

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

January 11, 2011

Mr. Jeffrey Baker  
Tesoro Petroleum Companies, Inc.  
3450 S. 344<sup>th</sup> Way, Ste. 100  
Auburn, WA 98001-5931  
(Sent via E-mail to: [Jeffrey.M.Baker@tsocorp.com](mailto:Jeffrey.M.Baker@tsocorp.com))

Bedrock Construction, Inc.  
c/o Sandeep Singh Nibber  
5302 Asterwood Drive  
Dublin, CA 94568-7718

Mr. Sam Hirbod  
Hirbod Enterprises  
111 Deerwood Road, Suite 110  
San Ramon, CA 94583

Ms. Barbara Wozniak  
Flyers LLC  
2360 Lindbergh Street  
Auburn, CA 95601-9537

Mr. Robert Ehlers  
Valero  
685 West Third Street  
Hanford, CA 93230

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

Subject: Case Closure for Fuel Leak Case No. RO0000216 and GeoTracker Global ID T0600101409, Beacon #3720/Ultramar #720, 1088 Marina Boulevard, San Leandro, CA 94577

Dear Mr. Baker et al:

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 remain in soil at concentrations up to 2,108 ppm.
- Total Petroleum Hydrocarbons as gasoline remain in groundwater at concentrations up to 17,300 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 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:

Leroy Griffin (w/enc)  
Oakland Fire Department  
250 Frank H. Ogawa Plaza, Ste. 3341  
Oakland, CA 94612-2032  
(Sent via E-mail to: [lgriffin@oaklandnet.com](mailto:lgriffin@oaklandnet.com))

Michael Purchase  
Arctos Environmental  
1332 Peralta Avenue  
Berkeley, CA 94702  
(Sent via E-mail to: [mpurchase@orionenv.com](mailto:mpurchase@orionenv.com))

Denis Conley  
Haley & Aldrich  
200 Town Centre Drive, Suite 2  
Rochester, NY 14623-4264

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

John Camp  
City of San Leandro, Environmental Services  
Division, Civic Center  
835 East 14<sup>th</sup> Street  
San Leandro, CA 94577

Matthew Nelson  
Arctos Environmental  
3450 East Spring Street, #212  
Long Beach, CA 90806  
(Sent via E-mail to: [mnelson@orionenv.com](mailto:mnelson@orionenv.com))

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

GeoTracker (w/enc)  
File (w/orig enc)



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**REMEDIAL ACTION COMPLETION CERTIFICATION**

January 11, 2011

Mr. Jeffrey Baker  
Tesoro Petroleum Companies, Inc.  
3450 S. 344<sup>th</sup> Way, Ste. 100  
Auburn, WA 98001-5931  
(Sent via E-mail to: [Jeffrey.M.Baker@tsocorp.com](mailto:Jeffrey.M.Baker@tsocorp.com))

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Subject: Case Closure for Fuel Leak Case No. RO0000216 and GeoTracker Global ID T0600101409, Beacon #3720/Ultramar #720, 1088 Marina Boulevard, San Leandro, CA 94577

Dear Mr. Baker et al:

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 25296.10 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**

Date: May 27, 2009

**I. AGENCY INFORMATION**

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: Beacon #3720/Ultramar #720		
Site Facility Address: 1088 Marina Boulevard, San Leandro, CA 94577		
RB Case No.: ---	Local Case No.: STID#4552	LOP Case No.: RO0000216
URF Filing Date: 04/12/2006	Geotracker ID: T0600101409	APN: 77A-720-26-4
Responsible Parties	Addresses	Phone Numbers
Jeffrey Baker, Tesoro Petroleum Companies, Inc.	3450 S. 344 <sup>th</sup> Way, Suite 100, Auburn, WA 98001-5931	253-896-8700
Bedrock Construction, Inc., c/o Sandeep Singh Nibber	5302 Asterwood Drive, Dublin, CA 94568-7718	
Sam Hirbod, Hirbod Enterprises	Address Unknown	
Barbara Wozniak, Flyers LLC	2360 Lindbergh Street, Auburn, CA 95602-9537	
Terry Grayson, ConocoPhillips	76 Broadway, Sacramento, CA 95818	916-558-7666
Robert Ehlers, Valero	685 West Third Street, Hanford, CA 93230	210-345-2227

Tank I.D. No	Size in Gallons	Contents	Closed In Place/Removed?	Date
1	10,000	Gasoline	Removed	01/21/1987
2	10,000	Gasoline	Removed	01/21/1987
3	7,500	Gasoline	Removed	01/21/1987
4	1,000	Waste Oil	Removed	01/21/1987
Piping			Removed	01/21/1987

### III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and Type of Release: Unknown. One hole was found along a bottom seam of the 10,000-gallon steel regular gasoline tank. No holes or other obvious signs of failure were observed in the remaining tanks with the exception of an apparently fresh gash in a waste oil tank, presumed to have occurred during tank removal.		
Site characterization complete? Yes	Date Approved By Oversight Agency: -----	
Monitoring wells installed? Yes	Number: 9	Proper screened interval? Yes
Highest GW Depth Below Ground Surface: 9.7 feet bgs	Lowest Depth: 17 feet bgs	Flow Direction: South southwest
Most Sensitive Current Use: Drinking water source.		

Summary of Production Wells in Vicinity: The nearest water supply well is an irrigation well located approximately 300 feet northwest (upgradient) of the site. The irrigation well, which is reported to be 6 inches in diameter and 28 feet deep, is listed as inactive. Based on the upgradient location, the irrigation well is not expected to be a receptor for the site. A total of 23 irrigation wells are located within 1,600 feet of the site. All of the irrigation wells are upgradient of the site and are not expected to be receptors for the site based on their upgradient locations. The nearest drinking well is located approximately 1,600 feet south (downgradient) from the site. Based on the distance from the site, the drinking water well is not expected to be a receptor for the site.	
Are drinking water wells affected? No	Aquifer Name: East Bay Plain
Is surface water affected? No	Nearest SW Name: San Leandro Creek is approximately 5,000 feet north of the site.
Off-Site Beneficial Use Impacts (Addresses/Locations): None	
Reports on file? Yes	Where are reports filed? Alameda County Environmental Health

TREATMENT AND DISPOSAL OF AFFECTED MATERIAL			
Material	Amount (Include Units)	Action (Treatment or Disposal w/Destination)	Date
Tank	2-10,000 gallons 1-7,500 gallons 1-1,000 gallon	Disposed off site. Destination not reported.	01/21/1987
Piping	Not reported	Not reported	01/21/1987
Free Product	---	---	---
Soil	---	---	---
Groundwater	228,850 gallons	Treated on site and discharged to the sanitary sewer.	July 1997 to March 1998
	7,100 gallons	Treated on site and discharged to the sanitary sewer.	October 2000 to January 2001

**MAXIMUM DOCUMENTED CONTAMINANT CONCENTRATIONS BEFORE AND AFTER CLEANUP**  
 (Please see Attachments 1 through 6 for additional information on contaminant locations and concentrations)

Contaminant	Soil (ppm)		Water (ppb)	
	Before	After	Before	After
TPH (Gas)	5,800	2,108	130,000(1)	7,300(1)
TPH (Diesel)	NA	NA	NA	NA
TPH (Motor oil)	210	210	NA	NA
Benzene	500	18	45,000(1)	14(1)
Toluene	1,200	110	17,000(1)	3.4(1)
Ethylbenzene	36	36	7,100(1)	310(1)
Xylenes	427	427	27,000(1)	21(1)
Lead	NA(2)	NA(2)	NA(2)	NA(2)
MTBE	NA(3)	NA(3)	150,000(4)	4.2(5)
Other (8240/8270)	NA(6)	NA(6)	NA(6)	NA(6)

- (1) The maximum concentration before cleanup is the highest historic concentration detected in groundwater samples collected from the monitoring wells between April 16, 1987 and May 12, 2008. The maximum concentration after cleanup is the highest concentration detected during the most recent sampling event on May 12, 2008.
- (2) No metals analyses.
- (3) No MTBE or other oxygenate analyses for soil.
- (4) The maximum concentration before cleanup is the highest historic concentration detected in groundwater samples collected from the monitoring wells between June 13, 1996 and May 12, 2008. MTBE = 150,000 ppb; TBA = 6,000 ppb; DIPE <2 ppb; ETBE <2 ppb; and TAME <2 ppb. No analysis for EDB and EDC.
- (5) The maximum concentration after cleanup is the highest concentration detected in groundwater samples collected from the monitoring wells on May 12, 2008. MTBE = 4.2 ppb; TBA = 9.5 ppb; DIPE <0.5 ppb; ETBE <0.5 ppb; and TAME <0.5 ppb. No analysis for EDB and EDC.
- (6) No analysis for other VOCs or SVOCs.

#### Site History and Description of Corrective Actions:

The site is currently an operating service station located at the corner of Eleventh Avenue and Marina Boulevard in San Leandro, California. Surrounding land use is mixed commercial and residential. Three USTs containing various grades of gasoline were removed from the site in January 1987. Soil samples collected from beneath the former USTs contained TPHg and benzene at concentrations up to 5,800 and 500 ppm, respectively. Based on these results, soils beneath the former gasoline tanks were overexcavated. The volume of soil that was overexcavated was not reported. Following overexcavation, soil samples were collected from the four corners of the excavation at a depth of 19.5 to 20 feet bgs. The four soil samples contained TPHg at concentrations ranging from 26 to 330 and benzene at concentrations ranging from 1 to 15 ppm.

A waste oil tank was also removed from the site in January 1987. No overexcavation appears to have been conducted in the waste oil tank pit. Two soil samples were collected from beneath the waste oil tank for analysis; however, only concentrations as waste oil appear to be the only reported analysis. Waste oil concentrations in the two soil samples were reported to be 195 and 210 ppm.

Five soil borings were advanced logged and sampled in March 1987. Each of the five soil borings was converted into monitoring wells (MW-1 through MW-5). Hydrocarbon odors were noted during drilling at depth of nine to 17 feet bgs with the strongest odors observed at the water table. A sheen was observed in monitoring wells MW-2 and MW-3. Laboratory analysis of soil samples from the monitoring wells detected TPH at concentrations ranging from 83 to 2,108 ppm. Dissolved TPHg concentrations in groundwater samples from the monitoring wells ranged from 10,000 ppb to 19,300 ppb.

In July 1987, four soil borings were advanced to approximately 14, 5 feet bgs in the area west of the UST basin. Soil samples were collected at depths of 9.5 and 14 feet in each of the soil borings. TPH and benzene were detected in one of the four soil samples collected at depths of 9.5 feet bgs at a concentration of 10 and 0.69 ppm, respectively. TPH and benzene were detected in all four soil samples collected at depths of 14 feet bgs at concentrations ranging from 45 to 170 ppm and 9.8 to 32 ppm, respectively.

Three exploratory borings were advanced on August 15, 1991 (B-1 through B-3); four borings were advanced on September 19-20, 1991 (B-4 through B-7); and three borings were advanced and converted into monitoring wells on October 10-11, 1991 (MW-6 through MW-8). TPHg was detected in soil at concentrations up to 560 ppm. Benzene was detected in soil at concentrations up to 3.6 ppm. Grab groundwater samples were obtained from three of the six soil borings. TPHg and benzene were detected in the grab groundwater samples at concentrations up to 72,000 and 14,000 ppb, respectively.

One additional monitoring well (MW-9) was installed in December 1994 along with six air sparging points and one vapor extraction well. A groundwater pumping test, soil vapor extraction (SVE) test, and air sparging test were conducted at the site in October 1993. Based on the results, SVE was proposed for soil remediation and air sparging with interim groundwater extraction was proposed for groundwater remediation. In December 1994, six air sparge wells (SP-1 through SP-6) and one SVE well (VW-1) were installed. Operation of the SVE system began in June 1997 and operation of the groundwater extraction and air sparging systems began in July 1997. From June 1997 through May 2006, the SVE system removed approximately 3,084 pounds of hydrocarbons. The system was shut down on May 12, 2006 after analysis of influent samples did not detect petroleum hydrocarbon concentrations for the preceding 10 months.

Approximately 228,850 gallons of groundwater was extracted from July 1997 to March 1998. An additional 7,100 gallons of groundwater was extracted from wells MW-1, MW-2 and MW-3 during five separate groundwater extraction events from October 2000 to January 2001. The groundwater extraction system was removed from the site in November 2003.

An ozone system was installed and began operation in December 2005. The ozone system consisted of two 0.5-pound-per hour ozone generators connected in parallel that continuously sparged ozone in groundwater monitoring wells MW-1 and MW-4. Ozone sparging was initiated in MW-5 in March 2005. Operation of the ozone system stopped at the same time as operation of the SVE system stopped on May 12, 2006.

Groundwater monitoring was conducted at the site from March 1992 until January 2008. The highest concentrations of dissolved fuel hydrocarbons have generally been observed in well MW-2, which is located adjacent to the former USTs. TPHg concentrations in groundwater samples from MW-2 have decreased from 130,000 ppb in July 1991 to 7,300 ppb in May 2008. Benzene concentrations in groundwater samples from MW-2 have decreased from 3,500 ppb in July 1991 to 14 ppb in May 2008.

Site History and Description of Corrective Actions (Continued):

A large chlorinated hydrocarbon plume, known as the DWA plume, is directly downgradient from the site. The DWA plume is approximately 1 mile wide and 3 miles long. The northern boundary of the plume is approximately Marina Boulevard. Groundwater remediation of the DWA plume is being overseen by the California Department of Toxic Substances Control. A Public Health Advisory was issued for the area, advising residents not to use private wells in this area for domestic purposes unless tested regularly.

**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 and projected future land use as a gasoline service station and conditions.		
Site Management Requirements: Case closure for the fuel leak site is granted for commercial land use only. If a change in land use to residential or other conservative scenarios occurs at this property, Alameda County Environmental Health must be notified and the case needs to be re-evaluated.		
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: 9
List Enforcement Actions Taken: None		
List Enforcement Actions Rescinded: --		



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

Considerations and/or Variances:

Soils from the waste oil tank excavation appear to have been analyzed only for TPH as waste oil. The minimum verification analyses do not appear to have been performed. Based on the observations during waste oil tank removal and the relatively low to moderate concentrations of petroleum hydrocarbons detected in soil samples from the waste oil tank excavation, further investigation of the waste oil tank area does not appear to be warranted at this time.

No MTBE or fuel oxygenate analyses were performed for soil. However, MTBE and fuel oxygenate analyses were performed for groundwater. Delineation of the extent of soil contamination is provided by TPH as gasoline and BTEX data for soil. Further investigation to collect MTBE and fuel oxygenate data for soil does not appear to be warranted at this time.

No soil vapor sampling other than vapor sampling for monitoring the performance of the soil vapor extraction system was conducted for the site. Based on the low concentrations of fuel hydrocarbons in soil vapor influent to the SVE system, additional soil vapor sampling does not appear to be warranted at this time.


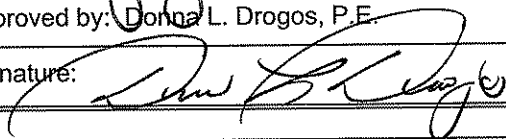
No analyses were apparently performed for TPH as diesel fuel. Diesel fuel was not reported to be stored at the site. The three fuel USTs removed in 1987 were gasoline tanks. Based on the historic use of gasoline at the site, the collection of data for TPH as diesel does not appear to be warranted at this time.

No analyses were performed for EDB or EDC.

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 for commercial land use as a gasoline service station.

**VI. LOCAL AGENCY REPRESENTATIVE DATA**

Prepared by: Jerry Wickham	Title: Senior Hazardous Materials Specialist
Signature: 	Date: 07/29/09
Approved by: Donna L. Drogos, P.E.	Title: Supervising Hazardous Materials Specialist
Signature: 	Date: 07/29/09

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
RB Response: Concur, based solely upon information contained in this case closure summary.	Date Submitted to RB:
Signature: <i>Cherie McCaulou</i>	Date: 10/6/09

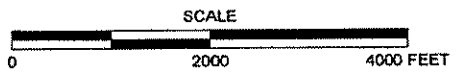
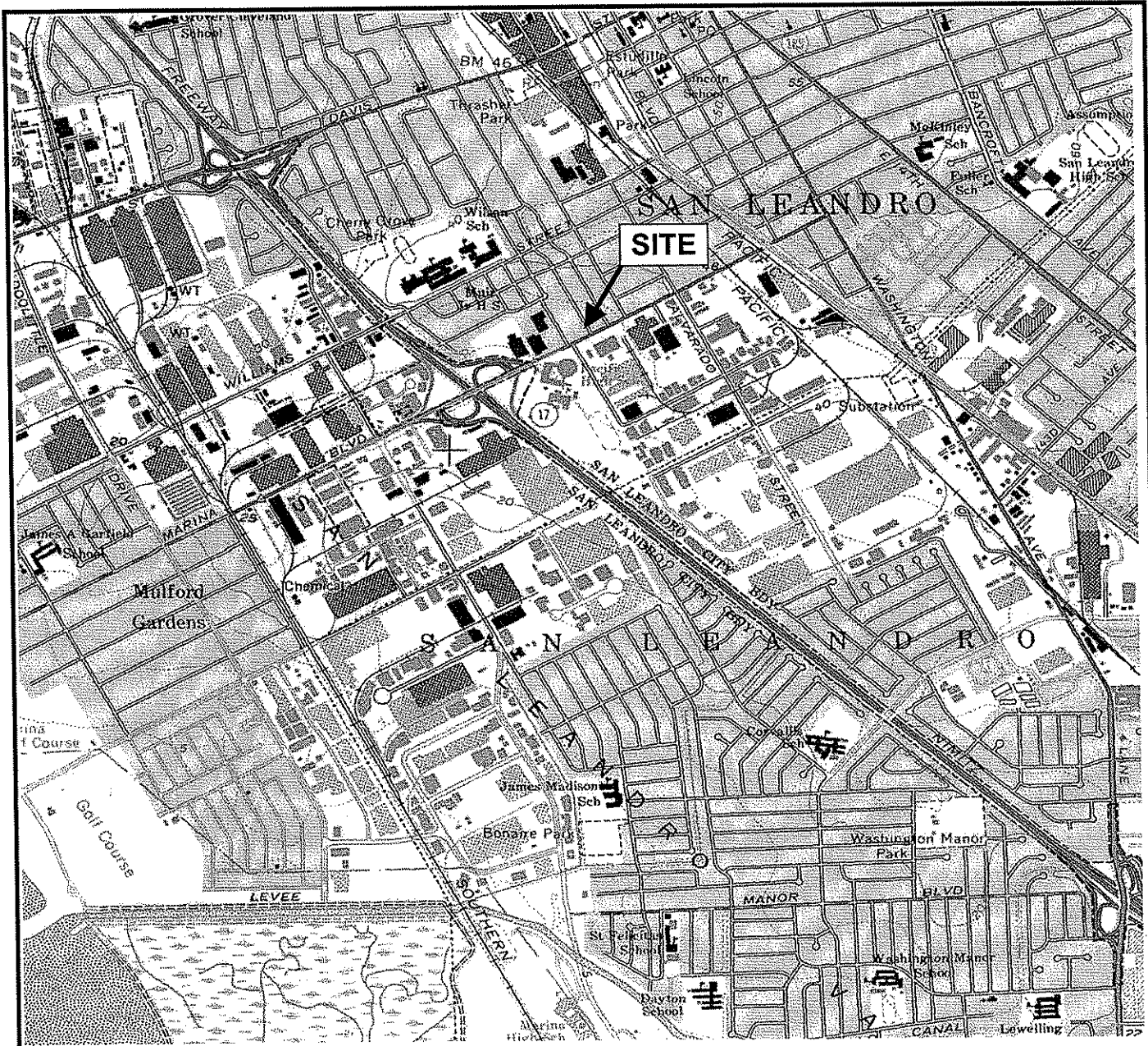
**VIII. MONITORING WELL DECOMMISSIONING**

Date Requested by ACEH: 10/06/09	Date of Well Decommissioning Report: 01/05/11	
All Monitoring Wells Decommissioned: Yes	Number Decommissioned: 18	Number Retained: 0
Reason Wells Retained: NA		
Additional requirements for submittal of groundwater data from retained wells: None		
ACEH Concurrence - Signature: <i>Jim Wickham</i>	Date: 01/11/11	

**Attachments:**

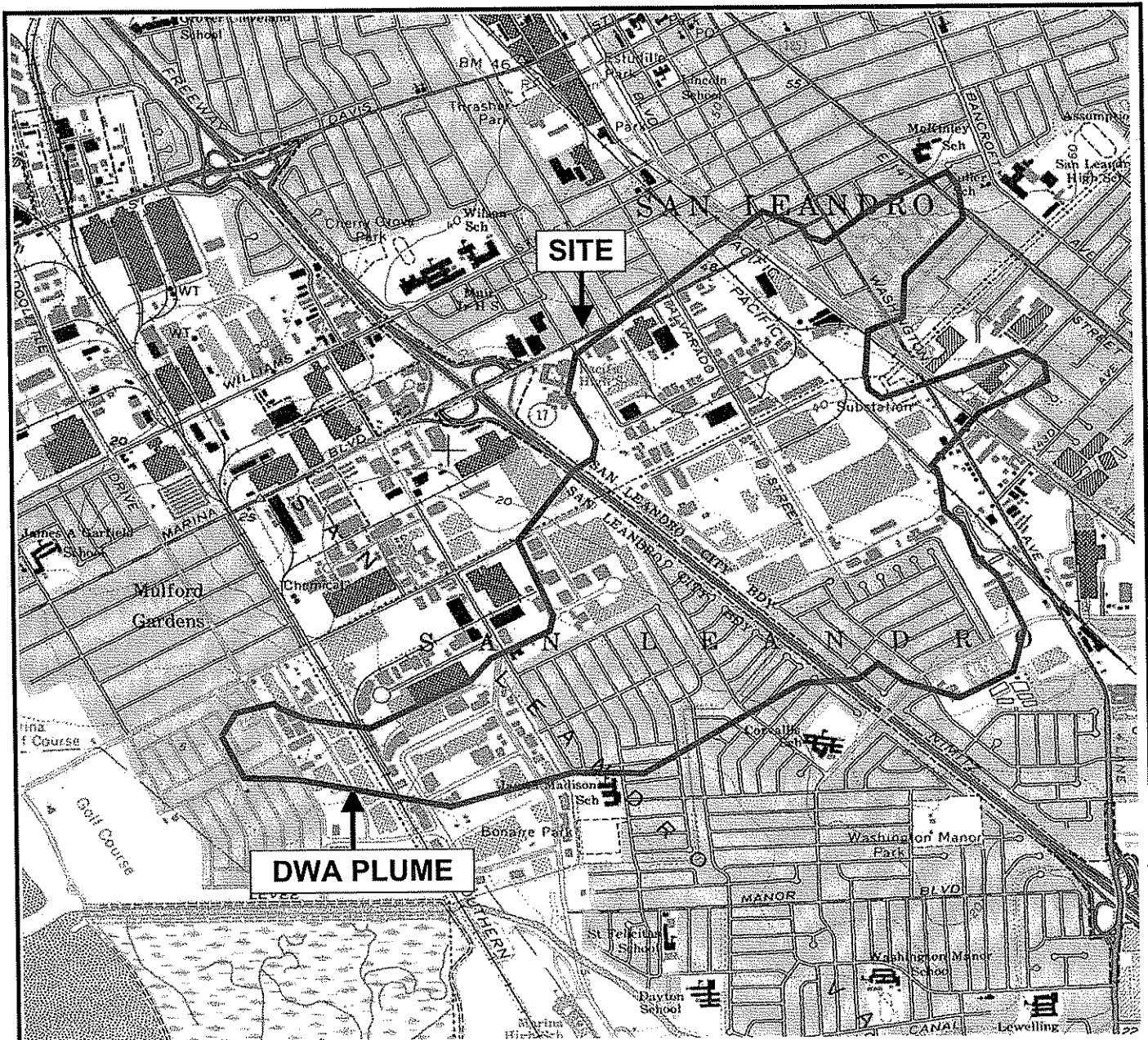
1. Site Location Map and DWA Plume Map (2 pages)
2. Site Maps and Isoconcentration Maps (10 pages)
3. Geologic Cross Sections (3 pages)
4. Graphs (8 pages)
5. Soil Analytical Data (6 pages)
6. Groundwater Analytical Data (41 pages)
7. Boring Logs (29 pages)

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



**REFERENCE**  
 7.5 MINUTE USGS TOPOGRAPHIC MAP OF  
 SAN LEANDRO, CALIFORNIA QUADRANGLE  
 DATE: 1959, PHOTOREVISED 1980  
 SCALE = 1:24,000

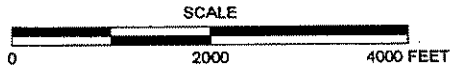
ARCTOS ENVIRONMENTAL			
TESORO - SAN LEANDRO, 67106			
<b>SITE LOCATION MAP</b>			
PROJECT NO. 01DO	DRAWN BY MP	CHECKED BY MP	APPROVED BY JG
FILE NO. Site Map.xls		<b>FIGURE 1</b>	



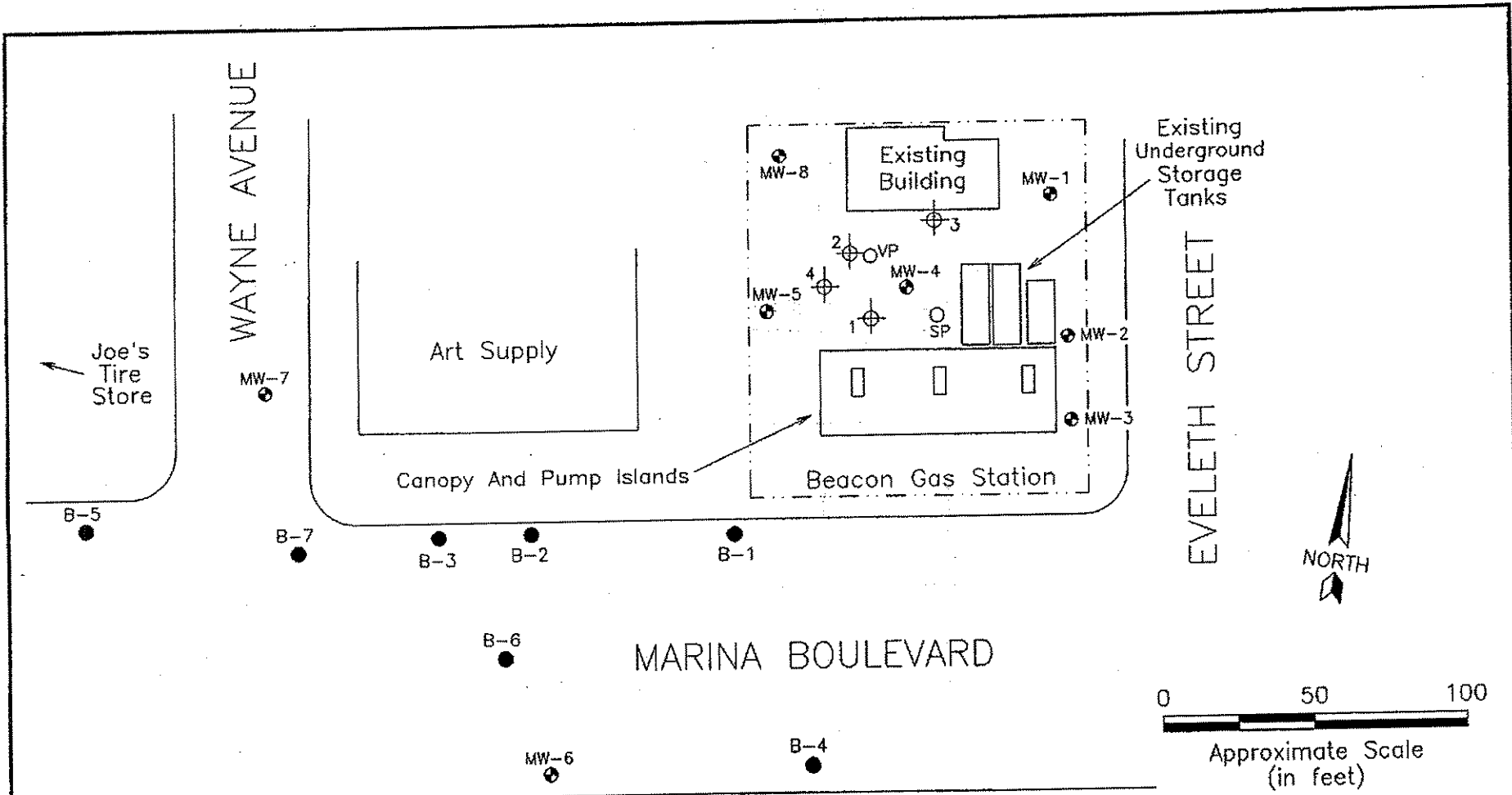
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



Weiss Associates, 2008. *Fourth Quarter Ground Water Monitoring Event, San Leandro Residential Area, Technical Memorandum 8*, 20 March.

7.5 Minute USGS Topographic Map of San Leandro, California Quadrangle  
 Date: 1959, Photorevised 1980  
 Scale = 1:24,000



ARCTOS ENVIRONMENTAL			
TESORO - SAN LEANDRO, 67106			
<b>DWA PLUME MAP</b>			
PROJECT NO. 01DO	DRAWN BY MP	CHECKED BY MP	APPROVED BY JG
FILE NO. DWA Plume Map.xls		<b>FIGURE 8</b>	

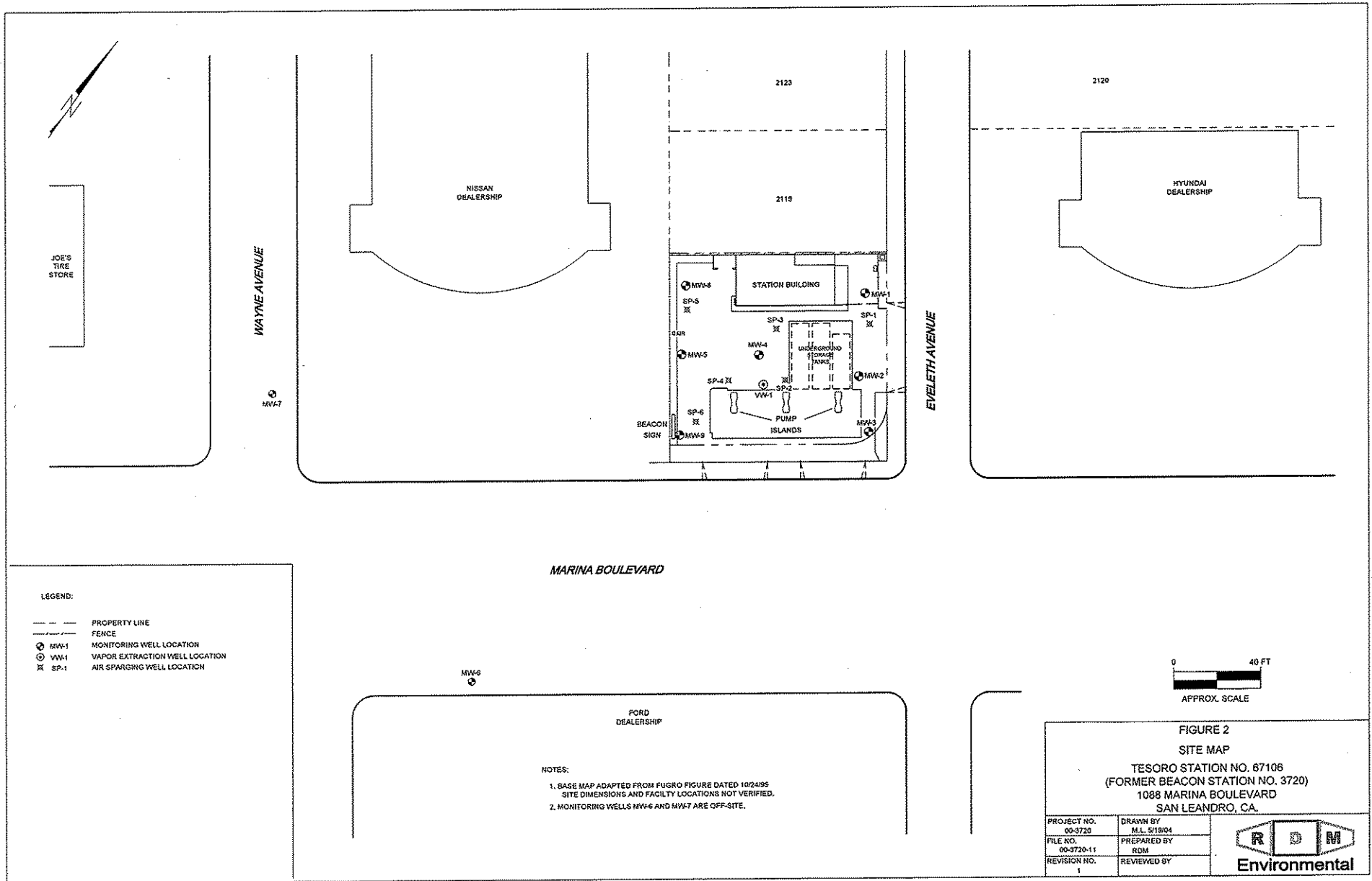


- LEGEND
- MW-6  Monitoring Well Location And Number
  - 1  Soil Boring Location And Number (GT1,1987)
  - B-2  Soil Boring Location And Number (EGC,1991)
  - VP  Vapor Monitoring Point
  - SP  Sparge Point

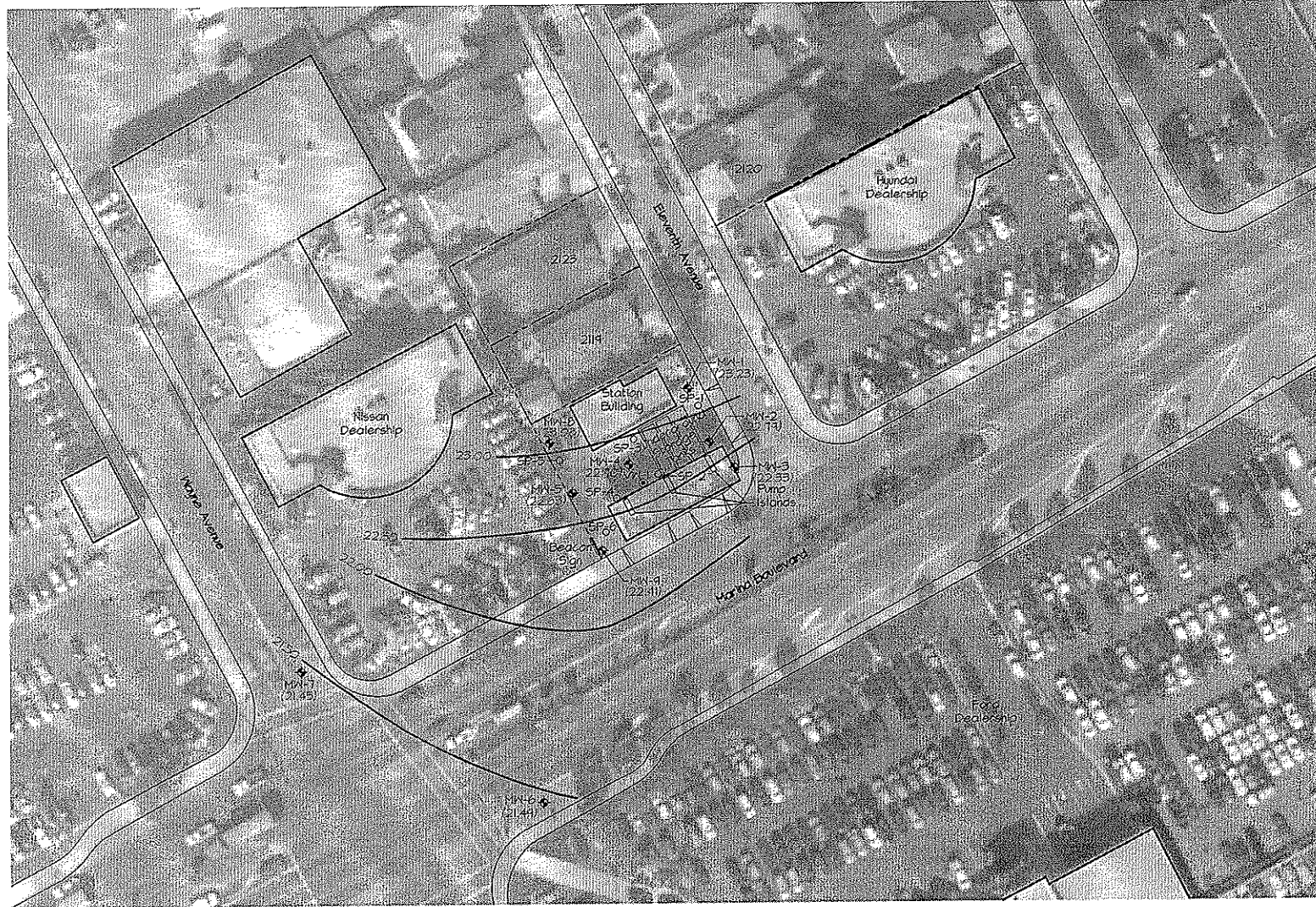
<b>FIGURE 2</b>		
SITE MAP 1088 MARINA BOULEVARD SAN LEANDRO, CALIFORNIA		
Project No. 19030	Drawn LMC	Acton • Mickelson • van Dam, Inc. Consulting Scientists, Engineers, and Geologists
File No. FIG2	Prepared SAL 3/11/94	
Revision	Reviewed	

Note: Base Map Adapted From Environmental Geotechnical Consultants, Inc. Dated 12/92. All Dimensions And Locations Not Verified By AMV.

