ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
ALEX BRISCOE, Director

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

July 11, 2012

Denis Brown
Shell Oil Products US
20945 S. Wilmington Ave.
Carson, CA 90810-1039

Carl Cox
CJC Hopyard LLC
4431 Stoneridge Drive, #100
Pleasanton, CA 94588-8412

Subject: Case Closure for Fuel Leak Case No. RO0000194 and GeoTracker Global ID T0600101267, Shell#13-5785, 5251 Hopyard Road, Pleasanton, CA 94566

Dear Mr. Brown and Mr. Cox:

This letter transmits the enclosed underground storage tank (UST) case closure letter in accordance with Chapter 6.75 (Article 4, Section 25299.37[h]). The State Water Resources Control Board adopted this letter on February 20, 1997. As of March 1, 1997, the Alameda County Environmental Health (ACEH) is required to use this case closure letter for all UST leak sites. We are also transmitting to you the enclosed case closure summary. These documents confirm the completion of the investigation and cleanup of the reported release at the subject site. The subject fuel leak case is closed. This case closure letter and the case closure summary can also be viewed on the State Water Resources Control Board's Geotracker website (http://geotracker.swrcb.ca.gov) and the Alameda County Environmental Health website (http://www.acgov.org/aceh/index.htm).

SITE INVESTIGATION AND CLEANUP SUMMARY

Please be advised that the following conditions exist at the site:

- Total Petroleum hydrocarbons as gasoline remains in groundwater at concentrations up to 8,800 ppb immediately northwest of the dispenser area.
- Methyl tert-butyl ether remains in groundwater at concentrations up to 430 ppb.
- As described in section IV of the attached Case Closure Summary, the case was closed with Site Management Requirements that limit future land use to the current commercial land use only.

If you have any questions, please call Jerry Wickham at (510) 567-6791. Thank you.

Sincerely,

Donna L. Drogos, P.E.
Division Chief

Enclosures:
1. Remedial Action Completion Certification
2. Case Closure Summary

cc:

Colleen Winey (QIC 8021) w/enc
Zone 7 Water Agency
100 North Canyons Pkwy
Livermore, CA 94551
(Sent via E-mail to: cwiney@zone7water.com))

Closure Unit
State Water Resources Control Board
UST Cleanup Fund
P.O. Box 944212
Sacramento, CA 94244-2120
(uploaded to GeoTracker)

Danielle Stefani (w/enc)
Livermore-Pleasanton Fire Department
3560 Nevada Street,
Pleasanton, CA 94566
(*Sent via E-mail to: dstefani@lpfire.org*)

City of Livermore Planning Department (w/enc),
1052 South Livermore Avenue,
Livermore, CA 94550

Peter Schaefer
Conestoga-Rovers & Associates
5900 Hollis Street, Suite A
Emeryville, CA 94608 2032
(*Sent via E-mail to: pschaefer@craworld.com*

Donna Drogos, ACEH (*Sent via E-mail to: donna.drogos@acgov.org*)
Jerry Wickham, ACEH (*Sent via E-mail to: jerry.wickham@acgov.org*)

GeoTracker (w/enc)
eFile (w/orig enc)

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
ALEX BRISCOE, Director

DEPARTMENT OF ENVIRONMENTAL HEALTH
OFFICE OF THE DIRECTOR
1131 HARBOR BAY PARKWAY
ALAMEDA, CA 94502
(510) 567-6777
FAX (510) 337-9135

REMEDIAL ACTION COMPLETION CERTIFICATION

July 11, 2012

Denis Brown
Shell Oil Products US
20945 S. Wilmington Ave.
Carson, CA 90810-1039

Carl Cox
CJC Hopyard LLC
4431 Stoneridge Drive, #100
Pleasanton, CA 94588-8412

Subject: Case Closure for Fuel Leak Case No. RO0000194 and GeoTracker Global ID T0600101267, Shell#13-5785, 5251 Hopyard Road, Pleasanton, CA 94566

Dear Mr. Brown and Mr. Cox:

This letter confirms the completion of a site investigation and remedial action for the underground storage tanks formerly located at the above-described location. Thank you for your cooperation throughout this investigation. Your willingness and promptness in responding to our inquiries concerning the former underground storage tank(s) are greatly appreciated.

Based on information in the above-referenced file and with the provision that the information provided to this agency was accurate and representative of site conditions, this agency finds that the site investigation and corrective action carried out at your underground storage tank(s) site is in compliance with the requirements of subdivisions (a) and (b) of Section 25299.37 of the Health and Safety Code and with corrective action regulations adopted pursuant to Section 25299.77 of the Health and Safety Code and that no further action related to the petroleum release(s) at the site is required.

Claims for reimbursement of corrective action costs submitted to the Underground Storage Tank Cleanup Fund more than 365 days after the date of this letter or issuance or activation of the Fund's Letter of Commitment, whichever occurs later, will not be reimbursed unless one of the following exceptions applies:

- Claims are submitted pursuant to Section 25299.57, subdivision (k) (reopened UST case); or
- Submission within the timeframe was beyond the claimant's reasonable control, ongoing work is required for closure that will result in the submission of claims beyond that time period, or that under the circumstances of the case, it would be unreasonable or inequitable to impose the 365-day time period.

This notice is issued pursuant to subdivision (h) of Section 25299.37 of the Health and Safety Code. Please contact our office if you have any questions regarding this matter.

Sincerely,

Ariu Levi
Director

CASE CLOSURE SUMMARY
LEAKING UNDERGROUND FUEL STORAGE TANK - LOCAL OVERSIGHT PROGRAM

I. AGENCY INFORMATION

Date: December 28, 2011

Agency Name: Alameda County Environmental Health	Address: 1131 Harbor Bay Parkway
City/State/Zip: Alameda, CA 94502-6577	Phone: (510) 567-6791
Responsible Staff Person: Jerry Wickham	Title: Senior Hazardous Materials Specialist

II. CASE INFORMATION

Site Facility Name: Shell #13-5785		
Site Facility Address: 5251 Hopyard Road, Pleasanton, California 94566		
RB Case No.: 01-1372	Local Case No.: STID 5807	LOP Case No.: RO0000194
URF Filing Dates: 07/10/1996, 10/04/2004, and 11/22/2004	GeoTracker ID: T0600101267	APN: 941-2771-1

Responsible Parties	Addresses	Phone Numbers
Denis Brown Shell Oil Products US	20945 S. Wilmington Avenue, Carson, CA 90810	(707) 865-0251
Carl Cox CJC Hopyard LLC	4431 Stoneridge Drive, #100 Pleasanton, CA 94588-8412	No phone number

Tank I.D. No	Size in Gallons	Contents	Closed In Place/Removed?	Date
1-3	Unknown	Gasoline	Removed	1988
4	Unknown	Diesel	Removed	1988
Dispensers and Piping			Upgraded	09/2004

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and Type of Release: Unknown. Following a tank removal in 1988, petroleum hydrocarbons were detected in soil and groundwater samples collected from one monitoring well and three vadose zone wells.	
Site characterization complete? Yes	Date Approved By Oversight Agency: -----

Monitoring wells installed? Yes	Number: 14	Proper screened interval? Yes
Highest GW Depth Below Ground Surface: 5.44 feet	Lowest Depth: 17.80 feet	Flow Direction: Generally to the west but varies from north to west southwest
Most Sensitive Current Use: Drinking water source.		

Summary of Production Wells in Vicinity: An abandoned water supply well of unknown use may be located approximately 500 feet southeast of the site. Based on the cross gradient location and distance from the site, the abandoned well, if present, is not expected to be a receptor for the site. A second abandoned water supply well may be located 1,550 feet north of the site. The nearest active water supply well appears to be located approximately 2,000 feet northeast of the site. Based on the upgradient locations and distances from the site, these wells are not expected to be receptors for the site. No other water supply wells appear to be located within 2,000 feet of the site.	
Are drinking water wells affected? No	Aquifer Name: Dublin Subbasin of Livermore Amador Groundwater Basin
Is surface water affected? No	Nearest SW Name: Chabot Canal is approximately 925 north-northeast of the site
Off-Site Beneficial Use Impacts (Addresses/Locations): None	
Reports on file? Yes	Where are reports filed? Alameda County Environmental Health and Livermore-Pleasanton Fire Department

TREATMENT AND DISPOSAL OF AFFECTED MATERIAL

Material	Amount (Include Units)	Action (Treatment or Disposal w/Destination)	Date
Tank	Four USTs	Not reported	1988
Piping	Two 20-cubic yard bins	Transported by Ecology Control Industries to their Richmond, CA facility for disposal	10/2004
Free Product	---	---	---
Soil	377 tons	The soil was transported by Manley and Sons Trucking to Forward Landfill in Manteca, CA	10/2004 through 11/2004
Groundwater	33,749 gallons	Transported to Shell's Martinez refinery for treatment	10/2004
	4,000 gallons	Transported to Shell's Martinez refinery for treatment	9/2007 and 10/2007

MAXIMUM DOCUMENTED CONTAMINANT CONCENTRATIONS BEFORE AND AFTER CLEANUP
(Please see Attachments 2 – 4 for additional information on contaminant locations and concentrations)

Contaminant	Soil (ppm)		Groundwater (ppb)	
	Before	After	Before	Current
TPH (Gas)	24,000	660	1,300,000(1)	8,800(1)
TPH (Diesel)	660	360	11,000(2)	280(2)
Oil & Grease	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed
Benzene	65	0.088	6,200(3)	110(3)
Toluene	1,300	0.26	1,500(4)	37(4)
Ethylbenzene	350	5.5	3,100(5)	400(5)
Xylenes	2,300	4.2	1,600(6)	46(6)
Lead	11(7)	11(7)	Not Analyzed	Not Analyzed
MTBE	0.2(8)	0.2(8)	3,200(9)	430(10)
Other (8240/8270)	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed

(1) The maximum concentration before cleanup is from a grab groundwater sample collected from boring DSW-13 at 4 fbg on 09/28/2004; the maximum concentration after cleanup is from a groundwater sample collected from well S-1 during the most recent groundwater monitoring event on 07/28/2011.
(2) The maximum concentration before cleanup is from a groundwater sample collected sample from well S-1 on 10/16/1989; the maximum concentration after cleanup is from a groundwater sample collected from well S-1 on 12/08/1993.
(3) The maximum concentration before cleanup is from a groundwater sample collected sample from well S-1 on 07/20/1989; the maximum concentration after cleanup is from a groundwater sample collected from well S-3 on 07/28/2011.
(4) The maximum concentration before cleanup is from a groundwater sample collected sample from well S-1 on 07/20/1989; the maximum concentration after cleanup is from a groundwater sample collected from well S-1 on 07/28/2011.
(5) The maximum concentration before cleanup is from a groundwater Grab groundwater sample from boring GP-1 on 08/11/2005; the maximum concentration after cleanup is from a groundwater sample collected from well EW-1 on 07/28/2011.
(6) The maximum concentration before cleanup is from a grab groundwater sample from boring GP-1 on 08/11/2005; the maximum concentration after cleanup is from a groundwater sample collected from well S-1 during the most recent groundwater monitoring event on 07/28/2011.
(7) Total lead = 11 ppm; no other metals analyzed.
(8) MTBE = 0.2 ppm; TBA = 0.22 ppm; DIPE, TAME, ETBE, DIPE, EDB, EDC, and ethanol not detected at various reporting limits.
(9) MTBE = 3,200 ppb; TBA = 10,600 ppb; DIPE = 51 ppb; TAME = 8.7 ppb, ETBE and ethanol not detected at various reporting limits; EDB and EDC not analyzed.
(10) MTBE = 20 ppb, TBA = 43 ppb; TAME, ETBE, DIPE, and ethanol not detected at various reporting limits during the most recent groundwater monitoring event on 07/28/2011; EDB and EDC not analyzed.

Site History and Description of Corrective Actions:

The site is an active service station located at the corner of Hopyard Road and Owens Drive in Pleasanton, California. Surrounding land use is commercial.

In 1988, four USTs were replaced. Three vadose zone monitoring wells (V-1 through V-3) were installed within the tank backfill and one groundwater monitoring well (S-1) was installed east of the former USTs. On December 14, 1998, groundwater from all four wells was sampled. Total petroleum hydrocarbons as gasoline (TPHg) and benzene were detected in groundwater from all four monitoring wells at concentrations up to 17,000 and 5,100 ppb, respectively.

In May 1989, Geostrategies, Inc. (GSI) installed four groundwater monitoring wells (S-2 through S-5). Soil samples collected from the well borings contained up to 2,300 ppm TPHd, 1,100 ppm TPHg, and 8 ppm benzene. In October and November 1989, GSI also installed three off-site wells (S-6 through S-8). Soil samples collected from the off-site well borings contained up to 0.035 ppm benzene. TPHd and TPHg were not detected in the soil samples at concentrations above the reporting limit.

During the upgrade of fuel dispensers and replacement of product piping in September 2004, a fiberglass gasoline line was ruptured. The volume of the release is unknown. Fresh gasoline was observed on soil in the trench. Three grab water samples collected from the trenches contained up to 160,000 ppb TPHd, 1,300,000 ppb TPHg, 120 ppb benzene, and 5.9 ppb methyl tertiary-butyl ether (MTBE). Soil samples collected from beneath the product piping contained up to 640 ppm TPHd, 24,000 ppm TPHg, 65 ppm benzene, and 0.22 ppm MTBE. The leak area was subsequently over-excavated to 10 feet below grade (fbg) in an area 5 feet wide and 10 feet long and other pipe trench areas were over-excavated to 4 fbg. Approximately 377 tons of soil was excavated for off-site disposal and approximately 33,749 gallons of water were removed from the trenches for off-site disposal. Confirmation soil samples contained up to 5.6 ppm TPHg, 0.088 ppm benzene, and 0.17 ppm MTBE. Soil samples collected from beneath the dispensers contained up to 360 ppm TPHd, 470 ppm TPHg, and 0.12 ppm MTBE.

In August 2005, Delta Consultants (Delta) drilled three cone penetrometer test (CPT-1 through CPT-3) borings and drilled five soil borings (GP-1 through GP-5) to investigate the horizontal and vertical extent of impacted soil and groundwater. Soil samples collected from the borings contained up to 660 ppm TPHg and 0.03 ppm MTBE. Grab groundwater samples contained up to 38,000 ppb and 73 ppb MTBE. Benzene was not detected at concentrations above the reporting limit in soil or groundwater samples.

In February 2006, Delta drilled two off-site soil borings (GP-6 and GP-7) to further delineate the horizontal extent of groundwater impacts. Grab groundwater samples collected from the borings contained up to 78 ppb TPHg and 73 ppb MTBE. In March 2006, Delta installed one groundwater extraction well (EW-1). In November 2005, Delta installed one off-site groundwater monitoring well (S-9) to further delineate the horizontal extent of groundwater impacts.

In April 2006, Delta conducted a step drawdown pumping test on EW-1, pumping from 0.25 to 1.4 gallons per minute (gpm). Pumping created 0.19 feet of drawdown in well S-1, located 20 feet away and 0.16 feet of drawdown in well S-3 located 18 feet away. Delta estimated a sustained pumping rate of 0.8 gpm from EW-1. Approximately 4,650 gallons of groundwater containing up to 16,200 ppb TPHg were removed from EW-1 during step drawdown testing. In September and October 2006, Delta extracted approximately 4,000 gallons of groundwater from wells EW-1 and S-2 containing up to 14,800 ppb TPHg.

In June 2009, Delta installed three off-site groundwater monitoring wells (S-10 through S-12) to further delineate the horizontal extent of groundwater impacts. Soil samples collected from the well borings contained up to 0.0059 ppm MTBE. No TPHg or benzene was detected at concentrations above the reporting limits in the soil samples.

Between April and September 2009, Delta conducted a magnesium sulfate ($MgSO_4$) groundwater treatment pilot study consisting of four application events using wells EW-1 and S-3. Between 25 and 55 gallons of $MgSO_4$ were applied to each well during each event. Based on groundwater sampling conducted during and after the application events, Delta concluded that $MgSO_4$ in the application well was being utilized and depleted to increase anaerobic sulfate reduction of petroleum hydrocarbons. Adjacent monitoring wells did not show any indication of anaerobic sulfate reduction.

Groundwater monitoring was conducted at the site from January 1988 through July 2011. There are seven on-site groundwater monitoring wells (S-1 through S-5, S-10, and S-12), two on-site groundwater extraction wells (EW-1 and EW-2), three on-site vadose zone wells (V-1 through V-3), and five off-site groundwater monitoring wells (S-6 through S-9 and S-11). The concentrations of petroleum hydrocarbons have generally decreased over time indicating that the plume of dissolved phase hydrocarbons appears to be stable or shrinking.

IV. CLOSURE

Does completed corrective action protect existing beneficial uses per the Regional Board Basin Plan? Yes		
Does completed corrective action protect potential beneficial uses per the Regional Board Basin Plan? Yes		
Does corrective action protect public health for current land use? Alameda County Environmental Health staff does not make specific determinations concerning public health risk. However, based upon the information available in our files to date, it does not appear that the release would present a risk to human health based upon current land use and conditions.		
Site Management Requirements: Case closure for this fuel leak site is granted for the current commercial land use only. If a change in land use to any residential or other conservative land use scenario occurs at this site, Alameda County Environmental Health (ACEH) must be notified as required by Government Code Section 65850.2.2. ACEH will re-evaluate the case upon receipt of approved development/construction plans. Excavation or construction activities in areas of residual contamination require planning and implementation of appropriate health and safety procedures by the responsible party prior to and during excavation and construction activities.		
Should corrective action be reviewed if land use changes? Yes		
Was a deed restriction or deed notification filed? No		Date Recorded: ---
Monitoring Wells Decommissioned: No	Number Decommissioned: 0	Number Retained: 14
List Enforcement Actions Taken: None		
List Enforcement Actions Rescinded: ---		

V. ADDITIONAL COMMENTS, DATA, ETC.

Considerations and/or Variances:

No soil vapor sampling was conducted for the site. Soil vapor sampling does not appear to be warranted based on the apparent limited extent of benzene in soil, excavation of the source area in 2004, and generally declining concentrations of benzene in groundwater.

Conclusion:

Alameda County Environmental Health staff believe that the levels of residual contamination do not pose a significant threat to water resources, public health and safety, and the environment under the current commercial land use based upon the information available in our files to date. No further investigation or cleanup for the fuel leak case is necessary unless a change in land use to any residential or other conservative land use scenario occurs at the site. ACEH staff recommend closure for this site.

VI. LOCAL AGENCY REPRESENTATIVE DATA

Prepared by: Jerry Wickham	Title: Senior Hazardous Materials Specialist
Signature: Jerry Wickham	Date: 02/21/12
Approved by: Donna L. Drogos, P.E.	Title: Division Chief
Signature: Donna L. Drogos	Date: 02/14/12

This closure approval is based upon the available information and with the provision that the information provided to this agency was accurate and representative of site conditions.

VII. REGIONAL BOARD NOTIFICATION

Regional Board Staff Name: Cherie McCaulou	Title: Engineering Geologist
Notification Date: 02/21/12	

VIII. MONITORING WELL DECOMMISSIONING

Date Requested by ACEH: 04/25/12	Date of Well Decommissioning Report: 07/05/12	
All Monitoring Wells Decommissioned: Yes	Number Decommissioned: 14	Number Retained: Ø
Reason Wells Retained: ---		
Additional requirements for submittal of groundwater data from retained wells: ---		
ACEH Concurrence - Signature: Jerry Wickham		Date: 07/11/12

Attachments:

1. Vicinity Map (1 p)
2. Site Plan (1 p)
3. Sampling Location Map, Groundwater Contour Map, and Cross Sections (5 pp)
4. Soil Analytical Data (5 pp)
5. Groundwater Analytical Data (22 pp)
6. Boring Logs (28 pp)

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

Wickham, Jerry, Env. Health

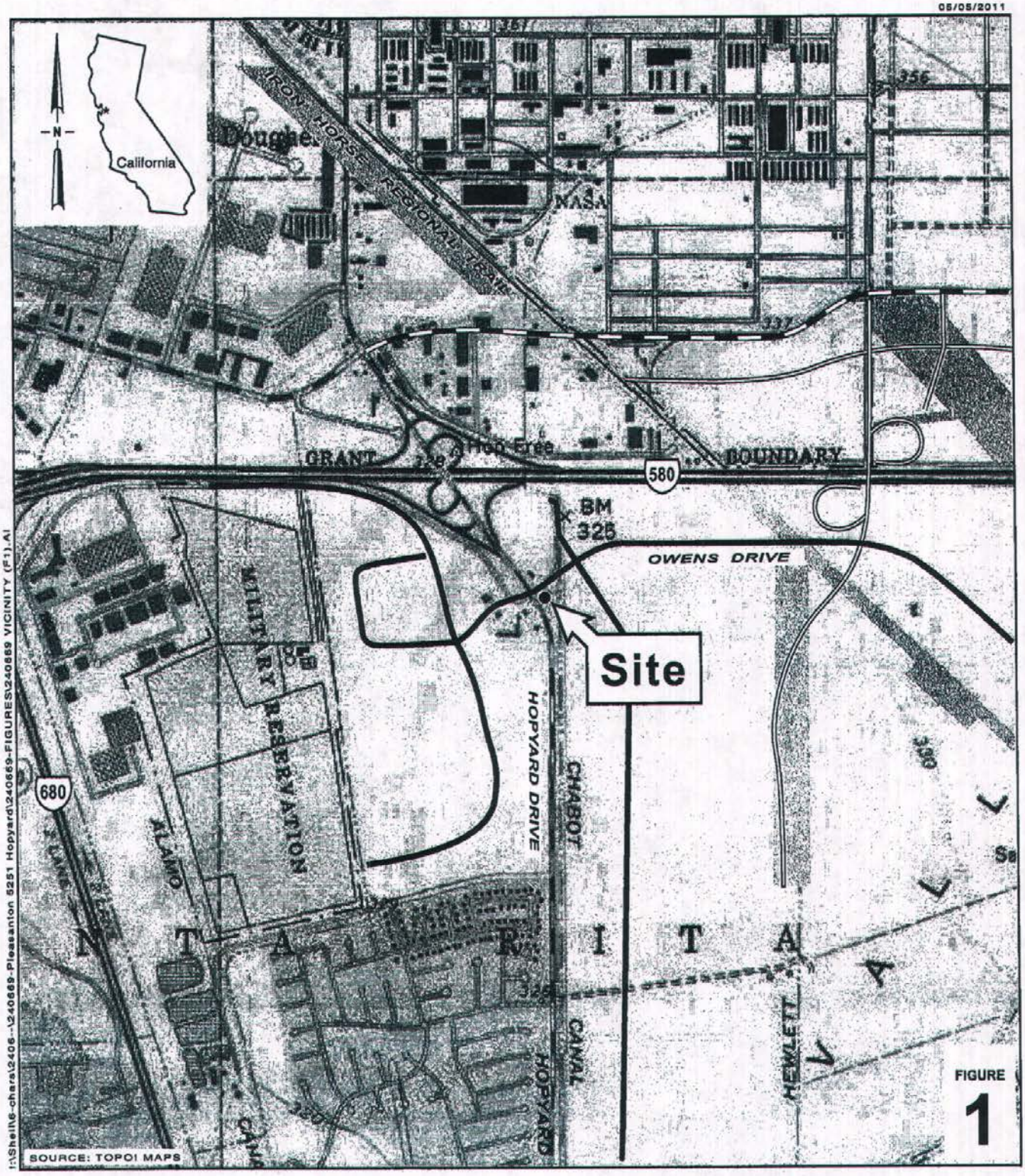
From: Cherie MCcaulou [CMccaulou@waterboards.ca.gov]
Sent: Thursday, April 26, 2012 11:56 AM
To: Wickham, Jerry, Env. Health
Subject: Re: Pending closure of RO194, 5251 Hopyard Road, Pleasanton

Jerry - Thank you for the notice of case closure for this active station at 5251 Hopyard Road in Pleasanton.

>>> "Wickham, Jerry, Env. Health" <jerry.wickham@acgov.org> 4/25/2012 11:18 AM >>>
Hi Cherie,

This email provides notification of pending closure for ACEH case RO0194, 5251 Hopyard Road, Pleasanton.

Jerry Wickham
Alameda County Environmental Health
1131 Harbor Bay Parkway
Alameda, CA 94502-6577
phone: 510-567-6791
jerry.wickham@acgov.org



