

**Ultramar**

Ultramar, Inc.  
P.O. Box 466  
525 W. Third Street  
Hanford, CA 93232-0466  
(209) 582-0241

ENVIRONMENTAL  
PROTECTION

96 JUN 21 PM 1:50

Telecopy: 209-585-5685 Credit  
209-583-3330 Administrative  
209-583-3302 Information Services  
209-583-3358 Accounting

June 18, 1996

Mr. Scott Seery  
Department of Environmental Health  
Alameda County Health Care Agency  
1131 Harbor Parkway, Room 250  
Alameda, CA 94502-6577

**SUBJECT: BEACON STATION NO. 720, 1088 MARINA BLVD., SAN LEANDRO, CALIFORNIA**

Dear Mr. Seery:

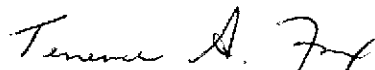
Enclosed is a copy of the First Quarter 1996 Groundwater Monitoring Report for the above-referenced Ultramar facility. Also included is a copy of the Quarterly Status Report which describes the work completed this quarter and the work anticipated to be completed next quarter.

Ultramar is still attempting to obtain the building permit for the remediation system installation.

Please call if you have any questions.

Sincerely,

**ULTRAMAR INC.**



Terrence A. Fox  
Senior Project Manager  
Marketing Environmental Department

Enclosure



A Member of the Ultramar Group of Companies

**BEACON**  
#1 Quality and Service

# Ultramar

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## ENVIRONMENTAL PROJECT QUARTERLY STATUS REPORT

**DATE REPORT SUBMITTED:** June 18, 1996  
**QUARTER ENDING:** March 31, 1996

**SERVICE STATION NO.:** 720  
**ADDRESS:** 1088 Marina Blvd., San Leandro, CA  
**COUNTY:** Alameda

**ULTRAMAR CONTACT:** Terrence A. Fox

**TEL. NO:** 209-583-5545

### BACKGROUND:

In January 1987, three underground gasoline storage tanks and one waste oil tank were excavated and removed from two tank cavities. Samples collected from beneath the former tanks indicated that hydrocarbons were present in the soil. In March 1987, five monitoring wells (MW-1 through MW-5) were installed by Conoco. Hydrocarbons were detected in soil and ground-water samples collected from the wells with the highest concentrations being detected in the area of MW-4. In July 1987, four soil borings were drilled in the vicinity of MW-4 to further characterize the soil contamination in that area. TPH concentrations above 100 ppm were detected in each boring. The site has been on a monitoring program since June 1987.

In July 1990, the site was purchased by Ultramar Inc. from Conoco. The monitoring program has continued.

In August 1991, perform shallow ground water study as screening tool to locate wells.

In October 1991, installed three additional wells to further define the extent of the dissolved hydrocarbon plume.

In October 1993, performed a ground-water pump test, a vapor extraction test, and a air sparging test.

In May 1994, submitted Problem Assessment Report/Remedial Action Plan.

In December 1994, installed one additional monitoring well, six air sparging points, and one vapor extraction well.



A Member of the Ultramar Group of Companies

**BEACON**  
#1 Quality and Service

**SUMMARY OF THIS QUARTER'S ACTIVITIES:**

Performed quarterly monitoring on March 26, 1996.

Attempting to obtain building permit.

**RESULT OF QUARTERLY MONITORING:**

Monitoring data indicates that the benzene concentration remained not detected in MW-6 and MW-7. The benzene concentration decreased in MW-1 from 60 ppb to 42 ppb, in MW-2 from 1,100 ppb to 930 ppb, in MW-4 from 12,000 ppb to 9,600 ppb, in MW-8 from 690 ppb to 180 ppb, and in MW-9 from 960 ppb to 380 ppb. Benzene concentrations increased in MW-3 from 2.4 ppb to 4.3 ppb and in MW-5 from 9,700 ppb to 9,800.

**PROPOSED ACTIVITY OR WORK FOR NEXT QUARTER:**

<b><u>ACTIVITY</u></b>	<b><u>ESTIMATED COMPLETION DATE</u></b>
Continue quarterly monitoring program.	
Install the remediation system.	June 31, 1996

# El Dorado Environmental, Inc.

---

2221 Goldorado Trail, El Dorado, California 95623

(916) 626-3898  
Fax (916) 626-3899

June 13, 1996

Mr. Terrence Fox  
Environmental Specialist  
Ultramar Inc.  
525 West Third Street  
Hanford, California 93232-0466

Subject: **First Quarter 1996 Ground Water Monitoring Report  
Beacon Station #720**  
1088 Marina Boulevard, San Leandro, California

Dear Mr. Fox:

El Dorado Environmental, Inc. (EDE) has prepared this report to document the results of quarterly ground water monitoring conducted on March 26, 1996 at the subject site (Figure 1). The monitoring, conducted by Doulos Environmental (Doulos), included measurements of depth to ground water, subjective analysis for the presence or absence of free product, ground water purging and collection of ground water samples. Doulos reports that all field activities were conducted in accordance with the Ultramar Field Procedures described in Attachment A.

## GROUND WATER ELEVATIONS

Prior to purging, Doulos collected depth to ground water measurements. Copies of Doulos' field data sheets are contained in Attachment B. Ground water elevation data collected since March 1992 are summarized in Table 1. Historical ground water elevation data are presented in Attachment C. On the basis of the current measurements, ground water flows toward the southwest (Figure 2) at a gradient of less than 0.01 foot per foot. Except for monitoring well MW-6 (in which ground water elevation decreased 0.05 feet), ground water elevation increased an average of 1.39 feet compared to the last monitoring event.

## GROUND WATER SAMPLING AND ANALYSES

Ground water samples were collected from nine monitoring wells. All samples were analyzed for concentrations of:

- TPH, as gasoline, by modified EPA Method 8015.
- BTEX by EPA Method 602.

