0	2.1	0.031	0.033	0.071	0.56	0.01	<0.01	---	---	---	---	---	---	---
GP-5@10'	5/3/2005	10	<1.0	<50	<0.5	<0.5	<0.5	0.016	**0.32**	**0.12**	---	---	---	---	---	---	---
GP-5@15'	5/3/2005	15	1.6	<50	<0.5	<0.5	<0.5	<0.5	**6.9**	<2.5	---	---	---	---	---	---	---
GP-5@20'	5/3/2005	20	1.6	<50	<0.5	<0.5	<0.5	<0.5	**2.2**	<2.5	---	---	---	---	---	---	---
GP-5@25'	5/3/2005	25	3.8	290	<0.5	<0.5	<0.5	9	**1.7**	<2.5	---	---	---	---	---	---	---
GP-6@5'	4/29/2005	5	9.7	<50	<0.5	<0.5	<0.5	<0.5	**5.3**	**7.3**	---	---	---	---	---	---	---
GP-6@10'	5/2/2005	10	8.8	<2.1	<0.011	<0.011	<0.011	<0.011	**0.11**	**2.5**	---	---	---	---	---	---	---
GP-6@15'	5/2/2005	15	2.8	<50	<0.5	<0.5	<0.5	<0.5	**20**	**4.6**	---	---	---	---	---	---	---
GP-6@20'	5/2/2005	20	1.9	<50	<0.5	<0.5	<0.5	<0.5	**17**	<2.5	---	---	---	---	---	---	---
GP-6@25'	5/2/2005	25	1.9	<50	<0.5	<0.5	<0.5	<0.5	**1.3**	**4.5**	---	---	---	---	---	---	---
GP-7@5'	4/29/2005	5	2.3	1.5	0.0096	<0.005	0.035	0.099	**0.19**	**0.093**	---	---	---	---	---	---	---
GP-7@10'	5/2/2005	10	2.1	<50	<0.5	<0.5	<0.5	<0.5	**0.91**	<2.5	---	---	---	---	---	---	---
GP-7@15'	5/2/2005	15	38	<50	<0.5	<0.5	<0.5	<0.5	**5.3**	<2.5	---	---	---	---	---	---	---

HISTORICAL SOIL ANALYTICAL DATA
SHELL-BRANDED SERVICE STATION
8999 SAN RAMON ROAD, DUBLIN, CALIFORNIA

Sample ID	*Date*	*Depth (fbg)*	*TPHd (mg/kg)*	*TPHg (mg/kg)*	*B (mg/kg)*	*T (mg/kg)*	*E (mg/kg)*	*X (mg/kg)*	*MTBE (mg/kg)*	*TBA (mg/kg)*	*DIPE (mg/kg)*	*ETBE (mg/kg)*	*TAME (mg/kg)*	*1,2-DCA (mg/kg)*	*EDB (mg/kg)*	*Ethanol (mg/kg)*	*Lead (mg/kg)*
GP-7@20'	5/2/2005	20	2.1	<50	<0.5	<0.5	<0.5	<0.5	**3**	<2.5	---	---	---	---	---	---	---
GP-7@25'	5/2/2005	25	6.8	<4.5	<0.023	<0.023	<0.023	<0.023	**0.83**	**1.4**	---	---	---	---	---	---	---
GP-8@3.5'	4/29/2005	3.5	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	**0.34**	**0.20**	---	---	---	---	---	---	---
GP-8@5'	4/29/2005	5	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	**0.073**	0.021	---	---	---	---	---	---	---
GP-8@11'	5/3/2005	11	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	**0.38**	**0.17**	---	---	---	---	---	---	---
GP-8@15'	5/3/2005	15	1.6	<1.0	<0.005	<0.005	<0.005	<0.005	**0.37**	0.018	---	---	---	---	---	---	---
GP-8@20'	5/3/2005	20	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	0.0083	0.012	---	---	---	---	---	---	---
GP-8@25'	5/3/2005	25	1.2	<1.0	<0.005	<0.005	<0.005	<0.005	0.017	0.059	---	---	---	---	---	---	---
GP-9@5'	4/29/2005	5	1.7	<2.0	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	---	---	---	---	---	---	---
GP-9@10'	5/4/2005	10	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	**0.2**	**0.15**	---	---	---	---	---	---	---
GP-9@15'	5/4/2005	15	<1.0	<50	<0.5	<0.5	<0.5	<0.5	**5.6**	**3.6**	---	---	---	---	---	---	---
GP-9@20'	5/4/2005	20	<1.0	<50	<0.5	<0.5	<0.5	<0.5	**8.2**	**7.8**	---	---	---	---	---	---	---
GP-9@25'	5/4/2005	25	<1.0	<50	<0.5	<0.5	<0.5	<0.5	**3.5**	**6.5**	---	---	---	---	---	---	---
GP-10@5'	4/29/2005	5	<1.0	<4.7	<0.23	<0.23	<0.23	<0.23	**0.2**	**0.28**	---	---	---	---	---	---	---
GP-10@10'	5/4/2005	10	<1.0	<3.7	<0.019	<0.019	<0.019	<0.019	**1.3**	**1.1**	---	---	---	---	---	---	---
GP-10@15'	5/4/2005	15	<1.0	<50	<0.5	<0.5	<0.5	<0.5	**10**	**5.2**	---	---	---	---	---	---	---
GP-10@20'	5/4/2005	20	2	<50	<0.5	<0.5	<0.5	<0.5	**8.4**	<2.5	---	---	---	---	---	---	---
GP-10@25'	5/4/2005	25	<1.0	<50	<0.5	<0.5	<0.5	<0.5	**5.4**	**15**	---	---	---	---	---	---	---
GP-11@5'	4/29/2005	5	1.6	<2.0	<0.01	<0.01	<0.01	<0.01	**0.18**	0.052	---	---	---	---	---	---	---
GP-11@10'	5/3/2005	10	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	**0.077**	**0.077**	---	---	---	---	---	---	---
GP-11@15'	5/3/2005	15	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	**0.38**	**0.37**	---	---	---	---	---	---	---
GP-11@20'	5/3/2005	20	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	**0.069**	**0.25**	---	---	---	---	---	---	---
GP-11@25'	5/3/2005	25	<1.0	<4.9	<0.025	<0.025	<0.025	<0.025	**1.5**	**1**	---	---	---	---	---	---	---

HISTORICAL SOIL ANALYTICAL DATA
SHELL-BRANDED SERVICE STATION
8999 SAN RAMON ROAD, DUBLIN, CALIFORNIA

Sample ID	*Date*	*Depth (fbg)*	*TPHd (mg/kg)*	*TPHg (mg/kg)*	*B (mg/kg)*	*T (mg/kg)*	*E (mg/kg)*	*X (mg/kg)*	*MTBE (mg/kg)*	*TBA (mg/kg)*	*DIPE (mg/kg)*	*ETBE (mg/kg)*	*TAME (mg/kg)*	*1,2-DCA (mg/kg)*	*EDB (mg/kg)*	*Ethanol (mg/kg)*	*Lead (mg/kg)*
GP-12@5'	4/29/2005	5	<1.0	<2.0	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	---	---	---	---	---	---	---
GP-12@10'	5/4/2005	10	1.5	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	---	---	---	---	---	---	---
GP-12@15'	5/4/2005	15	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	0.014	0.024	---	---	---	---	---	---	---
GP-12@20'	5/4/2005	20	1.4	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	---	---	---	---	---	---	---
GP-12@25'	5/4/2005	25	1.7	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	---	---	---	---	---	---	---
GP-13@1.5'	4/29/2005	1.5	13	<2.0	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	---	---	---	---	---	---	---
GP-13@5'	4/29/2005	5	<1.0	<2.0	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	---	---	---	---	---	---	---
GP-13@10'	5/3/2005	10.5	1.5	<1.0	<0.005	<0.005	<0.005	<0.005	0.0057	<0.01	---	---	---	---	---	---	---
GP-13@15'	5/3/2005	15	11	<1.0	<0.005	<0.005	<0.005	<0.005	0.019	<0.01	---	---	---	---	---	---	---
GP-13@20'	5/3/2005	20	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	0.012	0.021	---	---	---	---	---	---	---
GP-13@25'	5/3/2005	25	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	0.021	0.016	---	---	---	---	---	---	---
GP-14@5'	4/29/2005	5	2.1	<5.0	<0.025	<0.025	<0.025	<0.025	**0.6**	**0.47**	---	---	---	---	---	---	---
GP-14@11'	5/2/2005	11	1.8	<4.0	<0.02	<0.02	<0.02	<0.02	**0.72**	**0.39**	---	---	---	---	---	---	---
GP-14@15'	5/2/2005	15	1.3	<1.0	<0.005	<0.005	<0.005	<0.005	0.0068	**0.3**	---	---	---	---	---	---	---
GP-14@20'	5/2/2005	20	<1.0	<4.7	<0.024	<0.024	<0.024	<0.024	**0.049**	**2.8**	---	---	---	---	---	---	---
GP-14@25'	5/2/2005	25	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	**0.065**	**1.1**	---	---	---	---	---	---	---
MW-1@5'	5/2/2005	5	1.3	<1.0	<0.005	<0.005	<0.005	<0.005	**0.19**	**0.16**	---	---	---	---	---	---	---
MW-1@10'	5/5/2005	10	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	**14**	**3**	---	---	---	---	---	---	---
MW-1@15'	5/5/2005	15	<1.0	<2.5	<0.025	<0.025	<0.025	0.026	**17**	**4.6**	---	---	---	---	---	---	---
MW-1@20'	5/5/2005	20	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	**1.2**	**2.7**	---	---	---	---	---	---	---
MW-1@25'	5/5/2005	25	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	**0.04**	**5.9**	---	---	---	---	---	---	---
MW-2@5'	5/2/2005	5	<1.0	<50	<0.5	<0.5	<0.5	<0.5	**1.2**	<2.5	---	---	---	---	---	---	---

TABLE 1

HISTORICAL SOIL ANALYTICAL DATA
SHELL-BRANDED SERVICE STATION
8999 SAN RAMON ROAD, DUBLIN, CALIFORNIA

Sample ID	*Date*	*Depth (fbg)*	*TPHd (mg/kg)*	*TPHg (mg/kg)*	*B (mg/kg)*	*T (mg/kg)*	*E (mg/kg)*	*X (mg/kg)*	*MTBE (mg/kg)*	*TBA (mg/kg)*	*DIPE (mg/kg)*	*ETBE (mg/kg)*	*TAME (mg/kg)*	*1,2-DCA (mg/kg)*	*EDB (mg/kg)*	*Ethanol (mg/kg)*	*Lead (mg/kg)*
MW-2@10'	5/5/2005	10	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	0.067	0.012	---	---	---	---	---	---	---
MW-2@15'	5/5/2005	15	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	---	---	---	---	---	---	---
MW-2@20'	5/5/2005	20	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	---	---	---	---	---	---	---
MW-2@25'	5/5/2005	25	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	0.017	---	---	---	---	---	---	---
MW-3@5'	5/2/2005	5	1.2	<1.0	<0.005	<0.005	<0.005	<0.005	0.018	0.01	---	---	---	---	---	---	---
MW-3@10'	5/5/2005	10	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	---	---	---	---	---	---	---
MW-3@15'	5/5/2005	15	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	---	---	---	---	---	---	---
MW-3@20'	5/5/2005	20	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	---	---	---	---	---	---	---
MW-3@25'	5/5/2005	25	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	---	---	---	---	---	---	---
MW-4@5'	5/2/2005	5	2.8	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	---	---	---	---	---	---	---
MW-4@10'	5/6/2005	10	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	0.0057	---	---	---	---	---	---	---
MW-4@15'	5/6/2005	15	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	0.023	---	---	---	---	---	---	---
MW-4@20'	5/6/2005	20	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	0.0058	---	---	---	---	---	---	---
MW-4@25'	5/6/2005	25	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	---	---	---	---	---	---	---
Sewer Trench Backfill-2.5'	5/26/2005	2.5	1.6	<1.0	<0.005	<0.005	<0.005	<0.005	**0.044**	0.046	---	---	---	---	---	---	---
MW-6@10'	2/23/2006	10	1.2	<2.5	<0.05	<0.05	<0.05	<0.05	**1.4**	<5.0	---	---	---	---	---	---	---
MW-6@15'	2/23/2006	15	1.4	3.8	<0.05	<0.05	<0.05	<0.05	<0.05	<5.0	---	---	---	---	---	---	---
MW-6@20'	2/23/2006	20	1.5	<0.1	<0.005	<0.005	<0.005	<0.005	0.089	<0.02	---	---	---	---	---	---	---
MW-8@15'	7/26/2006	15	<2.0	<1.0	<0.005	<0.005	<0.005	<0.01	<0.005	<0.5	---	---	---	---	---	---	---
MW-8@20'	7/26/2006	20	<2.0	<1.0	<0.005	<0.005	<0.005	<0.01	<0.005	<0.5	---	---	---	---	---	---	---

HISTORICAL SOIL ANALYTICAL DATA
SHELL-BRANDED SERVICE STATION
8999 SAN RAMON ROAD, DUBLIN, CALIFORNIA

Sample ID	*Date*	*Depth (fbg)*	*TPHd (mg/kg)*	*TPHg (mg/kg)*	*B (mg/kg)*	*T (mg/kg)*	*E (mg/kg)*	*X (mg/kg)*	*MTBE (mg/kg)*	*TBA (mg/kg)*	*DIPE (mg/kg)*	*ETBE (mg/kg)*	*TAME (mg/kg)*	*1,2-DCA (mg/kg)*	*EDB (mg/kg)*	*Ethanol (mg/kg)*	*Lead (mg/kg)*
MW-10@5'	7/25/2006	5	<2.0	<1.0	<0.005	<0.005	<0.005	<0.01	0.017	<0.5	---	---	---	---	---	---	---
MW-10@10'	7/26/2006	10	<2.0	<1.0	<0.005	<0.005	<0.005	<0.01	**0.16**	<0.5	---	---	---	---	---	---	---
MW-10@15'	7/26/2006	15	<2.0	<1.0	<0.005	<0.005	<0.005	<0.01	**0.044**	<0.5	---	---	---	---	---	---	---
MW-10@19.5'	7/26/2006	19.5	<2.0	<1.0	<0.005	<0.005	<0.005	<0.01	<0.005	<0.5	---	---	---	---	---	---	---
MW-10@25'	7/26/2006	25	<2.0	<1.0	<0.005	<0.005	<0.005	<0.01	<0.005	**0.2**	---	---	---	---	---	---	---
MW-10@28'	7/26/2006	28	<2.0	<1.0	<0.005	<0.005	<0.005	<0.01	<0.005	**0.096**	---	---	---	---	---	---	---
MW-11@5'	7/25/2006	5	<2.0	<1.0	<0.005	<0.005	<0.005	<0.01	<0.005	<0.5	---	---	---	---	---	---	---
MW-1R@10'	2/10/2010	10	440	<0.5	<0.005	<0.005	<0.005	<0.005	**0.032**	**1.3**	<0.01	<0.01	<0.01	---	---	---	---
MW-1R@35'	2/10/2010	35	<5	<0.5	<0.005	<0.005	<0.005	<0.005	<0.005	**0.12**	<0.01	<0.01	<0.01	---	---	---	---
MW-3R	2/11/2010	30	<5	<0.5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.05	<0.01	<0.01	<0.01	---	---	---	---
MW-2RC-5.5	2/22/2011	5.5	170	<0.20	<0.00099	<0.00099	<0.00099	<0.0020	<0.0020	<0.020	---	---	---	---	---	---	---
MW-2RC-15.5	2/22/2011	15.5	<5.0	<0.19	<0.00099	<0.00099	<0.00099	<0.0020	<0.0020	<0.020	---	---	---	---	---	---	---
MW-2RC-25.5	2/22/2011	25.5	<5.0	<0.20	<0.00099	<0.00099	<0.00099	<0.0020	<0.0020	<0.020	---	---	---	---	---	---	---
MW-2RC-35.5	2/22/2011	35.5	<5.0	<0.19	<0.00099	<0.00099	<0.00099	<0.0020	<0.0020	<0.020	---	---	---	---	---	---	---
MW-13C-5.5	3/2/2011	5.5	**3,600**	<0.19	<0.0010	<0.0010	<0.0010	<0.0020	<0.0020	<0.10	---	---	---	---	---	---	---
MW-13C-15.5	3/2/2011	15.5	<5.0	<0.19	<0.00099	<0.00099	<0.00099	<0.0020	<0.0020	<0.099	---	---	---	---	---	---	---
MW-13C-25.5	3/2/2011	25.5	<5.0	<0.19	<0.0010	<0.0010	<0.0010	<0.0020	<0.0020	<0.10	---	---	---	---	---	---	---
MW-13C-35.5	3/2/2011	35.5	<5.0	<0.19	<0.00099	<0.00099	<0.00099	<0.0020	<0.0020	<0.099	---	---	---	---	---	---	---
MW-14C-5.5	2/28/2011	5.5	26	<0.20	<0.0010	<0.0010	<0.0010	<0.0020	<0.0020	<0.10	---	---	---	---	---	---	---
MW-14C-15.5	2/28/2011	15.5	<5.0	<0.19	<0.0010	<0.0010	<0.0010	<0.0020	<0.0020	<0.10	---	---	---	---	---	---	---
MW-14C-25.5	2/28/2011	25.5	<5.0	<0.20	<0.00099	<0.00099	<0.00099	<0.0020	<0.0020	<0.099	---	---	---	---	---	---	---

HISTORICAL SOIL ANALYTICAL DATA
SHELL-BRANDED SERVICE STATION
8999 SAN RAMON ROAD, DUBLIN, CALIFORNIA

Sample ID	*Date*	*Depth (fbg)*	*TPHd (mg/kg)*	*TPHg (mg/kg)*	*B (mg/kg)*	*T (mg/kg)*	*E (mg/kg)*	*X (mg/kg)*	*MTBE (mg/kg)*	*TBA (mg/kg)*	*DIPE (mg/kg)*	*ETBE (mg/kg)*	*TAME (mg/kg)*	*1,2-DCA (mg/kg)*	*EDB (mg/kg)*	*Ethanol (mg/kg)*	*Lead (mg/kg)*
MW-14C-35.5	2/28/2011	35.5	<5.0	<0.20	<0.0010	<0.0010	<0.0010	<0.0020	<0.0020	<0.10	---	---	---	---	---	---	---
Shallow Soil (≤10 fbg) ESL[f]:			500	500	0.044	2.9	3.3	2.3	0.023	0.075	NA	NA	NA	0.0045	0.00033	NA	320
Deep Soil (>10 fbg) ESL[f]:			530	580	0.044	2.9	3.3	2.3	0.023	0.075	NA	NA	NA	0.0045	0.00033	NA	320

Notes:
TPHd = Total petroleum hydrocarbons as diesel analyzed by EPA Method 8015; analytical methods for 2005 and 2006 samples are unknown.
TPHg = Total petroleum hydrocarbons as gasoline analyzed by EPA Method 8260B; analytical methods for 2005 and 2006 samples are unknown.
BTEX = Benzene, toluene, ethylbenzene, and total xylenes analyzed by EPA Method 8260B; analytical methods for 2005 and 2006 samples are unknown.
MTBE = Methyl tertiary-butyl ether analyzed by EPA Method 8260B; analytical methods for 2005 and 2006 samples are unknown.
TBA = Tertiary-butyl alcohol analyzed by EPA Method 8260B; analytical methods for 2005 and 2006 samples are unknown.
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
Lead analyzed by EPA Method 6010B
fbg = Feet below grade
mg/kg = Milligrams per kilogram
<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 soil sample location was subsequently excavated; results are not representative of residual soil.

a = Hydrocarbon reported does not match the pattern of laboratory diesel standard.
b = Hydrocarbon reported in the late diesel range, and does not match laboratory diesel standard.
c = Hydrocarbon reported in the early diesel range, and does not match laboratory diesel standard.
d = Compound reported reflects individual or discrete unidentified peaks detected in the diesel range. The pattern does not match a typical fuel standard.
e = Hydrocarbon reported in the gasoline range does not match laboratory standard.

HISTORICAL SOIL ANALYTICAL DATA
SHELL-BRANDED SERVICE STATION
8999 SAN RAMON ROAD, DUBLIN, CALIFORNIA

Sample ID	*Date*	*Depth (fbg)*	*TPHd (mg/kg)*	*TPHg (mg/kg)*	*B (mg/kg)*	*T (mg/kg)*	*E (mg/kg)*	*X (mg/kg)*	*MTBE (mg/kg)*	*TBA (mg/kg)*	*DIPE (mg/kg)*	*ETBE (mg/kg)*	*TAME (mg/kg)*	*1,2-DCA (mg/kg)*	*EDB (mg/kg)*	*Ethanol (mg/kg)*	*Lead (mg/kg)*

f = San Francisco Bay Regional Water Quality Control Board commercial/industrial ESL for soil where groundwater is a potential 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] - Updated May 2013).

TABLE 2

GROUNDWATER DATA
SHELL-BRANDED SERVICE STATION
8999 SAN RAMON ROAD, DUBLIN, CALIFORNIA

Well ID	*Date*	*TPHd (µg/L)*	*TPHg (µg/L)*	*B (µg/L)*	*T (µg/L)*	*E (µg/L)*	*X (µg/L)*	*MTBE (µg/L)*	*TBA (µg/L)*	*DIPE (µg/L)*	*ETBE (µg/L)*	*TAME (µg/L)*	*TOC (ft MSL)*	*Depth to Water (ft TOC)*	*GW Elevation (ft MSL)*
MW-1	05/09/2005	---	---	---	---	---	---	---	---	---	---	---	---	20.93	---
MW-1	05/19/2005	160 a,b	<5,000	<50	<50	<50	<100	1,400	57,000	<200	<200	<200	420.06	20.70	399.36
MW-1	08/15/2005	<50 a	<5,000	<50	<50	<50	<100	360	56,000	<200	<200	<200	420.06	23.98	396.08
MW-1	11/08/2005	Well dry	---	---	---	---	---	---	---	---	---	---	420.06	---	---
MW-1	01/30/2006	438 a	585	<0.500	<0.500	<0.500	<0.500	15.6	115,000	<0.500	<0.500	<0.500	420.06	26.39	393.67
MW-1	05/19/2006	279	2,940	<0.500	<0.500	<0.500	<0.500	150	49,500	<0.500	0.940	<0.500	420.06	23.10	396.96
MW-1	08/24/2006	85.6	812	<0.500	<0.500	<0.500	<0.500	33.0	30,700	<0.500	0.890	<0.500	420.06	23.94	396.12
MW-1	11/02/2006	Well dry	---	---	---	---	---	---	---	---	---	---	420.06	---	---
MW-1	01/29/2007	Well dry	---	---	---	---	---	---	---	---	---	---	420.06	---	---
MW-1	06/05/2007	Well dry	---	---	---	---	---	---	---	---	---	---	420.06	---	---
MW-1	08/27/2007	Well dry	---	---	---	---	---	---	---	---	---	---	420.06	---	---
MW-1	11/30/2007	Well dry	---	---	---	---	---	---	---	---	---	---	420.06	---	---
MW-1	02/15/2008	Insufficient water		---	---	---	---	---	---	---	---	---	420.06	26.45	393.61
MW-1	05/22/2008	Well destroyed		---	---	---	---	---	---	---	---	---	---	---	---
MW-1R	03/11/2010	---	---	---	---	---	---	---	---	---	---	---	---	26.56	---
MW-1R	03/19/2010	<50	91	<0.50	<1.0	<1.0	<1.0	1.7	2,400	<2.0	<2.0	<2.0	---	26.09	---
MW-1R	05/07/2010	<50	140	<1.0	<2.0	<2.0	<2.0	2.2	3,300	<4.0	<4.0	<4.0	---	24.00	---
MW-1R	08/09/2010	<50	300	<2.5	<5.0	<5.0	<5.0	5.9	9,600	<10	<10	<10	---	27.91	---
MW-1R	11/08/2010	<50	86	<0.50	<1.0	<1.0	<1.0	3.3	2,500	<2.0	<2.0	<2.0	421.41	33.60	387.81
MW-1R	01/25/2011	<480	<50	<0.50	<0.50	<0.50	<1.0	1.4	1,100	<1.0	<1.0	<1.0	421.41	29.34	392.07
MW-1R	05/23/2011	<48	<250	<2.5	<2.5	<2.5	<5.0	<5.0	2,400	<5.0	<5.0	<5.0	421.41	21.29	400.12
MW-1R	07/26/2011	<48	210 e	<2.0	<2.0	<2.0	<4.0	<4.0	4,500	<4.0	<4.0	<4.0	421.41	22.70	398.71
MW-1R	11/03/2011	---	---	---	---	---	---	---	---	---	---	---	421.41	31.30	390.11
MW-1R	11/04/2011	<47	<250	<2.5	<2.5	<2.5	<5.0	5.5	5,600	<5.0	<5.0	<5.0	421.41	---	---
MW-1R	01/26/2012	<49	<50	<0.50	<0.50	<0.50	3.2	2.9	770	<0.50	<0.50	<0.50	421.41	31.60	389.81
MW-1R	05/11/2012	140	<50	<0.50	<0.50	<0.50	<1.0	0.87	610	<0.50	<0.50	<0.50	421.41	25.71	395.70
MW-1R	08/02/2012	<48	<130	<1.3	<1.3	<1.3	<2.5	1.3	2,100	<1.3	<1.3	<1.3	421.41	31.32	390.09
MW-1R	**01/17/2013**	**61**	**<100**	**1.0**	**1.0**	**<1.0**	**5.5**	**<1.0**	**1,600**	**<1.0**	**<1.0**	**<1.0**	**421.41**	**29.36**	**392.05**

TABLE 2

GROUNDWATER DATA
SHELL-BRANDED SERVICE STATION
8999 SAN RAMON ROAD, DUBLIN, CALIFORNIA

Well ID	*Date*	*TPHd (µg/L)*	*TPHg (µg/L)*	*B (µg/L)*	*T (µg/L)*	*E (µg/L)*	*X (µg/L)*	*MTBE (µg/L)*	*TBA (µg/L)*	*DIPE (µg/L)*	*ETBE (µg/L)*	*TAME (µg/L)*	*TOC (ft MSL)*	*Depth to Water (ft TOC)*	*GW Elevation (ft MSL)*
MW-2	05/09/2005	---	---	---	---	---	---	---	---	---	---	---	---	20.72	385.86
MW-2	05/19/2005	<50 a	<500	<5.0	<5.0	<5.0	<10	11	4,200	<20	<20	<20	418.88	21.26	381.17
MW-2	08/15/2005	<50 a	<1,000	<10	<10	<10	<20	<10	7,500	<40	<40	<40	418.88	25.33	392.60
MW-2	11/08/2005	Well dry	---	---	---	---	---	---	---	---	---	---	418.88	---	---
MW-2	01/30/2006	401 a	<50.0	<0.500	<0.500	<0.500	<0.500	<0.500	1,310	<0.500	<0.500	<0.500	418.88	25.87	393.01
MW-2	05/19/2006	134	398	<0.500	<0.500	<0.500	<0.500	7.65	4,910	<0.500	<0.500	<0.500	418.88	21.75	397.13
MW-2	08/24/2006	<46.9	<50.0	<0.500	<0.500	<0.500	<0.500	2.82	4,070	<0.500	<0.500	<0.500	418.88	24.60	394.28
MW-2	11/02/2006	Well dry	---	---	---	---	---	---	---	---	---	---	418.88	---	---
MW-2	01/29/2007	Well dry	---	---	---	---	---	---	---	---	---	---	418.88	---	---
MW-2	06/05/2007	Insufficient water		---	---	---	---	---	---	---	---	---	418.88	26.54	392.34
MW-2	08/27/2007	Well dry	---	---	---	---	---	---	---	---	---	---	418.88	---	---
MW-2	11/30/2007	Well dry	---	---	---	---	---	---	---	---	---	---	418.88	---	---
MW-2	02/15/2008	Insufficient water		---	---	---	---	---	---	---	---	---	418.88	26.15	392.73
MW-2	05/15/2008	Well destroyed		---	---	---	---	---	---	---	---	---	---	---	---
MW-2R	05/11/2011	---	---	---	---	---	---	---	---	---	---	---	415.82	20.87	394.95
MW-2R	05/23/2011	140	1,100	<0.50	<0.50	<0.50	<1.0	1.5	140	<1.0	<1.0	<1.0	415.82	25.20	390.62
MW-2R	07/26/2011	64	370	<0.50	<0.50	<0.50	<1.0	<1.0	1,200	<1.0	<1.0	<1.0	415.82	21.48	394.34
MW-2R	11/03/2011	---	---	---	---	---	---	---	---	---	---	---	415.82	28.92	386.90
MW-2R	11/04/2011	51	610	<0.50 h	<0.50 h	<0.50 h	<1.0 h	1.8 h	220 h	<1.0 h	<1.0 h	<1.0 h	415.82	---	---
MW-2R	01/26/2012	100	1,700	<1.0	<1.0	<1.0	<2.0	2.2	460	<1.0	<1.0	<1.0	415.82	29.63	386.19
MW-2R	05/11/2012	64	1,200	<0.50	<0.50	<0.50	<1.0	1.1	310	<0.50	<0.50	<0.50	415.82	25.05	390.77
MW-2R	08/02/2012	90 e	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<10	<0.50	<0.50	<0.50	415.82	28.04	387.78
MW-2R	**01/17/2013**	**160 e**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<1.0**	**<0.50**	**<10**	**<0.50**	**<0.50**	**<0.50**	**415.82**	**28.80**	**387.02**
MW-2RB	05/11/2011	---	---	---	---	---	---	---	---	---	---	---	415.66	22.28	393.38
MW-2RB	05/23/2011	61	<50	<0.50	<0.50	<0.50	<1.0	29	10	<1.0	<1.0	<1.0	415.66	21.77	393.89
MW-2RB	07/26/2011	69	59	<0.50	<0.50	<0.50	<1.0	28	<10	<1.0	<1.0	<1.0	415.66	23.40	392.26
MW-2RB	11/03/2011	88	110	<0.50	<0.50	<0.50	<1.0	18	<10	<1.0	<1.0	<1.0	415.66	30.72	384.94
MW-2RB	01/26/2012	150	<50	<0.50	<0.50	<0.50	<1.0	10	<10	<0.50	<0.50	<0.50	415.66	31.42	384.24

