

ALAMEDA COUNTY  
HEALTH CARE SERVICES  
AGENCY  
ALEX BRISCOE, Director



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

March 25, 2011

Charles Carmel  
(Sent via E-mail to: [charles.carmel@bp.com](mailto:charles.carmel@bp.com))  
Atlantic Richfield Corporation  
P.O. Box 1257  
San Ramon, CA 94583

Bill Borgh  
(Sent via E-mail to [Bill.Borgh@conocophillips.com](mailto:Bill.Borgh@conocophillips.com))  
Conoco Phillips  
76 Broadway Street  
Sacramento, CA 95818

Subject: Fuel Leak Case No. RO0000489 and GeoTracker Global ID T0600101665, BP #11107, 18501 Hesperian Boulevard, San Lorenzo, CA 94580

Dear Messrs. Carmel & Borgh:

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.

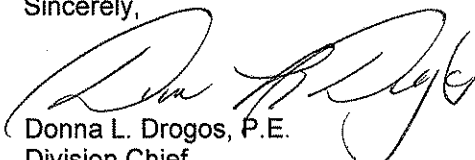
SITE INVESTIGATION AND CLEANUP SUMMARY

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

- Residual soil contamination consisting of 51 mg/kg TPH-g and 14.1 mg/kg MTBE remain at the site.

If you have any questions, please call Paresh Khatri at (510) 777-2478. Thank you.

Sincerely,



Donna L. Drogos, P.E.  
Division Chief

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

cc:

Ms. Cherie McCaulou (w/enc)  
SF- Regional Water Quality Control Board  
1515 Clay Street, Suite 1400  
Oakland, CA 94612  
(Sent via E-mail to:  
[CMccaulou@waterboards.ca.gov](mailto:CMccaulou@waterboards.ca.gov))

Closure Unit (w/enc)  
State Water Resources Control Board  
UST Cleanup Fund  
P.O. Box 944212  
Sacramento, CA 94244-2120  
(Sent via E-mail)

Paresh Khatri (w/orig enc), D. Drogos (w/enc), T. Le-Khan (w/enc)  
Hollis Phillips, ARCADIS sent via E-mail to: [hollis.phillips@arcadis-us.com](mailto:hollis.phillips@arcadis-us.com) (w/enc)

ALAMEDA COUNTY  
**HEALTH CARE SERVICES  
AGENCY**

ALEX BRISCOE, Agency Director



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

March 25, 2011

Charles Carmel (*Sent via E-mail to: [charles.carmel@bp.com](mailto:charles.carmel@bp.com)*)  
Atlantic Richfield Corporation  
P.O. Box 1257  
San Ramon, CA 94583

Bill Borgh (*Sent via E-mail to [Bill.Borgh@conocophillips.com](mailto:Bill.Borgh@conocophillips.com)*)  
Conoco Phillips  
76 Broadway Street  
Sacramento, CA 95818

**REMEDIAL ACTION COMPLETION CERTIFICATE**

Subject: Fuel Leak Case No. RO0000489 and GeoTracker Global ID T0600101665, BP #11107, 18501  
Hesperian Boulevard, San Lorenzo, CA 94580

Dear Messrs. Carmel & Borgh:

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 25296.10 of the Health and Safety Code and with corrective action regulations adopted pursuant to Section 25299.3 of the Health and Safety Code and that no further action related to the petroleum release(s) at the site is required.

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,

A handwritten signature in black ink, appearing to read 'Ariu Levi'.

Ariu Levi  
Director  
Alameda County Environmental Health

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

**I. AGENCY INFORMATION**

Date: September 17, 2010

Agency Name: Alameda County Environmental Health	Address: 1131 Harbor Bay Parkway
City/State/Zip: Alameda, CA 94502-6577	Phone: (510) 777-2478
Responsible Staff Person: Paresh Khatri	Title: Hazardous Materials Specialist

**II. CASE INFORMATION**

Site Facility Name: BP #11107		
Site Facility Address: 18501 Hesperian, San Lorenzo, CA 94580		
RB Case No.: 01-1797	StID #: 780	LOP Case No.: RO0000489
URF Filing Date: ---	Geotracker ID: T0600101665	APN: 412-0085-003-03
Responsible Parties	Addresses	Phone Numbers
Charles Carmel, Atlantic Richfield Company	P.O. Box 1257, San Ramon, CA 94583	(925) 275-3801
Bill Borgh, ConocoPhillips	76 Broadway, Sacramento, CA 95818	(916) 558-7612

Tank I.D. No	Size in Gallons	Contents	Closed In Place/Removed?	Date
---	---	---	No USTs Removed	---
---	---	---	---	---
---	---	---	---	---
---	---	---	---	---
Piping			Removed	11/2/1999

### III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and Type of Release: Exact release source is unknown; likely it was the vapor return line associated with a steel 6,000-gallon steel underground storage tank (UST). Tank tightness test conducted in February 1986 indicated that the vapor return line associated with this UST failed and may have released an unknown quantity of super unleaded gasoline. No other documentation is available regarding vapor return line.		
Site characterization complete? Yes	Date Approved By Oversight Agency: ---	
Monitoring wells installed? Yes	Number: 7	Proper screened interval? Yes
Highest GW Depth Below Ground Surface: 15.08'	Lowest Depth: 21.74'	Flow Direction: NW
Most Sensitive Current Use: Potential drinking water source.		

Summary of Production Wells in Vicinity: ARCADIS conducted a sensitive receptor survey (SRS) in January 2010, which identified that 23 irrigation wells, 13 domestic wells, one industrial well are present within 2,500 feet of the site. No municipal wells were identified within the search radius. The majority of wells in the survey are located east and southeast of the site, opposite of the predominately west-northwest groundwater flow direction. However, these wells do not appear to be receptors due to their location and distance up-gradient from the site.	
Are drinking water wells affected? No	Aquifer Name: East Bay Plain
Is surface water affected? No	Nearest SW Name: San Lorenzo Creek located approximately 1 mile to the north & Lake at Skywest Golf Course located approximately 0.5 mi to the southwest.
Off-Site Beneficial Use Impacts (Addresses/Locations): None	
Reports on file? Yes	Where are reports filed? Alameda County Environmental Health (and Local CUPA where applicable)

TREATMENT AND DISPOSAL OF AFFECTED MATERIAL			
Material	Amount (Include Units)	Action (Treatment or Disposal w/Destination)	Date
Tank	---	No USTs Removed	---
Piping	Lines and Dispensers Removed	Disposal, location unknown	11/2/1999
Free Product	---	---	---
Soil	---	---	---
Groundwater	---	---	---

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

Contaminant	Soil (ppm)		Water (ppb)	
	Before	After	Before	After
TPH (Gas)	51 (B-3/MW-3, 21, 10/22/1992)	51 (B-3/MW-3, 21, 10/22/1992)	8,900 (MW-4, 03/01/1995)	<50
TPH (Diesel)	<5 (B-1/MW-1, 21, 10/22/1992)	<5 (B-1/MW-1, 21, 10/22/1992)	<50	<50
Oil and Grease	<50 (B-1/MW-1, 21, 10/22/1992)	<50 (B-1/MW-1, 21, 10/22/1992)	420	60 (MW-1, 9/1/1995)
Benzene	0.4 (B-4/MW-4, 20, 10/22/1992)	0.4 (B-4/MW-4, 20, 10/22/1992)	1,800 (MW-4, 03/01/1995)	<0.5
Toluene	0.42 (B-4/MW-4, 20, 10/22/1992)	0.42 (B-4/MW-4, 20, 10/22/1992)	33 (MW-3, 03/01/1995)	<1
Ethylbenzene	0.76 (B-3/MW-3, 21, 10/22/1992)	0.76 (B-3/MW-3, 21, 10/22/1992)	450 (MW-4, 03/01/1995)	<0.5
Xylenes	3 (B-3/MW-3, 21, 10/22/1992)	3 (B-3/MW-3, 21, 10/22/1992)	400 (MW-4, 03/01/1995)	<0.5
Heavy Metals (Cd, Cr, Pb, Ni, Zn)	Not Analyzed	Not Analyzed	70 <sup>†</sup>	70 <sup>†</sup>
MTBE (8020/8260)	9.61/14.1 <sup>4</sup> (PL-3 @3.5', 11/02/1999)	9.61/14.1 <sup>3</sup> (PL-3 @3.5', 11/02/1999)	13,000 <sup>2</sup> (MW-4, 03/23/1996)	<0.5 <sup>1</sup>
Other (EPA 601)	Not Analyzed	Not Analyzed	0.54	0.54 <sup>5</sup>

† 1.1 ppb Cd, 30 ppb Cr, 11 ppb Pb, 40 ppb Ni, 70 ppb Zn, Sampled March 1, 1995

<sup>1</sup> Other VOCs analyzed (groundwater µg/L after cleanup): <0.5 µg/L MtBE, <0.5 µg/L TBA, <0.5 µg/L DIPE, <0.5 µg/L ETBE, <0.5 µg/L TAME, <0.5 µg/L EDB, <0.5 µg/L 1,2-DCA, <300 µg/L EtOH

<sup>2</sup> Other VOCs not analyzed (groundwater ppb before cleanup): 13,000 µg/L MtBE, TBA, DIPE, ETBE, TAME, <1.0 µg/L EDB, <1.0 µg/L 1,2-DCA, EtOH

<sup>3</sup> Other VOCs (Soil mg/kg after cleanup): 14.1 mg/kg MtBE, TBA, DIPE, ETBE, TAME, EDB, 1,2-DCA, & EtOH not analyzed

<sup>4</sup> Other VOCs analyzed (Soil mg/kg before cleanup): 14.1 mg/kg MtBE; TBA, DIPE, ETBE, TAME, EDB, 1,2-DCA, & EtOH not analyzed

<sup>5</sup> Other HVOCs: 0.30 µg/L Tetrachloroethene, 0.54 µg/L 1,1,1-trichloroethane, <0.20 µg/L Trichloroethene, <0.20 µg/L vinyl chloride  
NA - Not Analyzed

### Site History and Description of Corrective Actions:

The site is an active 76-branded service station located on the southwest corner of Hesperian Boulevard and Bockman Road in San Lorenzo, California (Figure 1). The service station consists of a station building and four dispenser islands with a concrete drive slab and a canopy, three underground storage tanks (USTs) of unknown size that store gasoline, one UST storing used oil, and associated piping and dispensers. BP acquired the property from Mobil Oil Corporation in 1989. BP operated the site as a service station until it was transferred to Tosco Marketing Company in 1994. BP has not operated the facility since that time. The site is located in a mixed commercial/residential area (Figure 2). A bank is located north of the site. A strip mall is located northeast of the site. Fast food restaurants are located east of the site. A dry cleaner is located adjacent to the site on the west side.

On October 22, 1992, Four soil borings (B-1 to B-4) were installed under the oversight of Alisto Engineering Group (Alisto) at depths from 26-1/2 to 31-1/3 feet bgs. These borings were then converted into groundwater monitoring wells (MW-1 through MW-4). Soil samples detected up to 51 mg/kg TPH-g, 0.4 mg/kg benzene, 0.42 mg/kg toluene, 0.76 mg/kg ethylbenzene, and 3 mg/kg xylenes. The first groundwater monitoring event conducted on November 4, 1992, detected up to 900 µg/L TPH-g, 150 µg/L benzene, 15 µg/L toluene, 1.9 µg/L ethylbenzene, and 57 µg/L xylenes. One groundwater sample from one well was analyzed for TPH-d and TOG. Both contaminants were not detectable above the laboratory reporting limits of 50 µg/L and 5000 µg/L, respectively.

Groundwater sampling from February 24, 1994 detected up to 310 µg/L TPH-g, 150 µg/L benzene, 5.3 µg/L toluene, 2.2 µg/L ethylbenzene, and 17 µg/L xylenes. Groundwater monitoring continued through November 3, 1994.

On February 15, 1995, three additional soil borings (B-5 to B-7) were installed and subsequently converted into groundwater monitoring wells (MW-5 to MW-7). No contaminants were found at or above reporting limits (TPH-g <2.5 mg/kg, B, T, & E <0.025 mg/kg, X <0.05 mg/kg) in any soil samples. Groundwater samples, however, detected up to 8,900 µg/L TPH-g, 1,800 µg/L benzene, 26 µg/L toluene, 450 µg/L ethylbenzene, and 400 µg/L xylenes. MW-1 was tested for additional contaminants, and detected 420 µg/L TOG, 0.47 ppb chloroform, 0.3 µg/L PCE, 0.54 µg/L 1,1,1-TCA, 1.1 µg/L cadmium, 30 µg/L chromium, 40 µg/L nickel, 11 µg/L lead, and 70 µg/L zinc. Analytical results are summarized on **Tables 6 and 7**. Groundwater monitoring continued at the site.

On November 2, 1999, product lines and dispensers were removed and replaced. During replacement work, compliance soil samples were taken from beneath the dispensers and beneath the product lines. Soil samples detected up to 4.17 mg/kg TPH-g, 0.0287 mg/kg xylenes, and 14.1 mg/kg MTBE. On November 8, 1999, five soil borings (CB-1 to CB-5) were installed and soil and water samples were collected. Soil samples detected <0.47 mg/kg TPH-g, with non-detectable (<0.005 mg/kg) concentrations of BTEX & MTBE (**Table 4**). Grab groundwater samples detected up to 1,800 µg/L TPH-g, up to 16 µg/L ethylbenzene, and 44 µg/L xylenes. Groundwater monitoring continued at the site.

Groundwater monitoring has been conducted at the site since November 1992. To date, seven wells (MW-1 through MW-7) have been installed at the site. Groundwater sampling of wells MW-1 through MW-3 ceased in December 1997 due to consistent analyte detections below laboratory reporting limits. Likewise, groundwater sampling of MW-7 ceased in July 2001. Currently, wells MW-4, MW-5 and MW-6 are sampled semiannually, and all groundwater analyte concentrations have been detected below laboratory reporting limits since July 2007.