0 1/8 1/4 1/2 1

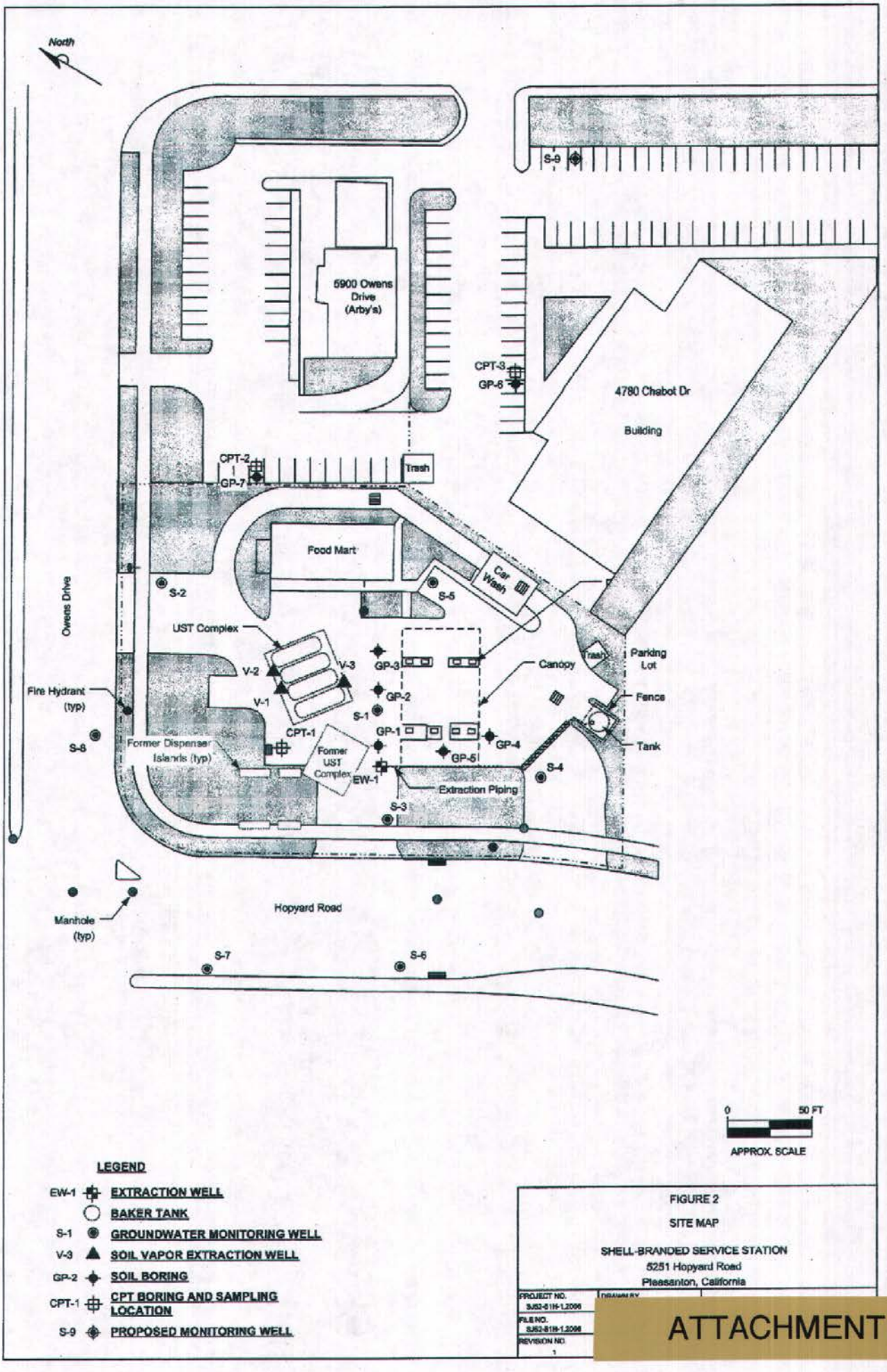
SCALE : 1" = 1/4 MILE

Shell-branded Service Station
5251 Hopyard Road
Pleasanton, California

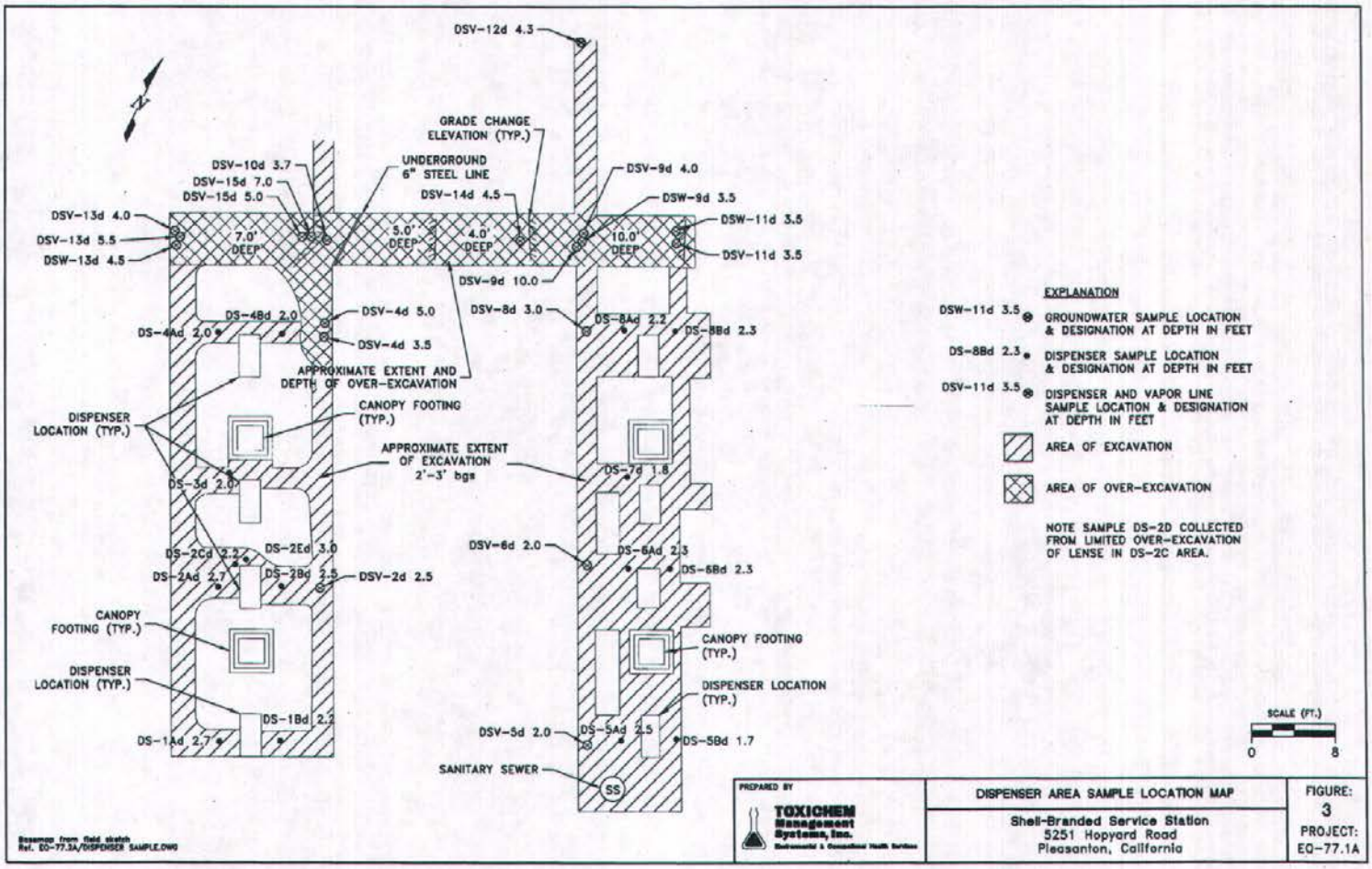
CONESTOGA-ROVERS & ASSOCIATES

Vicinity Map

ATTACHMENT 1



ATTACHMENT 2



ATTACHMENT 3

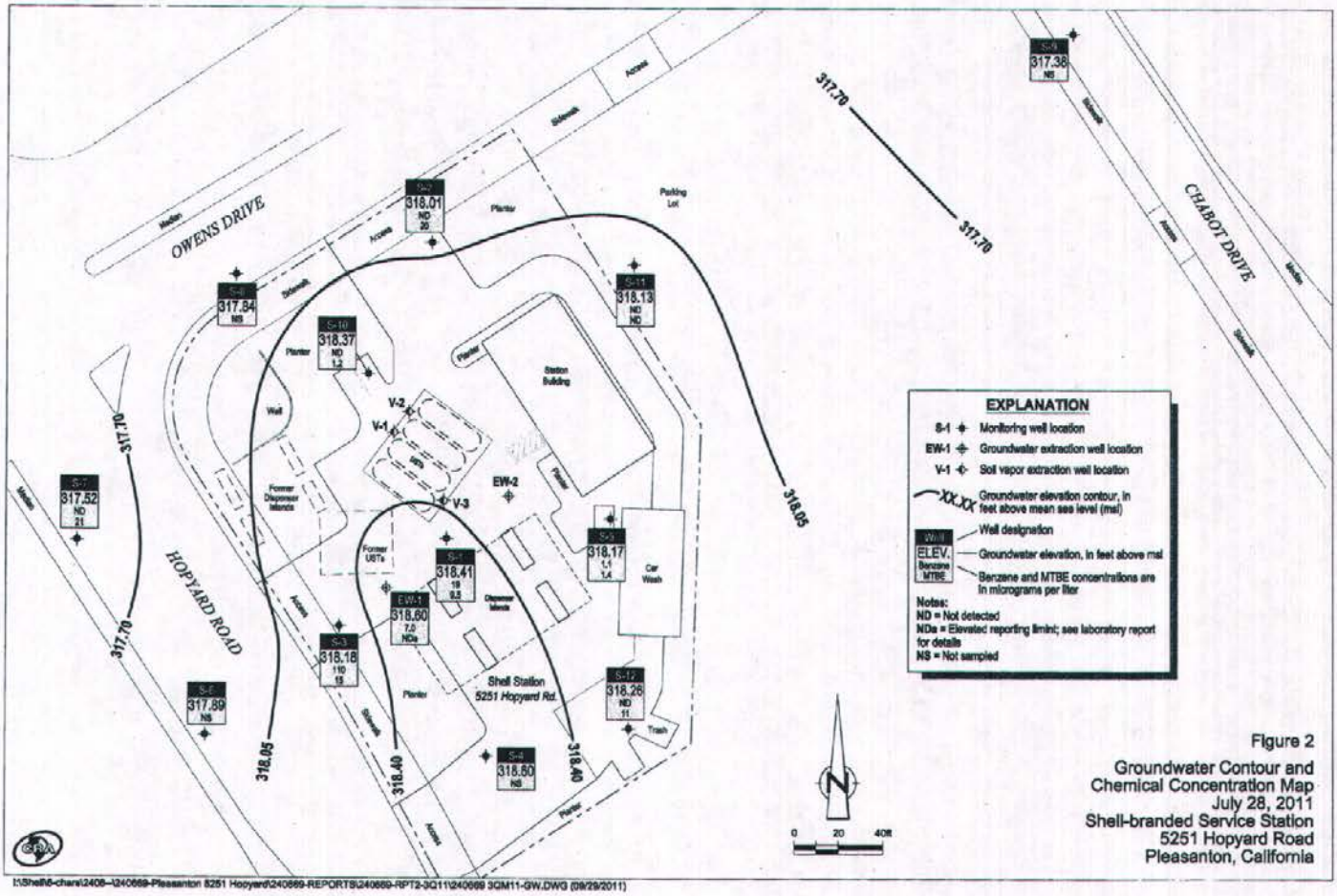
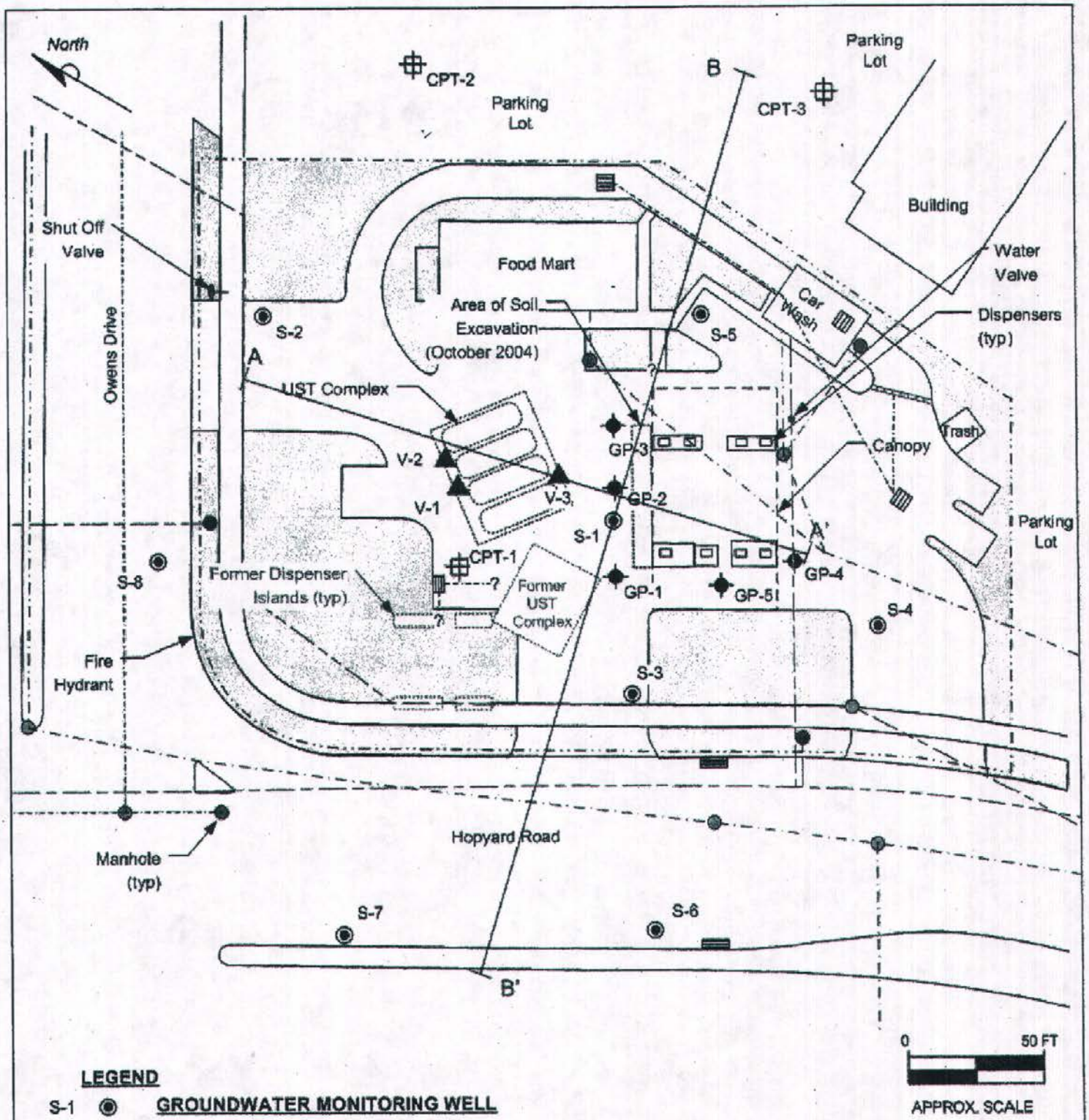


Figure 2
Groundwater Contour and Chemical Concentration Map
July 28, 2011
Shell-branded Service Station
5251 Hopyard Road
Pleasanton, California

I:\Shell6-chare\2408--I\240669-Pleasanton 5251 Hopyard\240669-REPORTS\240669-RPT2-3Q11\240669 3QM11-GW.DWG (09/29/2011)



LEGEND

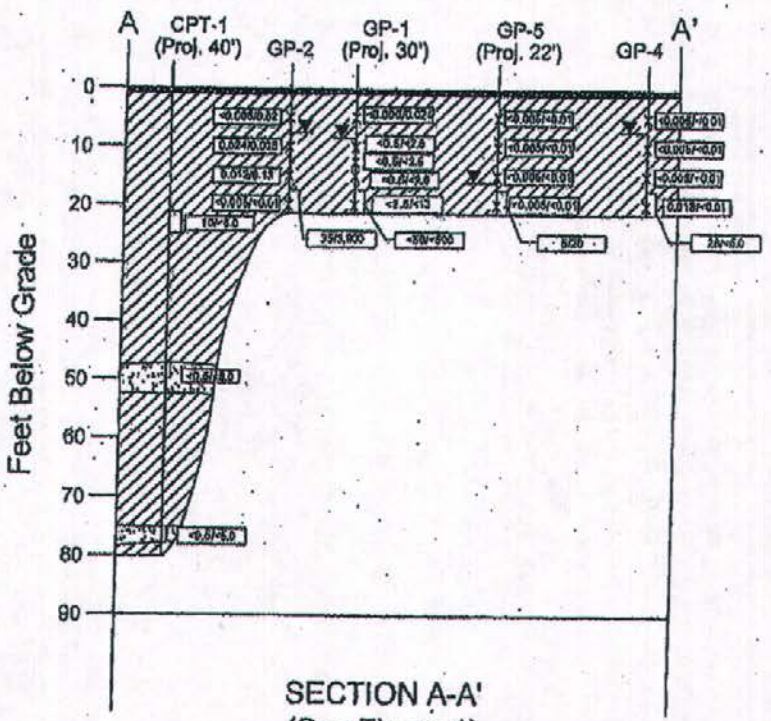
S-1 ◉	GROUNDWATER MONITORING WELL
V-3 ▲	SOIL VAPOR EXTRACTION WELL
GP-2 ✦	SOIL BORING
CPT-1 ⊕	CPT BORING AND SAMPLING LOCATION
— — —	ZONE 7 PIPE
— — —	WATER MAIN
— · — · —	SEWER MAIN
----------	STORM DRAIN

SITE AND UTILITY MAP

SHELL-BRANDED SERVICE STATION
5251 Hopyard Road
Pleasanton, California

PROJECT NO. SJ52-51H-1.2005	DRAWN BY JL 09/23/05
FILE NO. SJ52-51H-1.2005	PREPARED BY JL
REVISION NO. 1	REVIEWED BY

Delta Environmental Consultants, Inc.



SECTION A-A'
(See Figure 1)

LEGEND:

CPT-1 WELL/BORING IDENTIFICATION

DEPTH OF STABILIZED GROUND WATER

SCREEN AND SAND PACK INTERVAL

X SOIL SAMPLE

GROUNDWATER SAMPLING INTERVAL

X 91/<5.0 MTBE/TBA CONCENTRATIONS IN GROUNDWATER (UG/L)

CPT BORINGS SAMPLED ON 8/31/05 AND 9/26/05

WELLS SAMPLED ON 9/20/05

GEOPROBE BORINGS SAMPLED ON 9/11/05

91/<5.0 MTBE/TBA CONCENTRATIONS IN GROUNDWATER (MG/KG) (9/10/05 AND 9/11/05)

CLAY

SAND

ARTIFICIAL FILL

0 60 FT

HORZ. SCALE

FIGURE 2

HYDROGEOLOGIC CROSS-SECTION A-A'
AUGUST 2005

SHELL-BRANDED SERVICE STATION
5251 Hopyard Road
Pleasanton, California

PROJECT NO. 9J52-51H-1.2005	DRAWN BY JL 10/04/05
FILE NO. 9J52-51H-1.2005	PREPARED BY HB
REVISION NO. 1	REVIEWED BY LD

Delta
ENVIRONMENTAL
CONSULTANTS INC.

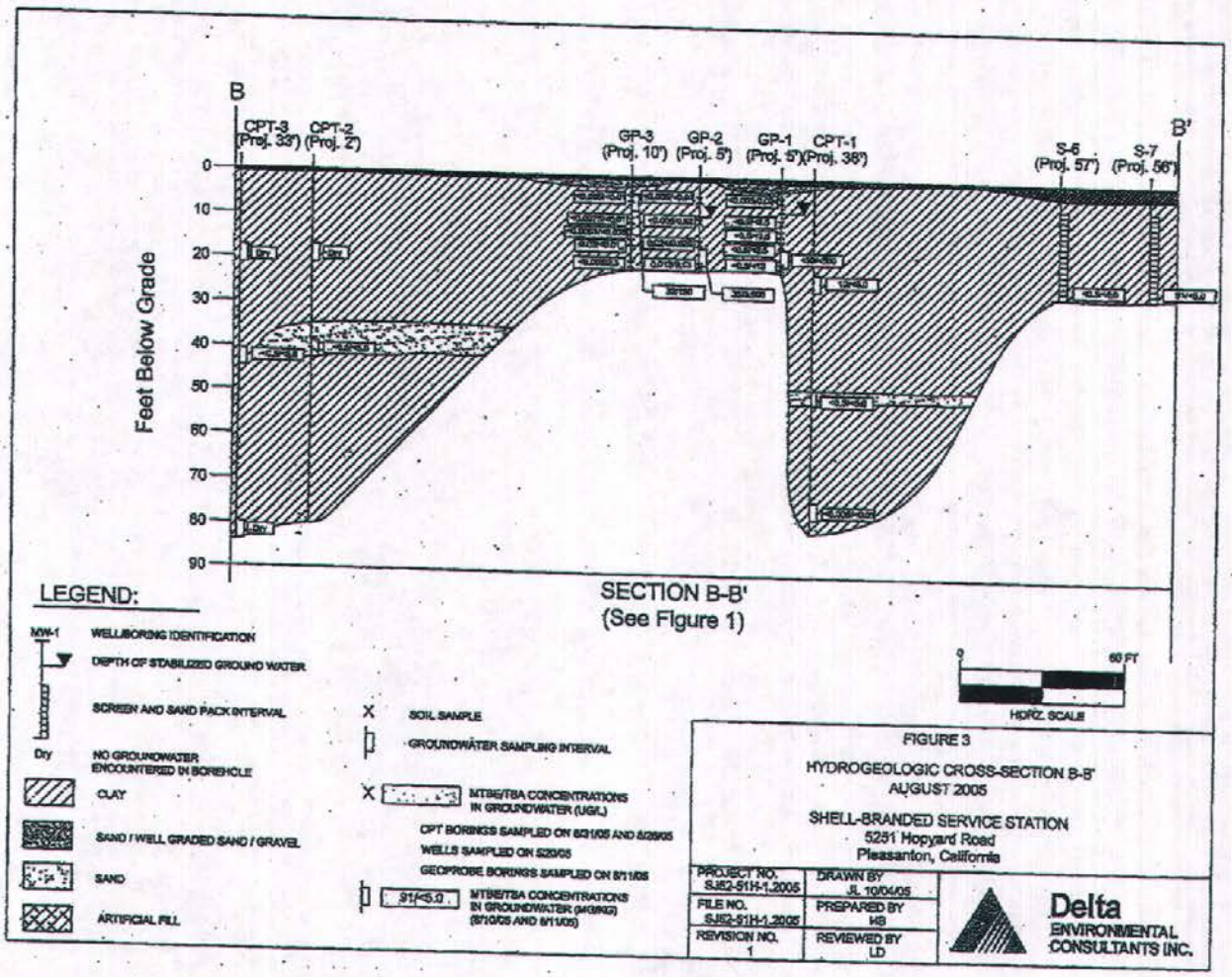


FIGURE 3

HYDROGEOLOGIC CROSS-SECTION B-B'
AUGUST 2005

SHELL-BRANDED SERVICE STATION
5251 Hopyard Road
Pleasanton, California

PROJECT NO. SJ62-51H-1.2005	DRAWN BY JL 10/04/05
FILE NO. SJ62-51H-1.2005	PREPARED BY HB
REVISION NO. 1	REVIEWED BY LD

Delta ENVIRONMENTAL CONSULTANTS INC.

TABLE 1

HISTORICAL SOIL ANALYTICAL DATA
SHELL-BRANDED SERVICE STATION
5251 HOPYARD ROAD, PLEASANTON, 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)	Total Lead (mg/kg)
S-6-5	10/30/1989	5	<5	<2.5	0.035	<0.025	<0.025	<0.025	—	—	—	—	—	—	—	—	—
S-6-10	10/30/1989	10	<5	<2.5	<0.025	<0.025	<0.025	<0.025	—	—	—	—	—	—	—	—	—
S-6-16	10/30/1989	16	<5	<2.5	<0.025	<0.025	<0.025	<0.025	—	—	—	—	—	—	—	—	—
S-7-5	10/30/1989	5	<5	<2.5	<0.025	<0.025	<0.025	<0.025	—	—	—	—	—	—	—	—	—
S-7-10	10/30/1989	10	<5	<2.5	<0.025	<0.025	<0.025	<0.025	—	—	—	—	—	—	—	—	—
S-7-15	10/30/1989	15	<5	<2.5	<0.025	<0.025	<0.025	<0.025	—	—	—	—	—	—	—	—	—
S-8-5.5	11/6/1989	5.5	<5	<2.5	<0.025	<0.025	<0.025	<0.025	—	—	—	—	—	—	—	—	—
S-8-10.5	11/6/1989	10.5	<5	<2.5	<0.025	<0.025	<0.025	<0.025	—	—	—	—	—	—	—	—	—
S-8-15.5	11/6/1989	15.5	<5	<2.5	<0.025	<0.025	<0.025	<0.025	—	—	—	—	—	—	—	—	—
DS-1A	9/20/2004	2.7	—	<1.0	<0.0050	0.043	0.0071	0.18	0.009	0.017	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1	4.3
DS-1B	9/20/2004	2.2	—	<1.0	<0.0050	0.011	<0.0050	0.064	0.0051	<0.010	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1	5.4
DS-2A	9/20/2004	2.7	—	80	<0.50	<0.50	<0.50	<0.50	<0.50	<2.5	<1.0	<0.50	<0.50	<0.50	<0.50	<25	4.2
DS-2B	9/20/2004	2.5	—	3.2 g	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1	3.4
DS-2D	9/20/2004	—	—	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.5	<1.0	<0.50	<0.50	<0.50	<0.50	<25	4.8
DS-2E	9/20/2004	3	—	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	0.012	<0.010	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1	4.3
DS-3	9/20/2004	2	360 e	—	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1	—
DS-4A	9/20/2004	2	—	<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	4.1
DS-4B	9/20/2004	2	—	<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	3.3
DS-5A	9/20/2004	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	<0.1	3.0

ATTACHMENT 4

TABLE 1

HISTORICAL SOIL ANALYTICAL DATA
SHELL-BRANDED SERVICE STATION
5251 HOPYARD ROAD, PLEASANTON, 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)	Total Lead (mg/kg)
DS-5B	9/20/2004	1.7	—	<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	2.0
DS-6A	9/20/2004	2.3	—	470	<0.50	<0.50	<0.50	1.4	<0.50	<2.5	<1.0	<0.50	<0.50	<0.50	<0.50	<25	3.1
DS-6B	9/20/2004	2.3	—	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.5	<1.0	<0.50	<0.50	<0.50	<0.50	<25	3.3
DS-7	9/20/2004	1.8	11 f	—	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.1	—
DS-8A	9/20/2004	2.2	—	<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	4.1
DS-8B	9/20/2004	2.3	—	<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	4.6
DSV-2	9/28/2004	2.5	—	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	0.027	0.010	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	—	4.0
DSV-4	9/28/2004	3.5	—	<1.0	0.0057	<0.00500	<0.00500	<0.00500	0.12	0.065	<0.010	<0.00500	<0.00500	<0.00500	<0.00500	—	3.4
DSV-4	10/5/2004	5	—	<1.0	0.016	<0.0050	<0.0050	<0.0050	0.20	0.22	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	—	11
DSV-5	9/28/2004	2	—	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	—	5.2
DSV-6	9/28/2004	2	—	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	0.0087	<0.010	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	—	4.3
DSV-8	9/28/2004	3	—	1.5 g	<0.0050	<0.0050	<0.0050	<0.0050	0.043	<0.010	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	—	2.6
DSV-9	9/28/2004	4	640 a	24,000	65	1,300	350	2,300	<13	<63	<25	<13	<13	<13	<13	<630	5.4
DSV-9	9/30/2004	10	—	<2.0	<0.010	<0.010	<0.010	<0.010	0.053	0.083	<0.020	<0.010	<0.010	<0.010	<0.010	—	4.3
DSV-10	9/28/2004	3.7	—	<1.0	0.034	<0.0050	<0.0050	<0.0050	0.064	0.013	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	—	5.5
DSV-11	9/28/2004	3.5	—	<1.0	<0.0050	0.018	0.0051	0.029	0.035	0.020	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	—	5.0
DSV-12	9/28/2004	4.3	—	<4.8	0.026	0.26	0.037	0.16	<0.024	<0.048	<0.048	<0.024	<0.024	<0.024	<0.024	—	5.7

TABLE 1

HISTORICAL SOIL ANALYTICAL DATA
SHELL-BRANDED SERVICE STATION
5251 HOPYARD ROAD, PLEASANTON, 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)	Total Lead (mg/kg)
DSV-13	9/28/2004	4	—	<1.0	0.025	<0.0050	<0.0050	<0.0050	0.085	0.047	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	—	8.8
DSV-13	9/30/2004	5.5	—	<2.0	**0.030**	0.012	<0.010	0.020	**0.054**	0.030	<0.020	<0.010	<0.010	<0.010	<0.010	—	7.3
DSV-14	9/30/2004	4.5	—	<2.0	<0.010	<0.010	<0.010	<0.010	**0.092**	**0.12**	<0.020	<0.010	<0.010	<0.010	<0.010	—	5.9
DSV-15	9/30/2004	5	—	<2.0	0.087	<0.010	<0.010	<0.010	0.17	0.086	<0.020	<0.010	<0.010	<0.010	<0.010	—	6.2
DSV-15	10/5/2004	7	—	5.6	**0.088**	0.0065	0.20	0.023	**0.024**	<0.010	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	—	5.8
CPT-1	8/10/2005	5	—	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.10	—	—	<0.0050	—	—	—	—
GP-1	8/10/2005	5	—	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.024	—	—	<0.0050	—	—	—	—
GP-1	8/11/2005	10	—	**500 d**	<0.50	<0.50	<0.50	<0.50	<0.50	<2.5	—	—	<0.50	—	—	—	—
GP-1	8/11/2005	12.5	—	**660**	<0.50	<0.50	**4.5**	<0.50	<0.50	<2.5	—	—	<0.50	—	—	—	—
GP-1	8/11/2005	15	—	**540**	<0.50	<0.50	**5.5**	<0.50	<0.50	<2.5	—	—	<0.50	—	—	—	—
GP-1	8/11/2005	20	—	**290**	<2.5	<2.5	**3.8**	**4.2**	<2.5	<13	—	—	<2.5	—	—	—	—
GP-2	8/10/2005	5	—	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.10	—	—	<0.0050	—	—	—	—
GP-2	8/11/2005	10	—	<1.0	<0.0050	<0.0050	1.4 b	0.99 b	<0.0050	0.062	—	—	<0.0050	—	—	—	—
GP-2	8/11/2005	15	—	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	**0.024**	0.026	—	—	<0.0050	—	—	—	—
GP-2	8/11/2005	20	—	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	0.012	**0.13**	—	—	<0.0050	—	—	—	—
GP-3	8/10/2005	5	—	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.10	—	—	<0.0050	—	—	—	—
GP-3	8/11/2005	10	—	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	0.0075	<0.10	—	—	<0.0050	—	—	—	—
GP-3	8/11/2005	12.5	—	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	0.0061	0.038	—	—	<0.0050	—	—	—	—
GP-3	8/11/2005	15	—	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	**0.030**	<0.10	—	—	<0.0050	—	—	—	—
GP-3	8/11/2005	20	—	<1.0	<0.0050	<0.0050	<0.0050	0.0050	0.0050	**2.3 b**	—	—	<0.0050	—	—	—	—
GP-4	8/10/2005	5	—	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.10	—	—	<0.0050	—	—	—	—
GP-4	8/11/2005	10	—	<1.0	<0.0050	<0.0050	0.022	<0.0050	<0.0050	<0.11 c	—	—	<0.0050	—	—	—	—
GP-4	8/11/2005	15	—	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.10	—	—	<0.0050	—	—	—	—
GP-4	8/11/2005	20	—	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	0.013	<0.10	—	—	<0.0050	—	—	—	—

TABLE 1

HISTORICAL SOIL ANALYTICAL DATA
SHELL-BRANDED SERVICE STATION
5251 HOPYARD ROAD, PLEASANTON, 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)	Total Lead (mg/kg)
GP-5	8/10/2005	5	—	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.10	—	—	<0.0050	—	—	—	—
GP-5	8/11/2005	10	—	<1.0	<0.0050	0.0051	0.046	0.14	<0.0050	<0.10	—	—	<0.0050	—	—	—	—
GP-5	8/11/2005	15	—	<1.0	<0.0050	<0.0050	0.045	0.19	<0.0050	0.011	—	—	<0.0050	—	—	—	—
GP-5	8/11/2005	20	—	<1.0	<0.0050	0.0051	0.013	0.0161	<0.0050	<0.10	—	—	<0.0050	—	—	—	—
S-10	6/18/2009	10	—	<0.50 e	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.10	<0.10	<0.10	—	—	—	—
S-11	6/18/2009	10	—	<0.50 e	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.10	<0.10	<0.10	—	—	—	—
S-12	6/18/2009	10	—	<0.50 e	<0.0050	<0.0050	<0.0050	<0.0050	0.0059	<0.050	<0.10	<0.10	<0.10	—	—	—	—
Shallow Soil (<10 fbg) ESL [h]:			83	83	0.044	2.9	3.3	2.3	0.023	0.075	NA	NA	NA	0.0045	0.00033	NA	750
Deep Soil (>10 fbg) ESL [h]:			83	83	0.044	2.9	3.3	2.3	0.023	0.075	NA	NA	NA	0.0045	0.00033	NA	750

Notes:
TPHd = Total petroleum hydrocarbons as diesel, analyzed by EPA Method 8015
TPHg = Total petroleum hydrocarbons as gasoline analyzed by EPA Method 8260B; before September 20, 2004, analyzed by EPA Method 8015 unless otherwise noted.
Benzene, toluene, ethylbenzene, and total xylenes analyzed by EPA Method 8260B; before September 20, 2004, analyzed by EPA Method 8020.
MTBE = Methyl tertiary-butyl ether analyzed by EPA Method 8260B
TBA = Tertiary-butyl alcohol analyzed by EPA Method 8260B
DIPE = Di-isopropyl ether analyzed by EPA Method 8260B
ETBE = Ethyl tertiary-butyl ether analyzed by EPA Method 8260B
TAME = Tertiary-amyl methyl ether analyzed by EPA Method 8260B
1,2-DCA = 1,2-Dichloroethane analyzed by EPA Method 8260B
EDB = 1,2-Dibromoethane analyzed by EPA Method 8260B
Ethanol analyzed by EPA Method 8260B
Total Lead analyzed by EPA Method 6010
fbg = Feet below grade
mg/kg = Milligrams per kilogram
<x = Not detected at reporting limit x
— = Not analyzed or available
ESL = Environmental screening level

HISTORICAL SOIL ANALYTICAL DATA
SHELL-BRANDED SERVICE STATION
5251 HOPYARD ROAD, PLEASANTON, 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)	Total Lead (mg/kg)

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 in the early diesel range and does not match laboratory's diesel standard.
b = Estimated value. The concentration exceeded the calibration of analysis.
c = Reporting limits were raised due to matrix interference
d = Quantity of unknown hydrocarbon(s) in sample based on gasoline.
e = Analyzed by Modified EPA Method 8015
f = Hydrocarbon does not match the pattern of laboratory diesel standard
g = Hydrocarbon reported in gasoline range does not match the laboratory gasoline standard
h= 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]).