GROUNDWATER DATA
SHELL-BRANDED SERVICE STATION
8999 SAN RAMON ROAD, DUBLIN, CALIFORNIA

Well ID	*Date*	*TPHd (µg/L)*	*TPHg (µg/L)*	*B (µg/L)*	*T (µg/L)*	*E (µg/L)*	*X (µg/L)*	*MTBE (µg/L)*	*TBA (µg/L)*	*DIPE (µg/L)*	*ETBE (µg/L)*	*TAME (µg/L)*	*TOC (ft MSL)*	*Depth to Water (ft TOC)*	*GW Elevation (ft MSL)*
MW-2RB	05/11/2012	<48	490	<0.50	<0.50	<0.50	<1.0	1.1	<10	<0.50	<0.50	<0.50	415.66	26.83	388.83
MW-2RB	08/02/2012	250 e	350 e	<0.50	<0.50	<0.50	<1.0	0.75	<10	<0.50	<0.50	<0.50	415.66	30.57	385.09
MW-2RB	**01/17/2013**	**180 e**	**300 e**	**<0.50**	**<0.50**	**<0.50**	**<1.0**	0.50	**<10**	**<0.50**	**<0.50**	**<0.50**	**415.66**	**29.80**	**385.86**
MW-2RC	05/11/2011	---	---	---	---	---	---	---	---	---	---	---	415.97	27.01	388.96
MW-2RC	05/13/2011	---	---	---	---	---	---	---	---	---	---	---	415.97	29.95	386.02
MW-2RC	05/23/2011	<47	<50	<0.50	<0.50	<0.50	<1.0	31	14	<1.0	<1.0	<1.0	415.97	27.01	388.96
MW-2RC	07/26/2011	<49	69	<0.50	<0.50	<0.50	<1.0	32	<10	<1.0	<1.0	<1.0	415.97	28.22	387.75
MW-2RC	11/03/2011	---	---	---	---	---	---	---	---	---	---	---	415.97	35.65	380.32
MW-2RC	11/04/2011	<48	<50	<0.50	<0.50	<0.50	<1.0	46	<10	<1.0	<1.0	<1.0	415.97	---	---
MW-2RC	01/26/2012	47	<50	<0.50	<0.50	<0.50	<1.0	35	<10	<1.0	<1.0	<1.0	415.97	36.82	379.15
MW-2RC	05/11/2012	<47	<50	<0.50	<0.50	<0.50	<1.0	20	<10	<0.50	<0.50	<0.50	415.97	32.71	383.26
MW-2RC	08/02/2012	95 e	54	<0.50	<0.50	<0.50	<1.0	42	<10	<0.50	<0.50	<0.50	415.97	34.27	381.70
MW-2RC	**01/17/2013**	**290 e**	**83 i**	**<0.50**	**<0.50**	**<0.50**	**<1.0**	**67**	**<10**	**<0.50**	**<0.50**	**<0.50**	**415.97**	**34.80**	**381.17**
MW-3	05/09/2005	---	---	---	---	---	---	---	---	---	---	---	---	19.08	---
MW-3	05/19/2005	120 b	<50	<0.50	<0.50	<0.50	<1.0	40	6.5	<2.0	<2.0	<2.0	417.24	19.08	398.16
MW-3	08/15/2005	73 a	<50	<0.50	<0.50	<0.50	<1.0	34	<5.0	<2.0	<2.0	<2.0	417.24	22.20	395.04
MW-3	11/08/2005	Well dry	---	---	---	---	---	---	---	---	---	---	417.24	---	---
MW-3	01/30/2006	412 a	<50.0	<0.500	<0.500	<0.500	<0.500	<0.500	<10.0	<0.500	<0.500	<0.500	417.24	23.64	393.60
MW-3	05/19/2006	183	<50.0	<0.500	<0.500	<0.500	<0.500	<0.500	<10.0	<0.500	<0.500	<0.500	417.24	19.00	398.24
MW-3	08/24/2006	214	<50.0	<0.500	<0.500	<0.500	<0.500	3.11	661	<0.500	<0.500	<0.500	417.24	21.84	395.40
MW-3	11/02/2006	Well dry	---	---	---	---	---	---	---	---	---	---	417.24	---	---
MW-3	01/29/2007	Well dry	---	---	---	---	---	---	---	---	---	---	417.24	---	---
MW-3	06/05/2007	230	<50 c	<0.50	<1.0	<1.0	<1.0	0.38 d	<10	<2.0	<2.0	<2.0	417.24	23.80	393.44
MW-3	08/27/2007	Well dry	---	---	---	---	---	---	---	---	---	---	417.24	---	---
MW-3	11/30/2007	Well dry	---	---	---	---	---	---	---	---	---	---	417.24	---	---
MW-3	02/15/2008	Insufficient water		---	---	---	---	---	---	---	---	---	417.24	23.60	393.64
MW-3	05/15/2008	Well destroyed		---	---	---	---	---	---	---	---	---	---	---	---

TABLE 2

GROUNDWATER DATA
SHELL-BRANDED SERVICE STATION
8999 SAN RAMON ROAD, DUBLIN, CALIFORNIA

Well ID	*Date*	*TPHd (µg/L)*	*TPHg (µg/L)*	*B (µg/L)*	*T (µg/L)*	*E (µg/L)*	*X (µg/L)*	*MTBE (µg/L)*	*TBA (µg/L)*	*DIPE (µg/L)*	*ETBE (µg/L)*	*TAME (µg/L)*	*TOC (ft MSL)*	*Depth to Water (ft TOC)*	*GW Elevation (ft MSL)*
MW-3R	03/11/2010	---	---	---	---	---	---	---	---	---	---	---	---	22.60	---
MW-3R	03/19/2010	<50	<50	<0.50	<1.0	<1.0	<1.0	<1.0	<10	<2.0	<2.0	<2.0	---	22.30	---
MW-3R	05/07/2010	<50	<50	<0.50	<1.0	<1.0	<1.0	<1.0	<10	<2.0	<2.0	<2.0	---	21.14	---
MW-3R	08/09/2010	<50	<50	4.7	<1.0	<1.0	1.2	<1.0	<10	<2.0	<2.0	<2.0	---	24.20	---
MW-3R	11/08/2010	<50	<50	<0.50	<1.0	<1.0	<1.0	<1.0	<10	<2.0	<2.0	<2.0	417.18	27.60	389.58
MW-3R	01/25/2011	<490	<50	<0.50	<0.50	<0.50	<1.0	<1.0	<10	<1.0	<1.0	<1.0	417.18	24.36	392.82
MW-3R	05/23/2011	<48	<50	<0.50	<0.50	<0.50	<1.0	<1.0	<10	<1.0	<1.0	<1.0	417.18	18.31	398.87
MW-3R	07/26/2011	<47	<50	<0.50	<0.50	<0.50	<1.0	<1.0	<10	<1.0	<1.0	<1.0	417.18	18.72	398.46
MW-3R	11/03/2011	---	---	---	---	---	---	---	---	---	---	---	417.18	25.59	391.59
MW-3R	11/04/2011	77	<50 g	<0.50 g	<0.50 g	<0.50 g	<1.0 g	<1.0 g	<10 g	<1.0 g	<1.0 g	<1.0 g	417.18	---	---
MW-3R	01/26/2012	110	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<10	<0.50	<0.50	<0.50	417.18	26.14	391.04
MW-3R	05/11/2012	55	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<10	<0.50	<0.50	<0.50	417.18	22.25	394.93
MW-3R	08/02/2012	60 e	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<10	<0.50	<0.50	<0.50	417.18	25.50	391.68
MW-3R	**01/17/2013**	**78 e**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<1.0**	**<0.50**	**<10**	**<0.50**	**<0.50**	**<0.50**	**417.18**	**24.58**	**392.60**
MW-4	05/09/2005	---	---	---	---	---	---	---	---	---	---	---	---	19.77	---
MW-4	05/19/2005	59 b	97	0.66	<0.50	<0.50	<1.0	4.8	8.2	<2.0	<2.0	<2.0	420.52	19.85	400.67
MW-4	08/15/2005	<50 a	67	<0.50	<0.50	<0.50	<1.0	0.86	<5.0	<2.0	<2.0	<2.0	420.52	23.34	397.18
MW-4	11/08/2005	Well dry	---	---	---	---	---	---	---	---	---	---	420.52	---	---
MW-4	01/30/2006	112 a	<50.0	<0.500	<0.500	<0.500	<0.500	1.63	<10.0	<0.500	<0.500	<0.500	420.52	24.13	396.39
MW-4	05/19/2006	<46.9	<50.0	<0.500	<0.500	<0.500	<0.500	1.08	<10.0	<0.500	<0.500	<0.500	420.52	19.79	400.73
MW-4	08/24/2006	<47.2	<50.0	<0.500	<0.500	<0.500	<0.500	<0.500	78.3	<0.500	<0.500	<0.500	420.52	22.50	398.02
MW-4	11/02/2006	Well dry	---	---	---	---	---	---	---	---	---	---	420.52	---	---
MW-4	01/29/2007	<50	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<5.0	<2.0	<2.0	<2.0	420.52	25.82	394.70
MW-4	06/05/2007	120	62 c	<0.50	<1.0	<1.0	<1.0	1.4	<10	<2.0	<2.0	<2.0	420.52	24.32	396.20
MW-4	08/27/2007	Well dry	---	---	---	---	---	---	---	---	---	---	420.52	---	---
MW-4	11/30/2007	Well dry	---	---	---	---	---	---	---	---	---	---	420.52	---	---
MW-4	02/15/2008	<50	56 c	<0.50	<1.0	<1.0	<1.0	2.9	<10	<2.0	<2.0	<2.0	420.52	24.34	396.18
MW-4	05/15/2008	Well destroyed		---	---	---	---	---	---	---	---	---	---	---	---

TABLE 2

GROUNDWATER DATA
SHELL-BRANDED SERVICE STATION
8999 SAN RAMON ROAD, DUBLIN, CALIFORNIA

Well ID	*Date*	*TPHd (µg/L)*	*TPHg (µg/L)*	*B (µg/L)*	*T (µg/L)*	*E (µg/L)*	*X (µg/L)*	*MTBE (µg/L)*	*TBA (µg/L)*	*DIPE (µg/L)*	*ETBE (µg/L)*	*TAME (µg/L)*	*TOC (ft MSL)*	*Depth to Water (ft TOC)*	*GW Elevation (ft MSL)*
MW-5	08/21/2006	---	---	---	---	---	---	---	---	---	---	---	416.88	25.25	391.63
MW-5	08/24/2006	108	<50.0	<0.500	<0.500	<0.500	<0.500	3.33	21.0	<0.500	<0.500	<0.500	416.88	25.70	391.18
MW-5	11/02/2006	---	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<5.0	<2.0	<2.0	<2.0	416.88	28.00	388.88
MW-5	01/29/2007	66	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<5.0	<2.0	<2.0	<2.0	416.88	27.80	389.08
MW-5	06/05/2007	2,200 b	<50 c	<0.50	<1.0	<1.0	<1.0	0.56 d	<10	<2.0	<2.0	<2.0	416.88	27.72	389.16
MW-5	08/27/2007	Well dry	---	---	---	---	---	---	---	---	---	---	416.88	---	---
MW-5	11/30/2007	Insufficient water		---	---	---	---	---	---	---	---	---	416.88	28.39	388.49
MW-5	02/15/2008	Insufficient water		---	---	---	---	---	---	---	---	---	416.88	27.55	389.33
MW-5	05/27/2008	83	<50	<0.50	<1.0	<1.0	<1.0	4.3	<10	<2.0	<2.0	<2.0	416.88	26.68	390.20
MW-5	08/05/2008	Well dry	---	---	---	---	---	---	---	---	---	---	416.88	---	---
MW-5	11/17/2008	Insufficient water		---	---	---	---	---	---	---	---	---	416.88	28.48	388.40
MW-5	02/05/2009	Well dry	---	---	---	---	---	---	---	---	---	---	416.88	---	---
MW-5	05/07/2009	Insufficient water		---	---	---	---	---	---	---	---	---	416.88	27.78	389.10
MW-5	08/20/2009	Well dry	---	---	---	---	---	---	---	---	---	---	416.88	---	---
MW-5	11/10/2009	Well dry	---	---	---	---	---	---	---	---	---	---	416.88	---	---
MW-5	02/15/2010	Well dry	---	---	---	---	---	---	---	---	---	---	416.88	---	---
MW-5	03/19/2010	---	---	---	---	---	---	---	---	---	---	---	416.88	26.18	390.70
MW-5	05/07/2010	<50	<50	<0.50	<1.0	<1.0	<1.0	1.5	<10	<2.0	<2.0	<2.0	416.88	23.64	393.24
MW-5	08/09/2010	Insufficient water		---	---	---	---	---	---	---	---	---	416.88	28.41	388.47
MW-5	11/08/2010	Well dry	---	---	---	---	---	---	---	---	---	---	416.88	---	---
MW-5	01/25/2011	Well dry	---	---	---	---	---	---	---	---	---	---	416.88	---	---
MW-5	05/23/2011	<47	<50	<0.50	<0.50	<0.50	<1.0	1.3	<10	<1.0	<1.0	<1.0	416.88	21.31	395.57
MW-5	07/26/2011	<50	<50	<0.50	<0.50	<0.50	<1.0	1.4	<10	<1.0	<1.0	<1.0	416.88	22.87	394.01
MW-5	11/03/2011	Well dry	---	---	---	---	---	---	---	---	---	---	416.88	---	---
MW-5	01/26/2012	Insufficient water		---	---	---	---	---	---	---	---	---	416.88	28.23	388.65
MW-5	05/11/2012	65	<50	<0.50	<0.50	<0.50	<1.0	0.56	<10	<0.50	<0.50	<0.50	416.88	25.93	390.95
MW-5	08/02/2012	Well dry	---	---	---	---	---	---	---	---	---	---	416.88	---	---
MW-5	**01/17/2013**	**Well dry**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**416.88**	**---**	**---**
MW-5B	02/07/2008	---	---	---	---	---	---	---	---	---	---	---	417.66	29.74	387.92

GROUNDWATER DATA
SHELL-BRANDED SERVICE STATION
8999 SAN RAMON ROAD, DUBLIN, CALIFORNIA

Well ID	*Date*	*TPHd (µg/L)*	*TPHg (µg/L)*	*B (µg/L)*	*T (µg/L)*	*E (µg/L)*	*X (µg/L)*	*MTBE (µg/L)*	*TBA (µg/L)*	*DIPE (µg/L)*	*ETBE (µg/L)*	*TAME (µg/L)*	*TOC (ft MSL)*	*Depth to Water (ft TOC)*	*GW Elevation (ft MSL)*
MW-5B	02/15/2008	<50	110 b,c	<0.50	<1.0	<1.0	<1.0	1,700	250	<2.0	<2.0	<2.0	417.66	28.85	388.81
MW-5B	05/27/2008	<50	620	<2.5	<5.0	<5.0	<5.0	590	<50	<10	<10	<10	417.66	27.89	389.77
MW-5B	08/05/2008	140	470	<2.5	<5.0	<5.0	<5.0	430	<50	<10	<10	<10	417.66	32.21	385.45
MW-5B	11/17/2008	<50	1,100	<2.5	<5.0	<5.0	<5.0	830	<50	<10	<10	<10	417.66	35.25	382.41
MW-5B	02/05/2009	<50	1,100	<2.5	<5.0	<5.0	<5.0	1,000	<50	<10	<10	<10	417.66	34.94	382.72
MW-5B	05/07/2009	<50	680	<2.5	<5.0	<5.0	<5.0	780	<50	<10	<10	<10	417.66	28.58	389.08
MW-5B	08/20/2009	<50	800	<2.5	<5.0	<5.0	<5.0	840	<50	<10	<10	<10	417.66	32.66	385.00
MW-5B	11/10/2009	<50	790	<2.5	<5.0	<5.0	<5.0	750	<50	<10	<10	<10	417.66	34.64	383.02
MW-5B	02/15/2010	<50	710	<2.5	<5.0	<5.0	<5.0	730	<50	<10	<10	<10	417.66	30.20	387.46
MW-5B	03/19/2010	---	---	---	---	---	---	---	---	---	---	---	417.66	27.39	390.27
MW-5B	05/07/2010	<50	230	<1.0	<2.0	<2.0	<2.0	330	<20	<4.0	<4.0	<4.0	417.66	26.13	391.53
MW-5B	08/09/2010	<50	310	<1.0	<2.0	<2.0	<2.0	360	<20	<4.0	<4.0	<4.0	417.66	30.31	387.35
MW-5B	11/08/2010	<50	340	<1.0	<2.0	<2.0	<2.0	370	<20	<4.0	<4.0	<4.0	417.66	24.80	392.86
MW-5B	01/25/2011	<480	120	<1.2	<1.2	<1.2	<2.5	210	200	<2.5	<2.5	<2.5	417.66	30.25	387.41
MW-5B	05/23/2011	<47	<50	<0.50	<0.50	<0.50	<1.0	72	<10	<1.0	<1.0	<1.0	417.66	22.41	395.25
MW-5B	07/26/2011	150 e	<50	0.70	0.84	0.61	2.0	26	<10	<1.0	<1.0	<1.0	417.66	24.17	393.49
MW-5B	11/03/2011	---	---	---	---	---	---	---	---	---	---	---	417.66	31.59	386.07
MW-5B	11/04/2011	<47	250	<0.50	<0.50	<0.50	<1.0	290	12 f	<1.0	<1.0	<1.0	417.66	---	---
MW-5B	01/26/2012	120	<50	<0.50	<0.50	<0.50	<1.0	8.8	<10	<0.50	<0.50	<0.50	417.66	33.58	384.08
MW-5B	05/11/2012	81	<50	<0.50	<0.50	<0.50	<1.0	34	<10	<0.50	<0.50	<0.50	417.66	27.19	390.47
MW-5B	08/02/2012	<48	290 i	<1.0	<1.0	<1.0	<2.0	260	<20	<1.0	<1.0	<1.0	417.66	32.30	385.36
MW-5B	**01/17/2013**	**110 e**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<1.0**	**12**	**<10**	**<0.50**	**<0.50**	**<0.50**	**417.66**	**30.82**	**386.84**
MW-5C	02/07/2008	---	---	---	---	---	---	---	---	---	---	---	417.10	33.97	383.13
MW-5C	02/15/2008	<50	<50 c	<0.50	<1.0	<1.0	<1.0	360	97	<2.0	<2.0	<2.0	417.10	34.25	382.85
MW-5C	05/27/2008	<50	350	<2.5	<5.0	<5.0	<5.0	290	<50	<10	<10	<10	417.10	33.97	383.13
MW-5C	08/05/2008	<50	210	<1.0	<2.0	<2.0	<2.0	180	<20	<4.0	<4.0	<4.0	417.10	37.30	379.80
MW-5C	11/17/2008	<50	180	<1.0	<2.0	<2.0	<2.0	120	<20	<4.0	<4.0	<4.0	417.10	40.23	376.87
MW-5C	02/05/2009	<50	180	<1.0	<2.0	<2.0	<2.0	150	<20	<4.0	<4.0	<4.0	417.10	39.70	377.40
MW-5C	05/07/2009	<50	150	<1.0	<2.0	<2.0	<2.0	160	<20	<4.0	<4.0	<4.0	417.10	33.91	383.19

GROUNDWATER DATA
SHELL-BRANDED SERVICE STATION
8999 SAN RAMON ROAD, DUBLIN, CALIFORNIA

Well ID	*Date*	*TPHd (µg/L)*	*TPHg (µg/L)*	*B (µg/L)*	*T (µg/L)*	*E (µg/L)*	*X (µg/L)*	*MTBE (µg/L)*	*TBA (µg/L)*	*DIPE (µg/L)*	*ETBE (µg/L)*	*TAME (µg/L)*	*TOC (ft MSL)*	*Depth to Water (ft TOC)*	*GW Elevation (ft MSL)*
MW-5C	08/20/2009	<50	150	<1.0	<2.0	<2.0	<2.0	130	<20	<4.0	<4.0	<4.0	417.10	38.82	378.28
MW-5C	11/10/2009	<50	190	<1.0	<2.0	<2.0	<2.0	170	<20	<4.0	<4.0	<4.0	417.10	40.44	376.66
MW-5C	02/15/2010	<50	150	<0.50	<1.0	<1.0	<1.0	160	<10	<2.0	<2.0	<2.0	417.10	35.41	381.69
MW-5C	03/19/2010	---	---	---	---	---	---	---	---	---	---	---	417.10	33.08	384.02
MW-5C	05/07/2010	<50	110	<0.50	<1.0	<1.0	<1.0	150	<10	<2.0	<2.0	<2.0	417.10	31.84	385.26
MW-5C	08/09/2010	<50	160	0.73	<1.0	<1.0	<1.0	190	<10	<2.0	<2.0	<2.0	417.10	35.79	381.31
MW-5C	11/08/2010	66 b	150	<0.50	<1.0	<1.0	<1.0	160	<10	<2.0	<2.0	<2.0	417.10	39.50	377.60
MW-5C	01/25/2011	<480	<50	<0.50	<0.50	<0.50	<1.0	83	91	<1.0	<1.0	<1.0	417.10	35.28	381.82
MW-5C	05/23/2011	<47	160 e	<0.50	<0.50	<0.50	<1.0	210	<10	<1.0	<1.0	<1.0	417.10	27.98	389.12
MW-5C	07/26/2011	110 e	210 e	<0.50	0.59	<0.50	1.7	190	14 f	<1.0	<1.0	<1.0	417.10	28.64	388.46
MW-5C	11/03/2011	---	---	---	---	---	---	---	---	---	---	---	417.10	36.92	380.18
MW-5C	11/04/2011	<47	170	<0.50	<0.50	<0.50	<1.0	200	<10	<1.0	<1.0	<1.0	417.10	---	---
MW-5C	01/26/2012	53	150	<0.50	0.54	0.82	6.0	160	<10	<0.50	<0.50	<0.50	417.10	37.77	379.33
MW-5C	05/11/2012	<48	120	<0.50	<0.50	<0.50	<1.0	180	<10	<0.50	<0.50	<0.50	417.10	32.45	384.65
MW-5C	08/02/2012	<48	180 i	<0.50	<0.50	<0.50	<1.0	190	<10	<0.50	<0.50	<0.50	417.10	36.81	380.29
MW-5C	**01/17/2013**	**<55**	**140 i**	**0.85**	**0.74**	**0.75**	**5.6**	**130**	**55**	**<0.50**	**<0.50**	**<0.50**	**417.10**	**35.31**	**381.79**
MW-6	02/28/2006	---	---	---	---	---	---	---	---	---	---	---	422.50	23.55	398.95
MW-6	03/03/2006	104 a	<50.0	<0.500	<0.500	<0.500	<0.500	4.93	<10.0	<0.500	<0.500	<0.500	422.50	23.30	399.20
MW-6	05/19/2006	<46.9 a	<50.0	<0.500	<0.500	<0.500	<0.500	5.76	<10.0	<0.500	<0.500	<0.500	422.50	20.31	402.19
MW-6	08/24/2006	<47.2	<50.0	<0.500	<0.500	<0.500	<0.500	0.870	<10.0	<0.500	<0.500	<0.500	422.50	23.69	398.81
MW-6	11/02/2006	---	---	---	---	---	---	---	---	---	---	---	422.50	28.51	393.99
MW-6	01/29/2007	<50	<50	<0.50	<0.50	<0.50	<1.0	1.7	<5.0	<2.0	<2.0	<2.0	422.50	27.08	395.42
MW-6	06/05/2007	97	<50 c	<0.50	<1.0	<1.0	<1.0	1.1	<10	<2.0	<2.0	<2.0	422.50	25.77	396.73
MW-6	08/27/2007	Well dry	---	---	---	---	---	---	---	---	---	---	422.50	---	---
MW-6	11/30/2007	Well dry	---	---	---	---	---	---	---	---	---	---	422.50	---	---
MW-6	02/15/2008	<50 a	<50 c	<0.50	<1.0	<1.0	<1.0	9.0	<10	<2.0	<2.0	<2.0	422.50	25.56	396.94
MW-6	05/15/2008	Well destroyed		---	---	---	---	---	---	---	---	---	---	---	---
MW-7	08/21/2006	---	---	---	---	---	---	---	---	---	---	---	414.35	25.84	388.51

GROUNDWATER DATA
SHELL-BRANDED SERVICE STATION
8999 SAN RAMON ROAD, DUBLIN, CALIFORNIA

Well ID	*Date*	*TPHd (µg/L)*	*TPHg (µg/L)*	*B (µg/L)*	*T (µg/L)*	*E (µg/L)*	*X (µg/L)*	*MTBE (µg/L)*	*TBA (µg/L)*	*DIPE (µg/L)*	*ETBE (µg/L)*	*TAME (µg/L)*	*TOC (ft MSL)*	*Depth to Water (ft TOC)*	*GW Elevation (ft MSL)*
MW-7	08/24/2006	<47.2	<50.0	<0.500	<0.500	<0.500	<0.500	2.63	751	<0.500	<0.500	<0.500	414.35	26.21	388.14
MW-7	11/02/2006	Well dry	---	---	---	---	---	---	---	---	---	---	414.35	---	---
MW-7	01/29/2007	Well dry	---	---	---	---	---	---	---	---	---	---	414.35	---	---
MW-7	06/05/2007	Well dry	---	---	---	---	---	---	---	---	---	---	414.35	---	---
MW-7	08/27/2007	Well dry	---	---	---	---	---	---	---	---	---	---	414.35	---	---
MW-7	11/30/2007	Well dry	---	---	---	---	---	---	---	---	---	---	414.35	---	---
MW-7	02/15/2008	Insufficient water		---	---	---	---	---	---	---	---	---	414.35	27.95	386.40
MW-7	05/27/2008	<50	<50	<0.50	<1.0	<1.0	<1.0	2.0	<10	<2.0	<2.0	<2.0	414.35	26.93	387.42
MW-7	08/05/2008	Well dry	---	---	---	---	---	---	---	---	---	---	414.35	---	---
MW-7	11/17/2008	Well dry	---	---	---	---	---	---	---	---	---	---	414.35	---	---
MW-7	02/05/2009	Well dry	---	---	---	---	---	---	---	---	---	---	414.35	---	---
MW-7	05/07/2009	Insufficient water		---	---	---	---	---	---	---	---	---	414.35	27.96	386.39
MW-7	08/20/2009	Well dry	---	---	---	---	---	---	---	---	---	---	414.35	---	---
MW-7	11/10/2009	Well dry	---	---	---	---	---	---	---	---	---	---	414.35	---	---
MW-7	02/15/2010	Well dry	---	---	---	---	---	---	---	---	---	---	414.35	---	---
MW-7	03/19/2010	---	---	---	---	---	---	---	---	---	---	---	414.35	27.55	386.80
MW-7	05/07/2010	<50	<50	<0.50	<1.0	<1.0	<1.0	<1.0	<10	<2.0	<2.0	<2.0	414.35	25.02	389.33
MW-7	08/09/2010	Well dry	---	---	---	---	---	---	---	---	---	---	414.35	---	---
MW-7	11/08/2010	Well dry	---	---	---	---	---	---	---	---	---	---	414.35	---	---
MW-7	01/25/2011	Well dry	---	---	---	---	---	---	---	---	---	---	414.35	---	---
MW-7	02/16/2011	Well destroyed		---	---	---	---	---	---	---	---	---	---	---	---
MW-8	08/21/2006	---	---	---	---	---	---	---	---	---	---	---	414.54	23.02	391.52
MW-8	08/24/2006	74.5	110	<0.500	<0.500	<0.500	<0.500	4.62	6,610	<0.500	<0.500	<0.500	414.54	23.17	391.37
MW-8	11/02/2006	96	92	<0.50	<0.50	<0.50	<1.0	1.4	2,300	<2.0	<2.0	<2.0	414.54	27.69	386.85
MW-8	01/29/2007	<50	<50	<0.50	<0.50	<0.50	<1.0	0.51	350	<2.0	<2.0	<2.0	414.54	26.40	388.14
MW-8	06/05/2007	120	<50 c	<0.50	<1.0	<1.0	<1.0	0.48 d	290	<2.0	<2.0	<2.0	414.54	25.17	389.37
MW-8	08/27/2007	Well dry	---	---	---	---	---	---	---	---	---	---	414.54	---	---
MW-8	11/30/2007	Well dry	---	---	---	---	---	---	---	---	---	---	414.54	---	---
MW-8	02/15/2008	<50	<50 c	<0.50	<1.0	<1.0	<1.0	<1.0	<10	<2.0	<2.0	<2.0	414.54	24.66	389.88