**IV. CLOSURE**


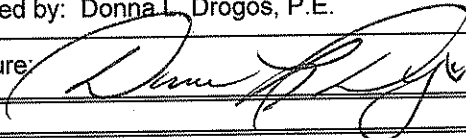
Does completed corrective action protect existing beneficial uses per the Regional Board Basin Plan? Yes		
Does completed corrective action protect potential beneficial uses per the Regional Board Basin Plan? Yes		
Does corrective action protect public health for current land use? Alameda County Environmental 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 other commercial, residential, or other conservative land use scenario is proposed 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 (or current property owner/developer) 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: 7
List Enforcement Actions Taken: None		
List Enforcement Actions Rescinded: --		

**V. ADDITIONAL COMMENTS, DATA, ETC.**

Considerations and/or Variances:  
Residual TPH-g and MTBE concentrations in soil at 51 mg/kg and 14.1 mg/kg remain at the site.

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 based upon the information available in our files to date. No further investigation or cleanup is necessary. ACEH staff recommend case closure for this site. If a change in land use to residential or other conservative scenario occurs at this property, Alameda County Environmental Health must be notified and the case needs to be re-evaluated.

**VI. LOCAL AGENCY REPRESENTATIVE DATA**

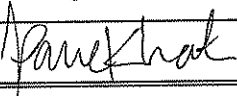
Prepared by: Paresh Khatri	Title: Hazardous Materials Specialist
Signature: 	Date: September 17, 2010
Approved by: Donna L. Drogos, P.E.	Title: Division Chief
Signature: 	Date: 09/30/10

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: 10/5/2010	

**VIII. MONITORING WELL DECOMMISSIONING**

Date Requested by ACEH:	Date of Well Decommissioning Report:	
All Monitoring Wells Decommissioned: Yes	Number Decommissioned: 7	Number Retained: 0
Reason Wells Retained: NA		
Additional requirements for submittal of groundwater data from retained wells:		
ACEH Concurrence - Signature: 	Date: 3/25/2011	

**Attachments:**

- 1. Analytical Tables 1 through 7
- 2. Figures 1 through 13
- 3. Boring Logs (7 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.



## **Khatri, Paresh, Env. Health**

---

**From:** Cherie McCaulou [cmccaulou@waterboards.ca.gov]  
**Sent:** Tuesday, October 05, 2010 3:58 PM  
**To:** Khatri, Paresh, Env. Health  
**Subject:** Re: RO0000489; Closure Summary for BP #11107 (T0600101665)

Paresh - The Regional Water Board has no objection to ACEH recommendation for closing the case located at 18501 Hesperian Blvd. in San Lorenzo.

Sincerely,

Cherie McCaulou  
Engineering Geologist  
San Francisco Bay Regional Water Quality Control Board [cmccaulou@waterboards.ca.gov](mailto:cmccaulou@waterboards.ca.gov)  
510-622-2342

>>> "Khatri, Paresh, Env. Health" <[paresh.khatri@acgov.org](mailto:paresh.khatri@acgov.org)> 10/05/10  
>>> 10:23 AM >>>

Hello Cherie,

Attached is a closure summary for RO0000489; BP #11107 located at 18501 Hesperian Boulevard in San Lorenzo to comply with the RWQCB's 30-day review period. If no comments from the RWQCB are received within the 30-day review period, ACEH's will proceed with case closure.

Please contact me should you have any comments or questions regarding the subject site.

Sincerely,

Paresh C. Khatri  
Hazardous Materials Specialist  
Alameda County Environmental Health  
Local Oversight Program  
1131 Harbor Bay Parkway  
Alameda, CA 94502-6577

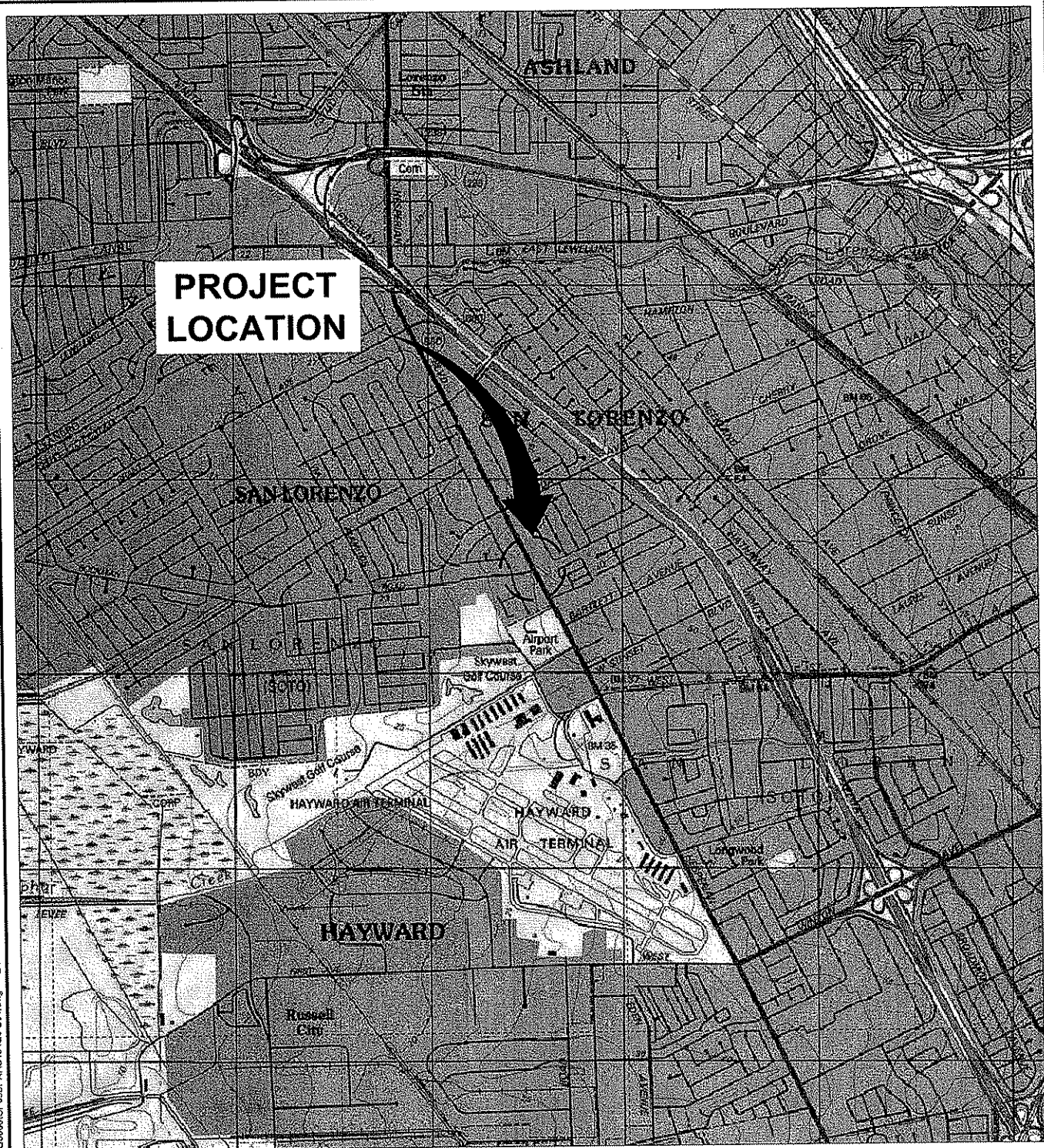
Phone: (510) 777-2478  
Fax: (510) 337-9335

E-mail: [Paresh.Khatri@acgov.org](mailto:Paresh.Khatri@acgov.org)

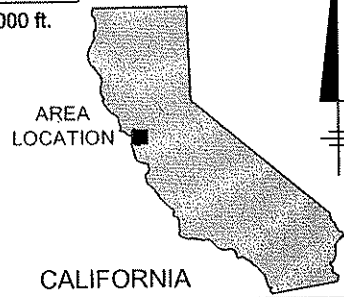
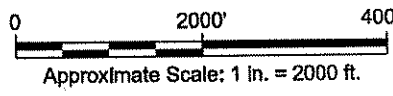
<http://www.acgov.org/aceh/lop/lop.htm>

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CITY: PETALUMA, CA DIV/GROUP: ENV DB: J. HARRIS LD: — PIC: — PM: H. PHILLIPS TM: KJ PRESTON LVR: TOR/ON=OFF-REF-  
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REFERENCE: NATIONAL GEOGRAPHIC TOPOI 7.5. MIN. TOPO. QUAD., SAN LORENZO, CA, 1993.

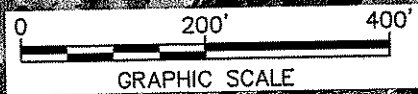


FORMER BP STATION #11107  
 18501 HESPERIAN BOULEVARD  
 SAN LORENZO, CALIFORNIA  
**CASE CLOSURE SUMMARY REPORT**

**SITE LOCATION MAP**

 **ARCADIS** | **FIGURE 1**

XREFS: IMAGES: PROJECTNAME: —



FORMER BP STATION #11107  
18501 HESPERIAN BOULEVARD  
SAN LORENZO, CALIFORNIA  
**CASE CLOSURE SUMMARY REPORT**

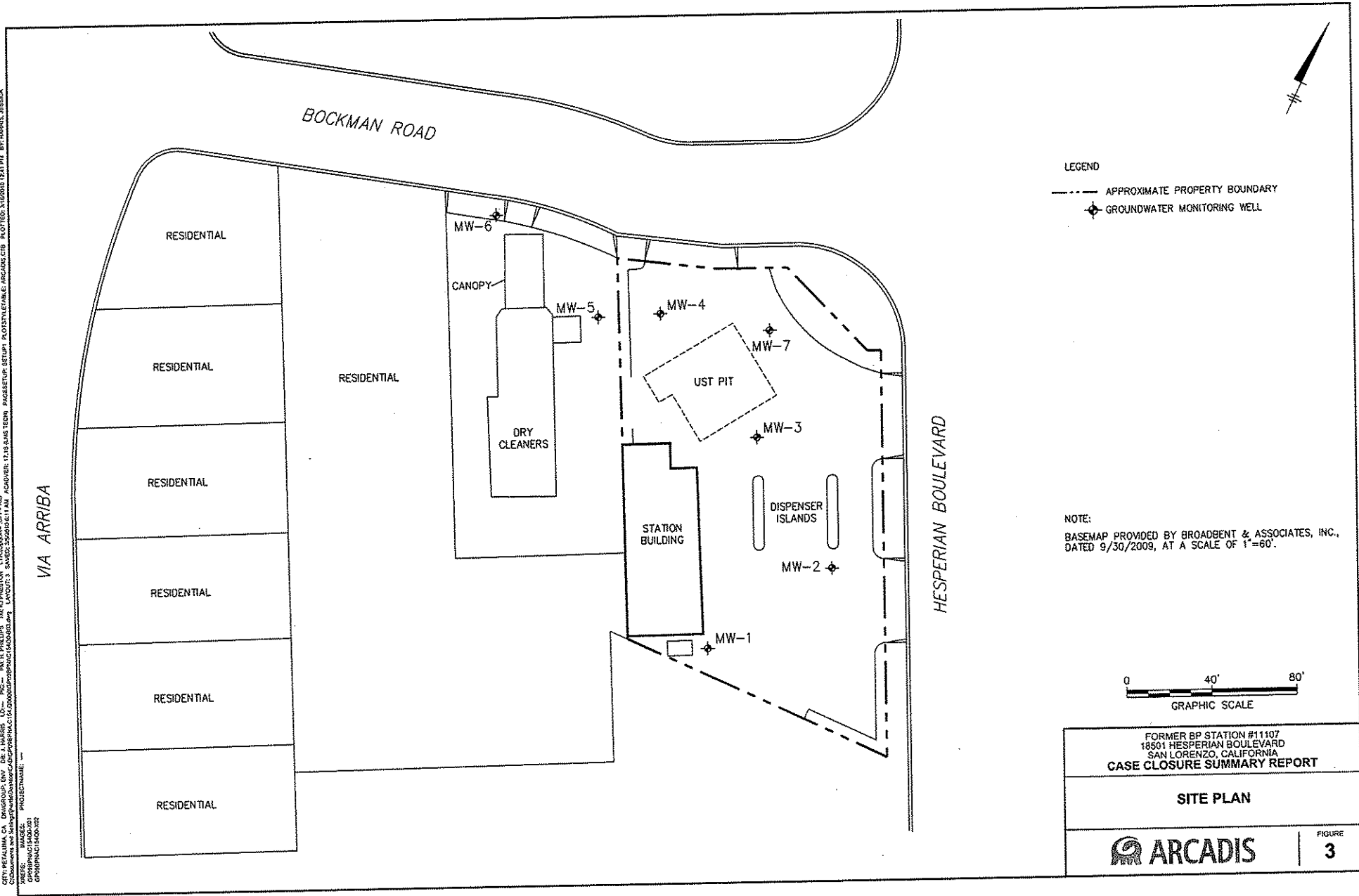
**SITE VICINITY MAP**



FIGURE

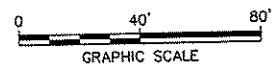
**2**

CITY OF PALM BEACH, FLORIDA  
 DEPARTMENT OF PUBLIC WORKS  
 1000 EAST PALM BEACH AVENUE, SUITE 100  
 PALM BEACH, FLORIDA 33480  
 PROJECT NO. 15400-002  
 PROJECT NAME: 15400-002  
 PROJECT DESCRIPTION: 15400-002  
 DATE: 10/11/09  
 DRAWN BY: J. HARRIS  
 CHECKED BY: J. HARRIS  
 APPROVED BY: J. HARRIS  
 PROJECT NO. 15400-002  
 PROJECT NAME: 15400-002  
 PROJECT DESCRIPTION: 15400-002  
 DATE: 10/11/09  
 DRAWN BY: J. HARRIS  
 CHECKED BY: J. HARRIS  
 APPROVED BY: J. HARRIS



LEGEND  
 - - - - - APPROXIMATE PROPERTY BOUNDARY  
 ◆ GROUNDWATER MONITORING WELL

NOTE:  
 BASEMAP PROVIDED BY BROADBENT & ASSOCIATES, INC.,  
 DATED 9/30/2009, AT A SCALE OF 1"=60'.