TABLE 2

GROUNDWATER DATA
SHELL-BRANDED SERVICE STATION
5251 HOPYARD ROAD, PLEASANTON, CALIFORNIA

Well ID	Date	TPHo (µg/L)	TPHd (µg/L)	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	Ethanol (µg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	GW Elevation (ft MSL)	DO Reading (m/L)
S-1	01/06/1988	<200	<50	600	220	<5	—	<20 r	—	—	—	—	—	—	—	—	9.19	—	—
S-1	12/14/1988	—	8,000 s	17,000	5,100	40	570	200	—	—	—	—	—	—	—	—	—	—	—
S-1	03/30/1989	—	3,600	8,200	2,900	<20	330	160	—	—	—	—	—	—	—	—	—	—	—
S-1	07/20/1989	—	8,500	21,000	6,200	1,500	1,100	700	—	—	—	—	—	—	—	326.73	8.71	318.02	—
S-1	10/16/1989	—	11,000	16,000	3,900	890	1,200	900	—	—	—	—	—	—	—	326.73	—	—	—
S-1	12/12/1989	—	—	—	—	—	—	—	—	—	—	—	—	—	—	326.73	9.20	317.53	—
S-1	01/05/1990	—	6,500	8,200	2,300	100	660	320	—	—	—	—	—	—	—	326.73	9.20	317.53	—
S-1	04/11/1990	—	—	11,000	3,000	120	830	520	—	—	—	—	—	—	—	326.73	9.04	317.69	—
S-1	07/12/1990	—	8,000	20,000	4,400	960	1,300	1200	—	—	—	—	—	—	—	326.73	8.66	318.07	—
S-1	10/25/1990	—	3,500	6,000	1,400	140	600	320	—	—	—	—	—	—	—	326.73	8.40	318.33	—
S-1	01/25/1991	—	1,500	2,500	460	<25	130	36	—	—	—	—	—	—	—	326.73	9.98	316.75	—
S-1	04/06/1991	—	2,600 a	6,700	2,600	14	580	250	—	—	—	—	—	—	—	326.73	—	—	—
S-1	07/24/1991	—	3,800 a	8,800	2,300	30	640	220	—	—	—	—	—	—	—	326.73	—	—	—
S-1	10/18/1991	—	3,300 a	12,000	3,600	380	990	580	—	—	—	—	—	—	—	326.73	8.85	317.88	—
S-1	01/23/1992	—	890	1,600	450	3	120	17	—	—	—	—	—	—	—	326.73	—	—	—
S-1	04/27/1992	—	500 a	1,100 g	610	<10	110	10	—	—	—	—	—	—	—	326.73	—	—	—
S-1	07/21/1992	—	290 c	5,100	1,900	54	460	140	—	—	—	—	—	—	—	326.73	—	—	—
S-1	10/16/1992	—	390 c	13,000	3,200	310	780	360	—	—	—	—	—	—	—	326.73	—	—	—
S-1	01/23/1993	—	30 d	2,300	640	<5.0	110	13	—	—	—	—	—	—	—	326.73	7.96	318.77	—
S-1	04/28/1993	—	390	4,600	780	<0.5	250	<0.5	—	—	—	—	—	—	—	326.73	9.07	317.66	—
S-1	09/22/1993	—	610 a	3,000	660	28	160	17	—	—	—	—	—	—	—	326.73	8.68	318.05	—
S-1	12/08/1993	—	280	520	210	<2.5	49	<2.5	—	—	—	—	—	—	—	326.73	8.23	318.50	—
S-1	03/04/1994	—	—	640	190	1.4	18	1.3	—	—	—	—	—	—	—	326.73	8.81	317.92	—
S-1 (D)	03/04/1994	—	—	640	180	1.7	17	1.3	—	—	—	—	—	—	—	326.73	8.81	317.92	—
S-1	06/16/1994	—	—	2,500	390	9.5	31	7.5	—	—	—	—	—	—	—	326.73	8.80	317.93	—
S-1 (D)	06/16/1994	—	—	2,000	410	7.8	120	20	—	—	—	—	—	—	—	326.73	8.80	317.93	—
S-1	09/13/1994	—	—	1,400	310	7.7	29	8.5	—	—	—	—	—	—	—	326.73	8.62	318.11	—
S-1 (D)	09/13/1994	—	—	1,400	240	7.9	44	6.3	—	—	—	—	—	—	—	326.73	8.62	318.11	—
S-1	05/05/1995	—	—	800	120	3.6	26	2.7	—	—	—	—	—	—	—	326.73	11.54	315.19	—
S-1 (D)	05/05/1995	—	—	710	110	3.4	19	2.7	—	—	—	—	—	—	—	326.73	11.54	315.19	—
S-1	05/21/1996	—	—	1,500	170	8.5	120	6.7	—	—	—	—	—	—	—	326.73	8.88	317.85	—
S-1	05/12/1997	—	—	4,700	200	15	210	20	2,300	—	—	—	—	—	—	326.73	11.19	315.54	2.4
S-1 (D)	05/12/1997	—	—	4,800	210	16	190	16	3,200	2,900	—	—	—	—	—	326.73	11.19	315.54	2.4
S-1	05/08/1998	—	—	500	18	2.1	2.3	2.0	1,000	—	—	—	—	—	—	326.73	8.38	318.35	2.1
S-1	06/27/1999	—	—	2,970	117	32.0	69.1	17.5	374	—	—	—	—	—	—	326.73	8.79	317.94	2.4
S-1	04/28/2000	—	—	1,920	50.5	15.0	67.2	46.7	276	—	—	—	—	—	—	326.73	8.50	318.23	2.8

ATTACHMENT 5

TABLE 2

GROUNDWATER DATA
SHELL-BRANDED SERVICE STATION
5251 HOPYARD ROAD, PLEASANTON, CALIFORNIA

Well ID	Date	TPHo (µg/L)	TPHd (µg/L)	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	Ethanol (µg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	GW Elevation (ft MSL)	DO Reading (m/L)
S-1	05/30/2001	—	—	3,900	27	12	140	28	—	140	—	—	—	—	—	326.73	8.18	318.55	2.6
S-1	06/17/2002	—	—	2,700	25	11	51	14	—	140	—	—	—	—	—	326.73	8.39	318.34	3.2
S-1	05/30/2003	—	—	3,900	12	8.2	47	12	—	270	—	—	—	—	—	326.74	7.41	319.33	1.2
S-1	05/03/2004	—	—	3,700	32	21	170	34	—	410	—	—	—	—	—	326.74	11.18	315.56	2.4
S-1	01/14/2005	—	—	4,200	22	34	380	33	—	100	—	—	—	—	—	326.74	7.10	319.64	0.58
S-1	05/05/2005	—	—	5,000	33	110	970	210	—	190	630	<0.50	<0.50	0.95	—	326.74	11.32	315.42	—
S-1	08/05/2005	—	—	4,600 l	32 l	52 l	420 l	69 l	—	110 l	410 l	<40 l	<40 l	<40 l	—	326.74	9.04	317.70	—
S-1	09/16/2005	—	—	3,300	14	28	280	43	—	60	260	51	<10	<10	—	326.74	11.37	315.37	—
S-1	11/08/2005	—	—	4,700	19.2	47.0	416	84.0	—	50.2	<10.0	<0.500	<0.500	<0.500	—	326.74	9.06	317.68	—
S-1	01/31/2006	—	—	6,380	21.0	33.1	280	31.0	—	59.9	306	<0.500	<0.500	<0.500	—	326.74	8.12	318.62	—
S-1	05/16/2006	—	—	9,080	25.8	46.6	517	86.6 m	—	69.5	268	<0.500	<0.500	<0.500	—	326.74	7.95	318.79	—
S-1	08/23/2006	—	—	4,980	19.0	22.7	74.7	38.7	—	42.9	252	<0.500	<0.500	<0.500	—	326.74	7.95	318.79	—
S-1	11/13/2006	—	—	7,900	38	41	480	52	—	44	480	<5.0	<5.0	<5.0	—	326.74	7.99	318.75	—
S-1	02/01/2007	—	—	1,500	18	15	110	17	—	27	640	<10	<10	<10	—	326.74	8.19	318.55	—
S-1	05/23/2007	—	—	5,300 n	35	42	260	67.9	—	<5.0	720	<10	<10	<10	—	326.74	10.50	316.24	—
S-1	08/07/2007	—	—	6,900 n	26	31	240	40.9 o	—	30	270	<10	<10	<10	—	326.74	8.13	318.61	—
S-1	11/29/2007	—	—	840 n	16	18	120	14.5	—	26	190	<2.0	<2.0	<2.0	—	326.74	9.40	317.34	—
S-1	02/08/2008	—	—	4,500 n	25	39	410	37	—	28	330	<10	<10	<10	—	326.74	7.91	318.83	—
S-1	02/20/2008	—	—	5,700 n	29	56	650	89	—	35	200	<10	<10	<10	<500	326.74	8.70	318.04	—
S-1	03/07/2008	—	—	6,800 n	25	37	310	59.2	—	<5.0	240	<10	<10	<10	<500	326.74	10.54	316.20	—
S-1	03/21/2008	—	—	5,300	22	23	210	38.7	—	<2.0	220	<4.0	<4.0	<4.0	<200	326.74	9.79	316.95	—
S-1	04/08/2008	—	—	4,200	15	18	230	26.4	—	<2.0	240	<4.0	<4.0	<4.0	<200	326.74	8.27	318.47	—
S-1	04/21/2008	—	—	6,600	21	27	440	53	—	<2.0	170	<4.0	<4.0	<4.0	<200	326.74	8.17	318.57	—
S-1	05/06/2008	—	—	5,700	21	29	440	56	—	<5.0	270	<10	<10	<10	<500	326.74	8.00	318.74	—
S-1	05/21/2008	—	—	7,800	29	51	620	108	—	40	190	<10	<10	<10	<500	326.74	8.27	318.47	—
S-1	08/06/2008	—	—	7,600	17	27	140	30	—	24	180	<10	<10	<10	—	326.74	8.01	318.73	—
S-1	11/18/2008	—	—	6,500	27	35	310	45.0	—	22	180	<20	<20	<20	—	326.74	7.59	319.15	—
S-1	01/20/2009	—	—	5,100	19	21	140	22	—	21	230	<10	<10	<10	—	326.74	8.28	318.46	—
S-1	05/06/2009	—	—	6,100	26	37	520	51	—	27	180	<10	<10	<10	—	326.74	8.04	318.70	—
S-1	07/06/2009	—	—	5,800	25	34	370	44	—	22	180	<10	<10	<10	—	326.74	8.42	318.32	—
S-1	02/09/2010	—	—	8,800	18	33	340	37	—	13	66	—	—	—	—	326.74	8.18	318.56	—
S-1	08/12/2010	—	Unable to access		—	—	—	—	—	—	—	—	—	—	—	326.74	—	—	—
S-1	08/18/2010	—	—	4,000	15	26	87	34	—	10	—	—	—	—	—	326.74	7.92	318.82	—
S-1	02/01/2011	—	—	5,900 q	13	21	38	21	—	14	56	—	—	—	—	326.74	7.91	318.83	—
S-1	07/28/2011	—	—	8,800	19	37	120	46	—	9.5	43	—	—	—	—	326.74	8.33	318.41	—

TABLE 2

GROUNDWATER DATA
SHELL-BRANDED SERVICE STATION
5251 HOPYARD ROAD, PLEASANTON, CALIFORNIA

Well ID	Date	TPHo (µg/L)	TPHd (µg/L)	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	Ethanol (µg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	GW Elevation (ft MSL)	DO Reading (m/L)
S-2	05/11/1989	—	<100	<50	<0.5	<1	<1	<3	—	—	—	—	—	—	—	—	—	—	—
S-2	07/20/1989	—	<100	<50	<0.5	<1	<1	<3	—	—	—	—	—	—	—	326.59	8.83	317.76	—
S-2	10/16/1989	—	<100	<50	<0.5	<1	<1	<3	—	—	—	—	—	—	—	326.59	—	—	—
S-2	12/12/1989	—	—	—	—	—	—	—	—	—	—	—	—	—	—	326.59	9.19	317.40	—
S-2	01/05/1990	—	<100	<50	<0.5	<0.5	<0.5	<1	—	—	—	—	—	—	—	326.59	9.21	317.38	—
S-2	04/11/1990	—	—	<50	<0.5	<0.5	<0.5	<1	—	—	—	—	—	—	—	326.59	9.20	317.39	—
S-2	07/12/1990	—	<50	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—	—	326.59	8.94	317.65	—
S-2	10/25/1990	—	<50	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—	—	326.59	8.95	317.64	—
S-2	01/25/1991	—	<50	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—	—	326.59	9.69	316.90	—
S-2	04/16/1991	—	<50	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—	—	326,59	—	—	—
S-2	07/24/1991	—	<50	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—	—	326.59	—	—	—
S-2	10/18/1991	—	<50	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—	—	326.59	8.83	317.76	—
S-2	01/23/1992	—	<50	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—	—	326.59	—	—	—
S-2	04/27/1992	—	<50	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—	—	326.59	—	—	—
S-2	07/17/1992	—	<50	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—	—	326.59	—	—	—
S-2	10/16/1992	—	<50	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—	—	326.59	—	—	—
S-2	01/23/1993	—	140 b	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—	—	326.59	8.10	318.49	—
S-2	04/28/1993	—	<50	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—	—	326.59	9.06	317.53	—
S-2	09/22/1993	—	—	—	—	—	—	—	—	—	—	—	—	—	—	326.59	8.91	317.68	—
S-2	12/08/1993	—	—	—	—	—	—	—	—	—	—	—	—	—	—	326.59	9.07	317.52	—
S-2	03/04/1994	—	—	—	—	—	—	—	—	—	—	—	—	—	—	326.59	8.90	317.69	—
S-2	06/16/1994	—	—	—	—	—	—	—	—	—	—	—	—	—	—	326.59	8.98	317.61	—
S-2	09/13/1994	—	—	<50	<0.5	2.5	<0.5	<0.5	—	—	—	—	—	—	—	326.59	8.78	317.81	—
S-2	05/05/1995	—	—	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—	—	326.59	8.60	317.99	—
S-2	05/21/1996	—	—	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—	—	326.59	8.75	317.84	—
S-2	05/12/1997	—	—	<50	<0.50	<0.50	<0.50	<0.50	<2.5	—	—	—	—	—	—	326.59	8.72	317.87	3.4
S-2	05/08/1998	—	—	<50	<0.50	<0.50	<0.50	<0.50	<2.5	—	—	—	—	—	—	326.59	8.63	317.96	3.1
S-2	06/27/1999	—	—	<50.0	<0.500	<0.500	<0.500	<0.500	<2.00	—	—	—	—	—	—	326.59	8.79	317.80	2.6
S-2	04/28/2000	—	—	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	—	—	—	—	—	—	326.59	8.33	318.26	2.0
S-2	05/30/2001	—	—	<50	<0.50	<0.50	<0.50	<0.50	—	<0.50	—	—	—	—	—	326.59	8.56	318.03	1.8
S-2	06/17/2002	—	—	<50	<0.50	<0.50	<0.50	<0.50	—	<5.0	—	—	—	—	—	326.59	8.87	317.72	—
S-2	05/30/2003	—	—	<50	<0.50	<0.50	<0.50	<1.0	—	18	—	—	—	—	—	326.47	7.89	318.58	1.7
S-2	05/03/2004	—	—	<250	<2.5	<2.5	<2.5	<5.0	—	510	—	—	—	—	—	326.47	5.44	321.03	0.1
S-2	01/14/2005	—	—	<250	<2.5	<2.5	<2.5	<5.0	—	270	—	—	—	—	—	326.47	7.88	318.59	—
S-2	05/05/2005	—	—	<50	<0.50	<0.50	<0.50	<0.50	—	280	8.9 j	<0.50	<0.50	0.55	—	326.47	8.14	318.33	—
S-2	08/05/2005	—	—	<50 l	<0.50 l	<0.50 l	<0.50 l	<1.0 l	—	320 l	510 l	<2.0 l	<2.0 l	<2.0 l	—	326.47	8.24	318.23	—

TABLE 2

GROUNDWATER DATA
SHELL-BRANDED SERVICE STATION
5251 HOPYARD ROAD, PLEASANTON, CALIFORNIA

Well ID	Date	TPHo (µg/L)	TPHd (µg/L)	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	Ethanol (µg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	GW Elevation (ft MSL)	DO Reading (m/L)
S-2	09/16/2005	—	—	<250	<2.5	<2.5	<2.5	<5.0	—	320	1,800	<10	<10	<10	—	326.47	8.06	318.41	—
S-2	11/08/2005	—	—	<50.0	<0.500	<0.500	<0.500	<0.500	—	375	1,130	<0.500	<0.500	0.610	—	326.47	8.20	318.27	—
S-2	01/31/2006	—	—	281	<0.500	<0.500	<0.500	<0.500	—	354	3,090	<0.500	<0.500	<0.500	—	326.47	8.18	318.29	—
S-2	05/16/2006	—	—	785	<0.500	<0.500	<0.500	<0.500	—	282	3,250	<0.500	<0.500	<0.500	—	326.47	8.34	318.13	—
S-2	08/23/2006	—	—	344	<0.500	<0.500	<0.500	<0.500	—	194	10,600	<0.500	<0.500	0.560	—	326.47	8.32	318.15	—
S-2	11/13/2006	—	—	320	<5.0 f	<5.0 f	<5.0 f	<5.0 f	—	140 f	6,000 f	<5.0 f	<5.0 f	<5.0 f	—	326.50	8.37	318.13	—
S-2	02/01/2007	—	—	160	<0.50	<0.50	<0.50	<1.0	—	130	3,900	<2.0	<2.0	<2.0	—	326.50	8.13	318.37	—
S-2	05/23/2007	—	—	120 n	<0.50	<1.0	<1.0	<1.0	—	110	1,500	<2.0	<2.0	<2.0	—	326.50	8.55	317.95	—
S-2	08/07/2007	—	—	93 n,p	<2.5	<5.0	<5.0	<5.0	—	120	1,700	<10	<10	<10	—	326.50	8.26	318.24	—
S-2	11/29/2007	—	—	110 n,p	<0.50	<1.0	<1.0	<1.0	—	98	880	<2.0	<2.0	<2.0	—	326.50	8.29	318.21	—
S-2	02/08/2008	—	—	110 n,p	<0.50	<1.0	<1.0	<1.0	—	110	830	<2.0	<2.0	<2.0	—	326.50	8.07	318.43	—
S-2	02/20/2008	—	—	73 n,p	<0.50	<1.0	<1.0	<1.0	—	100	650	<2.0	<2.0	<2.0	<100	326.50	8.30	318.20	—
S-2	03/07/2008	—	—	<50 n	<0.50	<1.0	<1.0	<1.0	—	57	240	<2.0	<2.0	<2.0	<100	326.50	9.25	317.25	—
S-2	03/21/2008	—	—	73	<0.50	<1.0	<1.0	<1.0	—	91	480	<2.0	<2.0	<2.0	<100	326.50	9.01	317.49	—
S-2	04/08/2008	—	—	88	<0.50	<1.0	<1.0	<1.0	—	72	310	<2.0	<2.0	<2.0	<100	326.50	8.46	318.04	—
S-2	04/21/2008	—	—	60	<0.50	<1.0	<1.0	<1.0	—	8.6	310	<2.0	<2.0	<2.0	<100	326.50	9.60	316.90	—
S-2	05/06/2008	—	—	62	<0.50	<1.0	<1.0	<1.0	—	53	300	<2.0	<2.0	<2.0	<100	326.50	10.55	315.95	—
S-2	05/21/2008	—	—	130	<0.50	<1.0	<1.0	<1.0	—	61	320	<2.0	<2.0	<2.0	<100	326.50	9.43	317.07	—
S-2	08/06/2008	—	—	76	<0.50	<1.0	<1.0	<1.0	—	46	77	<2.0	<2.0	<2.0	—	326.50	8.41	318.09	—
S-2	11/18/2008	—	—	<50	<0.50	<1.0	<1.0	<1.0	—	42	18	<2.0	<2.0	<2.0	—	326.50	8.38	318.12	—
S-2	01/20/2009	—	—	57	<0.50	<1.0	<1.0	<1.0	—	46	13	<2.0	<2.0	<2.0	—	326.50	8.64	317.86	—
S-2	05/06/2009	—	—	64	<0.50	<1.0	<1.0	<1.0	—	58	<10	<2.0	<2.0	<2.0	—	326.50	8.31	318.19	—
S-2	07/06/2009	—	—	110	<0.50	<1.0	<1.0	<1.0	—	59	<10	<2.0	<2.0	<2.0	—	326.50	8.53	317.97	—
S-2	02/09/2010	—	—	62	<0.50	<1.0	<1.0	<1.0	—	42	<10	—	—	—	—	326.50	8.20	318.30	—
S-2	08/12/2010	—	Unable to access		—	—	—	—	—	—	—	—	—	—	—	326.50	—	—	—
S-2	08/18/2010	—	—	<50	<0.50	<1.0	<1.0	<1.0	—	24	—	—	—	—	—	326.50	8.40	318.10	—
S-2	02/01/2011	—	—	<50	<0.50	<0.50	<0.50	<1.0	—	6.9	<10	—	—	—	—	326.50	8.39	318.11	—
S-2	**07/28/2011**	—	—	<50	<0.50	<0.50	<0.50	<1.0	—	20	<10	—	—	—	—	**326.50**	**8.49**	**318.01**	—
S-3	05/11/1989	—	1,400	2,600	330	14	220	200	—	—	—	—	—	—	—	—	—	—	—
S-3	07/20/1989	—	2,200	9,700	2,300	30	880	160	—	—	—	—	—	—	—	327.38	9.55	317.83	—
S-3	10/16/1989	—	2,800	3,400	700	8	360	60	—	—	—	—	—	—	—	327.38	—	—	—
S-3	12/12/1989	—	—	—	—	—	—	—	—	—	—	—	—	—	—	327.38	10.02	317.36	—
S-3	01/05/1990	—	1,600	860	140	1.6	78	2	—	—	—	—	—	—	—	327.38	10.07	317.31	—
S-3	04/11/1990	—	—	1,000	210	<2	150	13	—	—	—	—	—	—	—	327.38	9.93	317.45	—
S-3	07/12/1990	—	2,000	2,800	490	8.5	210	81	—	—	—	—	—	—	—	327.38	9.61	317.77	—

TABLE 2

GROUNDWATER DATA
SHELL-BRANDED SERVICE STATION
5251 HOPYARD ROAD, PLEASANTON, CALIFORNIA

Well ID	Date	TPHo (µg/L)	TPHd (µg/L)	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	Ethanol (µg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	GW Elevation (ft MSL)	DO Reading (m/L)
S-3	10/24/1990	—	860	1,200	120	<2.5	82	5.1	—	—	—	—	—	—	—	327.38	—	—	—
S-3	10/25/1990	—	—	—	—	—	—	—	—	—	—	—	—	—	—	327.38	9.69	317.69	—
S-3	01/25/1991	—	330	870	230	<2.5	130	<2.5	—	—	—	—	—	—	—	327.38	10.29	317.09	—
S-3	04/16/1991	—	140 a	190	12	0.8	6.2	1.5	—	—	—	—	—	—	—	327.38	—	—	—
S-3	07/24/1991	—	1,200 a	1,700	450	4.4	150	2.9	—	—	—	—	—	—	—	327.38	—	—	—
S-3	10/18/1991	—	500	1,900	370	3.1	120	220	—	—	—	—	—	—	—	327.38	9.64	317.74	—
S-3	01/23/1992	—	650 a	2,000	580	3	200	<0.5	—	—	—	—	—	—	—	327.38	—	—	—
S-3	04/27/1992	—	230 a	1,100	150	<3	76	14	—	—	—	—	—	—	—	327.38	—	—	—
S-3	07/17/1992	—	58	810	200	<2.5	57	3.8	—	—	—	—	—	—	—	327.38	—	—	—
S-3	10/16/1992	—	190 c	440	79	1.8	18	4.6	—	—	—	—	—	—	—	327.38	—	—	—
S-3	01/23/1993	—	170 d	670	79	1.5	46	15	—	—	—	—	—	—	—	327.38	8.81	318.57	—
S-3	04/28/1993	—	<50	2,000	300	3.4	210	38	—	—	—	—	—	—	—	327.38	9.87	317.51	—
S-3	09/22/1993	—	670 a	4,800	2,000	34	150	51	—	—	—	—	—	—	—	327.38	9.65	317.73	—
S-3	12/08/1993	—	11	1,200	440	<5.0	120	29	—	—	—	—	—	—	—	327.38	9.26	318.12	—
S-3	03/04/1994	—	—	630	130	<0.5	17	0.8	—	—	—	—	—	—	—	327.38	9.64	317.74	—
S-3	06/16/1994	—	—	1,800	430	19	35	21	—	—	—	—	—	—	—	327.38	9.78	317.60	—
S-3	05/05/1995	—	—	160	50	0.9	7.2	4.1	—	—	—	—	—	—	—	327.38	9.38	318.00	—
S-3	05/21/1996	—	—	270	45	<0.50	1.4	<0.50	—	—	—	—	—	—	—	327.38	9.41	317.97	—
S-3 (D)	05/21/1996	—	—	210	<0.5	<0.50	0.95	<0.50	—	—	—	—	—	—	—	327.38	9.41	317.97	—
S-3	05/12/1997	—	—	420	<1.0	<1.0	<1.0	<1.0	57	—	—	—	—	—	—	327.38	9.30	318.08	2.5
S-3	05/08/1998	—	—	<50	<0.50	<0.50	<0.50	<0.50	<2.5	—	—	—	—	—	—	327.38	9.12	318.26	2.2
S-3	06/27/1999	—	—	106	8.51	<0.500	<0.500	<0.500	31.0	—	—	—	—	—	—	327.38	9.39	317.99	2.1
S-3	04/28/2000	—	—	139	7.58	<0.500	<0.500	<0.500	42.6	—	—	—	—	—	—	327.38	9.04	318.34	1.8
S-3	05/30/2001	—	—	2,200	510	6.9	100	21	—	33	—	—	—	—	—	327.38	9.19	318.19	2.0
S-3	06/17/2002	—	—	600	150	2.1	30	11	—	36	—	—	—	—	—	327.38	9.35	318.03	0.1
S-3	05/30/2003	—	—	<50	<0.50	<0.50	<0.50	<1.0	—	9.0	—	—	—	—	—	327.04	8.39	318.65	1.2
S-3	05/03/2004	—	—	61 k	0.90	<0.50	<0.50	<1.0	—	9.8	—	—	—	—	—	327.04	8.73	318.31	1.2
S-3	01/14/2005	—	—	94	4.6	<0.50	3.1	1.0	—	13	—	—	—	—	—	327.04	8.00	319.04	—
S-3	05/05/2005	—	—	<50	<0.50	<0.50	<0.50	<0.50	—	5.7	<5.0	<0.50	<0.50	<0.50	—	327.04	8.31	318.73	—
S-3	08/05/2005 l	—	—	<50 l	0.51 l	<0.50 l	<0.50 l	<1.0 l	—	6.0 l	42 l	<2.0 l	<2.0 l	<2.0 l	—	327.04	8.32	318.72	—
S-3	09/16/2005	—	—	<50	0.62	<0.50	<0.50	<1.0	—	7.9	<5.0	<2.0	<2.0	<2.0	—	327.04	8.29	318.75	—
S-3	11/08/2005	—	—	166	63.0	1.32	7.20	2.99	—	8.67	<10.0	<0.500	<0.500	<0.500	—	327.04	8.17	318.87	—
S-3	01/31/2006	—	—	<50.0	<0.500	<0.500	<0.500	<0.500	—	7.05	<10.0	<0.500	<0.500	<0.500	—	327.04	8.05	318.99	—
S-3	05/16/2006	—	—	<50.0	3.23	<0.500	1.42	1.63 m	—	3.92	<10.0	<0.500	<0.500	<0.500	—	327.04	8.62	318.42	—
S-3	08/23/2006	—	—	<50.0	18.9	<0.500	1.72	0.800	—	7.65	<10.0	<0.500	<0.500	<0.500	—	327.04	8.54	318.50	—
S-3	11/13/2006	—	—	530	130 f	3.4 f	10 f	4.6 f	—	17 f	<80 f	<2.0 f	<2.0 f	<2.0 f	—	327.01	8.65	318.36	—