TABLE 2

GROUNDWATER DATA
SHELL-BRANDED SERVICE STATION
8999 SAN RAMON ROAD, DUBLIN, CALIFORNIA

Well ID	*Date*	*TPHd (µg/L)*	*TPHg (µg/L)*	*B (µg/L)*	*T (µg/L)*	*E (µg/L)*	*X (µg/L)*	*MTBE (µg/L)*	*TBA (µg/L)*	*DIPE (µg/L)*	*ETBE (µg/L)*	*TAME (µg/L)*	*TOC (ft MSL)*	*Depth to Water (ft TOC)*	*GW Elevation (ft MSL)*
MW-8	05/27/2008	<50	58	<0.50	<1.0	<1.0	<1.0	1.4	520	<2.0	<2.0	<2.0	414.54	25.98	388.56
MW-8	08/05/2008	<50	<50	<0.50	<1.0	<1.0	<1.0	<1.0	34	<2.0	<2.0	<2.0	414.54	26.62	387.92
MW-8	11/17/2008	Well dry	---	---	---	---	---	---	---	---	---	---	414.54	---	---
MW-8	02/05/2009	Insufficient water		---	---	---	---	---	---	---	---	---	414.54	28.62	385.92
MW-8	05/07/2009	<50	<50	<0.50	<1.0	<1.0	<1.0	<1.0	<10	<2.0	<2.0	<2.0	414.54	24.20	390.34
MW-8	08/20/2009	Insufficient water		---	---	---	---	---	---	---	---	---	414.54	28.31	386.23
MW-8	11/10/2009	Insufficient water		---	---	---	---	---	---	---	---	---	414.54	28.52	386.02
MW-8	02/15/2010	<50	<50	<0.50	<1.0	<1.0	<1.0	<1.0	<10	<2.0	<2.0	<2.0	414.54	25.93	388.61
MW-8	03/19/2010	---	---	---	---	---	---	---	---	---	---	---	414.54	23.89	390.65
MW-8	05/07/2010	<50	<50	<0.50	<1.0	<1.0	<1.0	<1.0	15	<2.0	<2.0	<2.0	414.54	22.32	392.22
MW-8	08/09/2010	<50	<50	<0.50	<1.0	<1.0	<1.0	1.5	510	<2.0	<2.0	<2.0	414.54	26.31	388.23
MW-8	11/08/2010	Well dry	---	---	---	---	---	---	---	---	---	---	414.54	---	---
MW-8	01/25/2011	<470	<50	<0.50	<0.50	<0.50	<1.0	<1.0	<10	<1.0	<1.0	<1.0	414.54	25.96	388.58
MW-8	05/23/2011	<48	<50	<0.50	<0.50	<0.50	<1.0	2.0	600	<1.0	<1.0	<1.0	414.54	20.12	394.42
MW-8	07/26/2011	<49	<200	<2.0	<2.0	<2.0	<4.0	5.4	2,800	<4.0	<4.0	<4.0	414.54	21.15	393.39
MW-8	11/03/2011	---	---	---	---	---	---	---	---	---	---	---	414.54	27.15	387.39
MW-8	11/04/2011	940	<50	<0.50	<0.50	<0.50	<1.0	1.3	210	<1.0	<1.0	<1.0	414.54	---	---
MW-8	01/26/2012	270	<50	<0.50	<0.50	<0.50	<1.0	0.95	<10	<0.50	<0.50	<0.50	414.54	27.82	386.72
MW-8	05/11/2012	170	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<10	<0.50	<0.50	<0.50	414.54	23.40	391.14
MW-8	08/02/2012	250 e	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<10	<0.50	<0.50	<0.50	414.54	27.06	387.48
MW-8	**01/17/2013**	**180**	**150**	**7.7**	**5.5**	**3.9**	**32**	**1.1**	**180**	**<0.50**	**<0.50**	**<0.50**	**414.54**	**26.15**	**388.39**
MW-8B	02/07/2008	---	---	---	---	---	---	---	---	---	---	---	414.81	26.81	388.00
MW-8B	02/15/2008	<50	<50 c	<0.50	<1.0	<1.0	<1.0	17	65	<2.0	<2.0	<2.0	414.81	26.23	388.58
MW-8B	05/27/2008	<50	<50	<0.50	<1.0	<1.0	<1.0	23	33	<2.0	<2.0	<2.0	414.81	25.51	389.30
MW-8B	08/05/2008	<50	<50	<0.50	<1.0	<1.0	<1.0	11	<10	<2.0	<2.0	<2.0	414.81	28.72	386.09
MW-8B	11/17/2008	<50	<50	<0.50	<1.0	<1.0	<1.0	6.3	<10	<2.0	<2.0	<2.0	414.81	31.66	383.15
MW-8B	02/05/2009	<50	<50	<0.50	<1.0	<1.0	<1.0	5.4	<10	<2.0	<2.0	<2.0	414.81	30.97	383.84
MW-8B	05/07/2009	<50	<50	<0.50	<1.0	<1.0	<1.0	6.4	<10	<2.0	<2.0	<2.0	414.81	25.92	388.89
MW-8B	08/20/2009	<50	<50	<0.50	<1.0	<1.0	<1.0	3.8	<10	<2.0	<2.0	<2.0	414.81	30.13	384.68

GROUNDWATER DATA
SHELL-BRANDED SERVICE STATION
8999 SAN RAMON ROAD, DUBLIN, CALIFORNIA

Well ID	*Date*	*TPHd (µg/L)*	*TPHg (µg/L)*	*B (µg/L)*	*T (µg/L)*	*E (µg/L)*	*X (µg/L)*	*MTBE (µg/L)*	*TBA (µg/L)*	*DIPE (µg/L)*	*ETBE (µg/L)*	*TAME (µg/L)*	*TOC (ft MSL)*	*Depth to Water (ft TOC)*	*GW Elevation (ft MSL)*
MW-8B	11/10/2009	<50	<50	<0.50	<1.0	<1.0	<1.0	2.5	<10	<2.0	<2.0	<2.0	414.81	30.28	384.53
MW-8B	02/15/2010	<50	<50	<0.50	<1.0	<1.0	<1.0	2.2	<10	<2.0	<2.0	<2.0	414.81	27.54	387.27
MW-8B	03/19/2010	---	---	---	---	---	---	---	---	---	---	---	414.81	25.36	389.45
MW-8B	05/07/2010	<50	<50	<0.50	<1.0	<1.0	<1.0	1.9	<10	<2.0	<2.0	<2.0	414.81	23.18	391.63
MW-8B	08/09/2010	<50	<50	<0.50	<1.0	<1.0	<1.0	2.0	<10	<2.0	<2.0	<2.0	414.81	27.90	386.91
MW-8B	11/08/2010	58 b	<50	<0.50	<1.0	<1.0	<1.0	1.4	<10	<2.0	<2.0	<2.0	414.81	31.22	383.59
MW-8B	01/25/2011	<500	<50	<0.50	<0.50	<0.50	<1.0	<1.0	<10	<1.0	<1.0	<1.0	414.81	27.44	387.37
MW-8B	05/23/2011	<48	<50	<0.50	<0.50	<0.50	<1.0	1.4	<10	<1.0	<1.0	<1.0	414.81	21.18	393.63
MW-8B	07/26/2011	<48	<50	<0.50	<0.50	<0.50	<1.0	1.4	<10	<1.0	<1.0	<1.0	414.81	21.65	393.16
MW-8B	11/03/2011	<47	<50	<0.50	<0.50	<0.50	<1.0	<1.0	<10	<1.0	<1.0	<1.0	414.81	28.83	385.98
MW-8B	01/26/2012	62	<50	<0.50	<0.50	<0.50	<1.0	1.3	<10	<0.50	<0.50	<0.50	414.81	29.30	385.51
MW-8B	05/11/2012	<48	<50	<0.50	<0.50	<0.50	<1.0	0.79	<10	<0.50	<0.50	<0.50	414.81	25.10	389.71
MW-8B	08/02/2012	66 e	<50	<0.50	<0.50	<0.50	<1.0	0.78	<10	<0.50	<0.50	<0.50	414.81	27.96	386.85
MW-8B	**01/17/2013**	**<51**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<1.0**	**0.63**	**<10**	**<0.50**	**<0.50**	**<0.50**	**414.81**	**28.40**	**386.41**
MW-9	08/21/2006	---	---	---	---	---	---	---	---	---	---	---	412.69	27.75	384.94
MW-9	08/24/2006	69.9	<50.0	<0.500	<0.500	<0.500	<0.500	<0.500	86.8	<0.500	<0.500	<0.500	412.69	28.35	384.34
MW-9	11/02/2006	---	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<5.0	<2.0	<2.0	<2.0	412.69	28.43	384.26
MW-9	01/29/2007	Well dry	---	---	---	---	---	---	---	---	---	---	412.69	---	---
MW-9	06/05/2007	Insufficient water		---	---	---	---	---	---	---	---	---	412.69	28.72	383.97
MW-9	08/27/2007	Well dry	---	---	---	---	---	---	---	---	---	---	412.69	---	---
MW-9	11/30/2007	Well dry	---	---	---	---	---	---	---	---	---	---	412.69	---	---
MW-9	02/15/2008	Insufficient water		---	---	---	---	---	---	---	---	---	412.69	28.00	384.69
MW-9	05/27/2008	---	<50	<0.50	<1.0	<1.0	<1.0	<1.0	<10	<2.0	<2.0	<2.0	412.69	27.93	384.76
MW-9	08/05/2008	Insufficient water		---	---	---	---	---	---	---	---	---	412.69	28.40	384.29
MW-9	11/17/2008	Well dry	---	---	---	---	---	---	---	---	---	---	412.69	---	---
MW-9	02/05/2009	Insufficient water		---	---	---	---	---	---	---	---	---	412.69	28.54	384.15
MW-9	05/07/2009	Insufficient water		---	---	---	---	---	---	---	---	---	412.69	28.41	384.28
MW-9	08/20/2009	Well dry	---	---	---	---	---	---	---	---	---	---	412.69	---	---
MW-9	11/10/2009	Well dry	---	---	---	---	---	---	---	---	---	---	412.69	---	---

TABLE 2

GROUNDWATER DATA
SHELL-BRANDED SERVICE STATION
8999 SAN RAMON ROAD, DUBLIN, CALIFORNIA

Well ID	*Date*	*TPHd (µg/L)*	*TPHg (µg/L)*	*B (µg/L)*	*T (µg/L)*	*E (µg/L)*	*X (µg/L)*	*MTBE (µg/L)*	*TBA (µg/L)*	*DIPE (µg/L)*	*ETBE (µg/L)*	*TAME (µg/L)*	*TOC (ft MSL)*	*Depth to Water (ft TOC)*	*GW Elevation (ft MSL)*
MW-9	02/15/2010	Well dry	---	---	---	---	---	---	---	---	---	---	412.69	---	---
MW-9	03/19/2010	---	---	---	---	---	---	---	---	---	---	---	412.69	28.75	383.94
MW-9	05/07/2010	Insufficient water		---	---	---	---	---	---	---	---	---	412.69	28.35	384.34
MW-9	08/09/2010	330 b	<50	<0.50	<1.0	<1.0	<1.0	<1.0	<10	<2.0	<2.0	<2.0	412.69	28.03	384.66
MW-9	11/08/2010	730 b	<50	<0.50	<1.0	<1.0	<1.0	<1.0	<10	<2.0	<2.0	<2.0	412.69	28.50	384.19
MW-9	01/25/2011	Well dry	---	---	---	---	---	---	---	---	---	---	412.69	---	---
MW-9	02/16/2011	Well destroyed		---	---	---	---	---	---	---	---	---	---	---	---
MW-10	08/21/2006	---	---	---	---	---	---	---	---	---	---	---	419.48	23.90	395.58
MW-10	08/24/2006	100	626	1.04	<0.500	1.22	<0.500	12.4	5,740	<0.500	<0.500	<0.500	419.48	24.02	395.46
MW-10	11/02/2006	---	---	---	---	---	---	---	---	---	---	---	419.48	28.50	390.98
MW-10	01/29/2007	<50	91	<0.50	<0.50	<0.50	<1.0	4.9	1,900	<2.0	<2.0	<2.0	419.48	27.30	392.18
MW-10	06/05/2007	150	82 c	<0.50	<1.0	<1.0	<1.0	1.3	540	<2.0	<2.0	<2.0	419.48	26.09	393.39
MW-10	08/27/2007	Well dry	---	---	---	---	---	---	---	---	---	---	419.48	---	---
MW-10	11/30/2007	Well dry	---	---	---	---	---	---	---	---	---	---	419.48	---	---
MW-10	02/15/2008	<50	<50 c	<0.50	<1.0	<1.0	<1.0	1.6	500	<2.0	<2.0	<2.0	419.48	25.58	393.90
MW-11	08/21/2006	Well dry	---	---	---	---	---	---	---	---	---	---	409.69	---	---
MW-11	08/24/2006	Well dry	---	---	---	---	---	---	---	---	---	---	409.69	---	---
MW-11	11/02/2006	Well dry	---	---	---	---	---	---	---	---	---	---	409.69	---	---
MW-11	01/29/2007	Well dry	---	---	---	---	---	---	---	---	---	---	409.69	---	---
MW-11	06/05/2007	Well dry	---	---	---	---	---	---	---	---	---	---	409.69	---	---
MW-11	08/27/2007	Well dry	---	---	---	---	---	---	---	---	---	---	409.69	---	---
MW-11	11/30/2007	Well dry	---	---	---	---	---	---	---	---	---	---	409.69	---	---
MW-11	02/15/2008	Well dry	---	---	---	---	---	---	---	---	---	---	409.69	---	---
MW-11	05/27/2008	Well dry	---	---	---	---	---	---	---	---	---	---	409.69	---	---
MW-11	08/05/2008	Well dry	---	---	---	---	---	---	---	---	---	---	409.69	---	---
MW-11	11/17/2008	Well dry	---	---	---	---	---	---	---	---	---	---	409.69	---	---
MW-11	02/05/2009	Well dry	---	---	---	---	---	---	---	---	---	---	409.69	---	---
MW-11	05/07/2009	Well dry	---	---	---	---	---	---	---	---	---	---	409.69	---	---

TABLE 2

GROUNDWATER DATA
SHELL-BRANDED SERVICE STATION
8999 SAN RAMON ROAD, DUBLIN, CALIFORNIA

Well ID	*Date*	*TPHd (µg/L)*	*TPHg (µg/L)*	*B (µg/L)*	*T (µg/L)*	*E (µg/L)*	*X (µg/L)*	*MTBE (µg/L)*	*TBA (µg/L)*	*DIPE (µg/L)*	*ETBE (µg/L)*	*TAME (µg/L)*	*TOC (ft MSL)*	*Depth to Water (ft TOC)*	*GW Elevation (ft MSL)*
MW-11	08/20/2009	Well dry	---	---	---	---	---	---	---	---	---	---	409.69	---	---
MW-11	11/10/2009	Well dry	---	---	---	---	---	---	---	---	---	---	409.69	---	---
MW-11	02/15/2010	Well dry	---	---	---	---	---	---	---	---	---	---	409.69	---	---
MW-11	03/19/2010	Well dry	---	---	---	---	---	---	---	---	---	---	409.69	---	---
MW-11	05/07/2010	Well dry	---	---	---	---	---	---	---	---	---	---	409.69	---	---
MW-11	08/09/2010	Well dry	---	---	---	---	---	---	---	---	---	---	409.69	---	---
MW-11	11/08/2010	Well dry	---	---	---	---	---	---	---	---	---	---	409.69	---	---
MW-11	01/25/2011	Well dry	---	---	---	---	---	---	---	---	---	---	409.69	---	---
MW-11	02/17/2011	Well destroyed		---	---	---	---	---	---	---	---	---	---	---	---
MW-11B	02/07/2008	---	---	---	---	---	---	---	---	---	---	---	409.03	31.47	377.56
MW-11B	02/15/2008	<50	<50 c	<0.50	<1.0	<1.0	<1.0	<1.0	<10	<2.0	<2.0	<2.0	409.03	31.53	377.50
MW-11B	05/27/2008	<50	<50	<0.50	<1.0	<1.0	<1.0	<1.0	<10	<2.0	<2.0	<2.0	409.03	30.83	378.20
MW-11B	08/05/2008	<50	<50	<0.50	<1.0	<1.0	<1.0	<1.0	<10	<2.0	<2.0	<2.0	409.03	33.51	375.52
MW-11B	11/17/2008	<50	<50	<0.50	<1.0	<1.0	<1.0	<1.0	<10	<2.0	<2.0	<2.0	409.03	35.80	373.23
MW-11B	02/05/2009	<50	<50	<0.50	<1.0	<1.0	<1.0	<1.0	<10	<2.0	<2.0	<2.0	409.03	36.11	372.92
MW-11B	05/07/2009	<50	<50	<0.50	<1.0	<1.0	<1.0	<1.0	<10	<2.0	<2.0	<2.0	409.03	31.21	377.82
MW-11B	08/20/2009	<50	<50	<0.50	<1.0	<1.0	<1.0	<1.0	<10	<2.0	<2.0	<2.0	409.03	34.68	374.35
MW-11B	11/10/2009	<50	<50	<0.50	<1.0	<1.0	<1.0	<1.0	<10	<2.0	<2.0	<2.0	409.03	35.74	373.29
MW-11B	02/15/2010	<50	<50	<0.50	<1.0	<1.0	<1.0	<1.0	<10	<2.0	<2.0	<2.0	409.03	32.30	376.73
MW-11B	03/19/2010	---	---	---	---	---	---	---	---	---	---	---	409.03	30.54	378.49
MW-11B	05/07/2010	<50	<50	<0.50	<1.0	<1.0	<1.0	<1.0	<10	<2.0	<2.0	<2.0	409.03	28.62	380.41
MW-11B	08/09/2010	<50	<50	5.6	<1.0	<1.0	1.0	<1.0	<10	<2.0	<2.0	<2.0	409.03	32.62	376.41
MW-11B	11/08/2010	<50	<50	<0.50	<1.0	<1.0	<1.0	<1.0	<10	<2.0	<2.0	<2.0	409.03	35.95	373.08
MW-11B	01/25/2011	<470	<50	<0.50	<0.50	<0.50	<1.0	<1.0	<10	<1.0	<1.0	<1.0	409.03	32.92	376.11
MW-11B	05/23/2011	<47	<50	<0.50	<0.50	<0.50	<1.0	<1.0	<10	<1.0	<1.0	<1.0	409.03	27.28	381.75
MW-11B	07/26/2011	<48	<50	<0.50	<0.50	<0.50	<1.0	<1.0	<10	<1.0	<1.0	<1.0	409.03	27.78	381.25
MW-11B	11/03/2011	<47	<50	<0.50	<0.50	<0.50	<1.0	<1.0	<10	<1.0	<1.0	<1.0	409.03	33.50	375.53
MW-11B	01/26/2012	<47	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<10	<0.50	<0.50	<0.50	409.03	34.95	374.08
MW-11B	05/11/2012	77	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<10	<0.50	<0.50	<0.50	409.03	30.70	378.33

TABLE 2

GROUNDWATER DATA
SHELL-BRANDED SERVICE STATION
8999 SAN RAMON ROAD, DUBLIN, CALIFORNIA

Well ID	*Date*	*TPHd (µg/L)*	*TPHg (µg/L)*	*B (µg/L)*	*T (µg/L)*	*E (µg/L)*	*X (µg/L)*	*MTBE (µg/L)*	*TBA (µg/L)*	*DIPE (µg/L)*	*ETBE (µg/L)*	*TAME (µg/L)*	*TOC (ft MSL)*	*Depth to Water (ft TOC)*	*GW Elevation (ft MSL)*
MW-11B	08/02/2012	<48	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<10	<0.50	<0.50	<0.50	409.03	33.20	375.83
MW-11B	**01/17/2013**	**49**	**67**	**3.3**	**2.6**	**1.7**	**13**	**<0.50**	**<10**	**<0.50**	**<0.50**	**<0.50**	**409.03**	**33.30**	**375.73**
MW-12	02/07/2008	---	---	---	---	---	---	---	---	---	---	---	411.18	31.10	380.08
MW-12	02/15/2008	<50	<50 c	<0.50	<1.0	<1.0	<1.0	<1.0	<10	<2.0	<2.0	<2.0	411.18	31.22	379.96
MW-12	05/27/2008	<50	<50	<0.50	<1.0	<1.0	<1.0	<1.0	<10	<2.0	<2.0	<2.0	411.18	30.53	380.65
MW-12	08/05/2008	<50	<50	<0.50	<1.0	<1.0	<1.0	<1.0	<10	<2.0	<2.0	<2.0	411.18	33.29	377.89
MW-12	11/17/2008	<50	<50	<0.50	<1.0	<1.0	<1.0	<1.0	<10	<2.0	<2.0	<2.0	411.18	35.20	375.98
MW-12	02/05/2009	<50	<50	<0.50	<1.0	<1.0	<1.0	<1.0	<10	<2.0	<2.0	<2.0	411.18	35.12	376.06
MW-12	05/07/2009	<50	<50	<0.50	<1.0	<1.0	<1.0	<1.0	<10	<2.0	<2.0	<2.0	411.18	30.81	380.37
MW-12	08/20/2009	<50	<50	<0.50	<1.0	<1.0	<1.0	<1.0	<10	<2.0	<2.0	<2.0	411.18	34.21	376.97
MW-12	11/10/2009	<50	<50	<0.50	<1.0	<1.0	<1.0	<1.0	<10	<2.0	<2.0	<2.0	411.18	34.75	376.43
MW-12	02/15/2010	<50	<50	<0.50	<1.0	<1.0	<1.0	<1.0	<10	<2.0	<2.0	<2.0	411.18	31.99	379.19
MW-12	03/19/2010	---	---	---	---	---	---	---	---	---	---	---	411.18	30.34	380.84
MW-12	05/07/2010	<50	<50	<0.50	<1.0	<1.0	<1.0	<1.0	<10	<2.0	<2.0	<2.0	411.18	28.58	382.60
MW-12	08/09/2010	<50	<50	6.0	<1.0	<1.0	1.2	<1.0	<10	<2.0	<2.0	<2.0	411.18	32.42	378.76
MW-12	11/08/2010	<50	<50	<0.50	<1.0	<1.0	<1.0	<1.0	<10	<2.0	<2.0	<2.0	411.18	35.18	376.00
MW-12	01/25/2011	<490	<50	<0.50	<0.50	<0.50	<1.0	<1.0	<10	<1.0	<1.0	<1.0	411.18	32.52	378.66
MW-12	05/23/2011	<47	<50	<0.50	<0.50	<0.50	<1.0	<1.0	<10	<1.0	<1.0	<1.0	411.18	27.10	384.08
MW-12	07/26/2011	<48	<50	<0.50	<0.50	<0.50	<1.0	<1.0	<10	<1.0	<1.0	<1.0	411.18	27.36	383.82
MW-12	11/03/2011	<47	<50	<0.50	<0.50	<0.50	<1.0	<1.0	<10	<1.0	<1.0	<1.0	411.18	33.39	377.79
MW-12	01/26/2012	<47	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<10	<0.50	<0.50	<0.50	411.18	34.30	376.88
MW-12	05/11/2012	<47	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<10	<0.50	<0.50	<0.50	411.18	30.35	380.83
MW-12	08/02/2012	<48	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<10	<0.50	<0.50	<0.50	411.18	33.00	378.18
MW-12	**01/17/2013**	**57**	**84**	**3.9**	**3.1**	**2.3**	**18**	**<0.50**	**<10**	**<0.50**	**<0.50**	**<0.50**	**411.18**	**34.79**	**376.39**
MW-13	05/13/2011	---	---	---	---	---	---	---	---	---	---	---	415.77	24.60	391.17
MW-13	05/23/2011	<47	<50	<0.50	<0.50	<0.50	<1.0	<1.0	<10	<1.0	<1.0	<1.0	415.77	24.57	391.20
MW-13	07/26/2011	<49	<50	<0.50	<0.50	<0.50	<1.0	<1.0	<10	<1.0	<1.0	<1.0	415.77	26.60	389.17
MW-13	11/03/2011	<48	<50	<0.50	<0.50	<0.50	<1.0	<1.0	57	<1.0	<1.0	<1.0	415.77	34.62	381.15
MW-13	01/26/2012	<49	<50	<0.50	<0.50	<0.50	<1.0	2.0	490	<0.50	<0.50	<0.50	415.77	36.25	379.52

GROUNDWATER DATA
SHELL-BRANDED SERVICE STATION
8999 SAN RAMON ROAD, DUBLIN, CALIFORNIA

Well ID	*Date*	*TPHd (µg/L)*	*TPHg (µg/L)*	*B (µg/L)*	*T (µg/L)*	*E (µg/L)*	*X (µg/L)*	*MTBE (µg/L)*	*TBA (µg/L)*	*DIPE (µg/L)*	*ETBE (µg/L)*	*TAME (µg/L)*	*TOC (ft MSL)*	*Depth to Water (ft TOC)*	*GW Elevation (ft MSL)*
MW-13	05/11/2012	<47	<50	<0.50	<0.50	<0.50	<1.0	0.76	<10	<0.50	<0.50	<0.50	415.77	30.22	385.55
MW-13	08/02/2012	57 e	<50	<0.50	<0.50	<0.50	<1.0	0.98	<10	<0.50	<0.50	<0.50	415.77	35.32	380.45
MW-13	**01/17/2013**	**57**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<1.0**	**1.3**	**<10**	**<0.50**	**<0.50**	**<0.50**	**415.77**	**33.30**	**382.47**
MW-13B	05/13/2011	---	---	---	---	---	---	---	---	---	---	---	415.39	23.40	391.99
MW-13B	05/23/2011	210	<50	<0.50	<0.50	<0.50	<1.0	17	<10	<1.0	<1.0	<1.0	415.39	23.04	392.35
MW-13B	07/26/2011	230	<50	<0.50	<0.50	<0.50	<1.0	42	<10	<1.0	<1.0	<1.0	415.39	25.01	390.38
MW-13B	11/03/2011	80	<50	<0.50	<0.50	<0.50	<1.0	2.0	<10	<1.0	<1.0	<1.0	415.39	31.49	383.90
MW-13B	01/26/2012	99	66	<0.50	<0.50	<0.50	<1.0	56	<10	<0.50	<0.50	<0.50	415.39	36.08	379.31
MW-13B	05/11/2012	320	<50	<0.50	<0.50	<0.50	<1.0	24	<10	<0.50	<0.50	<0.50	415.39	31.83	383.56
MW-13B	08/02/2012	1,200	140	<0.50	<0.50	<0.50	<1.0	1.7	<10	<0.50	<0.50	<0.50	415.39	33.73	381.66
MW-13B	**01/17/2013**	**470**	**66 i**	**<0.50**	**<0.50**	**<0.50**	**<1.0**	**63**	**24**	**<0.50**	**<0.50**	**<0.50**	**415.39**	**31.70**	**383.69**
MW-13C	05/13/2011	---	---	---	---	---	---	---	---	---	---	---	415.73	26.55	389.18
MW-13C	05/23/2011	52	94	<0.50	<0.50	<0.50	<1.0	140	44	<1.0	<1.0	<1.0	415.73	26.24	389.49
MW-13C	07/26/2011	54	<50	<0.50	<0.50	<0.50	<1.0	5.8	<10	<1.0	<1.0	<1.0	415.73	27.59	388.14
MW-13C	11/03/2011	<47	<50	<0.50	<0.50	<0.50	<1.0	5.7	<10	<1.0	<1.0	<1.0	415.73	33.62	382.11
MW-13C	01/26/2012	48	<50	<0.50	<0.50	<0.50	<1.0	13	<10	<0.50	<0.50	<0.50	415.73	43.24	372.49
MW-13C	05/11/2012	1,000	140	<0.50	<0.50	<0.50	<1.0	160	<10	<0.50	<0.50	<0.50	415.73	35.62	380.11
MW-13C	08/02/2012	450 e	100 e	<0.50	<0.50	<0.50	<1.0	80	<10	<0.50	<0.50	<0.50	415.73	34.54	381.19
MW-13C	**01/17/2013**	**92**	**130 i**	**<0.50**	**<0.50**	**<0.50**	**<1.0**	**140**	**49**	**<0.50**	**<0.50**	**<0.50**	**415.73**	**36.20**	**379.53**
MW-14B	05/11/2011	---	---	---	---	---	---	---	---	---	---	---	413.33	20.37	392.96
MW-14B	05/23/2011	58	<50	<0.50	<0.50	<0.50	<1.0	4.5	<10	<1.0	<1.0	<1.0	413.33	20.19	393.14
MW-14B	07/26/2011	84	<50	<0.50	<0.50	<0.50	<1.0	4.9	<10	<1.0	<1.0	<1.0	413.33	21.47	391.86
MW-14B	11/03/2011	<48	<50	<0.50	<0.50	<0.50	<1.0	<1.0	<10	<1.0	<1.0	<1.0	413.33	28.18	385.15
MW-14B	01/26/2012	2,500	<50	<0.50	<0.50	<0.50	<1.0	2.5	<10	<0.50	<0.50	<0.50	413.33	29.74	383.59
MW-14B	05/11/2012	63	<50	<0.50	<0.50	<0.50	<1.0	1.1	<10	<0.50	<0.50	<0.50	413.33	26.00	387.33
MW-14B	08/02/2012	650 e	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<10	<0.50	<0.50	<0.50	413.33	28.86	384.47
MW-14B	**01/17/2013**	**130**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<1.0**	**<0.50**	**<10**	**<0.50**	**<0.50**	**<0.50**	**413.33**	**28.10**	**385.23**