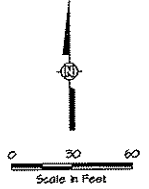
## ATTACHMENT 2



010011B0400.dwg  
4/16/2008 8:05AM



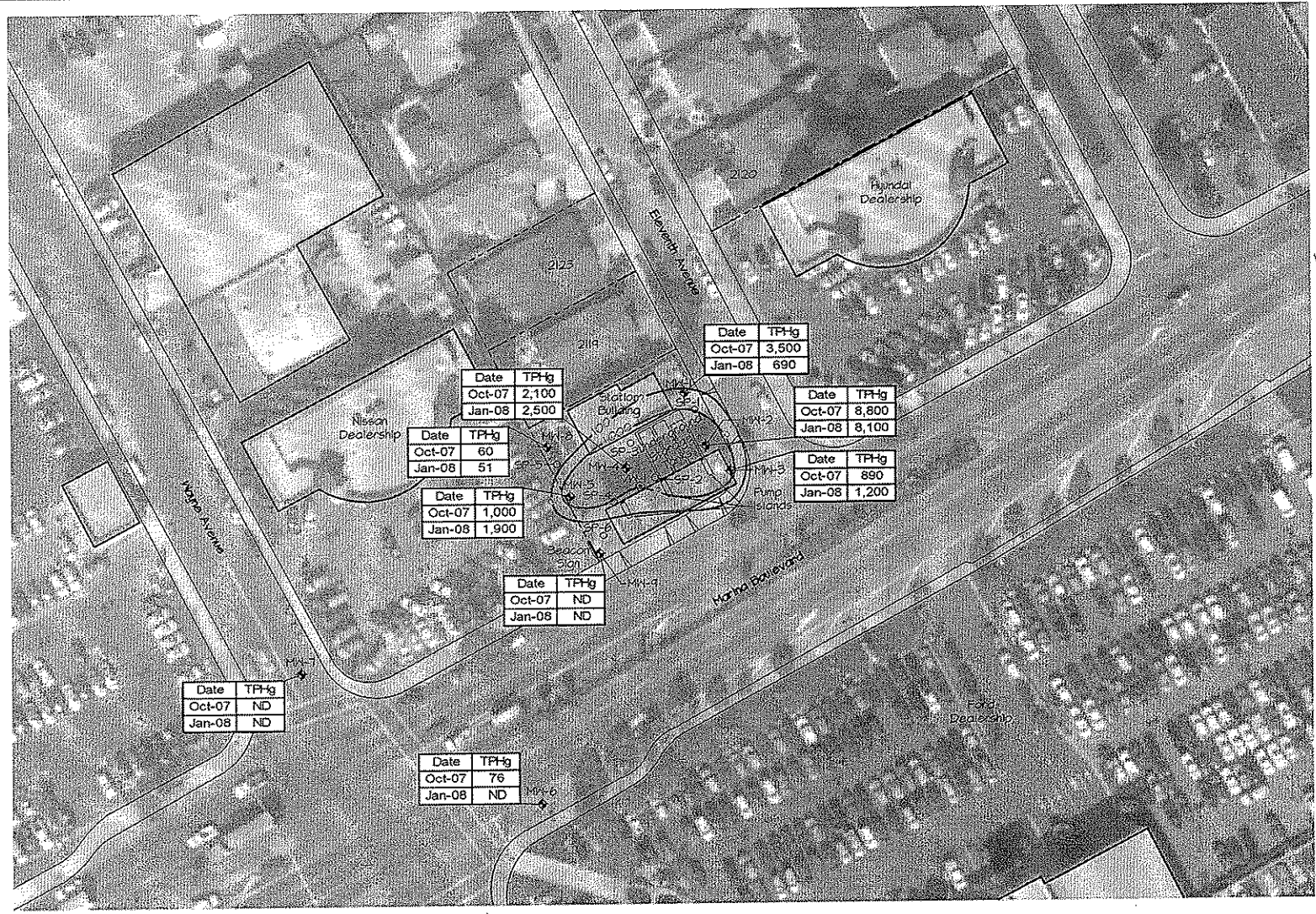
- Legend
- MN-1 ◆ Monitoring Well with 27 January 2008 Groundwater Elevation (Feet MSL)
  - VW-1 ⊙ Vapor Extraction Well
  - SP-1 ○ Air Sparging Well
  - 22.50 Groundwater Elevation Contour (Feet MSL)



ARCTOS ENVIRONMENTAL			
TESORO - SAN LEANDRO			
<b>SITE PLAN</b>			
PROJECT NO. C180	DRAWN BY MT	CHECKED BY MP	APPROVED BY JPG
FILE NO. 010011B0400.DWG		FIGURE 2	

REVISIONS			
NO.	BY	DATE	DESCRIPTION
0	MT	3/6/08	First Quarter 2008 Status Report

01/24/2008 7:04PM 01001180200.dwg



**Legend**  
 MW-1 ◊ Monitoring Well with 24 October 2007 and 27 January 2008 Total Petroleum Hydrocarbons as Gasoline (TPHg) Results in µg/l  
 VW-1 ⊙ Vapor Extraction Well  
 SP-1 ○ Air Sparging Well  
 ND Not Detected  
 100 — TPHg Concentration Contour (µg/l), Queried Where Uncertain

Date	TPHg
Oct-07	ND
Jan-08	ND

Date	TPHg
Oct-07	76
Jan-08	ND

Date	TPHg
Oct-07	1,000
Jan-08	1,900

Date	TPHg
Oct-07	60
Jan-08	51

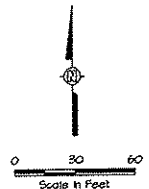
Date	TPHg
Oct-07	2,100
Jan-08	2,500

Date	TPHg
Oct-07	3,500
Jan-08	690

Date	TPHg
Oct-07	8,800
Jan-08	8,100

Date	TPHg
Oct-07	890
Jan-08	1,200

Date	TPHg
Oct-07	ND
Jan-08	ND

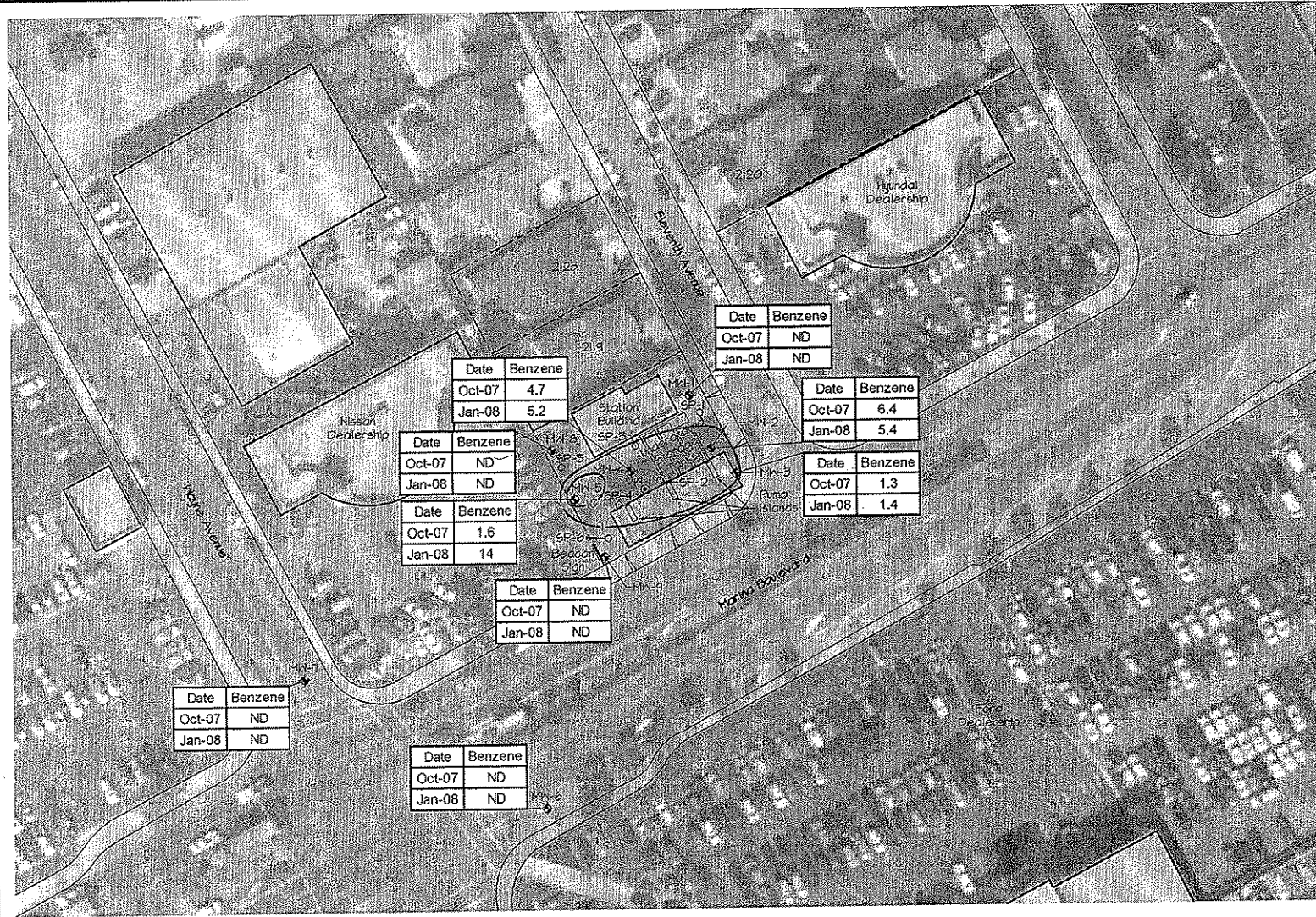


ARCTOS ENVIRONMENTAL			
TESORO - SAN LEANDRO			
<b>TPHg CONCENTRATION CONTOURS IN GROUNDWATER</b>			
PROJECT NO. O1D0	DRAWN BY MY	CHECKED BY MP	PRINTED BY JPG
FILE NO. O1D01B0200.DWG	FIGURE 4		

REVISION		REVISIONS	
NO.	BY	DATE	DESCRIPTION
1	Q	MY	3/6/08 First Quarter 2008 Status Report



010011803300.dwg  
4/24/2008 7:02PM



**Legend**  
 MN-1 ◆ Monitoring Well with 24 October 2007 and 21 January 2008 Benzene Results in µg/l  
 VN-1 ○ Vapor Extraction Well  
 SP-1 ○ Air Sparging Well  
 ND Not Detected  
 — Benzene Concentration Contour (µg/l), Queried Where Uncertain

Date	Benzene
Oct-07	ND
Jan-08	ND

Date	Benzene
Oct-07	ND
Jan-08	ND

Date	Benzene
Oct-07	1.6
Jan-08	14

Date	Benzene
Oct-07	ND
Jan-08	ND

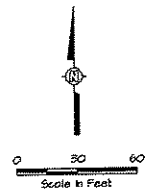
Date	Benzene
Oct-07	4.7
Jan-08	5.2

Date	Benzene
Oct-07	ND
Jan-08	ND

Date	Benzene
Oct-07	6.4
Jan-08	5.4

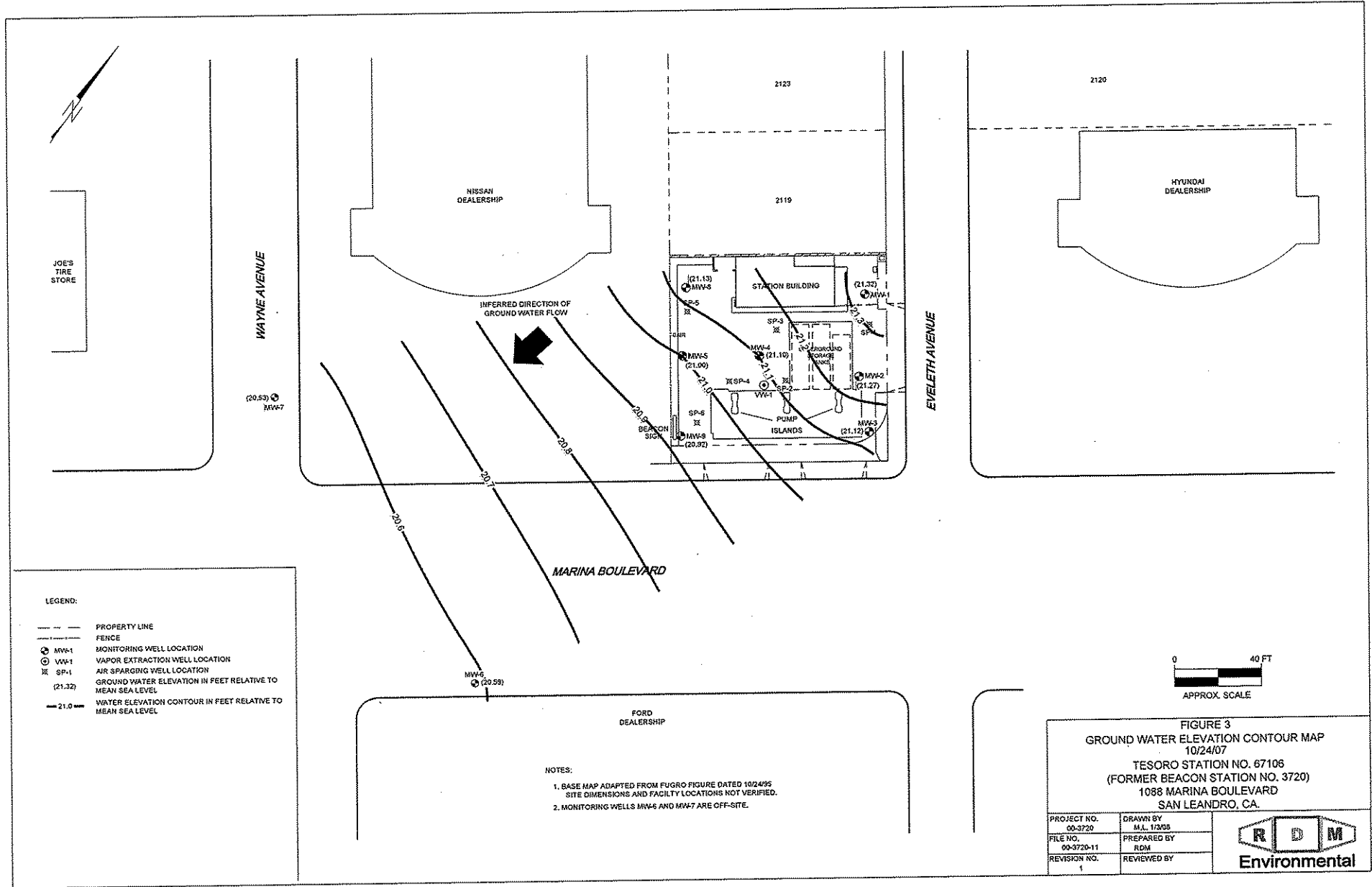
Date	Benzene
Oct-07	1.3
Jan-08	1.4

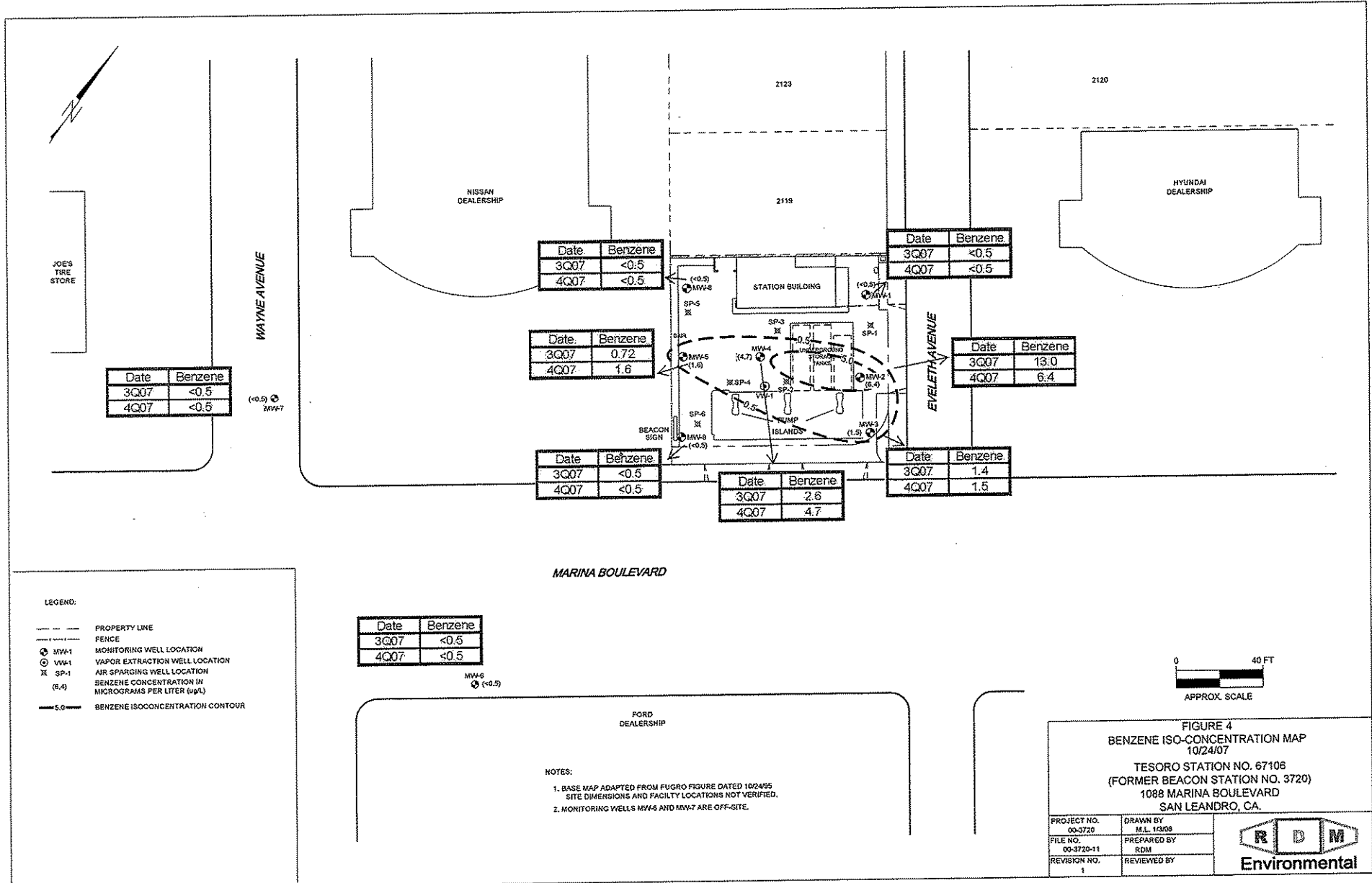
Date	Benzene
Oct-07	ND
Jan-08	ND



ARCTOS ENVIRONMENTAL			
TESORO - SAN LEANDRO			
<b>BENZENE CONCENTRATION CONTOURS IN GROUNDWATER</b>			
PRODUCT NO. C100	DRAWN BY MY	CHECKED BY MP	APPROVED BY JPG
FILE NO. C100180300.DWG			FIGURE 5

REVISION	NO.	BY	DATE	DESCRIPTION
0	MY	3/28/08		First Quarter 2008 Status Report





JOE'S TIRE STORE

WAYNE AVENUE

MW-7 (<0.5)

Date	Benzene
3Q07	<0.5
4Q07	<0.5

NISSAN DEALERSHIP

Date	Benzene
3Q07	<0.5
4Q07	<0.5

Date	Benzene
3Q07	0.72
4Q07	1.6

Date	Benzene
3Q07	<0.5
4Q07	<0.5

Date	Benzene
3Q07	2.6
4Q07	4.7

2123

2119

2120

HYUNDAI DEALERSHIP

STATION BUILDING

EVELETH AVENUE

Date	Benzene
3Q07	13.0
4Q07	6.4

Date	Benzene
3Q07	<0.5
4Q07	<0.5

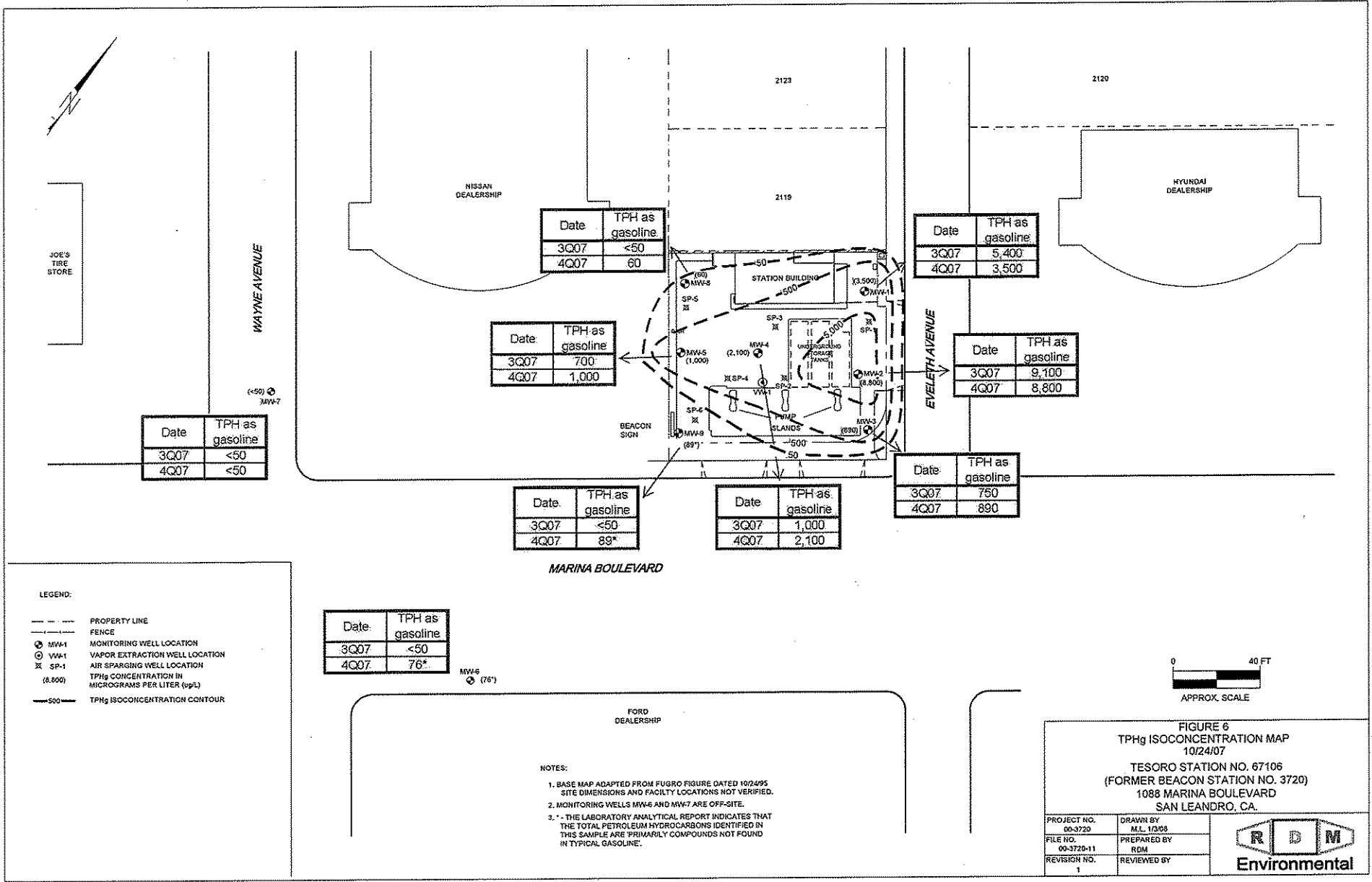
Date	Benzene
3Q07	1.4
4Q07	1.5

MARINA BOULEVARD

Date	Benzene
3Q07	<0.5
4Q07	<0.5

MW-6 (<0.5)

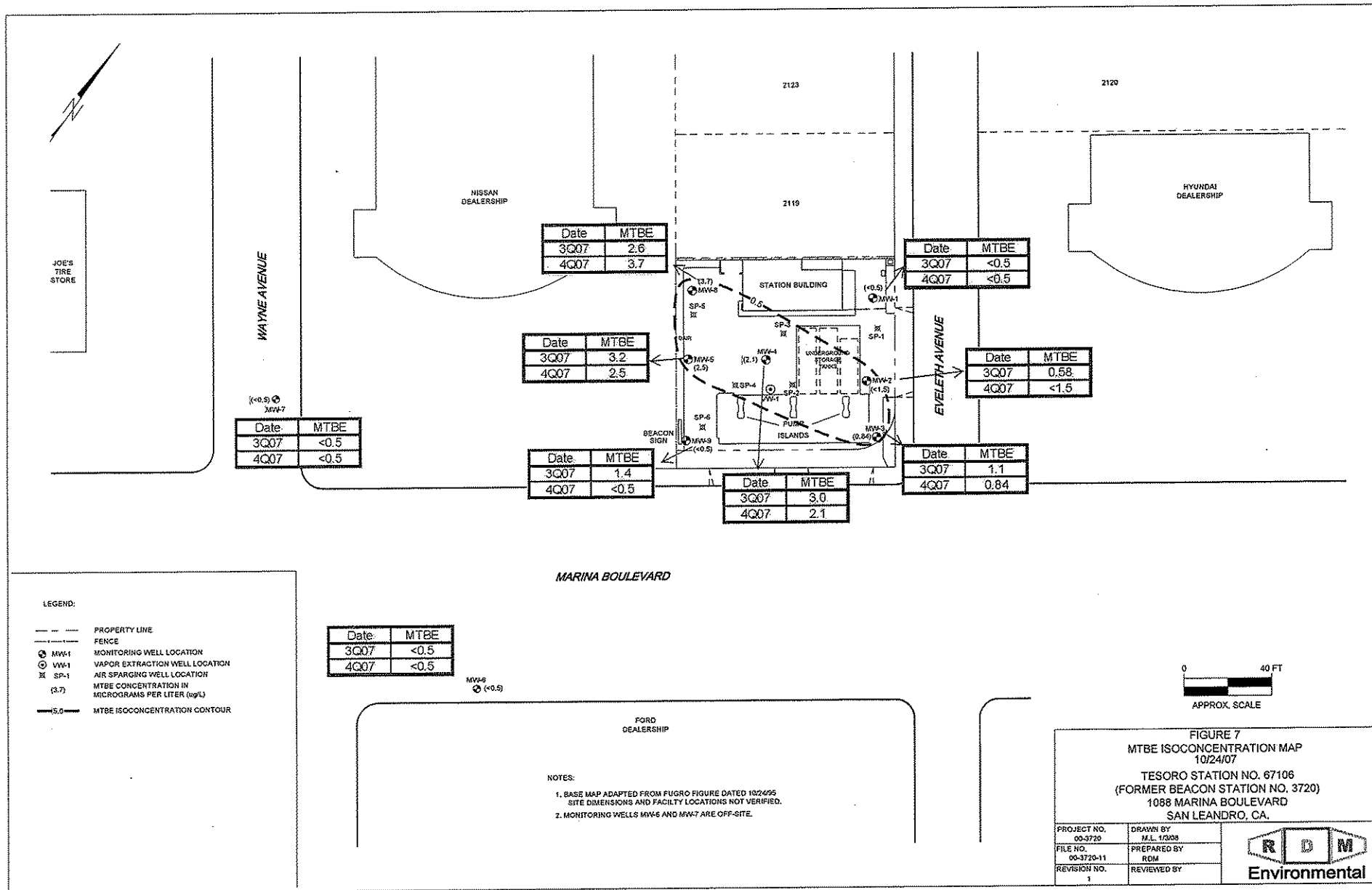
FORD DEALERSHIP



**FIGURE 6**  
**TPHg ISOCONCENTRATION MAP**  
 10/24/07  
 TESORO STATION NO. 67106  
 (FORMER BEACON STATION NO. 3720)  
 1088 MARINA BOULEVARD  
 SAN LEANDRO, CA.

PROJECT NO. 00-3720	DRAWN BY M.L. 1/3/08
FILE NO. 00-3720-11	PREPARED BY RDM
REVISION NO. 1	REVIEWED BY

**R D M**  
**Environmental**



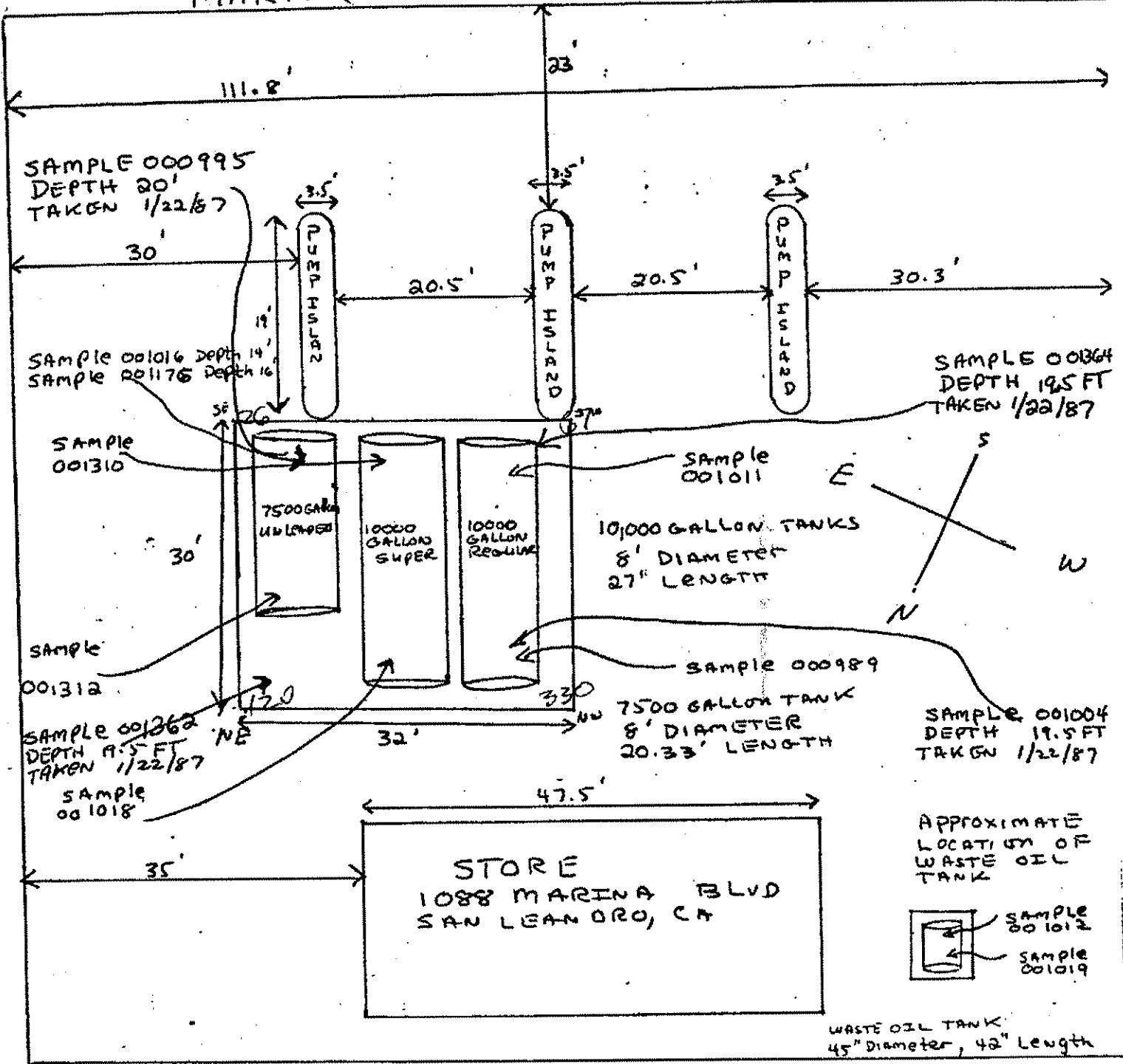
**FIGURE 7**  
**MTBE ISOCONCENTRATION MAP**  
 10/24/07

TESORO STATION NO. 67106  
 (FORMER BEACON STATION NO. 3720)  
 1088 MARINA BOULEVARD  
 SAN LEANDRO, CA.

PROJECT NO. 00-3720	DRAWN BY M.L. 1/2008
FILE NO. 00-3720-11	PREPARED BY ROM
REVISION NO. 1	REVIEWED BY

**ROM Environmental**

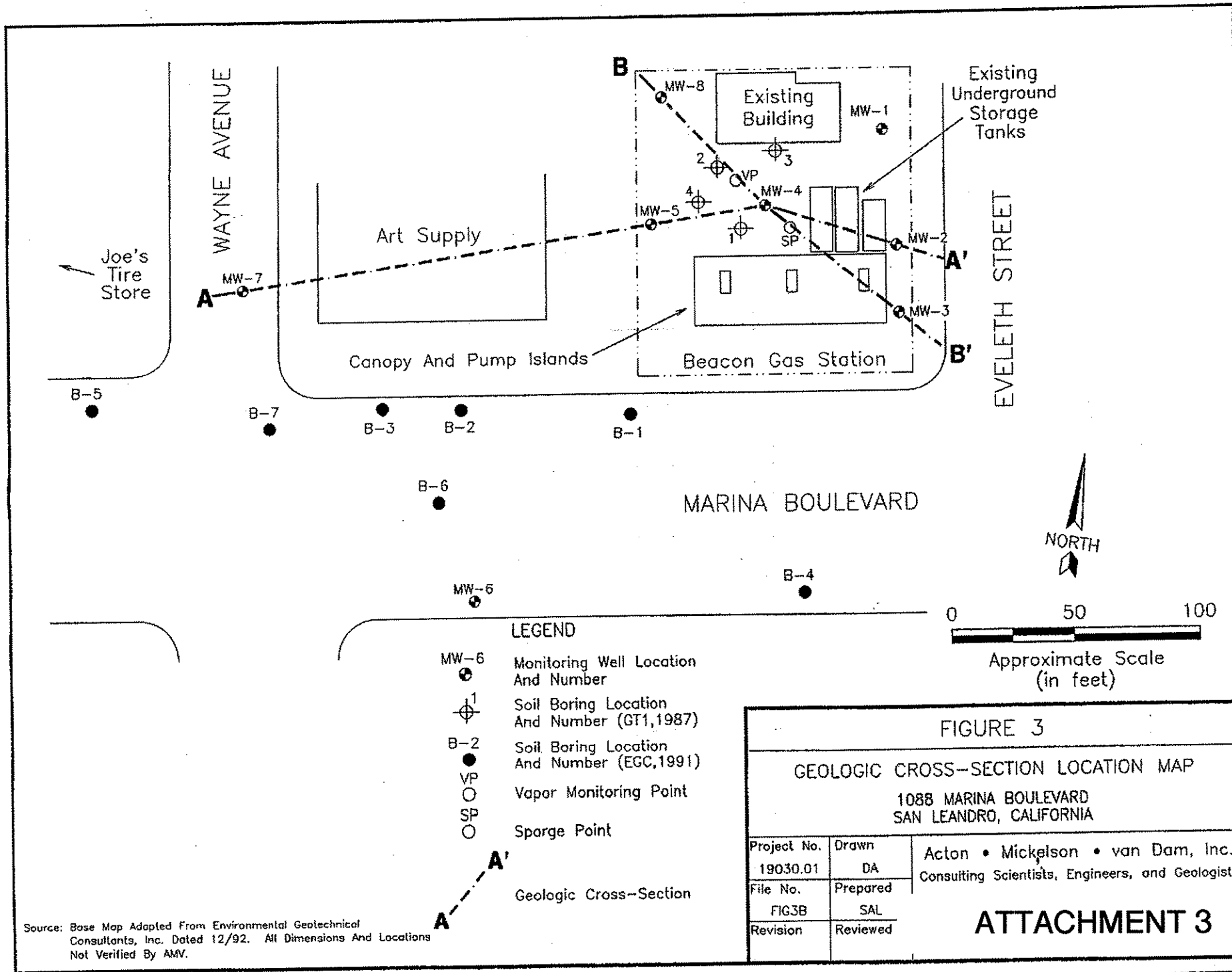
# MARINA BOULEVARD



FAST GAS  
1088 MARINA BLVD  
SAN LEANDRO, CA  
1/21/87

CHIPS ENVIRONMENTAL CONSULTANTS  
1285 Edmundson Avenue (408) 241-1828  
MORGAN HILL CALIFORNIA 95037

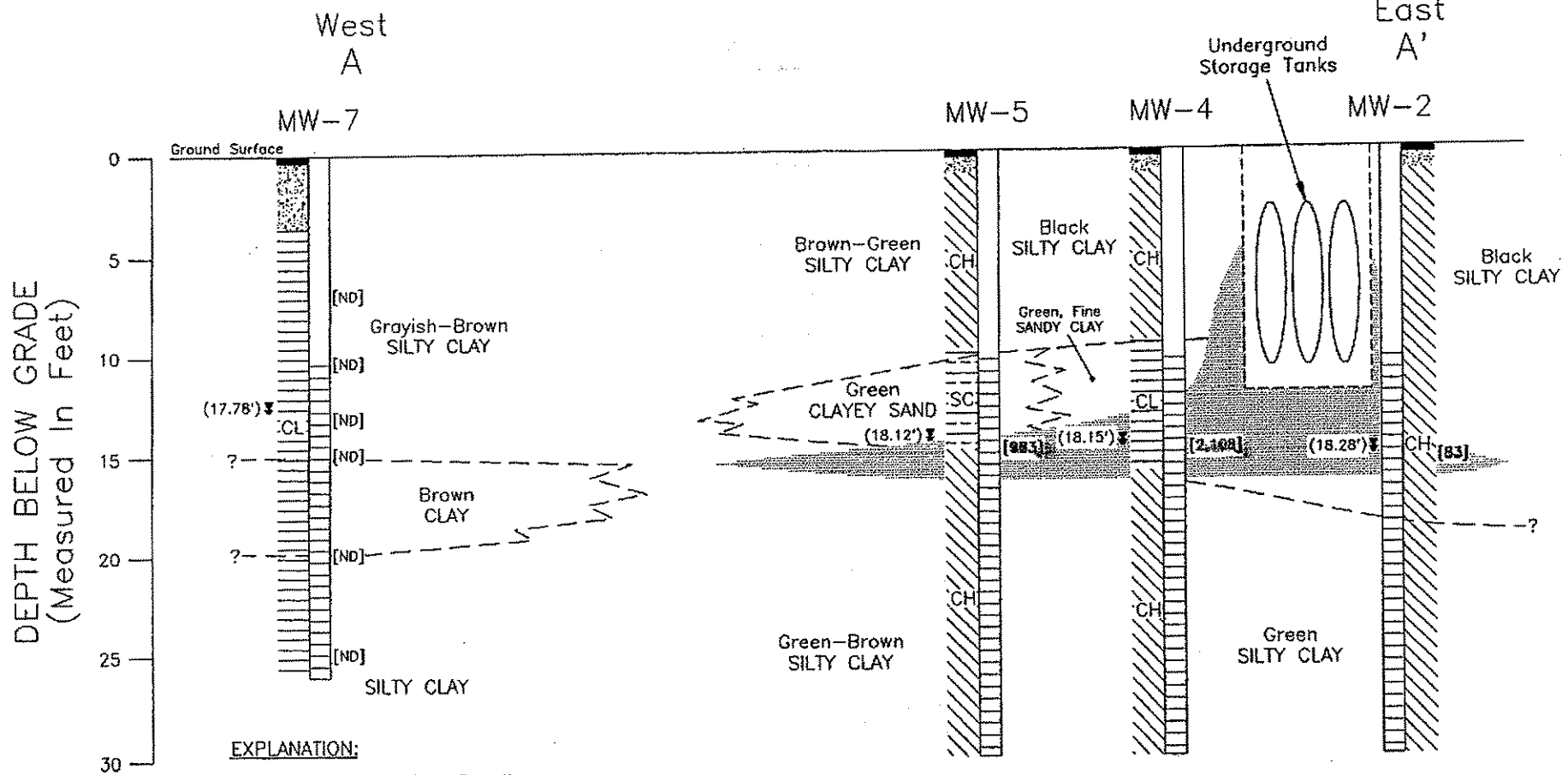
NOT TO SCALE



Source: Base Map Adapted From Environmental Geotechnical Consultants, Inc. Dated 12/92. All Dimensions And Locations Not Verified By AMV.