TABLE 2

GROUNDWATER DATA
SHELL-BRANDED SERVICE STATION
5251 HOPYARD ROAD, PLEASANTON, CALIFORNIA

Well ID	Date	TPHo (µg/L)	TPHd (µg/L)	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	Ethanol (µg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	GW Elevation (ft MSL)	DO Reading (m/L)
S-3	02/01/2007	—	—	430	230	4.4	4.0	<5.0	—	17	<25	<10	<10	<10	—	327.01	8.41	318.60	—
S-3	05/23/2007	—	—	1,400 n	370	11	17	11.58 o	—	21	12	<2.0	<2.0	<2.0	—	327.01	8.37	318.64	—
S-3	08/07/2007	—	—	1,000 n	150	4.6 o	4.1 o	4.0 o	—	21	<50	<10	<10	<10	—	327.01	8.59	318.42	—
S-3	11/29/2007	—	—	710 n	110	3.1	3.8	5.3 o	—	17	<10	<2.0	<2.0	<2.0	—	327.01	8.78	318.23	—
S-3	02/08/2008	—	—	300 n	2.7	<1.0	<1.0	<1.0	—	19	<10	<2.0	<2.0	<2.0	—	327.01	8.05	318.96	—
S-3	02/20/2008	—	—	620 n	150	4.1	11	11	—	19	<10	<2.0	<2.0	<2.0	<100	327.01	8.57	318.44	—
S-3	03/07/2008	—	—	170 n	15	<1.0	2.5	4.0	—	12	<10	<2.0	<2.0	<2.0	<100	327.01	8.87	318.14	—
S-3	03/21/2008	—	—	68	4.8	<1.0	1.3	1.6	—	8.6	<10	<2.0	<2.0	<2.0	<100	327.01	9.00	318.01	—
S-3	04/08/2008	—	—	170	7.8	<1.0	2.6	4.0	—	8.1	<10	<2.0	<2.0	<2.0	<100	327.01	8.55	318.46	—
S-3	04/21/2008	—	—	350	2.8	<1.0	1.2	1.9	—	12	<10	<2.0	<2.0	<2.0	<100	327.01	8.65	318.36	—
S-3	05/06/2008	—	—	210	2.3	<1.0	<1.0	<1.0	—	9.1	<10	<2.0	<2.0	<2.0	<100	327.01	8.60	318.41	—
S-3	05/21/2008	—	—	430	21	<1.0	3.5	4.2	—	17	<10	<2.0	<2.0	<2.0	<100	327.01	8.81	318.20	—
S-3	08/06/2008	—	—	210	<0.50	<1.0	<1.0	<1.0	—	13	11	<2.0	<2.0	<2.0	—	327.01	8.71	318.30	—
S-3	11/18/2008	—	—	930	130	3.5	15	19	—	18	10	<2.0	<2.0	<2.0	—	327.01	8.79	318.22	—
S-3	01/20/2009	—	—	950	100	1.2	1.8	<1.0	—	18	16	<2.0	<2.0	<2.0	—	327.01	9.10	317.91	—
S-3	05/06/2009	—	—	2,000	490	5.9	14	4.8	—	21	14	<2.0	<2.0	<2.0	—	327.01	8.51	318.50	—
S-3	07/06/2009	—	—	2,300	500	10	30	13	—	21	<50	<10	<10	<10	—	327.01	8.80	318.21	—
S-3	02/09/2010	—	—	1,400	180	4.7	11	13	—	12	32	—	—	—	—	327.01	8.36	318.65	—
S-3	08/12/2010	—	—	1,300	270	3.5	47	46	—	4.5	21	—	—	—	—	327.01	8.46	318.55	—
S-3	08/18/2010	—	—	—	—	—	—	—	—	—	—	—	—	—	—	327.01	8.43	318.58	—
S-3	02/01/2011	—	—	900	<0.50	<0.50	<0.50	<1.0	—	8.8	20	—	—	—	—	327.01	8.75	318.26	—
S-3	07/28/2011	—	—	1,100	110	1.0	23	3.2	—	15	22	—	—	—	—	327.01	8.83	318.18	—
S-4	05/11/1989	—	<100	<50	<0.5	<1	<1	<3	—	—	—	—	—	—	—	—	—	—	—
S-4	07/20/1989	—	<100	<50	<0.5	<1	<1	<3	—	—	—	—	—	—	—	327.38	8.03	319.35	—
S-4	10/16/1989	—	<100	<50	<0.5	<1	<1	<3	—	—	—	—	—	—	—	327.38	—	—	—
S-4	12/12/1989	—	—	—	—	—	—	—	—	—	—	—	—	—	—	327.38	9.23	318.15	—
S-4	01/05/1990	—	<100	<50	<0.5	<0.5	<0.5	<1	—	—	—	—	—	—	—	327.38	9.41	317.97	—
S-4	04/11/1990	—	—	<50	<0.5	<0.5	<0.5	<1	—	—	—	—	—	—	—	327.38	8.83	318.55	—
S-4	07/12/1990	—	<50	<50	<0.5	1.7	<0.5	2.1	—	—	—	—	—	—	—	327.38	8.45	318.93	—
S-4	10/25/1990	—	<50	<50	<0.5	<0.5	<0.5	0.6	—	—	—	—	—	—	—	327.38	9.83	317.55	—
S-4	01/25/1991	—	<50	<50	<0.5	1.5	<0.5	2.8	—	—	—	—	—	—	—	327.38	10.18	317.20	—
S-4	04/16/1991	—	0.7	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—	—	327.38	—	—	—
S-4	07/24/1991	—	<50	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—	—	327.38	—	—	—
S-4	10/18/1991	—	<50	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—	—	327.38	8.82	318.56	—
S-4	01/23/1992	—	<50	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—	—	327.38	—	—	—

TABLE 2

GROUNDWATER DATA
SHELL-BRANDED SERVICE STATION
5251 HOPYARD ROAD, PLEASANTON, CALIFORNIA

Well ID	Date	TPHo (µg/L)	TPHd (µg/L)	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	Ethanol (µg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	GW Elevation (ft MSL)	DO Reading (m/L)
S-4	04/27/1992	—	<50	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—	—	327.38	—	—	—
S-4	07/17/1992	—	74	<500	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—	—	327.38	—	—	—
S-4	10/16/1992	—	<50	<500	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—	—	327.38	—	—	—
S-4	01/23/1993	—	94 b	<500	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—	—	327.38	8.32	319.06	—
S-4	04/28/1993	—	<50	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—	—	327.38	9.76	317.62	—
S-4	09/22/1993	—	—	—	—	—	—	—	—	—	—	—	—	—	—	327.38	9.30	318.08	—
S-4	12/08/1993	—	—	—	—	—	—	—	—	—	—	—	—	—	—	327.38	9.74	317.64	—
S-4	03/04/1994	—	—	—	—	—	—	—	—	—	—	—	—	—	—	327.38	9.60	317.78	—
S-4	06/16/1994	—	—	—	—	—	—	—	—	—	—	—	—	—	—	327.38	9.42	317.96	—
S-4	05/05/1995	—	—	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—	—	327.38	9.02	318.36	—
S-4	05/21/1996	—	—	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—	—	327.38	9.29	318.09	—
S-4	05/12/1997	—	—	<50	<0.50	<0.50	<0.50	<0.50	140	—	—	—	—	—	—	327.38	7.95	319.43	2.5
S-4	05/08/1998	—	—	<50	<0.50	<0.50	<0.50	<0.50	250	—	—	—	—	—	—	327.38	8.96	318.42	2.0
S-4	06/27/1999	—	—	303	35.8	24.8	12.4	69.8	106	—	—	—	—	—	—	327.38	8.90	318.48	2.6
S-4	04/28/2000	—	—	<50.0	<0.500	<0.500	<0.500	<0.500	40.2	—	—	—	—	—	—	327.38	8.37	319.01	1.9
S-4	05/30/2001	—	—	<50	<0.50	<0.50	<0.50	<0.50	—	6.8	—	—	—	—	—	327.38	8.83	318.55	1.8
S-4	06/17/2002	—	—	<50	<0.50	<0.50	<0.50	<0.50	—	31	—	—	—	—	—	327.38	9.37	318.01	4.8
S-4	05/30/2003	—	—	<50	<0.50	<0.50	<0.50	<1.0	—	130	—	—	—	—	—	327.24	8.46	318.78	1.4
S-4	05/03/2004	—	—	<50	<0.50	<0.50	<0.50	<1.0	—	170	—	—	—	—	—	327.24	8.70	318.54	1.1
S-4	01/14/2005	—	—	<50	<0.50	<0.50	<0.50	<1.0	—	25	—	—	—	—	—	327.24	8.17	319.07	—
S-4	05/05/2005	—	—	<50	<0.50	<0.50	<0.50	<0.50	—	15	<5.0	<0.50	<0.50	<0.50	—	327.24	8.25	318.99	—
S-4	08/05/2005	—	—	<50	<0.50	<0.50	<0.50	<1.0	—	6.1	<5.0	<2.0	<2.0	<2.0	—	327.24	8.14	319.10	—
S-4	11/08/2005	—	—	<50.0	<0.500	<0.500	<0.500	<0.500	—	1.01	<10.0	<0.500	<0.500	<0.500	—	327.24	8.33	318.91	—
S-4	01/31/2006	—	—	<50.0	<0.500	<0.500	<0.500	<0.500	—	<0.500	<10.0	<0.500	<0.500	<0.500	—	327.24	8.29	318.95	—
S-4	05/16/2006	—	—	<50.0	<0.500	<0.500	<0.500	<0.500	—	<0.500	<10.0	<0.500	<0.500	<0.500	—	327.24	8.46	318.78	—
S-4	08/23/2006	—	—	<50.0	<0.500	<0.500	<0.500	<0.500	—	<0.500	<10.0	<0.500	<0.500	<0.500	—	327.24	8.34	318.90	—
S-4	11/13/2006	—	—	<50	<0.50	<0.50	<0.50	<0.50	—	<0.50	<20	<0.50	<0.50	<0.50	—	327.24	8.23	319.01	—
S-4	02/01/2007	—	—	<50	<0.50	<0.50	<0.50	<1.0	—	<0.50	<5.0	<2.0	<2.0	<2.0	—	327.24	8.56	318.68	—
S-4	05/23/2007	—	—	<50 n	<0.50	<1.0	<1.0	<1.0	—	0.60 o	<10	<2.0	<2.0	<2.0	—	327.24	7.92	319.32	—
S-4	08/07/2007	—	—	<50 n	<0.50	<1.0	<1.0	<1.0	—	0.32 o	<10	<2.0	<2.0	<2.0	—	327.24	8.52	318.72	—
S-4	11/29/2007	—	—	<50 n	<0.50	<1.0	<1.0	<1.0	—	<1.0	<10	<2.0	<2.0	<2.0	—	327.24	8.58	318.66	—
S-4	02/08/2008	—	—	<50 n	<0.50	<1.0	<1.0	<1.0	—	<1.0	<10	<2.0	<2.0	<2.0	—	327.24	8.07	319.17	—
S-4	05/21/2008	—	—	<50	<0.50	<1.0	<1.0	<1.0	—	<1.0	<10	<2.0	<2.0	<2.0	<100	327.24	8.80	318.44	—
S-4	08/06/2008	—	—	<50	<0.50	<1.0	<1.0	<1.0	—	<1.0	<10	<2.0	<2.0	<2.0	—	327.24	8.73	318.51	—
S-4	11/18/2008	—	—	<50	<0.50	<1.0	<1.0	<1.0	—	<1.0	<10	<2.0	<2.0	<2.0	—	327.24	8.77	318.47	—
S-4	01/20/2009	—	—	<50	<0.50	<1.0	<1.0	<1.0	—	<1.0	<10	<2.0	<2.0	<2.0	—	327.24	9.32	317.92	—

TABLE 2

GROUNDWATER DATA
SHELL-BRANDED SERVICE STATION
5251 HOPYARD ROAD, PLEASANTON, CALIFORNIA

Well ID	Date	TPHo (µg/L)	TPHd (µg/L)	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	Ethanol (µg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	GW Elevation (ft MSL)	DO Reading (m/L)
S-4	05/06/2009	—	—	<50	<0.50	<1.0	<1.0	<1.0	—	<1.0	<10	<2.0	<2.0	<2.0	—	327.24	8.45	318.79	—
S-4	07/06/2009	—	—	<50	<0.50	<1.0	<1.0	<1.0	—	<1.0	<10	<2.0	<2.0	<2.0	—	327.24	8.79	318.45	—
S-4	02/09/2010	—	—	<50	<0.50	<1.0	<1.0	<1.0	—	<1.0	<10	—	—	—	—	327.24	8.59	318.65	—
S-4	08/12/2010	—	Unable to access		—	—	—	—	—	—	—	—	—	—	—	327.24	—	—	—
S-4	08/18/2010	—	—	—	—	—	—	—	—	—	—	—	—	—	—	327.24	8.50	318.74	—
S-4	02/01/2011	—	—	<50	<0.50	<0.50	<0.50	<1.0	—	<1.0	<10	—	—	—	—	327.24	8.71	318.53	—
S-4	07/28/2011	—	—	—	—	—	—	—	—	—	—	—	—	—	—	327.24	8.64	318.60	—
S-5	05/11/1989	—	<100	<50	<0.5	<1	1	3	—	—	—	—	—	—	—	—	—	—	—
S-5	07/20/1989	—	<100	<50	10	<1	<1	<3.0	—	—	—	—	—	—	—	327.76	9.62	318.14	—
S-5	10/16/1989	—	<100	<50	<0.5	<1	<1	<3.0	—	—	—	—	—	—	—	327.76	—	—	—
S-5	12/12/1989	—	—	—	—	—	—	—	—	—	—	—	—	—	—	327.76	10.21	317.55	—
S-5	01/05/1990	—	<100	<50	<0.5	<0.5	<0.5	<1	—	—	—	—	—	—	—	327.76	10.31	317.45	—
S-5	04/11/1990	—	—	<50	<0.5	3.4	0.8	0.4	—	—	—	—	—	—	—	327.76	10.12	317.64	—
S-5	07/12/1990	—	<50	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—	—	327.76	9.45	318.31	—
S-5	10/25/1990	—	<50	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—	—	327.76	8.32	319.44	—
S-5	01/25/1991	—	<50	<50	<0.5	<0.5	<0.5	0.7	—	—	—	—	—	—	—	327.76	10.77	316.99	—
S-5	04/16/1991	—	<50	<50	<0.5	<0.5	<0.5	0.8	—	—	—	—	—	—	—	327.76	—	—	—
S-5	07/24/1991	—	<50	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—	—	327.76	—	—	—
S-5	10/18/1991	—	<50	120 e	4.3	<0.5	1.0	0.7	—	—	—	—	—	—	—	327.76	10.00	317.76	—
S-5	01/23/1992	—	<50	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—	—	327.76	—	—	—
S-5	04/27/1992	—	<50	50	<0.5	<0.5	<0.5	0.6	—	—	—	—	—	—	—	327.76	—	—	—
S-5	07/17/1992	—	70	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—	—	327.76	—	—	—
S-5	10/16/1992	—	57	230	13	<0.5	4.9	4.3	—	—	—	—	—	—	—	327.76	—	—	—
S-5	01/23/1993	—	150 b	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—	—	327.76	8.88	318.88	—
S-5	04/28/1993	—	<50	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—	—	327.76	10.20	317.56	—
S-5	09/22/1993	—	<50	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—	—	327.76	9.92	317.84	—
S-5	12/08/1993	—	<50	<50	<0.50	<0.50	<0.50	<0.50	—	—	—	—	—	—	—	327.76	10.19	317.57	—
S-5	03/04/1994	—	—	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—	—	327.76	9.95	317.81	—
S-5	06/16/1994	—	—	<50	0.9	<0.5	<0.5	<0.5	—	—	—	—	—	—	—	327.76	10.02	317.74	—
S-5	05/05/1995	—	—	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—	—	327.76	9.58	318.18	—
S-5	05/21/1996	—	—	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—	—	327.76	9.84	317.92	—
S-5	05/12/1997	—	—	360	3.3	<0.50	17	9.8	130	—	—	—	—	—	—	327.76	9.16	318.60	4.2
S-5	05/08/1998	—	—	<50	<0.50	<0.50	<0.50	<0.50	92	—	—	—	—	—	—	327.76	9.25	318.51	3.8
S-5 (D)	05/08/1998	—	—	<50	<0.50	<0.50	<0.50	<0.50	100	—	—	—	—	—	—	327.76	9.25	318.51	3.8
S-5	06/27/1999	—	—	223	13.7	12.9	8.20	45.8	106	—	—	—	—	—	—	327.76	9.39	318.37	3.0

TABLE 2

GROUNDWATER DATA
SHELL-BRANDED SERVICE STATION
5251 HOPYARD ROAD, PLEASANTON, CALIFORNIA

Well ID	Date	TPHo (µg/L)	TPHd (µg/L)	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	Ethanol (µg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	GW Elevation (ft MSL)	DO Reading (m/L)
S-5	04/28/2000	—	—	<50.0	<0.500	<0.500	<0.500	<0.500	255	—	—	—	—	—	—	327.76	9.43	318.33	1.2
S-5	05/30/2001	—	—	<100	<1.0	<1.0	<1.0	<1.0	—	480	—	—	—	—	—	327.76	9.47	318.29	1.1
S-5	06/17/2002	—	—	<50	<0.50	<0.50	<0.50	<0.50	—	210	—	—	—	—	—	327.76	9.74	318.02	0.2
S-5	05/30/2003	—	—	<250	<2.5	<2.5	<2.5	<5.0	—	450	—	—	—	—	—	327.43	8.87	318.56	1.7
S-5	05/03/2004	—	—	<250	<2.5	<2.5	<2.5	<5.0	—	470	—	—	—	—	—	327.43	9.10	318.33	0.7
S-5	01/14/2005	—	—	<100	<1.0	<1.0	<1.0	<2.0	—	230	—	—	—	—	—	327.43	8.43	319.00	—
S-5	05/05/2005	—	—	76	16	<0.50	<0.50	<0.50	—	120	630	<0.50	<0.50	<0.50	—	327.43	8.71	318.72	—
S-5	08/05/2005	—	—	1,900 l	57 l	7.5 l	22 l	17 l	—	240 l	480 l	<4 l	<4 l	<4 l	—	327.43	8.90	318.53	—
S-5	09/16/2005	—	—	1,400	87	2.0	7.8	5.8	—	75	630	<4.0	<4.0	<4.0	—	327.43	8.84	318.59	—
S-5	11/08/2005	—	—	315	35.8	<0.500	<0.500	1.07	—	49.1	<10.0	<0.500	<0.500	<0.500	—	327.43	8.86	318.57	—
S-5	01/31/2006	—	—	335	7.74	<0.500	<0.500	<0.500	—	48.2	337	<0.500	<0.500	<0.500	—	327.43	8.66	318.77	—
S-5	05/16/2006	—	—	349	3.54	<0.500	<0.500	<0.500	—	24.7	182	<0.500	<0.500	<0.500	—	327.43	9.00	318.43	—
S-5	08/23/2006	—	—	<50.0	5.39	<0.500	<0.500	<0.500	—	17.0	91.0	<0.500	<0.500	<0.500	—	327.43	8.97	318.46	—
S-5	11/13/2006	—	—	420	19	1.7	<0.50	1.7	—	19	80	<0.50	<0.50	<0.50	—	327.43	8.77	318.66	—
S-5	02/01/2007	—	—	280	14	2.1	<0.50	1.4	—	13	42	<2.0	<2.0	<2.0	—	327.43	9.30	318.13	—
S-5	05/23/2007	—	—	590 n	19	2.0	<1.0	0.92 o	—	11	24	<2.0	<2.0	<2.0	—	327.43	8.73	318.70	—
S-5	08/07/2007	—	—	450 n	10	1.0	<1.0	<1.0	—	13	17	<2.0	<2.0	<2.0	—	327.43	9.00	318.43	—
S-5	11/29/2007	—	—	340 n	4.1	0.34 o	<1.0	<1.0	—	7.1	<10	<2.0	<2.0	<2.0	—	327.43	9.06	318.37	—
S-5	02/08/2008	—	—	270 n	4.7	<1.0	<1.0	<1.0	—	6.0	<10	<2.0	<2.0	<2.0	—	327.43	8.75	318.68	—
S-5	02/20/2008	—	—	340 n	4.6	<1.0	<1.0	<1.0	—	5.5	<10	<2.0	<2.0	<2.0	<100	327.43	9.03	318.40	—
S-5	03/07/2008	—	—	220 n	1.8	<1.0	<1.0	<1.0	—	<1.0	<10	<2.0	<2.0	<2.0	<100	327.43	9.20	318.23	—
S-5	03/21/2008	—	—	150	0.71	<1.0	<1.0	<1.0	—	5.2	<10	<2.0	<2.0	<2.0	<100	327.43	9.43	318.00	—
S-5	04/08/2008	—	—	120	0.76	<1.0	<1.0	<1.0	—	5.2	<10	<2.0	<2.0	<2.0	<100	327.43	9.11	318.32	—
S-5	04/21/2008	—	—	190	0.63	<1.0	<1.0	<1.0	—	3.4	<10	<2.0	<2.0	<2.0	<100	327.43	9.17	318.26	—
S-5	05/06/2008	—	—	150	1.0	<1.0	<1.0	<1.0	—	<1.0	<10	<2.0	<2.0	<2.0	190	327.43	8.80	318.63	—
S-5	05/21/2008	—	—	250	1.6	<1.0	<1.0	<1.0	—	3.8	<10	<2.0	<2.0	<2.0	<100	327.43	9.20	318.23	—
S-5	08/06/2008	—	—	<50	<0.50	<1.0	<1.0	<1.0	—	6.2	<10	<2.0	<2.0	<2.0	—	327.43	9.11	318.32	—
S-5	11/18/2008	—	—	93	<0.50	<1.0	<1.0	<1.0	—	3.5	<10	<2.0	<2.0	<2.0	—	327.43	9.06	318.37	—
S-5	01/20/2009	—	—	59	<0.50	<1.0	<1.0	<1.0	—	2.7	<10	<2.0	<2.0	<2.0	—	327.43	9.60	317.83	—
S-5	05/06/2009	—	—	<50	<0.50	<1.0	<1.0	<1.0	—	2.5	<10	<2.0	<2.0	<2.0	—	327.43	8.94	318.49	—
S-5	07/06/2009	—	—	62	<0.50	<1.0	<1.0	<1.0	—	2.5	11	<2.0	<2.0	<2.0	—	327.43	9.18	318.25	—
S-5	02/09/2010	—	—	130	2.3	<1.0	<1.0	<1.0	—	2.4	<10	—	—	—	—	327.43	8.90	318.53	—
S-5	08/12/2010	—	—	220	3.3	<1.0	<1.0	<1.0	—	2.8	<10	—	—	—	—	327.43	9.22	318.21	—
S-5	08/18/2010	—	—	—	—	—	—	—	—	—	—	—	—	—	—	327.43	9.12	318.31	—
S-5	02/01/2011	—	—	130	0.95	<0.50	<0.50	<1.0	—	1.6	<10	—	—	—	—	327.43	9.09	318.34	—
S-5	07/28/2011	—	—	190	1.1	<0.50	<0.50	<1.0	—	1.4	<10	—	—	—	—	327.43	9.26	318.17	—

TABLE 2

GROUNDWATER DATA
SHELL-BRANDED SERVICE STATION
5251 HOPYARD ROAD, PLEASANTON, CALIFORNIA

Well ID	Date	TPHo (µg/L)	TPHd (µg/L)	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	Ethanol (µg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	GW Elevation (ft MSL)	DO Reading (m/L)
S-6	11/15/1989	—	<100	<50	<0.5	<0.5	<0.5	<1	—	—	—	—	—	—	—	—	—	—	—
S-6	12/12/1989	—	—	—	—	—	—	—	—	—	—	—	—	—	—	326.56	9.30	317.26	—
S-6	01/05/1990	—	<100	<50	<0.5	<0.5	<0.5	<1	—	—	—	—	—	—	—	326.56	9.30	317.26	—
S-6	04/11/1990	—	—	<50	<0.5	<0.5	<0.5	<1	—	—	—	—	—	—	—	326.56	9.03	317.53	—
S-6	07/12/1990	—	<50	<50	<0.5	<0.5	<0.5	0.6	—	—	—	—	—	—	—	326.56	8.68	317.88	—
S-6	10/25/1990	—	<50	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—	—	326.56	8.88	317.68	—
S-6	01/25/1991	—	<50	<50	<0.5	1.7	<0.5	2.8	—	—	—	—	—	—	—	326.56	10.67	315.89	—
S-6	04/16/1991	—	<50	<50	<0.5	<0.5	<0.5	0.6	—	—	—	—	—	—	—	326.56	—	—	—
S-6	07/24/1991	—	<50	<50	<0.5	<0.5	<0.5	0.5	—	—	—	—	—	—	—	326.56	—	—	—
S-6	10/18/1991	—	<50	<50	<0.5	<0.5	<0.5	0.5	—	—	—	—	—	—	—	326.56	8.84	317.72	—
S-6	01/23/1992	—	<50	<50	<0.5	<0.5	<0.5	0.5	—	—	—	—	—	—	—	326.56	—	—	—
S-6	04/27/1992	—	<50	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—	—	326.56	—	—	—
S-6	07/17/1992	—	130	400	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—	—	326.56	—	—	—
S-6	10/16/1992	—	<50	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—	—	326.56	—	—	—
S-6	01/23/1993	—	230 b	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—	—	326.56	7.82	318.74	—
S-6	04/28/1993	—	<50	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—	—	326.56	9.00	317.56	—
S-6	09/22/1993	—	<50	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—	—	326.56	8.61	317.95	—
S-6	12/08/1993	—	<50	<50	<0.50	<0.50	<0.50	<0.50	—	—	—	—	—	—	—	326.56	10.02	316.54	—
S-6	03/04/1994	—	—	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—	—	326.56	8.88	317.68	—
S-6	06/16/1994	—	—	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—	—	326.56	9.04	317.52	—
S-6	05/05/1995	—	—	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—	—	326.56	8.54	318.02	—
S-6	05/21/1996	—	—	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—	—	326.56	8.62	317.94	—
S-6	05/12/1997	—	—	<50	<0.50	<0.50	<0.50	<0.50	<2.5	—	—	—	—	—	—	326.56	8.60	317.96	2.6
S-6	05/08/1998	—	—	<50	<0.50	<0.50	<0.50	<0.50	<2.5	—	—	—	—	—	—	326.56	7.90	318.66	2.2
S-6	06/27/1999	—	—	430	50.1	30.5	15.2	83.5	8.05	—	—	—	—	—	—	326.56	8.01	318.55	2.3
S-6	04/28/2000	—	—	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	—	—	—	—	—	—	326.56	8.84	317.72	2.0
S-6	05/30/2001	—	—	<50	<0.50	<0.50	<0.50	<0.50	—	<0.50	—	—	—	—	—	326.56	8.54	318.02	1.9
S-6	06/17/2002	—	—	<50	<0.50	<0.50	<0.50	<0.50	—	<5.0	—	—	—	—	—	326.56	8.48	318.08	1.3
S-6	05/30/2003	—	—	<50	<0.50	<0.50	<0.50	<1.0	—	8.7	—	—	—	—	—	326.35	7.36	318.99	1.0
S-6	05/03/2004	—	—	<50	<0.50	<0.50	<0.50	<1.0	—	<0.50	—	—	—	—	—	326.35	8.08	318.27	0.9
S-6	01/14/2005	—	—	<50	<0.50	<0.50	<0.50	<1.0	—	<0.50	—	—	—	—	—	326.35	7.38	318.97	—
S-6	05/05/2005	—	—	<50	<0.50	<0.50	<0.50	<0.50	—	<0.50	<5.0	<0.50	<0.50	<0.50	—	326.35	7.55	318.80	—
S-6	08/05/2005	—	—	<50	<0.50	<0.50	<0.50	<1.0	—	<0.50	<5.0	<2.0	<2.0	<2.0	—	326.35	7.61	318.74	—
S-6	11/08/2005	—	—	<50.0	<0.500	<0.500	<0.500	<0.500	—	<0.500	<10.0	<0.500	<0.500	<0.500	—	326.35	7.64	318.71	—
S-6	01/31/2006	—	—	<50.0	<0.500	<0.500	<0.500	<0.500	—	<0.500	30.5	<0.500	<0.500	<0.500	—	326.35	7.90	318.45	—