Analytical results collected since March 1992 are summarized in Table 2. Historical analytical data are presented in Attachment D. Figure 3 illustrates the inferred distribution of benzene in ground water based on the current data. The laboratory report and chain-of-custody form for the current sampling event are contained in Attachment E. Benzene was not present at detectable concentrations in ground water samples collected from monitoring wells MW-6 and MW-7. Concentrations of benzene decreased in the samples collected from monitoring wells MW-1, MW-2, MW-4, MW-8, and MW-9 and increased in samples collected from monitoring wells MW-3 and MW-5 compared to prior sampling.

A copy of this quarterly monitoring report should be forwarded to:

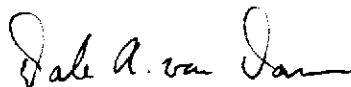
Mr. Rafat Shahid  
Division of Hazardous Materials  
Alameda County Health Care Services  
80 Swan Way, Room 200  
Oakland, California 94621

The interpretations and/or conclusions that may be contained within this report represent our professional opinions. These opinions are based on currently available information. Other than this, no warranty is implied or intended. This report has been prepared solely for the use of Ultramar Inc. Any reliance on this report by third parties will be at such parties' sole risk.

If you have any questions or comments, please contact us at (916) 626-3898.

Regards,

**EL DORADO ENVIRONMENTAL, INC.**



Dale A. van Dam, R.G.  
Hydrogeologist

DavD/davd

Attachments



**FIGURES:**

FIGURE 1 ..... SITE LOCATION MAP

FIGURE 2 ..... GROUND WATER CONTOUR MAP  
MARCH 26, 1996

FIGURE 3 ..... DISSOLVED BENZENE DISTRIBUTION MAP  
MARCH 26, 1996

**TABLES:**

TABLE 1 ..... GROUND WATER ELEVATION DATA

TABLE 2 ..... GROUND WATER ANALYTICAL RESULTS

**ATTACHMENTS:**

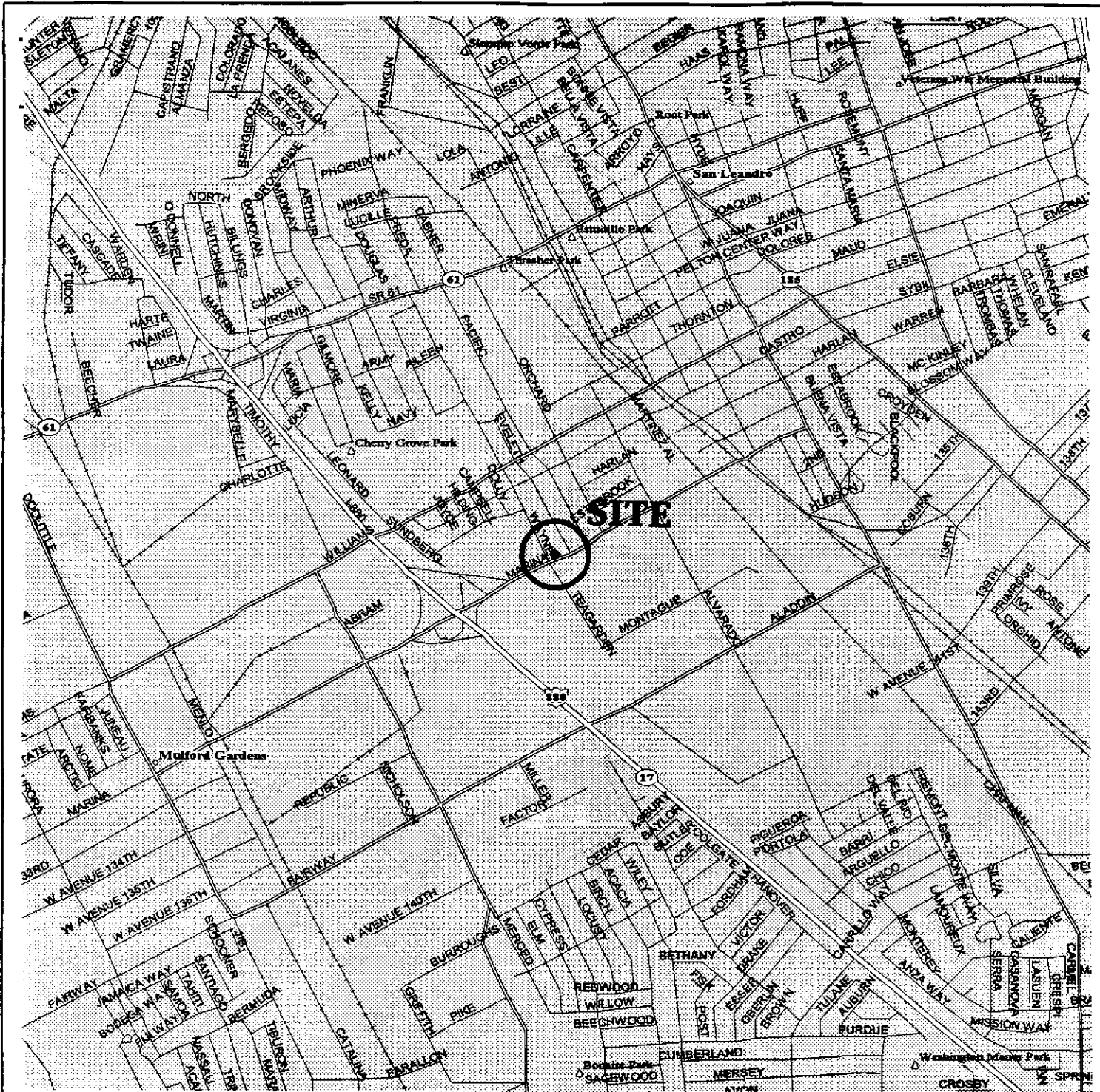
A ..... ULTRAMAR FIELD PROCEDURES

B ..... DOULOS ENVIRONMENTAL  
FIELD DATA SHEETS

C ..... HISTORICAL GROUND WATER ELEVATION DATA

D ..... HISTORICAL GROUND WATER ANALYTICAL DATA

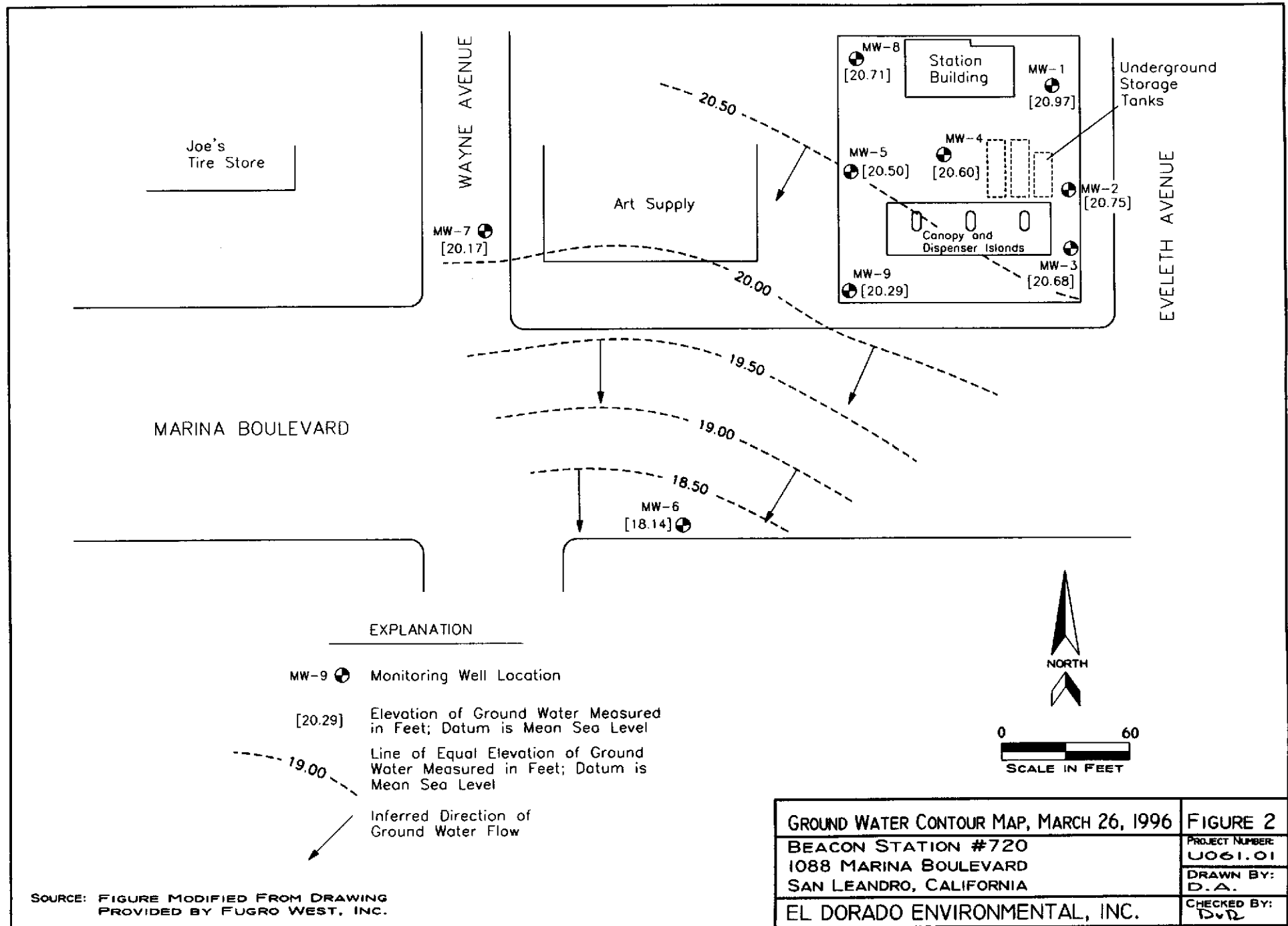
E ..... LABORATORY REPORT AND  
CHAIN-OF-CUSTODY FORM



<b>SITE LOCATION MAP</b>		<b>FIGURE 1</b>
BEACON STATION #720 1088 MARINA BOULEVARD SAN LEANDRO, CALIFORNIA		PROJECT NUMBER: U061.01
		DRAWN BY: D.A.V.D.
EL DORADO ENVIRONMENTAL, INC.		CHECKED BY: 