GROUNDWATER DATA
SHELL-BRANDED SERVICE STATION
8999 SAN RAMON ROAD, DUBLIN, CALIFORNIA

Well ID	*Date*	*TPHd (µg/L)*	*TPHg (µg/L)*	*B (µg/L)*	*T (µg/L)*	*E (µg/L)*	*X (µg/L)*	*MTBE (µg/L)*	*TBA (µg/L)*	*DIPE (µg/L)*	*ETBE (µg/L)*	*TAME (µg/L)*	*TOC (ft MSL)*	*Depth to Water (ft TOC)*	*GW Elevation (ft MSL)*
MW-14C	05/11/2011	Well compromised during installation					---	---	---	---	---	---	413.48	---	---
MW-14C	05/23/2011	Well compromised during installation					---	---	---	---	---	---	413.48	---	---
MW-14C	07/26/2011	81	<50	<0.50	0.71	<0.50	<1.0	<1.0	<10	<1.0	<1.0	<1.0	413.48	21.51	391.97
MW-14C	09/09/2011	120	<50	<0.50	<0.50	<0.50	<1.0	30	<10	<1.0	<1.0	<1.0	413.10	29.39	383.71
MW-14C	11/03/2011	<48	<50	<0.50	<0.50	<0.50	<1.0	<1.0	<10	<1.0	<1.0	<1.0	413.10	33.89	379.21
MW-14C	01/26/2012	600	<50	<0.50	<0.50	<0.50	<1.0	3.2	<10	<0.50	<0.50	<0.50	413.10	33.80	379.30
MW-14C	05/11/2012	85	<50	<0.50	<0.50	<0.50	<1.0	12	<10	<0.50	<0.50	<0.50	413.10	31.94	381.16
MW-14C	08/02/2012	890 e	<50	<0.50	<0.50	<0.50	<1.0	19	<10	<0.50	<0.50	<0.50	413.10	33.02	380.08
MW-14C	**01/17/2013**	**200**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<1.0**	**31**	**<10**	**<0.50**	**<0.50**	**<0.50**	**413.10**	**32.60**	**380.50**

Notes:

TPHd = Total petroleum hydrocarbons as diesel analyzed by modified EPA Method 8015 with silica gel clean-up unless otherwise noted

TPHg = Total petroleum hydrocarbons as gasoline analyzed by EPA Method 8260B unless otherwise noted

BTEX = Benzene, toluene, ethylbenzene, and total xylenes analyzed by EPA Method 8260B

MTBE = Methyl tertiary-butyl ether analyzed by EPA Method 8260B

TBA = Tertiary-butyl alcohol analyzed by EPA Method 8260B

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

ETBE = Ethyl tertiary-butyl ether analyzed by EPA Method 8260B

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

TOC = Top of casing elevation, in feet relative to mean sea level

GW = Groundwater

µg/L = Micrograms per liter

ft = Feet

MSL = Mean sea level

<x = Not detected at reporting limit x

--- = Not analyzed or available

a = TPHd analyzed without silica gel clean-up.

b = 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.

c = Analyzed by EPA Method 8015B (M)

GROUNDWATER DATA
SHELL-BRANDED SERVICE STATION
8999 SAN RAMON ROAD, DUBLIN, CALIFORNIA

Well ID	*Date*	*TPHd (µg/L)*	*TPHg (µg/L)*	*B (µg/L)*	*T (µg/L)*	*E (µg/L)*	*X (µg/L)*	*MTBE (µg/L)*	*TBA (µg/L)*	*DIPE (µg/L)*	*ETBE (µg/L)*	*TAME (µg/L)*	*TOC (ft MSL)*	*Depth to Water (ft TOC)*	*GW Elevation (ft MSL)*

d = Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
e = Hydrocarbon result partly due to discrete peak(s) in quantitation range
f = Due to the low levels of analyte found in the sample, the analyte was qualitatively identified based on the presence of a single mass ion.
g = Sample received and analyzed without chemical preservation
h = Sample container contained headspace
i = Concentration reported is due to the presence of discrete peak of MTBE.

Site wells surveyed May 10, 2005 by Mid Coast Engineers
Well MW-6 surveyed March 3, 2006 by Mid Coast Engineers
Wells MW-1R and MW3R surveyed March 22, 2010 by Mid Coast Engineers
Wells MW-1R, MW-2R, MW-2RB, MW-2RC, MW-13, MW-13B, MW-13C, MW-14B, and MW-14C surveyed April 28, 2011 by Virgil Chavez Land Surveying
Well MW-14C surveyed September 12, 2011 by Virgil Chavez Land Surveying

TABLE 3

HISTORICAL GRAB GROUNDWATER ANALYTICAL DATA
SHELL-BRANDED SERVICE STATION
8999 SAN RAMON ROAD, DUBLIN, CALIFORNIA

Sample ID	*Date*	*Depth (fbg)*	*TPHd (µg/L)*	*TPHg (µg/L)*	*B (µg/L)*	*T (µg/L)*	*E (µg/L)*	*X (µg/L)*	*MTBE (µg/L)*	*TBA (µg/L)*
GP-3	5/4/2005	27	540	<500	5.4	<5	<5	<10	980	<50
GP-10	5/4/2005	27	220	<13,000	<130	<130	<130	<250	35,000	120,000
GP-11	5/4/2005	27	2,500	<50,000	<500	<500	<500	<500	89,000	<5,000
GP-12	5/4/2005	27	360	220	4.7	<0.5	<0.5	<1	56	21
CPT-1-44	5/26/2005	44	120	<50	<0.5	<0.5	<0.5	<1	31	5.8
CPT-1-53	5/26/2005	53	180	<50	<0.5	<0.5	<0.5	<1	<0.5	<5
CPT-1-60	5/26/2005	60	82	<50	<0.5	<0.5	<0.5	<1	<0.5	<5
CPT-02-57'	2/22/2006	57	---	170	0.8	<0.5	<0.5	<0.5	240	26
CPT-02-69'	2/22/2006	69	---	<50	0.57	<0.5	<0.5	<0.5	0.56	<20
CPT-02-75'	2/22/2006	75	---	<50	<0.5	<0.5	<0.5	<0.5	0.85	<20
CPT-3 45-50	7/27/2006	50	160	130	<0.5	<0.5	<0.5	<1.0	6.5	<5.0
CPT-3 59-63	7/27/2006	63	---	730	<0.5	<0.5	<0.5	<1.0	2,000	170
CPT-3 67-72	7/27/2006	72	810	760	0.52	<0.5	<0.5	<1.0	2,400	140
CPT-4 45-49	7/26/2006	49	140	<50	<0.5	<0.5	<0.5	<1.0	<0.5	<5.0
CPT-4 54-58	7/26/2006	58	170	<50	<0.5	<0.5	<0.5	<1.0	2.8	<5.0
CPT-4 64-69	7/26/2006	69	400	<50	<0.5	<0.5	<0.5	<1.0	<0.5	<5.0
Groundwater ESL [a]:			100	100	1.0	40	30	20	5.0	12

Notes:
TPHd = Total petroleum hydrocarbons as diesel analyzed by EPA Method 8015B; before February 22, 2006, analytical method unknown.
TPHg = Total petroleum hydrocarbons as gasoline analyzed by EPA Method 8260B; before February 22, 2006, analytical method unknown.
BTEX = Benzene, toluene, ethylbenzene, and total xylenes analyzed by EPA Method 8260B; before February 22, 2006, analytical method unknown.
MTBE = Methyl tertiary-butyl ether analyzed by EPA Method 8260B; before February 22, 2006, analytical method unknown.
TBA = Tertiary-butyl alcohol analyzed by EPA Method 8260B; before February 22, 2006, analytical method unknown.
fbg = Feet below grade
µg/L = Micrograms per liter
<x = Not detected at reporting limit x
--- = Not analyzed
ESL = Environmental screening level
Results in **bold** equal or exceed applicable ESL

HISTORICAL GRAB GROUNDWATER ANALYTICAL DATA
SHELL-BRANDED SERVICE STATION
8999 SAN RAMON ROAD, DUBLIN, CALIFORNIA

a = San Francisco Bay Regional Water Quality Control Board ESL for groundwater where groundwater is a potentail 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] - Updated May 2013).

APPENDIX A

SITE HISTORY

SITE HISTORY

1997 Well Destructions: In November 1997, Cambria Environmental Technology, Inc. (Cambria) destroyed four 4-inch-diameter underground storage tank (UST) observation wells by tremmie pipe grouting. Well destruction details are presented in Cambria's December 16, 1997 *Tank Observation Well Abandonment Report.*

2004 and 2005 Well Surveys: In February 2004, Cambria conducted a well survey of California Department of Water Resources records of driller's reports for water-producing wells within one-half mile of the site. Cambria also reviewed the California Geotracker database for information on public water supply wells. No water-producing wells of any type (domestic, irrigation, industrial, municipal, or public water supply) were identified. The well survey results were presented in Cambria's December 17, 2004 *Agency Response* letter. In 2005, Delta Consultants (Delta) reviewed Zone 7 Water Agency well records and identified a water supply well 2,500 feet south of the site. The well was referenced in Delta's July 2005 *Initial Site Conceptual Model.*

2004 Fuel System Upgrade and Over Excavation: From July through September 2004, Wayne Perry Construction, Inc. (Wayne Perry) upgraded fuel dispensers and piping. Wayne Perry replaced the dispensers and subsequently removed and replaced all fuel piping. On July 30, 2004, Cambria collected seven soil samples (D-1 through D-7) from beneath the dispensers. The soil samples contained up to 170 milligrams per kilogram (mg/kg) total petroleum hydrocarbons as diesel (TPHd), 4,700 mg/kg total petroleum hydrocarbons as gasoline (TPHg), 130 mg/kg toluene, 57 mg/kg ethylbenzene, 440 mg/kg total xylenes, 9.0 mg/kg methyl tertiary-butyl ether (MTBE), and 20 mg/kg tertiary-butyl alcohol (TBA). Based on these results, Shell Oil Products US (Shell) submitted a UST Unauthorized Release (Leak)/Contamination Site Report (URR) dated August 3, 2004.

On August 25, 2004, Cambria collected eight samples (P-1 through P-8) of native soil beneath the former product piping at depths between 3.5 and 5 feet below grade (fbg). Samples collected from beneath the product piping contained up to 28 mg/kg TPHd, 210 mg/kg TPHg, 0.018 mg/kg toluene, 1.0 mg/kg total xylenes, 4.6 mg/kg MTBE, and 8.4 mg/kg TBA. Separate-phase hydrocarbons (SPHs) were observed beneath geo-textile fabric near sample location P-6-5.0, at the northeastern-most corner of the original fuel piping layout. Wayne Perry removed between 15 and 20 gallons of SPHs and water from the trench. Based on the observation of SPHs, Shell submitted a second URR dated August 26, 2004.

Following the observation of SPHs, Cambria collected 13 trench bottom and sidewall samples (SW-1 through SW-4, EB-1-7.5', and T-1 through T-4). Up to 9,300 mg/kg TPHd, 3,900 mg/kg TPHg, 32 mg/kg toluene, 7.4 mg/kg ethylbenzene, 44 mg/kg total xylenes, 0.25 mg/kg MTBE, and 0.34 mg/kg TBA were detected in the trench bottom and sidewall soil samples. At the request of Alameda County Environmental Health (ACEH), Wayne Perry excavated a 10-by-10-foot area to 7.5 fbg in the area where SPHs were previously observed. During the excavation, no additional SPHs were observed.

Based on trench bottom and sidewall soil sample analytical results, Wayne Perry over excavated the product trenches and dispenser locations and over excavated a 10-by-10-foot area to 5 fbg in the vicinity of the southeastern-most dispenser (D-7). All pea gravel and geo-textile fabric were removed from the piping trenches. The trenches were widened to between 3 and 4 feet horizontally and deepened 1 to 2 feet vertically in some locations. Cambria then collected 23 trench excavation bottom samples (TX-1 through TX-17). Up to 1,200 mg/kg TPHd, 2,000 mg/kg TPHg, 11 mg/kg toluene, 29 mg/kg ethylbenzene, 180 mg/kg total xylenes, 1.2 mg/kg MTBE, and 7.1 mg/kg TBA were detected in the over-excavation soil samples. The laboratory noted that the hydrocarbons reported as TPHd and TPHg did not match the laboratory's standards for diesel and gasoline, respectively.

Based on a review of sampling results with ACEH, Cambria collected 10 additional sidewall confirmation samples (SW-4 through SW-14) above a clay layer in areas where impacted soil appeared to remain in the sidewall. Up to 16,000 mg/kg TPHd, 8,500 mg/kg TPHg, 0.019 mg/kg ethylbenzene, 0.11 mg/kg total xylenes, 0.38 mg/kg MTBE, and 170 mg/kg TBA were detected in the sidewall confirmation soil samples.

Cambria collected an SPH sample (FP-W) from the trench at the northeastern-most corner of the original fuel piping layout which Shell determined to be severely weathered unleaded gasoline with no fuel oxygenates. In addition, Cambria subsequently inspected two remaining large-diameter UST backfill wells for SPHs and found none.

Approximately 225 tons of soil were removed and disposed off site, and 4 gallons of SPHs were removed and recycled. Cambria's October 13, 2004 *Dispenser and Piping Upgrade and Over-Excavation Sampling Report* presents the results of fuel system upgrade and over excavation, and Cambria's December 17, 2004 *Agency Response* letter provides additional details of this work.

2005 Subsurface Investigation: In May 2005, Delta drilled 13 Geoprobe® borings (GP-1 through GP-3 and GP-5 through GP-14), 1 cone penetrometer test (CPT) boring (CPT-1),

and 5 groundwater monitoring wells (MW-1 through MW-5). Soil samples from the Geoprobe® borings contained up to 380 mg/kg TPHd, 1,000 mg/kg TPHg, 0.031 mg/kg benzene, 3.3 mg/kg toluene, 10 mg/kg ethylbenzene, 76 mg/kg total xylenes, 20 mg/kg MTBE, and 13 mg/kg TBA. Grab groundwater samples collected from GP-3, GP-10 through GP-12, and CPT-1 contained up to 2,500 micrograms per liter (µg/L) TPHd, 220 µg/L TPHg, 5.4 µg/L benzene, 89,000 µg/L MTBE, and 120,000 µg/L TBA. Soil samples from the well borings contained up to 2.8 mg/kg TPHd, 0.026 mg/kg total xylenes, 17 mg/kg MTBE, and 5.9 mg/kg TBA. Delta's July 2005 electronic *Initial Site Conceptual Model* included investigation data and logs.

2006 Subsurface Investigation: In February and July 2006, Delta drilled three CPT borings to collect grab groundwater samples and installed six groundwater monitoring wells (MW-6 through MW-11). Grab groundwater samples from the CPT borings contained up to 810 µg/L TPHd, 760 µg/L TPHg, 0.80 µg/L benzene, 2,400 µg/L MTBE, and 170 µg/L TBA. Soil samples from the well borings contained up to 1.4 mg/kg TPHd, 3.8 mg/kg TPHg, 1.4 mg/kg MTBE, and 0.2 mg/kg TBA. Delta's September 29, 2006 *Soil and Groundwater Investigation and Monitoring Well Installation Report* provides investigation details.

2006 Pump Test and Dual-Phase Extraction (DPE) Test: In March 2006, Delta conducted a pump test and a DPE test using well MW-1. Delta estimated the sustained groundwater pumping rate for MW-1 at less than 0.2 gallon per minute using groundwater extraction (GWE) or DPE. Delta's *Progress Report - April 2006* summarizes the test results and states that GWE is not a viable option for site remediation.

2007 Subsurface Investigation: In December 2007, Delta installed one groundwater monitoring well (MW-12).

2008 Well Destructions: In May 2008, Delta destroyed six groundwater monitoring wells (MW-1 through MW-4, MW-6, and MW-10) by pressure grouting prior to station remodeling. The well destructions are detailed in Delta's June 9, 2008 *Monitoring Well Destruction Report.*

2010 Subsurface Investigation: In February 2010, Delta installed two groundwater monitoring wells (MW-1R and MW-3R) to replace wells destroyed prior to station remodeling. Soil samples collected from the well borings contained up to 440 mg/kg TPHd, 0.032 mg/kg MTBE, and 1.3 mg/kg TBA. Delta's April 5, 2010 *Well Installation Report* provides details of this investigation.

2005-Present Groundwater Monitoring: Groundwater has been monitored since May 2005.

APPENDIX B

CAMBRIA ENVIRONMENTAL TECHNOLOGY, INC. - SITE PLAN

10/13/04

Site Plan

EXPLANATION

- D-1-2.5' — Soil sample location (7/30/04)
- P-1-5' — Soil sample location (8/25/04)
- EB-1-7.5' — Soil sample location (8/27/04)
- TX-1-4' — Soil sample location (9/02/04)
- SW-5-3.5' — Soil sample location (9/07/04)
- Sanitary sewer
- Water shut-off
- Product piping and tench
- Electrical line (E)
- Sanitary sewer line (SS)
- Water line (W)
- Telecommunications line (T)
- Excavation limits (8/27/04)
- Excavation limits (9/2/04, 9/7/04)

ALCOSTA BOULEVARD

SAN RAMON ROAD

MOUNTAIN MIKE'S PIZZA

MALL PARKING

150.12' N73°52'04"E

143.90' N13°48'09"W

150' N13°48'09"W

150' N76°11'51"E

10,000 GAL PRE

10,000 GAL REG

10,000 GAL PL

10,000 GAL DSL

kiosk

storage

CAR WASH

TX-17-3.5' T-4-4' TX-15-3.5' D-1-2.5' T-3-4' P-6-5.0 D-3-2.5' D-2-2.5' SW-1-3',-6' EB-1-7.5' P-8-4.5 TX-14-3.5' P-7-4.0' SW-4-3',-6' SW-2-3',-6' TX-16-3.5' T-1-4' SW-3-3',-6' D-4-2.5' TX-13-2.5' SW-10-1.5' SW-9-1.5' SW-8-2' SW-7-2' TX-8-4.5' TX-12-3' SW-6-2.5' TX-11-3' TX-10-3.5' TX-9-3.5' P-5-5.0 T-2-4' TX-3-3.5' D-5-2.5' D-6-2.5' D-7-2.5', TX-6-4' TX-6 TX-6a TX-4-4' P-4-5.0 P-1-5.0 TX-1-4' TX-2-4' SW-5-2.5' SW-11-3.5' SW-12-3.5' P-2-5.0 SW-13-2' P-3-5.0, SW-14-2.5 TX-7-4' TX-5-4'

Excavation limits (9/02/04 & 9/07/04)

0 10 20 40

Scale (ft)

FIGURE

2

Shell-branded Service Station

8999 San Ramon Road

Dublin, California

CAMBRIA

G:\DUBLIN 8999 SAN RAMON\FIGURES\SITE PLAN 9-04.DWG

APPENDIX C

BORING LOGS

Delta

Environmental Consultants, Inc.

Project No:	SJ89-99S-1	Client:	Shell Oil Products US	Well No: MW-1	
Logged By:	Heather Buckingham	Location:	8999 San Ramon Rd., Dublin	Page 1 of 2	
Driller:	Gregg	Date Drilled:	5/5/2005	Location Map	
Drilling Method:	HSA	Hole Diameter:	10 inch	Please see site map	
Sampling Method:	CA Mod. Split Shoe	Hole Depth:	27 ft		
Casing Type:	PVC	Well Diameter:	4 inch		
Slot Size:	0.01	Well Depth:	27 feet		
Gravel Pack:	#2/12	Casing Stickup:	NA		
Elevation		Northing		Easting	

Well Completion	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery	Sample Interval	Soil Type	LITHOLOGY / DESCRIPTION
Backfill / Casing / Grout								AF	Asphalt 6", Base rock 4"
					1–3			SM	**Silty SAND**: light brown; 20-30% silt; fine to coarse grained sand, well graded
					4–9			CL	**Lean CLAY with Sand**: medium brown mottled with orange; 85-90% fines; 10-15% fine grained sand in tan sand pockets; moderate to high plasticity; soft
		dry	11.3	air knifed & hand augered					
			335	12 13 19	10–11				
					12–14				
			328	12 26 25	15–16			CL	**Sandy Lean CLAY**: medium brown with very dark brown mottling; 70-80% fines; 20-30% fine grained sands; low to moderate plasticity; stiff
		moist	22.6	50 for 6"	17–20				
Bentonite	▼	damp			21–22				

Delta
Environmental Consultants, Inc.

Project No:	SJ89-99S-1	Client:	Shell Oil Products US	Boring No: MW-1	
Logged By:	Heather Buckingham	Location:	8999 San Ramon Rd., Dublin	Page 2 of 2	
Driller:	Gregg	Date Drilled:	5/5/2005	Location Map	
Drilling Method:	HSA	Hole Diameter:	10 Inch	Please see site map	
Sampling Method:	CA Mod. Split Shoe	Hole Depth:	27 ft		
Casing Type:	PVC	Well Diameter:	4 inch		
Slot Size:	0.01	Well Depth:	27 ft		
Gravel Pack:	#2/12	Casing Stickup:	NA		
Elevation		Northing		Easting	

Well Completion (Backfill / Casing)	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery	Sample Interval	Soil Type	LITHOLOGY / DESCRIPTION
Sand					23			CL	**Sandy Lean CLAY**: continued
					24				
		damp	9.4		25			CL	**Lean CLAY with Sand**: same as above, stiff
					26				
					27				Boring terminated at 27 feet below ground surface
					28				
					29				
					30				
					31				
					32				
					33				
					34				
					35				
					36				
					37				
					38				
					39				
					40				
					41				
					42				
					43				
					44				

BORING LOG

DELTA Xinogen

Client: Shell Oil Products US

Project Number: SCA8999S1D

Well No.: MW-1R

Address: **8999 San Ramon Road** **Dublin, CA** Logged By: **Cora Olsun**	Drilling Date(s): **02/10/10** Drilling Company: **RSI** Drilling Method: **HSA** Boring Depth (ft): **41.5'**	Boring diameter (in.): **10"** Sampling Method: **Split Spoon** Well Depth (ft.): **40'** Casing Diameter (in.): **4"**	Casing Material: **Sch 40 PVC** Screen Interval: **30' - 40' bgs** Screen slot size: **0.010"** Sand Pack: **2/12**

Depth (ft.)	Water Level	Soil/Rock Graphic	Sampled Interval	Blow Counts (blows/ft)	Recovery (%)	Soil/Rock Visual Description	PID Reading (ppm)
						Airknifed to ~10' bgs.	
10				11	43%	CL: Silty CLAY, dark gray to brown, moist, trace gravel, 70% clay, 30% silt.	9.8
15				33	100%	CL: Silty CLAY with fine sand, gray to brown, dry, 70% clay, 20% silt, 10% fine sand.	1.4
20				15	100%	CL: Sandy CLAY, gray, dry, 70% clay, 30% fine sand.	4.0
25				17	100%	(as above)	0.0
30				20	100%	CL: CLAY, brown, trace fine sand (<5%), moist.	0.0
35	▽			35	100%	CL: CLAY with silt and medium to coarse sand, brown, wet, trace gravel.	0.0
40				45	100%	(as above)	0.0
45						Bottom of boring = 41.5' bgs.	
50							

Well Completion

Delta

Environmental Consultants, Inc.

Project No:	SJ89-99S-1	Client:	Shell Oil Products US	Well No: MW-2
Logged By:	Heather Buckingham	Location:	8999 San Ramon Rd., Dublin	Page 1 of 2
Driller:	Gregg	Date Drilled:	5/5/2005	
Drilling Method:	HSA	Hole Diameter:	10 inch	
Sampling Method:	CA Mod. Split Shoe	Hole Depth:	27 ft	
Casing Type:	PVC	Well Diameter:	4 inch	
Slot Size:	0.01	Well Depth:	27 feet	
Gravel Pack:	#2/12	Casing Stickup:	NA	
Elevation		Northing		Easting

Location Map

Please see site map

Well Completion	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery	Sample Interval	Soil Type	LITHOLOGY / DESCRIPTION
Backfill / Casing / Grout / Bentonite				air knifed & hand augered				AF	Asphalt 6", Base rock 4"
					1–4			SM	**Silty SAND**: light brown; 20-30% silt; fine to coarse grained sand, well graded
		dry	11.3		5			CL	**Lean CLAY with Sand**: medium brown mottled with orange; 85-90% fines; 10-15% fine grained sand in tan sand pockets; moderate to high plasticity; soft
			335	12 13 19	10–11				
			328	12 26 25	15–16				(Same as above, less orange mottling)
		moist	22.6	50 for 6"	20			CL	**Sandy Lean CLAY**; gray; 55 to 65% fines; 35 to 45% sand; low plasticity; soft
	▼	damp			21				

Delta
Environmental Consultants, Inc.

Project No:	SJ89-99S-1	Client:	Shell Oil Products US	Boring No: MW-2
Logged By:	Heather Buckingham	Location:	8999 San Ramon Rd., Dublin	Page 2 of 2
Driller:	Gregg	Date Drilled:	5/5/2005	
Drilling Method:	HSA	Hole Diameter:	10 inch	
Sampling Method:	CA Mod. Split Shoe	Hole Depth:	27 ft	
Casing Type:	PVC	Well Diameter:	4 inch	
Slot Size:	0.01	Well Depth:	27 ft	
Gravel Pack:	#2/12	Casing Stickup:	NA	
Elevation		Northing		Easting

Location Map

Please see site map

Well Completion (Backfill / Casing)	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery	Sample Interval	Soil Type	LITHOLOGY / DESCRIPTION
Sand					23			CL	**Sandy Lean CLAY**: continued
					24				
		damp	9.4		25			CL	**Lean CLAY with Sand**: same as above, stiff
					26				
					27				Boring terminated at 27 feet below ground surface
					28				
					29				
					30				
					31				
					32				
					33				
					34				
					35				
					36				
					37				
					38				
					39				
					40				
					41				
					42				
					43				
					44				

Conestoga Rovers & Associates
5900 Hollis Street, Suite A
Emeryville, CA 94608
Telephone: 510-420-0700
Fax: 510-420-9170

BORING / WELL LOG

CLIENT NAME	Shell Oil Products US	**BORING/WELL NAME**	MW-2R
JOB/SITE NAME	Shell - branded Service Station	**DRILLING STARTED**	17-Feb-11
LOCATION	8999 San Ramon Road, Dublin, CA	**DRILLING COMPLETED**	23-Feb-11
PROJECT NUMBER	240724	**WELL DEVELOPMENT DATE (YIELD)**	11-May-11 (39.0 gallons)
DRILLER	Cascade Drilling, L.P.	**GROUND SURFACE ELEVATION**	416.21 ft above msl
DRILLING METHOD	Hollow-stem auger	**TOP OF CASING ELEVATION**	415.82 ft above msl
BORING DIAMETER	8"	**SCREENED INTERVALS**	30 to 45 fbg
LOGGED BY	W. Martinez	**DEPTH TO WATER (First Encountered)**	40.00 fbg
REVIEWED BY	P. Schaefer PG#5612	**DEPTH TO WATER (Static)**	20.87 fbg (11-May-11)
REMARKS	Airknifed to 5 fbg		

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
							See boring log MW-2RC for lithology.		Portland Type I/II

Continued Next Page

WELL LOG (PID) I:\SHELL\6-CHARS\2407-\240724-\1244DE5-\1240724.GPJ DEFAULT.GDT 5/25/11

Conestoga Rovers & Associates
5900 Hollis Street, Suite A
Emeryville, CA 94608
Telephone: 510-420-0700
Fax: 510-420-9170

BORING / WELL LOG

CLIENT NAME	Shell Oil Products US	**BORING/WELL NAME**	MW-2R
JOB/SITE NAME	Shell - branded Service Station	**DRILLING STARTED**	17-Feb-11
LOCATION	8999 San Ramon Road, Dublin, CA	**DRILLING COMPLETED**	23-Feb-11

Continued from Previous Page

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
				25					2" diam., Schedule 40 PVC Bentonite Seal Monterey Sand #2/12 2"-diam., 0.010" Slotted Schedule 40 PVC
				30					
				35					
				40					

Continued Next Page

WELL LOG (PID) I:\SHELL\6-CHARS\2407--\240724-1\244DE5-1\240724.GPJ DEFAULT.GDT 5/25/11

Conestoga Rovers & Associates
5900 Hollis Street, Suite A
Emeryville, CA 94608
Telephone: 510-420-0700
Fax: 510-420-9170

BORING / WELL LOG

CLIENT NAME	Shell Oil Products US	**BORING/WELL NAME**	MW-2R
JOB/SITE NAME	Shell - branded Service Station	**DRILLING STARTED**	17-Feb-11
LOCATION	8999 San Ramon Road, Dublin, CA	**DRILLING COMPLETED**	23-Feb-11

Continued from Previous Page

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
				45				45.0	Bottom of Boring @ 45 fbg

WELL LOG (PID) I:\SHELL\6-CHARS\2407-1240724-1244DE5-1240724.GPJ DEFAULT.GDT 5/25/11

Conestoga Rovers & Associates
5900 Hollis Street, Suite A
Emeryville, CA 94608
Telephone: 510-420-0700
Fax: 510-420-9170

BORING / WELL LOG

CLIENT NAME	Shell Oil Products US	**BORING/WELL NAME**	MW-2RB
JOB/SITE NAME	Shell - branded Service Station	**DRILLING STARTED**	17-Feb-11
LOCATION	8999 San Ramon Road, Dublin, CA	**DRILLING COMPLETED**	22-Feb-11
PROJECT NUMBER	240724	**WELL DEVELOPMENT DATE (YIELD)**	11-May-11 (72.0 gallons)
DRILLER	Cascade Drilling, L.P.	**GROUND SURFACE ELEVATION**	415.97 ft above msl
DRILLING METHOD	Hollow-stem auger	**TOP OF CASING ELEVATION**	415.66 ft above msl
BORING DIAMETER	8"	**SCREENED INTERVALS**	58 to 68 fbg
LOGGED BY	W. Martinez	**DEPTH TO WATER (First Encountered)**	40.00 fbg ▽
REVIEWED BY	P. Schaefer PG#5612	**DEPTH TO WATER (Static)**	22.28 fbg (11-May-11) ▼
REMARKS	Airknifed to 5 fbg		

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
							See boring log MW-2RC for lithology.		