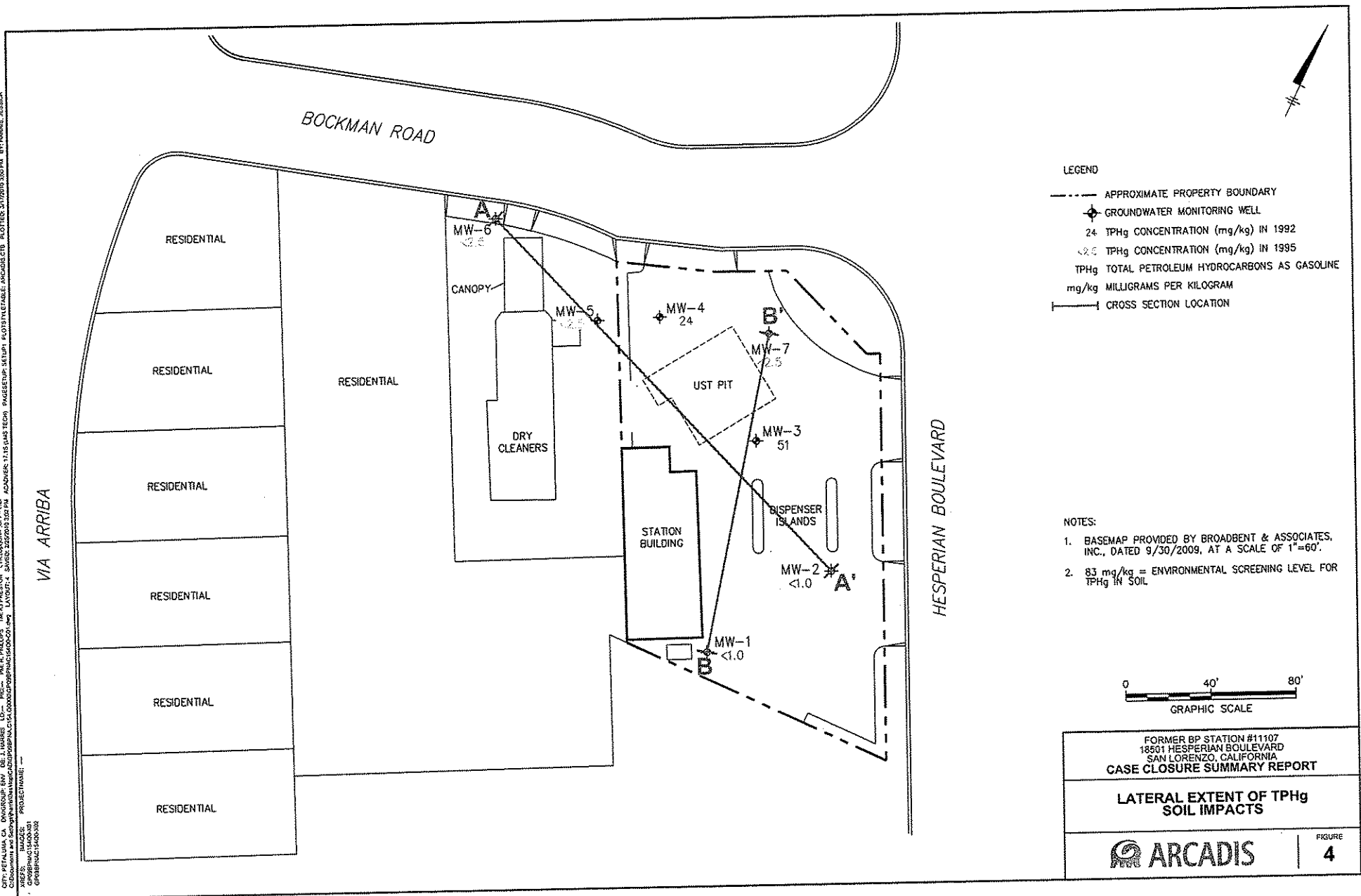


FORMER BP STATION #11107 16881 HESPERIAN BOULEVARD SAN LORENZO, CALIFORNIA	
CASE CLOSURE SUMMARY REPORT	
SITE PLAN	
ARCADIS	FIGURE 3





CITY: PETALUMA, CA. DIVISION: ENVIRONMENTAL SERVICES. PROJECT: PHILIPPS. TITLE: LATERAL EXTENT OF TPHg SOIL IMPACTS. DRAWN BY: J. HARRIS. DATE: 9/30/2009. PLOT: 11/10/09 10:00 AM. BY: HARRIS, JESSICA.





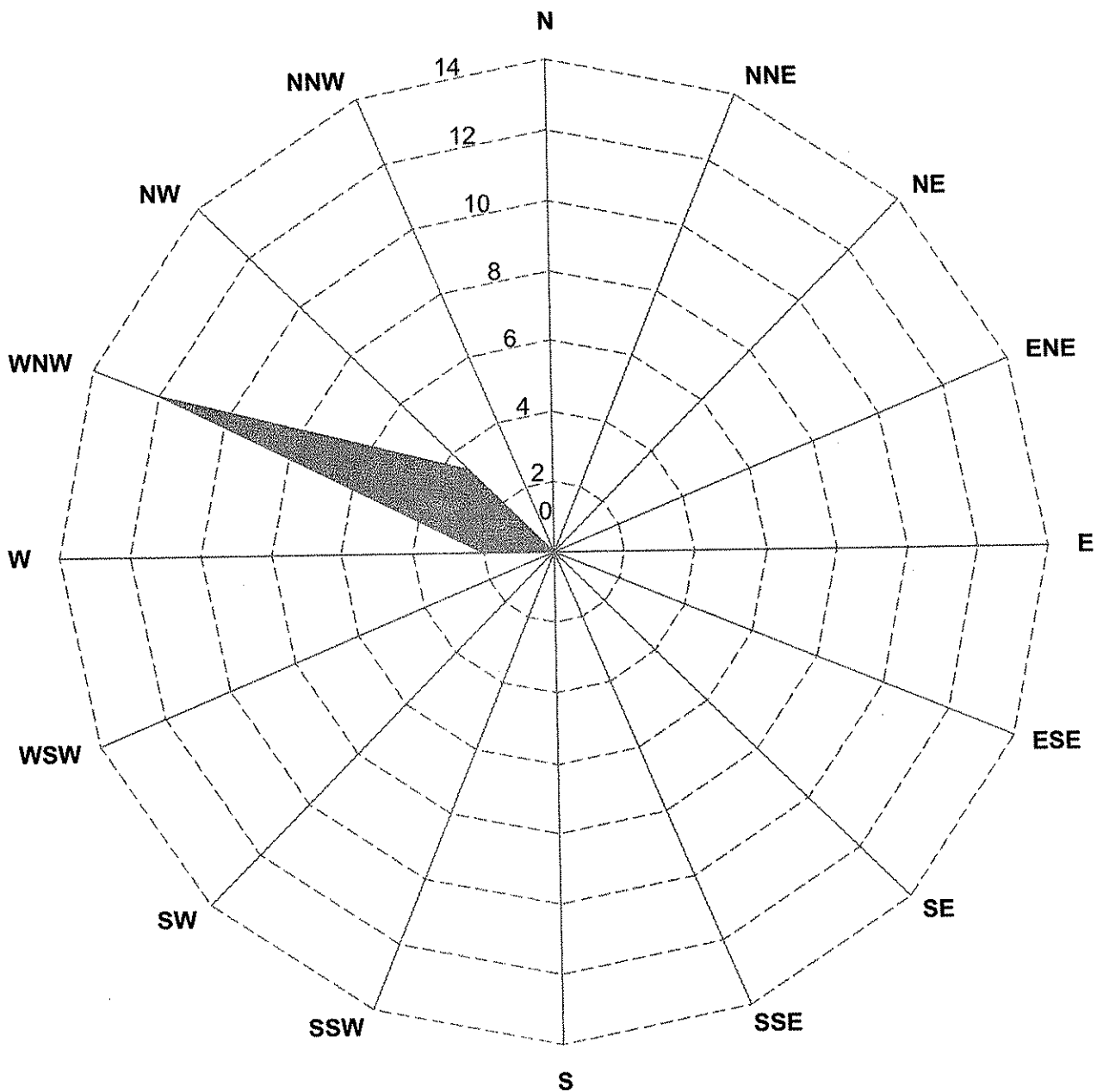







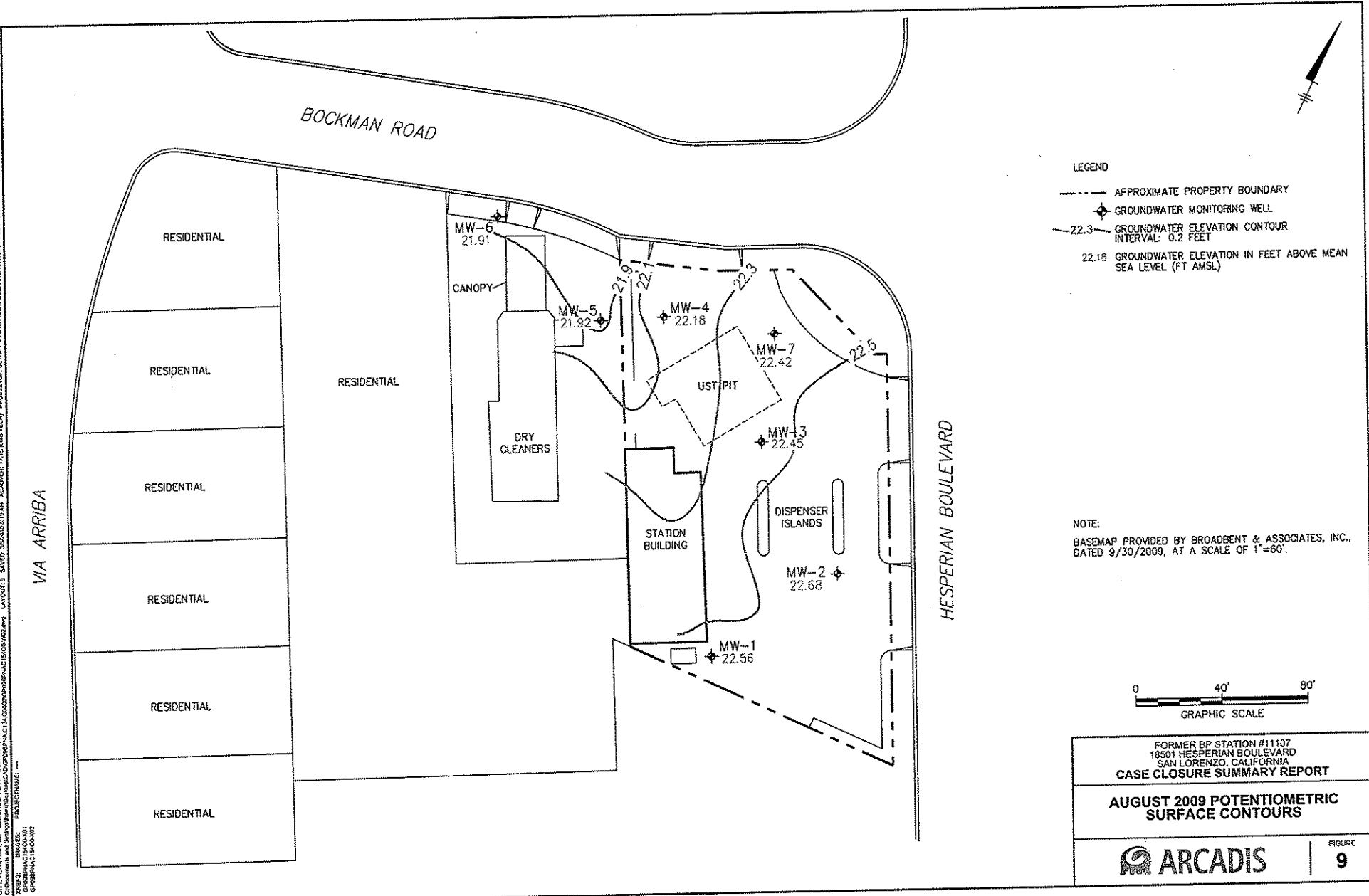
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 C:\Documents and Settings\harris\Desktop\CAD\F98BPNAC15400-W01.dwg LAYOUT: 8 SAVED: 3/22/10 5:18 AM ACADVER: 17.1S (LMS TECH) PAGESETUP: SETUP1 PLOTSTYLETABLE: ARCADIS.CTB PLOTTED: 3/11/2010 2:35 PM BY: HARRIS, JESSICA

XREFS: IMAGES: PROJECTNAME: -



FORMER BP STATION #11107 18501 HESPERIAN BOULEVARD SAN LORENZO, CALIFORNIA <b>CASE CLOSURE SUMMARY REPORT</b>	
<b>HISTORICAL GROUNDWATER          FLOW DIRECTION</b>	
	FIGURE <b>8</b>

CITY OF PALM SPRINGS, CALIFORNIA, DIVISION OF ENVIRONMENTAL SERVICES, 100 N. CALLE DE LA PALMA, PALM SPRINGS, CALIFORNIA 92262-1000  
 PROJECT NAME: FORMER BP STATION #11107, 18501 HESPERIAN BOULEVARD, SAN LORENZO, CALIFORNIA  
 DATE: 8/20/09  
 DRAWN BY: J. HARRIS  
 CHECKED BY: J. HARRIS  
 PROJECT NO: 09-001