SOURCE: STREET ATLAS U.S.A., DELORME MAPPING, 1994





EXPLANATION

MW-9 Monitoring Well Location

[20.29] Elevation of Ground Water Measured in Feet; Datum is Mean Sea Level

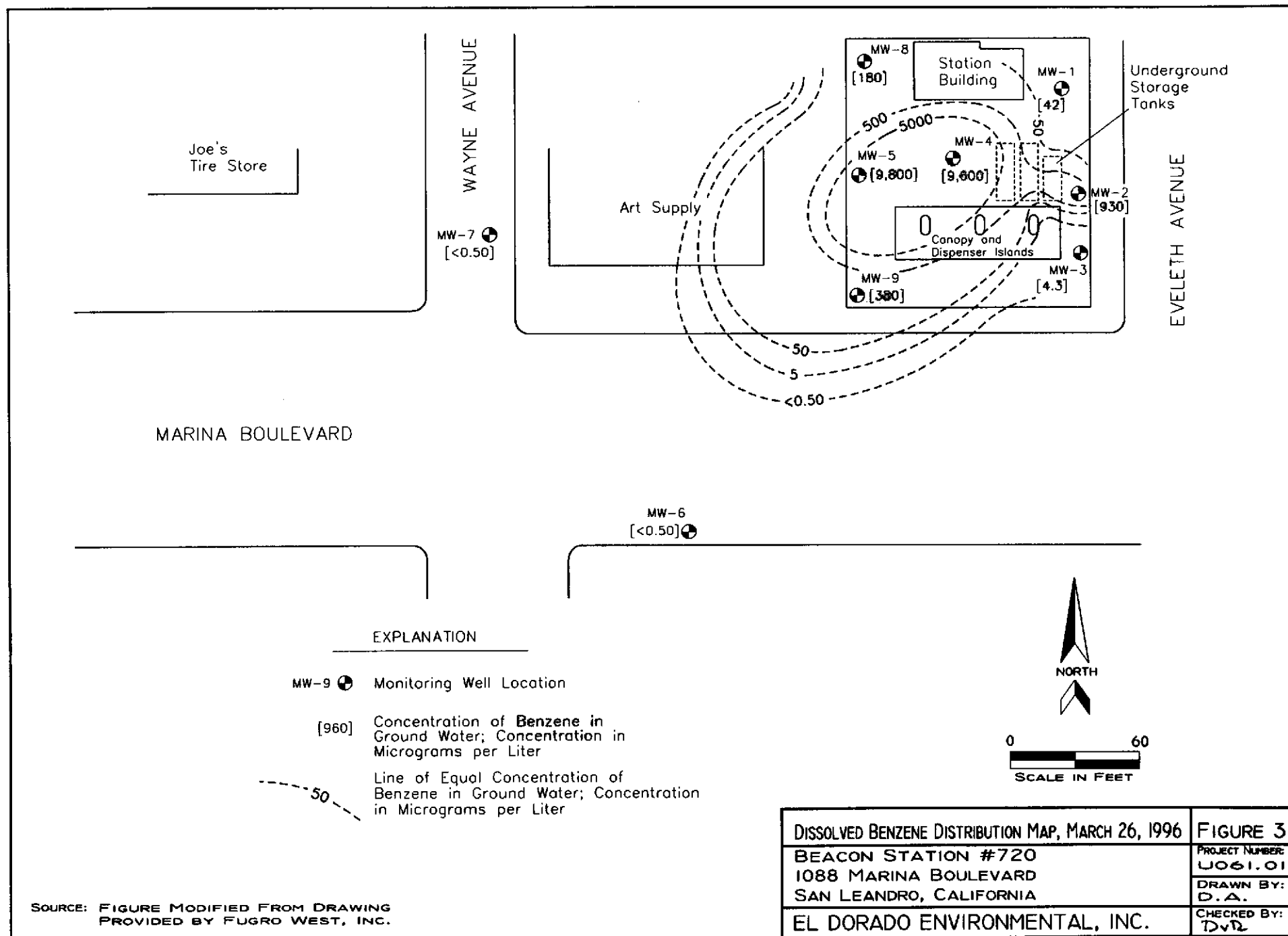
Line of Equal Elevation of Ground Water Measured in Feet; Datum is Mean Sea Level

Inferred Direction of Ground Water Flow



GROUND WATER CONTOUR MAP, MARCH 26, 1996	FIGURE 2
BEACON STATION #720 1088 MARINA BOULEVARD SAN LEANDRO, CALIFORNIA	PROJECT NUMBER: U061.01
EL DORADO ENVIRONMENTAL, INC.	DRAWN BY: D.A.
	CHECKED BY: DvD

SOURCE: FIGURE MODIFIED FROM DRAWING PROVIDED BY FUGRO WEST, INC.



Joe's  
Tire Store

WAYNE AVENUE

Art Supply

Station Building

Underground  
Storage  
Tanks

EVELETH AVENUE

Canopy and  
Dispenser Islands

MARINA BOULEVARD

MW-6  
[<math><0.50</math>]

EXPLANATION

MW-9 ● Monitoring Well Location

[960] Concentration of Benzene in Ground Water; Concentration in Micrograms per Liter

- - - 50 - - - Line of Equal Concentration of Benzene in Ground Water; Concentration in Micrograms per Liter



DISSOLVED BENZENE DISTRIBUTION MAP, MARCH 26, 1996	FIGURE 3
BEACON STATION #720	PROJECT NUMBER: U061.01
1088 MARINA BOULEVARD	DRAWN BY: D.A.
SAN LEANDRO, CALIFORNIA	CHECKED BY: DvR
EL DORADO ENVIRONMENTAL, INC.	

SOURCE: FIGURE MODIFIED FROM DRAWING PROVIDED BY FUGRO WEST, INC.

**TABLE 1**  
**GROUND WATER ELEVATION DATA**  
**BEACON STATION #720**  
**1088 MARINA BOULEVARD, SAN LEANDRO, CALIFORNIA**  
**(Measurements in feet)**

Monitoring Well	Date	Reference Elevation (top of casing) <sup>1</sup>	Depth to Ground Water <sup>1</sup>	Ground Water Elevation <sup>2</sup>	Well Depth	Comments
MW-1	03/30/92	33.10	13.58	19.52	---	
	07/01/92		14.80	18.30	---	
	09/30/92		16.12	16.98	---	
	11/19/92		16.34	16.76	27.76	
	02/03/93		12.61	20.49	27.72	
	05/25/93		13.12	19.98	27.70	
	09/22/93		14.18	18.92	27.73	
	12/21/93		14.36	18.74	27.70	
	03/18/94		13.64	19.46	27.67	
	06/15/94		14.30	18.80	27.69	
	09/14/94		15.18	17.92	27.66	
	12/19/94		13.79	19.31	27.70	
	12/21/95		13.86	19.24	---	
	03/07/95		12.74	20.36	29.51	
	06/08/95		12.95	20.15	29.54	
	09/22/95		13.94	19.16	29.54	
	12/27/95		13.57	19.53	29.92	
03/26/96	12.13	20.97	29.90			
MW-2	03/30/92	32.80	13.32	19.48	---	
	07/01/92		14.42	18.38	---	
	09/30/92		15.78	17.02	---	
	11/19/92		15.99	16.81	24.56	
	02/03/93		12.31	20.49	25.37	
	05/25/93		12.97	19.83	25.31	
	09/22/93		14.32	18.48	25.34	
	12/21/93		14.52	18.28	25.31	
	03/18/94		13.45	19.35	25.49	
	06/15/94		14.07	18.73	25.50	
	09/14/94		14.96	17.84	25.50	
	12/19/94		13.64	19.16	25.52	
	12/21/95		13.71	19.09	---	
	03/07/95		12.54	20.26	25.87	
	06/08/95		12.81	19.99	25.86	
	09/22/95		13.66	19.14	25.80	
	12/27/95		13.42	19.38	25.83	
03/26/96	12.05	20.75	25.83			
MW-3	03/30/92	32.30	12.96	19.34	---	
	07/01/92		14.00	18.30	---	
	09/30/92		15.36	16.94	---	
	11/19/92		15.57	16.73	24.45	
	02/03/93		11.96	20.34	24.54	
	05/25/93		14.12	18.18	24.50	
	09/22/93		13.88	18.42	24.50	
	12/21/93		14.12	18.18	24.50	
	03/18/94		13.04	19.26	24.57	
	06/15/94		13.65	18.65	24.78	
	09/14/94		14.54	17.76	24.59	
	12/19/94		13.28	19.02	24.71	
	12/21/95		13.30	19.00	---	
	03/07/95		12.26	20.04	26.03	
	06/08/95		12.42	19.88	26.02	
	09/22/95		13.25	19.05	26.00	
	12/27/95		13.04	19.26	26.00	
03/26/96	11.62	20.68	26.01			