- LEGEND**
- MW-6 Monitoring Well Location And Number
  - Soil Boring Location And Number (GT1,1987)
  - B-2 Soil Boring Location And Number (EGC,1991)
  - VP Vapor Monitoring Point
  - SP Sparge Point
  - A-A' Geologic Cross-Section

FIGURE 3		
GEOLOGIC CROSS-SECTION LOCATION MAP		
1088 MARINA BOULEVARD SAN LEANDRO, CALIFORNIA		
Project No. 19030.01	Drawn DA	Acton • Mickelson • van Dam, Inc. Consulting Scientists, Engineers, and Geologists
File No. FIG3B	Prepared SAL	
Revision	Reviewed	
<b>ATTACHMENT 3</b>		



**EXPLANATION:**

[983] Soil Sample Analytical Results  
(Parts Per Million)

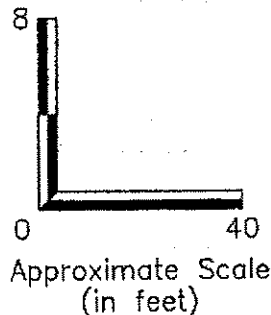
(18.88) Ground Water Elevation

USCS Symbol

Inferred Contact

Slotted Casing Interval

Inferred Area Of Soil Containing  
Petroleum Hydrocarbons >10 PPM



[Vertical Exaggeration: 5X]

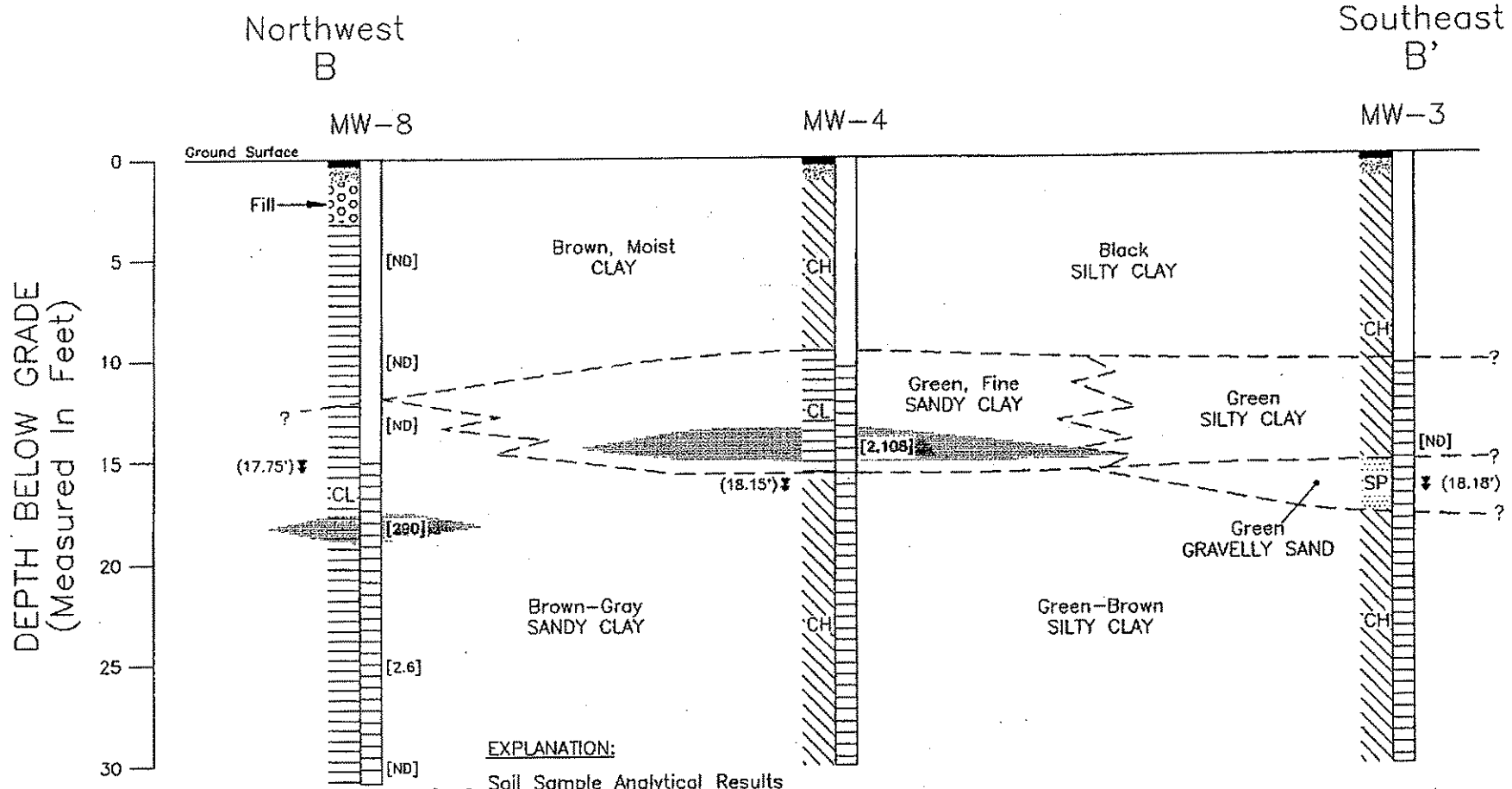
FIGURE 4

GEOLOGIC CROSS-SECTION A-A'

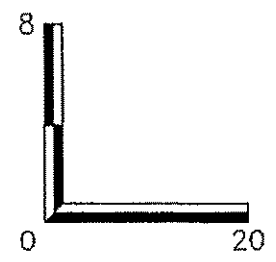
1088 MARINA BOULEVARD  
SAN LEANDRO, CALIFORNIA

Project No. 19030.01	Drawn LMC	Acton • Mickelson • van Dam, Inc. Consulting Scientists, Engineers, and Geologists 4511 Golden Foothill Parkway, Suite 1 El Dorado Hills, California 95762 (916) 939-7550
File No. FIG4B	Prepared SAL	
Revision	Reviewed	





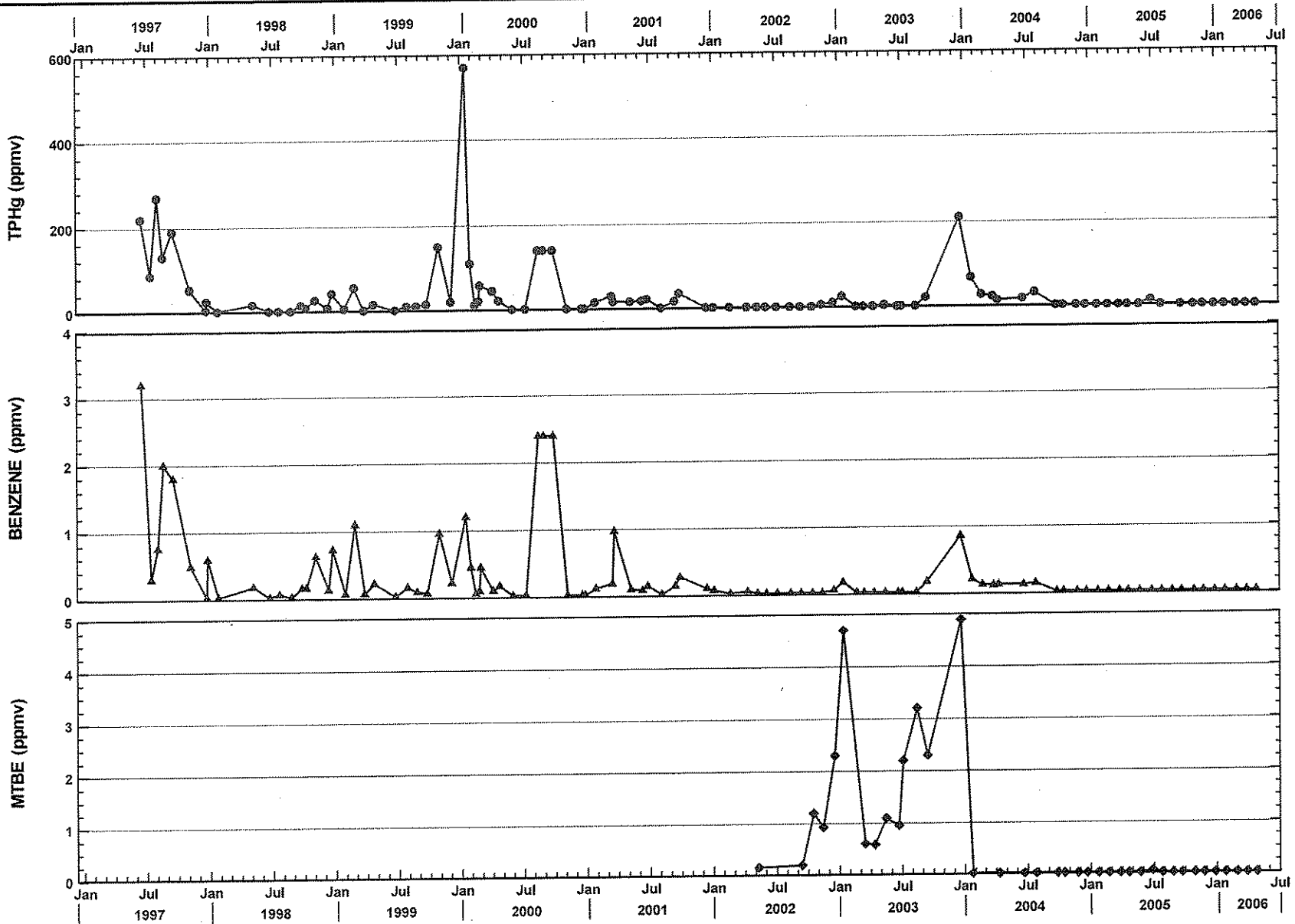
- EXPLANATION:**
- [290] Soil Sample Analytical Results (TPHg in Parts Per Million)
  - (18.86') ↓ Ground Water Elevation
  - SC: USCS Symbol
  - - - - - Inferred Contact
  - ||| Slotted Casing Interval
  - ▨ Inferred Area Of Soil Containing Petroleum Hydrocarbons >10 PPM



**FIGURE 5**

**GEOLOGIC CROSS-SECTION B-B'**  
1088 MARINA BOULEVARD  
SAN LEANDRO, CALIFORNIA

Project No. 19030.01	Drawn LMC	Acton • Mickelson • van Dam, Inc. Consulting Scientists, Engineers, and Geologists 4511 Golden Foothill Parkway, Suite 1 El Dorado Hills, California 95762 (916) 939-7550
File No. FIG5B	Prepared SAL	
Revision	Reviewed	



Note: Non-detect results are plotted at one-half the detection limit.

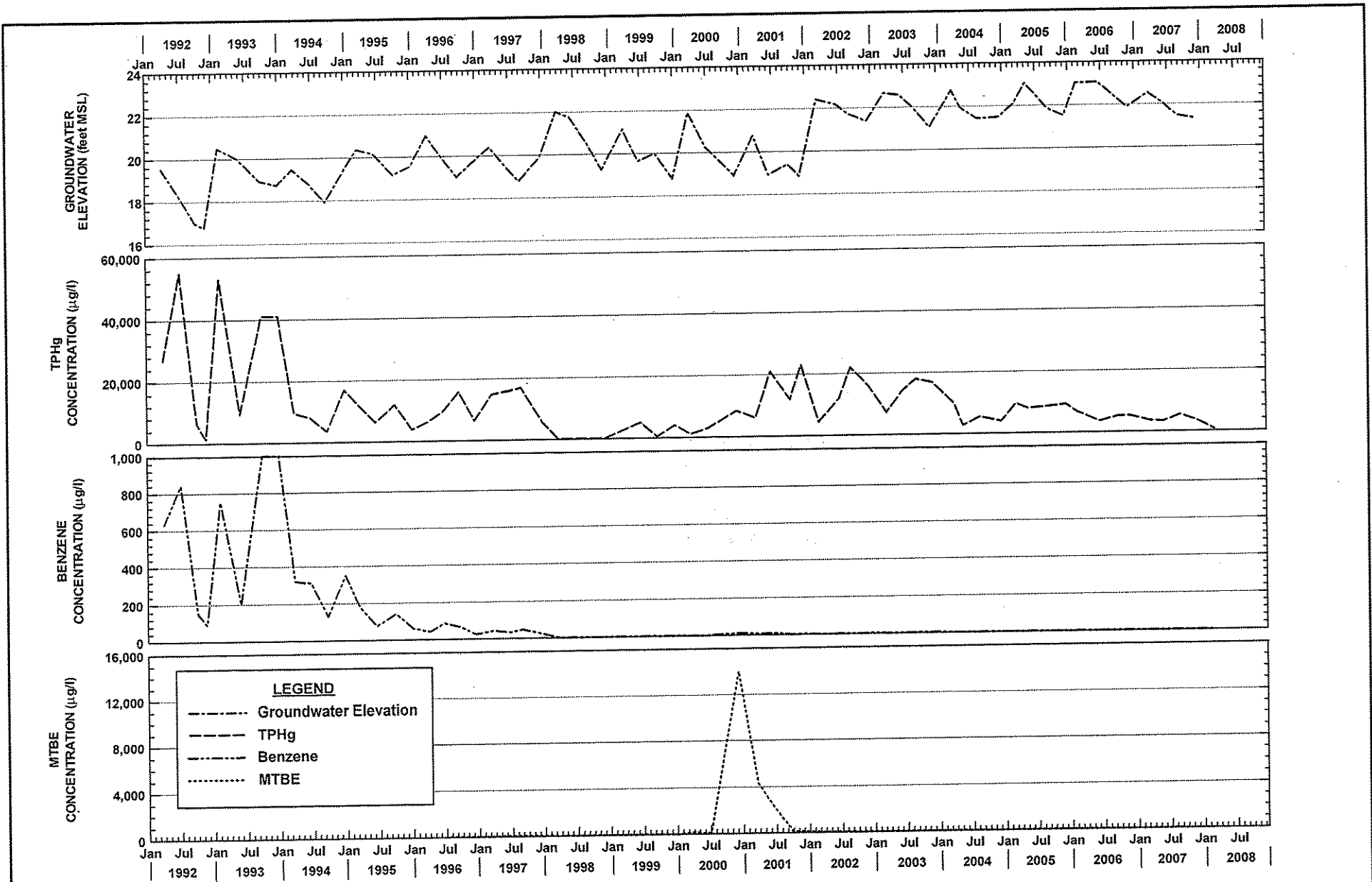
**ARCTOS** ARCTOS ENVIRONMENTAL

PROJECT NO. 01DO	DATE APR 2008	DRAWN BY MP	DESIGNED BY DN
FILE NO. SVE-Influent.GRF	CHECKED BY JPG		

Tesoro - San Leandro  
67106

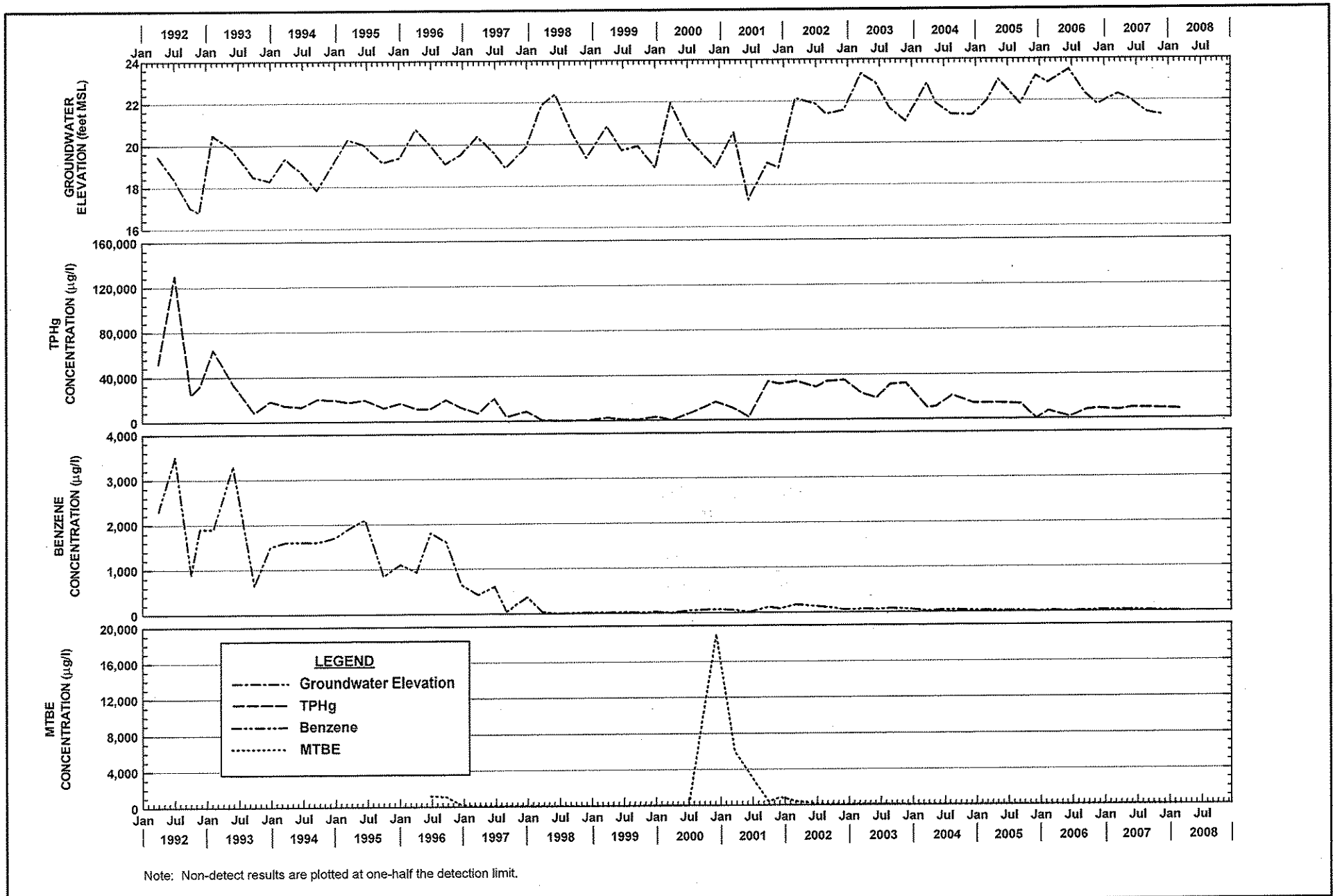
SOIL VAPOR INFLUENT  
CONCENTRATIONS

ATTACHMENT 4



Note: Non-detect results are plotted at one-half the detection limit.

<b>ARCTOS</b> ARCTOS ENVIRONMENTAL		<b>Tesoro - San Leandro</b>		<b>TPHg, BENZENE, AND MTBE RESULTS</b>		<b>Figure 6A</b>
PROJECT NO. 01DO	DATE APR 2008	DRAWN BY MP	DESIGNED BY DN	<b>67106</b>		
FILE NO. 01DOMW01.GRF		CHECKED BY JPG		<b>FOR WELL MW-1</b>		



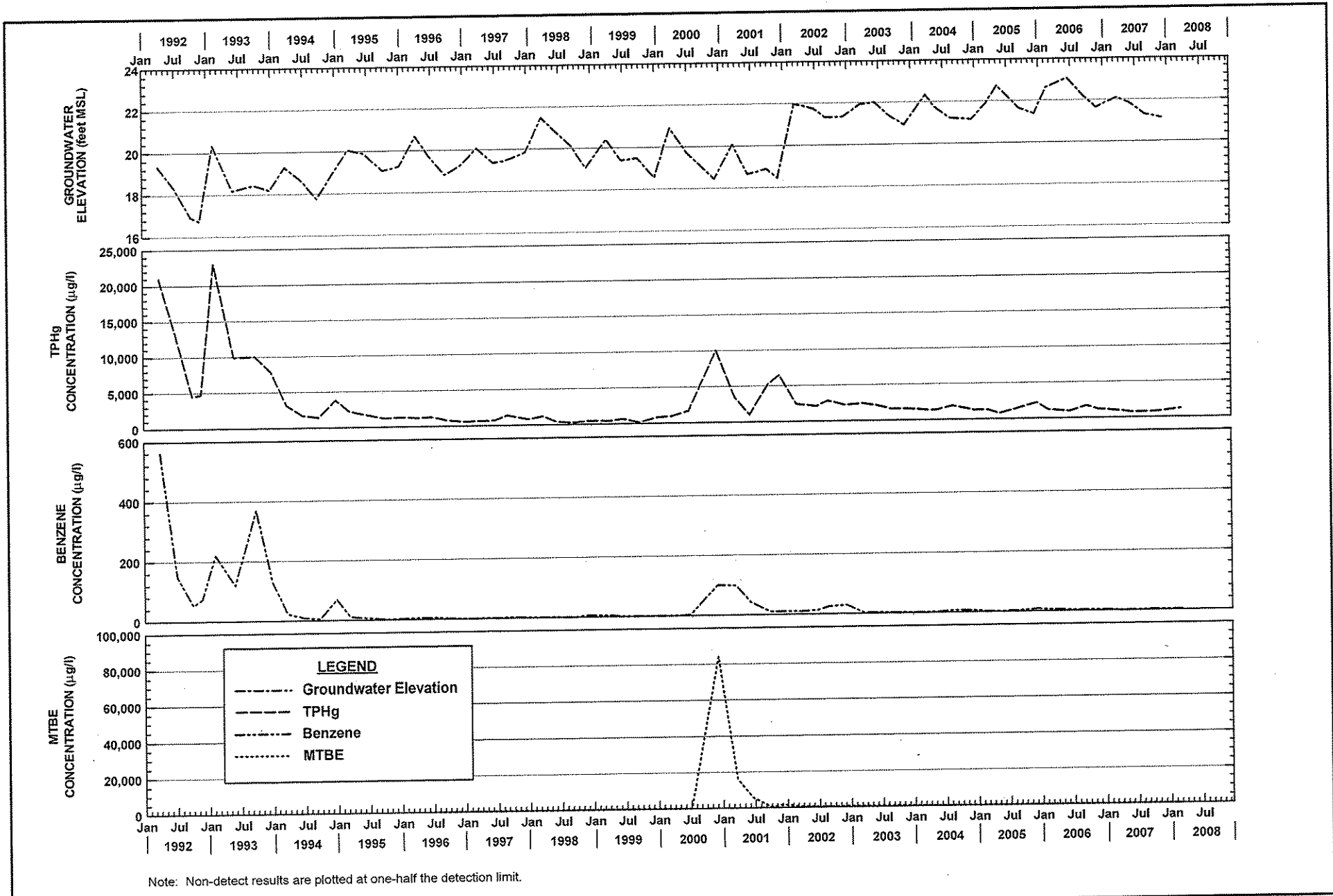
**ARCTOS** ARCTOS ENVIRONMENTAL

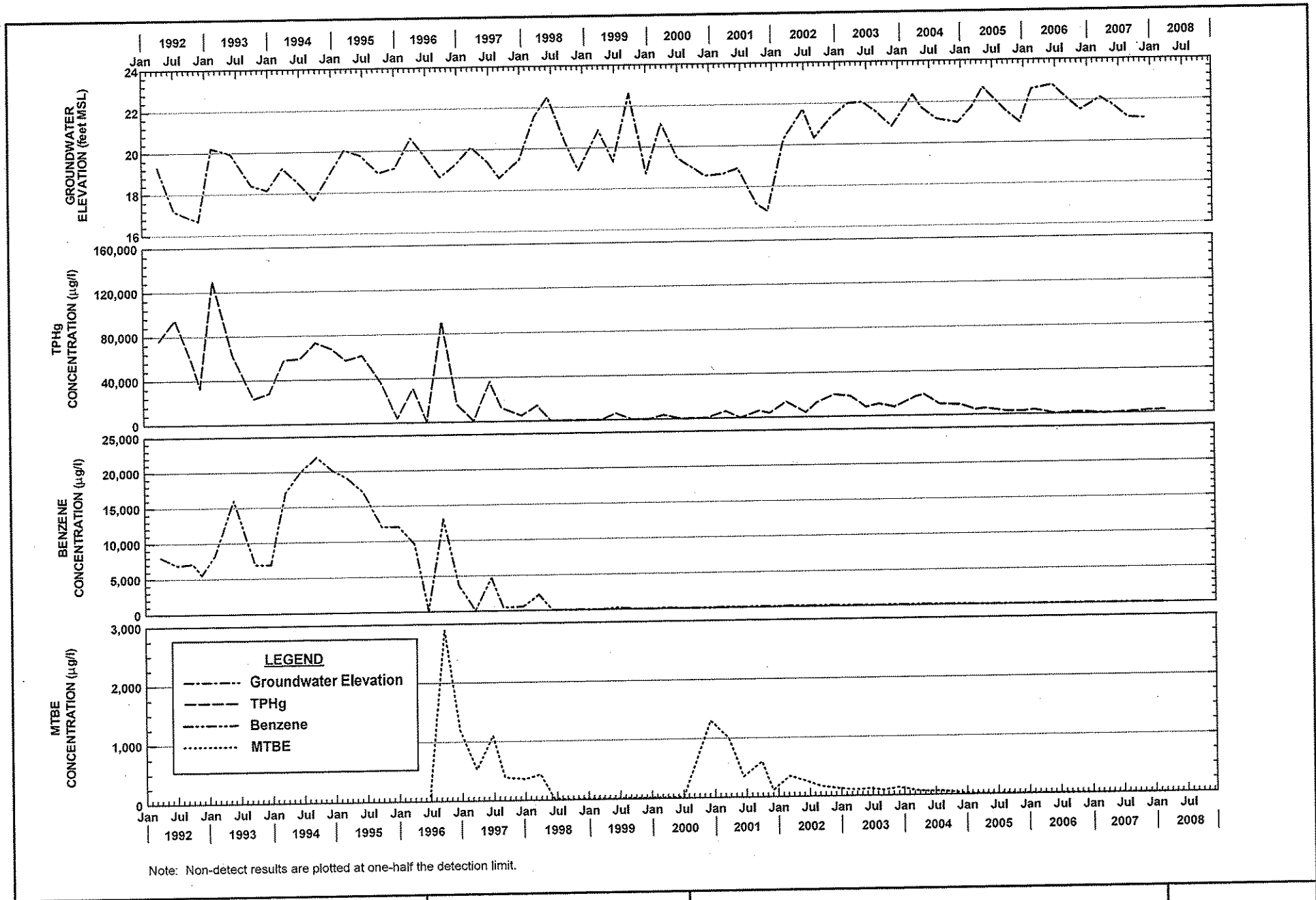
Tesoro - San Leandro  
67106

**TPHg, BENZENE, AND MTBE RESULTS  
FOR WELL MW-2**

Figure 6B

PROJECT NO. 01DO	DATE APR 2008	DRAWN BY MP	DESIGNED BY DN
FILE NO. 01DOMW02.GRF	CHECKED BY JPG		





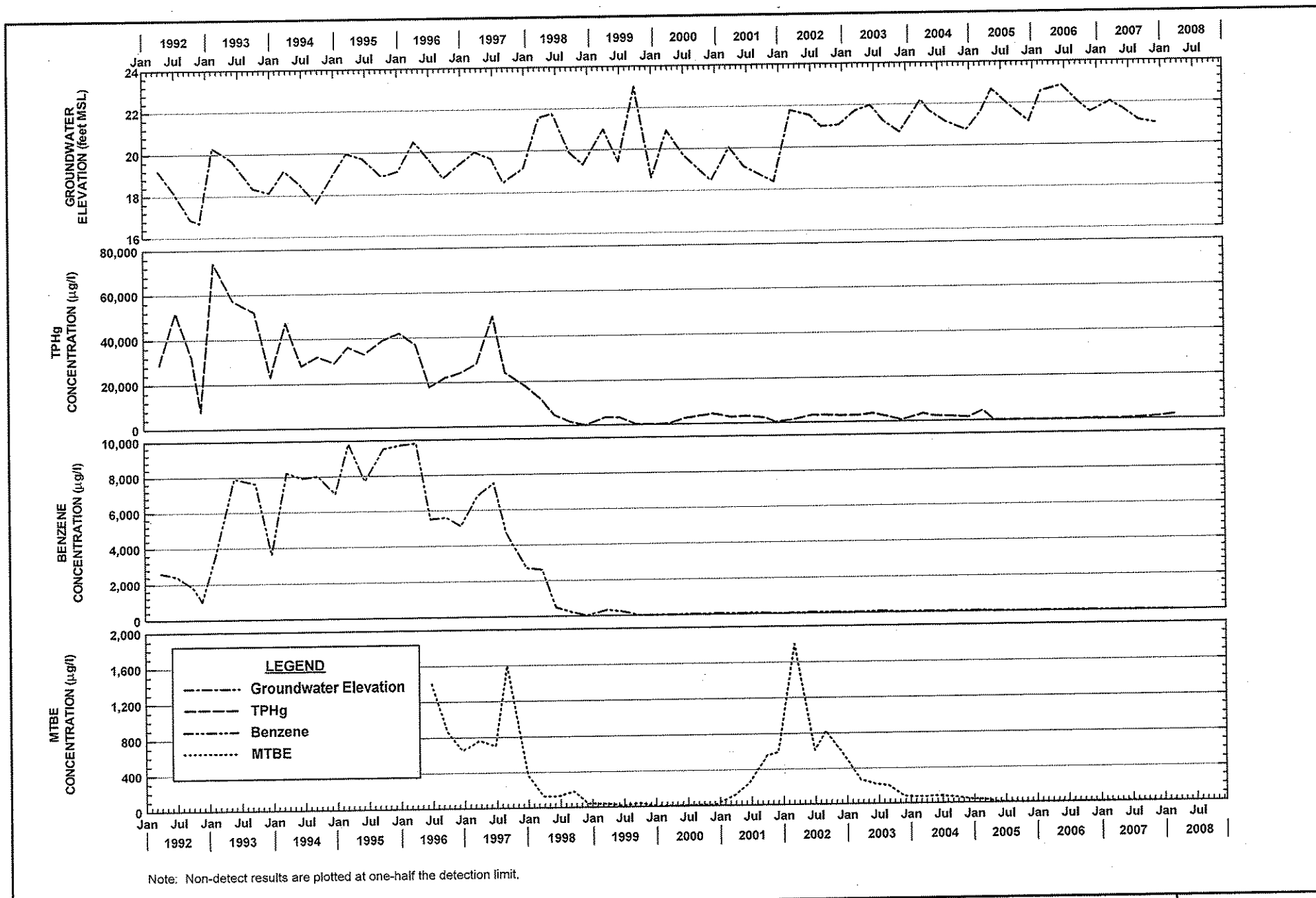
**ARCTOS** ARCTOS ENVIRONMENTAL

PROJECT NO. 01DO	DATE APR 2008	DRAWN BY MP	DESIGNED BY DN
FILE NO. 01DOMW04.GRF		CHECKED BY JPG	

**Tesoro - San Leandro  
67106**

**TPHg, BENZENE, AND MTBE RESULTS  
FOR WELL MW-4**

**Figure 6D**



Note: Non-detect results are plotted at one-half the detection limit.