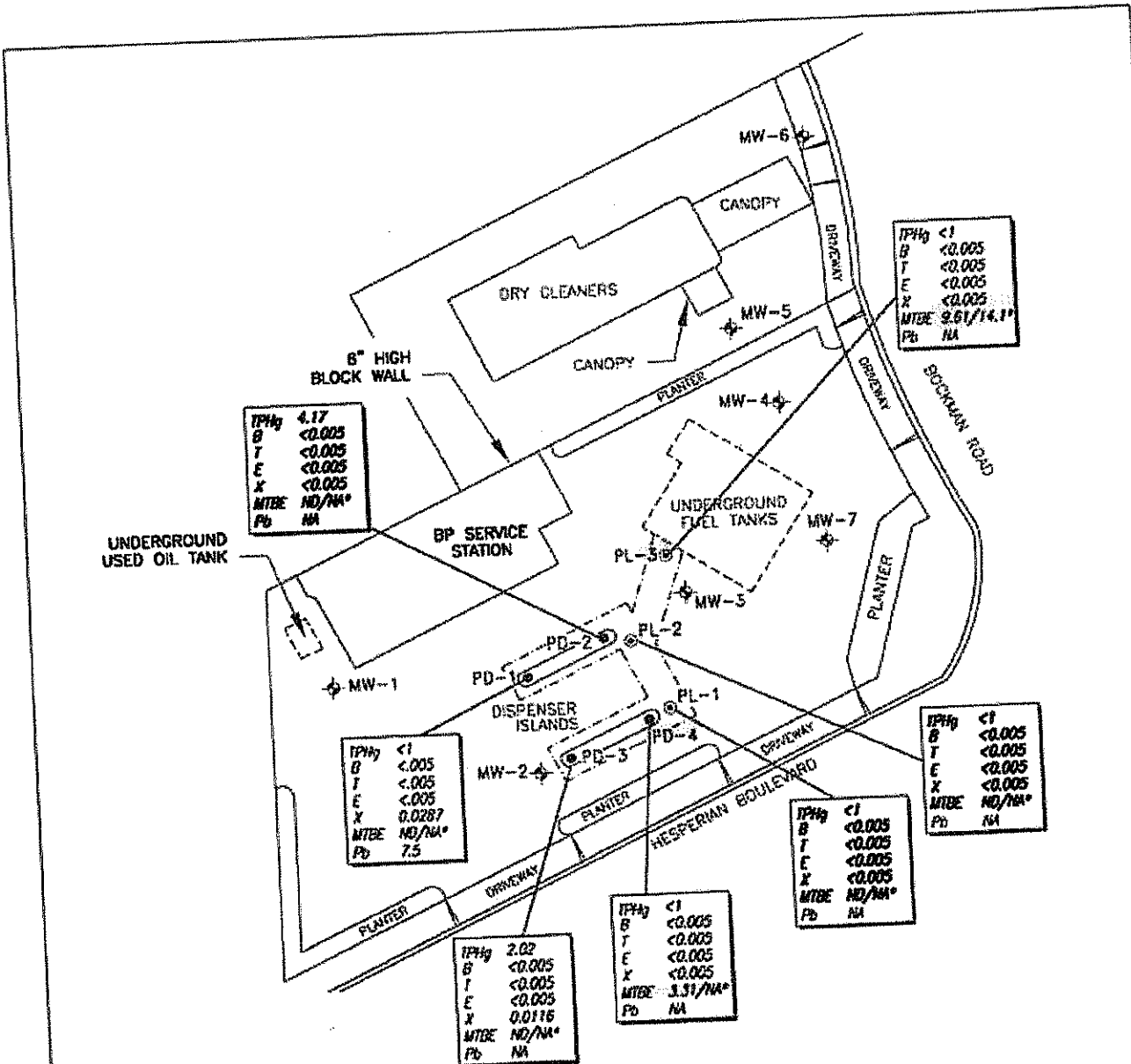


- LEGEND**
- APPROXIMATE PROPERTY BOUNDARY
  - ◆ GROUNDWATER MONITORING WELL
  - 22.3- GROUNDWATER ELEVATION CONTOUR INTERVAL: 0.2 FEET
  - 22.18 GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL (FT AMSL)

**NOTE:**  
 BASEMAP PROVIDED BY BROADBENT & ASSOCIATES, INC., DATED 9/30/2009, AT A SCALE OF 1"=60'.



FORMER BP STATION #11107 18501 HESPERIAN BOULEVARD SAN LORENZO, CALIFORNIA <b>CASE CLOSURE SUMMARY REPORT</b>	
<b>AUGUST 2009 POTENTIOMETRIC SURFACE CONTOURS</b>	
	FIGURE <b>9</b>

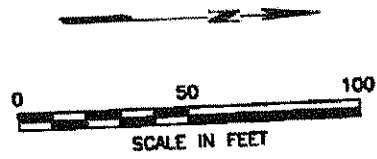


**LEGEND**

- ⊕ MW-3 GROUNDWATER MONITORING WELL LOCATION
- PD-2 PUMP DISPENSER SAMPLE LOCATION
- ⊙ PL-2 PRODUCT LINE SAMPLE LOCATION

TPHg — TOTAL PETROLEUM HYDROCARBONS AS GASOLINE  
 B — BENZENE  
 T — TOLUENE  
 E — ETHYLBENZENE  
 X — XYLENES  
 MTBE — METHYL TERTIARY BUTYL ETHER  
 MTBE\* — CONFIRMED BY EPA METHOD 8260  
 NA — NOT ANALYZED  
 ND — NOT DETECTED ABOVE THE STATED DETECTION LIMITS  
 Pb — LEAD

TPHg	<1
B	<0.005
T	<0.005
E	<0.005
X	<0.005
MTBE	ND/NA*
Pb	NA



159812-271553 RE: 10AKLAND\ACAS\110630\1107\258.03411.001.DWG 11/7/79

**SECOR**  
International Incorporated

DRAWN	GEL
APPR	RP
DATE	18NOV99
JOB NO.	006.83411.001

**FIGURE 10**  
**TOSCO (BP) SERVICE STATION NO.11107**  
 18501 HESPERIAN BOULEVARD  
 SAN LORENZO, CALIFORNIA  
**SITE PLAN WITH SAMPLING LOCATIONS AND ANALYTICAL RESULTS**

VIA ARRIBA

HESPERIAN BOULEVARD

residential      residential      bank parking      bank

CB-5      CB-4      CB-2      CB-3      CB-1

BOCKMAN ROAD

planter      planter

residential

residential

residential      commercial

residential

residential

residential

residential

residential

MW-6

canopy

MW-5

MW-4

MW-7

UST Pit

MW-3

Dispenser Islands

Station Building

MW-2

MW-1

Dry Cleaners

- EXPLANATION**
- CB-1 ● Geoprobe boring location
  - MW-1 ◆ Monitoring well location
  - ➔ Approximate Ground Water flow direction



Scale (ft)

FIGURE

11

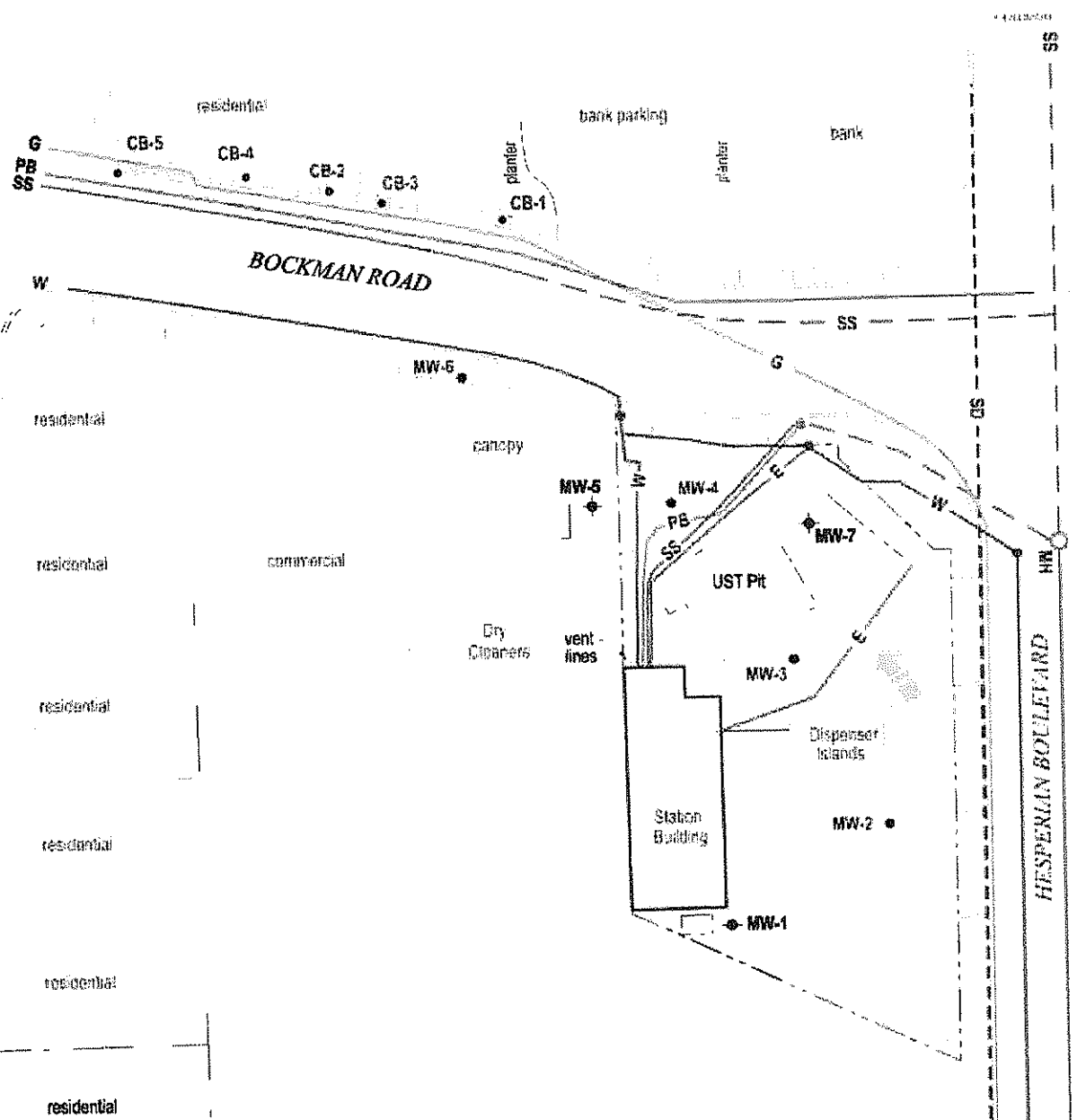
**BP Site No. 11107**  
 18501 Hesperian Boulevard  
 San Lorenzo, California



C A M B R I A

**Soil Boring Location Map**

VIA ARRIBA



**EXPLANATION**

- CB-1 ● Geoprobe boring location
- MW-1 ◆ Monitoring well location
- ➡ Approximate Ground Water flow direction
- G — Gas (G)
- SS — Sanitary sewer (SS)
- PB — Pacific Bell (PB)
- E — Electrical (E)
- W — Water (W)
- SD — Storm drain (SD)

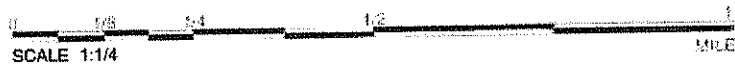
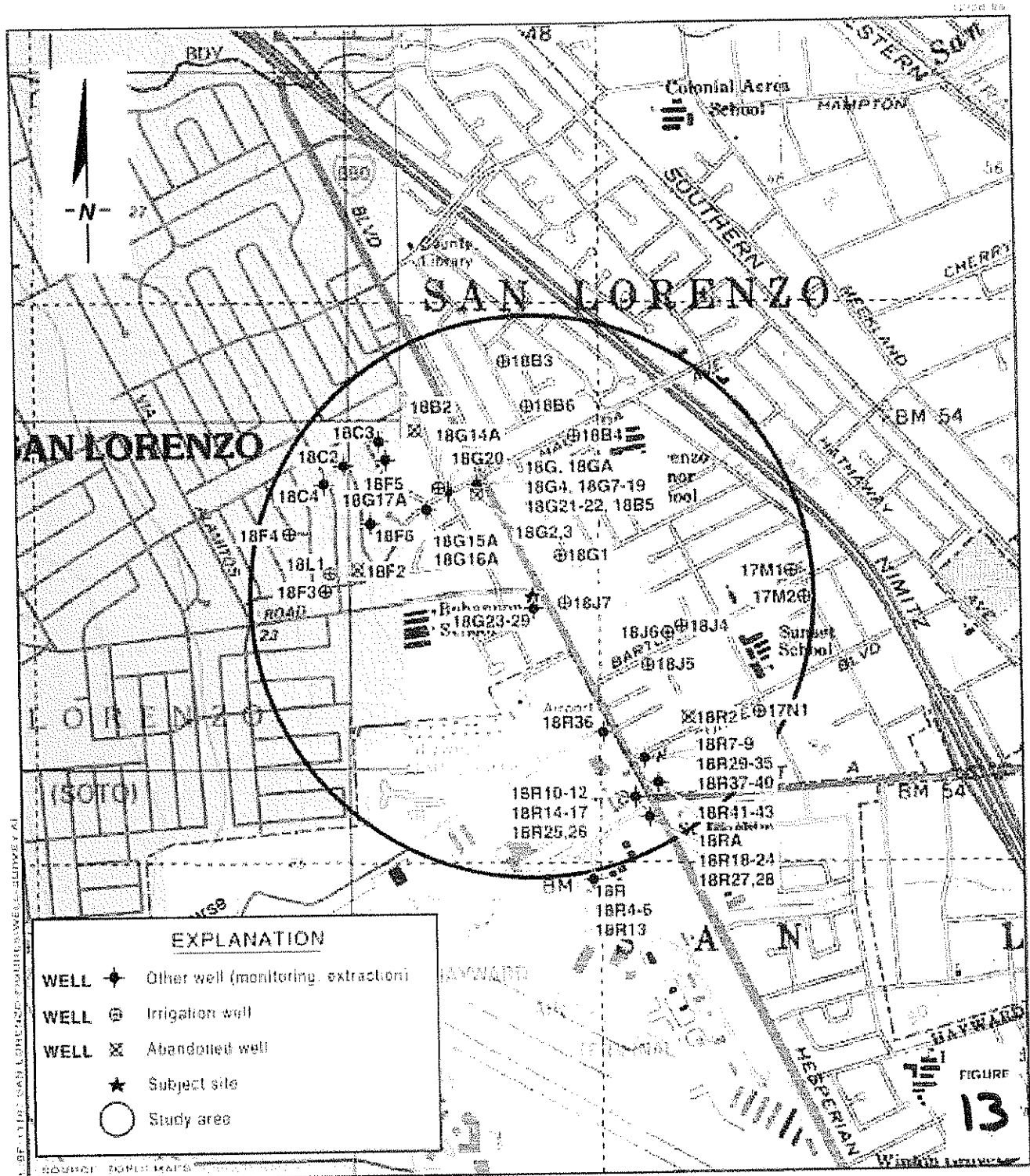
FIGURE  
12

**BP Site No. 11107**  
 18501 Hesperian Boulevard  
 San Lorenzo, California



C A M B R I A

**Utility Survey Map**



**BP Site No. 11107**  
 18501 Hesperian Boulevard  
 San Lorenzo, California



C A M B R I A

**Well Survey Map**

1/2 Mile Radius

FIGURE  
**13**

**Table 1: Historical Soil Results**  
**Former British Petroleum Station #11107**  
**18501 Hesperian Blvd., San Lorenzo, CA**  
**Local Case #RO0000489**