NOTES: 1 = Measurement and reference elevation taken from notch/mark on top north side of well casing  
2 = Elevation referenced to mean sea level.  
Well Depth = Measurement from top of casing to bottom of well.  
--- = Not measured.  
\* = Well paved over.

**TABLE 1**  
**GROUND WATER ELEVATION DATA**  
**BEACON STATION #720**  
**1088 MARINA BOULEVARD, SAN LEANDRO, CALIFORNIA**  
**(Measurements in feet)**

Monitoring Well	Date	Reference Elevation (top of casing) <sup>1</sup>	Depth to Ground Water <sup>1</sup>	Ground Water Elevation <sup>2</sup>	Well Depth	Comments
MW-4	03/30/92	32.90	13.60	19.30	---	
	07/01/92		15.72	17.18	---	
	09/30/92		16.04	16.86	---	
	11/19/92		16.21	16.69	26.92	
	02/03/93		12.70	20.20	27.00	
	05/25/93		12.97	19.93	26.88	
	09/22/93		14.51	18.39	26.90	
	12/21/93		14.75	18.15	26.90	
	03/18/94		13.68	19.22	27.24	
	06/15/94		14.37	18.53	28.54	
	09/14/94		15.23	17.67	27.25	
	12/19/94		13.93	18.97	28.61	
	12/21/95		13.99	18.91	---	
	03/07/95		12.86	20.04	28.64	
	06/08/95		13.10	19.80	28.68	
	09/22/95		13.98	18.92	28.71	
	12/27/95		13.74	19.16	28.71	
03/26/96	12.30	20.60	28.70			
MW-5	03/30/92	32.70	13.48	19.22	---	
	07/01/92		14.58	18.12	---	
	09/30/92		15.82	16.88	---	
	11/19/92		16.00	16.70	27.56	
	02/03/93		12.40	20.30	27.61	
	05/25/93		13.01	19.69	27.61	
	09/22/93		14.37	18.33	27.64	
	12/21/93		14.58	18.12	27.01	
	03/18/94		13.53	19.17	28.70	
	06/15/94		14.18	18.52	28.74	
	09/14/94		15.07	17.63	28.70	
	12/19/94		13.74	18.96	28.76	
	12/21/95		13.84	18.86	---	
	03/07/95		12.73	19.97	28.88	
	06/08/95		12.99	19.71	28.87	
	09/22/95		13.83	18.87	28.85	
	12/27/95		13.59	19.11	28.85	
03/26/96	12.20	20.50	28.84			
MW-6	03/30/92	30.40	12.62	17.78	---	
	07/01/92		12.70	17.70	---	
	09/30/92		13.40	17.00	---	
	11/19/92		13.59	16.81	15.10	
	02/03/93		12.43	17.97	15.01	
	05/25/93		---	---	---	
	10/11/93		12.82	17.58	15.10	
	12/21/93		13.06	17.34	15.10	
	03/18/94		12.16	18.24	15.16	
	06/15/94		12.59	17.81	15.17	
	09/14/94		12.86	17.54	14.97	
	12/19/94		12.48	17.92	15.19	
	12/21/95		11.61	18.79	---	
	03/07/95		12.37	18.03	14.98	
	06/08/95		11.14	19.26	15.00	
	09/22/95		12.44	17.96	15.00	
	12/27/95		12.21	18.19	14.98	
03/26/96	12.26	18.14	14.97			

NOTES: 1 = Measurement and reference elevation taken from notch/mark on top north side of well casing.  
2 = Elevation referenced to mean sea level.  
Well Depth = Measurement from top of casing to bottom of well.  
--- = Not measured.  
\* = Well paved over.

**TABLE 1**  
**GROUND WATER ELEVATION DATA**  
**BEACON STATION #720**  
**1088 MARINA BOULEVARD, SAN LEANDRO, CALIFORNIA**  
**(Measurements in feet)**

Monitoring Well	Date	Reference Elevation (top of casing) <sup>1</sup>	Depth to Ground Water <sup>1</sup>	Ground Water Elevation <sup>2</sup>	Well Depth	Comments
MW-7	03/30/92	31.20	12.34	18.86	---	*
	07/01/92		15.54	15.66	---	
	09/30/92		14.64	16.56	---	
	11/19/92		14.80	16.40	25.10	
	02/03/93		11.36	19.84	25.02	
	05/25/93		---	---	---	
	09/22/93		13.18	18.02	25.01	
	12/21/93		13.42	17.78	25.02	
	03/18/94		12.36	18.84	25.13	
	06/15/94		13.01	18.19	25.21	
	09/14/94		13.88	17.32	25.13	
	12/19/94		12.61	18.59	25.23	
	12/21/95		12.38	18.82	---	
	03/07/95		11.56	19.64	25.22	
	06/08/95		11.82	19.38	25.20	
	09/22/95		12.67	18.53	25.23	
12/27/95	12.34	18.86	25.23			
03/26/96	11.03	20.17	25.21			
MW-8	03/30/92	33.80	14.66	19.14	---	
	07/01/92		15.74	18.06	---	
	09/30/92		17.00	16.80	---	
	11/19/92		17.01	16.79	29.75	
	02/03/93		13.83	19.97	29.88	
	05/25/93		13.01	20.79	29.86	
	09/22/93		15.81	17.99	24.52	
	12/21/93		16.05	17.75	29.86	
	03/18/94		14.62	19.18	29.87	
	06/15/94		15.29	18.51	30.07	
	09/14/94		16.22	17.58	29.87	
	12/19/94		14.81	18.99	30.05	
	12/21/95		14.89	18.91	---	
	03/07/95		13.75	20.05	29.94	
	06/08/95		13.98	19.82	29.93	
	09/22/95		14.92	18.88	29.95	
12/27/95	14.61	19.19	29.92			
03/26/96	13.09	20.71	29.73			
MW-9	12/21/95	32.56	13.76	18.80	---	
	03/07/95		12.79	19.77	24.71	
	06/08/95		12.96	19.60	24.70	
	09/22/95		13.73	18.83	24.72	
	12/27/95		13.53	19.03	24.71	
03/26/96	12.27	20.29	24.70			