TABLE 2

GROUNDWATER DATA
SHELL-BRANDED SERVICE STATION
5251 HOPYARD ROAD, PLEASANTON, CALIFORNIA

Well ID	Date	TPHo (µg/L)	TPHd (µg/L)	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	Ethanol (µg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	GW Elevation (ft MSL)	DO Reading (m/L)
S-6	05/16/2006	—	—	<50.0	<0.500	<0.500	<0.500	<0.500	—	<0.500	<10.0	<0.500	<0.500	<0.500	—	326.35	8.16	318.19	—
S-6	08/23/2006	—	—	<50.0	<0.500	<0.500	<0.500	<0.500	—	<0.500	10.9	<0.500	<0.500	<0.500	—	326.35	7.77	318.58	—
S-6	11/13/2006	—	—	<50	<0.50	<0.50	<0.50	<0.50	—	<0.50	<20	<0.50	<0.50	<0.50	—	326.35	8.15	318.20	—
S-6	02/01/2007	—	—	<50	<0.50	<0.50	<0.50	<1.0	—	1.2	<5.0	<2.0	<2.0	<2.0	—	326.35	8.36	317.99	—
S-6	05/23/2007	—	—	<50 n	<0.50	<1.0	<1.0	<1.0	—	<1.0	<10	<2.0	<2.0	<2.0	—	326.35	7.80	318.55	—
S-6	08/07/2007	—	—	<50 n	<0.50	<1.0	<1.0	<1.0	—	0.39 o	<10	<2.0	<2.0	<2.0	—	326.35	8.07	318.28	—
S-6	11/29/2007	—	—	<50 n	<0.50	<1.0	<1.0	<1.0	—	<1.0	<10	<2.0	<2.0	<2.0	—	326.35	8.17	318.18	—
S-6	02/08/2008	—	—	<50 n	<0.50	<1.0	<1.0	<1.0	—	<1.0	<10	<2.0	<2.0	<2.0	—	326.35	7.67	318.68	—
S-6	05/21/2008	—	—	<50	<0.50	<1.0	<1.0	<1.0	—	<1.0	<10	<2.0	<2.0	<2.0	<100	326.35	8.17	318.18	—
S-6	08/06/2008	—	—	<50	<0.50	<1.0	<1.0	<1.0	—	<1.0	<10	<2.0	<2.0	<2.0	—	326.35	7.89	318.46	—
S-6	11/18/2008	—	—	<50	<0.50	<1.0	<1.0	<1.0	—	<1.0	<10	<2.0	<2.0	<2.0	—	326.35	8.30	318.05	—
S-6	01/20/2009	—	—	<50	<0.50	<1.0	<1.0	<1.0	—	<1.0	<10	<2.0	<2.0	<2.0	—	326.35	8.01	318.34	—
S-6	05/06/2009	—	—	<50	<0.50	<1.0	<1.0	<1.0	—	<1.0	<10	<2.0	<2.0	<2.0	—	326.35	7.96	318.39	—
S-6	07/06/2009	—	—	<50	<0.50	<1.0	<1.0	<1.0	—	<1.0	<10	<2.0	<2.0	<2.0	—	326.35	8.32	318.03	—
S-6	02/09/2010	—	—	<50	<0.50	<1.0	<1.0	<1.0	—	<1.0	<10	—	—	—	—	326.35	7.99	318.36	—
S-6	08/12/2010	—	—	—	—	—	—	—	—	—	—	—	—	—	—	326.35	7.84	318.51	—
S-6	02/01/2011	—	—	<50	<0.50	<0.50	<0.50	<1.0	—	<1.0	<10	—	—	—	—	326.35	7.96	318.39	—
S-6	07/28/2011	—	—	—	—	—	—	—	—	—	—	—	—	—	—	326.35	8.46	317.89	—
S-7	11/15/1989	—	<100	<50	<0.50	<0.50	<0.50	<1	—	—	—	—	—	—	—	—	—	—	—
S-7	12/12/1989	—	—	—	—	—	—	—	—	—	—	—	—	—	—	326.49	9.28	317.21	—
S-7	01/05/1990	—	<100	<50	<0.5	<0.5	<0.5	<1	—	—	—	—	—	—	—	326.49	9.32	317.17	—
S-7	04/11/1990	—	—	<50	<0.5	<0.5	<0.5	<1	—	—	—	—	—	—	—	326.49	9.17	317.32	—
S-7	07/12/1990	—	—	<50	<0.5	0.6	<0.5	0.7	—	—	—	—	—	—	—	326.49	8.76	317.73	—
S-7	10/25/1990	—	<50	<50	<0.5	0.5	<0.5	1.0	—	—	—	—	—	—	—	326.49	9.00	317.49	—
S-7	01/25/1991	—	<50	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—	—	326.49	9.64	316.85	—
S-7	04/16/1991	—	<50	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—	—	326.49	—	—	—
S-7	07/24/1991	—	<50	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—	—	326.49	—	—	—
S-7	10/18/1991	—	140 f	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—	—	326.49	8.92	317.57	—
S-7	01/23/1992	—	140 f	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—	—	326.49	—	—	—
S-7	04/27/1992	—	<50	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—	—	326.49	—	—	—
S-7	07/17/1992	—	<50	<50	<0.5	1.8	0.6	4.1	—	—	—	—	—	—	—	326.49	—	—	—
S-7	10/16/1992	—	<50	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—	—	326.49	—	—	—
S-7	01/23/1993	—	110 b	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—	—	326.49	8.06	318.43	—
S-7	04/28/1993	—	<50	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—	—	326.49	8.94	317.55	—
S-7	09/22/1993	—	—	—	—	—	—	—	—	—	—	—	—	—	—	326.49	8.57	317.92	—

TABLE 2

GROUNDWATER DATA
SHELL-BRANDED SERVICE STATION
5251 HOPYARD ROAD, PLEASANTON, CALIFORNIA

Well ID	Date	TPHo (µg/L)	TPHd (µg/L)	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	Ethanol (µg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	GW Elevation (ft MSL)	DO Reading (m/L)
S-7	12/08/1993	—	—	—	—	—	—	—	—	—	—	—	—	—	—	326.49	9.00	317.49	—
S-7	03/04/1994	—	—	—	—	—	—	—	—	—	—	—	—	—	—	326.49	8.96	317.53	—
S-7	06/16/1994	—	—	—	—	—	—	—	—	—	—	—	—	—	—	326.49	9.12	317.37	—
S-7	05/05/1995	—	—	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—	—	326.49	8.58	317.91	—
S-7	05/21/1996	—	—	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—	—	326.49	8.64	317.85	—
S-7	05/12/1997	—	—	<50	<0.50	<0.50	<0.50	<0.50	<2.5	—	—	—	—	—	—	326.49	8.74	317.75	2.3
S-7	05/08/1998	—	—	<50	<0.50	<0.50	<0.50	<0.50	<2.5	—	—	—	—	—	—	326.49	8.00	318.49	2.5
S-7	06/27/1999	—	—	<50.0	<0.500	<0.500	<0.500	<0.500	<2.00	—	—	—	—	—	—	326.49	8.75	317.74	2.9
S-7	04/28/2000	—	—	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	—	—	—	—	—	—	326.49	8.96	317.53	2.2
S-7	05/30/2001	—	—	<50	<0.50	<0.50	<0.50	<0.50	—	<0.50	—	—	—	—	—	326.49	8.65	317.84	2.0
S-7	06/17/2002	—	—	<50	<0.50	<0.50	<0.50	<0.50	—	<5.0	—	—	—	—	—	326.49	8.55	317.94	2.3
S-7	05/30/2003	—	—	<50	<0.50	<0.50	<0.50	<1.0	—	12	—	—	—	—	—	326.36	7.88	318.48	1.8
S-7	05/03/2004	—	—	<50	<0.50	<0.50	<0.50	<1.0	—	100	—	—	—	—	—	326.36	8.30	318.06	1.2
S-7	01/14/2005	—	—	<50	<0.50	<0.50	<0.50	<1.0	—	41	—	—	—	—	—	326.36	7.70	318.66	—
S-7	05/05/2005	—	—	<50	<0.50	<0.50	<0.50	<0.50	—	91	<5.0	<0.50	<0.50	6.8	—	326.36	7.60	318.76	—
S-7	08/05/2005	—	—	<50	<0.50	<0.50	<0.50	<1.0	—	100	<5.0	<2.0	<2.0	7.5	—	326.36	8.42	317.94	—
S-7	11/08/2005	—	—	<50.0	<0.500	<0.500	<0.500	<0.500	—	124	<10.0	<0.500	<0.500	8.70	—	326.36	7.61	318.75	—
S-7	01/31/2006	—	—	<50.0	<0.500	<0.500	<0.500	<0.500	—	93.0	<10.0	<0.500	<0.500	4.50	—	326.36	7.85	318.51	—
S-7	05/16/2006	—	—	<50.0	<0.500	<0.500	<0.500	<0.500	—	76.3	<10.0	<0.500	<0.500	2.98	—	326.36	8.08	318.28	—
S-7	08/23/2006	—	—	<50.0	<0.500	<0.500	<0.500	<0.500	—	34.7	<10.0	<0.500	<0.500	2.02	—	326.36	7.93	318.43	—
S-7	11/13/2006	—	—	<50	<0.50	<0.50	<0.50	<0.50	—	27	<20	<0.50	<0.50	1.6	—	326.36	8.15	318.21	—
S-7	02/01/2007	—	—	<50	<0.50	<0.50	<0.50	<1.0	—	45	28	<2.0	<2.0	2.9	—	326.36	8.35	318.01	—
S-7	05/23/2007	—	—	<50 n	<0.50	<1.0	<1.0	<1.0	—	1.7	<10	<2.0	<2.0	<2.0	—	326.36	8.11	318.25	—
S-7	08/07/2007	—	—	<50 n	<0.50	<1.0	<1.0	<1.0	—	23	<10	<2.0	<2.0	<2.0	—	326.36	8.36	318.00	—
S-7	11/29/2007	—	—	<50 n	<0.50	<1.0	<1.0	<1.0	—	10	<10	<2.0	<2.0	<2.0	—	326.36	8.19	318.17	—
S-7	02/08/2008	—	—	<50 n	<0.50	<1.0	<1.0	<1.0	—	9.2	<10	<2.0	<2.0	<2.0	—	326.36	7.73	318.63	—
S-7	05/21/2008	—	—	<50	<0.50	<1.0	<1.0	<1.0	—	8.8	<10	<2.0	<2.0	<2.0	<100	326.36	8.10	318.26	—
S-7	08/06/2008	—	—	<50	<0.50	<1.0	<1.0	<1.0	—	1.2	<10	<2.0	<2.0	<2.0	—	326.36	8.49	317.87	—
S-7	11/18/2008	—	—	<50	<0.50	<1.0	<1.0	<1.0	—	7.6	<10	<2.0	<2.0	<2.0	—	326.36	8.31	318.05	—
S-7	01/20/2009	—	—	<50	<0.50	<1.0	<1.0	<1.0	—	7.7	<10	<2.0	<2.0	<2.0	—	326.36	8.39	317.97	—
S-7	05/06/2009	—	—	<50	<0.50	<1.0	<1.0	<1.0	—	6.4	<10	<2.0	<2.0	<2.0	—	326.36	8.39	317.97	—
S-7	07/06/2009	—	—	58	<0.50	<1.0	<1.0	<1.0	—	4.3	<10	<2.0	<2.0	<2.0	—	326.36	8.63	317.73	—
S-7	02/09/2010	—	—	<50	<0.50	<1.0	<1.0	<1.0	—	8.4	<10	—	—	—	—	326.36	8.15	318.21	—
S-7	08/12/2010	—	—	<50	<0.50	<1.0	<1.0	<1.0	—	<1.0	<10	—	—	—	—	326.36	7.98	318.38	—
S-7	02/01/2011	—	—	<50	<0.50	<0.50	<0.50	<1.0	—	62	33	—	—	—	—	326.36	8.18	318.18	—
S-7	07/28/2011	—	—	<50	<0.50	<0.50	<0.50	<1.0	—	21	<10	—	—	—	—	326.36	8.84	317.52	—

TABLE 2

GROUNDWATER DATA
SHELL-BRANDED SERVICE STATION
5251 HOPYARD ROAD, PLEASANTON, CALIFORNIA

Well ID	Date	TPHo (µg/L)	TPHd (µg/L)	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	Ethanol (µg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	GW Elevation (ft MSL)	DO Reading (m/L)
S-8	11/15/1989	—	<100	<50	<0.5	<0.5	<0.5	<1	—	—	—	—	—	—	—	—	—	—	—
S-8	12/12/1989	—	—	—	—	—	—	—	—	—	—	—	—	—	—	325.32	7.93	317.39	—
S-8	01/05/1990	—	<100	<50	<0.5	<0.5	<0.5	<1	—	—	—	—	—	—	—	325.32	7.91	317.41	—
S-8	04/11/1990	—	—	<50	<0.5	<0.5	<0.5	<1	—	—	—	—	—	—	—	325.32	7.89	317.43	—
S-8	07/12/1990	—	<50	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—	—	325.32	7.65	317.67	—
S-8	10/25/1990	—	<50	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—	—	325.32	7.73	317.59	—
S-8	01/25/1991	—	<50	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—	—	325.32	—	—	—
S-8	04/16/1991	—	<50	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—	—	325.32	—	—	—
S-8	07/24/1991	—	<50	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—	—	325.32	—	—	—
S-8	10/18/1991	—	360 f	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—	—	325.32	7.62	317.70	—
S-8	01/23/1992	—	90	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—	—	325.32	—	—	—
S-8	04/27/1992	—	<50	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—	—	325.32	—	—	—
S-8	07/17/1992	—	<50	53	<0.5	1.0	<0.5	1.8	—	—	—	—	—	—	—	325.32	—	—	—
S-8	10/16/1992	—	<50	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—	—	325.32	—	—	—
S-8	01/23/1993	—	<50	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—	—	325.32	7.00	318.32	—
S-8	04/28/1993	—	<50	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—	—	325.32	7.77	317.55	—
S-8	09/22/1993	—	160	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—	—	325.32	7.67	317.65	—
S-8	12/08/1993	—	210	<50	<0.50	<0.50	<0.50	<0.50	—	—	—	—	—	—	—	325.32	7.76	317.56	—
S-8	03/04/1994	—	—	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—	—	325.32	7.66	317.66	—
S-8	06/16/1994	—	—	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—	—	325.32	7.78	317.54	—
S-8	05/05/1995	—	—	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—	—	325.32	7.42	317.90	—
S-8	05/21/1996	—	—	<50	<0.5	<0.5	<0.5	<0.5	—	—	—	—	—	—	—	325.32	7.50	317.82	—
S-8	05/12/1997	—	—	<50	<0.50	<0.50	<0.50	<0.50	<2.5	—	—	—	—	—	—	325.32	7.56	317.76	1.6
S-8	05/08/1998	—	—	<50	<0.50	<0.50	<0.50	<0.50	<2.5	—	—	—	—	—	—	325.32	7.64	317.68	2.0
S-8	06/27/1999	—	—	<50.0	<0.500	<0.500	<0.500	<0.500	<2.00	—	—	—	—	—	—	325.32	7.75	317.57	2.3
S-8	04/28/2000	—	—	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	—	—	—	—	—	—	325.32	8.02	317.30	1.8
S-8	05/30/2001	—	—	<50	<0.50	<0.50	<0.50	<0.50	—	<0.50	—	—	—	—	—	325.32	7.34	317.98	1.8
S-8	06/17/2002	—	—	<50	<0.50	<0.50	<0.50	<0.50	—	<5.0	—	—	—	—	—	325.32	7.45	317.87	1.8
S-8	05/30/2003	—	—	<50	<0.50	<0.50	<0.50	<1.0	—	14	—	—	—	—	—	325.03	7.39	317.64	3.0
S-8	05/03/2004	—	—	<50	<0.50	<0.50	<0.50	<1.0	—	<0.50	—	—	—	—	—	325.03	7.00	318.03	1.0
S-8	01/14/2005	—	—	<50	<0.50	<0.50	<0.50	<1.0	—	<0.50	—	—	—	—	—	325.03	8.65	316.39	—
S-8	05/05/2005	—	—	<50	<0.50	<0.50	<0.50	<0.50	—	<0.50	<5.0	<0.50	<0.50	<0.50	—	325.03	6.73	318.30	—
S-8	08/05/2005	—	—	<50	<0.50	<0.50	<0.50	<1.0	—	<0.50	<5.0	<2.0	<2.0	<2.0	—	325.03	6.93	318.10	—
S-8	11/08/2005	—	—	<50.0	<0.500	<0.500	<0.500	<0.500	—	<0.500	<10.0	<0.500	<0.500	<0.500	—	325.03	6.95	318.08	—
S-8	01/31/2006	—	—	<50.0	<0.500	<0.500	<0.500	<0.500	—	<0.500	<10.0	<0.500	<0.500	<0.500	—	325.03	6.91	318.12	—

TABLE 2

GROUNDWATER DATA
SHELL-BRANDED SERVICE STATION
5251 HOPYARD ROAD, PLEASANTON, CALIFORNIA

Well ID	Date	TPHo (µg/L)	TPHd (µg/L)	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	Ethanol (µg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	GW Elevation (ft MSL)	DO Reading (m/L)
S-8	05/16/2006	—	—	<50.0	<0.500	<0.500	<0.500	<0.500	—	<0.500	<10.0	<0.500	<0.500	<0.500	—	325.03	7.02	318.01	—
S-8	08/23/2006	—	—	<50.0	<0.500	<0.500	<0.500	<0.500	—	<0.500	<10.0	<0.500	<0.500	<0.500	—	325.03	6.98	318.05	—
S-8	11/13/2006	—	—	<50	<0.50	<0.50	<0.50	<0.50	—	<0.50	<20	<0.50	<0.50	<0.50	—	325.03	7.09	317.94	—
S-8	02/01/2007	—	—	<50	<0.50	<0.50	<0.50	<1.0	—	<0.50	<5.0	<2.0	<2.0	<2.0	—	325.03	7.27	317.76	—
S-8	05/23/2007	—	—	<50 n	<0.50	<1.0	<1.0	<1.0	—	<1.0	<10	<2.0	<2.0	<2.0	—	325.03	6.80	318.23	—
S-8	08/07/2007	—	—	<50 n	<0.50	<1.0	<1.0	<1.0	—	<1.0	<10	<2.0	<2.0	<2.0	—	325.03	7.04	317.99	—
S-8	11/29/2007	—	—	<50 n	<0.50	<1.0	<1.0	<1.0	—	<1.0	<10	<2.0	<2.0	<2.0	—	325.03	7.04	317.99	—
S-8	02/08/2008	—	—	<50 n	<0.50	<1.0	<1.0	<1.0	—	<1.0	<10	<2.0	<2.0	<2.0	—	325.03	6.77	318.26	—
S-8	05/21/2008	—	—	<50	<0.50	<1.0	<1.0	<1.0	—	<1.0	<10	<2.0	<2.0	<2.0	<100	325.03	7.10	317.93	—
S-8	08/06/2008	—	—	<50	<0.50	<1.0	<1.0	<1.0	—	<1.0	<10	<2.0	<2.0	<2.0	—	325.03	6.94	318.09	—
S-8	11/18/2008	—	—	<50	<0.50	<1.0	<1.0	<1.0	—	<1.0	<10	<2.0	<2.0	<2.0	—	325.03	7.10	317.93	—
S-8	01/20/2009	—	—	<50	<0.50	<1.0	<1.0	<1.0	—	<1.0	<10	<2.0	<2.0	<2.0	—	325.03	7.18	317.85	—
S-8	01/20/2009	—	—	<50	<0.50	<1.0	<1.0	<1.0	—	<1.0	<10	<2.0	<2.0	<2.0	—	325.03	7.18	317.85	—
S-8	05/06/2009	—	—	<50	<0.50	<1.0	<1.0	<1.0	—	<1.0	<10	<2.0	<2.0	<2.0	—	325.03	7.01	318.02	—
S-8	07/06/2009	—	—	<50	<0.50	<1.0	<1.0	<1.0	—	<1.0	<10	<2.0	<2.0	<2.0	—	325.03	7.83	317.20	—
S-8	02/09/2010	—	—	<50	<0.50	<1.0	<1.0	<1.0	—	<1.0	<10	—	—	—	—	325.03	6.91	318.12	—
S-8	08/12/2010	—	—	—	—	—	—	—	—	—	—	—	—	—	—	325.03	7.14	317.89	—
S-8	02/01/2011	—	—	<50	<0.50	<0.50	<0.50	<1.0	—	<1.0	<10	—	—	—	—	325.03	7.04	317.99	—
S-8	07/28/2011	—	—	—	—	—	—	—	—	—	—	—	—	—	—	325.03	7.19	317.84	—
S-9	11/22/2006	—	—	—	—	—	—	—	—	—	—	—	—	—	—	325.89	7.61	318.28	—
S-9	11/27/2006	—	—	<50	<0.50	<0.50	<0.50	<1.0	—	<0.50	<5.0	<2.0	<2.0	<2.0	—	325.89	7.77	318.12	—
S-9	02/01/2007	—	—	<50	<0.50	<0.50	<0.50	<1.0	—	<0.50	<5.0	<2.0	<2.0	<2.0	—	325.89	8.14	317.75	—
S-9	05/23/2007	—	—	<50 n	<0.50	<1.0	<1.0	<1.0	—	<1.0	<10	<2.0	<2.0	<2.0	—	325.89	7.85	318.04	—
S-9	08/07/2007	—	—	<50 n	<0.50	<1.0	<1.0	<1.0	—	<1.0	<10	<2.0	<2.0	<2.0	—	325.89	7.77	318.12	—
S-9	11/29/2007	—	—	<50 n	<0.50	<1.0	<1.0	<1.0	—	<1.0	<10	<2.0	<2.0	<2.0	—	325.89	7.99	317.90	—
S-9	02/08/2008	—	—	<50 n	<0.50	<1.0	<1.0	<1.0	—	<1.0	<10	<2.0	<2.0	<2.0	—	325.89	7.78	318.11	—
S-9	05/21/2008	—	—	<50	<0.50	<1.0	<1.0	<1.0	—	<1.0	<10	<2.0	<2.0	<2.0	<100	325.89	7.84	318.05	—
S-9	08/06/2008	—	—	<50	<0.50	<1.0	<1.0	<1.0	—	<1.0	<10	<2.0	<2.0	<2.0	—	325.89	7.69	318.20	—
S-9	11/18/2008	—	—	<50	<0.50	<1.0	<1.0	<1.0	—	<1.0	<10	<2.0	<2.0	<2.0	—	325.89	7.93	317.96	—
S-9	01/20/2009	—	—	<50	<0.50	<1.0	<1.0	<1.0	—	<1.0	<10	<2.0	<2.0	<2.0	—	325.89	8.13	317.76	—
S-9	05/06/2009	—	—	<50	<0.50	<1.0	<1.0	<1.0	—	<1.0	<10	<2.0	<2.0	<2.0	—	325.89	8.02	317.87	—
S-9	07/06/2009	—	—	<50	<0.50	<1.0	<1.0	<1.0	—	<1.0	<10	<2.0	<2.0	<2.0	—	325.89	8.06	317.83	—
S-9	02/09/2010	—	—	<50	<0.50	<1.0	<1.0	<1.0	—	<1.0	<10	—	—	—	—	325.89	7.80	318.09	—
S-9	08/12/2010	—	—	—	—	—	—	—	—	—	—	—	—	—	—	325.89	7.96	317.93	—
S-9	08/18/2010	—	—	—	—	—	—	—	—	—	—	—	—	—	—	325.89	7.86	318.03	—

TABLE 2

GROUNDWATER DATA
SHELL-BRANDED SERVICE STATION
5251 HOPYARD ROAD, PLEASANTON, CALIFORNIA

Well ID	Date	TPHo (µg/L)	TPHd (µg/L)	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	Ethanol (µg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	GW Elevation (ft MSL)	DO Reading (m/L)
S-9	02/01/2011	—	—	<50	<0.50	<0.50	<0.50	<1.0	—	<1.0	<10	—	—	—	—	325.89	7.84	318.05	—
S-9	07/28/2011	—	—	—	—	—	—	—	—	—	—	—	—	—	—	325.89	8.51	317.38	—
S-10	06/30/2009	—	—	—	—	—	—	—	—	—	—	—	—	—	—	326.24	8.04	318.20	—
S-10	07/06/2009	—	—	340	<1.0	<2.0	<2.0	<2.0	—	<2.0	5,100	<4.0	<4.0	<4.0	—	326.24	8.11	318.13	—
S-10	02/09/2010	—	—	65	<0.50	<1.0	<1.0	<1.0	—	1.7	1,400	—	—	—	—	326.24	7.90	318.34	—
S-10	08/12/2010	—	—	<100	<1.0	<2.0	<2.0	<2.0	—	<2.0	610	—	—	—	—	326.24	8.04	318.20	—
S-10	08/18/2010	—	—	—	—	—	—	—	—	—	—	—	—	—	—	326.24	8.04	318.20	—
S-10	02/01/2011	—	—	<50	<0.50	<0.50	<0.50	<1.0	—	<1.0	110	—	—	—	—	326.24	7.82	318.42	—
S-10	07/28/2011	—	—	<50	<0.50	<0.50	<0.50	<1.0	—	1.2	95	—	—	—	—	326.24	7.87	318.37	—
S-11	06/30/2009	—	—	—	—	—	—	—	—	—	—	—	—	—	—	326.12	7.97	318.15	—
S-11	07/06/2009	—	—	<50	<0.50	<1.0	<1.0	<1.0	—	<1.0	<10	<2.0	<2.0	<2.0	—	326.12	7.98	318.14	—
S-11	02/09/2010	—	—	<50	<0.50	<1.0	<1.0	<1.0	—	<1.0	<10	—	—	—	—	326.12	9.99	316.13	—
S-11	08/12/2010	—	—	<50	<0.50	<1.0	<1.0	<1.0	—	<1.0	<10	—	—	—	—	326.12	8.17	317.95	—
S-11	08/18/2010	—	—	—	—	—	—	—	—	—	—	—	—	—	—	326.12	7.91	318.21	—
S-11	02/01/2011	—	—	<50	<0.50	<0.50	<0.50	<1.0	—	<1.0	<10	—	—	—	—	326.12	7.36	318.76	—
S-11	07/28/2011	—	—	<50	<0.50	<0.50	<0.50	<1.0	—	<1.0	<10	—	—	—	—	326.12	7.99	318.13	—
S-12	06/30/2009	—	—	—	—	—	—	—	—	—	—	—	—	—	—	326.91	8.49	318.42	—
S-12	07/06/2009	—	—	83	<0.50	<1.0	<1.0	<1.0	—	37	<10	<2.0	<2.0	<2.0	—	326.91	8.89	318.02	—
S-12	02/09/2010	—	—	57	<0.50	<1.0	<1.0	<1.0	—	26	11	—	—	—	—	326.91	7.97	318.94	—
S-12	08/12/2010	—	Unable to access		—	—	—	—	—	—	—	—	—	—	—	326.91	—	—	—
S-12	08/18/2010	—	—	<50	<0.50	<1.0	<1.0	<1.0	—	20	—	—	—	—	—	326.91	8.33	318.58	—
S-12	02/01/2011	—	—	<50	<0.50	<0.50	<0.50	<1.0	—	14	12	—	—	—	—	326.91	8.48	318.43	—
S-12	07/28/2011	—	—	<50	<0.50	<0.50	<0.50	<1.0	—	11	<10	—	—	—	—	326.91	8.65	318.26	—
EW-1	02/20/2008	—	—	9,100 n	110	180	840	146.9	—	<5.0	<50	<10	<10	<10	<500	—	8.07	—	—
EW-1	03/07/2008	—	—	11,000 n	380	200	370	317.0	—	<5.0	<50	<10	<10	<10	<500	—	17.80	—	—
EW-1	03/21/2008	—	—	14,000	690	430	750	614	—	<5.0	<50	<10	<10	<10	<500	—	8.61	—	—
EW-1	04/08/2008	—	—	12,000	430	200	430	302	—	<5.0	<50	<10	<10	<10	<500	—	8.40	—	—
EW-1	04/21/2008	—	—	22,000	430	510	1,100	747	—	<5.0	71	<10	<10	<10	<500	—	8.33	—	—
EW-1	05/06/2008	—	—	20,000	280	620	1,000	616	—	<10	<100	<20	<20	<20	<1,000	—	8.30	—	—
EW-1	05/21/2008	—	—	17,000	180	440	830	484	—	<10	<100	<20	<20	<20	<1,000	—	8.60	—	—
EW-1	08/06/2008	—	—	12,000	140	79	720	110	—	<10	<100	<20	<20	<20	—	—	8.41	—	—
EW-1	11/18/2008	—	—	16,000	94	170	970	310	—	<20	<200	<40	<40	<40	—	—	8.03	—	—