Sample ID	Sample Depth (feet bgs)	Date	TPHg		TPHd		Benzene		Toluene		Ethylbenzene		Xylenes		HVOC		Oil & Gas	
			83 mg/kg	mg/kg	83 mg/kg	mg/kg	0.044 mg/kg	mg/kg	2.9 mg/kg	mg/kg	3.3 mg/kg	mg/kg	2.3 mg/kg	mg/kg	--	--	--	--
	ESL																	
B-1/MW-1	14.5	10/22/1992	<1.0	mg/kg	<5.0	mg/kg	<0.005	mg/kg	<0.005	mg/kg	<0.005	mg/kg	<0.005	mg/kg	ND <sup>†</sup>	mg/kg	<50	mg/kg
B-1/MW-1	21	10/22/1992	<1.0	mg/kg	<5.0	mg/kg	<0.005	mg/kg	<0.005	mg/kg	<0.005	mg/kg	<0.005	mg/kg	ND <sup>†</sup>	mg/kg	<50	mg/kg
B-2/MW-2	11	10/22/1992	<1.0	mg/kg	--	mg/kg	<0.005	mg/kg	<0.005	mg/kg	<0.005	mg/kg	<0.005	mg/kg	--	mg/kg	--	mg/kg
B-2/MW-2	16	10/22/1992	<1.0	mg/kg	--	mg/kg	<0.005	mg/kg	<0.005	mg/kg	<0.005	mg/kg	<0.005	mg/kg	--	mg/kg	--	mg/kg
B-3/MW-3	10	10/22/1992	<1.0	mg/kg	--	mg/kg	<0.005	mg/kg	<0.005	mg/kg	<0.005	mg/kg	<0.005	mg/kg	--	mg/kg	--	mg/kg
B-3/MW-3	21	10/22/1992	51	mg/kg	--	mg/kg	0.21	mg/kg	0.38	mg/kg	0.76	mg/kg	3.0	mg/kg	--	mg/kg	--	mg/kg
B-4/MW-4	16	10/22/1992	1.8	mg/kg	--	mg/kg	0.31	mg/kg	0.009	mg/kg	0.051	mg/kg	0.1	mg/kg	--	mg/kg	--	mg/kg
B-4/MW-4	20	10/22/1992	24	mg/kg	--	mg/kg	0.4	mg/kg	0.42	mg/kg	0.35	mg/kg	1.5	mg/kg	--	mg/kg	--	mg/kg
B-5/MW-5	15.5	2/15/1995	<2.5	mg/kg	--	mg/kg	<0.025	mg/kg	<0.025	mg/kg	<0.025	mg/kg	<0.050	mg/kg	--	mg/kg	--	mg/kg
B-5/MW-5	20.5	2/15/1995	<2.5	mg/kg	--	mg/kg	<0.025	mg/kg	<0.025	mg/kg	<0.025	mg/kg	<0.050	mg/kg	--	mg/kg	--	mg/kg
B-5/MW-5	25.5	2/15/1995	<2.5	mg/kg	--	mg/kg	<0.025	mg/kg	<0.025	mg/kg	<0.025	mg/kg	<0.050	mg/kg	--	mg/kg	--	mg/kg
B-6/MW-6	15.5	2/15/1995	<2.5	mg/kg	--	mg/kg	<0.025	mg/kg	<0.025	mg/kg	<0.025	mg/kg	<0.050	mg/kg	--	mg/kg	--	mg/kg
B-7/MW-7	5.5	2/15/1995	<2.5	mg/kg	--	mg/kg	<0.025	mg/kg	<0.025	mg/kg	<0.025	mg/kg	<0.050	mg/kg	--	mg/kg	--	mg/kg
B-7/MW-7	10.5	2/15/1995	<2.5	mg/kg	--	mg/kg	<0.025	mg/kg	<0.025	mg/kg	<0.025	mg/kg	<0.050	mg/kg	--	mg/kg	--	mg/kg
B-7/MW-7	15.5	2/15/1995	<2.5	mg/kg	--	mg/kg	<0.025	mg/kg	<0.025	mg/kg	<0.025	mg/kg	<0.050	mg/kg	--	mg/kg	--	mg/kg

Notes:

<sup>†</sup> Various detection limits.

bgs = Below ground surface.

ESL = Environmental Screening Level.

TPHg = Total petroleum hydrocarbons as gasoline.

TPHd = Total petroleum hydrocarbons as diesel.

HVOC = Halogenated volatile organic compound.

mg/kg = Milligrams per kilogram.

< = Analyte was not detected above the specified method reporting limit.

-- = Not measured or analyzed.











Table 2: Historical Groundwater Results  
Former British Petroleum Station #11107  
18501 Hesperian Blvd., San Lorenzo, CA  
Local Case #RO0000489

Location	Sample Date	TOC Elevation (feet amsl)	DTW (feet btoc)	Product Thickness (feet)	Water Level Elevation (feet amsl)	µg/L														
						TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	TBA	DIPE	ETBE	TAME	Ethanol	1,2-DCA	EDB	
		ESL				100	100	1.0	40	30	20	5	120						0.5	0.05
MW-4	04-Nov-92	39.24	19.18	--	20.06	900	--	150	4.1	0.8	53	--	--	--	--	--	--	--	--	--
MW-4	24-Feb-94	39.24	19.22	--	20.02	240	--	110	3.8	1.8	11	1,433	--	--	--	--	--	--	--	--
MW-4	12-May-94	39.24	16.62	--	22.62	<50	--	2.2	1	<0.5	<0.5	862	--	--	--	--	--	--	--	--
MW-4	09-Sep-94	39.24	20.27	--	18.97	240	--	9.1	1.3	0.6	2.5	397	--	--	--	--	--	--	--	--
MW-4	03-Nov-94	39.24	18.46	--	20.78	250	--	3.1	2.8	1	3.3	319	--	--	--	--	--	--	--	--
MW-4	01-Mar-95	39.24	16.15	--	23.09	8,900	--	1,800	26	450	400	--	--	--	--	--	--	--	--	--
MW-4	06-Jun-95	39.24	16.28	--	22.96	3,100	--	530	25	170	85	--	--	--	--	--	--	--	--	--
MW-4	29-Nov-95	39.24	17.31	--	21.93	<50	--	1.8	<0.50	<0.50	<1.0	440	--	--	--	--	--	--	--	--
MW-4	23-Mar-96	39.24	15.74	--	23.5	2,700	--	480	<25	180	176	13,000	--	--	--	--	--	--	--	--
MW-4	05-Sep-96	39.24	16.75	--	22.49	1,100	--	<12	<25	<25	<25	3,200	--	--	--	--	--	--	--	--
MW-4	11-Mar-97	39.24	16.1	--	23.14	2,400	--	46	<10	66	106	3,400	--	--	--	--	--	--	--	--
MW-4	08-Dec-97	39.24	15.96	--	23.28	590	--	11	<1.0	<1.0	<1.0	1,200	--	--	--	--	--	--	--	--
MW-4	08-Jul-98	39.24	16.28	--	22.96	1,700	--	<0.5	<1.0	<1.0	<1.0	1,200	--	--	--	--	--	--	--	--
MW-4	07-Dec-98	39.24	16.47	--	22.77	530	--	<2.5	<5.0	<5.0	<5.0	680/910	--	--	--	--	--	--	--	--
MW-4	19-Jan-99	39.24	16.4	--	22.84	570	--	<1.0	<1.0	<1.0	<1.0	660	--	--	--	--	--	--	--	--
MW-4	23-Apr-99	39.24	16.17	--	23.07	<50	--	<1.0	<1.0	1.8	1.3	1100/810	--	--	--	--	--	--	--	--
MW-4	20-Jul-99	39.24	16.39	--	22.85	<50	--	<1.0	<1.0	<1.0	<1.0	590/480	<500	<10	<5.0	<5.0	<5.0	--	<1.0	<1.0
MW-4	30-Dec-99	39.24	16.58	--	22.68	<50	--	<0.5	<0.5	<0.5	<0.5	280/410	--	<5.0	<5.0	<5.0	--	<1.0	<5.0	<5.0
MW-4	29-Feb-00	39.24	15.69	--	23.55	78	--	2	<0.5	0.77	2.8	870/1200	--	<20	<20	<20	--	<1.0	<20	<10
MW-4	14-Apr-00	39.24	16.21	--	23.03	300	--	<0.5	<0.5	<0.5	<0.5	800	--	<10	<10	<10	--	<1.0	<10	<10
MW-4	24-Jul-00	39.24	16.5	--	22.74	130	--	<0.5	<0.5	<0.5	<0.5	390/270	<50	<5.0	<5.0	<5.0	--	<1.0	<1.0	<1.0
MW-4	30-Oct-00	39.24	16.35	--	22.89	73	--	<0.5	<0.5	<0.5	<0.5	160/210	<50	<5.0	<5.0	<5.0	--	<1.0	<5.0	<5.0
MW-4	11-Jan-01	39.24	16.46	--	22.78	120	--	<0.5	<0.5	<0.5	<0.5	170/176	<10	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0
MW-4	17-May-01	39.24	16.4	--	22.84	99	--	<0.5	<0.5	<0.5	<1.5	91/119	<10	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0
MW-4	02-Jul-01	39.24	16.75	--	22.49	63	--	<0.5	<0.5	<0.5	<1.5	66/87.6	<10	<1.0	<1.0	<1.0	--	<1.0	<1.0	<1.0
MW-4	02-Nov-01	39.24	16.8	--	22.44	56	--	<0.5	<0.5	<0.5	<1.5	49.6	--	--	--	--	--	--	--	--
MW-4	06-Aug-02	39.24	16.6	--	22.64	<50	--	<0.5	<0.5	<0.5	<1.5	14.4	--	--	--	--	--	--	--	--
MW-4	16-Oct-02	39.24	16.86	--	22.38	<50	--	<0.50	<0.50	<0.50	<0.50	16	--	--	--	--	--	--	--	--
MW-4	13-Jan-03	39.24	16.13	--	23.11	<50	--	<0.50	<0.50	<0.50	<0.50	21	--	--	--	--	--	--	--	--
MW-4	02-May-03	39.24	16.38	--	22.86	<50	--	<0.50	<0.50	<0.50	<0.50	7.2	--	--	--	--	--	--	--	--
MW-4	11-Jul-03	39.24	16.5	--	22.74	<50	--	<0.50	<0.50	<0.50	<0.50	2.0/2.0	<20	<0.5	<0.50	<0.50	<100	--	--	--
MW-4	01-Oct-03	39.24	16.75	--	22.49	<50	--	<0.50	<0.50	<0.50	<0.50	3.1	<20	<0.5	<0.50	<0.50	<100	--	--	--
MW-4	11-Feb-04	39.24	16.35	--	22.89	<50	--	<0.50	<0.50	<0.50	<0.50	3.3	<20	<0.5	<0.50	<0.50	<100	<0.50	<0.50	<0.50
MW-4	21-Jul-04	39.24	16.68	--	22.56	<50	--	<0.50	<0.50	<0.50	<0.50	0.61	<20	<0.5	<0.50	<0.50	<100	<0.50	<0.50	<0.50
MW-4	20-Jan-05	39.24	16.08	--	23.16	<50	--	<0.50	<0.50	<0.50	<0.50	1.4	<20	<0.5	<0.50	<0.50	<100	<0.50	<0.50	<0.50
MW-4	19-Jul-05	39.24	16.5	--	22.74	<50	--	<0.50	<0.50	<0.50	<0.50	0.57	<20	<0.5	<0.50	<0.50	<100	<0.50	<0.50	<0.50
MW-4	11-Jan-06	39.24	15.98	--	23.26	<50	--	<0.50	<0.50	<0.50	<0.50	0.58	<20	<0.5	<0.50	<0.50	<300	<0.50	<0.50	<0.50
MW-4	26-Jul-06	39.24	16.46	--	22.78	<50	--	<0.50	<0.50	<0.50	<0.50	<0.50	<20	<0.5	<0.50	0.71	<300	<0.50	<0.50	<0.50
MW-4	11-Jan-07	39.24	16.54	--	22.7	<50	--	<0.50	<0.50	<0.50	<0.50	<0.50	<20	<0.5	<0.50	<0.50	<300	<0.50	<0.50	<0.50
MW-4	23-Jul-07	39.24	16.68	--	22.56	<50	--	<0.50	<0.50	<0.50	<0.50	<0.50	<20	<0.5	<0.50	<0.50	<300	<0.50	<0.50	<0.50
MW-4	16-Jan-08	39.24	16.32	--	22.92	<50	--	<0.50	<0.50	<0.50	<0.50	<0.50	<20	<0.5	<0.50	<0.50	<300	<0.50	<0.50	<0.50
MW-4	17-Jul-08	39.24	16.72	--	22.52	<50	--	<0.50	<0.50	<0.50	<0.50	<0.50	<10	<0.5	<0.50	<0.50	<300	<0.50	<0.50	<0.50
MW-4	28-Jan-09	39.24	16.64	--	22.6	<50	--	<0.50	<0.50	<0.50	<0.50	<0.50	<10	<0.5	<0.50	<0.50	<300	<0.50	<0.50	<0.50
MW-4	27-Aug-09	39.24	17.06	--	22.18	<50	--	<0.50	<0.50	<0.50	<0.50	<0.50	<10	<0.5	<0.50	<0.50	<300	<0.50	<0.50	<0.50

Table 2: Historical Groundwater Results  
 Former British Petroleum Station #11107  
 18501 Hesperian Blvd., San Lorenzo, CA  
 Local Case #RO0000489