NOTES: 1 = Measurement and reference elevation taken from notch/mark on top north side of well casing.  
2 = Elevation referenced to mean sea level.  
Well Depth = Measurement from top of casing to bottom of well.  
— = Not measured.  
\* = Well paved over.

**TABLE 2**  
**GROUND WATER ANALYTICAL RESULTS**  
**BEACON STATION #720**  
**1088 MARINA BOULEVARD, SAN LEANDRO, CALIFORNIA**  
**(All results in micrograms per Liter)**

Monitoring Well	Date Collected	Total Petroleum Hydrocarbons	Aromatic Volatile Organics			
		Gasoline	Benzene	Toluene	Ethylbenzene	Total Xylenes
MW-1	03/30/92	27,000	630	550	540	1,900
	07/01/92	55,000	840	1,000	830	3,600
	09/30/92	6,400	150	95	120	470
	11/19/92	1,300	90	11	50	87
	02/03/93	53,000	750	560	950	5,700
	05/25/93	9,400	200	86	470	1,500
	09/22/93	41,000	1,000	510	850	1,100
	12/21/93	41,000	1,000	490	2,700	13,000
	03/18/94	9,500	320	160	830	2,900
	06/15/94	8,000	310	80	990	2,300
	09/14/94	3,600	130	31	390	630
	12/19/94	17,000	350	150	1,500	5,200
	03/07/95	12,000	180	62	1,200	3,200
	06/08/95	6,300	76	8.0	560	860
	09/22/95	12,000	140	55	1,500	2,500
12/27/95	3,900	60	13	480	870	
03/26/96	6,400	42	4.9	560	600	
MW-2	03/30/92	52,000	2,300	1,700	940	3,300
	07/01/92	130,000	3,500	2,900	1,900	7,900
	09/30/92	24,000	890	350	500	1,700
	11/19/92	32,000	1,900	1,700	870	3,400
	02/03/93	64,000	1,900	2,200	860	4,100
	05/25/93	34,000	3,300	1,500	1,300	5,900
	09/22/93	8,000	640	150	270	2,000
	12/21/93	18,000	1,500	410	1,300	5,000
	03/18/94	14,000	1,600	790	1,100	3,700
	06/15/94	13,000	1,600	580	1,200	4,100
	09/14/94	20,000	1,600	560	1,800	6,400
	12/19/94	19,000	1,700	750	1,600	5,800
	03/07/95	17,000	1,900	980	1,300	5,100
	06/08/95	19,000	2,100	740	1,500	4,900
	09/22/95	12,000	840	170	1,100	3,400
12/27/95	16,000	1,100	540	1,400	5,100	
03/26/96	11,000	930	520	970	3,000	
MW-3	03/30/92	21,000	560	50	630	980
	07/01/92	13,000	150	20	22	300
	09/30/92	4,500	53	2.6	84	96
	11/19/92	4,700	73	6.2	140	120
	02/03/93	23,000	220	40	430	740
	05/25/93	9,900	120	26	370	520
	09/22/93	10,000	370	71	320	640
	12/21/93	7,800	130	8.5	430	380
	03/18/94	3,100	22	1.3	78	41
	06/15/94	1,700	8.6	1.4	22	15
	09/14/94	1,400	3.8	<1.3	13	18
	12/19/94	3,800	70	1.7	140	110
	03/07/95	2,200	9.4	<1.3	30	21
	06/08/95	1,700	5.8	<1.3	2.3	14
	09/22/95	1,200	<1.3	<1.3	1.3	<1.3
12/27/95	1,300	2.4	<1.3	3.3	3.6	
03/26/96	1,200	4.3	<1.3	4.2	2.0	

NOTES: < = Below indicated detection limit.  
 ND = Reported as "nondetect" by previous consultant.  
 NS = Not sampled.

**TABLE 2**  
**GROUND WATER ANALYTICAL RESULTS**  
**BEACON STATION #720**  
**1088 MARINA BOULEVARD, SAN LEANDRO, CALIFORNIA**  
**(All results in micrograms per Liter)**