TABLE 2

GROUNDWATER DATA
SHELL-BRANDED SERVICE STATION
5251 HOPYARD ROAD, PLEASANTON, CALIFORNIA

Well ID	Date	TPHo (µg/L)	TPHd (µg/L)	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	Ethanol (µg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	GW Elevation (ft MSL)	DO Reading (m/L)
EW-1	01/20/2009	—	—	10,000	110	58	440	61	—	<20	<200	<40	<40	<40	—	—	8.98	—	—
EW-1	05/06/2009	—	—	14,000	73	120	690	120	—	<20	<200	<40	<40	<40	—	—	7.92	—	—
EW-1	07/06/2009	—	—	17,000	18	82	750	140	—	<10	<100	<20	<20	<20	—	326.98	8.21	318.77	—
EW-1	02/09/2010	—	—	12,000	13	41	490	120	—	<5.0	<50	—	—	—	—	326.98	8.20	318.78	—
EW-1	08/12/2010	—	—	11,000	2.9	17	370	113.4	—	<2.0	<20	—	—	—	—	326.98	8.03	318.95	—
EW-1	08/18/2010	—	—	—	—	—	—	—	—	—	—	—	—	—	—	326.98	8.09	318.89	—
EW-1	02/01/2011	—	—	10,000	10	35	520	34	—	5.0	<50	—	—	—	—	326.98	8.22	318.76	—
EW-1	07/28/2011	—	—	8,400	7.0	21	400	27	—	<5.0	<50	—	—	—	—	326.98	8.38	318.60	—
EW-2	12/14/2007	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6.25	—	—
EW-2	02/08/2008	—	—	70 n,p	<0.50	<1.0	<1.0	<1.0	—	8.9	940	<2.0	<2.0	<2.0	—	—	8.42	—	—
EW-2	02/20/2008	—	—	59 n,p	<1.0	<2.0	<2.0	<2.0	—	10	1,300	<4.0	<4.0	<4.0	<200	—	8.85	—	—
EW-2	03/07/2008	—	—	850 n,p	<1.0	<2.0	<2.0	<2.0	—	8.0	1,200	<4.0	<4.0	<4.0	<200	—	9.75	—	—
EW-2	03/21/2008	—	—	350	5.3	4.6	6.2	18	—	<2.0	990	<4.0	<4.0	<4.0	<200	—	9.51	—	—
EW-2	04/08/2008	—	—	<50	<0.50	<1.0	<1.0	<1.0	—	8.9	180	<2.0	<2.0	<2.0	<100	—	9.12	—	—
EW-2	04/21/2008	—	—	140	<0.50	<1.0	<1.0	<1.0	—	57	230	<2.0	<2.0	<2.0	<100	—	8.86	—	—
EW-2	05/06/2008	—	—	<50	<0.50	<1.0	<1.0	<1.0	—	8.3	590	<2.0	<2.0	<2.0	<100	—	8.87	—	—
EW-2	05/21/2008	—	—	53	<0.50	<1.0	<1.0	<1.0	—	11	380	<2.0	<2.0	<2.0	<100	—	9.00	—	—
EW-2	08/06/2008	—	—	60	<0.50	<1.0	<1.0	<1.0	—	10	560	<2.0	<2.0	<2.0	—	—	8.81	—	—
EW-2	11/18/2008	—	—	140	8.0	<1.0	6.2	29	—	7.4	410	<2.0	<2.0	<2.0	—	—	8.92	—	—
EW-2	01/20/2009	—	—	<50	<0.50	<1.0	<1.0	<1.0	—	6.8	390	<2.0	<2.0	<2.0	—	—	9.28	—	—
EW-2	05/06/2009	—	—	—	—	—	—	—	—	—	—	—	—	—	—	327.21	—	—	—
V-1	12/14/1988	—	4, 500 t	770	6.4	21	9	87	—	—	—	—	—	—	—	—	7.11	—	—
V-2	12/14/1988	—	1,000 u	160	3.8	<1	<1	4	—	—	—	—	—	—	—	—	7.25	—	—
V-3	12/14/1988	—	800 u	140	8.7	<1	<1	3	—	—	—	—	—	—	—	—	7.28	—	—

Notes:
TPHo = Total petroleum hydrocarbons as oil analyzed by unknown method
TPHd = Total petroleum hydrocarbons as diesel analyzed by modified EPA Method 8015
TPHg = Total petroleum hydrocarbons as gasoline analyzed by EPA Method 8260B; prior to May 30, 2001 analyzed by EPA Method 8015 unless otherwise noted.
BTEX = Benzene, toluene, ethylbenzene, and total xylenes analyzed by EPA Method 8260B; prior to May 30, 2001, analyzed by EPA Method 8020.
MTBE = Methyl tertiary-butyl ether analyzed by method as noted
TBA = Tertiary-butyl alcohol analyzed by EPA Method 8260B

TABLE 2

GROUNDWATER DATA
SHELL-BRANDED SERVICE STATION
5251 HOPYARD ROAD, PLEASANTON, CALIFORNIA

Well ID	Date	TPHo (µg/L)	TPHd (µg/L)	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	Ethanol (µg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	GW Elevation (ft MSL)	DO Reading (m/L)

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
Ethanol analyzed by EPA Method 8260B
TOC = Top of casing elevation, in feet relative to mean sea level
GW = Groundwater
DO = Dissolved oxygen
µg/L = Micrograms per liter
ft = Feet
MSL = Mean sea level
mg/L = Milligrams per liter
<x = Not detected at reporting limit x
— = Not analyzed or available
(D) = Duplicate sample

a = Compounds detected as TPHd appear to be the less volatile constituents of gasoline.
b = The concentration reported as TPHd primarily due to the presence of a heavier petroleum product.
c = The concentration reported as TPHd due to the presence of a lighter petroleum product.
d = Concentrations reported as diesel includes a heavier petroleum product.
e = Compounds detected within the chromatographic range of TPHd, but not characteristic of the standard gasoline pattern.
f = There was insufficient preservative to reduce the sample pH to less than 2.
g = Compounds detected within the chromatographic range of TPHd, but not characteristic of the standard diesel pattern.
h = The chromatographic pattern of the purgeable hydrocarbons found in the sample is similar to the pattern of weathered gasoline.
j = The results may be biased slightly high.
k = The hydrocarbon reported in the gasoline range does not match the laboratory standard.
l = Extracted out of holding time.
m = Analyte was detected in the associated Method Blank.
n = Analyzed by EPA Method 8015B (M).
o = Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
p = 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.
q = Sample container contained headspace
r = Ethylbenzene and xylene analytical results combined
s = Compounds detected and calculated as diesel appear to the less volatile constituents of gasoline
t = Includes compounds apparently due to gasoline as well as compounds apparently due to diesel
u = Chromatographic pattern of compounds detected and calculated as diesel does not match that of the diesel standard used for calibration.

TABLE 2

GROUNDWATER DATA
SHELL-BRANDED SERVICE STATION
5251 HOPYARD ROAD, PLEASANTON, CALIFORNIA

Well ID	Date	TPHo (µg/L)	TPHd (µg/L)	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE 8020 (µg/L)	MTBE 8260 (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	Ethanol (µg/L)	TOC (ft MSL)	Depth to Water (ft TOC)	GW Elevation (ft MSL)	DO Reading (m/L)

Beginning May 30, 2003, depth to water referenced to TOC
Site wells surveyed April 16, 2002 by Virgil Chavez Land Surveying
Wells S-2, S-3 and S-9 were surveyed on November 22, 2006 by Mid Coast Engineers.
Wells S-10 through S-12 and EW-1 were surveyed on June 25, 2009 by Mid Coast Engineers.

TABLE 3

MGSO$_4$ FEASIBILITY STUDY GROUNDWATER DATA
SHELL-BRANDED SERVICE STATION
5251 HOPYARD ROAD, PLEASANTON, CALIFORNIA

Well ID	Date	Volume MgSO4 Applied (gallons)	Depth to Water (ft.)	pH	Sulfate (mg/L)	Fe2+ (mg/L)	Fe3+ (mg/L)	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)
Injection Wells													
EW-1	10/30/2009	—	—	—	3.1	2.1	—	8,400	14	21	360	84	<2.0
EW-1	4/8/2010 9:45 a	55	7.81	7.05	2.7	<0.10b	10.2	7,100	16	25	95	29	3.7
EW-1	4/8/2010 17:10	—	—	—	90,000	—	—	—	—	—	—	—	—
EW-1	4/21/2010	—	—	—	7,800	—	—	—	—	—	—	—	—
EW-1	5/11/2010	—	—	7.24	2,000	2.4	7.6	5,500	13	9.5	100	43	<1.0
EW-1	5/27/2010 c	25	—	7.1	960	1.8	5.72	8,000	17	9.8	200	66	<5.0
EW-1	6/9/2010	—	—	—	4,800	—	—	—	—	—	—	—	—
EW-1	6/22/2010	—	—	7.38	1,300	2.8	2.29	6,600	5.2	4.5	53	20	<2.0
EW-1	7/15/2010 d	25	7.78	7.82	300	2.4	0.49	5,800	4.7	4.5	52	27	<2.0
EW-1	8/2/2010	—	—	4.65	2,100	2.6	—	—	—	—	—	—	—
EW-1 e	8/12/2010	—	8.03	6.98	730	1.2	—	11,000	2.9	17	370	110	<2.0
EW-1	8/17/2010	—	—	7.71	740	0.9	1.07	4,000	5.0	3.8	2.9	52	<2.0
EW-1f	9/9/2010	55	—	—	—	—	—	—	—	—	—	—	—
EW-1	10/1/2010	—	8.55	6.89	14,000	6.5	0.69	3,100	1.4	1.4	2.2	3.2	<1.0
EW-1	10/19/2010	—	—	7.49	5,800	4.8	1.56	5,600	1.8	1.4	6.3	9	<1.0
EW-1 g	2/1/2011	—	8.22	7.29	740	0.1	—	10,000	10	35	520	34	5.0
EW-1 i	**7/28/2011**	—	**8.38**	**7.38**	**39**	**1.6**	—	**8,400**	**7.0**	**21**	**400**	**27**	**<5.0**
S-3	10/30/2009	—	—	—	35	<0.10	—	2,300	390	12	15	24	14
S-3	4/8/2010 10:15 a	55	8.45	7.46	19	<0.10b	1.82	2,400	270	6.0	4.0	3.6	11
S-3	4/8/2010 19.30	—	—	—	99,000	—	—	—	—	—	—	—	—
S-3	4/21/2010	—	—	—	7,700	—	—	—	—	—	—	—	—
S-3	5/11/2010	—	—	7.11	3,600	4.8	1.43	2,100	230	2.9	15	2.7	9.3
S-3	5/27/10 c	40	—	6.9	1,600	3.0	1.42	1,900	210	<2.0	4.1	<2.0	8.2
S-3	6/9/2010	—	—	—	11,000	—	—	—	—	—	—	—	—
S-3	6/22/2010	—	—	6.93	6,400	4.5	4.43	1,800	270	2.4	26	4	5.8
S-3	7/15/10 d	45	8.39	7.48	2,600	3.2	1.4	2,200	230	<2.0	<2.0	<2.0	7.4
S-3	8/2/2010	—	—	7.01	4,300	3.6	—	—	—	—	—	—	—
S-3 e	8/12/2010	—	8.46	6.89	2,700	0.6	—	1,300	270	3.5	47	46	4.5
S-3	8/17/2010	—	—	7.11	1,700	1.0	<0.10	870	90	1.3	17	15	4.9
S-3f	9/9/2010	55	—	—	NS	—	—	—	—	—	—	—	—
S-3	10/1/2010	—	8.88	6.68	14,000	6.8	10.4	2,000	240	5.1	140	65	4.5
S-3	10/19/2010	—	—	7.20	9,300	5.6	10.7	3,000	190	<2.0	80	24	6.9
S-3 g	2/1/2011	—	8.75	7.03	11,000	0.2	—	900	<0.50	<0.50	<0.50	<1.0	8.8
S-3 i	**7/28/2011**	—	**8.83**	**7.11**	**2,000**	**1.0**	—	**1,100**	**110**	**1.0**	**23**	**3.2**	**15**
Monitoring Wells													
S-1	4/8/2010	—	7.95	7.49	3.1	<0.10b	0.511	9,300	23	38	320	56	17
S-1	5/27/2010	—	—	7.5	<1.0	0.8	<0.10	14,000	20	36	200	57	<2.0
S-1	7/15/2010	—	7.96	7.90	<1.0	0.6	<0.10	12,000	20	38	200	54	<2.0
S-1 e	8/18/2010	—	7.92	7.85	3.3	0.4	—	4,000	15	26	87	34	10
S-1	10/19/2010	—	—	8.00	1.7	0.8	<0.10	13,000	20	33	92	29	7.2
S-1 g	2/1/2011	—	7.91	7.91	2.3	0.3	—	5,900h	13	21	38	21	14
S-1 i	**7/28/2011**	—	**8.33**	**7.64**	**2.5**	**0.0**	—	**8,800**	**19**	**37**	**120**	**46**	**9.5**
S-2	10/30/2009	—	—	—	540	<0.10	—	<50	<0.50	<1.0	<1.0	<1.0	33
S-2	4/8/2010	—	8.14	7.52	600	<0.10b	0.120	<50	<0.50	<1.0	<1.0	<1.0	38
S-2	5/27/2010	—	—	7.2	570	0.0	<0.10	80	<0.50	<1.0	<1.0	<1.0	36
S-2	7/15/2010	—	8.30	7.72	570	0.0	<0.10	<50	<0.50	<1.0	<1.0	<1.0	19

$MGSO_4$ FEASIBILITY STUDY GROUNDWATER DATA
SHELL-BRANDED SERVICE STATION
5251 HOPYARD ROAD, PLEASANTON, CALIFORNIA

Well ID	Date	Volume MgSO4 Applied (gallons)	Depth to Water (ft.)	pH	Sulfate (mg/L)	Fe2+ (mg/L)	Fe3+ (mg/L)	TPHg (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)
S-2 e	8/18/2010	---	8.40	8.19	450	0.0	---	<50	<0.50	<1.0	<1.0	<1.0	24
S-2	10/19/2010	---	---	7.68	510	0.0	<0.10	<50	<0.50	<1.0	<1.0	<1.0	17
S-2 g	2/1/2011	---	8.39	7.49	180	0.0	---	<50	<0.50	<0.50	<0.50	<1.0	6.9
S-2 i	**7/28/2011**	**---**	**8.49**	**7.52**	**490**	**0.0**	**---**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<1.0**	**20**
S-10	10/30/2009	---	---	---	170	<0.10	---	<50	<0.50	<1.0	<1.0	<1.0	1.8
S-10	4/8/2010	---	7.68	7.71	170	<0.10b	0.915	<50	<0.50	<1.0	<1.0	<1.0	1.5
S-10	5/27/2010	---	---	6.3	160	0.0	0.367	<50	<0.50	<1.0	<1.0	<1.0	1.6
S-10	7/15/2010	---	7.92	7.75	150	0.0	0.12	<50	<0.50	<1.0	<1.0	<1.0	<1.0
S-10 e	8/12/2010	---	8.04	7.47	110	0.0	---	<100	<1.0	<2.0	<2.0	<2.0	<2.0
S-10	10/19/2010	---	---	8.16	140	0.0	0.26	<50	<0.50	<0.50	<0.50	<1.0	<1.0
S-10 g	2/1/2011	---	7.82	7.94	92	0.0	---	<50	<0.50	<0.50	<0.50	<1.0	<1.0
S-10 i	**7/28/2011**	**---**	**7.87**	**7.68**	**130**	**0.0**	**---**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<1.0**	**1.2**

Notes:
TPHg = Total petroleum hydrocarbons as gasoline analyzed by EPA Method 8260B.
BTEX = Benzene, toluene, ethylbenzene, and total xylenes analyzed by EPA Method 8260B.
MTBE = Methyl tertiary-butyl ether analyzed by EPA Method 8260B
Sulfate analyzed by EPA Method 300.0
Fe2+ = Ferrous iron analyzed using field kit by SM 3500-FeB
Fe3+ = Ferric iron analyzed by EPA Method 6010B
mg/L = Milligrams per liter
µg/L = Micrograms per liter
ft. = Feet
<x = Not detected at reporting limit x
--- = Not analyzed, applicable, or available

a = Initial MgSO4 application following baseline sampling of all wells in study.
b = Ferrous Iron (Fe+2) samples collected and submitted for laboratory analysis; results were run out of hold time (24 hours) and not representative.
c = Second MgSO4 application event May 28th following sample collection; tech had difficulty with gravity feed resulting in time constraint, so a smaller volume was applied.
d = Third MgSO4 application event was on the day following sample collection (July 16, 2010).
e = Samples collected by Blaine Tech Services during third quarter 2010 monitoring and sampling event.
f = Additional (fourth) MgSO4 application event using a low-flow pump rather than gravity feed to attempt to apply more volume in the wells.
g = Samples collected by Blaine Tech Services during first quarter 2011 monitoring and sampling event.
h = Sample container contained head space.
i = Samples collected by Blaine Tech Services during third quarter 2011 monitoring and sampling event.

TABLE 4

HISTORICAL GRAB GROUNDWATER ANALYTICAL DATA
SHELL-BRANDED SERVICE STATION
5251 HOPYARD ROAD, PLEASANTON, 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)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)
DSW-11	9/28/2004	3.5	—	1,200	120	290	11	84	5.9	35	<10	<10	<10	<2.5	<2.5
DSW-13	9/28/2004	4.5	—	1,300,000 a	<250	<250	<250	<500	<250	<2,500	<1,000	<1,000	<1,000	<250	<250
GP-1	8/11/2005	15-20	—	38,000	<50	<50	3,100	1,600	<50	<500	—	—	<200	—	—
GP-2	8/11/2005	15-20	—	<1,000	<10	<10	<10	<20	35	3,900	—	—	<40	—	—
GP-3	8/11/2005	15-20	—	<50	<0.50	<0.50	<0.50	<1.0	32	190	—	—	<2.0	—	—
GP-4	8/11/2005	15-20	—	72	<0.50	<0.50	2.6	4.7	28	<5.0	—	—	<2.0	—	—
GP-5	8/11/2005	15-20	—	570	<0.50	26	75	260	5.0	20	—	—	<2.0	—	—
CPT-1	8/31/2005	25	<50	<50	<0.50	<0.50	<0.50	<1.0	10	<5.0	—	—	<2.0	—	—
CPT-1	8/31/2005	52	<50	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<5.0	—	—	<2.0	—	—
CPT-1	8/31/2005	78	<50	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<5.0	—	—	<2.0	—	—
CPT-2	8/26/2005	38-43	—	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<5.0	—	—	—	—	—
CPT-3	8/26/2005	41-46	—	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<5.0	—	—	—	—	—
GP-6	2/22/2006	22	—	78	<0.50	<0.50	<0.50	<0.50	73	<20	—	—	<0.50	—	—
GP-7	2/22/2006	26	—	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<20	—	—	<0.50	—	—
Groundwater (≤10 fbg) ESL [b]			100	100	1.0	40	30	20	5.0	12	NA	NA	NA	0.50	0.050

Notes:
TPHd = Total petroleum hydrocarbons as diesel analyzed by modified EPA Method 8015M
TPHg = Total petroleum hydrocarbons as gasoline; analyzed by EPA Method 8260B

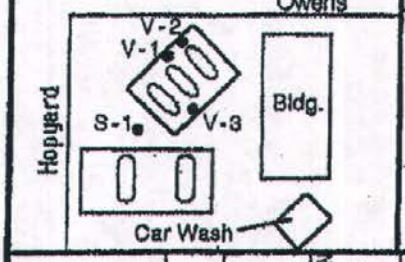
TABLE 4

HISTORICAL GRAB GROUNDWATER ANALYTICAL DATA
SHELL-BRANDED SERVICE STATION
5251 HOPYARD ROAD, PLEASANTON, CALIFORNIA

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

a = Hydrocarbon reported in gasoline range does not match the laboratory gasoline standard
b = San Francisco Bay Regional Water Quality Control Board ESL for groundwater 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]).

LOCATION MAP



PACIFIC ENVIRONMENTAL GROUP, INC.

WELL / S-1
BORING NO.
PAGE 1 OF 1

PROJECT NO. 101-09.01
LOGGED BY: MD
DRILLING METHOD: HSA
SAMPLING METHOD: CAL MOD
CASING TYPE: Sch 40 PVC
SLOT SIZE: 0.020
GRAVEL PACK: 12 X 20 SAND

CLIENT: G.R. Shell
DATE DRILLED: 1-5-88
LOCATION: Hopyard & Owens
HOLE DIAMETER: 8"
HOLE DEPTH: 30.5'
WELL DEPTH: 29'
WELL DIAMETER: 3"

WELL COMPLETION	MOISTURE CONTENT	H-NU READING	PENETRATION RESISTANCE (BLOWS/FT)	DEPTH (FEET)	SAMPLE	GRAPHIC	SOIL TYPE	LITHOLOGY / REMARKS
				0				ASPHALT & GRAVEL - FILL.
	Dp	1.0	PUSH 400	2			CL	CLAY; dark gray; moderate plasticity; silty; trace iron oxide stains. @3'; no product odor.
	Mst	0.0	11	8				@9'; as above; tan mottled gray; gray around rootholes; abundant rootholes; trace-5% fine sand; stiff; no product odor.
	Wt	5.5	11	14				@14'; as above; water in rootholes; stiff; no product odor.
	Wt	0.0	17	18				@19'; as above; no sand; very stiff; no product odor.
	Wt	0.8	16	24				@24'; as above; trace-5% fine to medium sand; stiff; no product odor.
	Wt	0.0	34	30			SC	CLAYEY SAND; light to medium brown; 10-15% low plasticity fines; very fine grained; poorly graded; dense. @30'; no product odor.
								BOTTOM OF BORING AT 30.5'

CONCRETE
BENTONITE
12 X 20 SAND
BENTONITE AND NATURAL CLAY

ATTACHMENT 6

Field location of boring:

(See Plate 2)

Project No.:	7633
Date:	10/30/89
Client:	Shell Oil Company
Location:	5251 Hopyard Road
City:	Pleasanton, California
Logged by:	R.S.Y.
Driller:	Bayland
Casing Installation data:	
Top of Box Elevation:	328.56
Datum:	MSL
Water Level	
Time	
Date	

Boring No: S-6

Sheet 1 of 2

Drilling method: Hollow-Stem Auger

Hole diameter: 8-Inch

PID (ppm)	Blowsft. or Pressure (psi)	Type of Sample	Sample Number	Depth (ft)	Sample	Well Detail	Soil Group Symbol (USCS)	Description
				1				PAVEMENT SECTION - 2.5 feet
				2				
				3				
0	4	S&H		4				CLAY (CH) - black (7.5YR 2/0), very stiff, damp, trace fine sand, high plasticity; rootlers; no chemical odor.
	12		S-6					
	13		4.5	5				
				6				
				7				
				8				soft drilling at 8.0 feet.
				9				
0	350	S&H		10				SANDY CLAY (CL) - dark grayish brown (10YR 4/2), very stiff, damp, low plasticity; 35% very fine sand; trace gravels; no chemical odor.
	350	push	S-6	11				
	350		11.0	12				
				13				
0	4	S&H						same as above; rootholes; voids.
	7		S-6	14				
	7		14.0					
	3			15				sand lense at 15.0 feet - 2.0 inches thick; no chemical odor.
	4		S-6					
	5		15.5	16				
				17				
				18				
						▽		Sample rods wet at 18.5 feet
				19				

Remarks:

Log of Boring

BORING NO. S-6

GeoStrategies Inc.

JOB NUMBER	REVIEWED BY	DATE	REVISED DATE	REVISED DATE
7633	RQ/CEG 1262	11/89		

Field location of boring:

(See Plate 2)

Project No.: 7633	Date: 10/30/89	Boring No: S-6	
Client: Shell Oil Company			
Location: 5251 Hopyard Road			
City: Pleasanton, California		Sheet 2 of 2	
Logged by: R.S.Y.	Driller: Bayland		

Casing installation data:

Drilling method: Hollow-Stem Auger

Hole diameter: 8-inch

Top of Box Elevation: Datum:

Water Level			
Time			
Date			

PID (ppm)	Blowcnt. or Pressure (psi)	Type of Sample	Sample Number	Depth (ft)	Sample	Well Detail	Soil Group Symbol (USCS)	Description
0	4	S&H		20				
	5		S-6					same as above; trace well rounded gravel.
	6		21.0	21				
				22				
				23				
				24				
								CLAY (CH) - black (7.5YR 2/0), medium stiff, saturated, high plasticity; trace fine gravel; no chemical odor.
0	4	S&H		25				
	3		S-6					
	2		26.0	26				
								Bottom of boring at 26.0 feet.
								Bottom of sample at 26.0 feet.
				27				
				28				
				29				
				30				
				31				
				32				
				33				
				34				
				35				
				36				
				37				
				38				
				39				

Remarks:

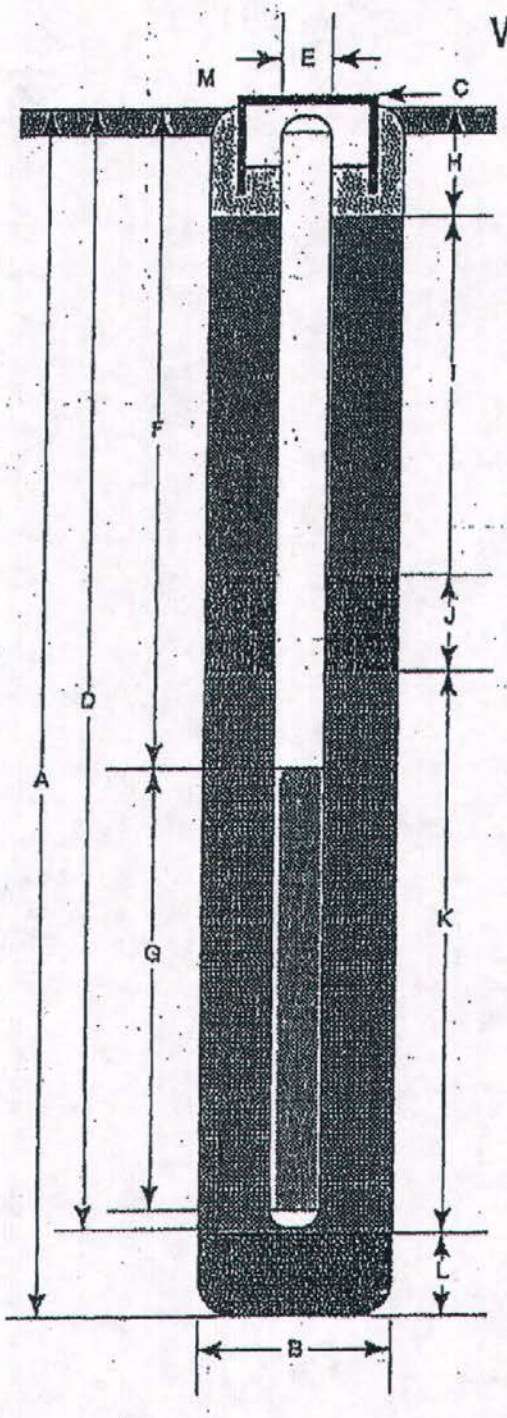
Log of Boring

BORING NO. S-6

GeoStrategies Inc.

JOB NUMBER	REVIEWED BY ROUCEO	DATE	REVISED DATE	REVISED DATE
7633	[illegible] 12/12	11/89		

WELL CONSTRUCTION DETAIL



A Total Depth of Boring 26.0 ft.

B Diameter of Boring 8 in.
Drilling Method Hollow-Stem Auger

C Top of Box Elevation 326.56 ft.
[X] Referenced to Mean Sea Level
[ ] Referenced to Project Datum

D Casing Length 25.5 ft.
Material Schedule 40 PVC

E Casing Diameter 3 in.

F Depth to Top Perforations 6.0 ft.

G Perforated Length 20 ft.
Perforated Interval from 6 to 26 ft.
Perforation Type Schedule 40 PVC
Perforation Size 0.020 in.

H Surface Seal from 0 to 1.5 ft.
Seal Material concrete grout

I Backfill from 1.5 to 4.0 ft.
Backfill Material cement grout

J Seal from 4.0 to 5.0 ft.
Seal Material Bentonite Pellets

K Gravel Pack from 5.0 to 26.0 ft.
Pack Material Lonestar #2/12 sand

L Bottom Seal ft.
Seal Material

M

GeoStrategies Inc.

Well Construction Detail

WELL NO.
S-6

JOB NUMBER	REVIEWED BY PG/CEG	DATE	REVISED DATE	REVISED DATE
7633	CEG 1262	11/89		

Field location of boring:

(See Plate 2)

Project No.: 7633	Date: 10/30/89	Boring No: S-7	
Client: Shell Oil Company			
Location: 5251 Hopyard Road			
City: Pleasanton, California		Sheet 1 of 2	
Logged by: R.S.Y.	Driller: Bayland		
Casing installation data:			
Drilling method: Hollow-Stem Auger			
Hole diameter: 8-Inch	Top of Box Elevation: 326.49	Datum: MSL	

Water Level								
Time								
Date								

PID (ppm)	Blowct. or Pressure (psi)	Type of Sample	Sample Number	Depth (ft.)	Sample	Well Detail	Soil Group Symbol (USCS)	Description
				1				PAVEMENT SECTION - 2.5 feet
				2				
				3				
				4				CLAY with SAND (CH) - black (2.5Y 2/0), very stiff, moist, high plasticity; 20% very fine sand; trace well rounded fine gravel; 30% peat from 4.5 to 6.0 feet; no chemical odor.
0	450	S&H		5				
	450	push	S-7	6				
	450		6.0					
				7				
				8				soft at 8.5 feet
				9				
0	200	S&H		10				
	200	push	S-7	11				SANDY CLAY (CL) - very dark grayish brown (7.5YR 3/2), stiff, moist, low plasticity; 35% very fine sand; no chemical odor.
	200		11.0					
				12				
				13				
				14				
0	4	S&H		15				
	5		S-7					CLAY (CH) - very dark gray (7.5YR 3/0), medium stiff, very moist, open voids, high plasticity; calcareous stringers; no chemical odor.
	6		16.0	16				
				17				
				18				
				19		▽		Sample rods wet at 18.5 feet

Remarks:

Log of Boring

BORING NO. S-7

GeoStrategies Inc.