Location	Sample Date	TOC Elevation (feet amsl)	DTW (feet btoc)	Product Thickness (feet)	Water Level Elevation (feet amsl)	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	TBA	DIPE	ETBE	TAME	Ethanol	1,2-DCA	EDB
						µg/L													
ESL						100	100	1.0	40	30	20	5	120	--	--	--	--	0.5	0.05
MW-5	06-Jun-95	39.07	16.16	--	22.91	1,100	--	42	<2.5	15	4	--	--	--	--	--	--	--	--
MW-5	01-Sep-95	39.07	16.63	--	22.44	1,600	--	55	<2.5	15	8	1,200	--	--	--	--	--	--	--
MW-5	29-Nov-95	39.07	17.19	--	21.88	2,300	--	140	4	36	11	1,500	--	--	--	--	--	--	--
MW-5	23-Mar-96	39.07	15.54	--	23.53	90	--	2.8	<1	<1	<1	1,500	--	--	--	--	--	--	--
MW-5	05-Sep-96	39.07	16.72	--	22.35	2,300	--	5.1	<1.0	<1.0	<1.0	3,300	--	--	--	--	--	--	--
MW-5	11-Mar-97	39.07	16.12	--	22.95	470	--	<5.0	<5.0	<5.0	<5.0	580	--	--	--	--	--	--	--
MW-5	08-Dec-97	39.07	15.85	--	23.22	370	--	<0.5	<1.0	<1.0	<1.0	840	--	--	--	--	--	--	--
MW-5	08-Jul-98	39.07	16.11	--	22.96	430	--	<0.5	<1.0	<1.0	<1.0	330	--	--	--	--	--	--	--
MW-5	07-Dec-98	39.07	16.27	--	22.8	220	--	<0.5	<1.0	<1.0	<1.0	290/410	--	--	--	--	--	--	--
MW-5	19-Jan-99	39.07	16.31	--	22.76	490	--	<1.0	<1.0	<1.0	<1.0	490/440	--	--	--	--	--	--	--
MW-5	23-Apr-99	39.07	16	--	23.07	<50	--	<1.0	<1.0	<1.0	<1.0	310/210	--	--	--	--	--	--	--
MW-5	20-Jul-99	39.07	16.36	--	22.71	<50	--	<1.0	<1.0	<1.0	<1.0	490/470	<500	<10	<10	<10	--	--	--
MW-5	30-Dec-99	39.07	16.53	--	22.54	<50	--	<0.5	<0.5	<0.5	<0.5	470/550	--	<10	<10	<10	--	--	--
MW-5	29-Feb-00	39.07	15.45	--	23.62	<50	--	<0.5	<0.5	<0.5	<0.5	190/280	--	<5.0	<5.0	<5.0	--	<5.0	<5.0
MW-5	14-Apr-00	39.07	16.1	--	22.97	81	--	<0.5	<0.5	<0.5	<0.5	200/240	--	<5.0	<5.0	<5.0	--	--	--
MW-5	24-Jul-00	39.07	16.5	--	22.57	250	--	<0.5	<0.5	<0.5	<0.5	630/570	<50	<5.0	<5.0	<5.0	--	--	--
MW-5	30-Oct-00	39.07	16.23	--	22.84	140	--	<0.5	0.7	<0.5	<0.5	1.1	260/360	<100	<10	<10	<10	--	--
MW-5	11-Jan-01	39.07	16.41	--	22.66	420	--	<0.5	<0.5	<0.5	<0.5	540/585	110	<1.0	<1.0	<1.0	--	<1.0	<1.0
MW-5	17-May-01	39.07	16.45	--	22.62	360	--	<0.5	<0.5	<0.5	<1.5	320/419	31	<1.0	<1.0	<1.0	--	--	--
MW-5	02-Jul-01	39.07	16.65	--	22.42	210	--	<0.5	<0.5	<0.5	<1.5	290/264	<10	<1.0	<1.0	<1.0	--	--	--
MW-5	02-Nov-01	39.07	16.73	--	22.34	130	--	<0.5	<0.5	<0.5	<1.5	134	--	--	--	--	--	--	--
MW-5	06-Aug-02	39.07	16.57	--	22.5	<50	--	<0.5	<0.5	<0.5	<1.5	57.6	--	--	--	--	--	--	--
MW-5	16-Oct-02	39.07	16.73	--	22.34	<50	--	<0.50	<0.50	<0.50	<0.50	52	--	--	--	--	--	--	--
MW-5	13-Jan-03	39.07	16.01	--	23.06	58	--	1.2	<0.50	<0.50	<0.50	1.4	--	--	--	--	--	--	--
MW-5	02-May-03	39.07	16.27	--	22.8	<50	--	<0.50	<0.50	<0.50	<0.50	17	--	--	--	--	--	--	--
MW-5	11-Jul-03	39.07	16.42	--	22.65	58	--	<0.50	<0.50	<0.50	<0.50	19/19	<20	<0.5	<0.50	<0.50	<100	--	--
MW-5	01-Oct-03	39.07	16.65	--	22.42	71	--	<0.50	<0.50	<0.50	<0.50	17	<20	<0.5	<0.50	<0.50	<100	--	--
MW-5	11-Feb-04	39.07	16.39	--	22.68	130	--	<0.50	<0.50	<0.50	<0.50	35	<20	<0.5	<0.50	<0.50	<100	<0.50	<0.50
MW-5	21-Jul-04	39.07	16.73	--	22.34	<50	--	<0.50	<0.50	<0.50	<0.50	8.3	<20	<0.5	<0.50	<0.50	<100	<0.50	<0.50
MW-5	20-Jan-05	39.07	16.13	--	22.94	<50	--	<0.50	<0.50	<0.50	<0.50	2.3	<20	<0.5	<0.50	<0.50	<100	<0.50	<0.50
MW-5	19-Jul-05	39.07	16.69	--	22.38	<50	--	<0.50	<0.50	<0.50	<0.50	0.76	<20	<0.5	<0.50	<0.50	<100	<0.50	<0.50
MW-5	11-Jan-06	39.07	16.21	--	22.86	<50	--	<0.50	<0.50	<0.50	<0.50	0.61	<20	<0.5	<0.50	<0.50	<300	<0.50	<0.50
MW-5	26-Jul-06	39.07	16.57	--	22.5	<50	--	<0.50	<0.50	<0.50	<0.50	1.6	<20	<0.5	<0.50	<0.50	<300	<0.50	<0.50
MW-5	11-Jan-07	39.07	16.6	--	22.47	<50	--	<0.50	<0.50	<0.50	<0.50	0.62	<20	<0.5	<0.50	<0.50	<300	<0.50	<0.50
MW-5	23-Jul-07	39.07	16.75	--	22.32	<50	--	<0.50	<0.50	<0.50	<0.50	<0.50	<20	<0.5	<0.50	<0.50	<300	<0.50	<0.50
MW-5	16-Jan-08	39.07	16.31	--	22.76	<50	--	<0.50	<0.50	<0.50	<0.50	<0.50	<20	<0.5	<0.50	<0.50	<300	<0.50	<0.50
MW-5	17-Jul-08	39.07	16.78	--	22.29	<50	--	<0.50	<0.50	<0.50	<0.50	<0.50	<10	<0.5	<0.50	<0.50	<300	<0.50	<0.50
MW-5	28-Jan-09	39.07	16.72	--	22.35	<50	--	<0.50	<0.50	<0.50	<0.50	<0.50	<10	<0.5	<0.50	<0.50	<300	<0.50	<0.50
MW-5	27-Aug-09	39.07	17.15	--	21.92	<50	--	<0.50	<0.50	<0.50	<0.50	<0.50	<10	<0.5	<0.50	<0.50	<300	<0.50	<0.50

Table 2: Historical Groundwater Results  
 Former British Petroleum Station #11107  
 18501 Hesperian Blvd., San Lorenzo, CA  
 Local Case #RO0000489

Location	Sample Date	TOC Elevation (feet amsl)	DTW (feet btoc)	Product Thickness (feet)	Water Level Elevation (feet amsl)	µg/L													
						TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	TBA	DIPE	ETBE	TAME	Ethanol	1,2-DCA	EDB
		ESL				100	100	1.0	40	30	20	5	120	--	--	--	--	0.5	0.05
MW-6	01-Mar-95	38.46	15.66	--	22.8	270	--	11	<0.50	<0.50	<1.0	--	--	--	--	--	--	--	--
MW-6	06-Jun-95	38.46	15.82	--	22.64	220	--	2.3	<0.50	<0.50	<1.0	--	--	--	--	--	--	--	--
MW-6	01-Sep-95	38.46	16.25	--	22.21	780	--	<2.5	<2.5	<2.5	<5.0	2,800	--	--	--	--	--	--	--
MW-6	29-Nov-95	38.46	16.8	--	21.66	<50	--	<0.50	<0.50	<0.50	<1.0	1,100	--	--	--	--	--	--	--
MW-6	23-Mar-96	38.46	15.27	--	23.19	50	--	<0.5	<1	<1	<1	910	--	--	--	--	--	--	--
MW-6	05-Sep-96	38.46	16.3	--	22.16	4,400	--	<0.5	<1.0	<1.0	<1.0	7,400	--	--	--	--	--	--	--
MW-6	11-Mar-97	38.46	15.75	--	22.71	1,100	--	<5.0	<5.0	<5.0	<5.0	2,000	--	--	--	--	--	--	--
MW-6	08-Dec-97	38.46	15.51	--	22.95	150	--	<0.5	<1.0	<1.0	<1.0	140	--	--	--	--	--	--	--
MW-6	08-Jul-98	38.46	15.78	--	22.68	370	--	<0.5	<1.0	<1.0	<1.0	250	--	--	--	--	--	--	--
MW-6	07-Dec-98	38.46	15.95	--	22.51	440	--	<1.0	<1.0	<1.0	<1.0	630/820	--	--	--	--	--	--	--
MW-6	19-Jan-99	38.46	15.97	--	22.49	950	--	<1.0	<1.0	<1.0	<1.0	950/810	--	--	--	--	--	--	--
MW-6	23-Apr-99	38.46	15.74	--	22.72	<50	--	<1.0	<1.0	<1.0	<1.0	310/220	--	--	--	--	--	--	--
MW-6	20-Jul-99	38.46	16.12	--	22.34	<50	--	<1.0	<1.0	<1.0	<1.0	1400/130	<500	<10	<10	<10	--	--	--
MW-6	30-Dec-99	38.46	16.16	--	22.3	<50	--	<0.5	<0.5	<0.5	<0.5	300/360	--	<5.0	<5.0	<5.0	--	--	--
MW-6	29-Feb-00	38.46	15.08	--	23.38	<50	--	<0.5	<0.5	<0.5	<0.5	240/340	--	<5.0	<5.0	<5.0	--	<5.0	<5.0
MW-6	14-Apr-00	38.46	15.82	--	22.64	90	--	<0.5	<0.5	<0.5	<0.5	200/220	--	<5.0	<5.0	<5.0	--	--	--
MW-6	24-Jul-00	38.46	16.03	--	22.43	240	--	<0.5	<0.5	<0.5	<0.5	600/540	62	<5.0	<5.0	<5.0	--	--	--
MW-6	30-Oct-00	38.46	15.83	--	22.63	120	--	<0.5	<0.5	<0.5	<0.5	260/380	<100	<10	<10	<10	--	--	--
MW-6	11-Jan-01	38.46	16	--	22.46	<50	--	<0.5	<0.5	<0.5	<0.5	2.4/2.69	<10	<1.0	<1.0	<1.0	--	--	--
MW-6	17-May-01	38.46	16.05	--	22.41	140	--	<0.5	<0.5	<0.5	<1.5	130/169	<10	<1.0	<1.0	<1.0	--	--	--
MW-6	02-Jul-01	38.46	16.27	--	22.19	70	--	<0.5	<0.5	<0.5	<1.5	80/91.4	<10	<1.0	<1.0	<1.0	--	--	--
MW-6	02-Nov-01	38.46	16.31	--	22.15	<50	--	<0.5	<0.5	<0.5	<1.5	32.3	--	--	--	--	--	--	--
MW-6	06-Aug-02	38.46	16.14	--	22.32	<50	--	<0.5	<0.5	<0.5	<1.5	6.73	--	--	--	--	--	--	--
MW-6	16-Oct-02	38.46	16.38	--	22.08	<50	--	<0.50	<0.50	<0.50	<0.50	<2.50	--	--	--	--	--	--	--
MW-6	13-Jan-03	38.46	15.66	--	22.8	<50	--	3.6	1.2	1.4	4.8	3.9	--	--	--	--	--	--	--
MW-6	02-May-03	38.46	15.89	--	22.57	<50	--	<0.50	<0.50	<0.50	<0.50	12	--	--	--	--	--	--	--
MW-6	11-Jul-03	38.46	16.03	--	22.43	<50	--	<0.50	<0.50	<0.50	<0.50	17/17	<20	<0.5	<0.50	<0.50	<100	--	--
MW-6	01-Oct-03	38.46	15.9	--	22.56	<50	--	<0.50	<0.50	<0.50	<0.50	3.5	<20	<0.5	<0.50	<0.50	<100	--	--
MW-6	11-Feb-04	38.46	15.9	--	22.56	<50	--	<0.50	<0.50	<0.50	<0.50	2	<20	<0.5	<0.50	<0.50	<100	<0.50	<0.50
MW-6	21-Jul-04	38.46	16.18	--	22.28	<50	--	<0.50	<0.50	<0.50	<0.50	3	<20	<0.5	<0.50	<0.50	<100	<0.50	<0.50
MW-6	20-Jan-05	38.46	15.67	--	22.79	<50	--	<0.50	<0.50	<0.50	<0.50	2.4	<20	<0.5	<0.50	<0.50	<100	<0.50	<0.50
MW-6	19-Jul-05	38.46	16.04	--	22.42	<50	--	<0.50	<0.50	<0.50	<0.50	0.61	<20	<0.5	<0.50	<0.50	<100	<0.50	<0.50
MW-6	11-Jan-06	38.46	15.43	--	23.03	<50	--	<0.50	<0.50	<0.50	<0.50	1.3	<20	<0.5	<0.50	<0.50	<300	<0.50	<0.50
MW-6	26-Jul-06	38.46	16.4	--	22.06	<50	--	<0.50	<0.50	<0.50	<0.50	0.5	<20	<0.5	<0.50	<0.50	<300	<0.50	<0.50
MW-6	11-Jan-07	38.46	16.06	--	22.4	<50	--	<0.50	<0.50	<0.50	<0.50	0.91	<20	<0.5	<0.50	<0.50	<300	<0.50	<0.50
MW-6	23-Jul-07	38.46	16.2	--	22.26	<50	--	<0.50	<0.50	<0.50	<0.50	<0.50	<20	<0.5	<0.50	<0.50	<300	<0.50	<0.50
MW-6	16-Jan-08	38.46	15.81	--	22.65	<50	--	<0.50	<0.50	<0.50	<0.50	<0.50	<20	<0.5	<0.50	<0.50	<300	<0.50	<0.50
MW-6	17-Jul-08	38.46	16.22	--	22.24	<50	--	<0.50	<0.50	<0.50	<0.50	<0.50	<10	<0.5	<0.50	<0.50	<300	<0.50	<0.50
MW-6	28-Jan-09	38.46	16.5	--	21.96	<50	--	<0.50	<0.50	<0.50	<0.50	<0.50	<10	<0.5	<0.50	<0.50	<300	<0.50	<0.50
MW-6	27-Aug-09	38.46	16.55	--	21.91	<50	--	<0.50	<0.50	<0.50	<0.50	<0.50	<10	<0.5	<0.50	<0.50	<300	<0.50	<0.50