Continued Next Page

Conestoga Rovers & Associates
5900 Hollis Street, Suite A
Emeryville, CA 94608
Telephone: 510-420-0700
Fax: 510-420-9170

BORING / WELL LOG

CLIENT NAME	Shell Oil Products US	**BORING/WELL NAME**	MW-2RB
JOB/SITE NAME	Shell - branded Service Station	**DRILLING STARTED**	17-Feb-11
LOCATION	8999 San Ramon Road, Dublin, CA	**DRILLING COMPLETED**	22-Feb-11

Continued from Previous Page

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
				25					Portland Type I/II
				30					
				35					
				40					

Continued Next Page

WELL LOG (PID) I:\SHELL\8-CHARS\2407--\240724--1\244DE5--1\240724.GPJ DEFAULT.GDT 5/25/11

Conestoga Rovers & Associates
5900 Hollis Street, Suite A
Emeryville, CA 94608
Telephone: 510-420-0700
Fax: 510-420-9170

BORING / WELL LOG

CLIENT NAME	Shell Oil Products US	**BORING/WELL NAME**	MW-2RB
JOB/SITE NAME	Shell - branded Service Station	**DRILLING STARTED**	17-Feb-11
LOCATION	8999 San Ramon Road, Dublin, CA	**DRILLING COMPLETED**	22-Feb-11

Continued from Previous Page

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
				45					
				50					2" diam., Schedule 40 PVC
				55					Bentonite Seal
				60					Monterey Sand #2/12
				65					2"-diam., 0.010" Slotted Schedule 40 PVC

Continued Next Page

WELL LOG (PID) I:\SHELL\6-CHARS\2407-1240724-11244DE5-1240724.GPJ DEFAULT.GDT 5/25/11

Conestoga Rovers & Associates
5900 Hollis Street, Suite A
Emeryville, CA 94608
Telephone: 510-420-0700
Fax: 510-420-9170

BORING / WELL LOG

CLIENT NAME	Shell Oil Products US	**BORING/WELL NAME**	MW-2RB
JOB/SITE NAME	Shell - branded Service Station	**DRILLING STARTED**	17-Feb-11
LOCATION	8999 San Ramon Road, Dublin, CA	**DRILLING COMPLETED**	22-Feb-11

Continued from Previous Page

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
								68.0	Bottom of Boring @ 68 fbg

WELL LOG (PID) I:\SHELL\6-CHARS\2407--\240724-1\244DE5~1\240724.GPJ DEFAULT.GDT 5/25/11

Conestoga Rovers & Associates
5900 Hollis Street, Suite A
Emeryville, CA 94608
Telephone: 510-420-0700
Fax: 510-420-9170

BORING / WELL LOG

CLIENT NAME	Shell Oil Products US	**BORING/WELL NAME**	MW-2RC
JOB/SITE NAME	Shell - branded Service Station	**DRILLING STARTED**	18-Feb-11
LOCATION	8999 San Ramon Road, Dublin, CA	**DRILLING COMPLETED**	21-Feb-11
PROJECT NUMBER	240724	**WELL DEVELOPMENT DATE (YIELD)**	11-May-11 (35.4 gallons)
DRILLER	Cascade Drilling, L.P.	**GROUND SURFACE ELEVATION**	416.18 ft above msl
DRILLING METHOD	Hollow-stem auger	**TOP OF CASING ELEVATION**	415.97 ft above msl
BORING DIAMETER	8"	**SCREENED INTERVALS**	96 to 106 fbg
LOGGED BY	W. Martinez	**DEPTH TO WATER (First Encountered)**	40.00 fbg ▽
REVIEWED BY	P. Schaefer PG#5612	**DEPTH TO WATER (Static)**	27.01 fbg (11-May-11) ▼
REMARKS	Airknifed to 5 fbg		

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
							ASPHALT	0.3	
							GRAVEL BASE	0.5	
					CL		**CLAY (CL):** black (5Y 2.5/1), moist, 60% clay, 35% silt, 5% fine gravel, medium plasticity, fill.	3.0	
0.1	7/9/14	MW-2R C -5.5		5	CH		**CLAY (CH):** greenish black (5GY 2.5/1), moist, 75% clay, 25% silt, high plasticity, fill.	8.3	
0.1	4/9/12	MW-2R C -10.5		10	ML		**SILT (ML):** dark brown (7.5YR 4/3), moist, 35% clay, 60% silt, 5% fine gravel, medium plasticity.	13.3	
0.3	11/7/13	MW-2R C -15.5		15	CL		**CLAY with sand (CL):** very dark greenish gray (5GY 3/1), moist, 45% clay, 30% silt, 20% fine sand, 5% fine gravel, medium plasticity.	20.0	
				20					

WELL LOG (PID) I:\SHELL\6-CHARS\2407-\240724-1\244DE5-1\240724.GPJ DEFAULT.GDT 5/25/11

Continued Next Page

Conestoga Rovers & Associates
5900 Hollis Street, Suite A
Emeryville, CA 94608
Telephone: 510-420-0700
Fax: 510-420-9170

BORING / WELL LOG

CLIENT NAME	Shell Oil Products US	**BORING/WELL NAME**	MW-2RC
JOB/SITE NAME	Shell - branded Service Station	**DRILLING STARTED**	18-Feb-11
LOCATION	8999 San Ramon Road, Dublin, CA	**DRILLING COMPLETED**	21-Feb-11

Continued from Previous Page

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
0.0	7/7/14	MW-2R C -20.5					@ 20 fbg; **Sandy CLAY (CL):** 55% clay, 10% silt, 30% fine sand, 5% fine gravel.		
				25	CL				
0.0	9/12/18	MW-2R C -25.5					@ 25 fbg; **CLAY with sand (CL):** dark brown (7.5YR 3/2), 65% clay, 20% silt, 15% fine to coarse sand.		
								28.3	
				30					
0.1	7/7/9	MW-2R C -30.5					**SILT (ML):** dark yellowish brown (10YR 4/4), moist, 30% clay, 60% silt, 10% fine sand, low plasticity.		
					ML				
				35					
0.2	9/12/15	MW-2R C -35.5					@ 35 fbg; 30% clay, 60% silt, 10% fine gravel.		
								38.3	
				40					
0.1	10/10/10	MW-2R C -40.5			CH		**CLAY (CH):** reddish brown (2.5YR 4/4), wet, 65% clay, 35% silt, high plasticity.		Portland Type I/II

Continued Next Page

WELL LOG (PID) I:\SHELL\6-CHARS\2407-1240724-11244DES-1240724.GPJ DEFAULT.GDT 5/25/11

Conestoga Rovers & Associates
5900 Hollis Street, Suite A
Emeryville, CA 94608
Telephone: 510-420-0700
Fax: 510-420-9170

BORING / WELL LOG

CLIENT NAME	Shell Oil Products US	**BORING/WELL NAME**	MW-2RC
JOB/SITE NAME	Shell - branded Service Station	**DRILLING STARTED**	18-Feb-11
LOCATION	8999 San Ramon Road, Dublin, CA	**DRILLING COMPLETED**	21-Feb-11

Continued from Previous Page

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
								43.3	
2.6	5/5/10	MW-2R C -45.5		45	CL		**CLAY (CL):** greenish black (10Y 2.5/1), moist, 60% clay, 40% silt, medium plasticity.		
								48.3	
0.1	8/9/12	MW-2R C -50.5		50	ML		**Sandy SILT (ML):** dark grayish brown (10YR 4/2), moist, 10% clay, 60% silt, 25% fine sand, 5% fine gravel, low plasticity.		
0.7	6/8/10	MW-2R C -55.5		55			@ 55 fbg; **SILT with sand (ML):** brown (10YR 4/3), 25% clay, 60% silt, 15% fine sand.	58.3	
0.1	7/9/14	MW-2R C -60.5		60	CH		**CLAY with sand (CH):** brown (10YR 4/3); moist, 75% clay, 10% silt, 15% fine sand, high plasticity.		
								63.3	
0.0	10/10/10	MW-2R C		65			**SILT (ML):** light olive brown (2.5Y 5/4), moist, 25% clay, 70% silt, 5% fine sand, low plasticity.		

WELL LOG (PID) I:\SHELL\6-CHARS\2407-\240724-1\244DE5~1\240724.GPJ DEFAULT.GDT 5/25/11

Continued Next Page

Conestoga Rovers & Associates
5900 Hollis Street, Suite A
Emeryville, CA 94608
Telephone: 510-420-0700
Fax: 510-420-9170

BORING / WELL LOG

CLIENT NAME	Shell Oil Products US	**BORING/WELL NAME**	MW-2RC
JOB/SITE NAME	Shell - branded Service Station	**DRILLING STARTED**	18-Feb-11
LOCATION	8999 San Ramon Road, Dublin, CA	**DRILLING COMPLETED**	21-Feb-11

Continued from Previous Page

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
		-60.5							
				70					
2.1	11/10/18	MW-2R C -70.5			ML				
				75			@ 75 fbg;**Sandy SILT (ML):** 10% clay, 60% silt, 30% sand.		
2.2	11/10/10	MW-2R C -75.5							
				80			@ 80 fbg; 10% clay, 50% silt, 40% sand.		
0.1	9/10/17	MW-2R C -80.5						83.3	
				85	SM		**Silty SAND (SM):** light olive brown (2.5Y 5/4); wet, 10% clay, 30% silt, 60% fine sand.		2" diam., Schedule 40 PVC
0.3	7/10/16	MW-2R C -85.5			CL		**CLAY with sand (CL):** light olive brown (2.5Y 5/4), moist, 45% clay, 30% silt, 20% fine sand, 5% fine gravel, medium plasticity.	86.0	
								88.3	

Continued Next Page

WELL LOG (PID) I:\SHELL\6-CHARS\2407-1240724-11244DE5-1240724.GPJ DEFAULT.GDT 5/25/11

Conestoga Rovers & Associates
5900 Hollis Street, Suite A
Emeryville, CA 94608
Telephone: 510-420-0700
Fax: 510-420-9170

BORING / WELL LOG

CLIENT NAME	Shell Oil Products US	**BORING/WELL NAME**	MW-2RC
JOB/SITE NAME	Shell - branded Service Station	**DRILLING STARTED**	18-Feb-11
LOCATION	8999 San Ramon Road, Dublin, CA	**DRILLING COMPLETED**	21-Feb-11

Continued from Previous Page

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)
0.0	9/13/12	MW-2R C -90.5		90	ML		**SILT with sand (ML):** light olive brown (2.5Y 5/4), moist, 10% clay, 70% silt, 20% fine sand, low plasticity.	
0.0	10/12/16	MW-2R C -95.5		95			@ 95 fbg;**Sandy SILT (ML):** wet, 10% clay, 55% silt, 35% fine sand.	98.3
0.0	14/50 for 6"	MW-2R C -100.5		100	SC		**Clayey SAND (SC):** light olive gray (2.5YR 5/4), wet, 20% clay, 10% silt, 70% fine sand.	101.4
					GC		**Clayey GRAVEL with sand (GC):** light olive gray (2.5YR 5/4), wet.	103.3
					SP SM		**SAND with silt (SP-SM):** weak red (2.5YR 4/2), wet, 10% silt, 90% coarse sand.	
0.3	12/50 for 6"	MW-2R C -105.5		105			**Clayey SAND (SC):** light olive gray (2.5YR 5/4), wet, 20% clay, 10% silt, 70% fine sand.	106.0
					CL		**Sandy CLAY with gravel (CL):** weak red (2.5YR 4/2), moist, 50% clay, 30% coarse sand, 20% gravel, low plasticity.	108.3
0.0	3/3/4	MW-2R C -110.5		110	GP		**GRAVEL with sand (GP):** weak red (2.5YR 4/2), wet, 5% clay, 15% coarse sand, 80% fine gravel.	111.5

WELL DIAGRAM

- Bentonite Seal
- Monterey Sand #2/12
- 2"-diam., 0.010" Slotted Schedule 40 PVC
- Backfilled with Bentonite.

WELL LOG (PID) I:\SHELL\6-CHARS\2407-\240724-\1244DE5-\1240724.GPJ DEFAULT.GDT 5/25/11

Continued Next Page

Conestoga Rovers & Associates
5900 Hollis Street, Suite A
Emeryville, CA 94608
Telephone: 510-420-0700
Fax: 510-420-9170

BORING / WELL LOG

CLIENT NAME	Shell Oil Products US	**BORING/WELL NAME**	MW-2RC
JOB/SITE NAME	Shell - branded Service Station	**DRILLING STARTED**	18-Feb-11
LOCATION	8999 San Ramon Road, Dublin, CA	**DRILLING COMPLETED**	21-Feb-11

Continued from Previous Page

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
									Bottom of Boring @ 111.5 fbg

WELL LOG (PID) I:\SHELL\8-CHARS\2407--1240724-1244DE5--1240724.GPJ DEFAULT.GDT 5/25/11

Delta

Environmental Consultants, Inc.

Project No:	SJ89-99S-1	Client:	Shell Oil Products US	Well No: MW-3	
Logged By:	Heather Buckingham	Location:	8999 San Ramon Rd., Dublin	Page 1 of 2	
Driller:	Gregg	Date Drilled:	5/6/2005	Location Map	
Drilling Method:	HSA	Hole Diameter:	10 inch	Please see site map	
Sampling Method:	CA Mod. Split Shoe	Hole Depth:	26 ft		
Casing Type:	PVC	Well Diameter:	4 inch		
Slot Size:	0.01	Well Depth:	26 feet		
Gravel Pack:	#2/12	Casing Stickup:	NA		
Elevation		Northing		Easting	

Well Completion	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery	Sample Interval	Soil Type	LITHOLOGY / DESCRIPTION
Backfill / Casing								AF	Asphalt 6", Base rock 4"
		wet		air knifed & hand augered	1			SM	**Silty SAND**: light brown; 20-30% silt; fine to coarse grained sand, well graded
					2				
					3			CL	**Sandy Lean CLAY**: medium brown mottled with orange; 70-80% fines; 20-30% fine grained sand in tan sand pockets; trace gravels up to 0.5" in diameter; moderate to high plasticity; soft
		damp			4				
Grout			1.8		5				
					6				
		dry			7				
					8				
					9				
				8	10				
		dry	0.5	10				CL	**Lean CLAY with Sand**: medium brown with orange mottling; 85-90% fines; 10-15% fine grained sand in tan sand pockets; moderate plasticity; soft
				16	11				
					12				
					13				
					14				
				14	15				
		dry	0.6	24				CL	**Sandy Lean CLAY**: medium brown; 70-80% fines; 20-30% fine grained poorly graded sand in tan sand pockets; slight product odor; moderate to high plasticity; stiff
				36	16				
					17				
					18				
					19				
	▼			15	20				
Bentonite		dry	0.2	21				CL	**Lean CLAY with Sand**: same as above; medium brown with dark brown mottling; stiff
				25	21				
					22				

Delta
Environmental Consultants, Inc.

Project No:	SJ89-99S-1	Client:	Shell Oil Products US	Boring No: MW-3	
Logged By:	Heather Buckingham	Location:	6999 San Ramon Rd., Dublin	Page 2 of 2	
Driller:	Gregg	Date Drilled:	5/6/2005	Location Map	
Drilling Method:	HSA	Hole Diameter:	10 inch	Please see site map	
Sampling Method:	CA Mod. Split Shoe	Hole Depth:	25 ft		
Casing Type:	PVC	Well Diameter:	4 inch		
Slot Size:	0.01	Well Depth:	26 ft		
Gravel Pack:	#2/12	Casing Stickup:	NA		
Elevation		Northing		Easting	

Well Completion (Backfill / Casing)	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery	Sample Interval	Soil Type	LITHOLOGY / DESCRIPTION
Sand					23			CL	**Lean CLAY with Sand**: continued
					24				
		dry	0.7	9 16 27	25			CL	**Sandy Lean CLAY**: grey; 60-70% fines; 30-40% sand; low to moderate plasticity; stiff
					26				Boring terminated at 26 feet below ground surface
					27				
					28				
					29				
					30				
					31				
					32				
					33				
					34				
					35				
					36				
					37				
					38				
					39				
					40				
					41				
					42				
					43				
					44				

BORING LOG

DELTA Xinogen

Client: Shell Oil Products US

Project Number: SCA8999S1D

Well No.: MW-3R

Address: **8999 San Ramon Road** **Dublin, CA** Logged By: **Abhik Dutta**	Drilling Date(s): **02/11/10** Drilling Company: **RSI** Drilling Method: **HSA** Boring Depth (ft): **35'**	Boring diameter (in.): **10"** Sampling Method: **Split Spoon** Well Depth (ft.): **35'** Casing Diameter (in.): **4"**	Casing Material: **Sch 40 PVC** Screen Interval: **25' - 35' bgs** Screen slot size: **0.010"** Sand Pack: **2/12**

Depth (ft.)	Water Level	Soil/Rock Graphic	Sampled Interval	Blow Counts (blows/ft)	Recovery (%)	Soil/Rock Visual Description	PID Reading (ppm)	Well Completion	Depth (ft.)
0						Airknifed to 9.5' bgs.			0
10				15	87%	CL: CLAY with silt, brown, damp, trace rounded gravel, <15% silt.	2.1		10
15				26	87%	ML: SILT, gray, low plasticity, damp to dry, <10% clay.	4.0		15
20				31	90%	(as above, clay present as veins, clay increasing at bottom of sample)	3.3		20
25				29	97%	ML: SILT, brown, low plasticity, trace clay, damp, color increasingly gray towards bottom of sample, moist towards bottom.	6.8		25
30	▽			30	93%	ML: SILT, brown, low plasticity, hard, wet, <10% fine, well rounded sand.	7.5		30
35				51	93%	(as above, plasticity decreases with depth, minor fractures within sample)	2.2		35
40						Bottom of boring = 35' bgs.			40

Delta

Environmental Consultants, Inc.

Project No:	SJ89-99S-1	Client:	Shell Oil Products US	Well No: MW-4	
Logged By:	Heather Buckingham	Location:	8999 San Ramon Rd., Dublin	Page 1 of 2	
Driller:	Gregg	Date Drilled:	5/6/2005	Location Map	
Drilling Method:	HSA	Hole Diameter:	10 inch	Please see site map	
Sampling Method:	CA Mod. Split Shoe	Hole Depth:	27 ft		
Casing Type:	PVC	Well Diameter:	4 inch		
Slot Size:	0.01	Well Depth:	27 feet		
Gravel Pack:	#2/12	Casing Stickup:	NA		
Elevation		Northing		Easting	

Well Completion	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery	Sample Interval	Soil Type	LITHOLOGY / DESCRIPTION
Backfill / Casing									
		wet		air knifed & hand augered	1			AF	Asphalt 6", Base rock 4"
					2			SM	**Silty SAND**: light brown; 20-30% silt; fine to coarse grained sand, well graded
					3				
					4			CL	**Sandy Lean CLAY**: medium brown mottled with orange; 70-80% fines; 20-30% fine grained sand in tan sand pockets; trace gravels up to 0.5" in diameter; moderate to high plasticity; soft
Grout		dry	3		5				
					6				
					7				
					8				
					9				
		dry	1.3	8 10 16	10			CL	**Lean CLAY with Sand**: medium brown with orange mottling; 85-90% fines; 10-15% fine grained sand in tan sand pockets; moderate plasticity; soft
					11				
					12				
					13				
					14				
		dry	0.7	14 24 36	15			CL	**Sandy Lean CLAY**: grey mottled with medium brown; 75-80% fines; 25-30% fine grained poorly graded sand in tan sand pockets; moderate to high plasticity; stiff
					16				
					17				
					18				
					19				
		moist	0.7	15 21 25	20				(Same as above, trace gravels up to 0.5 cm in diameter)
Bentonite	▼				21				
					22				

Delta
Environmental Consultants, Inc.

Project No:	SJ89-99S-1	Client:	Shell Oil Products US	Boring No: MW-4	
Logged By:	Heather Buckingham	Location:	8999 San Ramon Rd., Dublin	Page 2 of 2	
Driller:	Gregg	Date Drilled:	5/6/2005	Location Map	
Drilling Method:	HSA	Hole Diameter:	10 inch	Please see site map	
Sampling Method:	CA Mod. Split Shoe	Hole Depth:	27 ft		
Casing Type:	PVC	Well Diameter:	4 inch		
Slot Size:	0.01	Well Depth:	27 ft		
Gravel Pack:	#2/12	Casing Stickup:	NA		
Elevation		Northing		Easting	

Well Completion (Backfill / Casing)	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery	Sample Interval	Soil Type	LITHOLOGY / DESCRIPTION
Sand		wet dry	0.4	9 16 27	23 24 25 26 27			CL CL	**Sandy Lean CLAY**: continued **Lean CLAY with Sand**: medium brown with grey mottling; grey; 85-90% fines; 10-15% sand; moderate plasticity; stiff Boring terminated at 27 feet below ground surface
					28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44				

Delta

Environmental Consultants, Inc.

Project No:	SJ89-99S-1	Client:	Shell Oil Products US	Well No: MW-5	
Logged By:	Andy Persio	Location:	8999 San Ramon	Page 1 of 2	
Driller:	Gregg	Date Drilled:	7/26&28/06	Location Map	
Drilling Method:	HSA/ AK (7')	Hole Diameter:	12"/10"	Please see site map	
Sampling Method:	SS	Hole Depth:	28'		
Casing Type:	Sch 40 PVC	Well Diameter:	4"		
Slot Size:	0.01	Well Depth:	28'		
Gravel Pack:	#2/12 sand	Casing Stickup:	NA		
Elevation		Northing		Easting	

Well Completion (Backfill / Casing)	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery	Sample Interval	Soil Type	LITHOLOGY / DESCRIPTION
Grout				air knifed & hand augered	1			AF	~3" asphalt, and ~3" baserock
					2				
					3				
					4				
		moist	0.5		5			CL	**sandy lean CLAY**: dark brown, stiff, 20-30% fine to medium grained sands, low plasticity
					6				
					7				
					8				
				4	9			SC	**clayey SAND**: dark brown, medium dense, 30-40% fines,
		moist	0.3	10					5-15% gravels up to 0.5" b-axis diameter, no plasticity
				11	10				
					11				
					12				
					13				
				4	14			CL	**sandy lean CLAY**: dark brown, very stiff, 25-35% fine
		moist	11.2	7					grained sands, low plasticity
				10	15				
Bentonite					16				
					17				
					18				
				9	19				30-40% fine grained sands, hard
		moist	11.6	13					
				16	20				

Delta
Environmental Consultants, Inc.

Project No:	SJ89-99S-1	Client:	Shell Oil Products US	Well No: MW-5	
Logged By:	Andy Persio	Location:	8999 San Ramon	Page 2 of 2	
Driller:	Gregg	Date Drilled:	7/26&28/06	Location Map	
Drilling Method:	HSA/ AK (7')	Hole Diameter:	12"/10"	Please see site map	
Sampling Method:	SS	Hole Depth:	28'		
Casing Type:	Sch 40 PVC	Well Diameter:	4"		
Slot Size:	0.01	Well Depth:	28'		
Gravel Pack:	#2/12 sand	Casing Stickup:	NA		
Elevation		Northing		Easting	

Well Completion (Backfill / Casing)	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery	Sample Interval	Soil Type	LITHOLOGY / DESCRIPTION
Sand					21			CL	**sandy lean CLAY** (cont.)
					22				
					23				
	24.1' ▼	1:45p		6	24				very stiff
				10					
		moist	2.3	10	25				
					26			SC	**clayey SAND**: brown, medium dense, 30-40% fines, trace gravels up to 0.5" b-axis diameter, no plasticity
				10	27				
		moist	8.8	15					
				15	28				Bottom of boring terminated at 28 feet bg
					29				
					30				
					31				
					32				
					33				
					34				
					35				
					36				
					37				
					38				
					39				
					40				

Delta

Environmental Consultants, Inc.

Project No:SJ89-99-1	Client: Shell Oil Products US	Well No: MW-6	
Logged By: Andy Persio	Location: 8999 San Ramon, Dublin,CA	Page 1 of 2	
Driller: Gregg	Date Drilled: 2/21/2006	Location Map	
Drilling Method: WK to 7'/HSA	Hole Diameter: 12" - 10"	Please see site map	
Sampling Method: HA/SS	Hole Depth: 7'/30'		
Casing Type: SCh 40 PVC	Well Diamete 4"		
Slot Size: 0.01	Well Depth: 30'		
Gravel Pack: 2/12/ sand	Casing Stickup: 0		
Elevation	Northing	Easting	

Well Completion	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery	Sample Interval	Soil Type	LITHOLOGY / DESCRIPTION
Backfill / Casing								AF	~6" asphalt and baserock
		damp	32.5	air knifed & hand augered	1–2			CL	**sandy lean CLAY**: dark grey, 40-50% fine to med. grained sands, med.plasticity
		damp	18.5		3–4				dark brown, 35-45% fine to med. grained sands
Grout		damp	50.6		5–6				orangish brown, 40-50% fine to med. grained sands
		damp	86.1		7–10			CL	**lean CLAY w/sand**: dark brown, 10-20% fine grained sands, trace gravels up to 1" dia., trace caliche, med. Plasticity
		damp	11.8		11–15			CL	**lean CLAY**: dark brown, 5-15% fine grained sands, med. plasticity
Bentonite		damp	6.2		16–20			SC	**clayey SAND**: greenish brown to grey (discoloration), 40-50% fines, med. to fine grained sands, low plasticity

Delta

Environmental Consultants, Inc.

Project No:SJ89-99-1	Client: Shell Oil Products US	Well No: MW-6
Logged By: Andy Persio	Location: 8999 San Ramon, Dublin,CA	Page 2 of 2
Driller: Gregg	Date Drilled: 2/21/2006	
Drilling Method: WK to 7'/HSA	Hole Diameter: 12" - 10"	
Sampling Method: HA/SS	Hole Depth: 7'/30'	
Casing Type: SCh 40 PVC	Well Diamete 4"	
Slot Size: 0.01	Well Depth: 30'	
Gravel Pack: 2/12/ sand	Casing Stickup: 0	
Elevation	Northing	Easting

Location Map

Please see site map

Well Completion (Backfill / Casing)	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery	Sample Interval	Soil Type	LITHOLOGY / DESCRIPTION
Sand					21			SC	**clayey SAND** (cont.)
					22				
					23			CL	**lean CLAY w/sand**: brown w/orange mottling, med. stiff, 15-25% fine grained sands, trace gravels up to 1/4" dia.
	24.6'				24				
		damp	11.3		25				
					26				
					27				
					28				
					29			SC	**clayey SAND w/gravel**: greyish brown w/orange mottling, med. Dense, 30-40% fines, 5-15% gravels up to 1/2" dia., no plasticity
		moist	1.9		30				Bottom of boring terminated at 30' bg
					31				
					32				
					33				
					34				
					35				
					36				
					37				
					38				
					39				
					40				

Delta
Environmental Consultants, Inc.