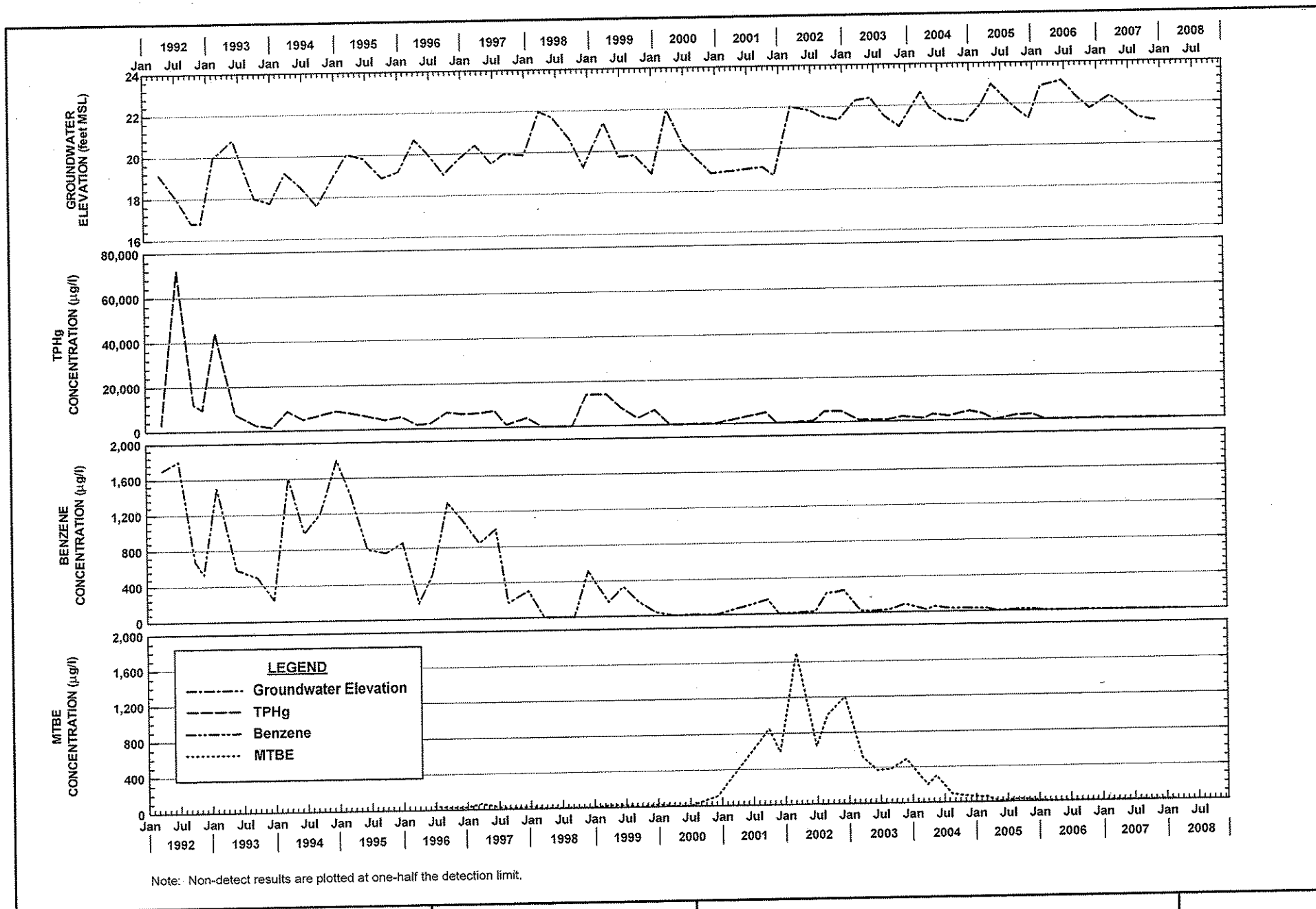
**ARCTOS** ARCTOS ENVIRONMENTAL

PROJECT NO. 01DO	DATE APR 2008	DRAWN BY MP	DESIGNED BY DN
FILE NO. 01DOMW05.GRF	CHECKED BY JPG		

Tesoro - San Leandro  
67106

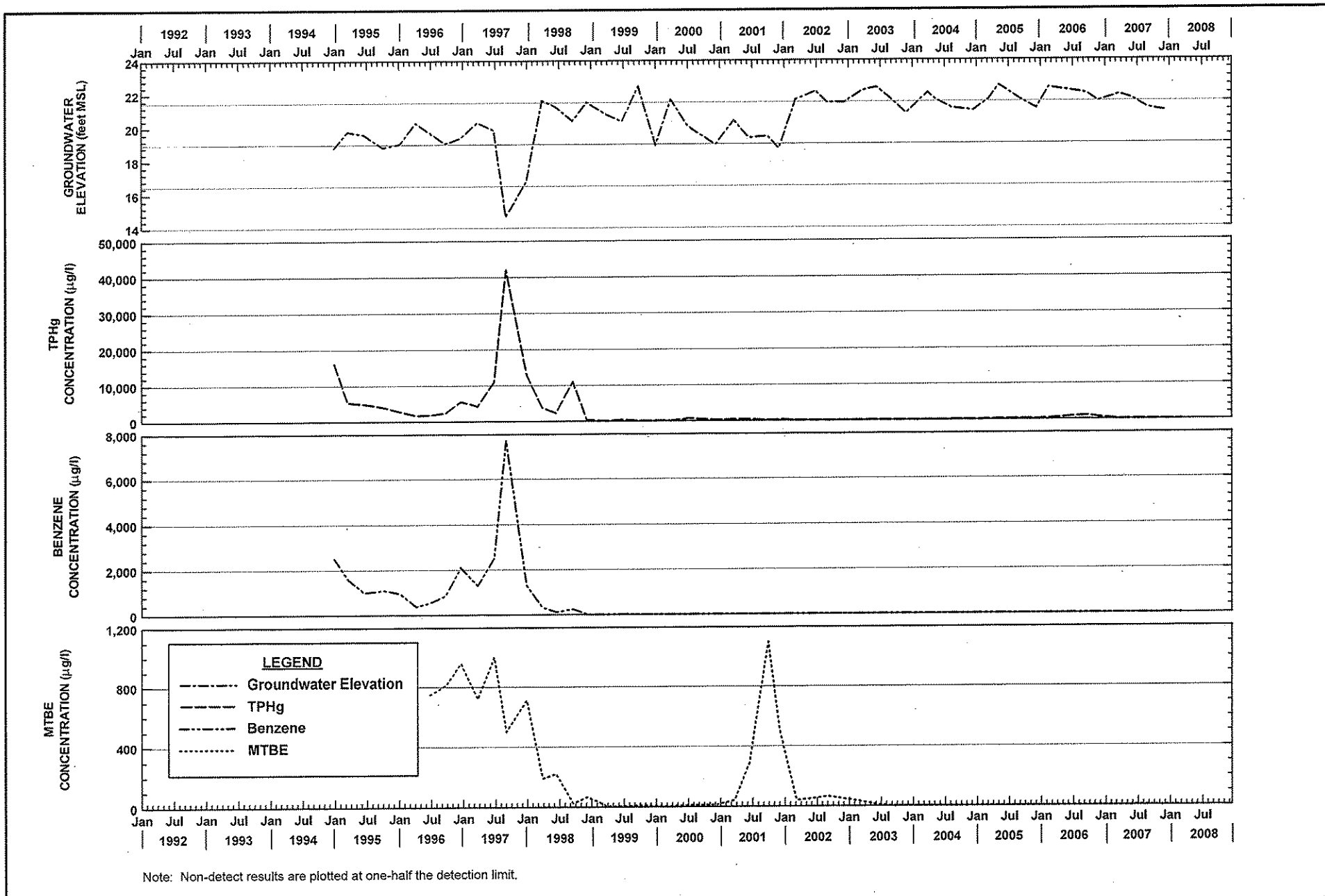
TPHg, BENZENE, AND MTBE RESULTS  
FOR WELL MW-5

Figure 6E



<b>ARCTOS</b> ARCTOS ENVIRONMENTAL		<b>Tesoro - San Leandro</b>		<b>TPHg, BENZENE, AND MTBE RESULTS</b>		<b>Figure 6F</b>
PROJECT NO. 01DO	DATE APR 2008	DRAWN BY MP	DESIGNED BY DN	<b>67106</b>		
FILE NO. 01DOMW08.GRF	CHECKED BY JPG					





<b>ARCTOS</b> ARCTOS ENVIRONMENTAL				<b>Tesoro - San Leandro 67106</b>	<b>TPHg, BENZENE, AND MTBE RESULTS FOR WELL MW-9</b>	Figure 6G
PROJECT NO. 01DO	DATE APR 2008	DRAWN BY MP	DESIGNED BY DN			
FILE NO. 01DOMW09.GRF	CHECKED BY JPG					

TABLE 4

**SUMMARY OF LABORATORY ANALYTICAL RESULTS FOR SOIL**  
Page 1 of 1

Sample Location	Depth	TPH-Gas (ppm)	Benzene (ppm)	Toluene (ppm)	Ethylbenzene (ppm)	Xylene (ppm)	Laboratory	Date Sampled
2-2	10.0	2.1	0.220	0.088	0.071	0.270	Sequoia Mobile	8-15-91
<del>2-2</del>	14.0	<del>3.60</del>	3.60	19.00	9.10	48.00	Applied Analytical Mobile	8-15-91
4-3	13.5	ND	ND	ND	ND	ND	Applied Analytical Mobile	9-19-91
5-3	13.0	ND	ND	ND	ND	ND	Applied Analytical Mobile	9-19-91
6-3	10.0	ND	ND	ND	ND	ND	Applied Analytical Mobile	9-19-91
7-3	13.5	ND	ND	ND	ND	ND	Applied Analytical Mobile	9-20-91
MW-6 #1	5.0	ND	ND	ND	ND	ND	Applied Analytical	10-10-91
MW-6 #2	10.0	ND	ND	ND	ND	ND	Applied Analytical	10-10-91
MW-6 #3	15.0	11	ND	0.035	0.011	0.047	Applied Analytical	10-10-91
MW-6 #4	20.0	ND	ND	ND	ND	ND	Applied Analytical	10-10-91
MW-6 #5	25.0	ND	ND	ND	ND	ND	Applied Analytical	10-10-91
MW-7 #1	7.0	ND	ND	ND	ND	ND	Applied Analytical	10-10-91
MW-7 #2	10.0	ND	ND	ND	ND	ND	Applied Analytical	10-10-91
MW-7 #3	13.5	ND	ND	ND	ND	ND	Applied Analytical	10-10-91
MW-7 #4	15.0	ND	ND	ND	ND	ND	Applied Analytical	10-10-91
MW-7 #5	20.0	ND	ND	ND	ND	ND	Applied Analytical	10-10-91
MW-7 #6	25.0	ND	ND	ND	ND	ND	Applied Analytical	10-10-91
MW-8 #1	5.0	ND	ND	0.010	ND	0.011	Applied Analytical	10-11-91
MW-8 #2	10.0	ND	ND	ND	ND	0.008	Applied Analytical	10-11-91
MW-8 #3	13.5	ND	0.012	ND	ND	0.027	Applied Analytical	10-11-91
MW-8 #4	<del>15.0</del>	<del>3.60</del>	0.670	4.800	3.300	20.000	Applied Analytical	10-11-91
MW-8 #5	25.0	2.6	0.014	0.056	0.020	0.150	Applied Analytical	10-11-91
MW-8 #6	30.0	ND	ND	ND	ND	0.010	Applied Analytical	10-11-91
C-1*	0.50	ND	ND	ND	ND	ND	Mobile Chem Labs Inc.	10-10-91

**Notes:** 1) ND = Non Detect  
2) ppb = parts per billion  
3) See analytical results for detection limits (Appendix B)  
\* Stockpile composite which tested ND for organic lead

ATTACHMENT 5

TABLE 3

SOIL ANALYTICAL RESULTS  
TESORO - SAN LEANDRO, 67106

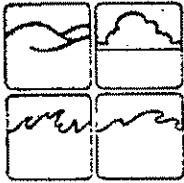
Soil Boring	Depth (feet)	Sample Date	TPHg <sup>(a)</sup> (mg/kg)	Benzene <sup>(b)</sup> (µg/kg)	Toluene <sup>(b)</sup> (µg/kg)	Ethylbenzene <sup>(b)</sup> (µg/kg)	Total Xylenes <sup>(b)</sup> (µg/kg)	MTBE <sup>(b)</sup> (µg/kg)
MW-1	14	3/30/1987	327	2,700	28,000	-- <sup>(c)</sup>	74,200	--
MW-2	14	3/30/1987	83	1,300	10,400	--	18,800	--
MW-3	4	3/30/1987	ND<1 <sup>(d)</sup>	ND<1,000	ND<1,000	--	ND<1,000	--
MW-4	14	3/31/1987	2,108	16,800	16,800	--	427,300	--
MW-5	14	3/31/1987	938	7,900	7,900	--	228,200	--
1	9.5	7/7/1987	ND<1	ND<100	ND<100	--	ND<100	--
	14.5	7/7/1987	1,000	32,000	110,000	--	170,000	--
2	9.5	7/7/1987	ND<1	ND<100	ND<100	--	ND<100	--
	14.5	7/7/1987	220	5,800	26,000	--	45,000	--
3	9.5	7/7/1987	10	690	200	--	ND<100	--
	14.5	7/7/1987	910	23,000	100,000	--	150,000	--
4	9.5	7/7/1987	ND<1	ND<100	ND<100	--	ND<100	--
	14.5	7/7/1987	560	18,000	75,000	--	110,000	--
B-2	10	8/15/1991	2.1	220	88	71	27	--
B-3	14	8/15/1991	560	3,600	19,000	9,100	48,000	--
B-4	13.5	8/15/1991	ND<1	ND<5	ND<5	ND<5	ND<5	--
B-5	13	9/19/1991	ND<1	ND<5	ND<5	ND<5	ND<5	--
B-6	10	9/19/1991	ND<1	ND<5	ND<5	ND<5	ND<5	--
B-7	13.5	9/20/1991	ND<1	ND<5	ND<5	ND<5	ND<5	--
MW-6	5	10/10/1991	ND<1	ND<5	ND<5	ND<5	ND<5	--
	10	10/10/1991	ND<1	ND<5	ND<5	ND<5	ND<5	--
	15	10/10/1991	11	ND<5	35	11	47	--
	20	10/10/1991	ND<1	ND<5	ND<5	ND<5	ND<5	--
	25	10/10/1991	ND<1	ND<5	ND<5	ND<5	ND<5	--
MW-7	7	10/10/1991	ND<1	ND<5	ND<5	ND<5	ND<5	--
	10	10/10/1991	ND<1	ND<5	ND<5	ND<5	ND<5	--
	13.5	10/10/1991	ND<1	ND<5	ND<5	ND<5	ND<5	--
	15	10/10/1991	ND<1	ND<5	ND<5	ND<5	ND<5	--
	20	10/10/1991	ND<1	ND<5	ND<5	ND<5	ND<5	--
	25	10/10/1991	ND<1	ND<5	ND<5	ND<5	ND<5	--
MW-8	5	10/11/1991	ND<1	ND<5	ND<5	ND<5	ND<5	--
	10	10/11/1991	ND<1	ND<5	ND<5	ND<5	ND<5	--
	13.5	10/11/1991	0.012	ND<5	ND<5	ND<5	ND<5	--
	18	10/11/1991	290	670	4,800	3,300	20,000	--
	25	10/11/1991	2.6	14	56	20	150	--
	30	10/11/1991	ND<1	ND<5	ND<5	ND<5	ND<5	--

TABLE 3

SOIL ANALYTICAL RESULTS  
TESORO - SAN LEANDRO, 67106

Soil Boring	Depth (feet)	Sample Date	TPHg <sup>(a)</sup> (mg/kg)	Benzene <sup>(b)</sup> (µg/kg)	Toluene <sup>(b)</sup> (µg/kg)	Ethylbenzene <sup>(b)</sup> (µg/kg)	Total Xylenes <sup>(b)</sup> (µg/kg)	MTBE <sup>(b)</sup> (µg/kg)
MW-9	5	12/20/1994	ND<1	ND<5	ND<5	ND<5	ND<5	--
	10	12/20/1994	1.0	100	ND<5	ND<5	ND<5	--
	15	12/20/1994	280	2,800	6,900	7,000	29,000	--
VW-1	10	12/21/1994	1.2	120	ND<5	27	14	--
	15	12/21/1994	1,600	12,000	54,000	36,000	180,000	--
SP-1	10	12/20/1994	1.7	49	6.3	74	120	--
	15	12/20/1994	270	1,000	6,300	5,700	26,000	--
SP-2	10	12/21/1994	1.3	74	19	30	160	--
	15	12/21/1994	1,100	4,900	36,000	21,000	94,000	--
SP-3	5	12/20/1994	ND<1	ND<5	ND<5	ND<5	ND<5	--
	15	12/20/1994	900	3,900	25,000	20,000	93,000	--
SP-4	10	12/20/1994	2	300	ND<5	63	65	--
	15	12/20/1994	340	3,200	8,100	8,400	42,000	--
SP-5	10	12/21/1994	ND<1	11	ND<5	ND<5	ND<5	--
	15	12/21/1994	57	440	630	940	4,600	--
SP-6	5	12/20/1994	ND<1	ND<5	ND<5	ND<5	ND<5	--
	10	12/20/1994	ND<1	98	ND<5	18	ND<5	--
	15	12/20/1994	280	2,900	9,000	5,700	27,000	--

- (a) Total petroleum hydrocarbons as gasoline (TPHg) analyzed by EPA Method 8015; reported in milligrams per kilogram (mg/kg).
- (b) Benzene, toluene, ethylbenzene, xylenes, and methyl tert-butyl ether (MTBE) analyzed by EPA Methods 8010 or 8260; reported in micrograms per kilogram (µg/kg).
- (c) "--" Not analyzed.
- (d) ND - Not detected at the reporting limit listed.



# CHIPS Environmental Consultants

1285 Edmundson Ave  
Morgan Hill, Ca 95037

(408) 241-1828

01-23-87 JFM13-B:MARINA2.KAY

212

Client: KAYO OIL

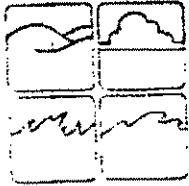
Project No: FAST GAS STATION, 1088 MARINA BLVD  
SAN LEANDRO, CA

Comments: SOIL SAMPLES FOR GASOLINE AND BTX  
SAMPLED ON 1/21/87

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ANALYSIS: FOR GASOLINE AND BTX  
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Sample #		Result
001362	Soil sample, <del>Northwest</del> corner of excavation hole, Depth 19.5 feet below grade.	120 +/- 12 PPM (wt/wt). Gasoline in soil 5.7 +/- 0.6 PPM Benzene 1.9 +/- 0.2 PPM Toluene 4.9 +/- 0.5 PPM Xylenes
000995	Soil sample, <del>Southwest</del> corner of excavation hole, Depth 20 feet below grade.	26 +/- 3 PPM (wt/wt) Gasoline in soil 1.1 +/- 0.1 PPM Benzene 0.4 +/- 0.04 PPM Toluene 1.5 +/- 0.2 PPM Xylenes
001004	Soil sample, <del>Northwest</del> corner of excavation hole, Depth 19.5 feet below grade.	330 +/- 35 PPM (wt/wt) Gasoline in soil 15 +/- 2 PPM Benzene 5.5 +/- 0.5 PPM Toluene 15 +/- 2 PPM Xylenes
001364	Soil sample, <del>Southwest</del> corner of excavation hole, Depth 19.5 feet below grade.	67 +/- 7 PPM (wt/wt) Gasoline in soil 3.2 +/- 0.4 PPM Benzene 1.0 +/- 0.1 PPM Toluene 4.7 +/- 0.5 PPM Xylenes

Protocol: For soils: EPA Methods 5020 and 8015  
(Test Methods for Evaluating Solid Wastes, SW-846, April 1984), followed by Gas Chromatographic analysis employing a flame ionization detector. Standards run as spikes and recoveries.



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01-22-87 JFM13-B:MARINA.KAY

211

Client: KAYO OIL

Project No: FAST GAS STATION, 1088 MARINA BLVD

SAN LEANDRO, CA

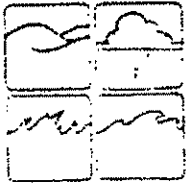
Comments: SOIL SAMPLES FOR WASTE OIL, GASOLINE  
AND BTX, SAMPLED 1/21/87

ANALYSIS: FOR WASTE OIL, GASOLINE, BTX

Sample #

Result

Sample #	Description	Result
001016	Soil sample, Beneath excavated 7500 Gallon unleaded gasoline tank at a depth of 14 feet below grade. South end.	2000 +/- 200PPM (wt/wt) <del>in soil</del> 150 +/- 15 PPM Benzene 515 +/- 50 PPM Toluene 300 +/- 35 PPM Xylenes
001176	Soil sample, Beneath excavated 7500 Gallon unleaded gasoline tank at a depth of 16 feet below grade. South end.	1900 +/- 190PPM (wt/wt) <del>in soil</del> 52 +/- 5 PPM Benzene 240 +/- 25 PPM Toluene 210 +/- 20 PPM Xylenes
001312	Soil sample, Beneath excavated 7500 Gallon unleaded gasoline tank at a depth of 16 feet below grade. South end.	570 +/- 95 PPM (wt/wt) <del>in soil</del> 75 +/- 7 PPM Benzene 290 +/- 25 PPM Toluene 150 +/- 15 PPM Xylenes
001310	Soil sample, Beneath excavated 10000 gallon gasoline tank at depth of 14 feet below grade. South end.	630 +/- 60 PPM (wt/wt) <del>in soil</del> 25 +/- 3 PPM Benzene 155 +/- 15 PPM Toluene 140 +/- 14 PPM Xylenes
001018	Soil sample, Beneath excavated 10000 gallon gasoline tank at depth of 14 feet below grade. North end.	520 +/- 50 PPM (wt/wt) <del>in soil</del> 25 +/- 3 PPM Benzene 160 +/- 15 PPM Toluene 130 +/- 14 PPM Xylenes



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001011

Soil sample, Beneath excavated  
10000 gallon gasoline tank at  
depth of 14 feet below grade.

920 +/- 90 PPM (wt/wt)  
~~Gasoline~~ in soil  
50 +/- 5 PPM ~~Gasoline~~  
250 +/- 25 PPM ~~Gasoline~~  
200 +/- 20 PPM ~~Gasoline~~

000989

Soil sample, Beneath excavated  
10000 gallon gasoline tank at  
depth of 14 feet below grade.  
North end.

900 +/- 500 PPM (wt/wt)  
~~Gasoline~~ in soil  
50 +/- 50 PPM ~~Gasoline~~  
1200 +/- 110 PPM ~~Gasoline~~  
60 +/- 70 PPM ~~Gasoline~~

001229

Soil sample, Composite from  
excavated piles.

95 +/- 35 PPM (wt/wt)  
~~Gasoline~~ in soil  
5 +/- 0.5 PPM ~~Gasoline~~  
10 +/- 6 PPM ~~Gasoline~~  
13 +/- 13 PPM ~~Gasoline~~

001307

Soil sample, Composite from  
excavated piles.

450 +/- 45 PPM (wt/wt)  
~~Gasoline~~ in soil  
5 +/- 1 PPM ~~Gasoline~~  
70 +/- 8 PPM ~~Gasoline~~  
110 +/- 13 PPM ~~Gasoline~~

001012

Soil sample, Beneath excavated  
waste oil tank, 1-2 feet below  
tank bottom, South end

210 +/- 20 PPM (wt/wt)  
~~Waste oil~~ in soil

001019

Soil sample, Beneath excavated  
waste oil tank, 1-2 feet below  
tank bottom, North end

195 +/- 20 PPM (wt/wt)  
~~Waste oil~~ in soil

Protocol: For soils: EPA Methods 5020 and 3550 and 8015  
(Test Methods for Evaluating Solid Wastes, SW-846,  
April 1984), followed by Gas Chromatographic analysis  
employing a flame ionization detector. Standards run  
as spikes and recoveries.

Samples kept for 14 days unless other arrangements made.

TABLE 2

**GROUNDWATER ANALYTICAL RESULTS  
TESORO - SAN LEANDRO, 67106**

Monitoring Well	Sample Date	TPHg <sup>(a)</sup> (ug/l)	Benzene <sup>(a)</sup> (ug/l)	Toluene <sup>(a)</sup> (ug/l)	Ethylbenzene <sup>(a)</sup> (ug/l)	Total Xylenes <sup>(a)</sup> (ug/l)	MTBE <sup>(a)</sup> (ug/l)	DIPE <sup>(a)</sup> (ug/l)	ETBE <sup>(a)</sup> (ug/l)	TAME <sup>(a)</sup> (ug/l)	TBA <sup>(a)</sup> (ug/l)
MW-1	4/25/2007	3,400	ND<0.5 <sup>(b)</sup>	ND<0.5	15	3.6	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/23/2007	5,400	ND<0.5	0.61	24	7.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/24/2007	3,500	ND<0.5	ND<0.5	13	4.1	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/27/2008	690	ND<0.5	0.52	1.8	0.72	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	5/12/2008	600	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
MW-2	4/25/2007	9,400	22	8.7	620	100	ND<2	ND<2	ND<2	ND<2	ND<9
	7/23/2007	9,100	13	7.5	640	98	0.60	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/24/2007	8,800	6.4	4.8	520	85	ND<1.5	ND<1.5	ND<1.5	ND<1.5	— <sup>(c)</sup>
	1/27/2008	8,100	5.4	5.3	350	130	ND<1.5	ND<1.5	ND<1.5	ND<1.5	7.2
	5/12/2008	7,300	7.0	3.4	310	21	ND<1.5	ND<1.5	ND<1.5	ND<1.5	ND<7
MW-3	4/25/2007	760	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.4	ND<0.5	ND<0.5	ND<0.5	6.1
	7/23/2007	750	1.4	ND<0.5	ND<0.5	ND<0.5	1.1	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/24/2007	890	1.3	0.70	0.70	ND<0.5	0.84	ND<0.5	ND<0.5	ND<0.5	5.5
	1/27/2008	1,200	1.4	1.1	3.3	1.8	ND<0.5	ND<0.5	ND<0.5	ND<0.5	9.3
	5/12/2008	840	ND<0.5	ND<0.5	ND<0.5	0.59	0.76	ND<0.5	ND<0.5	ND<0.5	ND<5
MW-4	4/25/2007	340	0.83	4.6	10	26	4.8	ND<0.5	ND<0.5	ND<0.5	6.0
	7/23/2007	1,000	2.6	4.1	42	43	3.0	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/24/2007	2,100	4.7	32	78	230	2.1	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/27/2008	2,500	5.2	9.0	56	130	1.2	ND<0.5	ND<0.5	ND<0.5	ND<5
	5/12/2008	300	0.69	ND<0.5	1.4	4.2	0.98	ND<0.5	ND<0.5	ND<0.5	ND<5

ATTACHMENT 6



TABLE 2

**GROUNDWATER ANALYTICAL RESULTS  
TESORO - SAN LEANDRO, 67106**

Monitoring Well	Sample Date	TPHg <sup>(a)</sup> (ug/l)	Benzene <sup>(a)</sup> (ug/l)	Toluene <sup>(a)</sup> (ug/l)	Ethylbenzene <sup>(a)</sup> (ug/l)	Total Xylenes <sup>(a)</sup> (ug/l)	MTBE <sup>(a)</sup> (ug/l)	DIPE <sup>(a)</sup> (ug/l)	ETBE <sup>(a)</sup> (ug/l)	TAME <sup>(a)</sup> (ug/l)	TBA <sup>(a)</sup> (ug/l)
MW-5	4/25/2007	340	ND<0.5	ND<0.5	ND<0.5	ND<0.5	3.7	ND<0.5	ND<0.5	ND<0.5	8.1
	7/23/2007	700	0.72	ND<0.5	1.4	0.70	3.2	ND<0.5	ND<0.5	ND<0.5	8.9
	10/24/2007	1,000	1.6	ND<0.5	2.1	0.60	2.5	ND<0.5	ND<0.5	ND<0.5	8.6
	1/27/2008	1,900	14	0.78	34	6.0	4.9	ND<0.5	ND<0.5	ND<0.5	10
	5/12/2008	1,400	14	ND<0.5	2.2	0.92	4.2	ND<0.5	ND<0.5	ND<0.5	9.5
MW-6	4/25/2007	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/23/2007	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/24/2007	76	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/27/2008	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	5/12/2008	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
MW-7	4/25/2007	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/23/2007	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/24/2007	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/27/2008	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	5/12/2008	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
MW-8	4/25/2007	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	3.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/23/2007	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	2.6	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/24/2007	60	ND<0.5	ND<0.5	ND<0.5	ND<0.5	3.7	ND<0.5	ND<0.5	ND<0.5	7.6
	1/27/2008	51	ND<0.5	ND<0.5	ND<0.5	0.68	2.4	ND<0.5	ND<0.5	ND<0.5	ND<5
	5/12/2008	270	0.53	ND<0.5	ND<0.5	8.7	2.2	ND<0.5	ND<0.5	ND<0.5	ND<5

TABLE 2

GROUNDWATER ANALYTICAL RESULTS  
TESORO - SAN LEANDRO, 67106

Monitoring Well	Sample Date	TPHg <sup>(a)</sup> (ug/l)	Benzene <sup>(a)</sup> (ug/l)	Toluene <sup>(a)</sup> (ug/l)	Ethylbenzene <sup>(a)</sup> (ug/l)	Total Xylenes <sup>(a)</sup> (ug/l)	MTBE <sup>(a)</sup> (ug/l)	DIPE <sup>(a)</sup> (ug/l)	ETBE <sup>(a)</sup> (ug/l)	TAME <sup>(a)</sup> (ug/l)	TBA <sup>(a)</sup> (ug/l)
MW-9	4/25/2007	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.4	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/23/2007	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.4	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/24/2007	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/27/2008	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	5/12/2008	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.59	ND<0.5	ND<0.5	ND<0.5	ND<5

- (a) Total petroleum hydrocarbons as gasoline (TPHg), benzene, toluene, ethylbenzene, xylenes, methyl tert-butyl ether (MTBE), di-isopropyl ether (DIPE), ethyl tert-butyl ether (ETBE), tert-amyl methyl ether (TAME), tert-butyl alcohol (TBA), 1,2-dichloroethane (1,2-DCA), 1,2-dibromoethane (EDB), methanol, and ethanol analyzed by EPA Method 8260; reported in micrograms per liter (ug/l).
- (b) ND - Not detected at the reporting limit listed.
- (c) " - " Not analyzed.

**TABLE E-1**  
**GROUNDWATER MONITORING ANALYTICAL RESULTS**  
**TESORO - SAN LEANDRO, 67106**

Monitoring Well	Sample Date <sup>(a)</sup>	TPHg <sup>(b)</sup> (ug/l)	Benzene <sup>(b)</sup> (ug/l)	Toluene <sup>(b)</sup> (ug/l)	Ethylbenzene <sup>(b)</sup> (ug/l)	Total Xylenes <sup>(b)</sup> (ug/l)	MTBE <sup>(b)</sup> (ug/l)	DIPE <sup>(b)</sup> (ug/l)	ETBE <sup>(b)</sup> (ug/l)	TAME <sup>(b)</sup> (ug/l)	TBA <sup>(b)</sup> (ug/l)
ESLs <sup>(c)</sup>		100	1.0	40	30	20	5.0	NE <sup>(d)</sup>	NE	NE	12
MW-1	3/30/1992	27,000	630	550	540	1,900	NA <sup>(e)</sup>	NA	NA	NA	NA
	7/1/1992	55,000	840	1,000	830	3,600	NA	NA	NA	NA	NA
	9/30/1992	6,400	150	95	120	470	NA	NA	NA	NA	NA
	11/19/1992	1,300	90	11	50	87	NA	NA	NA	NA	NA
	2/3/1993	53,000	750	560	950	5,700	NA	NA	NA	NA	NA
	5/25/1993	9,400	200	86	470	1,500	NA	NA	NA	NA	NA
	9/22/1993	41,000	1,000	510	850	1,100	NA	NA	NA	NA	NA
	12/21/1993	41,000	1,000	490	2,700	13,000	NA	NA	NA	NA	NA
	3/18/1994	9,500	320	160	830	2,900	NA	NA	NA	NA	NA
	6/15/1994	8,000	310	80	990	2,300	NA	NA	NA	NA	NA
	9/14/1994	3,600	130	31	390	630	NA	NA	NA	NA	NA
	12/19/1994	17,000	350	150	1,500	5,200	NA	NA	NA	NA	NA
	3/7/1995	12,000	180	62	1,200	3,200	NA	NA	NA	NA	NA
	6/8/1995	6,300	76	8.0	560	860	NA	NA	NA	NA	NA
	9/22/1995	12,000	140	55	1,500	2,500	NA	NA	NA	NA	NA
	12/27/1995	3,900	60	13	480	870	NA	NA	NA	NA	NA
	3/26/1996	6,400	42	4.9	560	600	NA	NA	NA	NA	NA
	6/13/1996	9,600	86	39	1,100	1,700	ND<50 <sup>(f)</sup>	NA	NA	NA	NA
	9/10/1996	16,000	65	35	1,500	2,700	ND<50	NA	NA	NA	NA
	12/5/1996	6,400	25	11	570	930	ND<25	NA	NA	NA	NA
3/10/1997	15,000	42	ND<5	1,400	1,500	ND<50	NA	NA	NA	NA	
6/12/1997	16,000	33	34	1,100	1,700	ND<100	NA	NA	NA	NA	
8/19/1997	17,000	47	14	1,300	2,200	ND<100	NA	NA	NA	NA	
12/13/1997	5,800	20	35	360.0	470.	ND<100	NA	NA	NA	NA	

**TABLE E-1**  
**GROUNDWATER MONITORING ANALYTICAL RESULTS**  
**TESORO - SAN LEANDRO, 67106**

Monitoring Well	Sample Date <sup>(a)</sup>	TPH <sup>(b)</sup> (ug/l)	Benzene <sup>(b)</sup> (ug/l)	Toluene <sup>(b)</sup> (ug/l)	Ethylbenzene <sup>(b)</sup> (ug/l)	Total Xylenes <sup>(b)</sup> (ug/l)	MTBE <sup>(b)</sup> (ug/l)	DIPE <sup>(b)</sup> (ug/l)	ETBE <sup>(b)</sup> (ug/l)	TAME <sup>(b)</sup> (ug/l)	TBA <sup>(b)</sup> (ug/l)
ESLs <sup>(c)</sup>		100	1.0	40	30	20	5.0	NE <sup>(d)</sup>	NE	NE	12
MW-1 (cont.)	3/12/1998	100	ND<0.5	ND<0.5	5	2.8	ND<5	NA	NA	NA	NA
	5/28/1998	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	NA	NA	NA	NA
	8/31/1998	130	ND<0.5	ND<0.5	6.4	1.4	ND<5	NA	NA	NA	NA
	11/19/1998	120	0.75	ND<0.5	ND<0.5	3.0	ND<5	NA	NA	NA	NA
	3/15/1999	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	NA	NA	NA	NA
	6/7/1999	5,200	1.6	1.9	230	110	ND<5	NA	NA	NA	NA
	9/7/1999	490	1.0	ND<0.5	22	15	ND<5	NA	NA	NA	NA
	12/13/1999	4,100	ND<2.5	ND<2.5	170	110	ND<25	NA	NA	NA	NA
	3/8/2000	1,200	ND<0.5	ND<0.5	21	7.7	150	NA	NA	NA	NA
	6/12/2000	3,000	1.5	0.90	160	98	34	NA	NA	NA	NA
	11/15/2000	8,500	ND<20	ND<20	470	390	14,000	NA	NA	NA	NA
	2/27/2001	6,100	5.4	2.6	260	190	4,300	NA	NA	NA	NA
	5/22/2001	21,000	8.9	13	1,100	1,300	2,300	NA	NA	NA	NA
	9/5/2001	12,000	ND<2	3.6	600	850	93	NA	NA	NA	NA
	11/7/2001	23,000	ND<5	ND<5	1,300	1,600	87	NA	NA	NA	NA
	2/11/2002	4,500	ND<0.5	ND<0.5	140	150	18	NA	NA	NA	NA
	6/3/2002	12,000	ND<2.5	ND<2.5	520	460	12	NA	NA	NA	NA
	8/6/2002	22,000	ND<0.5	ND<0.5	710	580	15	NA	NA	NA	NA
	11/14/2002	16,000	ND<5	ND<5	300	250	8.1	NA	NA	NA	NA
	2/20/2003	7,300	ND<1.5	ND<1.5	130	89	9.3	NA	NA	NA	NA
	5/15/2003	14,000	ND<2.5	ND<2.5	270	120	4.7	NA	NA	NA	NA
	7/31/2003	18,000	ND<5	ND<5	380	230	5.2	NA	NA	NA	NA
	10/28/2003	17,000	ND<5	ND<5	340	210	ND<5	NA	NA	NA	NA
	2/28/2004	10,000	ND<2	ND<2	140	48	4.8	NA	NA	NA	NA

TABLE E-1

## GROUNDWATER MONITORING ANALYTICAL RESULTS

TESORO - SAN LEANDRO, 67106

Monitoring Well	Sample Date <sup>(a)</sup>	TPHg <sup>(b)</sup> (ug/l)	Benzene <sup>(b)</sup> (ug/l)	Toluene <sup>(b)</sup> (ug/l)	Ethylbenzene <sup>(b)</sup> (ug/l)	Total Xylenes <sup>(b)</sup> (ug/l)	MTBE <sup>(b)</sup> (ug/l)	DIPE <sup>(b)</sup> (ug/l)	ETBE <sup>(b)</sup> (ug/l)	TAME <sup>(b)</sup> (ug/l)	TBA <sup>(b)</sup> (ug/l)
ESLs <sup>(c)</sup>		100	1.0	40	30	20	5.0	NE <sup>(d)</sup>	NE	NE	12
MW-1 (cont.)	4/16/2004	2,800	ND<0.5	ND<0.5	29	11	2.1	NA	NA	NA	NA
	7/16/2004	5,500	ND<0.5	0.57	130	74	1.4	NA	NA	NA	NA
	11/13/2004	4,000	ND<0.7	ND<0.7	56	25	ND<0.7	ND<0.7	ND<0.7	ND<0.7	ND<7
	2/4/2005	9,700	0.57	ND<0.5	140	58	0.75	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/8/2005	8,100	ND<1.5	ND<1.5	84	24	ND<1.5	ND<1.5	ND<1.5	ND<1.5	ND<7
	8/10/2005	8,700	ND<1.5	ND<1.5	92	32	ND<1.5	ND<1.5	ND<1.5	ND<1.5	ND<7
	11/5/2005	9,200	ND<1.5	ND<1.5	92	38	ND<1.5	ND<1.5	ND<1.5	ND<1.5	ND<7
	1/13/2006	6,500	ND<1.5	ND<1.5	34	17	ND<1.5	ND<1.5	ND<1.5	ND<1.5	ND<7
	5/12/2006	3,600	ND<0.5	1.0	26	12	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	8/13/2006	5,200	ND<0.5	0.57	40	12	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/20/2006	5,300	ND<0.5	0.61	52	16	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	2/12/2007	3,500	ND<0.5	ND<0.5	12	2.7	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/25/2007	3,400	ND<0.5	ND<0.5	15	3.6	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/23/2007	5,400	ND<0.5	0.61	24	7.5	ND<0.5	NA	NA	NA	NA
	10/24/2007	3,500	ND<0.5	ND<0.5	13	4.1	ND<0.5	NA	NA	NA	NA
1/27/2008	690	ND<0.5	0.52	1.8	0.72	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	
MW-2	3/30/1992	52,000	2,300	1,700	940	3,300	NA	NA	NA	NA	NA
	7/1/1992	130,000	3,500	2,900	1,900	7,900	NA	NA	NA	NA	NA
	9/30/1992	24,000	890	350	500	1,700	NA	NA	NA	NA	NA
	11/19/1992	32,000	1,900	1,700	870	3,400	NA	NA	NA	NA	NA
	2/3/1993	64,000	1,900	2,200	860	4,100	NA	NA	NA	NA	NA
	5/25/1993	34,000	3,300	1,500	1,300	5,900	NA	NA	NA	NA	NA
	9/22/1993	8,000	640	150	270	2,000	NA	NA	NA	NA	NA
	12/21/1993	18,000	1,500	410	1,300	5,000	NA	NA	NA	NA	NA

**TABLE E-1**  
**GROUNDWATER MONITORING ANALYTICAL RESULTS**  
**TESORO - SAN LEANDRO, 67106**

Monitoring Well	Sample Date <sup>(a)</sup>	TPHg <sup>(b)</sup> (ug/l)	Benzene <sup>(b)</sup> (ug/l)	Toluene <sup>(b)</sup> (ug/l)	Ethylbenzene <sup>(b)</sup> (ug/l)	Total Xylenes <sup>(b)</sup> (ug/l)	MTBE <sup>(b)</sup> (ug/l)	DIPE <sup>(b)</sup> (ug/l)	ETBE <sup>(b)</sup> (ug/l)	TAME <sup>(b)</sup> (ug/l)	TBA <sup>(b)</sup> (ug/l)
ESLs <sup>(c)</sup>		100	1.0	40	30	20	5.0	NE <sup>(d)</sup>	NE	NE	12
MW-2 (cont.)	3/18/1994	14,000	1,600	790	1,100	3,700	NA	NA	NA	NA	NA
	6/15/1994	13,000	1,600	580	1,200	4,100	NA	NA	NA	NA	NA
	9/14/1994	20,000	1,600	560	1,800	6,400	NA	NA	NA	NA	NA
	12/19/1994	19,000	1,700	750	1,600	5,800	NA	NA	NA	NA	NA
	3/7/1995	17,000	1,900	980	1,300	5,100	NA	NA	NA	NA	NA
	6/8/1995	19,000	2,100	740	1,500	4,900	NA	NA	NA	NA	NA
	9/22/1995	12,000	840	170	1,100	3,400	NA	NA	NA	NA	NA
	12/27/1995	16,000	1,100	540	1,400	5,100	NA	NA	NA	NA	NA
	3/26/1996	11,000	930	520	970	3,000	NA	NA	NA	NA	NA
	6/13/1996	11,000	1,800	1,400	1,500	4,500	1,200	NA	NA	NA	NA
	9/10/1996	19,000	1,600	600	1,600	5,000	1,100	NA	NA	NA	NA
	12/5/1996	12,000	650	180	1,000	2,800	180	NA	NA	NA	NA
	3/10/1997	6,800	430	95	590	1,800	69	NA	NA	NA	NA
	6/12/1997	20,000	610	140	1,500	4,300	100	NA	NA	NA	NA
	8/19/1997	3,600	47	14	1,300	2,200	ND<100	NA	NA	NA	NA
	12/13/1997	8,300	370	150	450	1,600	75	NA	NA	NA	NA
	3/12/1998	440	32	1.0	12	6.5	20	NA	NA	NA	NA
	5/28/1998	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	27	NA	NA	NA	NA
	8/31/1998	270	9.3	0.95	4.9	8.8	20	NA	NA	NA	NA
	11/19/1998	180	16	0.72	ND<0.5	4.3	7.4	NA	NA	NA	NA
	3/15/1999	2,400	12	3.5	59	840	10	NA	NA	NA	NA
	6/7/1999	690	21	0.99	6.9	10	6.1	NA	NA	NA	NA
	9/7/1999	610	7.8	1.2	42	100	ND<5	NA	NA	NA	NA
	12/13/1999	3,000	26	.9	52	96	ND<5	NA	NA	NA	NA