Monitoring Well	Date Collected	Total Petroleum Hydrocarbons	Aromatic Volatile Organics			
		Gasoline	Benzene	Toluene	Ethyl-benzene	Total Xylenes
MW-4	03/30/92	76,000	8,000	4,400	730	2,500
	07/01/92	95,000	6,900	2,200	70	880
	09/30/92	58,000	7,100	1,500	650	2,700
	11/19/92	33,000	5,500	840	400	1,400
	02/03/93	130,000	8,200	6,700	940	4,400
	05/25/93	63,000	16,000	6,600	1,700	8,100
	09/22/93	23,000	6,900	940	150	3,000
	12/21/93	28,000	6,900	1,900	1,100	5,500
	03/18/94	58,000	17,000	6,300	2,500	10,000
	06/15/94	59,000	20,000	4,900	2,500	9,100
	09/14/94	73,000	22,000	6,800	2,700	10,000
	12/19/94	67,000	20,000	8,300	2,300	9,100
	03/07/95	57,000	19,000	7,900	2,200	8,700
	06/08/95	61,000	17,000	6,300	2,700	9,000
	09/22/95	37,000	12,000	2,200	1,400	3,500
	12/27/95	39,000	12,000	6,000	1,800	5,800
03/26/96	31,000	9,600	3,700	2,300	6,200	
MW-5	03/30/92	29,000	2,600	980	390	1,100
	07/01/92	52,000	2,400	1,000	5,200	2,000
	09/30/92	32,000	1,800	780	370	1,700
	11/19/92	7,800	1,000	280	120	370
	02/03/93	74,000	3,500	3,000	780	3,200
	05/25/93	57,000	7,900	4,700	1,900	7,800
	09/22/93	52,000	7,600	2,400	1,200	8,800
	12/21/93	23,000	3,600	1,200	970	3,600
	03/18/94	47,000	8,200	5,000	1,400	6,100
	06/15/94	28,000	7,900	4,000	1,200	5,200
	09/14/94	32,000	8,000	5,100	1,400	5,600
	12/19/94	29,000	7,000	3,400	1,200	5,200
	03/07/95	36,000	9,800	5,800	1,800	7,800
	06/08/95	33,000	7,700	3,800	1,500	6,200
	09/22/95	39,000	9,500	3,800	1,900	7,000
	12/27/95	42,000	9,700	5,000	2,200	8,800
03/26/96	37,000	9,800	4,900	2,300	8,800	
MW-6	03/30/92	73	2.1	1.1	ND	0.6
	07/01/92	ND	ND	ND	ND	ND
	09/30/92	ND	0.73	ND	ND	0.58
	11/19/92	96	1.5	<0.5	<0.5	0.9
	02/03/93	73	0.6	<0.5	<0.5	<0.5
	05/25/93	NS	NS	NS	NS	NS
	10/11/93	<50	<0.5	<0.5	<0.5	<0.5
	12/21/93	<50	<0.5	<0.5	<0.5	<0.5
	03/18/94	<50	<0.5	<0.5	<0.5	<0.5
	06/15/94	<50	<0.5	<0.5	<0.5	<0.5
	09/14/94	<50	<0.5	<0.5	<0.5	<0.5
	12/19/94	<50	<0.5	<0.5	<0.5	<0.5
	03/07/95	<50	<0.5	<0.5	<0.5	<0.5
	06/08/95	<50	<0.5	<0.5	<0.5	<0.5
	09/22/95	<50	<0.50	<0.50	<0.50	<0.50
	12/27/95	<50	<0.50	<0.50	<0.50	<0.50
03/26/96	<50	<0.50	<0.50	<0.50	<0.50	

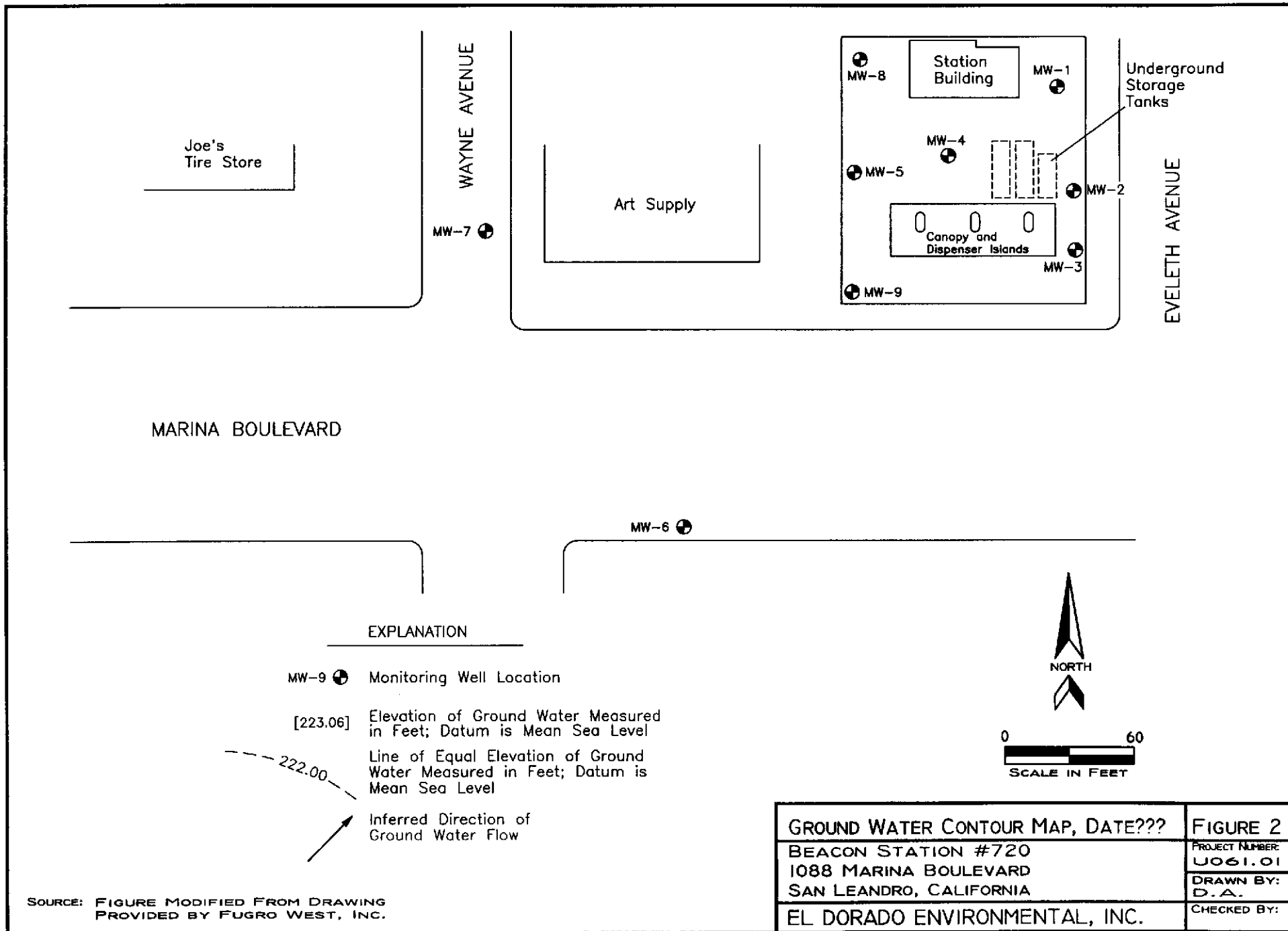
NOTES: < = Below indicated detection limit.  
 ND = Reported as "nondetect" by previous consultant.  
 NS = Not sampled.