Project No:	SJ89-99S-1	Client:	Shell Oil Products US	Well No: MW-7
Logged By:	Andy Persio	Location:	8999 San Ramon	Page 1 of 2
Driller:	Gregg	Date Drilled:	7/26/2006	
Drilling Method:	HSA / AK (7')	Hole Diameter:	12"/10"	
Sampling Method:	SS	Hole Depth:	28'	
Casing Type:	Sch 40 PVC	Well Diameter:	4"	
Slot Size:	0.01	Well Depth:	28'	
Gravel Pack:	#2/12 sand	Casing Stickup:	NA	
Elevation		Northing		Easting

Location Map

Please see site map

Well Completion (Backfill / Casing)	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery	Sample Interval	Soil Type	LITHOLOGY / DESCRIPTION
Grout								AF	~5" asphalt
					1			SC	**clayey SAND**: brown, medium dense, 15-25% fines, fine to medium grained sands, no plasticity
					2				* @ around 18-24" bg a broken layer of asphalt was uncovered
				air knifed & hand augered	3			CL	**lean CLAY**: dark brown, stiff, <10% fine grained sands, low plasticity, trace gravels up to 0.5" diameter
					4				
		moist	0.6		5				
					6				
					7				
					8				
				4	9			CL	**sandy lean CLAY**: dark brown, very stiff, 30-40% fine to medium grained sands, 5-15% gravels up to 0.75" b-axis diameter, low plasticity
		moist	0.6	7					
				10	10				
					11				
					12				
					13				
				4	14			CL	**lean CLAY w/sand**: dark brown, stiff, 15-25% fine grained sands, low plasticity
		moist	1.2	6					
				8	15				
					16				
Bentonite					17				
					18				
				10	19			CL	**sandy lean CLAY**: brown, hard, 30-40% fine to medium grained sands, trace gravels up to 0.5" diameter, low plasticity
San		moist	0.8	13					
				13	20				

Delta
Environmental
Consultants, Inc.

Project No:	SJ89-99S-1	Client:	Shell Oil Products US	Well No: MW-7
Logged By:	Andy Persio	Location:	8999 San Ramon	Page 2 of 2
Driller:	Gregg	Date Drilled:	7/26/2006	
Drilling Method:	HSA / AK (7')	Hole Diameter:	12"/10"	
Sampling Method:	SS	Hole Depth:	28'	
Casing Type:	Sch 40 PVC	Well Diameter:	4"	
Slot Size:	0.01	Well Depth:	28'	
Gravel Pack:	#2/12 sand	Casing Stickup:	NA	
Elevation		Northing		Easting

Location Map

Please see site map

Well Completion Casing	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery	Sample Interval	Soil Type	LITHOLOGY / DESCRIPTION
					21			CL	**sandy lean CLAY** (cont.)
					22				
					23				
				6	24				same as above
	25.0' 8:15a	moist	0.8	12 13	25				
					26				
				6	27				light brown, no gravels
		moist	0.6	12 13	28				Bottom of boring terminated at 28 feet bg
					29				
					30				
					31				
					32				
					33				
					34				
					35				
					36				
					37				
					38				
					39				
					40				

Delta
Environmental Consultants, Inc.

Project No:	SJ89-99S-1	Client:	Shell Oil Products US	Well No: MW-8	
Logged By:	Andy Persio	Location:	8999 San Ramon	Page 1 of 2	
Driller:	Gregg	Date Drilled:	7/25 & 27/06	Location Map	
Drilling Method:	HSA / AK (7')	Hole Diameter:	12"/10"	Please see site map	
Sampling Method:	SS	Hole Depth:	28'		
Casing Type:	Sch 40 PVC	Well Diameter:	4"		
Slot Size:	0.01	Well Depth:	28'		
Gravel Pack:	#2/12 sand	Casing Stickup:	NA		
Elevation		Northing		Easting	

Well Completion (Backfill / Casing)	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery / Interval	Soil Type	LITHOLOGY / DESCRIPTION
					0		AF	~4" asphalt
				air knifed & hand augered	1–4			No samples or observations above 5' bg because I was with drillers setting another well
Grout		moist	0.8		5		CL	**sandy lean CLAY**: brown, medium stiff, 35-45% fine grained to medium grained sands, trace gravels up to 0.5" diameter, low plasticity
					6–8			
		moist	0.5	12 20 17	9–10		SC	**clayey SAND**: brown, dense, 30-40% fines, fine to coarse grained sands, 5-15% gravels up to 1" b-axis, no plasticity
					11–13			
		moist	65.2	10 12 17	14–15		CL	**lean CLAY w/sand**: dark brown, hard, 15-25% fine grained sands, 5-15% gravels up to 0.75" diameter, low plasticity
Bentonit					16–18			
Sand		moist	146	6 10 11	19–20			very stiff, trace gravels up to 0.5" diameter

Delta
Environmental
Consultants, Inc.

Project No:	SJ89-99S-1	Client:	Shell Oil Products US	Well No: MW-8
Logged By:	Andy Persio	Location:	8999 San Ramon	Page 2 of 2
Driller:	Gregg	Date Drilled:	7/25 & 27/06	Location Map
Drilling Method:	HSA / AK (7')	Hole Diameter:	12"/10"	Please see site map
Sampling Method:	SS	Hole Depth:	28'	
Casing Type:	Sch 40 PVC	Well Diameter:	4"	
Slot Size:	0.01	Well Depth:	28'	
Gravel Pack:	#2/12 sand	Casing Stickup:	NA	
Elevation		Northing		Easting

Well Completion Casing	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery	Sample Interval	Soil Type	LITHOLOGY / DESCRIPTION
					21			CL	**lean CLAY w/sand** (cont.)
	22.1' b ▼ 10:00a				22				
					23				
		moist	12.3	5 9 11	24				no gravels
					25				
					26				
		moist	0.9	8 11 15	27				dark grey, medium plasticity
					28				Bottom of boring terminated at 28 feet bg
					29				
					30				28' bg= bottom of boring
					31				
					32				
					33				
					34				
					35				
					36				
					37				
					38				
					39				
					40				

Delta

Environmental Consultants, Inc.

Project No:	SJ89-99S-1	Client:	Shell Oil Products US	Well No: MW-9
Logged By:	Andy Persio	Location:	8999 San Ramon	Page 1 of 2
Driller:	Gregg	Date Drilled:	7/26 & 27/06	
Drilling Method:	HAS/ AK (7')	Hole Diameter:	12"/10"	
Sampling Method:	SS	Hole Depth:	29.4'	
Casing Type:	Sch 40 PVC	Well Diameter:	4"	
Slot Size:	0.01	Well Depth:	29.4'	
Gravel Pack:	#2/12 sand	Casing Stickup:	NA	
Elevation		Northing		Easting

Location Map

Please see site map

Well Completion (Backfill / Casing)	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery	Sample Interval	Soil Type	LITHOLOGY / DESCRIPTION
								AF	~3" asphalt and ~ 3" baserock
					1			CL	sandy lean CLAY: dark brown, stiff, 30-40% fine to medium grained sands, low plasticity, trace gravels up to 1" b-axis diameter
					2				
					3				
					4				
Grout		moist	2.6	air knifed & hand augered	5				40-50% fine to medium grained sand, brown
					6				
					7				
					8				
		moist	1.1	4 4 6	9				5-15% gravels up to 0.5" diameter
					10				
					11				
					12				
					13			CL	lean CLAY w/sand: brown, very stiff, 15-25% fine grained sands, low plasticity
		moist	0.9	5 8 10	14				
					15				
					16				
					17				
					18				
Bentonite		moist	0.7	7 11 17	19				hard, 10-20% fine grained sands
					20				

Delta Environmental Consultants, Inc.

Project No:	SJ89-99S-1	Client:	Shell Oil Products US	Well No: MW-9
Logged By:	Andy Persio	Location:	8999 San Ramon	Page 2 of 2
Driller:	Gregg	Date Drilled:	7/26 & 27/06	
Drilling Method:	HAS/ AK (7')	Hole Diameter:	12"/10"	
Sampling Method:	SS	Hole Depth:	29.4'	
Casing Type:	Sch 40 PVC	Well Diameter:	4"	
Slot Size:	0.01	Well Depth:	29.4'	
Gravel Pack:	#2/12 sand	Casing Stickup:	NA	
Elevation		Northing		Easting

Location Map

Please see site map

Well Completion Casing	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery	Sample Interval	Soil Type	LITHOLOGY / DESCRIPTION
					21			CL	lean CLAY w/sand (cont.)
					22				
					23				
				7	24				hard, 15-25% fine grained sands
			0.5	13					
				15	25				
					26				
				7	27				same as above
			1	12					
				16	28				
	28.9'bg 10:00a				29				
					30				29.4'bg = bottom of boring/well
					31				
					32				
					33				
					34				
					35				
					36				
					37				
					38				
					39				
					40				

Delta

Environmental Consultants, Inc.

Project No:	SJ89-99S-1	Client:	Shell Oil Products US	Well No: MW-10	
Logged By:	Andy Persio	Location:	8999 San Ramon	Page 1 of 2	
Driller:	Gregg	Date Drilled:	7/25-26/06	Location Map	
Drilling Method:	HSA / AK (7')	Hole Diameter:	12"/10"	Please see site map	
Sampling Method:	SS	Hole Depth:	29'		
Casing Type:	Sch 40 PVC	Well Diameter:	4"		
Slot Size:	0.01	Well Depth:	29'		
Gravel Pack:	#2/12 sand	Casing Stickup:	NA		
Elevation		Northing		Easting	

Well Completion (Backfill / Casing)	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery	Sample Interval	Soil Type	LITHOLOGY / DESCRIPTION
								AF	~9" asphalt and ~3" baserock
				air knifed & hand augered	1			SC	**clayey SAND**: light grey, medium dense, 10-20% fines, fine to medium grained sands, no plasticity
					2				
					3				
					4				
Grout		moist	3.6		5			CL	**sandy lean CLAY**: dark brown, stiff, 30-40% fine grained sands, trace gravels and cobbles up to 3" b-axis diameter, low plasticity
					6				
					7				
					8				
		moist	29.5	4 8 14	9			CL	lean CLAY w/sand: dark brown, 20-30% fine to medium grained sands, very stiff, trace gravels up to 2" b-axis diameter, low plasticity
					10				
					11				
					12				
					13				
		moist	5.1	7 8 10	14				10-20% fine to medium grained sands, trace gravels up to 1" b-axis diameter
					15				
Bentonite					16				
					17				
					18				
Sand		moist	3.5	5 1 16	19 20			CL	sandy lean CLAY: dark grwy w/greenish discoloration, hard, 30-40% fine to medium grained sands, low plasticity

Delta Environmental Consultants, Inc.

Project No:	SJ89-99S-1	Client:	Shell Oil Products US	Well No: MW- 10
Logged By:	Andy Persio	Location:	8999 San Ramon	Page 2 of 2
Driller:	Gregg	Date Drilled:	7/25-26/06	
Drilling Method:	HAS/ AK (7')	Hole Diameter:	12"/10"	
Sampling Method:	SS	Hole Depth:	29'	
Casing Type:	Sch 40 PVC	Well Diameter:	4"	
Slot Size:	0.01	Well Depth:	29'	
Gravel Pack:	#2/12 sand	Casing Stickup:	NA	
Elevation		Northing		Easting

Location Map

Please see site map

Well Completion Casing	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery	Sample Interval	Soil Type	LITHOLOGY / DESCRIPTION
					21			CL	sandy lean CLAY (cont.): dark brown, same as above, no discoloration
					22				
					23				
	22.85' 4:00p								
		moist	1.3	4 8 12	24			CL	lean CLAY w/sand: dark brown, very stiff, 15-25% fine grained sands, low plasticity
					25				
					26				
		moist	1.2	7 10 14	27				same as above
					28				
					29				29'bg = bottom of boring/well
					30				
					31				
					32				
					33				
					34				
					35				
					36				
					37				
					38				
					39				
					40				

Delta
Environmental Consultants, Inc.

Project No:	SJ89-99S-1	Client:	Shell Oil Products US	Well No: MW-11
Logged By:	Andy Persio	Location:	8999 San Ramon	Page 1 of 2
Driller:	Gregg	Date Drilled:	7/25 & 28/06	
Drilling Method:	HSA / AK (7')	Hole Diameter:	10"/6"	
Sampling Method:	SS	Hole Depth:	29'	
Casing Type:	Sch 40 PVC	Well Diameter:	2"	
Slot Size:	0.01	Well Depth:	29'	
Gravel Pack:	#2/12 sand	Casing Stickup:	NA	
Elevation		Northing		Easting

Location Map

Please see site map

Well Completion (Backfill / Casing)	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery / Interval	Soil Type	LITHOLOGY / DESCRIPTION
Grout							AF	~3" asphalt and ~6" baserock
				air knifed & hand augered	1		CL	**lean CLAY w/sand**: dark brown, medium stiff, 15-25% fine to medium grained sands, low plasticity
					2			
					3			
					4			
		moist	275		5			
					6			
					7		CL	**sandy lean CLAY**: light brown, medium stiff, 35-45% fine to medium grained sands, low plasticity
					8			
				2	9			
		moist	0.8	3				30-40% fine to medium grained sands, 5-15%
				4	10			gravels up to 0.5" b-axis diameter
					11			
					12			
					13			
				6	14			vert stiff, 25-35% fine to medium grained sands
		moist	0.8	8				
				11	15			
					16			
					17			
Bentonit					18			
				7	19		SC	**clayey SAND**: light brown, medium dense, 25-35% fines,
		moist	2.4	8				no plasticity
				15	20			

Delta Environmental Consultants, Inc.

Project No:	SJ89-99S-1	Client:	Shell Oil Products US	Well No: MW-11
Logged By:	Andy Persio	Location:	8999 San Ramon	Page 2 of 2
Driller:	Gregg	Date Drilled:	7/25 & 28/06	
Drilling Method:	HSA / AK (7')	Hole Diameter:	10"/6"	
Sampling Method:	SS	Hole Depth:	29'	
Casing Type:	Sch 40 PVC	Well Diameter:	2"	
Slot Size:	0.01	Well Depth:	29'	
Gravel Pack:	#2/12 sand	Casing Stickup:	NA	
Elevation		Northing		Easting

Location Map

Please see site map

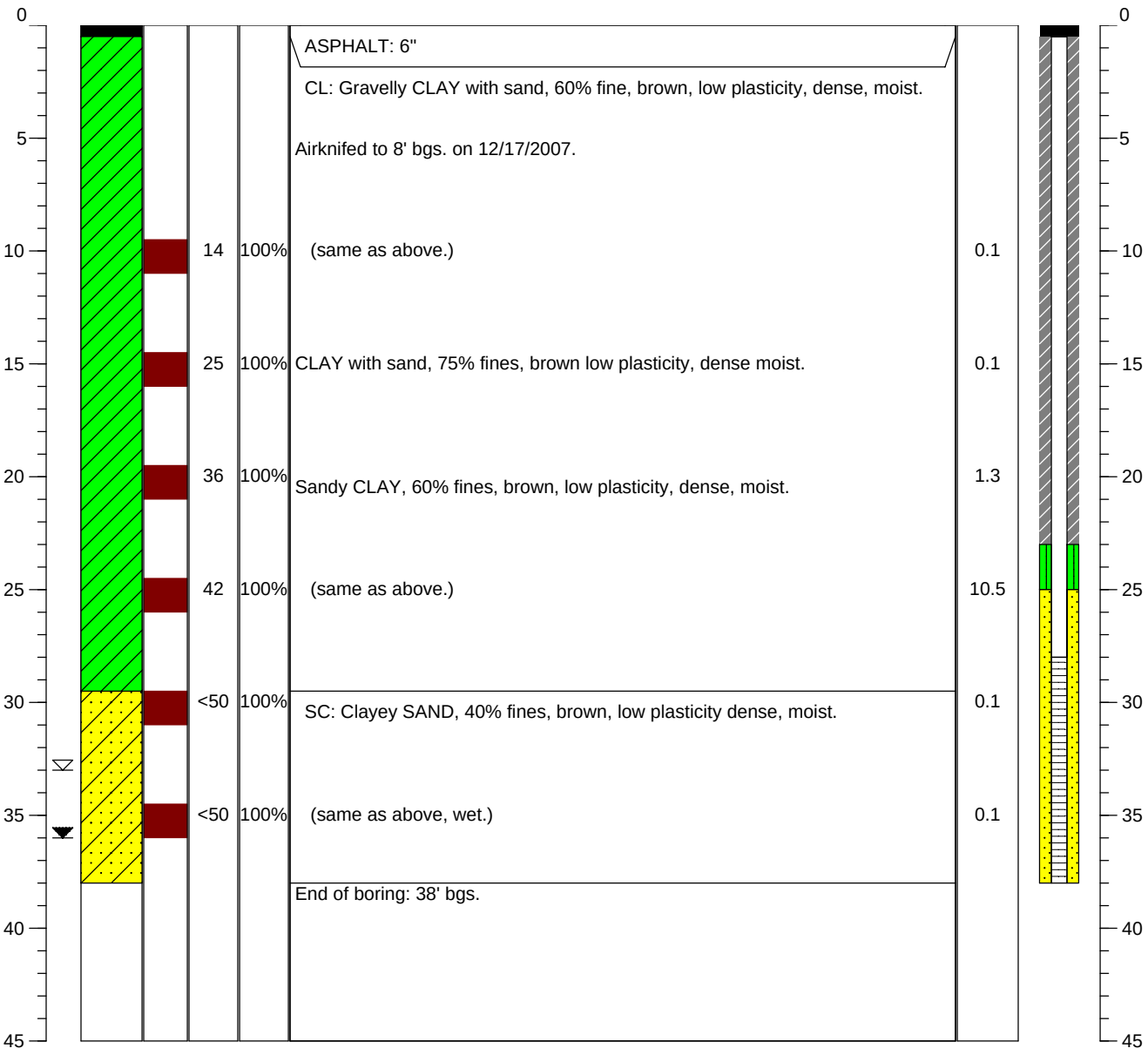
Well completion Casing	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery	Sample Interval	Soil Type	LITHOLOGY / DESCRIPTION
					21			SC	**clayey SAND** (cont.)
					22				
					23				
				8	24				30-40% fines, medium dense, trace gravels up to
		moist	1.6	11					0.5" diameter
				16	25				
					26				
				5	27				40-50% fines, no gravels
		moist	1.2	7					
	28.3' bg			11	28				
	2:20p				29				29'bg = bottom of boring/well
					30				
					31				
					32				
					33				
					34				
					35				
					36				
					37				
					38				
					39				
					40				

BORING LOG

Client Shell Oil Products
Project Number SJ899SA

Well No.
MW-11B

Address:	Drilling Date(s): **12/19/2007**	Boring diameter (in.): **10"**	Casing Material: **SCH 40 PVC**
899 San Ramon Road	Drilling Company: **Test America**	Sampling Method: **Split Spoon**	Screen Interval: **28'-38'**
Dublin, CA.	Drilling Method: **HSA**	Well Depth (ft.): **38'**	Screen slot size: **0.010"**
Logged By: **M. Lambert**	Boring Depth (ft): **38**	Casing Diameter (in.): **4"**	Sand Pack: **#2/12**



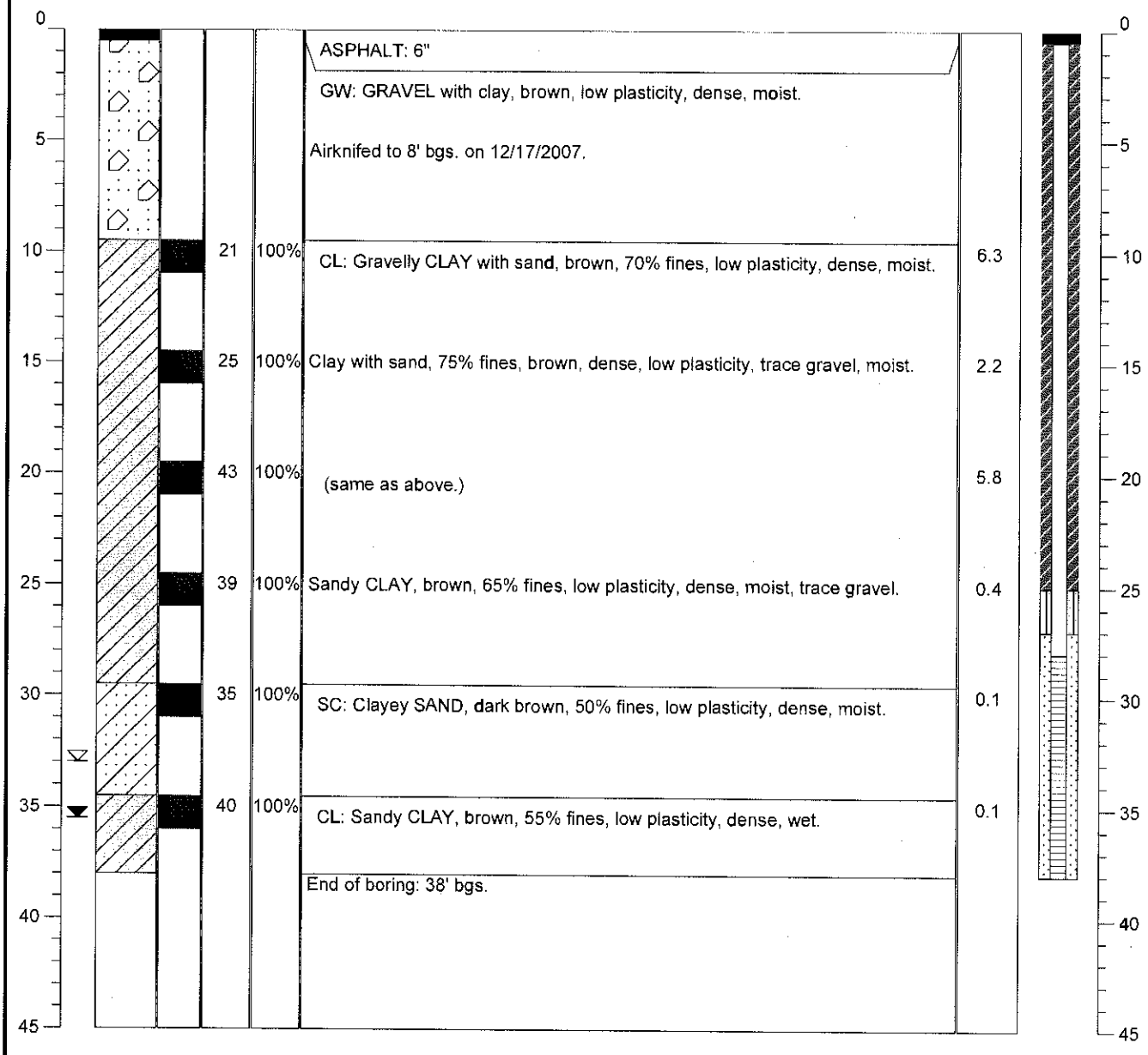
BORING LOG

DELTA Inogen

Client: **Shell Oil Products**
Project Number: **SJ899SA**

Well No. MW-12

Address: **899 San Ramon Road Dublin, CA.**	Drilling Date(s): **12/19/2007**	Boring diameter (in.): **10"**	Casing Material: **SCH 40 PVC**
Logged By: **M. Lambert**	Drilling Company: **Test America**	Sampling Method: **Split Spoon**	Screen Interval: **28'-38'**
	Drilling Method: **HSA**	Well Depth (ft.): **38'**	Screen slot size: **0.010"**
	Boring Depth (ft): **38**	Casing Diameter (in.): **4"**	Sand Pack: **#2/12**



Conestoga Rovers & Associates
5900 Hollis Street, Suite A
Emeryville, CA 94608
Telephone: 510-420-0700
Fax: 510-420-9170

BORING / WELL LOG

CLIENT NAME	Shell Oil Products US	**BORING/WELL NAME**	MW-13
JOB/SITE NAME	Shell - branded Service Station	**DRILLING STARTED**	18-Feb-11
LOCATION	8999 San Ramon Road, Dublin, CA	**DRILLING COMPLETED**	02-Mar-11
PROJECT NUMBER	240724	**WELL DEVELOPMENT DATE (YIELD)**	13-May-11 (33.0 gallons)
DRILLER	Cascade Drilling, L.P.	**GROUND SURFACE ELEVATION**	416.31 ft above msl
DRILLING METHOD	Hollow-stem auger	**TOP OF CASING ELEVATION**	415.77 ft above msl
BORING DIAMETER	8"	**SCREENED INTERVALS**	30 to 45 fbg
LOGGED BY	W. Martinez	**DEPTH TO WATER (First Encountered)**	40.00 fbg ▽
REVIEWED BY	P. Schaefer PG#5612	**DEPTH TO WATER (Static)**	24.60 fbg (13-May-11) ▼
REMARKS	Airknifed to 5 fbg		

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
							See boring log MW-13C for lithology.		Portland Type I/II

Continued Next Page

WELL LOG (PID) I:\SHELL\6-CHARS\2407--\240724-1\244DE5~1\240724.GPJ DEFAULT.GDT 5/25/11

Conestoga Rovers & Associates
5900 Hollis Street, Suite A
Emeryville, CA 94608
Telephone: 510-420-0700
Fax: 510-420-9170

BORING / WELL LOG

CLIENT NAME	Shell Oil Products US	**BORING/WELL NAME**	MW-13
JOB/SITE NAME	Shell - branded Service Station	**DRILLING STARTED**	18-Feb-11
LOCATION	8999 San Ramon Road, Dublin, CA	**DRILLING COMPLETED**	02-Mar-11

Continued from Previous Page

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
				25					2" diam., Schedule 40 PVC; Bentonite Seal; Monterey Sand #2/12; 2"-diam., 0.010" slotted Schedule 40 PVC
				30					
				35					
				40					

Continued Next Page

WELL LOG (PID) I:\SHELL\6-CHARS\2407--\240724--1\244DE5--1\240724.GPJ DEFAULT.GDT 5/25/11

Conestoga Rovers & Associates
5900 Hollis Street, Suite A
Emeryville, CA 94608
Telephone: 510-420-0700
Fax: 510-420-9170

BORING / WELL LOG

CLIENT NAME	Shell Oil Products US	**BORING/WELL NAME**	MW-13
JOB/SITE NAME	Shell - branded Service Station	**DRILLING STARTED**	18-Feb-11
LOCATION	8999 San Ramon Road, Dublin, CA	**DRILLING COMPLETED**	02-Mar-11

Continued from Previous Page

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
				45				45.0	Bottom of Boring @ 45 fbg

WELL LOG (PID) I:\SHELL\6-CHARS\2407--1240724--1244DE5--1240724.GPJ DEFAULT.GDT 5/25/11

Conestoga Rovers & Associates
5900 Hollis Street, Suite A
Emeryville, CA 94608
Telephone: 510-420-0700
Fax: 510-420-9170

BORING / WELL LOG

CLIENT NAME	Shell Oil Products US	**BORING/WELL NAME**	MW-13B
JOB/SITE NAME	Shell - branded Service Station	**DRILLING STARTED**	18-Feb-11
LOCATION	8999 San Ramon Road, Dublin, CA	**DRILLING COMPLETED**	03-Mar-11
PROJECT NUMBER	240724	**WELL DEVELOPMENT DATE (YIELD)**	13-May-11 (72.0 gallons)
DRILLER	Cascade Drilling, L.P.	**GROUND SURFACE ELEVATION**	416.10 ft above msl
DRILLING METHOD	Hollow-stem auger	**TOP OF CASING ELEVATION**	415.39 ft above msl
BORING DIAMETER	8"	**SCREENED INTERVALS**	58 to 68 fbg
LOGGED BY	W. Martinez	**DEPTH TO WATER (First Encountered)**	40.00 fbg ▽
REVIEWED BY	P. Schaefer PG#5612	**DEPTH TO WATER (Static)**	23.40 fbg (13-May-11) ▼
REMARKS	Airknifed to 5 fbg		

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
				5			See boring log MW-13C for lithology.		
				10					
				15					
				20					

Continued Next Page

WELL LOG (PID) I:\SHELL\6-CHARS\2407--\240724-11\244DE5--1\240724.GPJ DEFAULT.GDT 5/25/11

Conestoga Rovers & Associates
5900 Hollis Street, Suite A
Emeryville, CA 94608
Telephone: 510-420-0700
Fax: 510-420-9170

BORING / WELL LOG

CLIENT NAME	Shell Oil Products US	**BORING/WELL NAME**	MW-13B
JOB/SITE NAME	Shell - branded Service Station	**DRILLING STARTED**	18-Feb-11
LOCATION	8999 San Ramon Road, Dublin, CA	**DRILLING COMPLETED**	03-Mar-11

Continued from Previous Page

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
				25					Portland Type I/II
				30					
				35					
				40					

Continued Next Page

WELL LOG (PID) I:\SHELL\6-CHARS\2407-\240724-1\244DE5-1\240724.GPJ DEFAULT.GDT 5/25/11

Conestoga Rovers & Associates
5900 Hollis Street, Suite A
Emeryville, CA 94608
Telephone: 510-420-0700
Fax: 510-420-9170

BORING / WELL LOG

CLIENT NAME	Shell Oil Products US	**BORING/WELL NAME**	MW-13B
JOB/SITE NAME	Shell - branded Service Station	**DRILLING STARTED**	18-Feb-11
LOCATION	8999 San Ramon Road, Dublin, CA	**DRILLING COMPLETED**	03-Mar-11

Continued from Previous Page

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
				45					2" diam., Schedule 40 PVC
				50					Bentonite Seal
				55					Monterey Sand #2/12
				60					2" diam., 0.020 slotted Schedule 40 PVC
				65					