**TABLE E-1**  
**GROUNDWATER MONITORING ANALYTICAL RESULTS**  
**TESORO - SAN LEANDRO, 67106**

Monitoring Well	Sample Date <sup>(a)</sup>	TPHg <sup>(b)</sup> (ug/l)	Benzene <sup>(b)</sup> (ug/l)	Toluene <sup>(b)</sup> (ug/l)	Ethylbenzene <sup>(b)</sup> (ug/l)	Total Xylenes <sup>(b)</sup> (ug/l)	MTBE <sup>(b)</sup> (ug/l)	DIPE <sup>(b)</sup> (ug/l)	ETBE <sup>(b)</sup> (ug/l)	TAME <sup>(b)</sup> (ug/l)	TBA <sup>(b)</sup> (ug/l)
ESLs <sup>(c)</sup>		100	1.0	40	30	20	5.0	NE <sup>(d)</sup>	NE	NE	12
MW-2	3/8/2000	50	ND<0.5	ND<0.5	0.50	0.50	5.0	NA	NA	NA	NA
(cont.)	6/12/2000	5,500	51	17	170	320	18	NA	NA	NA	NA
	11/15/2000	16,000	75	48	1,200	2,800	19,000	NA	NA	NA	NA
	2/27/2001	10,000	54	24	320	870	6,000	NA	NA	NA	NA
	5/22/2001	2,400	12	5.0	79	100	3,500	NA	NA	NA	NA
	9/5/2001	34,000	120	180	1,500	5,100	400	NA	NA	NA	NA
	11/7/2001	32,000	87	170	1,400	3,700	870	NA	NA	NA	NA
	2/11/2002	34,000	170	250	1,600	4,700	390	NA	NA	NA	NA
	6/3/2002	29,000	130	260	1,700	5,100	110	NA	NA	NA	NA
	8/6/2002	34,000	110	240	1,700	4,700	84	NA	NA	NA	NA
	11/14/2002	35,000	51	150	1,300	3,600	39	NA	NA	NA	NA
	2/20/2003	23,000	67	130	1,100	2,800	71	NA	NA	NA	NA
	5/15/2003	19,000	57	110	840	2,300	43	NA	NA	NA	NA
	7/31/2003	31,000	78	210	2,000	5,000	36	NA	NA	NA	NA
	10/28/2003	32,000	59	120	2,000	3,600	19	NA	NA	NA	NA
	2/28/2004	10,000	21	26	520	980	35	NA	NA	NA	NA
	4/16/2004	11,000	30	30	540	890	30	NA	NA	NA	NA
	7/16/2004	21,000	42	36	1,200	2,300	17	NA	NA	NA	NA
	11/13/2004	14,000	25	27	780	1,300	9.1	ND<2.5	ND<2.5	ND<2.5	ND<15
	2/4/2005	14,000	24	20	720	1,000	8.6	ND<2.5	ND<2.5	ND<2.5	ND<15
	4/8/2005	14,000	19	11	580	630	7.9	ND<2.5	ND<2.5	ND<2.5	ND<15
	8/10/2005	13,000	21	11	610	520	7.6	ND<2.5	ND<2.5	ND<2.5	ND<15
	11/5/2005	50	ND<0.5	ND<0.5	0.5	0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/13/2006	6,800	17	7.8	220	230	3.5	ND<0.5	ND<0.5	ND<0.5	ND<5

TABLE E-1

GROUNDWATER MONITORING ANALYTICAL RESULTS  
TESORO - SAN LEANDRO, 67106

Monitoring Well	Sample Date <sup>(a)</sup>	TPHg <sup>(b)</sup> (ug/l)	Benzene <sup>(b)</sup> (ug/l)	Toluene <sup>(b)</sup> (ug/l)	Ethylbenzene <sup>(b)</sup> (ug/l)	Total Xylenes <sup>(b)</sup> (ug/l)	MTBE <sup>(b)</sup> (ug/l)	DIPE <sup>(b)</sup> (ug/l)	ETBE <sup>(b)</sup> (ug/l)	TAME <sup>(b)</sup> (ug/l)	TBA <sup>(b)</sup> (ug/l)
ESLs <sup>(c)</sup>		100	1.0	40	30	20	5.0	NE <sup>(d)</sup>	NE	NE	12
MW-2 (cont.)	5/12/2006	1,400	2.3	1.6	39	34	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	8/13/2006	7,700	17	6.4	520	160	3.4	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/20/2006	8,800	22	7.6	620	140	3.1	ND<1.5	ND<1.5	ND<1.5	ND<7
	2/12/2007	7,700	24	8.5	450	110	2.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/25/2007	9,400	22	8.7	620	100	ND<2	ND<2	ND<2	ND<2	ND<9
	7/23/2007	9,100	13	7.5	640	98	0.6	NA	NA	NA	NA
	10/24/2007	8,800	6.4	4.8	520	85	ND<1.5	NA	NA	NA	NA
	1/27/2008	8,100	5.4	5.3	350	130	ND<1.5	ND<1.5	ND<1.5	ND<1.5	7.2
MW-3	3/30/1992	21,000	560	50	630	980	NA	NA	NA	NA	NA
	7/1/1992	13,000	150	20	22	300	NA	NA	NA	NA	NA
	9/30/1992	4,500	53	2.6	84	96	NA	NA	NA	NA	NA
	11/19/1992	4,700	73	6.2	140	120	NA	NA	NA	NA	NA
	2/3/1993	23,000	220	40	430	740	NA	NA	NA	NA	NA
	5/25/1993	9,900	120	26	370	520	NA	NA	NA	NA	NA
	9/22/1993	10,000	370	71	320	640	NA	NA	NA	NA	NA
	12/21/1993	7,800	130	8.5	430	380	NA	NA	NA	NA	NA
	3/18/1994	3,100	22	1.3	78	41	NA	NA	NA	NA	NA
	6/15/1994	1,700	8.6	1.4	22	15	NA	NA	NA	NA	NA
	9/14/1994	1,400	3.8	ND<1.3	13	18	NA	NA	NA	NA	NA
	12/19/1994	3,800	70	1.7	140	110	NA	NA	NA	NA	NA
	3/7/1995	2,200	9.4	ND<1.3	30	21	NA	NA	NA	NA	NA
	6/8/1995	1,700	5.8	ND<1.3	2.3	14	NA	NA	NA	NA	NA
9/22/1995	1,200	ND<1.3	ND<1.3	1.3	ND<1.3	NA	NA	NA	NA	NA	
12/27/1995	1,300	2.4	ND<1.3	3.3	3.6	NA	NA	NA	NA	NA	



TABLE E-1

GROUNDWATER MONITORING ANALYTICAL RESULTS  
TESORO - SAN LEANDRO, 67106

Monitoring Well	Sample Date <sup>(a)</sup>	TPHg <sup>(b)</sup> (ug/l)	Benzene <sup>(b)</sup> (ug/l)	Toluene <sup>(b)</sup> (ug/l)	Ethylbenzene <sup>(b)</sup> (ug/l)	Total Xylenes <sup>(b)</sup> (ug/l)	MTBE <sup>(b)</sup> (ug/l)	DIPE <sup>(b)</sup> (ug/l)	ETBE <sup>(b)</sup> (ug/l)	TAME <sup>(b)</sup> (ug/l)	TBA <sup>(b)</sup> (ug/l)
ESLs <sup>(c)</sup>		100	1.0	40	30	20	5.0	NE <sup>(d)</sup>	NE	NE	12
MW-3 (cont.)	3/26/1996	1,200	4.3	ND<1.3	4.2	2.0	NA	NA	NA	NA	NA
	6/13/1996	1,300	5.1	ND<0.5	21	6.5	28	NA	NA	NA	NA
	9/10/1996	810	1.4	4.8	1.6	2.1	ND<5	NA	NA	NA	NA
	12/5/1996	590	ND<0.5	3.2	0.79	0.52	ND<5	NA	NA	NA	NA
	3/10/1997	650	0.73	3.8	2.4	1.6	ND<5	NA	NA	NA	NA
	6/12/1997	710	ND<0.5	3.5	2.9	3.6	ND<5	NA	NA	NA	NA
	8/19/1997	1,400	2.2	.6	11.00	34.00	13	NA	NA	NA	NA
	12/13/1997	810	0.96	ND<0.5	0.54	1.8	ND<5	NA	NA	NA	NA
	3/12/1998	1,200	0.67	ND<0.5	7.1	3.4	7.3	NA	NA	NA	NA
	5/28/1998	350	ND<0.5	0.50	ND<0.5	ND<0.5	ND<5	NA	NA	NA	NA
	8/31/1998	240	ND<0.5	0.89	0.69	ND<0.5	ND<5	NA	NA	NA	NA
	11/19/1998	440	5.3	0.72	0.86	4.2	ND<5	NA	NA	NA	NA
	3/15/1999	410	3.3	1.3	0.77	ND<0.5	ND<5	NA	NA	NA	NA
	6/7/1999	680	ND<0.5	2.0	ND<0.5	0.66	ND<5	NA	NA	NA	NA
	9/7/1999	150	ND<0.5	0.62	ND<0.5	8.7	ND<12	NA	NA	NA	NA
	12/13/1999	830	ND<0.5	0.52	ND<0.5	1.0	ND<5	NA	NA	NA	NA
	3/8/2000	960	0.58	ND<0.5	0.77	ND<0.5	ND<5	NA	NA	NA	NA
	6/12/2000	1,700	1.7	ND<0.5	46	6.3	ND<5	NA	NA	NA	NA
	11/15/2000	ND<20,000	ND<200	ND<200	ND<200	ND<200	84,000	NA	NA	NA	NA
	2/27/2001	3,500	98	ND<20	130	30	16,000	NA	NA	NA	NA
	5/22/2001	ND<2,000	41	ND<20	20	ND<20	5,800	NA	NA	NA	NA
	9/5/2001	5,300	9.9	1.5	49	8.2	430	NA	NA	NA	NA
	11/7/2001	6,500	9.4	1.8	47	8.8	1,600	NA	NA	NA	NA
	2/11/2002	2,400	8.9	ND<2	14	ND<2	530	NA	NA	NA	NA

**TABLE E-1**  
**GROUNDWATER MONITORING ANALYTICAL RESULTS**  
**TESORO - SAN LEANDRO, 67106**

Monitoring Well	Sample Date <sup>(a)</sup>	TPHg <sup>(b)</sup> (ug/l)	Benzene <sup>(b)</sup> (ug/l)	Toluene <sup>(b)</sup> (ug/l)	Ethylbenzene <sup>(b)</sup> (ug/l)	Total Xylenes <sup>(b)</sup> (ug/l)	MTBE <sup>(b)</sup> (ug/l)	DIPE <sup>(b)</sup> (ug/l)	ETBE <sup>(b)</sup> (ug/l)	TAME <sup>(b)</sup> (ug/l)	TBA <sup>(b)</sup> (ug/l)
ESLs <sup>(c)</sup>		100	1.0	40	30	20	5.0	NE <sup>(d)</sup>	NE	NE	12
MW-3 (cont.)	6/3/2002	2,100	13	0.77	19	0.94	110	NA	NA	NA	NA
	8/6/2002	2,800	25	2.5	12	1.1	120	NA	NA	NA	NA
	11/14/2002	2,200	29	0.89	3.7	ND<0.5	420	NA	NA	NA	NA
	2/20/2003	2,400	2.5	ND<0.5	ND<0.5	ND<0.5	340	NA	NA	NA	NA
	5/15/2003	2,100	2.	ND<0.5	1.2	ND<0.5	200	NA	NA	NA	NA
	7/31/2003	1,600	1.2	ND<0.5	ND<0.5	ND<0.5	330	NA	NA	NA	NA
	10/28/2003	1,600	1.	ND<0.5	ND<0.5	ND<0.5	160	NA	NA	NA	NA
	2/28/2004	1,400	1.2	ND<0.5	0.74	ND<0.5	58	NA	NA	NA	NA
	4/16/2004	1,400	1.2	ND<0.5	ND<0.5	ND<0.5	45	NA	NA	NA	NA
	7/16/2004	1,900	6.1	1.1	ND<0.5	0.83	43	NA	NA	NA	NA
	11/13/2004	1,300	4.7	0.79	ND<0.5	ND<0.5	30	ND<0.5	ND<0.5	ND<0.5	82
	2/4/2005	1,300	0.79	ND<0.5	ND<0.5	ND<0.5	10	ND<0.5	ND<0.5	ND<0.5	12
	4/8/2005	770	ND<0.5	ND<0.5	ND<0.5	ND<0.5	4.2	ND<0.5	ND<0.5	ND<0.5	ND<5
	8/10/2005	1,600	3.4	0.61	0.57	ND<0.5	6.3	ND<0.5	ND<0.5	ND<0.5	11
	11/5/2005	2,200	7.1	1.0	2.7	0.75	3.6	ND<0.5	ND<0.5	ND<0.5	13
	1/13/2006	1,200	5.	1.1	4.9	1.2	3.1	ND<0.5	ND<0.5	ND<0.5	9.8
	5/12/2006	960	2.4	1.2	1.8	1.1	2.1	ND<0.5	ND<0.5	ND<0.5	6.1
	8/13/2006	1,700	2.2	0.62	1.6	1.0	1.1	ND<0.5	ND<0.5	ND<0.5	5.5
	10/20/2006	1,200	1.9	ND<0.5	ND<0.5	ND<0.5	1.6	ND<0.5	ND<0.5	ND<0.5	ND<5
2/12/2007	990	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.2	ND<0.5	ND<0.5	ND<0.5	5.5	
4/25/2007	760	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.4	ND<0.5	ND<0.5	ND<0.5	6.1	
7/23/2007	750	1.4	ND<0.5	ND<0.5	ND<0.5	1.1	NA	NA	NA	NA	
10/24/2007	890	1.3	0.70	0.70	ND<0.5	0.84	NA	NA	NA	NA	
1/27/2008	1,200	1.4	1.1	1.1	3.3	1.8	ND<0.5	ND<0.5	ND<0.5	9.3	

TABLE E-1

GROUNDWATER MONITORING ANALYTICAL RESULTS  
TESORO - SAN LEANDRO, 67106

Monitoring Well	Sample Date <sup>(a)</sup>	TPHg <sup>(b)</sup> (ug/l)	Benzene <sup>(b)</sup> (ug/l)	Toluene <sup>(b)</sup> (ug/l)	Ethylbenzene <sup>(b)</sup> (ug/l)	Total Xylenes <sup>(b)</sup> (ug/l)	MTBE <sup>(b)</sup> (ug/l)	DIPE <sup>(b)</sup> (ug/l)	ETBE <sup>(b)</sup> (ug/l)	TAME <sup>(b)</sup> (ug/l)	TBA <sup>(b)</sup> (ug/l)
ESLs <sup>(c)</sup>		100	1.0	40	30	20	5.0	NE <sup>(d)</sup>	NE	NE	12
MW-4	3/30/1992	76,000	8,000	4,400	730	2,500	NA	NA	NA	NA	NA
	7/1/1992	95,000	6,900	2,200	70	880	NA	NA	NA	NA	NA
	9/30/1992	58,000	7,100	1,500	650	2,700	NA	NA	NA	NA	NA
	11/19/1992	33,000	5,500	840	400	1,400	NA	NA	NA	NA	NA
	2/3/1993	130,000	8,200	6,700	940	4,400	NA	NA	NA	NA	NA
	5/25/1993	63,000	16,000	6,600	1,700	8,100	NA	NA	NA	NA	NA
	9/22/1993	23,000	6,900	940	150	3,000	NA	NA	NA	NA	NA
	12/21/1993	28,000	6,900	1,900	1,100	5,500	NA	NA	NA	NA	NA
	3/18/1994	58,000	17,000	6,300	2,500	10,000	NA	NA	NA	NA	NA
	6/15/1994	59,000	20,000	4,900	2,500	9,100	NA	NA	NA	NA	NA
	9/14/1994	73,000	22,000	6,800	2,700	10,000	NA	NA	NA	NA	NA
	12/19/1994	67,000	20,000	8,300	2,300	9,100	NA	NA	NA	NA	NA
	3/7/1995	57,000	19,000	7,900	2,200	8,700	NA	NA	NA	NA	NA
	6/8/1995	61,000	17,000	6,300	2,700	9,000	NA	NA	NA	NA	NA
	9/22/1995	37,000	12,000	2,200	1,400	3,500	NA	NA	NA	NA	NA
	12/27/1995	3,900	12,000	600	1,800	5,800	NA	NA	NA	NA	NA
	3/26/1996	31,000	9,600	3,700	2,300	6,200	NA	NA	NA	NA	NA
	6/13/1996	240	64	0.93	1.8	2.7	89	NA	NA	NA	NA
	9/10/1996	91,000	13,000	20,000	3,200	16,000	2,900	NA	NA	NA	NA
	12/5/1996	16,000	3,700	3,100	580	2,800	1,200	NA	NA	NA	NA
3/10/1997	630	91	ND<0.5	ND<0.5	0.80	530	NA	NA	NA	NA	
6/12/1997	36,000	4,600	5,300	1,200	5,500	1,100	NA	NA	NA	NA	
8/19/1997	12,000	420	88	61	520	390	NA	NA	NA	NA	
12/13/1997	4,800	560	740	130	1,100	360	NA	NA	NA	NA	

**TABLE E-1**  
**GROUNDWATER MONITORING ANALYTICAL RESULTS**  
**TESORO - SAN LEANDRO, 67106**

Monitoring Well	Sample Date <sup>(a)</sup>	TPHg <sup>(b)</sup> (ug/l)	Benzene <sup>(b)</sup> (ug/l)	Toluene <sup>(b)</sup> (ug/l)	Ethylbenzene <sup>(b)</sup> (ug/l)	Total Xylenes <sup>(b)</sup> (ug/l)	MTBE <sup>(b)</sup> (ug/l)	DIPE <sup>(b)</sup> (ug/l)	ETBE <sup>(b)</sup> (ug/l)	TAME <sup>(b)</sup> (ug/l)	TBA <sup>(b)</sup> (ug/l)
ESLs <sup>(c)</sup>		100	1.0	40	30	20	5.0	NE <sup>(d)</sup>	NE	NE	12
MW-4 (cont.)	3/12/1998	14,000	2,200	1,500	630	3,000	440	NA	NA	NA	NA
	5/28/1998	67	ND<0.5	0.75	0.68	6.9	26	NA	NA	NA	NA
	8/31/1998	ND<50	1.8	2.5	0.65	3.4	ND<5	NA	NA	NA	NA
	11/19/1998	ND<50	ND<0.5	ND<0.5	ND<0.5	0.61	17	NA	NA	NA	NA
	3/15/1999	160	1.2	1.6	0.76	4.5	9.3	NA	NA	NA	NA
	6/7/1999	5,800	210	370	350	2,000	ND<20	NA	NA	NA	NA
	9/7/1999	130	2.2	2.8	4.8	25	12	NA	NA	NA	NA
	12/13/1999	ND<50	1.3	1.0	1.2	4.8	12	NA	NA	NA	NA
	3/8/2000	3,700	78	200	160	750	11	NA	NA	NA	NA
	6/12/2000	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	24	NA	NA	NA	NA
	11/15/2000	710	12	38	28	130	1,300	NA	NA	NA	NA
	2/27/2001	6,500	67	300	310	1,400	1,000	NA	NA	NA	NA
	5/22/2001	130	2.1	5.6	4.8	20	350	NA	NA	NA	NA
	9/5/2001	6,200	110	670	250	1,300	600	NA	NA	NA	NA
	11/7/2001	4,100	40	270	180	940	110	NA	NA	NA	NA
	2/11/2002	14,000	91	590	620	3,000	350	NA	NA	NA	NA
	6/3/2002	4,300	69	390	190	1,100	240	NA	NA	NA	NA
	8/6/2002	13,000	100	690	570	2,900	170	NA	NA	NA	NA
	11/14/2002	20,000	65	380	550	3,400	130	NA	NA	NA	NA
	2/20/2003	18,000	57	240	650	3,700	98	NA	NA	NA	NA
5/15/2003	8,500	44	100	200	1,200	120	NA	NA	NA	NA	
7/31/2003	11,000	42	59	250	1,400	87	NA	NA	NA	NA	
10/28/2003	8,100	80	40	130	650	130	NA	NA	NA	NA	
2/28/2004	17,000	85	430	570	3,700	67	NA	NA	NA	NA	

TABLE E-1

GROUNDWATER MONITORING ANALYTICAL RESULTS  
TESORO - SAN LEANDRO, 67106

Monitoring Well	Sample Date <sup>(a)</sup>	TPHg <sup>(b)</sup> (ug/l)	Benzene <sup>(b)</sup> (ug/l)	Toluene <sup>(b)</sup> (ug/l)	Ethylbenzene <sup>(b)</sup> (ug/l)	Total Xylenes <sup>(b)</sup> (ug/l)	MTBE <sup>(b)</sup> (ug/l)	DIPE <sup>(b)</sup> (ug/l)	ETBE <sup>(b)</sup> (ug/l)	TAME <sup>(b)</sup> (ug/l)	TBA <sup>(b)</sup> (ug/l)
ESLs <sup>(c)</sup>		100	1.0	40	30	20	5.0	NE <sup>(d)</sup>	NE	NE	12
MW-4 (cont.)	4/16/2004	19,000	72	420	570	3,800	60	NA	NA	NA	NA
	7/16/2004	10,000	46	330	360	2,200	58	NA	NA	NA	NA
	11/13/2004	9,400	50	240	360	2,200	22	ND<4	ND<4	ND<4	ND<20
	2/4/2005	4,800	14	160	170	1,100	7.9	ND<4	ND<4	ND<4	ND<20
	4/8/2005	5,800	15	160	200	1,200	6.6	ND<2	ND<2	ND<2	ND<20
	8/10/2005	3,000	7.0	110	100	570	5.2	ND<0.5	ND<0.5	ND<0.5	9.9
	11/5/2005	3,000	6.0	91	95	630	5.3	ND<0.5	ND<0.5	ND<0.5	9.1
	1/13/2006	4,000	8.3	100	160	860	4.9	ND<0.9	ND<0.9	ND<0.9	6.7
	5/12/2006	ND<50	ND<0.5	0.62	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	8/13/2006	1,200	2.5	20	41	240	2.0	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/20/2006	1,500	2.9	28	56	350	2.7	ND<0.5	ND<0.5	ND<0.5	ND<5
	2/12/2007	150	ND<0.5	0.58	1.5	3.3	3.1	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/25/2007	340	0.83	4.6	10	26	4.8	ND<0.5	ND<0.5	ND<0.5	6.0
	7/23/2007	1,000	2.6	4.1	42	43	3.0	NA	NA	NA	NA
	10/24/2007	2,100	4.7	32	78	230	2.1	NA	NA	NA	NA
1/27/2008	2,500	5.2	9.0	56	130	1.2	ND<0.5	ND<0.5	ND<0.5	ND<5	
MW-5	3/30/1992	29,000	2,600	980	390	1,100	NA	NA	NA	NA	NA
	7/1/1992	52,000	2,400	1,000	5,200	2,000	NA	NA	NA	NA	NA
	9/30/1992	32,000	1,800	780	370	1,700	NA	NA	NA	NA	NA
	11/19/1992	7,800	1,000	280	120	370	NA	NA	NA	NA	NA
	2/3/1993	74,000	3,500	3,000	780	3,200	NA	NA	NA	NA	NA
	5/25/1993	57,000	7,900	4,700	1,900	7,800	NA	NA	NA	NA	NA
	9/22/1993	52,000	7,600	2,400	1,200	8,800	NA	NA	NA	NA	NA
	12/21/1993	23,000	3,600	1,200	970	3,600	NA	NA	NA	NA	NA

**TABLE E-1**  
**GROUNDWATER MONITORING ANALYTICAL RESULTS**  
**TESORO - SAN LEANDRO, 67106**

Monitoring Well	Sample Date <sup>(a)</sup>	TPHg <sup>(b)</sup> (ug/l)	Benzene <sup>(b)</sup> (ug/l)	Toluene <sup>(b)</sup> (ug/l)	Ethylbenzene <sup>(b)</sup> (ug/l)	Total Xylenes <sup>(b)</sup> (ug/l)	MTBE <sup>(b)</sup> (ug/l)	DIPE <sup>(b)</sup> (ug/l)	ETBE <sup>(b)</sup> (ug/l)	TAME <sup>(b)</sup> (ug/l)	TBA <sup>(b)</sup> (ug/l)
ESLs <sup>(c)</sup>		100	1.0	40	30	20	5.0	NE <sup>(d)</sup>	NE	NE	12
MW-5 (cont.)	3/18/1994	47,000	8,200	5,000	1,400	6,100	NA	NA	NA	NA	NA
	6/15/1994	28,000	7,900	4,000	1,200	5,200	NA	NA	NA	NA	NA
	9/14/1994	32,000	8,000	5,100	1,400	5,600	NA	NA	NA	NA	NA
	12/19/1994	29,000	7,000	3,400	1,200	5,200	NA	NA	NA	NA	NA
	3/7/1995	36,000	9,800	5,800	1,800	7,800	NA	NA	NA	NA	NA
	6/8/1995	33,000	7,700	3,800	1,500	6,200	NA	NA	NA	NA	NA
	9/22/1995	39,000	9,500	3,800	1,900	7,000	NA	NA	NA	NA	NA
	12/27/1995	42,000	9,700	5,000	2,200	8,800	NA	NA	NA	NA	NA
	3/26/1996	37,000	9,800	4,900	2,300	8,800	NA	NA	NA	NA	NA
	6/13/1996	18,000	5,500	2,200	1,500	5,300	1,400	NA	NA	NA	NA
	9/10/1996	22,000	5,600	1,400	1,100	3,500	860	NA	NA	NA	NA
	12/5/1996	24,000	5,100	2,500	1,400	4,700	650	NA	NA	NA	NA
	3/10/1997	28,000	6,800	2,700	1,300	5,700	760	NA	NA	NA	NA
	6/12/1997	49,000	7,500	3,200	2,300	9,200	700	NA	NA	NA	NA
	8/19/1997	24,000	4,700	990	1,400	4,500	1,600	NA	NA	NA	NA
	12/13/1997	18,000	2,700	760	630	4,200	360	NA	NA	NA	NA
	3/12/1998	12,000	2,600	160	470	2,200	ND<250	NA	NA	NA	NA
	5/28/1998	4,700	480	99	160	730	ND<250	NA	NA	NA	NA
	8/31/1998	1,400	200	14	55	220	180	NA	NA	NA	NA
	11/19/1998	ND<50	1.4	ND<0.5	ND<0.5	ND<0.5	39	NA	NA	NA	NA
3/15/1999	3,400	320	17	290	780	33	NA	NA	NA	NA	
6/7/1999	3,200	220	8.9	240	290	ND<25	NA	NA	NA	NA	
9/7/1999	140	8.5	ND<0.5	8.5	12	38	NA	NA	NA	NA	
12/13/1999	140	ND<0.5	ND<0.5	ND<0.5	13	ND<5	NA	NA	NA	NA	

TABLE E-1

GROUNDWATER MONITORING ANALYTICAL RESULTS  
TESORO - SAN LEANDRO, 67106

Monitoring Well	Sample Date <sup>(a)</sup>	TPHg <sup>(b)</sup> (ug/l)	Benzene <sup>(b)</sup> (ug/l)	Toluene <sup>(b)</sup> (ug/l)	Ethylbenzene <sup>(b)</sup> (ug/l)	Total Xylenes <sup>(b)</sup> (ug/l)	MTBE <sup>(b)</sup> (ug/l)	DIPE <sup>(b)</sup> (ug/l)	ETBE <sup>(b)</sup> (ug/l)	TAME <sup>(b)</sup> (ug/l)	TBA <sup>(b)</sup> (ug/l)
ESLs <sup>(c)</sup>		100	1.0	40	30	20	5.0	NE <sup>(d)</sup>	NE	NE	12
MW-5 (cont.)	3/8/2000	280	0.66	ND<0.5	2.5	30	ND<5	NA	NA	NA	NA
	6/12/2000	2,700	22	1.2	79	170	6.4	NA	NA	NA	NA
	11/15/2000	4,500	36	1.6	180	180	10	NA	NA	NA	NA
	2/27/2001	2,800	33	1.6	160	220	110	NA	NA	NA	NA
	5/22/2001	3,200	49	2.2	180	230	240	NA	NA	NA	NA
	9/5/2001	2,400	28	1.0	100	100	560	NA	NA	NA	NA
	11/7/2001	390	ND<2	ND<2	2.1	20	590	NA	NA	NA	NA
	2/11/2002	1,200	19	ND<5	59	52	1,800	NA	NA	NA	NA
	6/3/2002	3,200	44	ND<2	150	210	610	NA	NA	NA	NA
	8/6/2002	3,200	42	ND<2	140	150	820	NA	NA	NA	NA
	11/14/2002	2,900	29	1.3	94	100	560	NA	NA	NA	NA
	2/20/2003	2,900	22	ND<1	81	77	270	NA	NA	NA	NA
	5/15/2003	3,700	55	1.8	94	85	220	NA	NA	NA	NA
	7/31/2003	2,400	45	1.1	26	19	200	NA	NA	NA	NA
	10/28/2003	570	6.8	ND<0.5	4.4	1.1	77	NA	NA	NA	NA
	2/28/2004	3,400	37	1.4	130	120	72	NA	NA	NA	NA
	4/16/2004	2,400	26	0.73	45	53	81	NA	NA	NA	NA
	7/16/2004	2,100	24	0.85	36	20	71	NA	NA	NA	NA
	11/13/2004	1,600	19	0.55	37	17	38	ND<0.5	ND<0.5	ND<0.5	59
	2/4/2005	4,500	40	1.4	120	80	32	ND<0.5	ND<0.5	ND<0.5	43
	4/8/2005	67	ND<0.5	ND<0.5	ND<0.5	ND<0.5	7.9	ND<0.5	ND<0.5	ND<0.5	ND<5
	8/10/2005	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	11/5/2005	110	ND<0.5	ND<0.5	2.2	1.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/13/2006	0.58	ND<0.5	ND<0.5	1.2	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5

TABLE E-1

**GROUNDWATER MONITORING ANALYTICAL RESULTS**  
**TESORO - SAN LEANDRO, 67106**

Monitoring Well	Sample Date <sup>(a)</sup>	TPHg <sup>(b)</sup> (ug/l)	Benzene <sup>(b)</sup> (ug/l)	Toluene <sup>(b)</sup> (ug/l)	Ethylbenzene <sup>(b)</sup> (ug/l)	Total Xylenes <sup>(b)</sup> (ug/l)	MTBE <sup>(b)</sup> (ug/l)	DIPE <sup>(b)</sup> (ug/l)	ETBE <sup>(b)</sup> (ug/l)	TAME <sup>(b)</sup> (ug/l)	TBA <sup>(b)</sup> (ug/l)
ESLs <sup>(c)</sup>		100	1.0	40	30	20	5.0	NE <sup>(d)</sup>	NE	NE	12
MW-5 (cont.)	5/12/2006	ND<50	ND<0.5	0.50	ND<0.5	ND<0.5	0.54	ND<0.5	ND<0.5	ND<0.5	ND<5
	8/13/2006	140	ND<0.5	ND<0.5	0.58	ND<0.5	0.66	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/20/2006	320	0.76	ND<0.5	2.8	1.1	1.4	ND<0.5	ND<0.5	ND<0.5	5.9
	2/12/2007	210	ND<0.5	ND<0.5	ND<0.5	ND<0.5	2.8	ND<0.5	ND<0.5	ND<0.5	6.4
	4/25/2007	340	ND<0.5	ND<0.5	ND<0.5	ND<0.5	3.7	ND<0.5	ND<0.5	ND<0.5	8.1
	7/23/2007	700	0.72	ND<0.5	1.4	0.70	3.2	NA	NA	NA	NA
	10/24/2007	1,000	1.6	ND<0.5	2.1	0.60	2.5	NA	NA	NA	NA
	1/27/2008	1,900	14	0.78	34	6.0	4.9	ND<0.5	ND<0.5	ND<0.5	10
MW-6	3/30/1992	73	2.1	1.1	ND	0.60	NA	NA	NA	NA	NA
	7/1/1992	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA
	9/30/1992	ND	0.73	ND	ND	0.58	NA	NA	NA	NA	NA
	11/19/1992	96	1.5	ND<0.5	ND<0.5	0.90	NA	NA	NA	NA	NA
	2/3/1993	73	0.6	ND<0.5	ND<0.5	ND<0.5	NA	NA	NA	NA	NA
	5/25/1993	NS <sup>(g)</sup>	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10/11/1993	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA	NA	NA	NA	NA
	12/21/1993	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA	NA	NA	NA	NA
	3/18/1994	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA	NA	NA	NA	NA
	6/15/1994	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA	NA	NA	NA	NA
	9/14/1994	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA	NA	NA	NA	NA
	12/19/1994	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA	NA	NA	NA	NA
	3/7/1995	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA	NA	NA	NA	NA
	6/8/1995	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA	NA	NA	NA	NA
9/22/1995	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA	NA	NA	NA	NA	
12/27/1995	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA	NA	NA	NA	NA	



TABLE E-1

**GROUNDWATER MONITORING ANALYTICAL RESULTS**  
**TESORO - SAN LEANDRO, 67106**

Monitoring Well	Sample Date <sup>(a)</sup>	TPHg <sup>(b)</sup> (ug/l)	Benzene <sup>(b)</sup> (ug/l)	Toluene <sup>(b)</sup> (ug/l)	Ethylbenzene <sup>(b)</sup> (ug/l)	Total Xylenes <sup>(b)</sup> (ug/l)	MTBE <sup>(b)</sup> (ug/l)	DIPE <sup>(b)</sup> (ug/l)	ETBE <sup>(b)</sup> (ug/l)	TAME <sup>(b)</sup> (ug/l)	TBA <sup>(b)</sup> (ug/l)
ESLs <sup>(c)</sup>		100	1.0	40	30	20	5.0	NE <sup>(d)</sup>	NE	NE	12
MW-6 (cont.)	3/26/1996	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA	NA	NA	NA	NA
	6/13/1996	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	NA	NA	NA	NA
	9/10/1996	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	NA	NA	NA	NA
	12/5/1996	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	NA	NA	NA	NA
	3/10/1997	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	NA	NA	NA	NA
	6/12/1997	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	NA	NA	NA	NA
	8/19/1997	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	NA	NA	NA	NA
	12/13/1997	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	NA	NA	NA	NA
	3/12/1998	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	NA	NA	NA	NA
	5/28/1998	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	NA	NA	NA	NA
	8/31/1998	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	NA	NA	NA	NA
	11/19/1998	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	NA	NA	NA	NA
	3/15/1999	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	NA	NA	NA	NA
	6/7/1999	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	NA	NA	NA	NA
	9/7/1999	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	NA	NA	NA	NA
	12/13/1999	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	NA	NA	NA	NA
	3/8/2000	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	NA	NA	NA	NA
	6/12/2000	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	NA	NA	NA	NA
	11/15/2000	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA	NA	NA	NA
	2/27/2001	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA	NA	NA	NA
5/22/2001	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA	NA	NA	NA	
9/5/2001	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA	NA	NA	NA	
11/7/2001	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA	NA	NA	NA	
2/11/2002	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA	NA	NA	NA	

TABLE E-1

**GROUNDWATER MONITORING ANALYTICAL RESULTS**  
**TESORO - SAN LEANDRO, 67106**

Monitoring Well	Sample Date <sup>(a)</sup>	TPHg <sup>(b)</sup> (ug/l)	Benzene <sup>(b)</sup> (ug/l)	Toluene <sup>(b)</sup> (ug/l)	Ethylbenzene <sup>(b)</sup> (ug/l)	Total Xylenes <sup>(b)</sup> (ug/l)	MTBE <sup>(b)</sup> (ug/l)	DIPE <sup>(b)</sup> (ug/l)	ETBE <sup>(b)</sup> (ug/l)	TAME <sup>(b)</sup> (ug/l)	TBA <sup>(b)</sup> (ug/l)
ESLs <sup>(c)</sup>		100	1.0	40	30	20	5.0	NE <sup>(d)</sup>	NE	NE	12
MW-6 (cont.)	6/3/2002	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA	NA	NA	NA
	8/6/2002	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA	NA	NA	NA
	11/14/2002	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA	NA	NA	NA
	2/20/2003	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA	NA	NA	NA
	5/15/2003	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA	NA	NA	NA
	7/31/2003	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA	NA	NA	NA
	10/28/2003	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA	NA	NA	NA
	2/28/2004	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA	NA	NA	NA
	4/16/2004	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA	NA	NA	NA
	7/16/2004	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA	NA	NA	NA
	11/13/2004	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	2/4/2005	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/8/2005	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	8/10/2005	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	11/5/2005	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/13/2006	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	5/12/2006	ND<50	ND<0.5	0.72	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	8/13/2006	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/20/2006	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	2/12/2007	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
4/25/2007	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	
7/23/2007	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA	NA	NA	NA	
10/24/2007	76	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA	NA	NA	NA
1/27/2008	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5