JOB NUMBER	REVIEWED BY	DATE	REVISED DATE	REVISED DATE
7633	[illegible]	11/89		

Field location of boring:

(See Plate 2)

Project No.: 7633	Date: 10/30/89	Boring No: S-7	
Client: Shell Oil Company			
Location: 5251 Hopyard Road			
City: Pleasanton, California		Sheet 2 of 2	
Logged by: R.S.Y.	Driller: Bayland		

Casing installation data:

Drilling method: Hollow-Stem Auger

Hole diameter: 8-Inch

Top of Box Elevation: Datum:

Water Level			
Time			
Date			

PID (ppm)	Blowct. or Pressure (psi)	Type of Sample	Sample Number	Depth (ft.)	Sample	Well Detail	Soil Group Symbol (USCS)	Description
0	4	S&H		20				
	5		S-7					COLOR CHANGE to gray (2.5Y 5/0); 10% very fine sand;
	6		21.0	21				no chemical odor.
				22				
				23				
				24				
0	3	S&H		25				
	4		S-7					
	5		26.0	26				CLAYEY SAND (SC) - olive gray (5Y 4/2), loose,
	2	S&H						saturated; 70% very fine sand; 30% clay; no chemical
	3			27				odor.
	4							CLAY (CL) - dark gray (2.5Y 4/0), medium stiff, moist, low
				28				plasticity; no chemical odor.
				29				
								Bottom of boring at 27.5 feet.
				30				Bottom of sample at 27.5 feet.
				31				
				32				
				33				
				34				
				35				
				36				
				37				
				38				
				39				

Remarks:

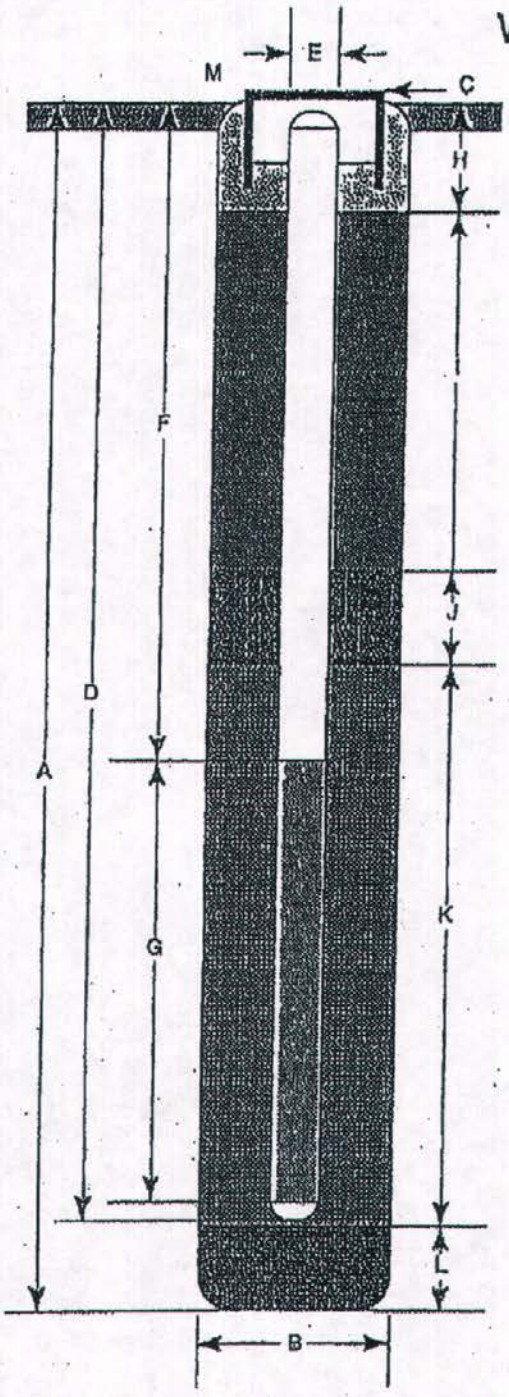
GeoStrategies Inc.

Log of Boring

BORING NO. S-7

JOB NUMBER	REVIEWED BY RG/CEG	DATE	REVISED DATE	REVISED DATE
7633	CEG 1262	11/89		

WELL CONSTRUCTION DETAIL



A Total Depth of Boring 27.5 ft.

B Diameter of Boring 8 in.
Drilling Method Hollow-Stem Auger

C Top of Box Elevation 326.49 ft.
[X] Referenced to Mean Sea Level
[ ] Referenced to Project Datum

D Casing Length 25.5 ft.
Material Schedule 40 PVC

E Casing Diameter 3 in.

F Depth to Top Perforations 4.5 ft.

G Perforated Length 20 ft.
Perforated Interval from 5.5 to 25.5 ft.
Perforation Type Schdule 40 PVC
Perforation Size 0.020 in.

H Surface Seal from 0 to 1.5 ft.
Seal Material concrete grout

I Backfill from 1.5 to 3.5 ft.
Backfill Material cement grout

J Seal from 3.5 to 4.5 ft.
Seal Material Bentonite Pellets

K Gravel Pack from 4.5 to 27.5 ft.
Pack Material Lonestar #2/12 sand

L Bottom Seal ft.
Seal Material

M

GeoStrategies Inc.

Well Construction Detail

WELL NO.
S-7

JOB NUMBER	REVIEWED BY RG/CEG	DATE	REVISED DATE	REVISED DATE
7633	[illegible]	11/89		

Field location of boring:

(See Plate 2)

Project No.: 7633	Date: 11/06/89	Boring No: S-8	
Client: Shell Oil Company			
Location: 5251 Hopyard Road			
City: Pleasanton, California		Sheet 1 of 2	
Logged by: R.S.Y.	Driller: Bayland		

Casing installation data:

Drilling method: Hollow-Stem Auger

Hole diameter: 8-inch

Top of Box Elevation: 325.32 Datum: MSL

Water Level				
Time				
Date				

PID (ppm)	Blows/ft. or Pressure (psi)	Type of Sample	Sample Number	Depth (ft.)	Sample	Well Detail	Soil Group Symbol (USCS)	Description
								PAVEMENT SECTION - 2.5 feet
				1				
				2				
				3				CLAY (CL) - black (2.5YR 5/6), medium stiff, damp, medium plasticity; trace coarse sand; no chemical odor.
				4				
0	100	S&H		5				
	100	push	S-8					
	100		5.5	6				SILT (ML) - dark gray (7.5YR 4/0), medium stiff, moist; 20% very fine sand; voids; no chemical odor.
				7				
				8				
				9				
0	100	S&H		10				
	100	push	S-8					SILTY SAND (SM) - brown (10YR 5/3), loose, very damp; 70% very fine sand; 30% silt; no chemical odor.
	100		10.5	11				
				12				
				13				
				14				
0	2	S&H		15				SILTY CLAY (CL) - dark brownish gray (2.5Y 4/2), medium stiff, moist; 60% clay; 40% silt; no chemical odor.
	2		S-8					
	5		15.5	16				
				17				
				18				
				19		▽		Sample rods wet at 18.5 feet

Remarks:

Log of Boring

BORING NO. S-8

GeoStrategies Inc.

JOB NUMBER	REVIEWED BY RG/CEG	DATE	REVISED DATE	REVISED DATE
7633	DMP CEG 1262	11/89		

Field location of boring:

(See Plate 2)

Project No.:	7633	Date: 11/06/89	Boring No: S-8
Client:	Shell Oil Company		
Location:	5251 Hopyard Road		Sheet 2 of 2
City:	Pleasanton, California		
Logged by:	R.S.Y.	Driller: Bayland	

Casing installation data:

Drilling method: Hollow-Stem Auger

Hole diameter: 8-Inch

Top of Box Elevation: Datum:

Water Level				
Time				
Date				

PID (ppm)	Blowct. or Pressure (psi)	Type of Sample	Sample Number	Depth (ft.)	Sample	Well Detail	Soil Group Symbol (USCS)	Description
0	2	S&H		20				
	2		S-8					same as above; caliche nodules.
	5		20.5	21				
				22				
				23				
				24				
	4	S&H		25				COLOR CHANGE to olive gray (5Y 4/2), increasing density.
	5		S-8					
	6		26.0	26				Bottom of boring at 26.0 feet.
				27				Bottom of sample at 26.0 feet.
				28				
				29				
				30				
				31				
				32				
				33				
				34				
				35				
				36				
				37				
				38				
				39				

Remarks:

Log of Boring

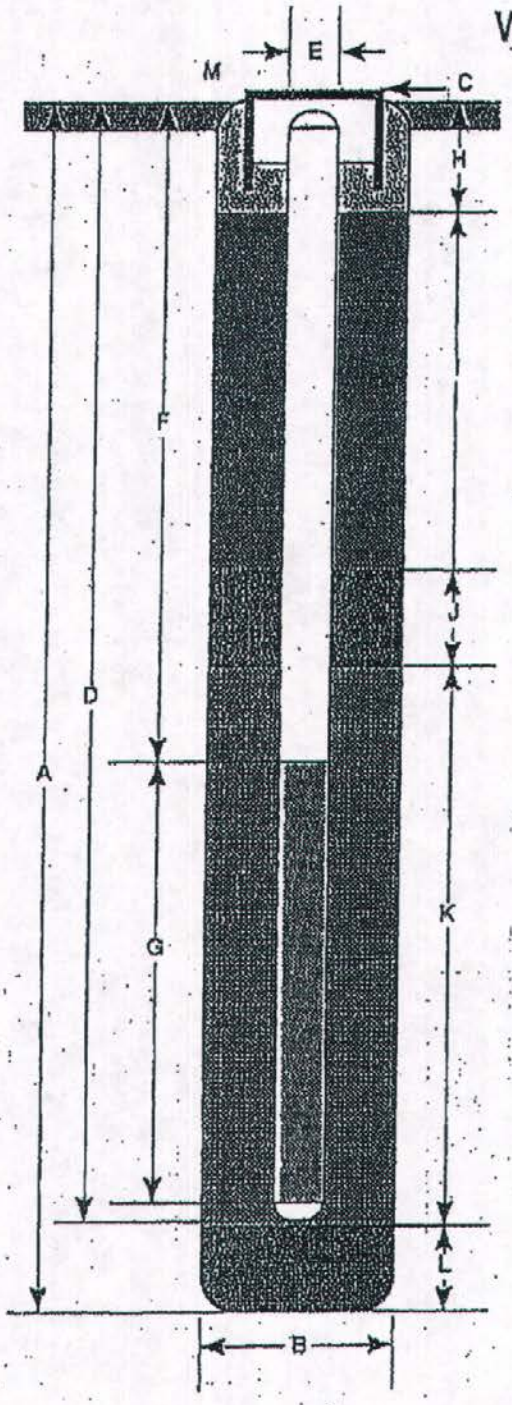
BORING NO.

S-8

GeoStrategies Inc.

JOB NUMBER	REVIEWED BY RG/CEG	DATE	REVISED DATE	REVISED DATE
7633	CWP CEG 1262	11/89		

WELL CONSTRUCTION DETAIL



A Total Depth of Boring 26 ft.

B Diameter of Boring 8 in.
Drilling Method Hollow-Stem Auger

C Top of Box Elevation 325.32 ft.
[X] Referenced to Mean Sea Level
[ ] Referenced to Project Datum

D Casing Length 25 ft.
Material Schedule 40 PVC

E Casing Diameter 3 in.

F Depth to Top Perforations 5 ft.

G Perforated Length 20 ft.
Perforated Interval from 5 to 25 ft.
Perforation Type Schedule 40 PVC
Perforation Size 0.020 in.

H Surface Seal from 0.0 to 1.5 ft.
Seal Material concrete grout

I Backfill from 1.5 to 3.0 ft.
Backfill Material cement grout

J Seal from 3 to 4 ft.
Seal Material Bentonite Pellets

K Gravel Pack from 4 to 26 ft.
Pack Material Lonestar #2/12 sand

L Bottom Seal ft.
Seal Material

M

Well Construction Detail

WELL NO. S-8

GSI GeoStrategies Inc.

JOB NUMBER	REVIEWED BY PG/CEG	DATE	REVISED DATE	REVISED DATE
7633	Amp ceg 1262	11/89		

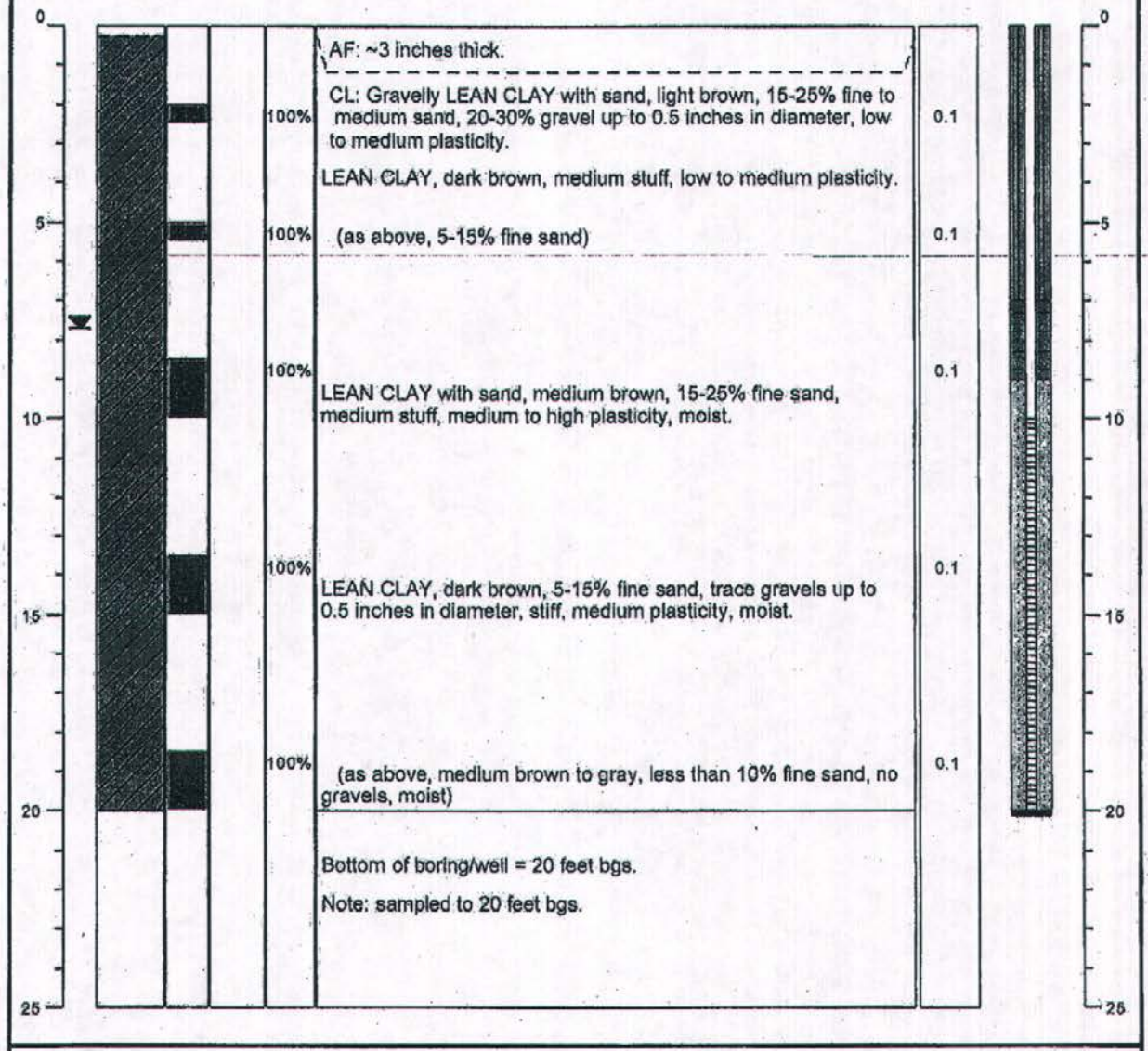
DELTA Xinogen

BORING LOG

Client: Shell Oil Products US
Project Number: SJ62-51H-1

Boring No. S-9

Address: 4780 Chabot, Pleasanton, California	Drilling Date(s): 11/10/06	Boring diameter (in.): 8	Casing Material: Sch 40 PVC
Logged By: Andrew Porsio	Drilling Company: Gregg	Sampling Method: HA / SS	Screen Interval: 10 to 20 feet bgs
	Drilling Method: AK / HSA	Well Depth (ft.): 20	Screen slot size: 0.010 inch
	Boring Depth (ft): 20	Casing Diameter (in.): 2	Sand Pack: 2/12



Delta Consultants

Project No:	SCA5251H1A	Client:	Shell	Well No: S-10	
Logged By:	Cora Olson	Location:	5251 Hopyard Rd.; Pleasanton	Page 1 of 1	
Driller:	RSI	Date Drilled:	6/19/2009	Location Map	
Drilling Method:	Hollow Stem Auger	Boring Diameter:	8"	Please see site map	
Sampling Method:	Direct Push	Boring Depth:	20'	▽ = First Water	
Casing Type:	Sch 40 PVC	Well Diameter:	4"	▼ = Static Groundwater	
Slot Size:	0.02"	Well Depth:	20'		
Sand Pack:	# 2/12	Screened Interval:	6' - 20'		
Elevation		Latitude		Longitude	

Well Completion (Backfill / Casing / Backfill)	Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Interval	Sample Recovery (%)	Soil Type	LITHOLOGY / DESCRIPTION
					1.0				No Recovery - Airknife to 8'
					2.0				
					3.0				
					4.0				
					5.0				
					6.0				
					7.0				
	▽	wet	0.7		8.0	X	100		CL - Clay, grey/brown, medium to high plasticity, wet,
					9.0	X			
					10.0	X			
					11.0	X			
					12.0	X	100		
					13.0	X			
					14.0	X			
					15.0	X			
		wet	0.9		16.0	X	100		CL - Clay, grey/brown, medium to high plasticity, wet
					17.0	X			
					18.0	X			
					19.0	X			
		damp	0.6		20.0				CL - Clay, grey/brown, medium to high plasticity, damp

Legend

- Sand Pack
- Bentonite
- Cement Grout
- Screen
- SP - Poorly Graded Sand
- CL - Clay
- ML - Silt

Delta Consultants

Project No:	SCA5251H1A	Client:	Shell	Well No: S-11	
Logged By:	Cora Olson	Location:	5251 Hopyard Rd.; Pleasanton	Page 1 of 1	
Driller:	RSI	Date Drilled:	6/18/2009	Location Map	
Drilling Method:	Hollow Stem Auger	Boring Diameter:	8"	Please see site map	
Sampling Method:	Direct Push	Boring Depth:	20'	▽ = First Water	
Casing Type:	Sch 40 PVC	Well Diameter:	4"	▼ = Static Groundwater	
Slot Size:	0.02"	Well Depth:	20'		
Sand Pack:	# 2/12	Screened Interval:	6' - 20'		
Elevation		Latitude		Longitude	

Well Completion: Backfill	Well Completion: Casing	Well Completion: Backfill	Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample: Interval	Sample: Recovery (%)	Soil Type	LITHOLOGY / DESCRIPTION
							1.0				No Recovery - Airknife to 8'
							2.0				
							3.0				
							4.0				
							5.0				
							6.0				
							7.0				
				damp	0.0		8.0	X	100		CL - Clay,/brown, grey staining,
								X			medium to high plasticity, damp
							9.0				
							10.0	X			
								X			
							11.0	X			
								X			
							12.0	X	100		
								X			
							13.0	X			
								X			
							14.0	X			
								X			
				damp	0.0		15.0				(same as above), damp
							16.0	X	100		
								X			
							17.0	X			
								X			
							18.0	X			
								X			
							19.0				
				damp	0.1		20.0				(same as above), damp

Legend

- Sand Pack
- Bentonite
- Cement Grout
- Screen
- SP - Poorly Graded Sand
- CL - Clay
- ML - Silt

Delta Consultants

Project No:	SCA5251H1A	Client:	Shell	Well No: S-12	
Logged By:	Cora Olson	Location:	5251 Hopyard Rd.; Pleasanton	Page 1 of 1	
Driller:	RSI	Date Drilled:	6/18/2009	Location Map	
Drilling Method:	Hollow Stem Auger	Boring Diameter:	6"	Please see site map	
Sampling Method:	Direct Push	Boring Depth:	20'	▽ = First Water	
Casing Type:	Sch 40 PVC	Well Diameter:	4"	▼ = Static Groundwater	
Slot Size:	0.02"	Well Depth:	20'		
Sand Pack:	# 2/12	Screened Interval:	6' - 20'		
Elevation		Latitude		Longitude	

Well Completion (Backfill / Casing / Backfill)	Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Interval	Sample Recovery (%)	Soil Type	LITHOLOGY / DESCRIPTION
					1.0				No Recovery - Airknife to 8'
					2.0				
					3.0				
					4.0				
					5.0				
					6.0				
					7.0				
		damp	1.1		8.0	X	100		CL - Clay, grey/brown, medium to high plasticity, damp
					9.0	X			
					10.0	X			
					11.0	X			
					12.0	X	100		
					13.0	X			
					14.0	X			
					15.0	X			
		damp	0.2		16.0	X	100		CL - Clay, grey/brown, medium to high plasticity, grey streaking, damp
					17.0	X			
					18.0	X			
					19.0	X			
		damp	0.1		20.0				(same as above)

Legend

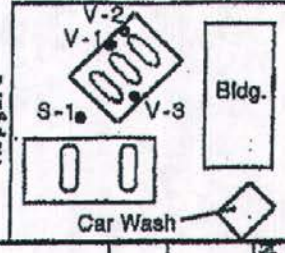
- Sand Pack
- Bentonite
- Cement Grout
- Screen
- SP - Poorly Graded Sand
- CL - Clay
- ML - Silt

Delta
Environmental Consultants, Inc.

Project No:	SJ52-51H-1	Client:	Shell Oil Products US	Well No: EW-1	
Logged By:	Heather Buckingham	Location:	5251 Hopyard Rd, Pleasanton	Page 1 of 1	
Driller:	Gregg	Date Drilled:	3/6/2006	Location Map	
Drilling Method:	HSA	Hole Diameter:	10"	Please see site map	
Sampling Method:	CA mod. SS	Hole Depth:	20'		
Casing Type:	Sch 40 PVC	Well Diameter:	4"		
Slot Size:	0.01	Well Depth:	20'		
Gravel Pack:	#2/12	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 / Cement								AF	~8" of asphalt
Backfill / Cement		damp		Air Knifed	1			CL	**Sandy Lean CLAY**: med. Grey, medium to high plasticity, 40% fine grained sand
Backfill / Cement					2				
Backfill / Cement					3				
Backfill / Cement					4				
Backfill / Cement					5			CL	**Lean CLAY with Sand**: grey, medium to high plasticity, 10-20% fine grained sand
Bentonite					6				
Bentonite					7				
Bentonite					8				
Bentonite		damp		6	9				(mottled with dark grey)
Bentonite			891	10	10				
Bentonite					11				
Bentonite					12				
#2/12 Sand	▼	wet		8	13			SP	**Poorly Graded SAND**: medium grey, fine grained sand, 10-15% gravels 1 cm long, <10% fines
#2/12 Sand			670	10	14				
#2/12 Sand				12	15				
#2/12 Sand		wet			16			CL	**Sandy Lean CLAY**: medium grey, 35-45% fine grained sand, medium plasticity
#2/12 Sand					17				
#2/12 Sand					18				
#2/12 Sand		wet		6	19				
#2/12 Sand				10					**Lean CLAY**: medium brown mottled with orange, 5-10%
#2/12 Sand		damp	75	12	20			CL	coarse grained sand, medium plasticity

LOCATION MAP



PACIFIC ENVIRONMENTAL GROUP, INC.

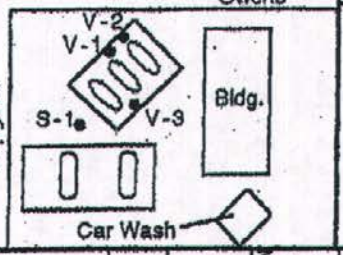
WELL / V-1
BORING NO.
PAGE 1 OF 1

PROJECT NO. 101-09.01
LOGGED BY: MD
DRILLING METHOD: HSA
SAMPLING METHOD: CAL MOD
CASING TYPE: Sch 40 PVC
SLOT SIZE: 0.020
GRAVEL PACK: Pea Gravel

CLIENT: G.R. Shell
DATE DRILLED: 1-5-88
LOCATION: Hopyard & Owens
HOLE DIAMETER: 8"
HOLE DEPTH: 14.5'
WELL DEPTH: 14.5'
WELL DIAMETER: 3"

WELL COMPLETION	MOISTURE CONTENT	H-NU READING	PENETRATION RESISTANCE (BLOWS/FT)	DEPTH (FEET)	SAMPLE	GRAPHIC	SOIL TYPE	LITHOLOGY / REMARKS
CONCRETE; BENTONITE				2			GP	GRAVEL; light gray; fine grained; pea gravel tank backfill; no samples taken in fill.
				4				
				6				moderate product odor in gravel brought up in augers.
				8				
				10				
				12				
	Wt	18	21	14			CL	CLAY; tan to medium brown; gray mottle at rootholes; abundant rootholes; water in rootholes; trace fine to medium sand; very stiff. @14'; faint product odor.
				16				BOTTOM OF BORING AT 14.5'
				18				
				20				
				22				
				24				
				26				
				28				
				30				
				32				
				34				
				36				
				38				
				40				
				42				
				44				

LOCATION MAP



PACIFIC ENVIRONMENTAL GROUP, INC.

WELL / V-2
BORING NO.
PAGE 1 OF 1

PROJECT NO. 101-09.01
LOGGED BY: MD
DRILLING METHOD: HSA
SAMPLING METHOD: CAL MOD
CASING TYPE: Sch 40 PVC
SLOT SIZE: 0.020
GRAVEL PACK: Pea Gravel

CLIENT: G.R. Shell
DATE DRILLED: 1-5-88
LOCATION: Hopyard & Owens
HOLE DIAMETER: 8"
HOLE DEPTH: 14.5'
WELL DEPTH: 14.5'
WELL DIAMETER: 3"

WELL COMPLETION	MOISTURE CONTENT	H-NU READING	PENETRATION RESISTANCE (BLOWS/FT)	DEPTH (FEET)	SAMPLE	GRAPHIC	SOIL TYPE	LITHOLOGY / REMARKS
CONCRETE / BENTONITE				2			GP	GRAVEL; light gray; tank backfill; fine grained pea gravel; no samples taken in fill.
				4				
				6				faint product odor in gravel brought up in augers.
				8				
				10				
				12				
	Wt	0.3	16	14			CL	CLAY; tan; gray mottle around rootholes; silty; trace fine sand; roots; stiff. @13'; faint product odor.
				16				BOTTOM OF BORING AT 14.5'
				18				
				20				
				22				
				24				
				26				
				28				
				30				
				32				
				34				
				36				
				38				
				40				
				42				
				44				

Delta

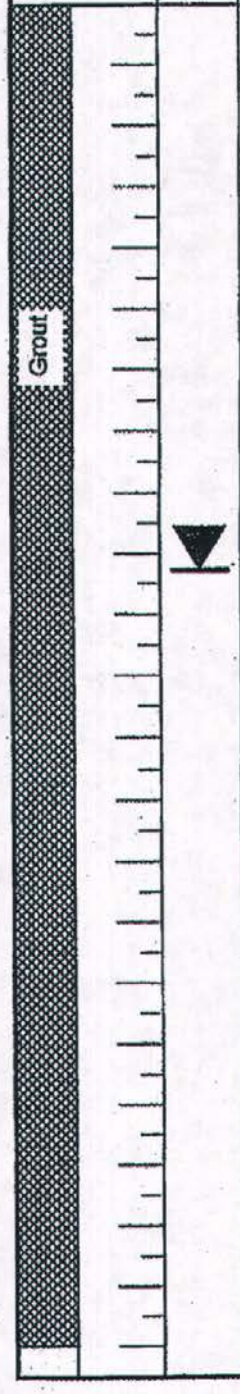
Environmental Consultants, Inc.

Project No:	SJ52-51H-1	Client:	Shell Oil Products US	Boring No: GP-2	
Logged By:	Heather Buckingham	Location:	5251 Hopyard Rd., Pleasanton	Page 1 of 1	
Driller:	Gregg	Date Drilled:	8/10/05 & 8/11/05	Location Map	
Drilling Method:	Direct Push	Hole Diameter:	3"	Please see site map	
Sampling Method:	GeoProbe	Hole Depth:	22 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 / Interval	Soil Type	LITHOLOGY / DESCRIPTION
							AF	Asphalt 4", Concrete 2"
		damp		air knifed & hand augered	1–4		CL	**Lean CLAY**: dark gray; moderate to high plasticity; trace gravels (1/4"); trace fine grained sand
Grout		damp	3.4		5–7			(same as abaove, no trace gravels)
	▼				8–10			
			0.6		11		CL	**Lean CLAY with Sand**: medium brown with dark gray mottling; moderate to high plasticity; 10-15% coarse grained sand
					12–15			
			0.8		16		CL	**Lean CLAY**: (same as above, medium brown with dark gray mottling)
	▽				17–20			
		wet	2.1		21			
					22		CL	**Lean CLAY**: (same as above) Boring terminated at 22 feet below grade

Delta
Environmental Consultants, Inc.