Table 2: Historical Groundwater Results  
 Former British Petroleum Station #11107  
 18501 Hesperian Blvd., San Lorenzo, CA  
 Local Case #RO000489

Location	Sample Date	TOC Elevation (feet amsl)	DTW (feet btoc)	Product Thickness (feet)	Water Level Elevation (feet amsl)	µg/L													
						TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	TBA	DIPE	ETBE	TAME	Ethanol	1,2-DCA	EDB
		ESL				100	100	1.0	40	30	20	5	120	--	--	--	--	0.5	0.05
QC-2	04-Nov-92		--	--		<50	--	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	--	--	--
QC-2	24-Feb-94		--	--		--	--	--	--	--	--	<5.0	--	--	--	--	--	--	--
QC-2	12-May-94		--	--		<50	--	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--	--	--	--	--
QC-2	09-Sep-94		--	--		<50	--	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--	--	--	--	--
QC-2	03-Nov-94		--	--		<50	--	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--	--	--	--	--
QC-2	01-Mar-95		--	--		<50	--	<0.5	<0.5	<0.5	<1.0	--	--	--	--	--	--	--	--
QC-2	06-Jun-95		--	--		<50	--	<0.50	<0.50	<0.50	<1.0	--	--	--	--	--	--	--	--
QC-2	01-Sep-95		--	--		<50	--	<0.50	<0.50	<0.50	<1.0	<5.0	--	--	--	--	--	--	--
QC-2	29-Nov-95		--	--		<50	--	<0.50	<0.50	<0.50	<1.0	<5.0	--	--	--	--	--	--	--
QC-2	23-Mar-96		--	--		<50	--	<0.5	<1	<1	<1	<10	--	--	--	--	--	--	--

Notes:

amsl = above mean sea level

DIPE = Di-isopropyl ether

DTW = Depth to water (ft below top of casing)

EDB = 1,2-Dibromoethane

ESL = Environmental Screening Level

ETBE = Ethyl tert-butyl ether

MTBE = Methyl tert-butyl ether

TAME = Tert-amyl methyl ether

TBA = Tert-butyl alcohol

TOC = Top of casing (surveyed).

TPHg = Total Petroleum Hydrocarbons as Gasoline

TPHd = Total Petroleum Hydrocarbons as Diesel

1,2-DCA = 1,2-Dichloroethane

µg/L = Micrograms per liter

< = Analyte was not detected above the specified method reporting limit

-- = Not measured or analyzed

All volatile organic compounds analyzed using United States Environmental Protection Agency Method 8260B.

Beginning in the first quarter 2008, the carbon range for TPHg was changed from C4-C12 to C6-C12.



**Table 3: Historical Groundwater Flow Directions and Gradient  
Former British Petroleum Station #11107  
18501 Hesperian Blvd., San Lorenzo, CA  
Local Case #RO0000489**

<b>Date Sampled</b>	<b>Approximate Flow Direction</b>	<b>Approximate Hydraulic Gradient (ft/ft)</b>
8/6/2002	northwest	0.004
10/16/2002	west-northwest	0.003
1/13/2003	northwest	0.004
5/2/2003	northwest	0.004
7/11/2003	west-northwest	0.004
10/1/2003	west-northwest	0.004
2/11/2004	west-northwest	0.003
7/21/2004	west-northwest	0.004
1/20/2005	west-northwest	0.004
7/19/2005	west-northwest	0.005
1/11/2006	west-northwest	0.006
7/26/2006	west	0.006
1/11/2007	west-northwest	0.004
7/23/2007	west-northwest	0.004
1/16/2008	west-northwest	0.004
7/17/2008	west-northwest	0.004
1/28/2009	west-northwest	0.005
8/27/2009	west	0.004

**Table 4-  
Soil Analytical Data  
Product Lines and Dispensers**

**BP Service Station # 11107  
18501 Hesperian Boulevard  
San Lorenzo California**

Sample Name	Sample Depth	Date Sampled	TPH as		Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Xylenes (mg/kg)	MTBE 8020/8260 (mg/kg)	Total Lead (mg/kg)
			Gasoline (mg/kg)	Benzene (mg/kg)					
PD-1	1.5'	11/02/99	ND<1	ND<0.005	ND<0.005	ND<0.005	0.0287	ND/NA	7.5
PD-2	2.0'	11/02/99	4.17	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND/NA	NA
PD-3	2.0'	11/02/99	2.02	ND<0.005	ND<0.005	ND<0.005	0.0116	ND/NA	NA
PD-4	2.0'	11/02/99	ND<1	ND<0.005	ND<0.005	ND<0.005	ND<0.005	3.31/NA	NA
PL-1	2.5'	11/02/99	ND<1	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND/NA	NA
PL-2	2.5'	11/02/99	ND<1	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND/NA	NA
PL-3	3.5'	11/02/99	ND<1	ND<0.005	ND<0.005	ND<0.005	ND<0.005	9.81/14.1	NA

TPH = Total petroleum hydrocarbons  
 MTBE = Methyl tertiary butyl ether  
 ND = Not detected above specified laboratory reporting limits  
 NA = Not analyzed  
 mg/kg = milligrams per kilogram

# CAMBRIA

**Table 5** Soil Analytical Data - BP Oil Site No. 11107,  
18501 Hesperian Boulevard, San Lorenzo, California

Sample ID (Depth - feet bgs)	Soil Type	Date Sampled	GRO	Benzene	Toluene	Ethyl- benzene	Xylenes	MTBE	TOC
			(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(% w/w)
EPA Method:			8015m	8260	8260	8260	8260	8260	Walkley-Black
CB-1@15.5	clayey silt	11/8/99	<0.47	<0.005	<0.005	<0.005	<0.005	<0.005	-
CB-2@15.5	silty sand	11/8/99	<0.47	<0.005	<0.005	<0.005	<0.005	<0.005	-
CB-3@7.5	silty sand	11/8/99	-	-	-	-	-	-	<0.318
CB-3@15.5	clayey silt	11/8/99	<0.47	<0.005	<0.005	<0.005	<0.005	<0.005	-
CB-3@19.5	silty sand	11/8/99	-	-	-	-	-	-	<0.318
CB-4@15.0	clayey sandy silt sandy silt	11/8/99	<0.46	<0.005	<0.005	<0.005	<0.005	<0.005	-
CB-5@15.5		11/8/99	<0.43	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	-

### Abbreviations and Notes:

bgs = Below ground surface

GRO = Gasoline range organics

MTBE = Methyl tert-butyl ether

TOC = Total organic carbon

bgs = Below ground surface

mg/kg = Milligrams per kilogram

<n = Below detection limit of n mg/kg

Table 7  
 TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING  
 BP OIL COMPANY SERVICE STATION NO. 11107  
 18501 HESPERIAN BOULEVARD, SAN LORENZO, CALIFORNIA

ALISTO PROJECT NO. 10-066

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	TPH-D (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	MTBE (ug/l)	TOG (ug/l)	1,1,1-TCA (ug/l)	PCE (ug/l)	DO (ppm)	LAB
MW-1	11/04/82	41.07	20.78	20.29	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5000	2.8	ND	---	PACE
QC-1 (c)	11/04/82	---	---	---	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	---	PACE
MW-1	02/24/84	41.07	20.70	20.37	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	ND<5000	1.5	0.9	---	PACE
MW-1	05/12/84	41.07	18.12	22.85	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	ND<5000	1.0	ND<0.5	7.0	PACE
MW-1	09/09/84	41.07	21.74	19.33	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	ND<5000	ND<0.5	ND<0.5	2.3	PACE
MW-1	11/03/84	41.07	20.01	21.05	ND<50	50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	ND<5000	ND<0.5	ND<0.5	4.3	PACE
MW-1	03/01/85	41.07	17.44	23.63	ND<50	ND<500	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	---	---	---	ATI
MW-1	06/06/85	41.07	17.55	23.52	---	---	---	---	---	---	---	---	---	---	---	---
MW-1	09/01/85	41.07	18.19	22.88	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	60	---	---	6.8	ATI
MW-2	11/04/82	40.56	20.16	20.40	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	---	PACE
MW-2	02/24/84	40.56	20.12	20.44	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	---	PACE
MW-2	05/12/84	40.56	17.49	23.07	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	7.4	PACE
MW-2	09/09/84	40.56	21.12	19.44	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	2.1	PACE
MW-2	11/03/84	40.56	19.36	21.20	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	4.2	PACE
MW-2	03/01/85	40.56	16.83	23.73	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	---	---	2.2	ATI
MW-2	06/06/85	40.56	16.98	23.60	---	---	---	---	---	---	---	---	---	---	---	---
MW-2	09/01/85	40.56	17.54	23.02	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	ND<5.0	---	---	---	7.9	ATI
MW-3	11/04/82	40.45	20.23	20.22	780	---	3.7	15	1.9	57	---	---	---	---	---	PACE
MW-3	02/24/84	40.45	20.24	20.21	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	---	PACE
MW-3	05/12/84	40.45	17.61	22.84	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	7.3	PACE
MW-3	09/09/84	40.45	21.22	19.23	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	2.0	PACE
MW-3	11/03/84	40.45	18.48	23.87	ND<50	---	ND<0.5	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	3.8	PACE
MW-3	03/01/85	40.45	17.08	23.37	ND<50	---	ND<0.50	ND<0.50	ND<0.50	ND<1.0	---	---	---	---	1.9	ATI
MW-3	06/06/85	40.45	17.21	23.24	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	09/01/85	40.45	17.69	22.76	200	---	2.7	33	7.2	43	ND<5.0	---	---	---	7.8	ATI
MW-4	11/04/82	39.24	19.18	20.06	800	---	150	4.1	0.8	53	---	---	---	---	---	PACE
MW-4	02/24/84	39.24	19.22	20.02	240	---	110	3.8	1.8	11	---	---	---	---	---	PACE
QC-1 (c)	02/24/84	---	---	---	310	---	95	5.3	2.2	17	---	---	---	---	---	PACE
MW-4	05/12/84	39.24	16.62	22.62	ND<50	---	2.2	1.0	ND<0.5	ND<0.5	---	---	---	---	7.3	PACE
QC-1 (c)	05/12/84	---	---	---	430	---	2.6	1.3	ND<0.5	ND<0.5	---	---	---	---	---	PACE
MW-4	09/09/84	39.24	20.27	18.97	240	---	9.1	1.3	ND<0.5	2.5	---	---	---	---	2.2	PACE
QC-1 (c)	09/09/84	---	---	---	57	---	1.7	ND<0.5	ND<0.5	0.5	---	---	---	---	---	PACE
MW-4	11/03/84	39.24	18.46	20.78	250	---	3.1	2.8	1.0	3.3	---	---	---	---	3.2	PACE
QC-1 (c)	11/03/84	---	---	---	110	---	2.4	ND<0.5	ND<0.5	110	---	---	---	---	---	PACE
MW-4	03/01/85	39.24	15.15	23.59	8900	---	1800	28	450	400	---	---	---	---	2.0	ATI
QC-1 (c)	03/01/85	---	---	---	7800	---	1700	25	410	370	---	---	---	---	---	ATI
MW-4	06/06/85	39.24	16.29	22.98	3100	---	630	25	170	85	---	---	---	---	---	ATI
QC-1 (c)	06/06/85	---	---	---	3000	---	630	27	170	92	---	---	---	---	---	ATI
MW-4 (d)	09/01/85	39.24	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-5	03/01/85	39.07	16.00	23.07	9400	---	150	ND<5.0	45	390	---	---	---	---	1.2	ATI
MW-5	06/06/85	39.07	16.16	22.91	1100	---	42	ND<2.5	15	4.0	---	---	---	---	---	ATI
MW-5	09/01/85	39.07	16.63	22.44	---	---	---	ND<2.5	---	---	---	---	---	---	7.4	ATI
QC-1 (c)	09/01/85	---	---	---	1200	---	64	ND<2.5	14	3.1	---	---	---	---	---	ATI
MW-6	03/01/85	38.46	15.66	22.80	270	---	11	ND<0.50	ND<0.50	ND<1.0	---	---	---	---	1.6	ATI
MW-6	06/06/85	38.46	15.82	22.64	220	---	2.3	ND<0.50	ND<0.50	ND<1.0	---	---	---	---	---	ATI
MW-6	09/01/85	38.46	16.25	22.21	---	---	ND<2.5	ND<2.5	ND<2.5	ND<5.0	---	---	---	---	7.5	ATI
MW-7	03/01/85	39.50	16.21	23.29	1400	---	14	ND<1.0	14	27	---	---	---	---	1.8	ATI
MW-7	06/06/85	39.50	16.34	23.16	540	---	5.5	ND<0.50	15	1.1	---	---	---	---	---	ATI
MW-7	09/01/85	39.50	16.74	22.76	---	---	---	ND<0.50	---	---	---	---	---	---	7.5	ATI

TABLE 3 - RESULTS OF ADDITIONAL GROUNDWATER ANALYSIS OF MW-1  
 BP OIL COMPANY SERVICE STATION NO. 11107  
 18501 HESPERIAN BOULEVARD, SAN LORENZO, CALIFORNIA

ALISTO PROJECT NO. 10-060

WELL ID	DATE OF SAMPLING/ MONITORING	TPH-D (ug/l)	TOG (ug/l)	CF (ug/l)	PCE (ug/l)	1,1,1-TCA (ug/l)	SVOCs (ug/l)	PCBs (ug/l)	Cadmium (ug/l)	Chromium (ug/l)	Nickel (ug/l)	Lead (ug/l)	Zinc (ug/l)	LAB
MW-1	11/04/92	ND<50	ND<5000	ND<0.5	ND<0.5	2.8	---	---	---	---	---	---	---	PACE
MW-1	02/24/94	ND<50	ND<5000	ND<0.5	0.9	1.5	---	---	---	---	---	---	---	PACE
MW-1	05/12/94	ND<50	ND<5000	ND<0.5	ND<0.5	1.0	---	---	---	---	---	---	---	PACE
MW-1	09/09/94	ND<50	ND<5000	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	---	---	---	PACE
MW-1	11/03/94	50	ND<5000	ND<0.5	ND<0.5	ND<0.5	---	---	---	---	---	---	---	PACE
MW-1	03/01/95	ND<500	420	0.47	0.30	0.54	ND (a,b)	ND<0.50	1.1	30	40	11	70	ATI

ABBREVIATIONS: *MTC* *200* *50* *500*

NOTES:

TPH-D Total petroleum hydrocarbons as diesel  
 TOG Total oil and grease  
 CF Chloroform  
 PCE Tetrachloroethene  
 1,1,1-TCA 1,1,1-Trichloroethane  
 SVOCs Semi-volatile organic compounds  
 PCBs Polychlorinated biphenyls  
 ug/l Micrograms per liter  
 ND Not detected at or above reported detection limit  
 --- Not analyzed  
 PACE Pace, Inc.  
 ATI Analytical Technologies, Inc.