Continued Next Page

WELL LOG (PID) I:\SHELL\6-CHARS\2407-\240724-1\244DE5-1\240724.GPJ DEFAULT.GDT 5/25/11

Conestoga Rovers & Associates
5900 Hollis Street, Suite A
Emeryville, CA 94608
Telephone: 510-420-0700
Fax: 510-420-9170

BORING / WELL LOG

CLIENT NAME	Shell Oil Products US	**BORING/WELL NAME**	MW-13B
JOB/SITE NAME	Shell - branded Service Station	**DRILLING STARTED**	18-Feb-11
LOCATION	8999 San Ramon Road, Dublin, CA	**DRILLING COMPLETED**	03-Mar-11

Continued from Previous Page

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
								68.0	Bottom of Boring @ 68 fbg

WELL LOG (PID) I:\SHELL\6-CHARS\2407--\240724~1\244DE5~1\240724.GPJ DEFAULT GDT 5/25/11

Conestoga Rovers & Associates
5900 Hollis Street, Suite A
Emeryville, CA 94608
Telephone: 510-420-0700
Fax: 510-420-9170

BORING / WELL LOG

CLIENT NAME	Shell Oil Products US	**BORING/WELL NAME**	MW-13C
JOB/SITE NAME	Shell - branded Service Station	**DRILLING STARTED**	18-Feb-11
LOCATION	8999 San Ramon Road, Dublin, CA	**DRILLING COMPLETED**	02-Mar-11
PROJECT NUMBER	240724	**WELL DEVELOPMENT DATE (YIELD)**	13-May-11 (101.0 gallons)
DRILLER	Cascade Drilling, L.P.	**GROUND SURFACE ELEVATION**	415.73 ft above msl
DRILLING METHOD	Hollow-stem auger	**TOP OF CASING ELEVATION**	415.73 ft above msl
BORING DIAMETER	8"	**SCREENED INTERVALS**	85 to 95 fbg
LOGGED BY	W. Martinez	**DEPTH TO WATER (First Encountered)**	40.00 fbg ▽
REVIEWED BY	P. Schaefer PG#5612	**DEPTH TO WATER (Static)**	26.55 fbg (13-May-11) ▼
REMARKS	Airknifed to 5 fbg		

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
							ASPHALT	0.3	
					CL		**Gravelly CLAY (CL):** dark reddish gray (10R 4/1), moist, 40% clay, 30% silt, 30% gravel, low plasticity, fill.		
					CH		**CLAY (CH):** very dark gray (5YR 3/1), moist, 80% clay, 15% silt, 5% fine gravel, high plasticity, fill.	3.0	
					ML		**SILT with sand (ML):** very dark gray (5YR 3/1), moist, 30% clay, 55% silt, 10% fine sand, 5% fine gravel, medium plasticity, fill.	4.0	
				5			**CLAY with sand (CL):** dark reddish brown (5YR 2.5/2), moist, 50% clay, 30% silt, 20% fine sand, medium plasticity, fill.	5.0	
0.0	4/5/5	MW-13 C -5.5			CL				
								8.3	
0.3	7/12/8	MW-13 C -10.5		10	ML		**Sandy SILT (ML):** brown (2.5YR 5/2), moist, 10% clay, 60% silt, 20% fine sand, 10% fine gravel, low plasticity.		
0.2	10/10/10	MW-13 C -15.5		15					
				20				20.0	

Continued Next Page

WELL LOG (PID) I:\SHELL\6-CHARS\2407--\240724-1\244DE5~1\240724.GPJ DEFAULT.GDT 5/25/11

Conestoga Rovers & Associates
5900 Hollis Street, Suite A
Emeryville, CA 94608
Telephone: 510-420-0700
Fax: 510-420-9170

BORING / WELL LOG

CLIENT NAME	Shell Oil Products US	**BORING/WELL NAME**	MW-13C
JOB/SITE NAME	Shell - branded Service Station	**DRILLING STARTED**	18-Feb-11
LOCATION	8999 San Ramon Road, Dublin, CA	**DRILLING COMPLETED**	02-Mar-11

Continued from Previous Page

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
0.2	17/32/36	MW-13 C -20.5			ML		@ 20 fbg; **SILT (ML):** pale yellow (2.5YR 7/4), dry, 90% silt, 10% fine sand.	23.3	
0.4	7/10/13	MW-13 C -25.5		25	CL		**CLAY (CL):** brown (7.5 YR 5/2), moist, 60% clay, 35% silt, 5% fine gravel, medium plasticity. ▼	28.3	
0.5	5/5/8	MW-13 C -30.5		30	CH		**CLAY (CH):** very dark grayish brown (2.5Y 3/2), moist, 70% clay, 25% silt, 5% fine gravel, high plasticity.	33.3	
0.2	7/7/10	MW-13 C -35.5		35	CL		**CLAY (CL):** very dark grayish brown (2.5Y 3/2), moist, 50% clay, 40% silt, 10% fine sand, medium plasticity.	38.3	Portland Type I/II
0.2	5/8/8	MW-13 C -40.5		40	ML		**SILT with sand (ML):** very dark grayish brown (2.5Y 3/2), wet, 10% clay, 65% silt, 25% fine sand, low plasticity. ▽		

WELL LOG (PID) I:\SHELL\6-CHARS\2407--1240724-11244DE5--11240724.GPJ DEFAULT.GDT 5/25/11

Continued Next Page

Conestoga Rovers & Associates
5900 Hollis Street, Suite A
Emeryville, CA 94608
Telephone: 510-420-0700
Fax: 510-420-9170

BORING / WELL LOG

CLIENT NAME	Shell Oil Products US	**BORING/WELL NAME**	MW-13C
JOB/SITE NAME	Shell - branded Service Station	**DRILLING STARTED**	18-Feb-11
LOCATION	8999 San Ramon Road, Dublin, CA	**DRILLING COMPLETED**	02-Mar-11

Continued from Previous Page

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
								43.3	
0.1	7/9/13	MW-13 C -45.5		45	CL		**CLAY with sand (CL):** very dark grayish brown (2.5Y 3/2), wet, 60% clay, 20% silt, 15% fine sand, 5% fine gravel, medium plasticity.		
								48.3	
0.3	5/10/10	MW-13 C -50.5		50	ML		**SILT (ML):** very dark grayish brown (2.5Y 3/2), moist, 40% clay, 60% silt, medium plasticity.		
0.1	7/9/13	MW-13 C -55.5		55			@55 fbg; 20% clay, 70% silt, 10% sand, low plasticity.		
								58.3	
0.8	10/10/15	MW-13 C -60.5		60	CL		**CLAY with sand (CL):** dark grayish brown (2.5Y 4/2), moist, 60% clay, 20% silt, 15% fine sand, 5% fine gravel, low plasticity.		
								63.3	
0.6	10/10/12	MW-13 C		65			**SILT (ML):** light olive brown (2.5Y 5/3), moist, 40% clay, 60% silt, low plasticity.		

Continued Next Page

WELL LOG (PID) I:\SHELL\6-CHARS\2407--1240724-1\244DE5--1240724.GPJ DEFAULT.GDT 5/25/11

Conestoga Rovers & Associates
5900 Hollis Street, Suite A
Emeryville, CA 94608
Telephone: 510-420-0700
Fax: 510-420-9170

BORING / WELL LOG

CLIENT NAME	Shell Oil Products US	**BORING/WELL NAME**	MW-13C
JOB/SITE NAME	Shell - branded Service Station	**DRILLING STARTED**	18-Feb-11
LOCATION	8999 San Ramon Road, Dublin, CA	**DRILLING COMPLETED**	02-Mar-11

Continued from Previous Page

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
		-80.5			ML				
0.8	10/10/10	MW-13 C -70.5		70			@ 70 fbg; **Sandy SILT (ML):** 10% clay, 60% silt, 30% fine sand.	73.3	
0.9	10/14/18	MW-13 C -75.5		75	CL		**CLAY (CL):** reddish gray (5YR 5/2), moist, 60% clay, 40% silt, medium plasticity.	78.3	2" diam., Schedule 40 PVC
0.1	10/11/10	MW-13 C -80.5		80	ML		**Sandy SILT (ML):** reddish gray (5YR 5/2), moist, 10% clay, 60% silt, 30% fine sand, low plasticity.	83.3	Bentonite Seal
0.5	7/19/24	MW-13 C -85.5		85	CL		**CLAY with sand (CL):** reddish gray (5YR 5/2), moist, 50% clay, 30% silt, 20% fine sand, medium plasticity.	86.0	Monterey Sand #2/12
					SM		**Silty SAND (SM):** reddish gray (5YR 5/2), moist, 20% silt, 80% fine to medium sand.	88.3	
							SAND (SP): brown (7.5YR 5/2), wet, 95% fine to coarse		

WELL LOG (PID) I:\SHELL\6-CHARS\2407--\240724--1\244DE5--1240724.GPJ DEFAULT.GDT 5/25/11

Continued Next Page

Conestoga Rovers & Associates
5900 Hollis Street, Suite A
Emeryville, CA 94608
Telephone: 510-420-0700
Fax: 510-420-9170

BORING / WELL LOG

CLIENT NAME	Shell Oil Products US	**BORING/WELL NAME**	MW-13C
JOB/SITE NAME	Shell - branded Service Station	**DRILLING STARTED**	18-Feb-11
LOCATION	8999 San Ramon Road, Dublin, CA	**DRILLING COMPLETED**	02-Mar-11

Continued from Previous Page

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
				90	SP		sand, 5% fine gravel.		2"-diam., 0.010" Slotted Schedule 40 PVC
0.1	7/9/12	MW-13 C -90.5			ML		**SILT with sand (ML):** brown, (7.5YR 4/3), moist, 25% clay, 50% silt, 20% fine sand, 5% fine gravel, medium plasicity.	91.0	
								93.3	
				95	CH		**CLAY (CH):** brown (7.5YR 4/3), moist, 95% clay, 5% coarse sand, high plasticity.		
0.0	12/17/30	MW-13 C -95.5						98.3	Bentonite Seal
				100	ML		**Sandy SILT (ML):** brown (7.5YR 4/3), moist, 60% silt, 40% fine sand, low plasticity.		
0.0	9/12/15	MW-13 C -100.5						101.5	Bottom of Boring @ 101.5 fbg

WELL LOG (PID) I:\SHELL\6-CHARS\2407--\240724-11244DE5-1\240724.GPJ DEFAULT.GDT 5/25/11

Conestoga Rovers & Associates
5900 Hollis Street, Suite A
Emeryville, CA 94608
Telephone: 510-420-0700
Fax: 510-420-9170

BORING / WELL LOG

CLIENT NAME	Shell Oil Products US	**BORING/WELL NAME**	MW-14B
JOB/SITE NAME	Shell - branded Service Station	**DRILLING STARTED**	17-Feb-11
LOCATION	8999 San Ramon Road, Dublin, CA	**DRILLING COMPLETED**	01-Mar-11
PROJECT NUMBER	240724	**WELL DEVELOPMENT DATE (YIELD)**	13-May-11 (76.0 gallons)
DRILLER	Cascade Drilling, L.P.	**GROUND SURFACE ELEVATION**	413.33 ft above msl
DRILLING METHOD	Hollow-stem auger	**TOP OF CASING ELEVATION**	413.33 ft above msl
BORING DIAMETER	8"	**SCREENED INTERVALS**	58 to 68 fbg
LOGGED BY	W. Martinez	**DEPTH TO WATER (First Encountered)**	40.00 fbg
REVIEWED BY	P. Schaefer PG#5612	**DEPTH TO WATER (Static)**	20.37 fbg (11-May-11)
REMARKS	Airknifed to 5 fbg		

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
				5			See boring log MW-14C for lithology.		
				10					
				15					
				20					

Continued Next Page

WELL LOG (PID) I:\SHELL\6-CHARS\2407-\240724-1\244DE5-1\240724.GPJ DEFAULT.GDT 5/25/11

Conestoga Rovers & Associates
5900 Hollis Street, Suite A
Emeryville, CA 94608
Telephone: 510-420-0700
Fax: 510-420-9170

BORING / WELL LOG

CLIENT NAME	Shell Oil Products US	**BORING/WELL NAME**	MW-14B
JOB/SITE NAME	Shell - branded Service Station	**DRILLING STARTED**	17-Feb-11
LOCATION	8999 San Ramon Road, Dublin, CA	**DRILLING COMPLETED**	01-Mar-11

Continued from Previous Page

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
				25					Portland Type I/II
				30					
				35					
				40					

Continued Next Page

WELL LOG (PID) I:\SHELL\6-CHARS\2407--\240724--1\244DE5--1\240724.GPJ DEFAULT.GDT 5/25/11

Conestoga Rovers & Associates
5900 Hollis Street, Suite A
Emeryville, CA 94608
Telephone: 510-420-0700
Fax: 510-420-9170

BORING / WELL LOG

CLIENT NAME	Shell Oil Products US	**BORING/WELL NAME**	MW-14B
JOB/SITE NAME	Shell - branded Service Station	**DRILLING STARTED**	17-Feb-11
LOCATION	8999 San Ramon Road, Dublin, CA	**DRILLING COMPLETED**	01-Mar-11

Continued from Previous Page

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
				45					2" diam., Schedule 40 PVC
				50					Bentonite Seal
				55					Monterey Sand #2/12
				60					2"-diam., 0.020" Slotted Schedule 40 PVC
				65					

Continued Next Page

WELL LOG (PID) I:\SHELL\6-CHARS\2407-\240724-1\244DE5-1\240724.GPJ DEFAULT.GDT 5/25/11

Conestoga Rovers & Associates
5900 Hollis Street, Suite A
Emeryville, CA 94608
Telephone: 510-420-0700
Fax: 510-420-9170

BORING / WELL LOG

CLIENT NAME	Shell Oil Products US	**BORING/WELL NAME**	MW-14B
JOB/SITE NAME	Shell - branded Service Station	**DRILLING STARTED**	17-Feb-11
LOCATION	8999 San Ramon Road, Dublin, CA	**DRILLING COMPLETED**	01-Mar-11

Continued from Previous Page

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
								68.0	Bottom of Boring @ 68 fbg

WELL LOG (PID) I:\SHELL\6-CHARS\2407--\240724--\1244DE5--1\240724.GPJ DEFAULT.GDT 5/25/11

Conestoga Rovers & Associates
5900 Hollis Street, Suite A
Emeryville, CA 94608
Telephone: 510-420-0700
Fax: 510-420-9170

BORING / WELL LOG

CLIENT NAME	Shell Oil Products US	**BORING/WELL NAME**	MW-14C
JOB/SITE NAME	Shell - branded Service Station	**DRILLING STARTED**	18-Feb-11
LOCATION	8999 San Ramon Road, Dublin, CA	**DRILLING COMPLETED**	02-Mar-11
PROJECT NUMBER	240724	**WELL DEVELOPMENT DATE (YIELD)**	13-May-11 (11.1 gallons)
DRILLER	Cascade Drilling, L.P.	**GROUND SURFACE ELEVATION**	413.85 ft above msl
DRILLING METHOD	Hollow-stem auger	**TOP OF CASING ELEVATION**	413.48 ft above msl
BORING DIAMETER	8"	**SCREENED INTERVALS**	90 to 100 fbg
LOGGED BY	W. Martinez	**DEPTH TO WATER (First Encountered)**	40.00 fbg
REVIEWED BY	P. Schaefer PG#5612	**DEPTH TO WATER (Static)**	NA
REMARKS	Airknifed to 5 fbg		

PID (ppm)	BLOW COUNTS	SAMPLE ID	DEPTH (fbg)	U.S.C.S.	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)
					ASPHALT	0.4
				ML	**SILT (ML):** brown (5YR 4/3), moist, 40% clay, 50% silt, 10% fine gravel, medium plasticity, fill.	2.0
				CH	**CLAY (CH):** very dark gray (5YR 3/1), moist, 90% clay, 10% silt, high plasticity, fill.	3.3
0.9	4/4/5	MW-14 C-5.5	5		**CLAY with sand (CL):** dark gray (5YR 4/1), moist, 60% clay, 15% silt, 25% fine sand, medium plasticity, fill.	
0.7	4/7/8	MW-14 C-10.5	10	CL		
0.1	4/8/9	MW-14 C-15.5	15		@ 15 fbg; **Sandy CLAY (CL):** very dark gray (5YR 3/1), 65% clay, 35% fine sand.	
			20			18.3

WELL DIAGRAM

WELL LOG (PID) I:\SHELL\6-CHARS\2407-\240724-11244DE5-\1240724.GPJ DEFAULT.GDT 5/25/11

Continued Next Page

Conestoga Rovers & Associates
5900 Hollis Street, Suite A
Emeryville, CA 94608
Telephone: 510-420-0700
Fax: 510-420-9170

BORING / WELL LOG

CLIENT NAME	Shell Oil Products US	**BORING/WELL NAME**	MW-14C
JOB/SITE NAME	Shell - branded Service Station	**DRILLING STARTED**	18-Feb-11
LOCATION	8999 San Ramon Road, Dublin, CA	**DRILLING COMPLETED**	02-Mar-11

Continued from Previous Page

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
0.3	5/5/5	MW-14 C-20.5			ML		**SILT with sand (ML):** dark yellowish brown (10YR 4/4), moist, 25% clay, 60% silt, 15% fine sand, medium plasticity.	23.3	
0.2	4/9/10	MW-14 C-25.5		25	CL		**CLAY with sand (CL):** brown (10YR 4/3), moist, 70% clay, 10% silt, 20% fine sand, medium plasticity.	28.3	
0.0	8/10/10	MW-14 C-30.5		30	SP-SM		**SAND with silt (SP-SM):** dark yellowish brown (10YR 4/4), moist, 10% silt, 90% coarse sandl.	33.3	
0.0	7/9/12	MW-14 C-35.5		35	CL		**Sandy CLAY (CL):** dark yellowish brown (10YR 4/4), moist, 50% clay, 20% silt, 30% fine sand, medium plasticity.	38.3	Portland Type I/II
0.0	9/7/10	MW-14 C-40.5		40	SP		**SAND (SP):** dark yellowish brown (10YR 4/4), moist, 5% silt, 90% coarse sand, 5% gravel. ▽	41.0	
							CLAY with sand (CL): dark yellowish brown (10YR 4/4), moist, 80% clay, 5% silt, 15% fine sand, medium plasticity.		

WELL LOG (PID) I:\SHELL\6-CHARS\2407--\240724-11\244DE5--1\240724.GPJ DEFAULT.GDT 5/25/11

Continued Next Page

Conestoga Rovers & Associates
5900 Hollis Street, Suite A
Emeryville, CA 94608
Telephone: 510-420-0700
Fax: 510-420-9170

BORING / WELL LOG

CLIENT NAME	Shell Oil Products US	**BORING/WELL NAME**	MW-14C
JOB/SITE NAME	Shell - branded Service Station	**DRILLING STARTED**	18-Feb-11
LOCATION	8999 San Ramon Road, Dublin, CA	**DRILLING COMPLETED**	02-Mar-11

Continued from Previous Page

PID (ppm)	BLOW COUNTS	SAMPLE ID	DEPTH (fbg)	U.S.C.S.	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)
0.6	9/5/6	MW-14 C-45.5	45	CL	@ 45 fbg; wet, 85% clay, 10% sand, 5% gravel, high plasticity.	
						48.3
4.3	9/5/6	MW-14 C-50.5	50	ML	**SILT with sand (ML):** dark yellowish brown, moist, 10% clay, 70% silt, 20% fine sand, medium plasticity.	
						53.3
0.0	11/7/8	MW-14 C-55.5	55	CL	**CLAY with sand (CL):** dark grayish brown (2.5Y 4/2), moist, 60% clay, 20% silt, 20% fine sand, medium plasticity.	
0.0	9/12/15	MW-14 C-60.5	60		@ 60 fbg; **Sandy CLAY with gravel (CL):** dark yellowish brown (10YR 4/4), wet, 65% clay, 20% fine sand, 15% fine gravel, low plasticity.	
						63.3
				SP-SM	**SAND with silt and gravel (SP-SM):** yellowish brown (10YR 5/3), wet, 10% silt, 70% fine sand, 20% fine gravel.	
			65			65.5
0.0	10/10/10	MW-14			**Sandy CLAY with gravel (CL):** yellowish brown (10YR	

WELL DIAGRAM

WELL LOG (PID) I:\SHELL\6-CHARS\2407--\240724-1\244DE5--1\240724.GPJ DEFAULT.GDT 5/25/11

Continued Next Page

Conestoga Rovers & Associates
5900 Hollis Street, Suite A
Emeryville, CA 94608
Telephone: 510-420-0700
Fax: 510-420-9170

BORING / WELL LOG

CLIENT NAME	Shell Oil Products US	**BORING/WELL NAME**	MW-14C
JOB/SITE NAME	Shell - branded Service Station	**DRILLING STARTED**	18-Feb-11
LOCATION	8999 San Ramon Road, Dublin, CA	**DRILLING COMPLETED**	02-Mar-11

Continued from Previous Page

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
		C-60.5			CL		5/6), moist, 50% clay, 30% sand, 20% gravel, low plasticity.	68.3	
0.1	4/4/4	MW-14 C-70.5		70	SP-SM		**SAND with silt and gravel (SP-SM):** yellowish brown (10YR 5/6), wet, 10% silt, 70% fine sand, 20%fine gravel.	71.0	
0.0	4/5/5	MW-14 C-75.5		75	CL		**Sandy CLAY with gravel (CL):** yellowish brown (10YR 5/6), moist, 50% clay, 30% sand, 20% gravel, low plasticity.	78.3	
0.0	5/8/10	MW-14 C-80.5		80	CH		**CLAY (CH):**yellowish brown (10YR 5/6), moist, 90% clay, 5% fine sand, 5% fine gravel, high plasticity.		2" diam., Schedule 40 PVC
0.0	6/15/20	MW-14 C-85.5		85					Bentonite Seal
									Monterey Sand #2/12

WELL LOG (PID) I:\SHELL\6-CHARS\2407--1240724--1244DE5--1240724.GPJ DEFAULT.GDT 5/25/11

Continued Next Page

Conestoga Rovers & Associates
5900 Hollis Street, Suite A
Emeryville, CA 94608
Telephone: 510-420-0700
Fax: 510-420-9170

BORING / WELL LOG

CLIENT NAME	Shell Oil Products US	**BORING/WELL NAME**	MW-14C
JOB/SITE NAME	Shell - branded Service Station	**DRILLING STARTED**	18-Feb-11
LOCATION	8999 San Ramon Road, Dublin, CA	**DRILLING COMPLETED**	02-Mar-11

Continued from Previous Page

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
				90					
0.0	9/9/16	MW-14 C-90.5					**Sandy CLAY (CL):** dark yellowish brown (10YR 3/6), moist, 50% clay, 20% silt, 20% fine sand, 10% fine gravel, medium plasicity.	90.5	
				95					2"-diam., 0.010" Slotted Schedule 40 PVC
0.0	9/12/18	MW-14 C-95.5			CL		@ 95 fbg; yellowish brown (10YR 5/6), 60% clay, 40% sand, low plasticity.		
				100					
0.0	7/9/14	MW-14 C-100.5					@ 100 fbg; **CLAY (CL):** yellowish brown (10YR 5/6), 90% clay, 5% silt, 5% fine gravel, medium plasticity. @ 100.5 fbg; **Gravelly CLAY (CL):** wet, low plasticity. @ 101 fbg; **Sandy CLAY (CL)**.	101.5	Bentonite Seat Bottom of Boring @ 101.5 fbg

WELL LOG (PID) I:\SHELL\B-CHARS\2407-1240724-1244DE5-1240724.GPJ DEFAULT.GDT 5/25/11

Delta
Environmental Consultants, Inc.

Project No:	SJ89-99S-1	Client:	Shell Oil Products US	Boring No: GP-1
Logged By:	Heather Buckingham	Location:	8999 San Ramon Rd., Dublin	Page 1 of 2
Driller:	Gregg	Date Drilled:	5/2/2005	
Drilling Method:	Direct Push	Hole Diameter:	3"	
Sampling Method:	GeoProbe	Hole Depth:	28 ft	
Casing Type:		Well Diameter:		
Slot Size:		Well Depth:		
Gravel Pack:		Casing Stickup:		
Elevation		Northing		Easting

Location Map

Please see site map

Well Completion (Backfill / Casing)	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery	Sample Interval	Soil Type	LITHOLOGY / DESCRIPTION
Grout				air knifed & hand augered	0			AF	Asphalt 6", Base rock 4"
					1			SM	**Silty SAND**: light brown; 20-30% silt; fine to coarse grained sand, well graded
					2				
					3				
					4				
		dry			5			CL	**Lean CLAY with Sand**: very dark brown; light brown fine grained sand pockets 0.5 cm in diameter; ~85% fines; ~15% sand; moderate plasticity;soft
					6				
					7				
					8				
					9			GW	**Well Graded GRAVEL with Sand**: light tan; 70-80% gravel 0.5 to 1" in length; rounded; 20-30% coarse grained sand
		dry	12.2		10			CL	**Lean CLAY**: very dark gray; no mottling; 90-95% fines; traces of fine grained sand (~5%); moderate plasticity; stiff
					11				
					12				
					13				
					14				(same as above, dark brown)
		dry	21.8		15				(same as above, medium brown mottling)
					16				
					17				(same as above, no mottling)
					18				
					19				
		dry	9		20				(same as above, product staining)
					21				
					22				

Delta
Environmental Consultants, Inc.

Project No:	SJ89-99S-1	Client:	Shell Oil Products US	Boring No: GP-2
Logged By:	Heather Buckingham	Location:	8999 San Ramon Rd., Dublin	Page 2 of 2
Driller:	Gregg	Date Drilled:	5/1/2005	
Drilling Method:	Direct Push	Hole Diameter:	3"	
Sampling Method:	GeoProbe	Hole Depth:	28 ft	
Casing Type:		Well Diameter:		
Slot Size:		Well Depth:		
Gravel Pack:		Casing Stickup:		
Elevation		Northing		Easting

Location Map

Please see site map

Well Completion (Backfill / Casing)	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery	Sample Interval	Soil Type	LITHOLOGY / DESCRIPTION
Grout		moist	29.1		23			CL	**Lean CLAY with Sand** (Continued)
								GW	**Well Graded GRAVEL with Sand**: light tan; 70-80% gravel, 0.5 to 1" in length; rounded; 20-30% coarse grained sand
					24				
					25			CL	**Lean CLAY with Sand**: same as above
					26				
					27				
					28				Boring terminated at 28 feet below ground surface
					29				
					30				
					31				
					32				
					33				
					34				
					35				
					36				
					37				
					38				
					39				
					40				
					41				
					42				
					43				
					44				

Delta
Environmental Consultants, Inc.

Project No:	SJ89-99S-1	Client:	Shell Oil Products US	Boring No: GP-3
Logged By:	Heather Buckingham	Location:	8999 San Ramon Rd., Dublin	Page 2 of 2
Driller:	Gregg	Date Drilled:	5/1/2005	
Drilling Method:	Direct Push	Hole Diameter:	3"	
Sampling Method:	GeoProbe	Hole Depth:	28 ft	
Casing Type:		Well Diameter:		
Slot Size:		Well Depth:		
Gravel Pack:		Casing Stickup:		
Elevation		Northing		Easting

Location Map

Please see site map

Well Completion (Backfill / Casing)	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery	Sample Interval	Soil Type	LITHOLOGY / DESCRIPTION
Grout					23			SM	**Silty SAND** (continued)
					24			CL	**Lean CLAY**: medium brown to very dark brown; ~85-90% fines; ~10% sand; trace gravels up to 1" in length; moderate plasticity; stiff
		moist	29.1		25				
					26			CL	**Lean CLAY with sand**: very dark brown; 10-20% very fine grained sand; moderate to high plasticity; stiff
					27				
					28				Boring terminated at 28 feet below ground surface
					29				Borehole dry upon completion. Water level after approximately twelve hours.
					30				
					31				
					32				
					33				
					34				
					35				
					36				
					37				
					38				
					39				
					40				
					41				
					42				
					43				
					44				

Delta
Environmental Consultants, Inc.

Project No:	SJ89-99S-1	Client:	Shell Oil Products US	Boring No: GP-5
Logged By:	Heather Buckingham	Location:	8999 San Ramon Rd., Dublin	Page 2 of 2
Driller:	Gregg	Date Drilled:	5/3/2005	
Drilling Method:	Direct Push	Hole Diameter:	3"	
Sampling Method:	GeoProbe	Hole Depth:	28 ft	
Casing Type:		Well Diameter:		
Slot Size:		Well Depth:		
Gravel Pack:		Casing Stickup:		
Elevation		Northing		Easting

Location Map

Please see site map

Well Completion (Backfill / Casing)	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery	Sample Interval	Soil Type	LITHOLOGY / DESCRIPTION
Grout		damp			23			CL	**Lean CLAY with Sand** (Continued)
					24				
			153		25				
		dry			26			CL	**Lean CLAY**: dark gray; moderate to high plasticity; medium stiff
					27				
					28				Boring terminated at 28 feet below ground surface
					29				
					30				
					31				
					32				
					33				
					34				
					35				
					36				
					37				
					38				
					39				
					40				
					41				
					42				
					43				
					44				

Delta
Environmental Consultants, Inc.