Project No:	SJ52-51H-1	Client:	Shell Oil Products US	Boring No: GP-3	
Logged By:	Heather Buckingham	Location:	5251 Hopyard Rd., Pleasanton	Page 1 of 1	
Driller:	Gregg	Date Drilled:	8/10/05 & 8/11/05	Location Map	
Drilling Method:	Direct Push	Hole Diameter:	3"	Please see site map	
Sampling Method:	GeoProbe	Hole Depth:	22 ft		
Casing Type:		Well Diameter:			
Slot Size:		Well Depth:			
Gravel Pack:		Casing Stickup:			
Elevation		Northing		Easting	



Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery	Sample Interval	Soil Type	LITHOLOGY / DESCRIPTION
							AF	Asphalt 6"
	damp		air knifed & hand augered	1			SW	**Well graded SAND with clay and gravel:** medium brown; 50-70% well graded sand; 20-30% gravel up to 1.5" in length; 10-20% fines
				2				
				3				
	dry			4			CL	**Lean CLAY:** dark gray; moderate plasticity; trace fine grained sand
		84.3		5				
				6				
	wet			7				
				8				
				9				
		0.1		10			CL	**Sandy Lean CLAY:** grayish brown; slight plasticity; 35-45% medium grained sand; trace gravels (1/4")
				11				
	damp			12			CL	**Lean CLAY with Sand:** medium brown with light gray mottling; moderate plasticity; 10-15% fine grained sand
				13				
				14				
		1.1		15				
				16				
				17				
				18				
				19				
		2.1		20				
				21				
				22				Boring terminated at 22 feet below grade

Delta

Environmental Consultants, Inc.

Project No:	SJ52-51H-1	Client:	Shell Oil Products US	Boring No: GP-4	
Logged By:	Heather Buckingham	Location:	5251 Hopyard Rd., Pleasanton	Page 1 of 1	
Driller:	Gregg	Date Drilled:	8/10/05 & 8/11/05	Location Map	
Drilling Method:	Direct Push	Hole Diameter:	3"	Please see site map	
Sampling Method:	GeoProbe	Hole Depth:	22 ft		
Casing Type:		Well Diameter:			
Slot Size:		Well Depth:			
Gravel Pack:		Casing Stickup:			
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 4", Concrete 2"
Grout		damp		air knifed & hand augered	1–7			CL	Lean CLAY: dark gray; moderate plasticity; trace fine grained sands and gravels (1/4")
			41.1						(same as abaove, medium brown)
									(same as above, no trace gravels)
			419		10–13			CL	Sandy CLAY: dark gray with medium brown mottling; moderate plasticity; 25-35% fine grained sand
		moist	185		14–20			CL	Lean CLAY: (same as above with a 2 to 3" sandy gravel layer at 17.5 feet bg)
		wet	145		21			ML	Sandy SILT: medium brown; slight plasticity; 20-30% fine grained sand
					22				Boring terminated at 22 feet below grade

Delta
Environmental Consultants, Inc.

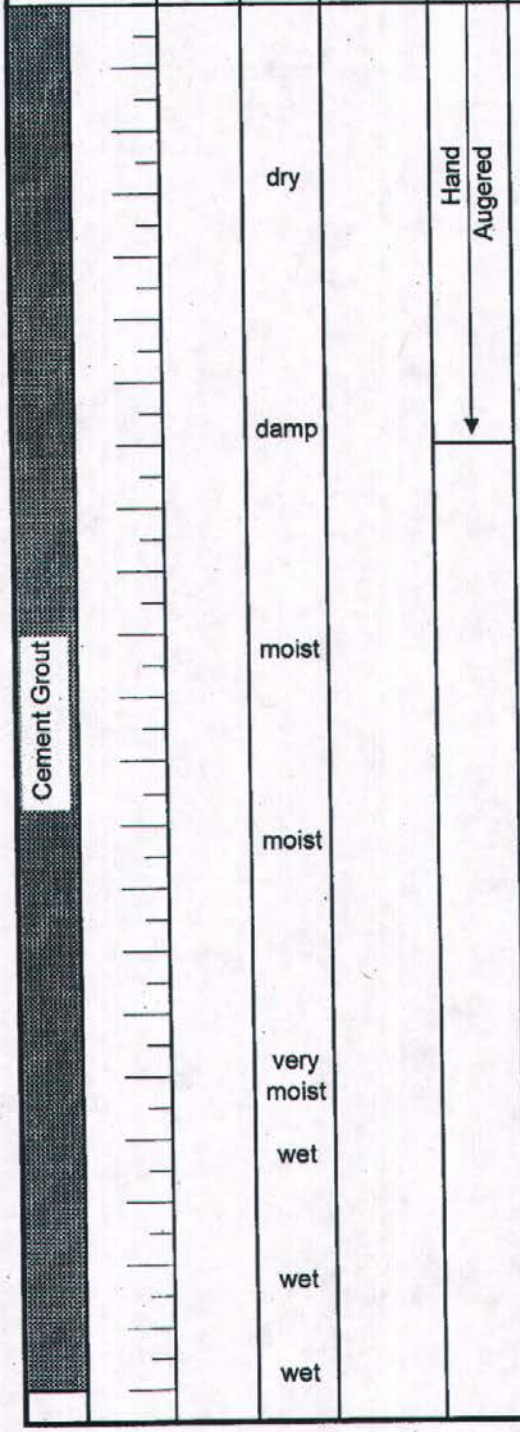
Project No:	SJ52-51H-1	Client:	Shell Oil Products US	Boring No: GP-5	
Logged By:	Heather Buckingham	Location:	5251 Hopyard Rd., Pleasanton	Page 1 of 1	
Driller:	Gregg	Date Drilled:	8/10/05 & 8/11/05	Location Map	
Drilling Method:	Direct Push	Hole Diameter:	3"	Please see site map	
Sampling Method:	GeoProbe	Hole Depth:	22 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
								AF	Asphalt 4", Concrete 2"
		damp		air knifed & hand augered	1–4			CL	**Sandy Lean CLAY**: medium brown; moderate plasticity; 25-35% coarse grained sand; trace gravels (1/4")
Grout			2.4		5–7			CL	**Lean CLAY**: dark gray; moderate to high plasticity; trace fine grained sand
			44.9		10–12				(same as above, mottled with medium brown)
					13–14			CL	**Sandy Lean CLAY**: medium brown; moderate plasticity; 25-35% fine grained sand
	▼	damp moist damp	9.7		15–16				(same as above, trace gravels, 2-3" sandy gravel layer at 16 feet below grade)
			8.7		20				
		wet			21				
					22			CL	**Lean CLAY**: (same as above) Boring terminated at 22 feet below grade

Delta

Environmental Consultants, Inc.

Project No:	SJ52-51H-1	Client:	Shell Oil Products US	Well No: GP-6	
Logged By:	Frane Sosic	Location:	5251 Hopyard Rd, Pleasanton	Page 1 of 1	
Driller:	Gregg Drilling	Date Drilled:	2/22/2006	Location Map	
Drilling Method:	Geoprobe	Hole Diameter:	3"	Please see site map	
Sampling Method:	Direct Push	Hole Depth:	22'		
Casing Type:	N/A	Well Diameter:	N/A		
Slot Size:	N/A	Well Depth:	N/A		
Gravel Pack:	N/A	Casing Stickup:	N/A		
Elevation		Northing		Easting	



LITHOLOGY / DESCRIPTION
Asphalt 6" and Concrete 4-6"
Clayey GRAVELwith Sand: medium to dark brown; 50-60% gravel ranging is size from 1/4-1"; 25-35% well graded sand; 10-20% fines, some caliche
Lean CLAY: medium brown with patches of dark grey; low to moderate plasticity; traces of 1/4-1/2" gravels as well as medium grained sands.
(as above, except soil is very dark grey in color)
Lean CLAY: medium brown; moderate to high plasticity; traces of fine to medium grained sand; light and dark grey mottling.
(same as above, soil is a lighter brown color)
(same as above: lighter brown with light grey, dark grey, and rust-colored mottling; traces of 1/4" gravel)
Lean CLAY with sand: light to medium brown mottled with dark grey; moderate plasticity; 10-20% fine to coarse sand
Bottom of Boring at 22 feet

Delta

Environmental Consultants, Inc.

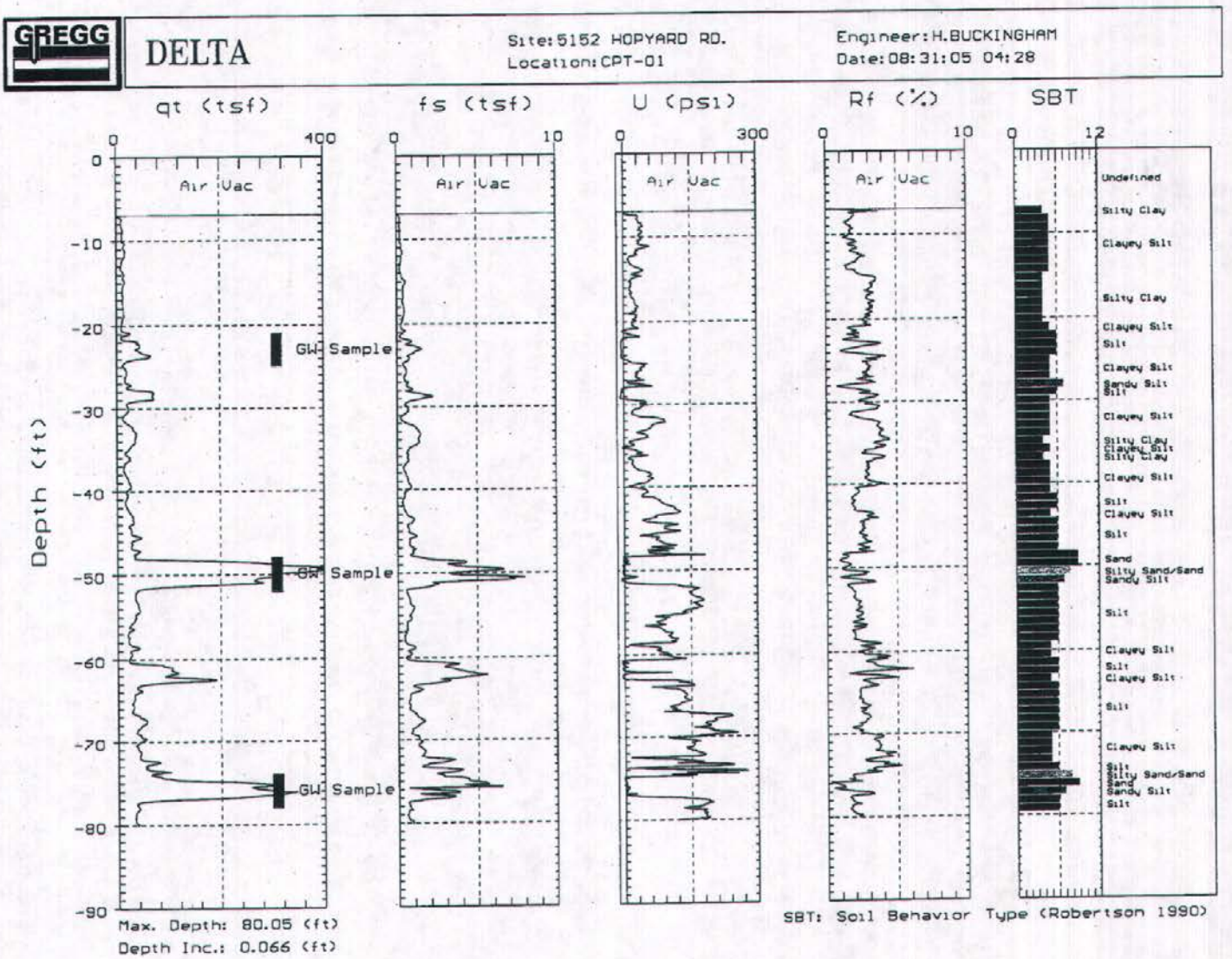
Project No:	SJ52-51H-1	Client:	Shell Oil Products US	Well No: GP-7	
Logged By:	Frane Sosic	Location:	5251 Hopyard Rd, Pleasanton	Page 1 of 2	
Driller:	Gregg Drilling	Date Drilled:	2/22/2006	Location Map	
Drilling Method:	Geoprobe	Hole Diameter:	3"	Please see site map	
Sampling Method:	Direct Push	Hole Depth:	26'		
Casing Type:	N/A	Well Diameter:	N/A		
Slot Size:	N/A	Well Depth:	N/A		
Gravel Pack:	N/A	Casing Stickup:	N/A		
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
Cement Grout								AF	Asphalt 4"
									Concrete 8"
					1				
					2				
		dry		Hand Augered	3			CL	**Lean CLAY**: medium to dark grey with lighter-grey mottling; moderate to high plasticity; traces of gravel ranging in size from 1/4-1/2" and traces of coarse grained sand; roots
					4				
					5				
					6			GC	**Clayey GRAVEL with Sand**: dark grey; 50-60% gravels that are 1/4-3/4" in diameter; 20-30% well graded sand; 10-20% fines.
		damp			7				
					8			CL	**Lean CLAY with Sand**: dark grey with light grey and brown mottling; moderate plasticity; 10-15% coarse grainded sand; lots of caliche deposits; traces of small-medium sized gravel
					9				
					10				
		damp			11				
					12				(same as above: medium brown with rust-colored and light grey mottling)
					13				(at 13' 6" - layer of coarse sand and small 1/4" gravel approximately 1.5" thick)
					14				
					15				(same as above: slightly higher plasticity, lighter grey with brownish-red motlling, a good amount of caliche)
					16				
					17				(as above: a little lighter brown colored with lots of the same type of mottling)
		damp			18				
					19				(1 inch layer of sandy gravel @ 19')
					20				
		moist			21			CL	**Lean CLAY with Sand**: medium brown with light/dark grey mottling; presence of caliche and reddish-orange mottling throughout; 10-20% fine to coarse grained sand; moderate to high plasticity.
		wet			22				

Delta
Environmental Consultants, Inc.

Project No:	SJ52-51H-1	Client:	Shell Oil Products US	Well No: GP-7	
Logged By:	Frane Sosic	Location:	5251 Hopyard Rd, Pleasanton	Page 2 of 2	
Driller:	Gregg Drilling	Date Drilled:	2/22/2006	Location Map	
Drilling Method:	Geoprobe	Hole Diameter:	3"	Please see site map	
Sampling Method:	Direct Push	Hole Depth:	26'		
Casing Type:	N/A	Well Diameter:	N/A		
Slot Size:	N/A	Well Depth:	N/A		
Gravel Pack:	N/A	Casing Stickup:	N/A		
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
Cement Grout					23			CL	continued
					24			CL	**Sandy Lean CLAY**: grayish/light brown with mottling very similar to that of directly above; 25-35% medium grained sand; abundant caliche and traces of small gravels (1/4").
		very wet			25				
					26				Bottom of Borint at 26 feet
					27				
					28				
					29				
					30				
					31				
					32				
					33				
					34				
					35				
					36				
					37				
					38				
					39				
					40				
					41				
					42				
					43				
					44				
					45				

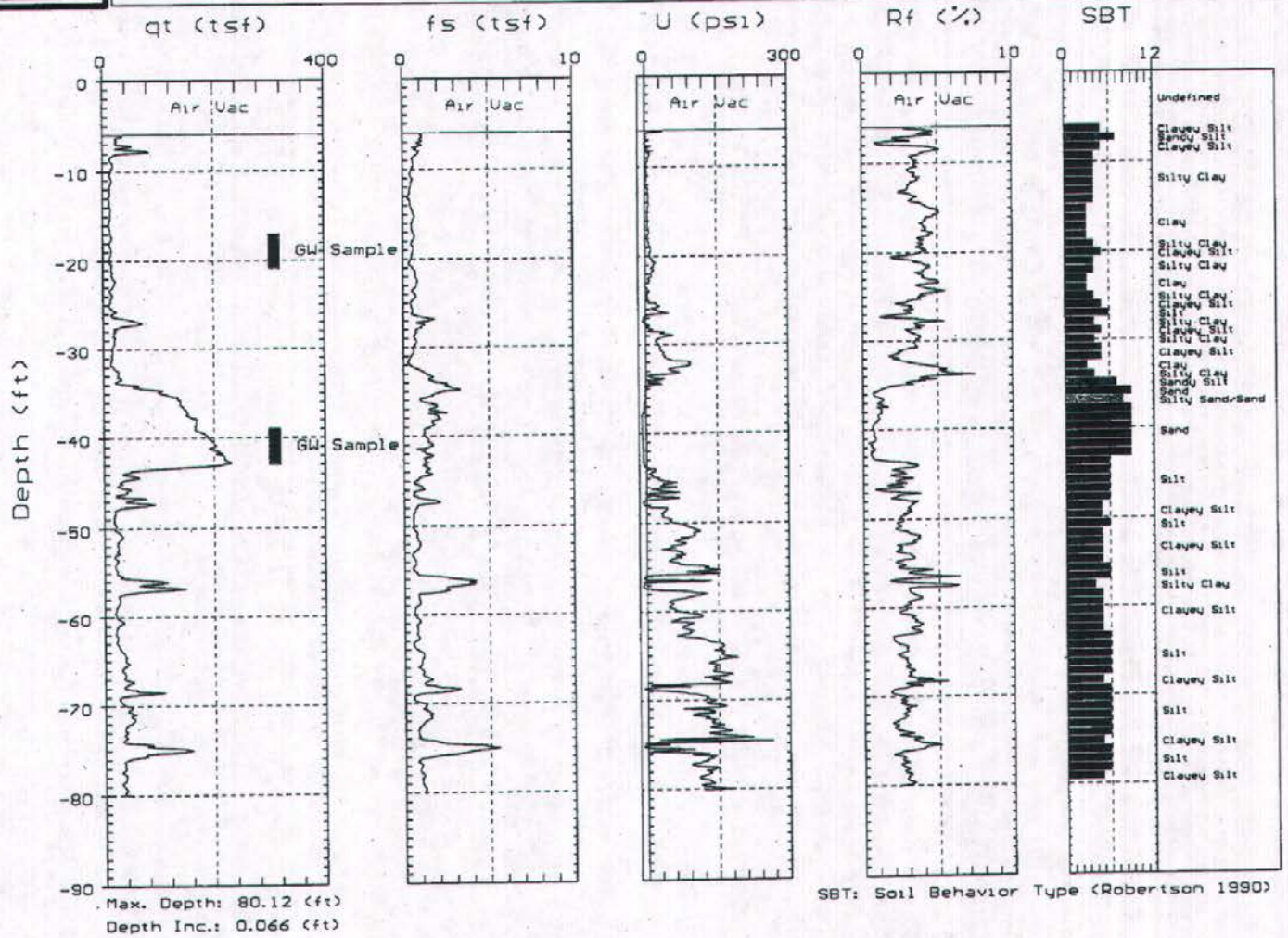

GREGG
DELTA
Site: 5152 HOPYARD RD.
Location: CPT-01
Engineer: H.BUCKINGHAM
Date: 08:31:05 04:28
qt (tsf)
fs (tsf)
U (psi)
Rf (%)
SBT
Depth (ft)
Air Vac
GW Sample
GW Sample
GW Sample
Undefined
Silty Clay
Clayey Silt
Silty Clay
Clayey Silt
Silt
Clayey Silt
Sandy Silt
Silt
Clayey Silt
Silty Clay
Clayey Silt
Silty Clay
Clayey Silt
Silt
Clayey Silt
Silt
Sand
Silty Sand/Sand
Sandy Silt
Silt
Clayey Silt
Silt
Clayey Silt
Silt
Clayey Silt
Silt
Silty Sand/Sand
Sand
Sandy Silt
Silt
Max. Depth: 80.05 (ft)
Depth Inc.: 0.066 (ft)
SBT: Soil Behavior Type (Robertson 1990)

GREGG

DELTA

Site: 5152 HOPYARD RD.
Location: CPT-02

Engineer: H.BUCKINGHAM
Date: 08:26:05 12:08



Max. Depth: 80.12 (ft)
Depth Inc.: 0.066 (ft)

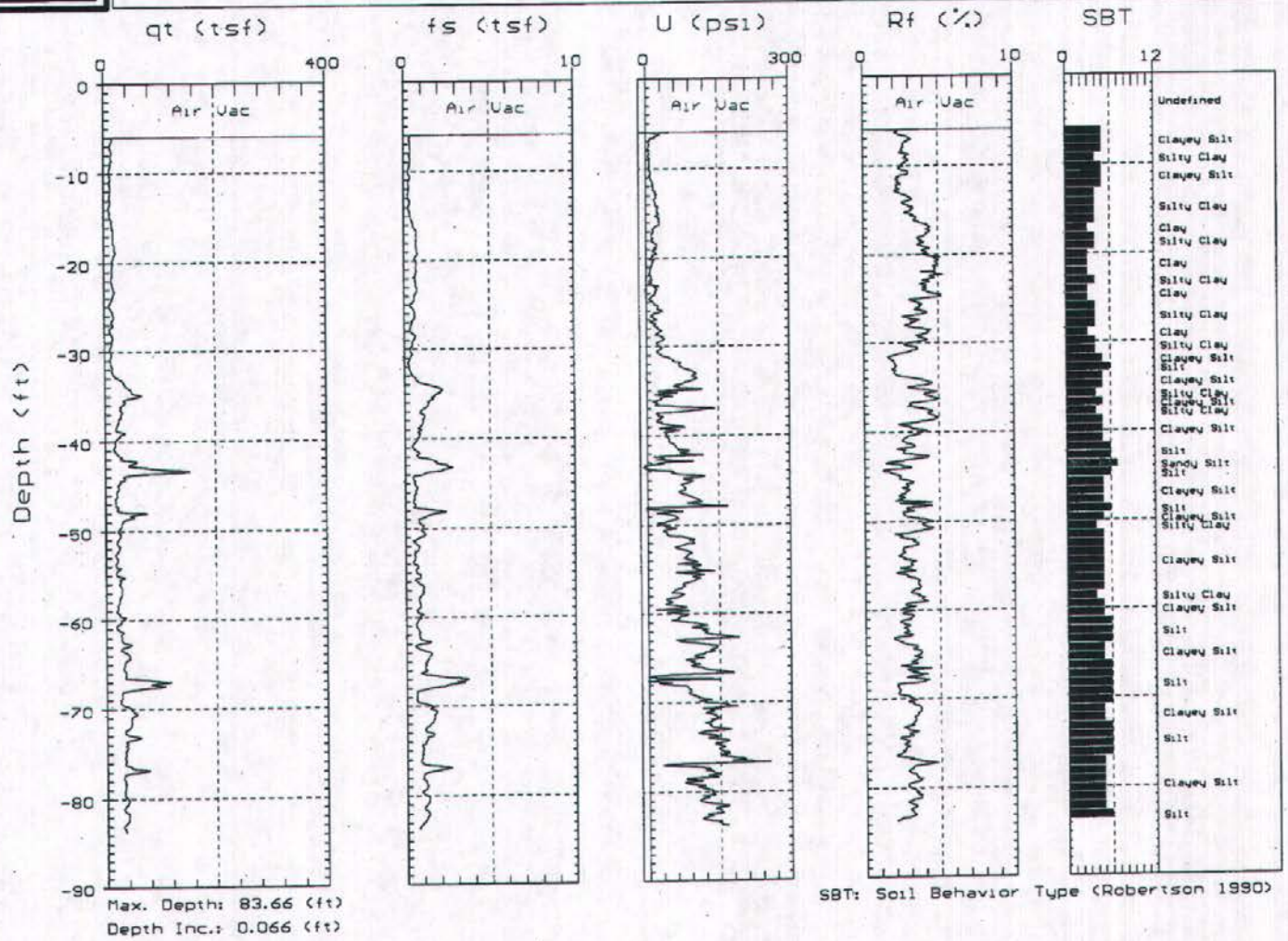
SBT: Soil Behavior Type (Robertson 1990)

GREGG

DELTA

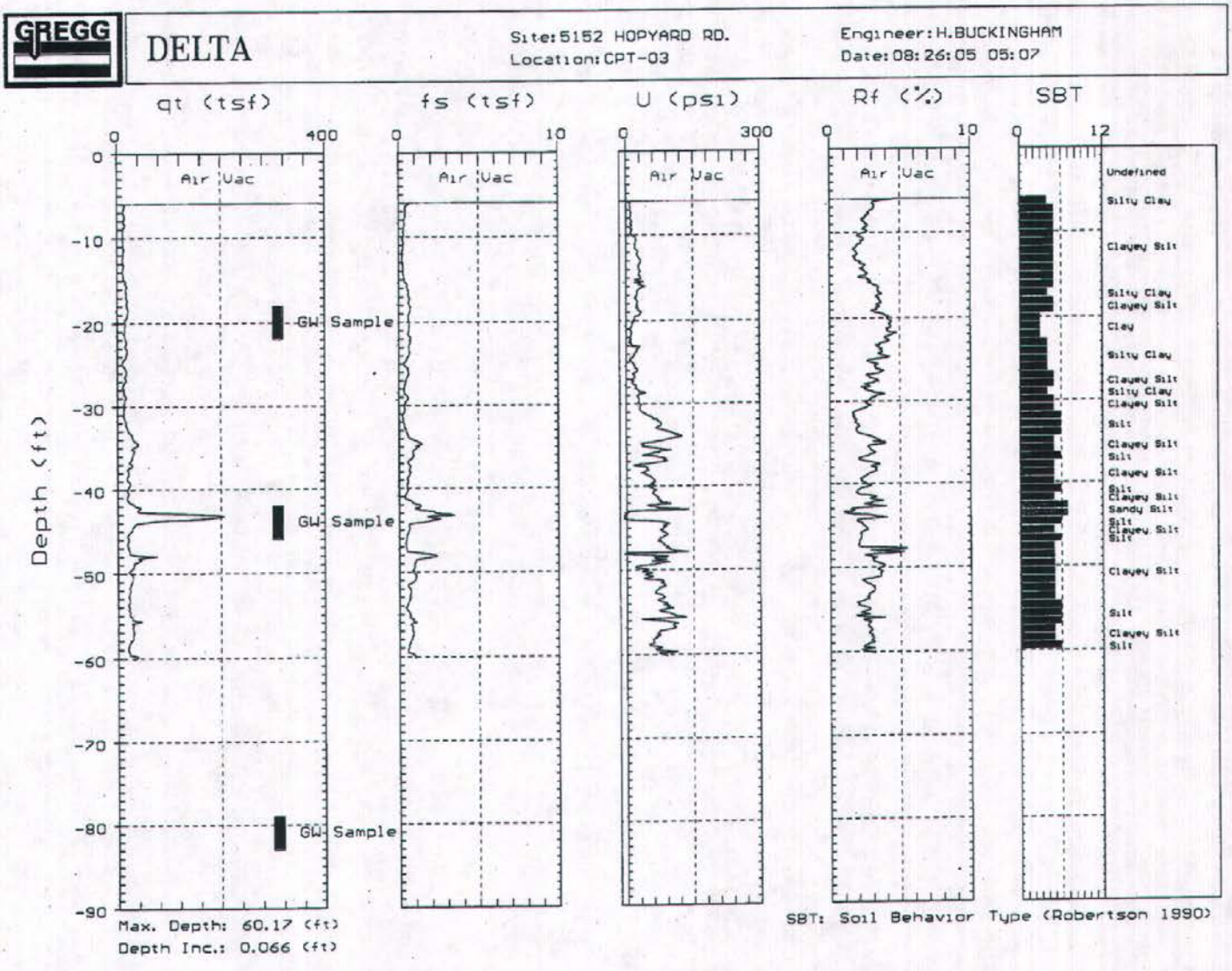
Site: 5152 HOPYARD RD.
Location: CPT-03A

Engineer: H.BUCKINGHAM
Date: 08:26:05 06:25



Max. Depth: 83.66 (ft)
Depth Inc.: 0.066 (ft)

SBT: Soil Behavior Type (Robertson 1990)


GREGG
DELTA
Site: 5152 HOPYARD RD.
Location: CPT-03
Engineer: H.BUCKINGHAM
Date: 08:26:05 05:07
qt (tsf)
fs (tsf)
U (psi)
Rf (%)
SBT
Air Vac
GW Sample
GW Sample
GW Sample
Depth (ft)
Undefined
Silty Clay
Clayey Silt
Silty Clay
Clayey Silt
Clay
Silty Clay
Clayey Silt
Silty Clay
Clayey Silt
Silt
Clayey Silt
Silt
Clayey Silt
Silt
Clayey Silt
Sandy Silt
Silt
Clayey Silt
Silt
Clayey Silt
Silt
Clayey Silt
Silt
Max. Depth: 60.17 (ft)
Depth Inc.: 0.066 (ft)
SBT: Soil Behavior Type (Robertson 1990)