**TABLE E-1**  
**GROUNDWATER MONITORING ANALYTICAL RESULTS**  
**TESORO - SAN LEANDRO, 67106**

Monitoring Well	Sample Date <sup>(a)</sup>	TPHg <sup>(b)</sup> (ug/l)	Benzene <sup>(b)</sup> (ug/l)	Toluene <sup>(b)</sup> (ug/l)	Ethylbenzene <sup>(b)</sup> (ug/l)	Total Xylenes <sup>(b)</sup> (ug/l)	MTBE <sup>(b)</sup> (ug/l)	DIPE <sup>(b)</sup> (ug/l)	ETBE <sup>(b)</sup> (ug/l)	TAME <sup>(b)</sup> (ug/l)	TBA <sup>(b)</sup> (ug/l)
ESLs <sup>(c)</sup>		100	1.0	40	30	20	5.0	NE <sup>(d)</sup>	NE	NE	12
MW-7	3/30/1992	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA
	7/1/1992	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA
	9/30/1992	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA
	11/19/1992	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA	NA	NA	NA	NA
	2/3/1993	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA	NA	NA	NA	NA
	5/25/1993	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	9/22/1993	ND<50	0.51	0.82	ND<0.5	0.81	NA	NA	NA	NA	NA
	12/21/1993	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA	NA	NA	NA	NA
	3/18/1994	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA	NA	NA	NA	NA
	6/15/1994	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA	NA	NA	NA	NA
	9/14/1994	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA	NA	NA	NA	NA
	12/19/1994	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA	NA	NA	NA	NA
	3/7/1995	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA	NA	NA	NA	NA
	6/8/1995	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA	NA	NA	NA	NA
	9/22/1995	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA	NA	NA	NA	NA
	12/27/1995	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA	NA	NA	NA	NA
	3/26/1996	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA	NA	NA	NA	NA
	6/13/1996	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	NA	NA	NA	NA
	9/10/1996	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	NA	NA	NA	NA
12/5/1996	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	NA	NA	NA	NA	
3/7/1997	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	NA	NA	NA	NA	
6/12/1997	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	NA	NA	NA	NA	
8/19/1997	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	NA	NA	NA	NA	
12/13/1997	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	NA	NA	NA	NA	

TABLE E-1

## GROUNDWATER MONITORING ANALYTICAL RESULTS

TESORO - SAN LEANDRO, 67106

Monitoring Well	Sample Date <sup>(a)</sup>	TPHg <sup>(b)</sup> (ug/l)	Benzene <sup>(b)</sup> (ug/l)	Toluene <sup>(b)</sup> (ug/l)	Ethylbenzene <sup>(b)</sup> (ug/l)	Total Xylenes <sup>(b)</sup> (ug/l)	MTBE <sup>(b)</sup> (ug/l)	DIPE <sup>(b)</sup> (ug/l)	ETBE <sup>(b)</sup> (ug/l)	TAME <sup>(b)</sup> (ug/l)	TBA <sup>(b)</sup> (ug/l)
ESLs <sup>(c)</sup>		100	1.0	40	30	20	5.0	NE <sup>(d)</sup>	NE	NE	12
MW-7 (cont.)	3/12/1998	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	NA	NA	NA	NA
	5/28/1998	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	NA	NA	NA	NA
	8/31/1998	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	NA	NA	NA	NA
	11/19/1998	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	NA	NA	NA	NA
	3/15/1999	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	NA	NA	NA	NA
	6/7/1999	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	NA	NA	NA	NA
	9/7/1999	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	NA	NA	NA	NA
	12/13/1999	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	NA	NA	NA	NA
	3/8/2000	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	NA	NA	NA	NA
	6/12/2000	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	NA	NA	NA	NA
	11/15/2000	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA	NA	NA	NA
	2/27/2001	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA	NA	NA	NA
	5/22/2001	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA	NA	NA	NA
	9/5/2001	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA	NA	NA	NA
	11/7/2001	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA	NA	NA	NA
	2/11/2002	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	6/3/2002	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.95	NA	NA	NA	NA
	8/6/2002	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA	NA	NA	NA
	11/14/2002	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA	NA	NA	NA
	2/20/2003	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA	NA	NA	NA
5/15/2003	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.69	NA	NA	NA	NA	
7/31/2003	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.65	NA	NA	NA	NA	
10/28/2003	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
2/28/2004	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA	NA	NA	

TABLE E-1

GROUNDWATER MONITORING ANALYTICAL RESULTS  
TESORO - SAN LEANDRO, 67106

Monitoring Well	Sample Date <sup>(a)</sup>	TPHg <sup>(b)</sup> (ug/l)	Benzene <sup>(b)</sup> (ug/l)	Toluene <sup>(b)</sup> (ug/l)	Ethylbenzene <sup>(b)</sup> (ug/l)	Total Xylenes <sup>(b)</sup> (ug/l)	MTBE <sup>(b)</sup> (ug/l)	DIPE <sup>(b)</sup> (ug/l)	ETBE <sup>(b)</sup> (ug/l)	TAME <sup>(b)</sup> (ug/l)	TBA <sup>(b)</sup> (ug/l)
ESLs <sup>(c)</sup>		100	1.0	40	30	20	5.0	NE <sup>(d)</sup>	NE	NE	12
MW-7 (cont.)	4/16/2004	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA	NA	NA	NA
	7/16/2004	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA	NA	NA	NA
	11/13/2004	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	2/4/2005	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/8/2005	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.78	ND<0.5	ND<0.5	ND<0.5	ND<5
	8/10/2005	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.61	ND<0.5	ND<0.5	ND<0.5	ND<5
	11/5/2005	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.76	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/13/2006	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.61	ND<0.5	ND<0.5	ND<0.5	ND<5
	5/12/2006	ND<50	ND<0.5	0.59	ND<0.5	ND<0.5	0.57	ND<0.5	ND<0.5	ND<0.5	ND<5
	8/13/2006	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/20/2006	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.54	ND<0.5	ND<0.5	ND<0.5	ND<5
	2/12/2007	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/25/2007	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/23/2007	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA	NA	NA	NA
	10/24/2007	76	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA	NA	NA	NA
1/27/2008	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	
MW-8	3/30/1992	3,000	1,700	880	970	1,900	NA	NA	NA	NA	NA
	7/1/1992	72,000	1,800	550	520	2,200	NA	NA	NA	NA	NA
	9/30/1992	12,000	680	140	140	560	NA	NA	NA	NA	NA
	11/19/1992	9,600	530	310	130	560	NA	NA	NA	NA	NA
	2/3/1993	44,000	1,500	1,300	490	2,300	NA	NA	NA	NA	NA
	5/25/1993	7,400	580	160	170	480	NA	NA	NA	NA	NA
	9/22/1993	2,400	490	45	37	140	NA	NA	NA	NA	NA
	12/21/1993	1,400	240	7.5	ND<2.5	82	NA	NA	NA	NA	NA

**TABLE E-1**  
**GROUNDWATER MONITORING ANALYTICAL RESULTS**  
**TESORO - SAN LEANDRO, 67106**

Monitoring Well	Sample Date <sup>(a)</sup>	TPHg <sup>(b)</sup> (ug/l)	Benzene <sup>(b)</sup> (ug/l)	Toluene <sup>(b)</sup> (ug/l)	Ethylbenzene <sup>(b)</sup> (ug/l)	Total Xylenes <sup>(b)</sup> (ug/l)	MTBE <sup>(b)</sup> (ug/l)	DIPE <sup>(b)</sup> (ug/l)	ETBE <sup>(b)</sup> (ug/l)	TAME <sup>(b)</sup> (ug/l)	TBA <sup>(b)</sup> (ug/l)
ESLs <sup>(c)</sup>		100	1.0	40	30	20	5.0	NE <sup>(d)</sup>	NE	NE	12
MWV-8 (cont.)	3/18/1994	8,600	1,600	680	470	1,900	NA	NA	NA	NA	NA
	6/15/1994	4,800	980	380	260	1,200	NA	NA	NA	NA	NA
	9/14/1994	6,600	1,200	280	330	1,100	NA	NA	NA	NA	NA
	12/19/1994	8,400	1,800	390	500	2,000	NA	NA	NA	NA	NA
	3/7/1995	7,400	1,400	370	440	2,000	NA	NA	NA	NA	NA
	6/8/1995	6,000	790	220	290	1,400	NA	NA	NA	NA	NA
	9/22/1995	4,100	750	93	230	860	NA	NA	NA	NA	NA
	12/27/1995	5,400	860	140	350	1,400	NA	NA	NA	NA	NA
	3/26/1996	1,700	180	27	100	370	NA	NA	NA	NA	NA
	6/13/1996	2,400	500	67	220	850	42	NA	NA	NA	NA
	9/10/1996	7,000	1,300	100	410	1,600	ND<50	NA	NA	NA	NA
	12/5/1996	6,300	1,100	78	410	1,600	ND<50	NA	NA	NA	NA
	3/7/1997	6,500	840	67	330	1,500	ND<130	NA	NA	NA	NA
	6/12/1997	7,500	1,000	79	390	1,400	ND<50	NA	NA	NA	NA
	8/19/1997	1,100	170	14	38	220	ND<20	NA	NA	NA	NA
	12/13/1997	4,100	300	29	190	860	24	NA	NA	NA	NA
	3/12/1998	72	1.4	ND<0.5	ND<0.5	ND<0.5	ND<5	NA	NA	NA	NA
	5/28/1998	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	NA	NA	NA	NA
	8/31/1998	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	NA	NA	NA	NA
	11/19/1998	14000	510	24	1200	2800	ND<5	NA	NA	NA	NA
3/15/1999	14,000	160	16	910	2,100	ND<50	NA	NA	NA	NA	
6/7/1999	7,800	330	14	470	880	ND<50	NA	NA	NA	NA	
9/7/1999	3,200	150	2.6	260	370	ND<5	NA	NA	NA	NA	
12/13/1999	6,700	35	ND<5	280	730	ND<50	NA	NA	NA	NA	

**TABLE E-1**  
**GROUNDWATER MONITORING ANALYTICAL RESULTS**  
**TESORO - SAN LEANDRO, 67106**

Monitoring Well	Sample Date <sup>(a)</sup>	TPHg <sup>(b)</sup> (ug/l)	Benzene <sup>(b)</sup> (ug/l)	Toluene <sup>(b)</sup> (ug/l)	Ethylbenzene <sup>(b)</sup> (ug/l)	Total Xylenes <sup>(b)</sup> (ug/l)	MTBE <sup>(b)</sup> (ug/l)	DIPE <sup>(b)</sup> (ug/l)	ETBE <sup>(b)</sup> (ug/l)	TAME <sup>(b)</sup> (ug/l)	TBA <sup>(b)</sup> (ug/l)
ESLs <sup>(c)</sup>		100	1.0	40	30	20	5.0	NE <sup>(d)</sup>	NE	NE	12
MW-8 (cont.)	3/8/2000	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	NA	NA	NA	NA
	6/12/2000	140	4.0	ND<0.5	4.9	2.1	ND<5	NA	NA	NA	NA
	11/15/2000	100	2.0	ND<0.5	3.1	2.6	110	NA	NA	NA	NA
	2/27/2001	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	5/22/2001	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	9/5/2001	4,800	160	ND<2	200	330	850	NA	NA	NA	NA
	11/7/2001	ND<100	1.1	ND<1	2.0	6.1	590	NA	NA	NA	NA
	2/11/2002	ND<500	7.9	ND<5	16	22	1,700	NA	NA	NA	NA
	6/3/2002	550	20	ND<2	19	35	650	NA	NA	NA	NA
	8/6/2002	4,800	220	ND<2	170	280	1,000	NA	NA	NA	NA
	11/14/2002	4,800	250	ND<2.5	160	220	1,200	NA	NA	NA	NA
	2/20/2003	760	17	ND<1	19	42	520	NA	NA	NA	NA
	5/15/2003	690	14	ND<0.5	16	23	370	NA	NA	NA	NA
	7/31/2003	700	29	ND<1	15	18	380	NA	NA	NA	NA
	10/28/2003	2,000	87	ND<1	34	40	490	NA	NA	NA	NA
	2/28/2004	1,100	21	ND<0.5	15	49	200	NA	NA	NA	NA
	4/16/2004	2,900	57	ND<0.5	52	75	300	NA	NA	NA	NA
	7/16/2004	2,000	32	ND<0.5	34	51	92	NA	NA	NA	NA
	11/13/2004	4,100	30	0.64	84	92	61	ND<0.5	ND<0.5	ND<0.5	76
	2/4/2005	2,700	27	ND<0.5	65	92	56	ND<0.5	ND<0.5	ND<0.5	38
4/8/2005	81	1	ND<0.5	ND<0.5	ND<0.5	7	ND<0.5	ND<0.5	ND<0.5	ND<5	
8/10/2005	2,000	14	ND<0.5	26	22	27	ND<0.5	ND<0.5	ND<0.5	22	
11/5/2005	2,300	9.7	ND<0.5	54	67	15	ND<0.5	ND<0.5	ND<0.5	21	
1/13/2006	52	ND<0.5	ND<0.5	ND<0.5	0.51	0.58	ND<0.5	ND<0.5	ND<0.5	ND<5	

**TABLE E-1**  
**GROUNDWATER MONITORING ANALYTICAL RESULTS**  
**TESORO - SAN LEANDRO, 67106**

Monitoring Well	Sample Date <sup>(a)</sup>	TPHg <sup>(b)</sup> (ug/l)	Benzene <sup>(b)</sup> (ug/l)	Toluene <sup>(b)</sup> (ug/l)	Ethylbenzene <sup>(b)</sup> (ug/l)	Total Xylenes <sup>(b)</sup> (ug/l)	MTBE <sup>(b)</sup> (ug/l)	DIPE <sup>(b)</sup> (ug/l)	ETBE <sup>(b)</sup> (ug/l)	TAME <sup>(b)</sup> (ug/l)	TBA <sup>(b)</sup> (ug/l)
ESLs <sup>(c)</sup>		100	1.0	40	30	20	5.0	NE <sup>(d)</sup>	NE	NE	12
MW-8 (cont.)	5/12/2006	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	8/13/2006	77	0.51	ND<0.5	0.84	0.51	6.1	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/20/2006	100	1.1	ND<0.5	1.8	0.94	5.8	ND<0.5	ND<0.5	ND<0.5	6.5
	2/12/2007	69	ND<0.5	ND<0.5	ND<0.5	4.5	4.2	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/25/2007	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	3.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/23/2007	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	2.6	NA	NA	NA	NA
	10/24/2007	60	ND<0.5	ND<0.5	ND<0.5	ND<0.5	3.7	NA	NA	NA	NA
1/27/2008	51	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.68	2.4	ND<0.5	ND<0.5	ND<0.5	ND<5
MW-9	12/20/1994	16,000	2,500	1,400	690	2,800	NA	NA	NA	NA	NA
	3/7/1995	5,200	1,600	250	320	520	NA	NA	NA	NA	NA
	6/8/1995	4,900	1,000	98	300	200	NA	NA	NA	NA	NA
	9/22/1995	4,000	1,100	82	190	200	NA	NA	NA	NA	NA
	12/27/1995	2,800	960	100	200	250	NA	NA	NA	NA	NA
	3/26/1996	1,600	380	44	96	110	NA	NA	NA	NA	NA
	6/13/1996	1,800	540	71	140	180	750	NA	NA	NA	NA
	9/10/1996	2,400	860	70	190	210	810	NA	NA	NA	NA
	12/5/1996	5,500	2,100	420	380	720	960	NA	NA	NA	NA
	3/7/1997	4,200	1,300	170	260	440	720	NA	NA	NA	NA
	6/12/1997	11,000	2,500	490	560	1,300	1,000	NA	NA	NA	NA
	8/19/1997	42,000	7,700	3,500	2,000	8,300	ND<1,000	NA	NA	NA	NA
	12/13/1997	13,000	1,300	280	960	3,100	710	NA	NA	NA	NA
	3/12/1998	3,700	320	23	180	720	190	NA	NA	NA	NA
	5/28/1998	2,200	110	6.4	87	300	220	NA	NA	NA	NA
8/31/1998	11,000	240	23	690	1,900	ND<50	NA	NA	NA	NA	



**TABLE E-1**  
**GROUNDWATER MONITORING ANALYTICAL RESULTS**  
**TESORO - SAN LEANDRO, 67106**

Monitoring Well	Sample Date <sup>(a)</sup>	TPHg <sup>(b)</sup> (ug/l)	Benzene <sup>(b)</sup> (ug/l)	Toluene <sup>(b)</sup> (ug/l)	Ethylbenzene <sup>(b)</sup> (ug/l)	Total Xylenes <sup>(b)</sup> (ug/l)	MTBE <sup>(b)</sup> (ug/l)	DIPE <sup>(b)</sup> (ug/l)	ETBE <sup>(b)</sup> (ug/l)	TAME <sup>(b)</sup> (ug/l)	TBA <sup>(b)</sup> (ug/l)
ESLs <sup>(c)</sup>		100	1.0	40	30	20	5.0	NE <sup>(d)</sup>	NE	NE	12
MW-9 (cont.)	11/19/1998	280	7.7	ND<0.5	10	22	67	NA	NA	NA	NA
	3/15/1999	ND<50	ND<0.5	ND<0.5	ND<0.5	1.2	ND<5	NA	NA	NA	NA
	6/7/1999	340	9.3	0.86	9.7	12	ND<5	NA	NA	NA	NA
	9/7/1999	72	0.76	ND<0.5	1.9	0.80	9.9	NA	NA	NA	NA
	12/13/1999	60	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	NA	NA	NA	NA
	3/8/2000	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	NA	NA	NA	NA
	6/12/2000	640	0.90	ND<0.5	2.7	1.3	10	NA	NA	NA	NA
	11/15/2000	200	ND<0.5	ND<0.5	0.69	ND<0.5	12	NA	NA	NA	NA
	2/27/2001	360	0.61	ND<0.5	2.2	1.2	42	NA	NA	NA	NA
	5/22/2001	330	0.57	ND<0.5	2.1	0.61	290	NA	NA	NA	NA
	9/5/2001	ND<200	ND<2	ND<2	ND<2	ND<2	1,100	NA	NA	NA	NA
	11/7/2001	230	ND<1	ND<1	ND<1	ND<1	510	NA	NA	NA	NA
	2/11/2002	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	41	NA	NA	NA	NA
	6/3/2002	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	55	NA	NA	NA	NA
	8/6/2002	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	65	NA	NA	NA	NA
	11/14/2002	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	47	NA	NA	NA	NA
	2/20/2003	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	28	NA	NA	NA	NA
	5/15/2003	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	8.9	NA	NA	NA	NA
	7/31/2003	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.85	NA	NA	NA	NA
10/28/2003	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.76	NA	NA	NA	NA	
2/28/2004	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA	NA	NA	NA	
4/16/2004	53	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA	NA	NA	NA	
7/16/2004	56	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA	NA	NA	NA	
11/13/2004	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	

TABLE E-1

**GROUNDWATER MONITORING ANALYTICAL RESULTS  
TESORO - SAN LEANDRO, 67106**

Monitoring Well	Sample Date <sup>(a)</sup>	TPHg <sup>(b)</sup> (ug/l)	Benzene <sup>(b)</sup> (ug/l)	Toluene <sup>(b)</sup> (ug/l)	Ethylbenzene <sup>(b)</sup> (ug/l)	Total Xylenes <sup>(b)</sup> (ug/l)	MTBE <sup>(b)</sup> (ug/l)	DIPE <sup>(b)</sup> (ug/l)	ETBE <sup>(b)</sup> (ug/l)	TAME <sup>(b)</sup> (ug/l)	TBA <sup>(b)</sup> (ug/l)
ESLs <sup>(c)</sup>		100	1.0	40	30	20	5.0	NE <sup>(d)</sup>	NE	NE	12
MW-9 (cont.)	2/4/2005	90	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/8/2005	150	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	8/10/2005	260	ND<0.5	ND<0.5	0.76	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	11/5/2005	150	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/13/2006	280	ND<0.5	ND<0.5	0.78	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	5/12/2006	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	8/13/2006	1,000	ND<0.5	ND<0.5	1.7	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/20/2006	490	ND<0.5	ND<0.5	0.58	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	2/12/2007	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/25/2007	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.4	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/23/2007	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.4	NA	NA	NA	NA
	10/24/2007	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	NA	NA	NA	NA
	1/27/2008	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5

- (a) Samples collected before January 2008 reported by others; data provided by RDM Environmental, Inc. (RDM), Fourth Quarter 2007 Groundwater Monitoring Report.
- (b) Total petroleum hydrocarbons as gasoline (TPHg), benzene, toluene, ethylbenzene, xylenes, methyl tert-butyl ether (MTBE), di-isopropyl ether (DIPE), ethyl tert-butyl ether (ETBE), tert-amyl methyl ether (TAME), tert-butyl alcohol (TBA), 1,2-dichloroethane (1,2-DCA), 1,2-dibromoethane (EDB), methanol, and ethanol analyzed by EPA Method 8260; reported in micrograms per liter (ug/l).
- (c) Environmental Screening Levels (ESLs) taken from Regional Water Quality Control Board, San Francisco Bay Region, Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, Volume 1: Summary Tier 1 Lookup tables dated November 2007.
- (d) NE - Not established.
- (e) NA - Not analyzed.
- (f) ND - Not detected at the reporting limit listed.
- (g) NS - Not sampled;

TABLE 2

## ADDITIONAL GROUND WATER MONITORING DATA

Beacon Station No.3720  
1088 Marina Boulevard  
San Leandro, California

Monitoring Well	Date	Sample I.D.	Time	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	TPH <sup>a</sup> as gasoline (µg/L)	MTBE <sup>b</sup> (µg/L)	DIPE <sup>c</sup> (µg/L)	ETBE <sup>d</sup> (µg/L)	TAME <sup>e</sup> (µg/L)	TBA <sup>f</sup> (µg/L)	Comments
MW-2	10/04/00	MW-2-IN	5:58 AM	150	<100	180	390	<10,000	91,000	NA	NA	NA	NA	
	10/04/00	MW-2-FI	8:50 AM	78	54	420	1,100	8,000	27,000	NA	NA	NA	NA	
	10/17/00	MW-2	9:45 AM	160	140	2,200	6,100	86,000	26,000	NA	NA	NA	NA	
	11/29/00	MW-2-IN	7:30 AM	62	66	1,000	3,800	19,000	12,000	NA	NA	NA	NA	
	11/29/00	MW-2-FI	2:20 PM	41	5.9	110	240	3,600	16,000	NA	NA	NA	NA	
	12/04/00	MW-2-IN	10:35 AM	87	82	1,300	4,400	22,000	7,900	<20	<20	<20	580	
	12/04/00	MW-2-FI	5:30 PM	51	<20	92	190	3,300	12,000	<20	<20	<20	990	
MW-3	10/04/00	MW-3-IN	8:40 AM	<200	<200	<200	<200	<20,000	150,000	NA	NA	NA	NA	
	10/04/00	MW-3-FI	9:20 AM	60	12	54	23	2,600	100,000	NA	NA	NA	NA	
	10/17/00	MW-3	10:20 AM	57	<50	50	<50	5,200	110,000	NA	NA	NA	NA	
	11/29/00	MW-3-IN	9:30 AM	94	<50	77	<50	<5,000	68,000	NA	NA	NA	NA	
	11/29/00	MW-3-FI	4:05 PM	<100	<100	<100	<100	<10,000	61,000	NA	NA	NA	NA	
	12/04/00	MW-3-IN	10:35 AM	93	<50	74	<50	<5,000	65,000	<50	<50	96	6,000	
	12/04/00	MW-3-FI	7:10 PM	<100	<100	<100	<100	<10,000	47,000	<100	<100	100	2,700	

a) Total Petroleum Hydrocarbon as gasoline

b) Methyl-t-butyl ether

c) Diisopropyl ether

d) Ethyl-t-butyl ether

e) Tert-amyl methyl ether

f) Tert Butanol

µg/L = Micrograms per liter.

TABLE 2

## SUMMARY OF GROUNDWATER ANALYTICAL RESULTS

Page 1 of 5

Well No.	Date Sampled	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	TPH-G (µg/L)	Comments
	Apr. 16, 1987	2,313	3,770	664.1	3,331	17,276	
	June 23, 1987	1,887	2,141	466.7	1,652	26,027	
	July 06, 1987	778.2	943.7	133.2	422.1	3,938	
	Aug. 06, 1987	1,270	1,576	288.7	873.7	6,079	
	Nov. 04, 1987	1,700	4,000	720	2,200	15,000	
	Feb. 02, 1988	1,500	1,700	230	740	14,000	
	May 02, 1988	3,500	700	4,900	2,700	33,000	
	Nov. 21, 1988	2,200	560	2,800	2,200	15,000	
	Feb. 14, 1989	1,700	1,700	340	1,500	12,000	Odor
	May 02, 1989	1,500	2,400	510	2,400	18,000	Odor, Slight Sheen
	Aug. 10, 1989	1,400	1,500	360	1,600	10,000	Odor
	Nov. 08, 1989	920	470	190	360	7,200	Odor
	Feb. 20, 1990	810	540	270	800	3,300	
	May 18, 1990	1,900	500	560	1,600	5,600	
	Sep. 15, 1990	320	110	150	520	5,200	Odor
	Nov. 26, 1990	370	59	150	370	3,000	Odor
	Feb. 07, 1991	750	570	480	1,800	14,000	
	May 14, 1991	1,000	1,400	600	2,500	41,000	
	Aug. 16, 1991	310	210	150	480	4,000	Odor
	Dec. 24, 1991	530	95	310	680	11,000	Moderate Odor
	Mar. 30, 1992	630	550	540	1,900	27,000	Odor
		840	1,000	830	3,600	55,000	
<b>NW-2</b>	Apr. 16, 1987	3,131	4,239	1,067	4,608	17,920	
	June 23, 1987	2,188	2,622	1,047	4,699	49,354	
	July 06, 1987	1,575	1,729	457	1,702	8,676	
	Aug. 06, 1987	2,623	3,722	702	2,882	14,376	
	Nov. 04, 1987	2,200	4,100	900	3,500	19,000	

TABLE 2

## SUMMARY OF GROUNDWATER ANALYTICAL RESULTS

Page 2 of 5

Well No.	Date Sampled	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	TPH-G (µg/L)	Comments
MW-2	Feb. 02, 1988	6,200	6,500	1,000	4,000	54,000	
	May 02, 1988	6,800	1,300	7,100	5,400	53,000	
	Nov. 21, 1988	--	--	--	--	--	Free product
	Feb. 14, 1989	6,900	4,300	1,100	5,200	48,000	Film of free product
	May 02, 1989	6,100	8,800	2,100	16,000	111,000	Odor, sheen
	Aug. 10, 1989	4,200	2,900	1,000	5,800	39,000	Odor, sheen
	Nov. 08, 1989	3,700	1,500	740	2,200	45,000	Odor, heavy sheen
	Feb. 20, 1990	5,000	8,200	1,600	11,000	60,000	
	May 18, 1990	6,200	1,900	1,300	610	19,000	
	Sep. 15, 1990	1,400	820	660	3,000	27,000	Odor, sheen
	Nov. 26, 1990	1,100	880	700	3,800	28,000	Odor, sheen
	Feb. 07, 1991	2,100	1,900	1,300	6,200	63,000	Odor, sheen
	May 14, 1991	2,200	2,700	1,100	5,900	100,000	Moderate odor Slight sheen
	Aug. 16, 1991	1800	950	990	3900	32,000	Slight odor, sheen
	Dec. 24, 1991	1,100	550	750	2,700	30,000	Odor, sheen
Mar. 30, 1992	2,300	1,700	940	3,300	52,000	Odor, sheen	
July 01, 1992	3,500	2,900	1,900	7,900	130,000		
MW-3	Apr. 16, 1987	1,371	2,438	472.3	2,617	9,967	
	June 23, 1987	646.2	822.9	320.9	1,280	16,824	
	July 06, 1987	340.3	384.2	116.5	420.2	3,395	
	Aug. 06, 1987	441.9	436.3	118.2	417.3	3,107	
	Nov. 04, 1987	320	280	74	250	2,600	
	Feb. 02, 1988	2,200	2,300	500	2,300	44,000	
	May 02, 1988	1,600	450	840	1,700	14,000	
	Nov. 21, 1988	1,200	220	560	810	8,100	
Feb. 14, 1989	1,500	220	220	500	5,500	Odor	

TABLE 2

**SUMMARY OF GROUNDWATER ANALYTICAL RESULTS**  
Page 3 of 5

Well No.	Date Sampled	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	TPH-G (µg/L)	Comments
	Aug. 10, 1989	750	10	190	210	2,700	Odor
	Nov. 08, 1989	370	90	ND	58	2,400	Odor
	Feb. 20, 1990	1,200	810	77	460	3,700	
	May 18, 1990	980	ND	330	250	2,300	
	Sep. 15, 1990	240	36	150	230	4,700	Odor
	Nov. 26, 1990	170	8.4	86	120	1,400	Odor
	Feb. 07, 1991	220	20	120	230	2,900	
	May 14, 1991	370	39	220	820	15,000	
	Aug. 16, 1991	480	50	360	680	7,200	Slight Odor
	Dec. 24, 1991	150	20	100	140	4,900	Slight Odor
	Mar. 30, 1992	560	50	630	980	21,000	Odor
	July 01, 1992	150	20	22	300	13,000	
	Apr. 16, 1987	5,896	3,797	893.9	4,106	19,309	
	June 23, 1987	4,030	1,842	850.0	3,254	31,429	
	July 06, 1987	2,710	1,247	308.2	1,312	8,117	
	Aug. 06, 1987	3,992	1,589	447.9	1,611	10,464	
	Nov. 04, 1987	9,500	17,000	2,800	11,000	55,000	
	Feb. 02, 1988	11,000	7,400	1,400	6,200	47,000	
	May 02, 1988	9,200	1,300	6,100	6,400	58,000	
	Nov. 21, 1988	5,700	1,600	3,100	7,600	48,000	
	Feb. 14, 1989	8,700	2,500	900	3,800	29,000	Odor & sheen
	May 02, 1989	4,800	5,600	1,800	8,800	69,000	Odor, slight sheen
	Aug. 10, 1989	15,000	6,600	1,800	12,000	67,000	Odor, slight sheen
	Nov. 08, 1989	11,000	3,200	1,100	4,400	71,000	Odor, slight sheen
	Feb. 20, 1990	8,100	4,500	930	3,500	19,000	
	May 18, 1990	45,000	12,000	5,000	27,000	100,000	
	Sep. 15, 1990	4,200	1,200	740	3,000	38,000	

TABLE 2

SUMMARY OF GROUNDWATER ANALYTICAL RESULTS  
Page 4 of 5

Well No.	Date Sampled	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Xylenes (µg/L)	TPH-G (µg/L)	Comments
GW-4	Nov. 26, 1990	2,800	650	810	2,600	19,000	Odor
	Feb. 07, 1991	4,600	1,100	1,600	4,600	41,000	Odor, sheen
	May 14, 1991	7,300	830	3,900	3,600	100,000	Slight odor, sheen
	Aug. 16, 1991	8,000	2,500	1,100	4,000	45,000	Strong odor, sheen
	Dec. 24, 1991	6,000	1,200	1,100	3,700	79,000	Odor, sheen
	Mar. 30, 1992	8,000	4,400	730	2,500	76,000	Odor, sheen
	July 01, 1992	6,900	2,200	70	880	95,000	
GW-5	Apr. 16 1987	2,267	921.2	3,277	4,536	17,733	
	June 23, 1987	2,239	516.8	953.9	1,587	19,555	
	July 06, 1987	1,335	313.7	799.2	923.9	5,631	
	Aug. 06, 1987	1,890	881.2	576.8	93.4	6,450	
	Nov. 04, 1987	1,300	500	270	640	4,600	
	Feb. 02, 1988	3,100	1,500	550	1,400	24,000	
	May 02, 1988	4,400	490	1,200	1,500	17,000	
	Nov. 21, 1988	5,600	590	870	2,200	19,000	
	Feb. 14, 1989	4,300	810	410	1,300	13,000	Odor
	May 02, 1989	2,900	1,500	690	3,200	24,000	Odor, slight sheen
	Aug. 10, 1989	6,700	2,300	860	4,700	36,000	Odor, slight sheen
	Nov. 08, 1989	5,300	860	460	600	30,000	Odor
	Feb. 20, 1990	1,700	220	120	370	3,400	
	May 18, 1990	18,000	2,000	1,500	5,600	24,000	
	Sep. 15, 1990	2,600	2,200	1,000	4,900	42,000	Odor, sheen
	Nov. 26, 1990	1,900	280	260	800	8,500	Odor, sheen

TABLE 2

## SUMMARY OF GROUNDWATER ANALYTICAL RESULTS

Page 5 of 5

Well No.	Date Sampled	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	TPH-G (µg/L)	Comments
	Feb. 07, 1991	1,500	1,200	610	2,700	24,000	Odor
	May 14, 1991	3,800	4,400	1,400	6,400	120,000	Odor, sheen
	Aug. 16, 1991	4,200	1,900	760	2,900	29,000	Moderate odor, sheen
	Dec. 24, 1991	3,900	1,500	880	3,200	63,000	Odor, sheen
	Mar. 30, 1992	2,800	980	390	1,100	29,000	Odor, sheen
	July 01, 1992	2,400	1,000	5,200	2,000	52,000	
<del>WW-7</del>	Dec. 24, 1991	ND	ND	ND	ND	79	
	Mar. 30, 1992	2.1	1.1	ND	0.6	73	
	July 01, 1992	ND	ND	ND	ND	ND	
<del>WW-7</del>	Dec. 24, 1991	ND	ND	ND	ND	ND	
	Mar. 30, 1992	ND	ND	ND	ND	ND	
	July 01, 1992	ND	ND	ND	ND	ND	
<del>WW-8</del>	Dec. 24, 1991	1,700	2,400	1,200	6,100	81,000	Odor, sheen
	Mar. 30, 1992	1,700	880	970	1,900	3,000	Odor, sheen
	July 01, 1992	1,800	550	520	2,200	72,000	

- Notes:**
- 1) TPH-G = Total Petroleum Hydrocarbons as gasoline
  - 2) Odor refers to petroleum hydrocarbon odor
  - 3) All results are presented in parts per billion
  - 4) Groundwater Technology, Inc., collected samples prior to February 1989
  - 5) Du Pont Environmental Services collected samples from February 1989 through February 1991
  - 6) Environmental Geotechnical Consultants, Inc. collected samples beginning in May 1991
  - 7) ND = Non Detect
  - 8) See analytical results for detection limits (Appendix B)



**TABLE 2**  
**MNA MONITORING**

Tesoro Station No. 67106  
Former Beacon Station No. 3720  
1088 Marina Boulevard  
San Leandro, California

Monitoring Well	Date	pH	D.O. (ppm)	ORP	Specific Conductivity	Temperature	Dissolved CO <sub>2</sub> (ppm)	Ferrous Iron (Fe <sup>+2</sup> )	Total Alkalinity (ppm)	Total Organic Carbon (ppm)	Total Iron (ppm)
MW-1 (On-Site NE and Up Gradient of USTs)	05/12/06	7.01	2.97	-23	277	18.3	41	0.6	120	11	1.36
	08/13/06	6.97	1.11	-84	227	66.6	26	1.2	94	2.7	14.7
		6.88	1.07	-81	232	67.6		1.4			
		6.84	1.00	-89	228	66.3		1.4			
	10/20/06	6.87	0.17	131	233	71.9	19	0.6	94	2.5	0.83
		6.87	0.26	146	237	71.9		0.6			
		6.86	0.18	152	238	71.7		0.6			
	02/12/07	7.17	2.16	-48	243	65.2	18	0.8	102	2.1	0.258
		7.21	2.22	-50	247	65.4		0.8			
		7.19	2.24	-52	255	65.5		0.6			
	04/25/07	7.05	0.50	-122	185	63.5	28	0.6	74	2.3	0.977
		7.00	0.48	-126	186	64.0		0.6			
		6.98	0.53	-132	186	64.1		0.6			
	07/23/07	7.66	1.21	-90	170	69.8	15	1.2	74	4.3	2.7
		7.56	1.27	-92	168	67.4		1.2			
7.50		1.28	-96	168	66.5		1.2				
10/24/07	7.03	0.78	-87	161	71.1	18	0.9	80	1.8	2.19	
	7.08	0.78	-85	161	70.6		1.0				
	7.08	0.75	-84	162	70.2		1.0				
<b>Change from Previous Quarter</b>	<b>-0.42</b>	<b>-0.53</b>	<b>12</b>	<b>-6</b>	<b>3.7</b>	<b>3</b>	<b>-0.2</b>	<b>6</b>	<b>-2.5</b>	<b>-0.51</b>	
MW-2 (On-Site East and Up Gradient of USTs)	05/12/06	7.38	7.51	82	332	18.1	59	0.0	68	3.9	0.703
	08/13/06	6.70	0.65	-113	239	72.8	26	2.0	120	3.2	25.5
		6.71	0.67	-119	240	73.0		1.8			
		6.71	0.72	-120	239	73.2		1.8			
	10/20/06	6.93	0.06	132	272	72.1	24	1.2	120	3.3	21.4
		6.85	0.04	140	267	72.3		1.2			
		6.82	0.04	138	267	72.5		1.2			
	02/12/07	6.98	0.48	-186	279	65.8	18	1.3	122	3.7	1.11
		6.93	0.51	-189	271	65.7		1.3			
		6.99	0.47	-195	268	65.8		1.3			
	04/25/07	7.00	0.67	-132	213	64.7	24	2.0	96	3.2	1.49
		6.96	0.72	-128	215	64.7		2.0			
		6.97	0.73	-126	216	64.8		2.0			
	07/23/07	7.37	0.96	-160	194	68.9	17	1.8	84	9.0	1.2
		7.28	0.94	-163	196	68.0		1.8			
7.25		1.01	-160	195	67.8		1.8				
10/24/07	6.99	1.2	-145	158	70.6	18	1.6	82	2.5	0.988	
	7.02	1.3	-143	159	70.0		1.7				
	7.02	1.5	-141	160	69.8		1.6				
<b>Change from Previous Quarter</b>	<b>-0.23</b>	<b>0.49</b>	<b>19</b>	<b>-35</b>	<b>2.0</b>	<b>1</b>	<b>-0.2</b>	<b>-2</b>	<b>-6.5</b>	<b>-0.21</b>	

**TABLE 2**  
**MNA MONITORING**

Tesoro Station No. 67106  
Former Beacon Station No. 3720  
1088 Marina Boulevard  
San Leandro, California