Project No:	SJ89-99S-1	Client:	Shell Oil Products US	Boring No: GP-6
Logged By:	Heather Buckingham	Location:	8999 San Ramon Rd., Dublin	Page 2 of 2
Driller:	Gregg	Date Drilled:	5/1/2005	
Drilling Method:	Direct Push	Hole Diameter:	8"	
Sampling Method:	GeoProbe	Hole Depth:	28 ft	
Casing Type:		Well Diameter:		
Slot Size:		Well Depth:		
Gravel Pack:		Casing Stickup:		
Elevation		Northing		Easting

Location Map

Please see site map

Well Completion (Backfill / Casing)	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery	Sample Interval	Soil Type	LITHOLOGY / DESCRIPTION
Grout		damp			23			CL	**Lean CLAY with Sand** (Continued)
					24				
					25			GM	**GRAVEL with Silt**: same as above, product staining
			133						
					26			CL	**Lean CLAY**: medium brown; moderate plasticity; stiff
		dry			27				
					28				Boring terminated at 28 feet below ground surface
					29				
					30				
					31				
					32				
					33				
					34				
					35				
					36				
					37				
					38				
					39				
					40				
					41				
					42				
					43				
					44				

Delta
Environmental Consultants, Inc.

Project No:	SJ89-99S-1	Client:	Shell Oil Products US	Boring No: GP-7	
Logged By:	Heather Buckingham	Location:	8999 San Ramon Rd., Dublin	Page 2 of 2	
Driller:	Gregg	Date Drilled:	5/2/2005	Location Map	
Drilling Method:	Direct Push	Hole Diameter:	8"	Please see site map	
Sampling Method:	GeoProbe	Hole Depth:	28 ft		
Casing Type:		Well Diameter:			
Slot Size:		Well Depth:			
Gravel Pack:		Casing Stickup:			
Elevation		Northing		Easting	

Well Completion (Backfill / Casing)	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery	Sample Interval	Soil Type	LITHOLOGY / DESCRIPTION
Grout								ML	**SILT with sand** (Continued)
		dry			23			CL	**Lean CLAY**: same as above
			102		24				
					25				
					26				
					27				
					28				Boring terminated at 28 feet below ground surface
					29				
					30				
					31				
					32				
					33				
					34				
					35				
					36				
					37				
					38				
					39				
					40				
					41				
					42				
					43				
					44				

Delta
Environmental Consultants, Inc.

Project No:	SJ89-99S-1	Client:	Shell Oil Products US	Boring No: GP-8
Logged By:	Heather Buckingham	Location:	8999 San Ramon Rd., Dublin	Page 1 of 2
Driller:	Gregg	Date Drilled:	5/2/2005	
Drilling Method:	Direct Push	Hole Diameter:	3"	
Sampling Method:	GeoProbe	Hole Depth:	28 ft	
Casing Type:		Well Diameter:		
Slot Size:		Well Depth:		
Gravel Pack:		Casing Stickup:		
Elevation		Northing		Easting

Location Map

Please see site map

Well Completion (Backfill / Casing)	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery	Sample Interval	Soil Type	LITHOLOGY / DESCRIPTION
Grout / Casing		wet		air knifed & hand augered	0			AF	Asphalt 6", Base rock 4"
					1			SM	**Silty SAND**: light brown; 20-30% silt; fine to coarse grained sand, well graded; product staining
					2				
					3				
		damp			4				
					5				
			13		6			CL	**Lean CLAY with Sand**: medium brown with orange mottling; 85-90% fines; 10-15% fine grained sands in tan sand pockets 0.5 cm in diameter; 1-2% gravels up to 0.5" in diameter; moderate plasticity; soft
					7				
					8				
					9				
			20.3		10				
		wet			11				
					12			CL	**Sandy Lean CLAY**: medium brown; 65-75% fines; 25-35% very fine grained sand, poorly graded; moderate to high plasticity; soft
		damp			13				
					14			CL	**Lean CLAY with Sand**: medium brown with orange mottling; 10-20% fine grained sand in tan sand pockets 0.5 cm in diameter; moderate to high plasticity; soft; bottom 3" to 5" poorly graded fine grained sand; tan; trace gravels 0.5" in diameter; loose
			3.5		15				
					16				
					17				
		damp			18				
					19				
			2.5		20				
					21				
					22			CL	**Lean CLAY**: dark gray; 90-95% fines; trace coarse grained sand; moderate plasticity; stiff

Delta
Environmental Consultants, Inc.

Project No:	SJ89-99S-1	Client:	Shell Oil Products US	Boring No: GP-9
Logged By:	Heather Buckingham	Location:	8999 San Ramon Rd., Dublin	Page 2 of 2
Driller:	Gregg	Date Drilled:	5/4/2005	
Drilling Method:	Direct Push	Hole Diameter:	3"	
Sampling Method:	GeoProbe	Hole Depth:	28 ft	
Casing Type:		Well Diameter:		
Slot Size:		Well Depth:		
Gravel Pack:		Casing Stickup:		
Elevation		Northing		Easting

Location Map

Please see site map

Well Completion (Backfill / Casing)	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery	Sample Interval	Soil Type	LITHOLOGY / DESCRIPTION
Grout			125		23			ML	**SILT with Sand** (Continued)
					24				
					25				
					26			CL	**Lean CLAY with Sand**: medium brown mottled with greenish gray; 10-15% very fine grained sand; moderate to high plasticity; very stiff
					27				
					28				Boring terminated at 28 feet below ground surface
					29				
					30				
					31				
					32				
					33				
					34				
					35				
					36				
					37				
					38				
					39				
					40				
					41				
					42				
					43				
					44				

Delta
Environmental Consultants, Inc.

Project No:	SJ89-99S-1	Client:	Shell Oil Products US	Boring No: GP-10
Logged By:	Heather Buckingham	Location:	8999 San Ramon Rd., Dublin	Page 2 of 2
Driller:	Gregg	Date Drilled:	5/4/2005	
Drilling Method:	Direct Push	Hole Diameter:	3"	
Sampling Method:	GeoProbe	Hole Depth:	28 ft	
Casing Type:		Well Diameter:		
Slot Size:		Well Depth:		
Gravel Pack:		Casing Stickup:		
Elevation		Northing		Easting

Location Map

Please see site map

Well Completion (Backfill / Casing)	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery	Sample Interval	Soil Type	LITHOLOGY / DESCRIPTION
Grout					23			CL	**Lean CLAY**: continued
								SC	**Clayey SAND**: gray; 60-75% very fine to coarse grained sand; 35-40% fines; traces of gravels 2-3 mm in length
		dry			24			CL	**Lean CLAY**: light to medium brown; trace fine grained sand; soft; moderate plasticity
		wet	119		25			SC	**Clayey SAND**: same as above
					26				
		dry			27			CL	**Lean CLAY with sand**: gray; 80-90% fines; 10-20% very fine grained sand; moderate to high plasticity; stiff
					28				Boring terminated at 28 feet below ground surface
					29				
					30				
					31				
					32				
					33				
					34				
					35				
					36				
					37				
					38				
					39				
					40				
					41				
					42				
					43				
					44				

Delta
Environmental Consultants, Inc.

Project No:	SJ89-99S-1	Client:	Shell Oil Products US	Boring No: GP-11	
Logged By:	Heather Buckingham	Location:	8999 San Ramon Rd., Dublin	Page 2 of 2	
Driller:	Gregg	Date Drilled:	5/4/2005	Location Map	
Drilling Method:	Direct Push	Hole Diameter:	3"	Please see site map	
Sampling Method:	GeoProbe	Hole Depth:	28 ft		
Casing Type:		Well Diameter:			
Slot Size:		Well Depth:			
Gravel Pack:		Casing Stickup:			
Elevation		Northing		Easting	

Well Completion (Backfill / Casing)	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery	Sample Interval	Soil Type	LITHOLOGY / DESCRIPTION
Grout					23			CL	**Lean CLAY with Sand**: continued
					24				
			53.6		25				
					26				
		wet						CL	**Sandy Lean CLAY**: gray; 70-80% fines; 20-30% medium grained sand; moderate plasticity; soft
					27				
		moist			28				Boring terminated at 28 feet below ground surface
					29				
					30				
					31				
					32				
					33				
					34				
					35				
					36				
					37				
					38				
					39				
					40				
					41				
					42				
					43				
					44				

Delta
Environmental Consultants, Inc.

Project No:	SJ89-99S-1	Client:	Shell Oil Products US	Boring No: GP-12	
Logged By:	Heather Buckingham	Location:	8999 San Ramon Rd., Dublin	Page 1 of 2	
Driller:	Gregg	Date Drilled:	5/4/2005	Location Map	
Drilling Method:	Direct Push	Hole Diameter:	3"	Please see site map	
Sampling Method:	GeoProbe	Hole Depth:	28 ft		
Casing Type:		Well Diameter:			
Slot Size:		Well Depth:			
Gravel Pack:		Casing Stickup:			
Elevation		Northing		Easting	

Well Completion (Backfill / Casing)	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery	Sample Interval	Soil Type	LITHOLOGY / DESCRIPTION
Grout				air knifed & hand augered	1			AF	Asphalt 6", Base rock 4"
					2			CL	**Lean CLAY with Sand**: very dark brown with medium brown mottling; 90-95% fines; 10-15% fine grained sand in tan sand pockets ~0.5 cm in diameter; moderate plasticity; soft
					3				
					4				
					5				
		dry			6				(Same as above, traces of coarse grained sand)
					7				
					8				
		dry			9			SP	**Poorly Graded Sand**: tan; 90-95% fine grained sand; traces of gravels up to 0.5" in length
					10			CL	**Lean CLAY with Sand**: same as above, less orange mottling; stiff
			0.9		11				
					12				
					13			SP	**Clayey SAND**: orangish tan; 60-70% fine grained poorly graded sand; 30-40% fines; traces of coarse grained sand
					14				
					15				
			3.7		16			CL	**Sandy Lean CLAY**: medium brown mottled with orange; 70-75% fines; 25-30% fine grained sand; moderate plasticity; stiff
					17				
					18				
					19			CL	**Sandy Lean CLAY**: medium gray; 55-65% fines; 35-45% fine grained poorly graded sand; traces of gravels ~3 mm in diameter; low plasticity
	▼		0.9		20				
					21				
		wet			22				

Delta
Environmental Consultants, Inc.

Project No:	SJ89-99S-1	Client:	Shell Oil Products US	Boring No: GP-13	
Logged By:	Heather Buckingham	Location:	8999 San Ramon Rd., Dublin	Page 2 of 2	
Driller:	Gregg	Date Drilled:	5/3/2005	Location Map	
Drilling Method:	Direct Push	Hole Diameter:	3"	Please see site map	
Sampling Method:	GeoProbe	Hole Depth:	28 ft		
Casing Type:		Well Diameter:			
Slot Size:		Well Depth:			
Gravel Pack:		Casing Stickup:			
Elevation		Northing		Easting	

Well Completion (Backfill / Casing)	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery	Sample Interval	Soil Type	LITHOLOGY / DESCRIPTION
Grout		wet			23			CL	**Lean CLAY with Sand**: continued
		dry			24				
					25				(same as above, very stiff)
		wet	2.6		26				
					27				
		dry			28				Boring terminated at 28 feet below ground surface
					29				
					30				
					31				
					32				
					33				
					34				
					35				
					36				
					37				
					38				
					39				
					40				
					41				
					42				
					43				
					44				

Delta
Environmental Consultants, Inc.

Project No:	SJ89-99S-1	Client:	Shell Oil Products US	Boring No: GP-14
Logged By:	Heather Buckingham	Location:	8999 San Ramon Rd., Dublin	Page 1 of 2
Driller:	Gregg	Date Drilled:	5/1/2005	
Drilling Method:	Direct Push	Hole Diameter:	3"	
Sampling Method:	GeoProbe	Hole Depth:	27 ft	
Casing Type:		Well Diameter:		
Slot Size:		Well Depth:		
Gravel Pack:		Casing Stickup:		
Elevation		Northing		Easting

Location Map

Please see site map

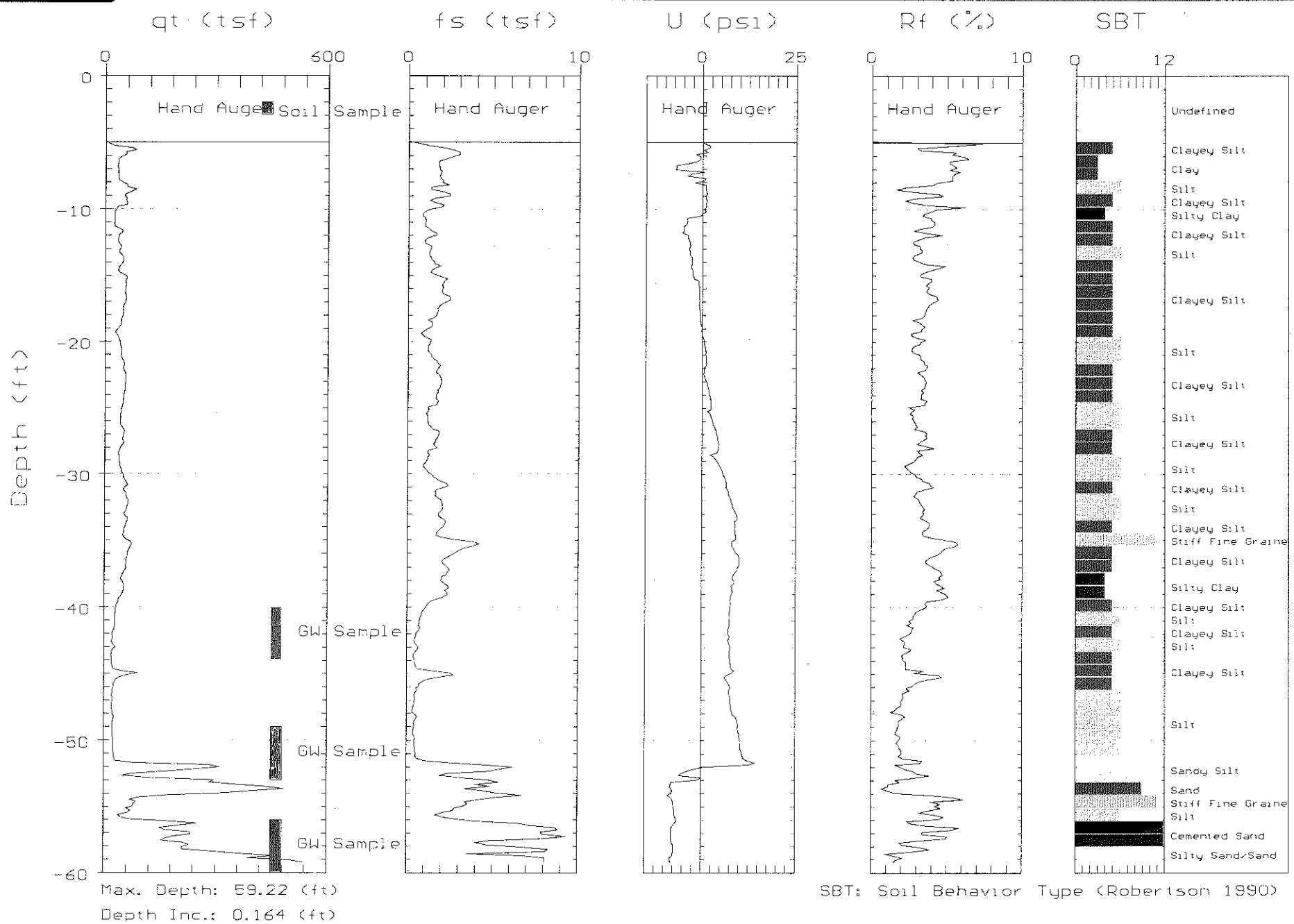
Well Completion (Backfill / Casing)	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery	Sample Interval	Soil Type	LITHOLOGY / DESCRIPTION
Grout								AF	Asphalt 6", Base rock 4"
		dry		air knifed & hand augered	1			SM	**Silty SAND**: light brown; 20-30% silt; fine to coarse grained sand, well graded
					2				
					3				
					4				
		dry			5				
					6			CL	**Sandy Lean CLAY**: medium brown mottled with orange; 70-75% fines; 25-30% fine grained sand in tan sand pockets; moderate to high plasticity; stiff
					7				
					8				
					9				
			49.9		10				
		moist			11				
					12				
					13				
					14				
			53.5		15				(Same as above, medium brown with orange mottling)
					16				
					17				(Same as above, product staining)
					18				
		moist			19				
			22.6		20				(Same as above, trace gravels 2 mm in length)
		damp			21				
					22				(Same as above, no sand pockets, hard)

GREGG

DELTA ENVIRONMENTAL

Site: SHELL STATION 8999
Location: CPT-01

Engineer: H.BUCKINGHAM
Date: 05:26:05 09:00



Max. Depth: 59.22 (ft)
Depth Inc.: 0.164 (ft)

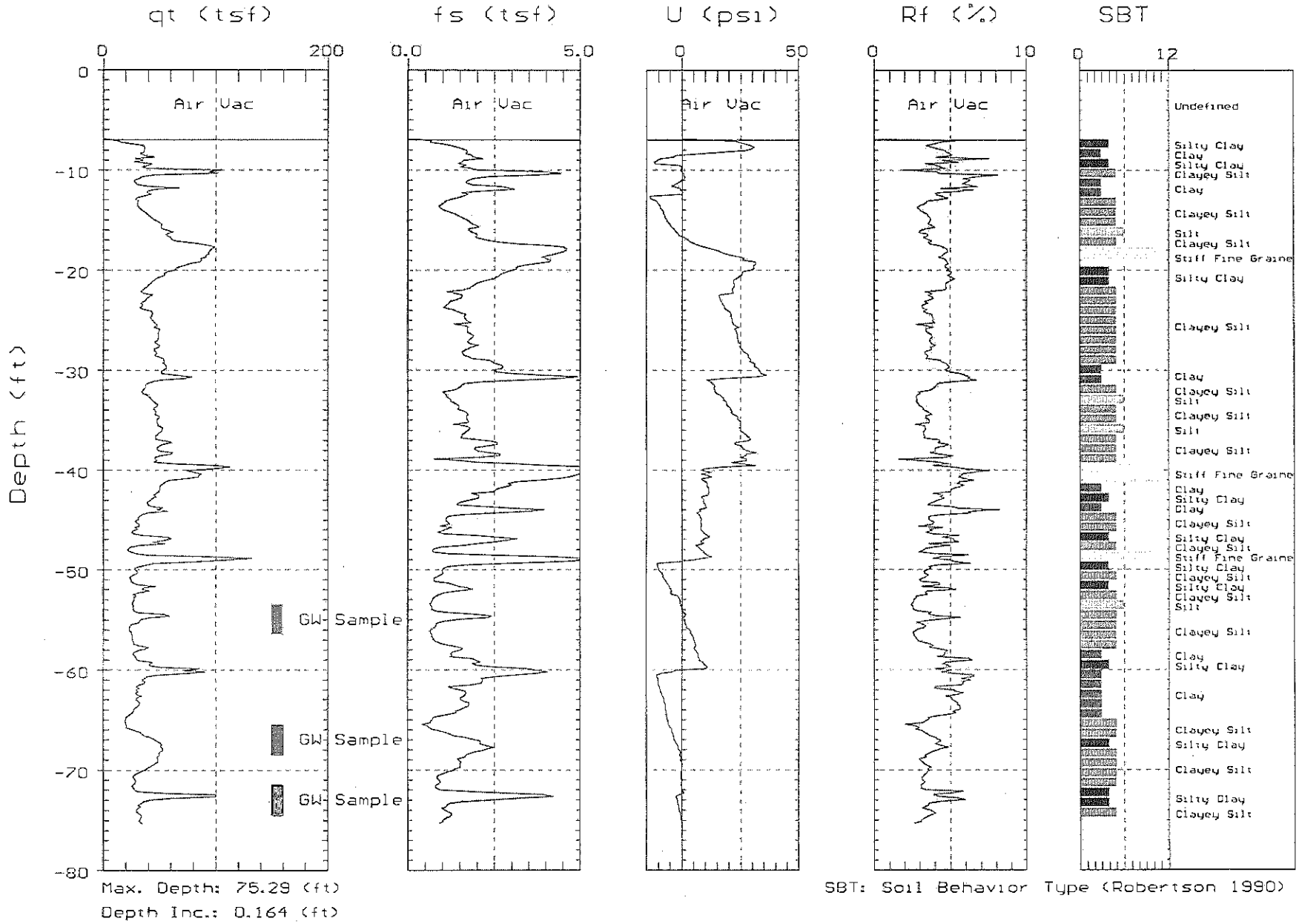
SBT: Soil Behavior Type (Robertson 1990)

GREGG

DELTA

Site: SHELL STATION 8999
Location: CPT-02

Engineer: A.PERSIO
Date: 02:22:06 03:13



Max. Depth: 75.29 (ft)
Depth Inc.: 0.164 (ft)

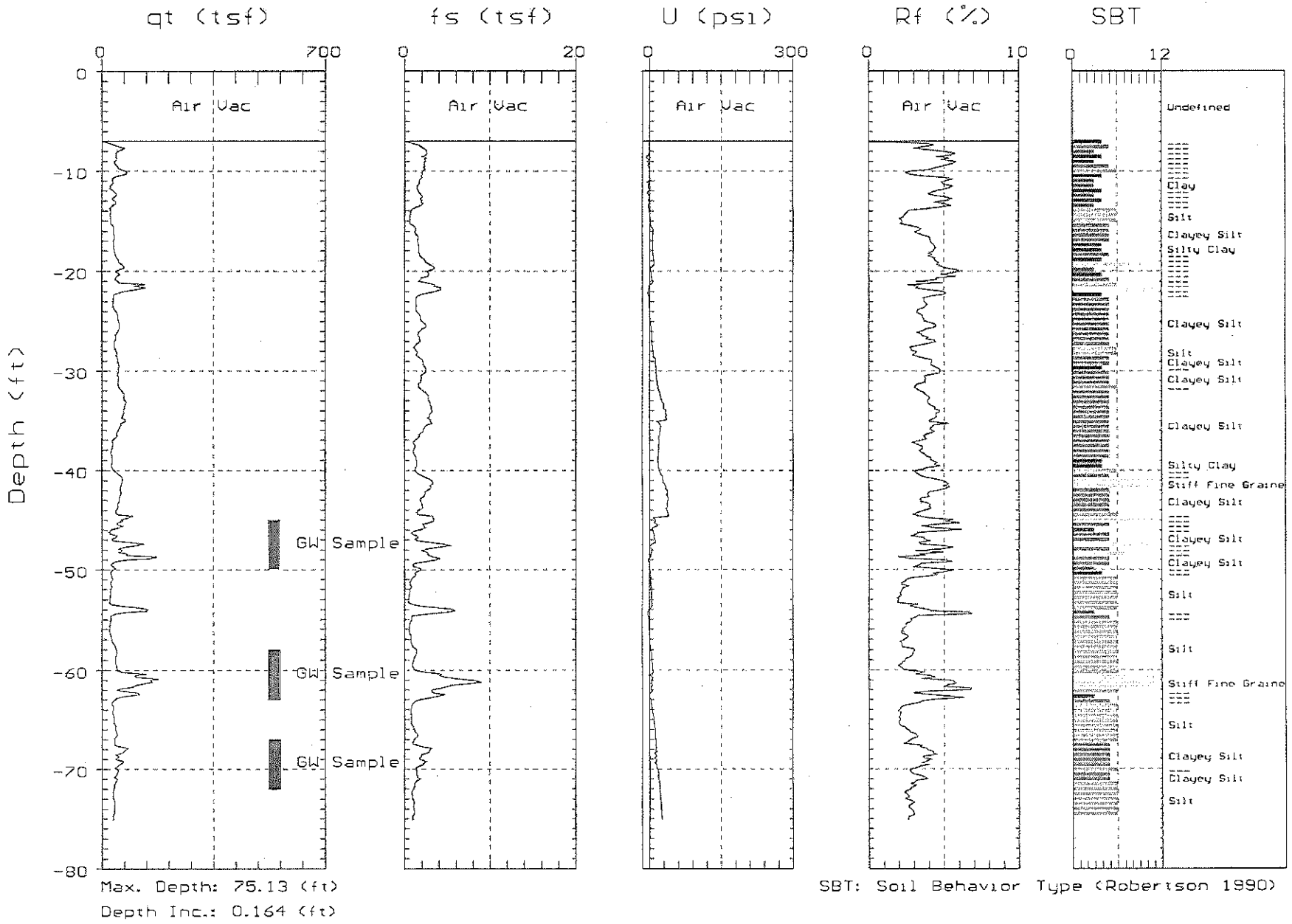
SBT: Soil Behavior Type (Robertson 1990)

GREGG

DELTA ENVIRONMENTAL

Site: Shell Sta. 8999
Location: CPT-3

Geologist: L. Dooley
Date: 07:26:06 13:27



Max. Depth: 75.13 (ft)
Depth Inc.: 0.164 (ft)

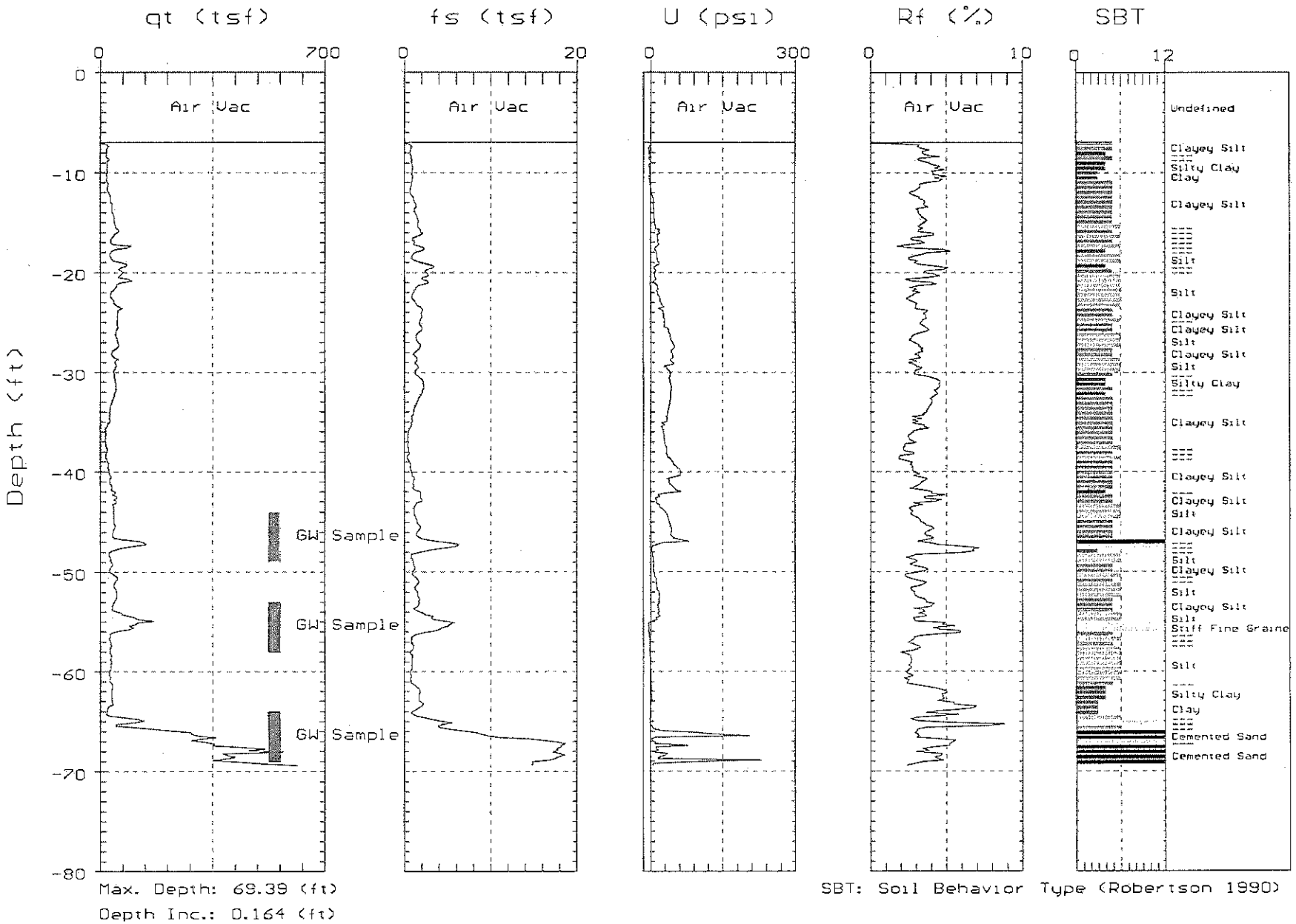
SBT: Soil Behavior Type (Robertson 1990)

GREGG

DELTA ENVIRONMENTAL

Site: Shell Station 89
Location: CPT-4

Geologist: L. Dooley
Date: 07:26:06 08:30



Max. Depth: 69.39 (ft)
Depth Inc.: 0.164 (ft)

SBT: Soil Behavior Type (Robertson 1990)