(a) Various detection limits; see laboratory reports.  
 (b) SVOCs including polynuclear aromatics, pentachlorophenol, and creosote, not detected at or above reported detection limits.

**GAS CHROMATOGRAPHY RESULTS**

Test : EPA 601 (HALOGENATED VOLATILE ORGANICS)  
 Client : ALISTO ENGINEERING  
 Project # : F937601/10-060-02-001  
 Project Name: BP SITE #11107/18501 HESPERIAN, SAN LORENZO, CA

ATI I.D. : 503089

Sample #	Client ID	Matrix	Date Sampled	Date Extracted	Date Analyzed	Dil. Factor
1	S-1	WATER	01-MAR-95	N/A	10-MAR-95	1.00

Parameter	Units	1
BROMODICHLOROMETHANE	UG/L	<0.20
BROMOFORM	UG/L	<1.0
BROMOMETHANE	UG/L	<1.0
CARBON TETRACHLORIDE	UG/L	<0.20
CHLOROBENZENE	UG/L	<0.50
CHLOROETHANE	UG/L	<1.0
CHLOROFORM	UG/L	0.47
CHLOROMETHANE	UG/L	<1.0
DIBROMOCHLOROMETHANE	UG/L	<0.20
1,2-DICHLOROBENZENE	UG/L	<0.50
1,3-DICHLOROBENZENE	UG/L	<0.50
1,4-DICHLOROBENZENE	UG/L	<0.50
DICHLORODIFLUOROMETHANE	UG/L	<1.0
1,1-DICHLOROETHANE	UG/L	<0.20
1,2-DICHLOROETHANE	UG/L	<0.20
1,1-DICHLOROETHENE	UG/L	<0.20
CIS-1,2-DICHLOROETHENE	UG/L	<0.20
TRANS-1,2-DICHLOROETHENE	UG/L	<0.20
1,2-DICHLOROPROPANE	UG/L	<0.20
CIS-1,3-DICHLOROPROPENE	UG/L	<0.20
TRANS-1,3-DICHLOROPROPENE	UG/L	<0.20
METHYLENE CHLORIDE	UG/L	<2.0
1,1,2,2-TETRACHLOROETHANE	UG/L	<0.50
TETRACHLOROETHENE	UG/L	0.30
1,1,1-TRICHLOROETHANE	UG/L	0.54
1,1,2-TRICHLOROETHANE	UG/L	<0.20
TRICHLOROETHENE	UG/L	<0.20
TRICHLOROFLUOROMETHANE	UG/L	<2.0
VINYL CHLORIDE	UG/L	<0.20
<b>SURROGATES</b>		
BROMOFLUOROBENZENE (ELCD)	%	85
BROMOFLUOROBENZENE (PID)	%	78



ALISTO ENGINEERING GROUP  
CONCORD, CALIFORNIA

# LOG OF BORING B-1/MW-1

Page 1 of 1

SEE SITE PLAN

ALISTO PROJECT NO: 10-060

DATE DRILLED: 10/22/97

CLIENT: BP Oil Company

LOCATION: 18501 Hesperian Boulevard, San Leandro, California

DRILLING METHOD: Hollow-stem Auger (8")

DRILLING COMPANY: Great Sierra Exploration CASING ELEVATION: 4107' MSL

LOGGED BY: Ted Morse

APPROVED BY: A. Sewna

BLOWS/6 IN.	PTD VALUES	WELL DIAGRAM	DEPTH feet	SAMPLES	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	
							2" Asphalt	
								gravelly SAND: gray/green, damp, loose, fine- to coarse-grained sand
							ML	sandy SILT: dark brown, damp, medium firm, abundant very fine- to medium-grained sand.
6,6,5	1.0			5			SM	silty SAND: tan/red, damp, loose, very fine- to medium-grained sand.
6,8,12	1.4							Same: fine-grained sand, gray/green from 7.75 to 6'
6,7,8	1.2			10				Same.
7,9,10	0.9							Same: abundant silt.
8,9,10	1.1			15			ML	sandy SILT: tan, moist, stiff, abundant very fine-grained sand, minor clay.
12,16,22	1.3							Same: no clay.
4,4,4	1.8			20				Same: tan, moist, medium firm, abundant very fine-grained sand, minor clay.
7,5,8							SM ML	silty SAND: brown, wet, loose, fine- to medium-grained sand, minor silt. sandy SILT: tan, wet, stiff, very fine- to fine-grained sand, minor clay.
5,6,12				25				clayey SILT from 25.5 to 28 feet.
7,10,12							SM	silty SAND: brown, wet, medium dense, very fine- to fine-grained sand, abundant silt, minor clay.
8,8,11			30			ML	clayey SILT: brown, wet, very stiff, minor very fine-grained sand.	



ALISTO ENGINEERING GROUP  
CONCORD, CALIFORNIA

# LOG OF BORING B-2/MW-2

Page 1 of 1

SEE SITE PLAN

ALISTO PROJECT NO: 10-060

DATE DRILLED: 10/22/92

CLIENT: BP Oil Company

LOCATION: 15501 Hesperian Boulevard, San Lorenzo, California

DRILLING METHOD: Hollow-stem Auger (8")

DRILLING COMPANY: Great Sierra Exploration CASING ELEVATION: 42.58' MSL

LOGGED BY: Ted Morse

APPROVED BY: Al Sevi95

BLOWS/6 IN.	PIV VALUES	WELL DIAGRAM	DEPTH feet	SAMPLES	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION
			0			ML	2" Asphalt silty CLAY: black, damp, medium firm, minor very fine- to fine-grained sand.
8,7,6	0.1		5			SM	silty SAND: brown, damp, medium dense, fine- to medium-grained sand.
8,9,10	0.2		10			SW	gravelly SAND: tan, damp, medium dense, fine- to medium-grained sand, angular gravel to 1".
8,8,6	1.4		15			NL	sandy SILT: tan, damp, stiff, very fine- to fine-grained sand, minor clay
10,11,15	1.4		20			SM	silty SAND: brown, wet, medium dense, abundant silt, minor clay, very fine- to fine-grained sand.
9,15,10			25			ML	clayey SILT: tan, wet, very stiff, abundant clay, minor very fine- to fine-grained sand.
20,20,30			30			CL	silty CLAY: tan, wet, hard, minor silt.





ALISTO ENGINEERING GROUP  
CONCORD, CALIFORNIA

# LOG OF BORING B-3/MW-3

Page 1 of 1

SEE SITE PLAN

ALISTO PROJECT NO: 10-060

DATE DRILLED 10/22/92

CLIENT: BP Oil Company

LOCATION: 18501 Hesperian Boulevard, San Lorenzo, California

DRILLING METHOD: Hollow-stem Auger (S)

DRILLING COMPANY: Great Sierra Exploration CASING ELEVATION: 40.45' NSL

LOGGED BY: TM

APPROVED BY: AS

BLOWS/6 IN.	PID VALUES	WELL DIAGRAM	DEPTH feet	SAMPLES	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION
						SM	2" Asphalt silty SAND: brown/red, damp, loose, very fine- to medium-grained sand, minor silt, no clay
7,9,13	1.0		5				Same
4,4,5	1.2		10				Same: brown, damp, very fine- to fine-grained sand, abundant silt, minor clay
8,7,8	3.0		15			ML	sandy SILT: tan/gray, damp, stiff, very fine-grained sand, minor clay.
7,9,10	14		20				clayey SILT: tan/gray, moist, stiff, minor very fine-grained sand
8,12,17			25				Same: wet
15,17,23			28			CL	silty CLAY: tan, damp, very stiff, minor silt.



ALISTO ENGINEERING GROUP  
CONCORD, CALIFORNIA

# LOG OF BORING B-4/MW-4

Page 1 of 1

SEE SITE PLAN

ALISTO PROJECT NO: 10-060

DATE DRILLED: 10/23/92

CLIENT: BP Oil Company

LOCATION: 18501 Hesperian Boulevard, San Lorenzo, California

DRILLING METHOD: Hollow-stem Auger (8")

DRILLING COMPANY: Great Sierra Exploration CASING ELEVATION: 39.24' MSL

LOGGED BY: Ted Morse

APPROVED BY: Al Sevilla

BLOWS/B DL	PTD VALUES	WELL DIAGRAM	DEPTH feet	SAMPLES	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	
		<p>WELL DIAGRAM details:            - Top: 3" Asphalt            - Casing: 2" Sch 40 PVC            - Screen: 0.010" slotted PVC screen            - Soil: #2/12 coarsest sand            - Depth: 14' (to screen), 14' (to bottom)            - GROUT: 14' (top section), 14' (bottom section)            - Scale: 0 to 30 feet</p>	5			SM	3" Asphalt	
4,4,8	1.4							silty SAND: brown/red, damp, loose, fine- to medium-grained sand, minor silt, no clay.
8,7,7	1.8			10				Same: abundant silt.
4,4,4	2.0			15			ML	sandy SILT: gray, damp, medium firm, very fine- to fine-grained sand, minor clay
3,4,8	1.87			20				Same: brown/gray, very moist
7,10,11				25				Same: brown, abundant clay.
10,20,23			30				silty CLAY: brown, damp, hard, minor silt, minor very fine sand.	



**ALISTO ENGINEERING GROUP**  
WALNUT CREEK, CALIFORNIA

# LOG OF BORING MW-5

Page 1 of 1

SEE SITE PLAN

ALISTO PROJECT NO: 10-060-02

DATE DRILLED: 02/16/95

CLIENT: BP Oil Company

LOCATION: 18501 Hesperian Boulevard, San Lorenzo, California

DRILLING METHOD: Hollow-Stem Auger (8")

DRILLING COMPANY: Soils Exploration Srv.

CASING ELEVATION: 39.07'

LOGGED BY: J.D.

APPROVED BY: Al Sevilla

BLOWS/6 IN	PID VALUES	WELL DIAGRAM	DEPTH feet	SAMPLES	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	
4,5,7	0		5			ML	3" Asphalt sandy SILT: black/brown, slightly moist, stiff; fine- to medium- grained sand; trace fine angular gravel.	
2,3,4	0		10			SP	SAND: light brown, slightly moist, loose; fine-grained; trace silt.	
1,2,2	8		15			SP	SAND with silt and clay: light brown, very moist to wet, loose (soft); very fine-grained sand.  Same: color change to olive/green at 18.5'.	
4,5,6	274		20					
4,8,8	1		25				CL	sandy CLAY with silt: light brown, moist, stiff; very fine- to fine-grained sand.
			30				Stabilized water level measured on March 1, 1985.	



**ALISTO ENGINEERING GROUP**  
WALNUT CREEK, CALIFORNIA

# LOG OF BORING MW-6

Page 1 of 1

SEE SITE PLAN

ALISTO PROJECT NO: 10-080-02

DATE DRILLED: 02/15/95

CLIENT: BP Oil Company

LOCATION: 18501 Hesperian Boulevard, San Lorenzo, California

DRILLING METHOD: Hollow-Stem Auger (8")

DRILLING COMPANY: Solis Exploration Srv.

CASING ELEVATION: 38.48'

LOGGED BY: J.D.

APPROVED BY: Al Sevilla

BLOKS/S IN.	FTD VALUES	WELL DIAGRAM	DEPTH feet	SAMPLES	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION
						CL	8" Concrete silty CLAY: dark brown, slightly moist, firm.
3,4,4	0		5			SM	silty SAND: light brown, slightly moist, loose; fine-grained sand.
3,4,3	28		10			SP	SAND: light brown, slightly moist, loose; fine-grained; trace silt.
1,1,2	5		15			ML	sandy SILT with clay: olive/brown, very moist to wet, soft; very fine-grained sand.
2,2,2	3		20			SP	SAND with silt: light brown, wet, loose (soft); very fine- to fine-grained sand.
2,2,2	1		25			SC	clayey SAND with silt: light brown, very moist, loose (firm); very fine-grained sand.
			30				Stabilized water level measured on March 1, 1995.



**ALISTO ENGINEERING GROUP**  
WALNUT CREEK, CALIFORNIA

# LOG OF BORING MW-7

Page 1 of 1

SEE SITE PLAN

ALISTO PROJECT NO: 10-080-02

DATE DRILLED: 02/15/95

CLIENT: BP Oil Company

LOCATION: 18501 Hesperian Boulevard, San Lorenzo, California

DRILLING METHOD: Hollow-Stem Auger (8")

DRILLING COMPANY: Salls Exploration Srv.

CASING ELEVATION: 39.50'

LOGGED BY: J.D.

APPROVED BY: Al Sevilla

BLOWS/FO IN	PTD VALUES	WELL DIAGRAM	DEPTH feet	SAMPLES	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION
4,7,8	>1000		5			SM	3" Asphalt silty SAND: dark brown, slightly moist, medium dense; fine-grained sand. Same: color change to light brown.
3,4,4	>1000		10			SP	SAND: light brown, slightly moist, loose; fine-grained; trace silt.
2,2,2	57		15			ML	sandy SILT with clay: olive/brown, very moist to wet, soft; very fine-grained sand.
3,2,3	15		20			SP	SAND with silt: olive/brown, wet, loose (soft); very fine- to fine-grained sand.
5,8,7	0		25			ML	clayey SILT with sand: light brown, moist, stiff; very fine-grained sand.
			30				Stabilized water level measured on March 1, 1995.