Monitoring Well	Date	pH	D.O. (ppm)	ORP	Specific Conductivity	Temperature	Dissolved CO <sub>2</sub> (ppm)	Ferrous Iron (Fe <sup>+2</sup> )	Total Alkalinity (ppm)	Total Organic Carbon (ppm)	Total Iron (ppm)
MW-3 (On-Site SE and Cross Gradient of USTs)	05/12/06	6.84	2.21	-48	283	19.1	42	1.0	76	3.8	1.23
	08/13/06	6.82	0.51	-199	276	69.4	20	1.6	94	2.4	3.47
		6.79	0.52	-185	274	71.9		1.4			
		6.72	0.47	-183	262	72.5		1.4			
	10/20/06	6.87	0.58	-32	297	75.1	21	0.6	118	2.5	2.65
		6.80	0.62	-38	298	75.9		0.6			
		6.78	0.63	-33	301	76.2		0.6			
	02/12/07	6.94	0.70	-172	302	66.3	22	0.6	144	2.4	0.959
		6.90	0.71	-181	301	66.5		0.6			
		6.77	0.68	-183	297	66.3		0.6			
	04/25/07	7.11	0.91	-124	307	65.5	32	1.4	144	2.3	0.977
		7.02	0.87	-126	303	65.6		1.4			
		6.98	0.93	-132	304	65.4		1.4			
	07/23/07	7.71	1.07	-154	301	68.3	25	1.6	130	6.3	1.1
		7.45	1.02	-162	296	67.9		1.6			
		7.36	0.99	-167	295	67.3		1.6			
	10/24/07	7.01	1.02	-132	261	69.1	31	1.5	134	1.6	1.04
		7.03	1.03	-131	256	69.1		1.4			
7.01		1.01	-130	260	69.3		1.5				
<b>Change from Previous Quarter</b>	<b>-0.35</b>	<b>0.02</b>	<b>37</b>	<b>-35</b>	<b>2.0</b>	<b>6</b>	<b>-0.1</b>	<b>4</b>	<b>-4.7</b>	<b>-0.06</b>	
MW-4 (On-Site West and Down Gradient of USTs)	05/12/06	7.59	9.65	40	534	19.8	3.9	0.0	190	2.4	95
	08/13/06	7.08	2.41	-14	509	68.5	20	NM	180	3.7	308
		7.04	2.86	-17	475	68.2		NM			
		7.17	2.88	-14	499	68.0		NM			
	10/20/06	6.99	0.56	92	630	74.0	29	0.0	198	3.5	105
		7.00	0.44	94	622	73.9		0.0			
		7.03	0.54	91	642	75.1		0.0			
	02/12/07	7.02	1.04	-28	665	66.5	31	0.3	334	3.8	0.689
		7.02	1.07	-29	658	66.6		0.3			
		7.14	1.03	-28	643	66.5		0.3			
	04/25/07	7.13	0.86	59	706	64.9	57	1.0	362	4.2	2.70
		7.05	0.88	61	719	65.0		1.0			
		7.02	0.87	63	713	65.0		1.0			
	07/23/07	7.35	0.87	42	707	71.8	82	0.9	350	12.0	1.4
		7.36	0.88	50	714	70.9		0.8			
		7.38	0.81	50	719	69.7		0.9			
	10/24/07	7.06	1.0	47	620	70.7	71	1.0	360	2.7	2.08
		7.04	1.0	46	618	70.4		1.0			
7.05		0.9	45	614	71.0		1.0				
<b>Change from Previous Quarter</b>	<b>-0.33</b>	<b>0.09</b>	<b>-5</b>	<b>-105</b>	<b>1.3</b>	<b>-11</b>	<b>0.1</b>	<b>10</b>	<b>-9.3</b>	<b>0.68</b>	

TABLE 2

MNA MONITORING

Tesoro Station No. 67106  
 Former Beacon Station No. 3720  
 1088 Marina Boulevard  
 San Leandro, California

Monitoring Well	Date	pH	D.O. (ppm)	ORP	Specific Conductivity	Temperature	Dissolved CO <sub>2</sub> (ppm)	Ferrous Iron (Fe <sup>+2</sup> )	Total Alkalinity (ppm)	Total Organic Carbon (ppm)	Total Iron (ppm)
MW-5 (On-Site West and Down Gradient of MW-4 & USTs)	05/12/06	7.28	22.41	173	538	20.0	12	0.0	250	1.90	0.36
	08/13/06	6.90	2.28	79	689	71.8	23	0.0	350	2.5	2.49
		6.86	2.16	75	668	72.7		0.0			
		6.87	1.92	7.2	659	72.0		0.0			
	10/20/06	6.98	1.28	88	776	70.2	53	0.0	344	2.6	8.73
		6.92	0.34	96	761	69.8		0.0			
		6.93	0.30	92	758	71.8		0.0			
		6.62	0.29	89	756	72.6		0.0			
	02/12/07	6.95	1.36	79	712	65.4	51	0.0	438	3.2	0.158
		6.94	1.36	80	727	65.5		0.0			
		6.97	1.42	82	768	65.3		0.0			
	04/25/07	7.05	0.47	38	905	64.6	86	1.6	500	3.6	0.317
		7.04	0.46	39	903	64.8		1.6			
		7.05	0.42	38	903	64.9		1.6			
	07/23/07	7.18	1.34	85	961	66.4	100	1.6	560	16.0	0.60
		7.18	1.29	87	965	66.3		1.6			
		7.18	1.24	91	954	66.1		1.6			
	10/24/07	6.96	1.32	59	898	68.0	120	1.2	542	1.8	0.846
		6.96	1.29	58	892	67.6		1.3			
		6.98	1.29	57	886	67.5		1.2			
<b>Change from Previous Quarter</b>	<b>-0.20</b>	<b>0.05</b>	<b>-34</b>	<b>-68</b>	<b>1.4</b>	<b>20</b>	<b>-0.4</b>	<b>-18</b>	<b>-14.2</b>	<b>0.25</b>	
MW-6 (Off-Site Down Gradient)	05/12/06	7.02	4.30	53	1079	17.9	160	0.2	510	3.9	<0.1
	08/13/06	6.87	2.58	47	1067	67.7	81	0.0	480	4.9	<0.1
		6.91	2.36	44	1045	67.1		0.0			
		6.86	2.42	42	1052	66.9		0.0			
	10/20/06	7.07	3.58	-73	1120	68.5	100	0.2	500	5.0	1.04
		7.04	3.12	-86	1150	68.9		0.0			
		6.97	3.46	-62	1115	69.1		0.2			
	02/12/07	6.81	3.29	48	1005	63.4	78	0.0	496	4.9	<0.10
		6.87	3.84	48	1025	63.1		0.0			
		6.97	3.74	80	1027	63.2		0.0			
	04/25/07	7.01	3.56	94	1018	63.4	93	0.4	478	4.5	<0.10
		7.04	3.51	92	995	63.6		0.4			
		7.03	3.46	97	1005	63.5		0.4			
	07/23/07	7.09	4.55	126	969	67.7	78	0.0	470	12	<0.10
		7.11	4.71	137	971	67.6		0.0			
		7.12	4.69	132	976	67.6		0.0			
	10/24/07	6.94	3.98	118	835	70.4	88	0.2	454	1.7	<0.10
		6.94	4.01	119	833	70.4		0.2			
		6.96	4.03	117	832	70.3		0.1			
	<b>Change from Previous Quarter</b>	<b>-0.16</b>	<b>-0.66</b>	<b>-15</b>	<b>-144</b>	<b>2.7</b>	<b>10</b>	<b>0.1</b>	<b>-16</b>	<b>-10.3</b>	<b>0.00</b>

**TABLE 2**  
**MNA MONITORING**

Tesoro Station No. 67106  
Former Beacon Station No. 3720  
1088 Marina Boulevard  
San Leandro, California

Monitoring Well	Date	pH	D.O. (ppm)	ORP	Specific Conductivity	Temperature	Dissolved CO <sub>2</sub> (ppm)	Ferrous Iron (Fe <sup>+2</sup> )	Total Alkalinity (ppm)	Total Organic Carbon (ppm)	Total Iron (ppm)
MW-7 (Off-Site Down Gradient)	05/12/06	7.04	2.02	12	425	20.1	65	0.0	170	2.1	<0.1
	08/13/06	6.73	0.86	44	455	70.0	42	0.0	180	2.0	0.732
		6.68	0.91	43	455	70.4		0.0			
		6.66	0.96	46	458	7.09		0.0			
	10/20/06	7.07	2.92	130	467	69.4	50	0.0	188	1.9	0.44
		6.87	3.13	142	492	70.3		0.0			
		6.84	3.07	126	493	71.8		0.0			
	02/12/07	7.01	1.06	56	454	63.1	36	0.0	178	2.3	0.143
		6.94	1.11	58	457	63.0		0.0			
		6.87	1.15	58	476	62.9		0.0			
	04/25/07	7.13	1.07	97	460	62.9	42	0.0	178	2.0	<0.10
		7.02	1.09	99	454	63.6		0.0			
		6.98	1.11	92	452	63.6		0.0			
	07/23/07	7.23	1.42	46	444	65.8	40	0.0	170	2.8	<0.10
		7.18	1.49	42	455	65.6		0.0			
7.20		1.51	43	458	65.6		0.0				
10/24/07	6.84	1.35	51	463	70.4	55	0.0	202	1.2	0.148	
	6.86	1.40	49	464	70.2		0.2				
	6.84	1.38	52	467	70.1		0.0				
<b>Change from Previous Quarter</b>		<b>-0.36</b>	<b>-0.13</b>	<b>9</b>	<b>9</b>	<b>4.5</b>	<b>15</b>	<b>0.0</b>	<b>32</b>	<b>-1.6</b>	<b>0.05</b>
MW-8 (On-Site NW and Cross Gradient of USTs at property line)	05/12/06	6.99	5.60	-13	846	18.9	87	0.0	290	2.90	<0.1
	08/13/06	6.86	0.89	-30	716	70.1	97	0.6	370	3.6	2.67
		6.86	0.84	-32	742	69.9		0.6			
		6.86	0.80	-35	787	70.9		0.6			
	10/20/06	6.91	0.07	49	714	68.6	110	0.5	368	3.1	3.56
		6.88	0.06	48	710	68.5		0.5			
		6.87	0.04	45	718	68.5		0.5			
	02/12/07	6.82	1.16	73	589	62.9	81	0.0	306	2.8	0.256
		6.80	1.08	73	590	63.1		0.0			
		6.84	1.12	73	602	63.8		0.0			
	04/25/07	7.02	0.81	85	591	62.6	86	2.4	286	2.0	0.59
		6.95	0.79	87	586	63.3		2.4			
		6.96	0.82	88	588	63.3		2.4			
	07/23/07	7.21	1.31	21	525	64.7	82	1.5	260	4.2	0.29
		7.16	1.35	26	526	64.6		1.5			
7.13		1.34	22	530	64.6		1.5				
10/24/07	6.77	1.40	29	633	67.4	85	1.1	292	1.2	0.661	
	6.80	1.38	28	640	67.0		1.2				
	6.80	1.47	27	646	66.7		1.2				
<b>Change from Previous Quarter</b>		<b>-0.33</b>	<b>0.13</b>	<b>5</b>	<b>116</b>	<b>2.1</b>	<b>3</b>	<b>-0.3</b>	<b>32</b>	<b>-3</b>	<b>0.37</b>

TABLE 2

## MNA MONITORING

Tesoro Station No. 67106  
Former Beacon Station No. 3720  
1088 Marina Boulevard  
San Leandro, California

Monitoring Well	Date	pH	D.O. (ppm)	ORP	Specific Conductivity	Temperature	Dissolved CO <sub>2</sub> (ppm)	Ferrous Iron (Fe <sup>+2</sup> )	Total Alkalinity (ppm)	Total Organic Carbon (ppm)	Total Iron (ppm)
MW-9 (On-Site SW and Down Gradient of USTs at property line)	05/12/06	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	08/13/06	7.02	1.50	1.50	413	68.9	21	0.0	180	2.6	4.69
		7.01	1.99	1.99	410	68.9		0.0			
		6.99	2.16	2.16	412	68.9		0.0			
		6.98	2.18	2.18	416	68.8		0.0			
	10/20/06	7.06	0.11	97	429	73.1	23	0.0	178	3.2	14.4
		7.01	0.12	96	423	71.9		0.0			
		6.99	0.13	99	422	71.4		0.0			
	02/12/07	7.08	0.88	34	271	67.1	16	0.2	116	3.0	0.232
		7.04	0.83	34	267	67.1		0.2			
		7.04	0.79	33	272	67.2		0.2			
	04/25/07	7.03	1.12	-57	394	64.9	29	1.0	198	3.5	1.85
		7.00	1.23	-62	400	65.0		1.0			
		7.00	1.24	-56	403	65.0		1.0			
	07/23/07	7.19	1.21	-67	503	67.6	29	1.6	260	4.7	1.6
		7.11	1.19	-69	504	67.6		1.6			
		7.10	1.23	-70	505	67.7		1.6			
	10/24/07	7.03	1.19	-28	350	72.3	34	0.1	184	7.7	1.94
		7.03	1.18	-31	349	72.3		0.0			
		7.03	1.18	-29	350	72.3		0.1			
<b>Change from Previous Quarter</b>		<b>-0.07</b>	<b>-0.05</b>	<b>41</b>	<b>-155</b>	<b>4.6</b>	<b>5</b>	<b>-1.5</b>	<b>-76</b>	<b>3</b>	<b>0.34</b>

D.O. = Dissolved Oxygen  
ORP = Oxygen Reduction Potential  
CO<sub>2</sub> = Carbon Dioxide

TABLE 4

SUMMARY OF MOBILE LABORATORY ANALYTICAL RESULTS  
FOR GROUND WATER SAMPLES COLLECTED BY EGC, INC.  
AUGUST 15 - NOVEMBER 5, 1991  
(concentrations in parts per billion)

Sample Location	Date	Benzene	Toluene	Ethylbenzene	Xylenes	TPHg*	Laboratory
B-1	08-15-91	14,000	5,700	2,400	9,600	72,000	Sequoia Mobile
B-5	09-20-91	ND <sup>b</sup>	8.8	ND	ND	ND	Applied Analytical Mobile
B-6	09-20-91	490	37	130	360	3,100	Applied Analytical Mobile
MW-7	10-17-91	ND	ND	ND	ND	ND	Applied Analytical Mobile
MW-8	10-24-91	2,400	4,700	1,500	9,000	130,000	Applied Analytical Mobile
MW-6	11-05-91	ND	ND	ND	ND	120	Applied Analytical Mobile

\*TPHg = Total petroleum hydrocarbons as gasoline.

<sup>b</sup>ND = Nondetectable.

TABLE 5

AQUIFER TEST  
GROUND WATER SAMPLE ANALYTICAL RESULTS  
MW-4, OCTOBER 5, 1993  
Beacon Station #720  
1088 Marina Boulevard, San Leandro, CA  
Concentrations in milligrams per liter (mg/l)

Test Parameter	Units	Test Result	Detection Limit
Hardness as CaCO <sub>3</sub> by EPA 130.2	mg/l	550	1
Sulfate by EPA 300.0	mg/l	9.9	0.5
Chloride by EPA 300.0	mg/l	23	0.5
pH by EPA 150.1 (Electrometric)	pH units	6.6	—
Alkalinity, Total (CaCO <sub>3</sub> ) EPA 310.1	mg/l	550	2.0
Hydroxide Alkalinity (OH)	mg/l	ND	0.2
Carbonate Alkalinity (CO <sub>3</sub> )	mg/l	ND	1.2
Bicarb Alkalinity (HCO <sub>3</sub> )	mg/l	670	2.4
EC by EPA 120.1	μmhos/cm	1,130	1
Total Dissolved Solids, EPA 160.1	mg/l	620	15
MBAS as LAS (MW 340), EPA 425.1	mg/l	0.7	0.01
Calcium EPA 200.7	mg/l	99	0.050
Copper EPA 200.7	mg/l	ND	0.020
Iron EPA 200.7	mg/l	ND	0.030
Magnesium EPA 200.7	mg/l	58	0.050
Manganese EPA 200.7	mg/l	3.8	0.0050
Potassium EPA 200.7	mg/l	0.33	0.20
Sodium EPA 200.7	mg/l	72	0.20
Zinc EPA 200.7	mg/l	ND	0.0050

TABLE 6

AQUIFER TEST  
GROUND WATER SAMPLE ANALYTICAL RESULTS  
Beacon Station #720  
1088 Marina Boulevard, San Leandro, CA  
Concentrations in micrograms per liter ( $\mu\text{g/l}$ )

Date Sampled	Sample No.	Benzene	Toluene	Ethylbenzene	Total Xylenes	TPHg*	Total Lead
10-05-93	MW-4	5,100	4,900	770	3,600	26,000	

\*TPHg = total petroleum hydrocarbons as gasoline.



## EXPLORATORY BORING LOG

PROJECT NO. E189-02      LOGGED BY: J PHILLIPS      DATE DRILLED: 08/15/91      PAGE 1 OF 1

DRILL RIG: MOBILE B - 53      BORING ELEV: EXISTING GRADE      BORING NO. [REDACTED]

DEPTH TO GROUNDWATER:      BORING DIAM: 8 INCHES

SOIL / ROCK MATERIAL DESCRIPTION AND REMARKS	CONSISTENCY	USCS GROUP SYMBOL	DEPTH IN FEET		BLOW COUNT	WATER CONTENT	DRY DENSITY	[REDACTED]	PASSING # 200	UNCONFINED COMPRESSIVE STRENGTH
			DEPTH	SAMPLE						
ASPHALTIC CONCRETE, 12 inches			1							
BASE ROCK, 6 inches			2							
FILL, clay, green, slightly moist, slight odor			3							
CLAY, dark gray, moist, low plasticity, slight odor		CL	4							
			5							
			6							
			7							
Sandy CLAY, grayish green, moist, slight odor		CL	8							
			9							
Clayey SAND, gray, moist, low plasticity, very strong odor		SC	10							
			11	1				75		
			12							
			13							
Sandy CLAY, gray, trace gravel, moist, low plasticity, very strong odor		CL	14							
			15							
			16	2						
			17							
			18							
			19							
			20	3					376	
End of Boring: 20.0 feet Hydropunch to 22 feet Groundwater not encountered			21							
			22							
			23							
			24							
			25							

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<b>NOTES:</b>	DATE	12/91	<b>EGC ENVIRONMENTAL GEOTECHNICAL CONSULTANTS, INC.</b> <small>CONSULTANTS IN APPLIED EARTH SCIENCE</small> <b>EXPLORATORY BORING LOG</b> B - 1 1088 MARINA BLVD., SAN LEANDRO, CALIFORNIA ULTRAMAR, INC.	FIGURE NO.
	JOB NO.	E189-02		4
	DWG NO.	E18902/28		
	DRAWN	J HATALA		
	CHK'D	J PHILLIPS		
APP'D	J HICKS			

# EXPLORATORY BORING LOG

PROJECT NO. E189-02	LOGGED BY: J PHILLIPS	DATE DRILLED: 08/15/91	PAGE 1 OF 1
DRILL RIG: MOBILE B - 53	BORING ELEV: EXISTING GRADE		BORING NO.
DEPTH TO GROUNDWATER : 10 FEET	BORING DIAM: 8 INCHES		

SOIL / ROCK MATERIAL DESCRIPTION AND REMARKS	CONSISTENCY	USCS GROUP SYMBOL	DEPTH IN FEET		BLOW COUNT	WATER CONTENT	DRY DENSITY	ISOBUTYLENE EQUIVALENT	PASSING # 200	UNCONFINED COMPRESSIVE STRENGTH
			DEPTH	SAMPLE						
ASPHALTIC CONCRETE, 12 inches			1							
BASE ROCK, 6 inches			2							
FILL, clay, green, slightly moist, slight odor			3							
CLAY, dark gray, moist, high plasticity, strong odor		CH	4							
			5							
			6	1					205	
			7							
Sandy CLAY, gray, low plasticity, slight odor, gravel		CL	8							
			9							
			10							
			11	2					44	
			12							
			13							
			14							
			15							
			16	3					1304	
Strong odor			17							
End of Boring: 16.5 feet Hydropunch to 20 feet Groundwater encountered @ 10 feet			18							
			19							
			20							
			21							
			22							
			23							
			24							
			25							

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<b>NOTES:</b>	DATE	12/91	<b>ENVIRONMENTAL GEOTECHNICAL CONSULTANTS, INC.</b> <small>CONSULTANTS IN APPLIED EARTH SCIENCE</small>	FIGURE NO. <b>5</b>
	JOB NO.	E189-02		
	DWG NO.	E189-02/27		
	DRAWN	J HATALA		
CHKD	J PHILLIPS	<b>EXPLORATORY BORING LOG</b> B - 2 1088 MARINA BLVD., SAN LEANDRO, CALIFORNIA <b>ULTRAMAR, INC.</b>		
APPD	J HICKS			

# EXPLORATORY BORING LOG

PROJECT NO. E189-02      LOGGED BY: J PHILLIPS      DATE DRILLED: 08/15/91      PAGE 1 OF 1

DRILL RIG: MOBILE B - 53      BORING ELEV:      BORING NO. B-3  
 DEPTH TO GROUNDWATER:      EXISTING GRADE      BORING DIAM: 8 INCHES

SOIL / ROCK MATERIAL DESCRIPTION AND REMARKS	CONSISTENCY	USCS GROUP SYMBOL	DEPTH IN FEET	SAMPLE	BLOW COUNT	WATER CONTENT	DRY DENSITY	PID	PASSING #200	UNCONFINED COMPRESSIVE STRENGTH
ASPHALTIC CONCRETE, 12 inches			1							
BASE ROCK 12 inches			2							
CLAY, very dark brown, moist, low plasticity, moderate odor		CL	3							
			4							
CLAY, brown, slightly moist, low plasticity, slight odor		CL	5							
			6							
Sandy CLAY, gray, wet, low plasticity, strong odor		CL	7							
			8	1				37		
Sandy CLAY, gray, wet, strong odor		CL	9							
			10							
Sandy CLAY, gray, wet, strong odor		CL	11							
			12							
Sandy CLAY, gray, wet, strong odor		CL	13							
			14							
CLAY, brown, moist, low plasticity, strong odor		CL	15	2						
			16							
CLAY, brown, wet, low plasticity		CL	17							
			18							
End of Boring: 21.5 feet Hydropunch to 23.5 feet Groundwater not encountered			19							
			20							
			21	3					13	
			22							
			23							
			24							
			25							

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<b>NOTES:</b>	DATE	12/91
	JOB NO.	E189-02
	DWG NO.	E18902/28
	DRAWN	J HATALA
	CHKD	J PHILLIPS
APPD	J HICKS	

<b>EGC</b>	ENVIRONMENTAL GEOTECHNICAL CONSULTANTS, INC. <small>CONSULTANTS IN APPLIED EARTH SCIENCE</small>	FIGURE NO. <b>6</b>
	<b>EXPLORATORY BORING LOG</b> B - 3 1088 MARINA BLVD., SAN LEANDRO, CALIFORNIA ULTRAMAR, INC.	

# EXPLORATORY BORING LOG

PROJECT NO. E189-02      LOGGED BY: J PHILLIPS      DATE DRILLED: 08/15/91      PAGE 1 OF 1

DRILL RIG: MOBILE B - 53      BORING ELEV.:      BORING NO.      EXISTING GRADE  
 DEPTH TO GROUNDWATER: 15 FEET      BORING DIAM.: 8 INCHES

SOIL / ROCK MATERIAL DESCRIPTION AND REMARKS	CONSISTENCY	USCS GROUP SYMBOL	DEPTH IN FEET	SAMPLE	BLOW COUNT	WATER CONTENT	DRY DENSITY	ISOBUTYLENE EQUIVALENT	PASSING #200	UNCONFINED COMPRESSIVE STRENGTH
ASPHALTIC CONCRETE, 18 inches			1							
BASE ROCK, 6 inches			2							
CLAY, dark brown, slightly moist, moderate plasticity, slight odor		CL	3							
			4							
Sandy CLAY, brown, slightly moist, low plasticity		CL	5							
			6	1			0			
Sandy CLAY, gray, moist, low plasticity, slight odor		CL	7							
			8							
CLAY, grayish brown, sandy layers, moist, high plasticity		CH	9							
			10							
			11	2			0			
Silty SAND seam @ 14.0 feet		▽	12							
			13							
			14	3			0			
End of Boring: 15.0 feet Hydropunch to 24.0 feet Groundwater encountered @ 15.0 feet			15							
			16							
			17							
			18							
			19							
			20							
			21							
			22							
			23							
			24							
			25							

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<b>NOTES:</b>	DATE	12/91	ENVIRONMENTAL GEOTECHNICAL CONSULTANTS, INC. CONSULTANTS IN APPLIED EARTH SCIENCE	FIGURE NO.  <b>7</b>
	JOB NO.	E189-02		
	DWG NO.	E189-02/29		
	DRAWN	J HATALA		
	CHK'D	J PHILLIPS		
APP'D	J HICKS	EXPLORATORY BORING LOG B - 4 1088 MARINA BLVD., SAN LEANDRO, CALIFORNIA ULTRAMAR, INC.		

# EXPLORATORY BORING LOG

PROJECT NO. E189-02	LOGGED BY: J PHILLIPS	DATE DRILLED: 09/19/91	PAGE 1 OF 1
DRILL RIG: MOBILE B - 53	BORING ELEV: EXISTING GRADE		BORING NO.
DEPTH TO GROUNDWATER :	BORING DIAM: 8 INCHES		

SOIL / ROCK MATERIAL DESCRIPTION AND REMARKS	CONSISTENCY	USCS GROUP SYMBOL	DEPTH IN FEET	SAMPLE	BLOW COUNT	WATER CONTENT	DRY DENSITY	ISOBUTYLENE EQUIVALENT	PASSING # 200	UNCONFINED COMPRESSIVE STRENGTH
ASPHALTIC CONCRETE 8 inches SAND, 6 inches			1							
CLAY, very dark brown, slightly moist, moderate plasticity, strong odor	CL		2							
			3							
			4							
			5							
Sandy CLAY, gray and brown, slightly moist, low plasticity, slight odor	CL		6	1				0		
			7							
			8							
			9							
			10							
			11	2					0	
			12							
			13							
Silty SAND seam @ 14.0 feet			14	3				0		
			15							
End of Boring: 14.5 feet Hydropunch to 21.5 feet Groundwater not encountered			16							
			17							
			18							
			19							
			20							
			21							
			22							
			23							
			24							
			25							

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NOTES:	DATE	12/91	<b>EGC ENVIRONMENTAL GEOTECHNICAL CONSULTANTS, INC.</b> <small>CONSULTANTS IN APPLIED EARTH SCIENCE</small> <b>EXPLORATORY BORING LOG</b> B - 5 1088 MARINA BLVD., SAN LEANDRO, CALIFORNIA ULTRAMAR, INC.	FIGURE NO. <b>8</b>
	JOB NO.	E189-02		
	DWG NO.	E189-02/30		
	DRAWN	J HATALA		
	CHKD	J PHILLIPS		
APPD	J HICKS			

# EXPLORATORY BORING LOG

PROJECT NO. E189-02

LOGGED BY:  
J PHILLIPS

DATE DRILLED:  
09/19/91

PAGE 1 OF 1

DRILL RIG: MOBILE B - 53  
DEPTH TO GROUNDWATER :

BORING ELEV:  
EXISTING GRADE  
BORING DIAM: 8 INCHES

BORING NO.  
B-6

SOIL / ROCK MATERIAL DESCRIPTION AND REMARKS	CONSISTENCY	USCS GROUP SYMBOL	DEPTH IN FEET	SAMPLE	BLOW COUNT	WATER CONTENT	DRY DENSITY	ISOBUTYLENE EQUIVALENT	PASSING # 200	UNCONFINED COMPRESSIVE STRENGTH	
											%
ASPHALTIC CONCRETE, 12 inches SAND, 6 inches			1								
CLAY, dark brown, slightly moist, moderate plasticity, slight odor		CL	2								
			3								
			4								
			5								
CLAY, gray, slightly moist, moderate plasticity		CL	6	1				0			
			7								
			8								
			9								
Sandy CLAY, gray, trace gravel, slightly moist, moderate plasticity		CL	10								
			11	2				3			
			12								
End of Boring: 12.0 feet Hydropunch to 20.0 feet Groundwater not encountered			13								
			14								
			15								
			16								
			17								
			18								
			19								
			20								
			21								
			22								
			23								
			24								
25											

NOTES:

DATE	12/91
JOB NO.	E189-02
DWG NO.	E189-02/31
DRAWN	J HATALA
CHK'D	J PHILLIPS
APP'D	J HICKS



ENVIRONMENTAL GEOTECHNICAL CONSULTANTS, INC.  
CONSULTANTS IN APPLIED EARTH SCIENCE

EXPLORATORY BORING LOG  
B-6

1088 MARINA BLVD., SAN LEANDRO, CALIFORNIA  
ULTRAMAR, INC.

FIGURE NO.

9

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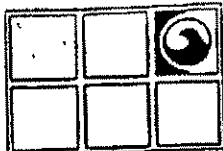
## EXPLORATORY BORING LOG

PROJECT NO. E189-02	LOGGED BY: J PHILLIPS	DATE DRILLED: 09/20/91	PAGE 1 OF 1
DRILL RIG: MOBILE B - 53		BORING ELEV: EXISTING GRADE	BORING NO.
DEPTH TO GROUNDWATER :		BORING DIAM: 8 INCHES	

SOIL / ROCK MATERIAL DESCRIPTION AND REMARKS	CONSISTENCY	USCS GROUP SYMBOL	DEPTH IN FEET	SAMPLE	BLOW COUNT	WATER CONTENT	DRY DENSITY	ISOBUTYLENE EQUIVALENT	PASSING # 200	UNCONFINED COMPRESSIVE STRENGTH
ASPHALTIC CONCRETE, 12 inches			1							
FILL, clay, dark brown and gray, moist, moderate plasticity			2							
Sandy CLAY, gray, trace gravel, slightly moist, low plasticity		CL	3							
			4							
			5							
			6	1					2	
			7							
			8							
CLAY, brown and gray mottled, moist, moderate plasticity, sandy zones		CL	9							
			10							
			11	2					0	
CLAY, brown, moist, low plasticity		CL	12							
			13							
CLAY, brown, moist, low plasticity		CL	14							
			15	3					8	
			16							
			17							
End of Boring: 19.5 feet Groundwater not encountered			18	4						1
			19							
			20							
			21							
			22							
			23							
			24							
			25							

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<b>NOTES:</b>	DATE	12/91	<b>ENVIRONMENTAL GEOTECHNICAL CONSULTANTS, INC.</b> CONSULTANTS IN APPLIED EARTH SCIENCE	FIGURE NO. <b>10</b>
	JOB NO.	E189-02		
	DWG NO.	E189-02/32		
	DRAWN	J HATALA		
	CHKD	J PHILLIPS		
APPD	J HICKS	<b>EXPLORATORY BORING LOG</b> <b>B - 7</b> 1088 MARINA BLVD., SAN LEANDRO, CALIFORNIA <b>ULTRAMAR, INC.</b>		



MW-1

**Monitoring Well**

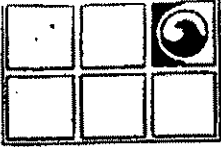
**Drilling Log**

Project Kayo Oil/San Leandro Owner Kayo Oil Co.  
 Location San Leandro, CA Project Number 20-8224  
 Date Drilled 3/30/87 Total Depth of Hole 30 ft. Diameter 7.5 in.  
 Surface Elevation \_\_\_\_\_ Water Level, Initial \_\_\_\_\_  
 Screen: Dia. 2 in. Length \_\_\_\_\_ 20 ft. Slot Size .020 in.  
 Casing: Dia. 2 in. Length \_\_\_\_\_ 10 ft. Type PVC  
 Drilling Company Sierra Pacific Drilling Method Hollow Stem Auger  
 Driller Mel Isom Log by Eric Schniewind

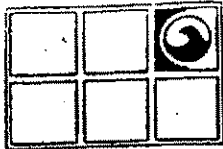
Sketch Map  
  
See Site Map  
  
Notes

Depth (Feet)	Well Construction	PID (ppm)	Sample Number	Graphic Log	Description/Soil Classification
0					4 inch Asphalt over 8 inch base course
0 - 3		600	A 3		Black mottled silty clay with trace organics (medium stiff, slightly moist, no product odor)
3 - 4			3 3		
4 - 6			3 4	CH	
6 - 8		600	B 4		Green silty clay (stiff, slightly moist, no product odor)
8 - 10			4 4		
10 - 12			4 7		
12 - 14		>2000	C 2		(grades with <del>trace</del> gravels)
14 - 16			3 3		( <del>moderate</del> strong product odor)
16 - 18			3 4	CH	
18 - 20		300	D 3		(grades green-brown)
20 - 22			7 7		▼ Encountered water 3/30/87
22 - 24		300	8 8		(grades brown)
24 - 26			E 3		
26 - 28			4 4		
28 - 30			6 6		





Depth (Feet)	Well Construction	PID (ppm)	Sample Number	Graphic Log	Description/Soil Classification (Color, Texture, Structures)
26					Brown silty clay (cont'd)
28					
30					End of boring, installed monitor well
32					
34					
36					
38					
40					
42					
44					
46					
48					
50					
52					
54					
56					
58					



**Monitoring Well**

**Drilling Log**

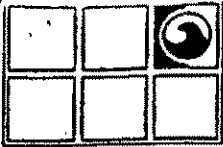
Project Kayo/San Leandro Owner Kayo Oil Co  
 Location San Leandro, CA Project Number 20-8224  
 Date Drilled 3/30/87 Total Depth of Hole 30 ft. Diameter 7.5 in.  
 Surface Elevation \_\_\_\_\_ Water Level, Initial 19 ft. 24-hrs. \_\_\_\_\_  
 Screen: Dia. 2 in. Length \_\_\_\_\_ 20 ft. Slot Size .020 in.  
 Casing: Dia. 2 in. Length \_\_\_\_\_ 10 ft. Type PVC  
 Drilling Company Sierra Pacific Drilling Method Hollow Stem Auger  
 Driller Mel Isom Log by Eric Schniewind

Sketch Map

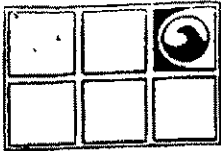
See Site Map

Notes  
Depth of hole

Depth (feet)	Well Construction	PID (ppm)	Sample Number	Graphic Log	Description/Soil Classification
0					4 inch Asphalt over 8 inch base course
0 - 2					Black-brown silty clay (stiff, slightly moist, no product odor)
2 - 5		500	A 3 5 5		(grades green-brown)
5 - 8		500	B 3 3 3	CH	(grades with <del>some sand and gravel</del> )
8 - 13		>2000	C 3 3 3		(moderate product odor)
13 - 19		700	D 3 6 10		▼ Encountered water 3/30/87 (1435 hours) Green silty clay (stiff, <del>not</del> , no product odor)
19 - 24		600	E 3 4 6	CH	



Depth (Feet)	Well Construction	P I D (ppm)	Sample Number	Graphic Log	Description/Soil Classification (Color, Texture, Structures)
26					Green silty clay (cont'd)
28				CH	
30					End of boring, installed monitor well
32					
34					
36					
38					
40					
42					
44					
46					
48					
50					
52					
54					
56					
58					



**Monitoring Well**

**Drilling Log**

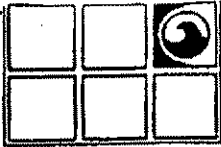
Project Kayo San Leandro Owner Kayo Oil Co.  
 Location San Leandro, CA Project Number 20-8224  
 Date Drilled 3/30/87 Total Depth of Hole 30 ft. Diameter 7.5 in.  
 Surface Elevation \_\_\_\_\_ Water Level, Initial 19 ft. 24-hrs \_\_\_\_\_  
 Screen: Dia. 2 in. Length \_\_\_\_\_ Slot Size .020 in.  
 Casing: Dia. 2 in. Length 10 ft. Type PVC  
 Drilling Company Sierra Pacific Drilling Method Hollow Stem Auger  
 Driller Mel Isom Log by Eric Schniewind

Sketch Map

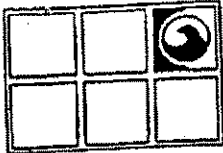
See Site Map

Notes

Depth (Feet)	Well Construction	PID (ppm)	Sample Number	Graphic Log	Description/Soil Classification
0					4 inch Asphalt over 8 inch base course
2		50	A 7		Black silty clay with trace organics (stiff, slightly moist, no product odor)
4			10	CH	(grades brown)
6			7		
8		100	B 3		
10			6		Green silty clay (stiff, slightly moist, no product odor)
12			7	CH	
14		>2000	C 3		
16			6		Green gravelly fine sand (medium dense, moist, <del>no product odor</del> )
18		300	D 2		Green-brown silty clay (stiff, <del>no</del> no product odor)
20			3		▼ Encountered water 3/30/87 (1645 hours)
22			5	CH	
24		300	E 6		(grades with trace gravel)
			10		
			16		



Depth (feet)	Well Construction	PID (ppm)	Sample Number	Graphic Log	Description/Soil Classification (Color, Texture, Structures)
26					Green-brown silty clay (cont'd)
28				CH	
30					End of boring, installed monitor well
32					
34					
36					
38					
40					
42					
44					
46					
48					
50					
52					
54					
56					
58					



**GROUNDWATER TECHNOLOGY, INC.**  
OIL RECOVERY SYSTEMS

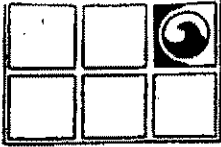
**Monitoring Well**

**Drilling Log**

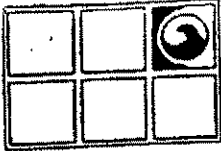
Project Kayo San Leandro Owner Kayo Oil Co.  
 Location San Leandro, CA Project Number 20-8224  
 Date Drilled 3/31/87 Total Depth of Hole 30 ft. Diameter 7.5 in.  
 Surface Elevation \_\_\_\_\_ Water Level, Initial 21 ft. 24-hrs. \_\_\_\_\_  
 Screen: Dia. 2 in. Length \_\_\_\_\_ Slot Size .020 in.  
 Casing: Dia. 2 in. Length \_\_\_\_\_ Type PVC  
 Drilling Company Sierra Pacific Drilling Method Hollow Stem Auger  
 Driller Mel Isom Log by Eric Schniewind

Sketch Map  
  
See Site Map  
  
Notes

Depth (Feet)	Well Construction	PID (ppm)	Sample Number	Graphic Log	Description/Soil Classification
0					4 inch Asphalt over 8 inch base course
0 - 4					Black silty clay with trace gravel (stiff, slight moist, no product odor)
4 - 8		1500	A 3 5 8	CH	(no sample recovered due to obstruction by old concrete and wood fragments)
8 - 14		>2000	B 3 4 5	CL	Green, fine sandy clay (stiff, slightly moist, <del>no product odor</del> )
14 - 20		500	C 3 4 7	CH	Green-brown silty clay (stiff, moist, <del>no product odor</del> )
20 - 24		300	D 3 5 9	CH	Encountered water 3/31/87 (1020 hours)
24 - 30			E		



Depth (Feet)	Well Construction	PID (ppm)	Sample Number	Graphic Log	Description/Soil Classification (Color, Texture, Structures)
26					Green brown silty clay (cont'd)
28					
30					End of boring, installed monitor well
32					
34					
36					
38					
40					
42					
44					
46					
48					
50					
52					
54					
56					
58					



**GROUNDWATER TECHNOLOGY, INC.**  
OIL RECOVERY SYSTEMS

5

**Monitoring Well**

**Drilling Log**

Project Kayo San Leandro Owner Kayo Oil Co.  
 Location San Leandro, CA Project Number 20-8224  
 Date Drilled 3/31/87 Total Depth of Hole 30 ft. Diameter 7.5 in.  
 Surface Elevation \_\_\_\_\_ Water Level, Initial 19 ft. 24-hrs.  
 Screen: Dia. 2 in. Length \_\_\_\_\_ 20 ft. Slot Size .020 in.  
 Casing: Dia. 2 in. Length \_\_\_\_\_ 10 ft. Type PVC  
 Drilling Company Sierra Pacific Drilling Method Hollow Stem Auger  
 Driller Mel Isom Log by Eric Schniewind

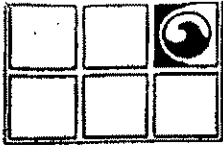
Sketch Map

See Site Map

Notes

Depth (Feet)	Well Construction	PID (ppm)	Sample Number	Graphic Log	Description/Soil Classification
0					4 inch Asphalt over 8 inch base course
0 - 4		700	A 5, 10, 13	CH	Black silty clay (very stiff, slightly moist, no product odor)
4 - 8		700	B 3, 2, 6	CH	Brown-green silty clay (stiff, slightly moist, no product odor)
8 - 10					Green clayey sand (loose, moist, no product odor)
10 - 14		> 2000	C 2, 3, 4		Green-brown silty clay (stiff, moist, product odor)
14 - 20		500	D 2, 4, 7	CH	Encountered water 3/31/87 (1210 hours)
20 - 24		> 2000	E 2, 3, 4		(slight product odor)





Depth (feet)	Well Construction	PID (ppm)	Sample Number	Graphic Log	Description/Soil Classification (Color, Texture, Structures)
-26	[Dotted pattern]			[Diagonal lines]	Green-brown silty clay (cont'd)
-28	[Dotted pattern]			[Diagonal lines]	
-30	[Dotted pattern]			[Diagonal lines]	End of boring, installed monitor well
-32	[Dotted pattern]			[Diagonal lines]	
-34	[Dotted pattern]			[Diagonal lines]	
-36	[Dotted pattern]			[Diagonal lines]	
-38	[Dotted pattern]			[Diagonal lines]	
-40	[Dotted pattern]			[Diagonal lines]	
-42	[Dotted pattern]			[Diagonal lines]	
-44	[Dotted pattern]			[Diagonal lines]	
-46	[Dotted pattern]			[Diagonal lines]	
-48	[Dotted pattern]			[Diagonal lines]	
-50	[Dotted pattern]			[Diagonal lines]	
-52	[Dotted pattern]			[Diagonal lines]	
-54	[Dotted pattern]			[Diagonal lines]	
-56	[Dotted pattern]			[Diagonal lines]	
-58	[Dotted pattern]			[Diagonal lines]	

# EXPLORATORY BORING LOG

PROJECT NO. E189-02      LOGGED BY: J PHILLIPS      DATE DRILLED: 10/10/91      PAGE 1 OF 2

DRILL RIG: MOBILE B - 53  
DEPTH TO GROUNDWATER: 15.5 FEET

BORING ELEV:      BORING NO.  
EXISTING GRADE  
BORING DIAM: 8 INCHES

SOIL / ROCK MATERIAL DESCRIPTION AND REMARKS	CONSISTENCY	USCS GROUP SYMBOL	DEPTH IN FEET	SAMPLE	BLOW COUNT	WATER CONTENT	DRY DENSITY	ISOBTYLENE EQUIVALENT	PASSING # 200	UNCONFINED COMPRESSIVE STRENGTH
ASPHALTIC CONCRETE, 6 inches			1							
BASE ROCK, 6 inches			2							
FILL, clay, dark brown, slightly moist, high plasticity			3							
			4							
Silty CLAY, grayish brown, slightly moist, low plasticity		CL	5							
			6	1				0		
			7							
			8							
			9							
			10							
			11	2					0	
			12							
			13							
			14							
Very silty gravel @ 12.0 feet			15							
Gray, wet, moderate odor		AZ	16	3				40		
			17							
			18							
			19							
CLAY, brown and gray mottled, shell fragments, moist, low plasticity, slight odor		CL	20							
			21	4				0		
			22							
			23							
			24							
			25							

F:\HOME\DRAWING\EGC\DRAWING\EGC189233A

**NOTES:**

DATE 12/91  
JOB NO. E189-02  
DWG NO. E189-02/33A  
DRAWN J HATALA  
CHK'D J PHILLIPS  
APP'D J HICKS

**EGC ENVIRONMENTAL GEOTECHNICAL CONSULTANTS, INC.**  
CONSULTANTS IN APPLIED EARTH SCIENCE

**EXPLORATORY BORING LOG**  
MW-6  
1088 MARINA BLVD., SAN LEANDRO, CALIFORNIA  
**ULTRAMAR, INC.**

FIGURE NO.  
**11**  
1 OF 2

# EXPLORATORY BORING LOG

PROJECT NO. E189-02      LOGGED BY: J PHILLIPS      DATE DRILLED: 10/10/91      PAGE 2 OF 2

DRILL RIG: MOBILE B - 53  
DEPTH TO GROUNDWATER: 15.5 FEET

BORING ELEV:      BORING NO.  
EXISTING GRADE      MW-6  
BORING DIAM: 8 INCHES

SOIL / ROCK MATERIAL DESCRIPTION AND REMARKS	CONSISTENCY	USCS GROUP SYMBOL	DEPTH IN FEET	SAMPLE	BLOW COUNT	WATER CONTENT	DRY DENSITY	ISOBUTYLENE EQUIVALENT	PASSING # 200	UNCONFINED COMPRESSIVE STRENGTH	
											N
			25								
			26	5				0			
End of Boring: 26.5 feet Groundwater encountered @ 15.5 feet			27								
			28								
			29								
			30								
			31								
			32								
			33								
			34								
			35								
			36								
			37								
			38								
			39								
			40								
			41								
			42								
			43								
			44								
			45								
46											
47											
48											
49											

<b>NOTES:</b>	DATE	12/91	<b>ENVIRONMENTAL GEOTECHNICAL CONSULTANTS, INC.</b> <small>CONSULTANTS IN APPLIED EARTH SCIENCE</small>	FIGURE NO. <span style="font-size: 2em; font-weight: bold;">11</span> 2 OF 2
	JOB NO.	E189-02		
	DWG NO.	E189-02/33B		
	DRAWN	J HATALA		
	CHKD	J PHILLIPS		
APP'D	J HICKS	EXPLORATORY BORING LOG MW-6 1088 MARINA BLVD., SAN LEANDRO, CALIFORNIA ULTRAMAR, INC.		

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# EXPLORATORY BORING LOG

PROJECT NO. E189-02      LOGGED BY: J PHILLIPS      DATE DRILLED: 10/10/91      PAGE 1 OF 2

DRILL RIG: MOBILE B - 53  
DEPTH TO GROUNDWATER: 20 FEET

BORING ELEV:      BORING NO.  
EXISTING GRADE  
BORING DIAM: 8 INCHES

SOIL / ROCK MATERIAL DESCRIPTION AND REMARKS	CONSISTENCY	USCS GROUP SYMBOL	DEPTH IN FEET	SAMPLE	BLOW COUNT	WATER CONTENT	DRY DENSITY	ISOBUTYLENE EQUIVALENT	PASSING # 200	UNCONFINED COMPRESSIVE STRENGTH	
											N
ASPHALTIC CONCRETE, 4 inches			1								
SAND, 6 inches			2								
FILL, clay, dark brown, slightly moist, high plasticity, trace gravel			3								
Silty CLAY, grayish brown, slightly moist, low plasticity	CL	CL	4								
			5								
			6								
			7								
			8	1							
			9								
			10								
			11	2							
			12								
			13								
			14	3							
			15								
CLAY, brown, slightly moist, low plasticity	CL	CL	16	4							
			17								
			18								
CLAY, brown, slightly moist, low plasticity	CL	CL	19								
			20								
			21	5							
			22								
			23								
			24								
			25								

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**NOTES:**

DATE 12/91  
JOB NO. E189-02  
DWG NO. E189-02/34A  
DRAWN J HATALA  
CHK'D J PHILLIPS  
APP'D J HICKS

**EGC** ENVIRONMENTAL GEOTECHNICAL CONSULTANTS, INC.  
CONSULTANTS IN APPLIED EARTH SCIENCE

**EXPLORATORY BORING LOG**  
MW-7  
1088 MARINA BLVD., SAN LEANDRO, CALIFORNIA  
**ULTRAMAR, INC.**

FIGURE NO.  
**12**  
1 OF 2

# EXPLORATORY BORING LOG

PROJECT NO. E189-02	LOGGED BY: J PHILLIPS	DATE DRILLED: 10/10/91	PAGE 2 OF 2
DRILL RIG: MOBILE B - 53	BORING ELEV: EXISTING GRADE	BORING NO. MW-7	
DEPTH TO GROUNDWATER : 20 FEET	BORING DIAM: 8 INCHES		

SOIL / ROCK MATERIAL DESCRIPTION AND REMARKS	CONSISTENCY	USCS GROUP SYMBOL	DEPTH IN FEET	SAMPLE	BLOW COUNT	WATER CONTENT	DRY DENSITY	ISOBUTYLENE EQUIVALENT	PASSING # 200	UNCONFINED COMPRESSIVE STRENGTH
Saturated, silty			25							
			26	5				0		
End of Boring: 26.5 feet Groundwater encountered @ 20.0 feet			27							
			28							
			29							
			30							
			31							
			32							
			33							
			34							
			35							
			36							
			37							
			38							
			39							
			40							
			41							
			42							
			43							
			44							
			45							
		46								
		47								
		48								
		49								

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**NOTES:**

DATE	12/91
JOB NO.	E189-02
DWG NO.	E189-02/348
DRAWN	J HATALA
CHK'D	J PHILLIPS
APP'D	J HICKS

<b>EGC</b>	<b>ENVIRONMENTAL GEOTECHNICAL CONSULTANTS, INC.</b> <small>CONSULTANTS IN APPLIED EARTH SCIENCE</small>
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<b>EXPLORATORY BORING LOG</b> MW-7
1088 MARINA BLVD., SAN LEANDRO, CALIFORNIA
<b>ULTRAMAR, INC.</b>

FIGURE NO. <b>12</b> 2 OF 2
-----------------------------------

# EXPLORATORY BORING LOG

PROJECT NO. E189-02	LOGGED BY: J PHILLIPS	DATE DRILLED: 10/11/91	PAGE 1 OF 2
DRILL RIG: MOBILE B - 53		BORING ELEV: EXISTING GRADE	BORING NO. <b>MW-8</b>
DEPTH TO GROUNDWATER : 24 FEET		BORING DIAM: 8 INCHES	

SOIL / ROCK MATERIAL DESCRIPTION AND REMARKS	CONSISTENCY	USCS GROUP SYMBOL	DEPTH IN FEET	SAMPLE	BLOW COUNT	WATER CONTENT	DRY DENSITY	ISOBUTYLENE EQUIVALENT	PASSING # 200	UNCONFINED COMPRESSIVE STRENGTH
ASPHALTIC CONCRETE, 4 inches			1							
SAND, 4 inches			2							
FILL, clay, dark brown, trace gravel, low plasticity			3							
CLAY, brown, moist, low plasticity		CL	4							
			5							
			6	1					0	
			7							
			8							
Sandy CLAY, brown and gray, slightly moist, low plasticity		CL	9							
			10							
			11	2					0	
			12							
			13							
Moist, strong odor		CL	14							
			15	3					22	
			16							
			17							
			18							
			19							
			20	4						251
			21							
			22							
			23							
24										
25										

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<b>NOTES:</b>	DATE 12/91	ENVIRONMENTAL GEOTECHNICAL CONSULTANTS, INC. <small>CONSULTANTS IN APPLIED EARTH SCIENCE</small>	FIGURE NO. <b>13</b> 1 OF 2
	JOB NO. E189-02		
	DWG NO. E189-02/35A		
	DRAWN J HATALA		
	CHK'D J PHILLIPS		
APP'D J HICKS	<b>EXPLORATORY BORING LOG</b> <b>MW-8</b> 1088 MARINA BLVD., SAN LEANDRO, CALIFORNIA <b>ULTRAMAR, INC.</b>		

## EXPLORATORY BORING LOG

PROJECT NO. E189-02	LOGGED BY: J PHILLIPS	DATE DRILLED: 10/11/91	PAGE 2 OF 2
DRILL RIG: MOBILE B - 53		BORING ELEV: EXISTING GRADE	BORING NO. MW-8
DEPTH TO GROUNDWATER : 24 FEET		BORING DIAM: 8 INCHES	

SOIL / ROCK MATERIAL DESCRIPTION AND REMARKS	CONSISTENCY	USCS GROUP SYMBOL	DEPTH IN FEET	SAMPLE	BLOW COUNT	WATER CONTENT	DRY DENSITY	ISOBUTYLENE EQUIVALENT	PASSING # 200	UNCONFINED COMPRESSIVE STRENGTH		
					N	%	pcf	PPM	%	psf		
Sandy CLAY, brown and gray, moist, low plasticity		CL	25									
			26	5				5				
			27									
			28									
			29									
			30									
End of Boring: 31.5 feet Groundwater encountered @ 24.0 feet			31	6				2				
			32									
			33									
			34									
			35									
			36									
			37									
			38									
			39									
			40									
			41									
			42									
			43									
			44									
			45									
			46									
			47									
			48									
			49									

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NOTES:	DATE 12/91	ENVIRONMENTAL GEOTECHNICAL CONSULTANTS, INC. <small>CONSULTANTS IN APPLIED EARTH SCIENCE</small>	FIGURE NO. <b>13</b> 2 OF 2
	JOB NO. E189-02		
	DWG NO. E189-02/35B		
	DRAWN J HATALA		
	CHK'D J PHILLIPS		
APPO J HICKS	<b>EXPLORATORY BORING LOG</b> MW-8 1088 MARINA BLVD., SAN LEANDRO, CALIFORNIA <b>ULTRAMAR, INC.</b>		

SITE / LOCATION #720, SAN LEANDRO, CALIFORNIA	BEGIN DATE 10/10/91	BOREHOLE DIA 8 INCH	ANGLE & BEARING	BOREHOLE NO. MW-6
COORDINATES / STATIONING	END DATE 10/10/91	LOGGED BY J PHILLIPS		GROUND ELEV. 30.97

**DIMENSIONS**

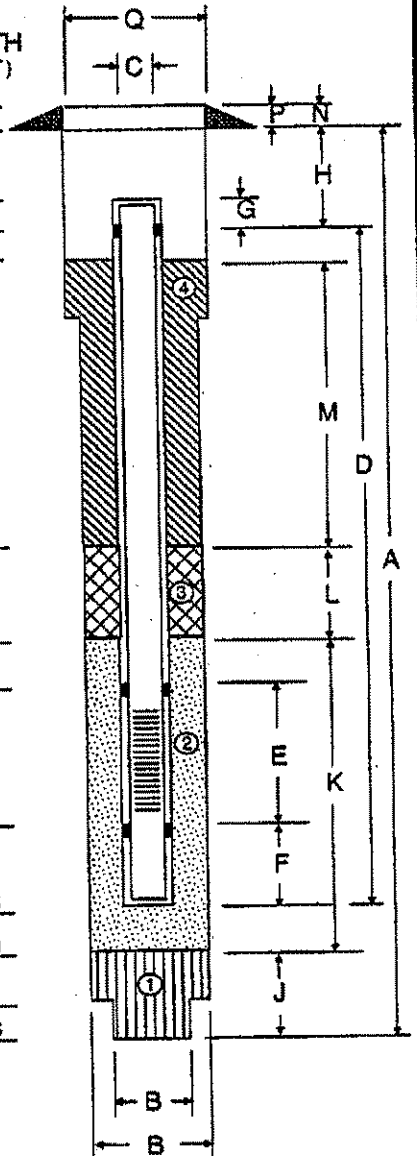
A TOTAL DEPTH OF BOREHOLE	18.0 FT
B BOREHOLE DIA.	8.0 IN.
C WELL CASING DIA.	2.0 IN.
D WELL CASING LENGTH	7.5 FT
E WELL CASING SLOTTED INTERVAL	10.0 FT
F WELL CASING BOTTOM PLUG	2.0 IN.
G WELL CASING TOP CAP INTERVAL	0
H WELL CASING RISER DEPTH	6.0 IN.
J BOTTOM MATERIAL INTERVAL	8.0 FT
K PERMEABLE MATERIAL INTERVAL	11.5 FT
L IMPERMEABLE MATERIAL INTERVAL	2.0 FT
M BACKFILL MATERIAL INTERVAL	4.5 FT
N BACKFILL MOUND INTERVAL	1.0 IN.
P PROTECTIVE COVER HEIGHT	1.0 IN.
Q PROTECTIVE COVER DIA	8.0 IN.

**MATERIALS DATA**

WELL CASING	SCHEDULE 40 PVC
WELL CASING SLOT SIZE	0.020 IN.
WELL CASING SLOT SPACING	0.125 IN.
WELL CASING BOTTOM PLUG	SCHEDULE 40 PVC
WELL CASING TOP CAP	LOCKABLE
BOTTOM MATERIAL ①	BENTONITE/CEMENT
PERMEABLE ②	#2 SAND
INPERMEABLE ③	BENTONITE
BACKFILL MATERIAL ④	BENTONITE/CEMENT
PROTECTIVE COVER	LOCKED, FLUSH, SEALED

ELEV (FEET)    DEPTH (FEET)

30.97	0.0
30.47	0.5
29.97	1.0
25.47	5.57
23.47	7.5
22.47	8.5
12.47	18.5
11.97	19.0
4.47	26.5



SECTION VIEW  
(NOT TO SCALE)

**NOTES**

FORM 42 10/17/90

DATE	12/91
JOB NO.	E189-02
DWG NO.	E1892/36
DRAWN	J HATALA
CHK'D	J PHILLIPS
APP'D	J HICKS

**EGC** ENVIRONMENTAL GEOTECHNICAL CONSULTANTS, INC.  
CONSULTANTS IN APPLIED EARTH SCIENCE

**MONITORING WELL INSTALLATION RECORD**  
MW-6  
1089 MARINA BLVD., SAN LEANDRO, CALIFORNIA  
ULTRAMAR, INC.

FIGURE NO.  
**14**



SITE/LOCATION #720, SAN LEANDRO, CALIFORNIA	BEACON STATION	BEGIN DATE 10/10/91	BOREHOLE DIA 8 INCH	ANGLE & BEARING	BOREHOLE NO. MW-7
COORDINATES/STATIONING		END DATE 10/10/91	LOGGED BY J PHILLIPS		GROUND ELEV. 31.64'

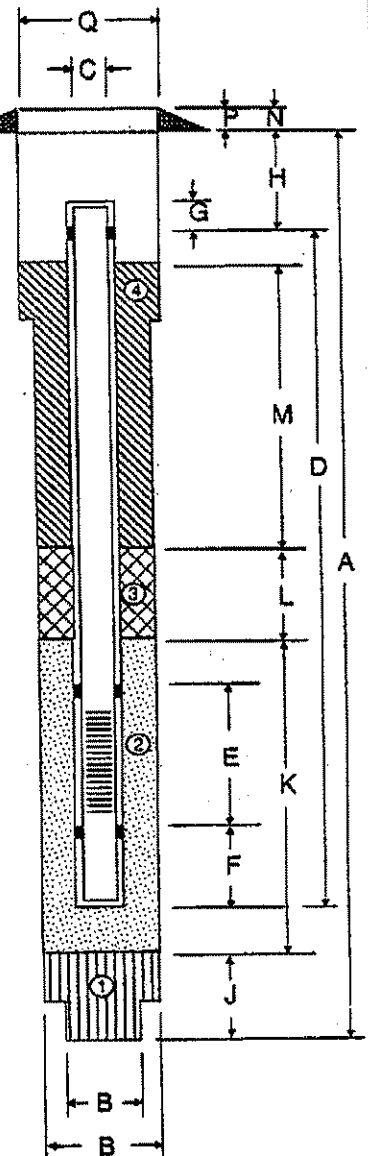
**DIMENSIONS**

A TOTAL DEPTH OF BOREHOLE	26.5 FT
B BOREHOLE DIA.	8.0 IN.
C WELL CASING DIA.	2.0 IN.
D WELL CASING LENGTH	10.0 FT
E WELL CASING SLOTTED INTERVAL	15.0 FT
F WELL CASING BOTTOM PLUG	2.0 IN.
G WELL CASING TOP CAP INTERVAL	0
H WELL CASING RISER DEPTH	6.0 IN.
J BOTTOM MATERIAL INTERVAL	0
K PERMEABLE MATERIAL INTERVAL	18.0 FT
L IMPERMEABLE MATERIAL INTERVAL	2.0 FT
M BACKFILL MATERIAL INTERVAL	5.5 FT
N BACKFILL MOUND INTERVAL	1.0 IN.
P PROTECTIVE COVER HEIGHT	1.0 IN.
Q PROTECTIVE COVER DIA	8.0 IN.

**MATERIALS DATA**

WELL CASING	SCHEDULE 40 PVC
WELL CASING SLOT SIZE	0.020 IN.
WELL CASING SLOT SPACING	0.125 IN.
WELL CASING BOTTOM PLUG	SCHEDULE 40 PVC
WELL CASING TOP CAP	LOCKABLE
BOTTOM MATERIAL ①	
PERMEABLE ②	#2 SAND
IMPERMEABLE ③	BENTONITE
BACKFILL MATERIAL ④	BENTONITE/CEMENT
PROTECTIVE COVER	LOCKED, FLUSH, SEALED

ELEV (FEET)	DEPTH (FEET)
31.64	0.0
31.14	0.5
30.64	1.0
25.14	6.5
23.14	8.5
21.14	10.5
6.14	25.5
5.14	26.5



SECTION VIEW  
(NOT TO SCALE)

**NOTES**

FORM 42 10/17/80

DATE	12/91
JOB NO.	E189-02
DWG NO.	E1892/37
DRAWN	J HATALA
CHK'D	J PHILLIPS
APP'D	J HICKS

**EGC** ENVIRONMENTAL GEOTECHNICAL CONSULTANTS, INC.  
CONSULTANTS IN APPLIED EARTH SCIENCE

**MONITORING WELL INSTALLATION RECORD**  
MW-7  
1088 MARINA BLVD., SAN LEANDRO, CALIFORNIA  
ULTRAMAR, INC.

FIGURE NO.  
**15**

SITE/LOCATION #720, SAN LEANDRO, CALIFORNIA	BEACON STATION	BEGIN DATE 10/11/91	BOREHOLE DIA 8 INCH	ANGLE & BEARING	BOREHOLE NO. MW-8
COORDINATES/STATIONING		END DATE 10/11/91	LOGGED BY J PHILLIPS		GROUND ELEV. 34.30'

**DIMENSIONS**

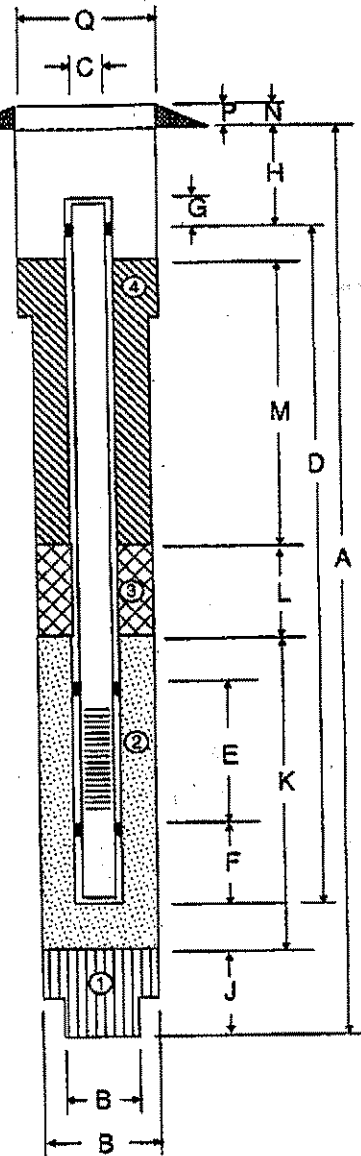
A TOTAL DEPTH OF BOREHOLE	31.5 FT
B BOREHOLE DIA.	8.0 IN.
C WELL CASING DIA.	2.0 IN.
D WELL CASING LENGTH	15.0 FT
E WELL CASING SLOTTED INTERVAL	15.0 FT
F WELL CASING BOTTOM PLUG	2.0 IN.
G WELL CASING TOP CAP INTERVAL	0
H WELL CASING RISER DEPTH	18.0 IN.
J BOTTOM MATERIAL INTERVAL	2.0 FT
K PERMEABLE MATERIAL INTERVAL	18.0 FT
L IMPERMEABLE MATERIAL INTERVAL	2.0 FT
M BACKFILL MATERIAL INTERVAL	10.5 FT
N BACKFILL MOUND INTERVAL	1.0 IN.
P PROTECTIVE COVER HEIGHT	1.0 IN.
Q PROTECTIVE COVER DIA	8.0 IN.

**MATERIALS DATA**

WELL CASING	SCHEDULE 40 PVC
WELL CASING SLOT SIZE	0.020 IN.
WELL CASING SLOT SPACING	0.125 IN.
WELL CASING BOTTOM PLUG	SCHEDULE 40 PVC
WELL CASING TOP CAP	LOCKABLE
BOTTOM MATERIAL ①	
PERMEABLE ②	#2 SAND
IMPERMEABLE ③	BENTONITE
BACKFILL MATERIAL ④	BENTONITE/CEMENT
PROTECTIVE COVER	LOCKED, FLUSH, SEALED

ELEV (FEET)    DEPTH (FEET)

34.30	0.0
33.80	0.5
33.30	1.0
22.8	11.5
20.8	13.5
18.8	15.5
3.8	30.5
2.8	31.5



SECTION VIEW  
(NOT TO SCALE)

**NOTES**

FORM 42 10/17/90

DATE	12/91
JOB NO.	E189-02
DWG NO.	E1892/3B
DRAWN	J HATALA
CHK'D	J PHILLIPS
APP'D	J HICKS



ENVIRONMENTAL GEOTECHNICAL CONSULTANTS, INC.  
CONSULTANTS IN APPLIED EARTH SCIENCE

MONITORING WELL INSTALLATION RECORD  
MW-8  
1088 MARINA BLVD., SAN LEANDRO, CALIFORNIA  
ULTRAMAR, INC.

FIGURE NO.  
16

# Acton • Mickelson • van Dam, Inc.

Consulting Scientists, Engineers, and Geologists .

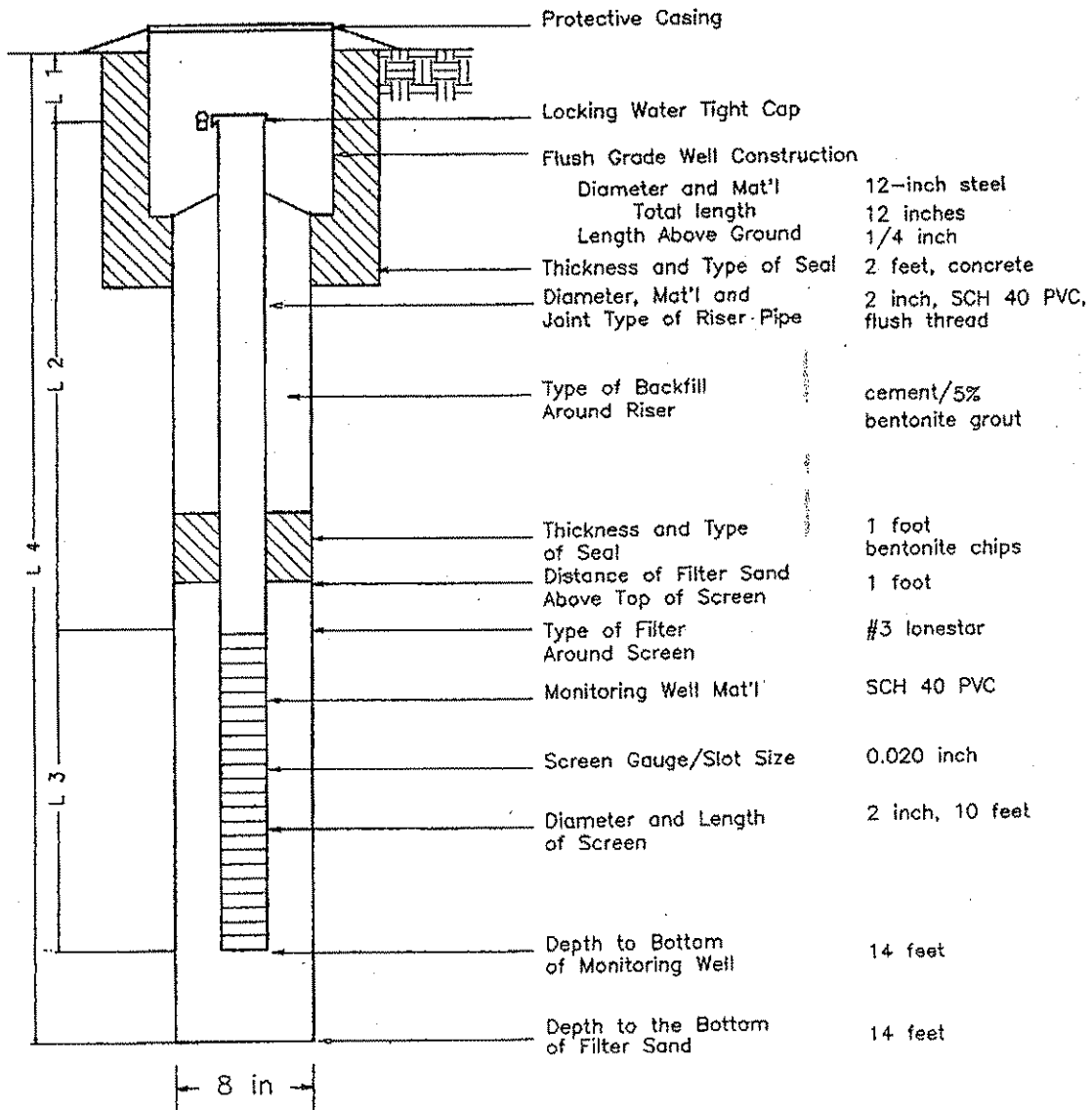
Log of Soil Boring: MW-9			
Project Number: 19030.03		Drilling	Time
Location: Beacon Station #720 1088 Marina Boulevard San Leandro, California		Start	08:45
Drilling Company: V & W Drilling Drilled By: Tim Whitney Drilling Method: 10" O.D. H.S.A.; Mobile B-6I HDX Sampling Method: California modified split spoon sampler fitted with 2"x6" brass sample sleeves		Finish	12/20/94
		Water Depth (Date): 13.76 Feet (12/21/94)	
		Casing Elevation: 32.56 Feet	
		Completion Depth: 25 Feet	
		Logged By: S. Liaty	
		Checked By: <i>DM</i>	

DEPTH (feet)	SAMPLE INTERVAL	DESCRIPTION	GRAPHIC LOG	USCS CLASS	WELL CONSTRUCTION	BLOWS/6 IN.	INCHES DRIVEN	INCHES RECOVERD	COMMENTS	SAMPLE NO.
		Asphalt and backfill material	o o		/ /					
		CLAY, very dark gray, (7.5 YR n3/3), damp, minor silt	CL		. . .					
5						5	18	18		MW1-1
10						3	18	18		MW2-2
15		Becomes dark grayish brown, (10 YR 4/2) and <del>                    </del>				5	18	10	Samples collected from below the water table for lithology only.	MW1-3
20										
25		SANDY CLAY, dark grayish brown, (10 YR 4/2), saturated, fine- to medium-grained sand	CL							
25		Total depth = 25 feet								
30										

# VAPOR EXTRACTION WELL CONSTRUCTION DETAILS

PROJECT NO: 19030.02  
 LOCATION: Beacon Station #720  
 1088 Marina Boulevard  
 San Leandro, California

VAPOR EXTRACTION WELL NO.: VW-1



L1 = 0.25 feet  
 L2 = 3.75 feet  
 L3 = 10.00 feet  
 L4 = 14.00 feet

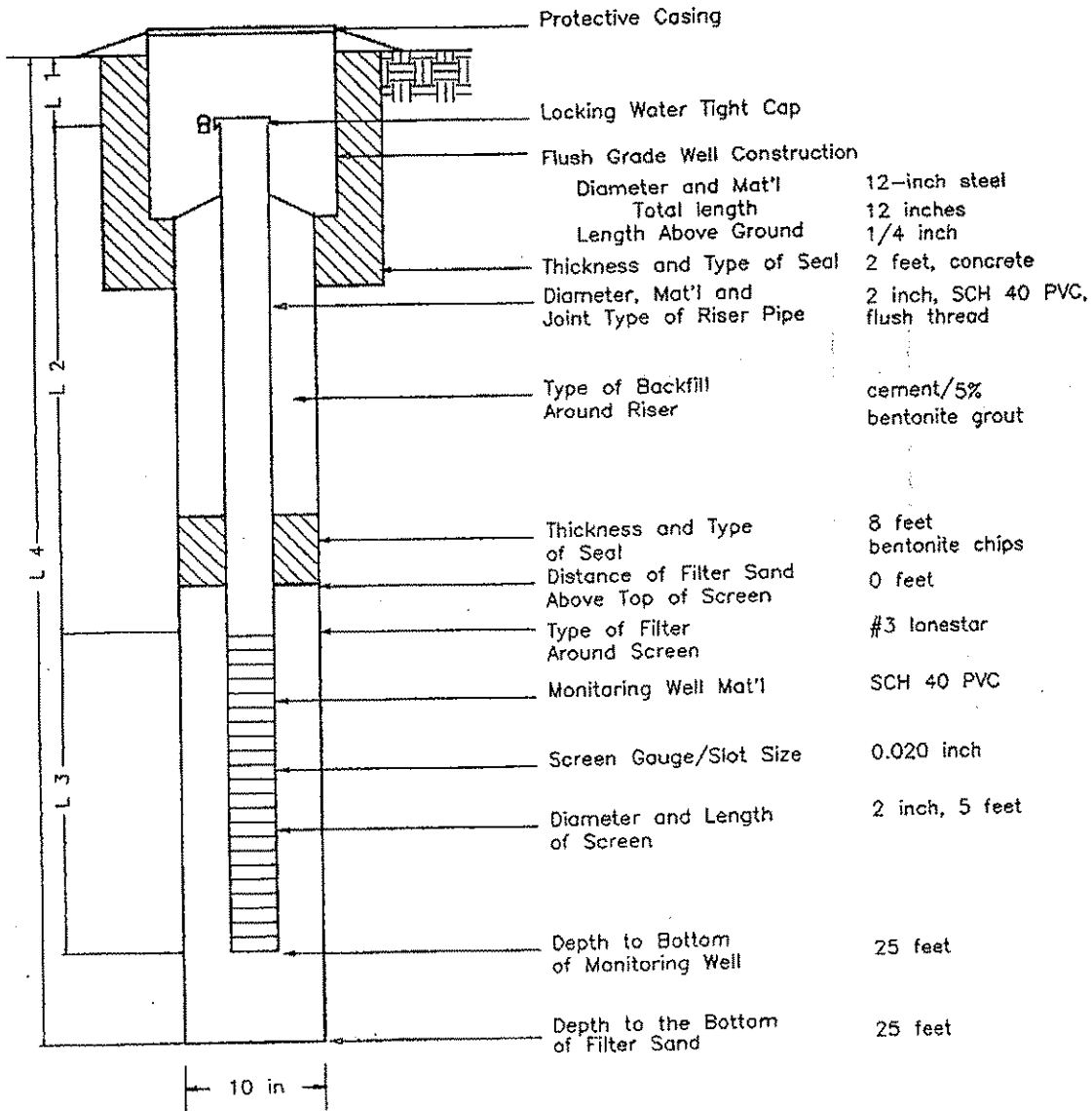
ACTON • MICKELSON • VAN DAM, INC.  
 4511 Golden Foothill Parkway, #1  
 El Dorado Hills, CA 95762

# AIR SPARGING WELL CONSTRUCTION DETAILS

PROJECT NO: 19030.02

AIR SPARGING WELL NO.: SP-1 THROUGH SP-6

LOCATION: Beacon station #720  
1088 Marina Boulevard  
San Leandro, California



- L1 = 0.25 feet
- L2 = 22.75 feet
- L3 = 25.00 feet
- L4 = 25.00 feet

ACTON • MICKELSON • VAN DAM, INC.  
4511 Golden Foothill Parkway, #1  
El Dorado Hills, CA 95762