**TABLE 2**  
**GROUND WATER ANALYTICAL RESULTS**  
**BEACON STATION #720**  
**1088 MARINA BOULEVARD, SAN LEANDRO, CALIFORNIA**  
**(All results in micrograms per Liter)**

Monitoring Well	Date Collected	Total Petroleum Hydrocarbons	Aromatic Volatile Organics			
			Gasoline	Benzene	Toluene	Ethyl-benzene
MW-7	03/30/92	ND	ND	ND	ND	ND
	07/01/92	ND	ND	ND	ND	ND
	09/30/92	ND	ND	ND	ND	ND
	11/19/92	<50	<0.5	<0.5	<0.5	<0.5
	02/03/93	<50	<0.5	<0.5	<0.5	<0.5
	05/25/93	NS	NS	NS	NS	NS
	09/22/93	<50	0.51	0.82	<0.5	0.81
	12/21/93	<50	<0.5	<0.5	<0.5	<0.5
	03/18/94	<50	<0.5	<0.5	<0.5	<0.5
	06/15/94	<50	<0.5	<0.5	<0.5	<0.5
	09/14/94	<50	<0.5	<0.5	<0.5	<0.5
	12/19/94	<50	<0.5	<0.5	<0.5	<0.5
	03/07/95	<50	<0.5	<0.5	<0.5	<0.5
	06/08/95	<50	<0.5	<0.5	<0.5	<0.5
	09/22/95	<50	<0.50	<0.50	<0.50	<0.50
	12/27/95	<50	<0.50	<0.50	<0.50	<0.50
03/26/96	<50	<0.50	<0.50	<0.50	<0.50	
MW-8	03/30/92	3,000	1,700	880	970	1,900
	07/01/92	72,000	1,800	550	520	2,200
	09/30/92	12,000	680	140	140	560
	11/19/92	9,600	530	310	130	560
	02/03/93	44,000	1,500	1,300	490	2,300
	05/25/93	7,400	580	160	170	480
	09/22/93	2,400	490	45	37	140
	12/21/93	1,400	240	7.5	<2.5	82
	03/18/94	8,600	1,600	680	470	1,900
	06/15/94	4,800	980	380	260	1,200
	09/14/94	6,600	1,200	280	330	1,100
	12/19/94	8,400	1,800	390	500	2,000
	03/07/95	7,400	1,400	370	440	2,000
	06/08/95	6,000	790	220	290	1,400
	09/22/95	4,100	750	93	230	860
	12/27/95	5,400	860	140	350	1,400
03/26/96	1,700	180	27	100	370	
MW-9	12/20/94	16,000	2,500	1,400	690	2,800
	03/07/95	5,200	1,600	250	320	520
	06/08/95	4,900	1,000	98	300	200
	09/22/95	4,000	1,100	82	190	200
	12/27/95	2,800	960	100	200	250
	03/26/96	1,600	380	44	96	110

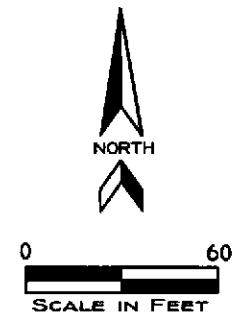
NOTES: < = Below indicated detection limit.  
 ND = Reported as "nondetect" by previous consultant.  
 NS = Not sampled.





EXPLANATION

- MW-9 ⊕ Monitoring Well Location
- [223.06] Elevation of Ground Water Measured in Feet; Datum is Mean Sea Level
- 222.00 --- Line of Equal Elevation of Ground Water Measured in Feet; Datum is Mean Sea Level
- ↗ Inferred Direction of Ground Water Flow



SOURCE: FIGURE MODIFIED FROM DRAWING PROVIDED BY FUGRO WEST, INC.

GROUND WATER CONTOUR MAP, DATE???	FIGURE 2
BEACON STATION #720 1088 MARINA BOULEVARD SAN LEANDRO, CALIFORNIA	PROJECT NUMBER: U061.01
	DRAWN BY: D.A.
EL DORADO ENVIRONMENTAL, INC.	CHECKED BY:

**ATTACHMENT A**  
**ULTRAMAR FIELD PROCEDURES**

## ATTACHMENT A - ULTRAMAR FIELD PROCEDURES

The following section describes procedures used by field personnel in the performance of ground water sampling at Ultramar Inc. sites.

### Ground Water Level and Total Depth Determination

A water level indicator is lowered down the well and a measurement of the depth to water from an established reference point on the casing is taken. The indicator probe is used to sound the bottom of the well and a measurement of the total depth of the well is taken. Both the water level and total depth measurements are taken to the nearest 0.01-foot.

### Visual Analysis of Ground Water

Prior to purging and sampling ground water monitoring wells, a water sample is collected from each well for subjective analysis. The visual analysis involves gently lowering a clean, disposable, polyethylene bailer to approximately one-half the bailer length past the water table interface. The bailer is then retrieved, and the sample contained within the bailer is examined for floating product or the appearance of a petroleum product sheen. If measurable free product is noted in the bailer, a water/product interface probe is used to determine the thickness of the free product to the nearest 0.01-foot. The thickness of free product is determined by subtracting the depth to product from the depth to water.

### Monitoring Well Purging and Sampling

Monitoring wells are purged by removing approximately four casing volumes of water from the well using a clean disposable bailer or electrical submersible purge pump. Purge volumes are calculated prior to purging. During purging, the temperature, pH, and electric conductivity of the purge water are monitored. The well is considered to be sufficiently purged when: The four casing volumes have been removed; the temperature, pH, and conductivity values have stabilized to within 10% of the initial readings; and the ground water being removed is relatively free of suspended solids. After purging, ground water levels are allowed to stabilize to within 80% of the initial water level reading. A water sample is then collected from each well with a clean, disposable polyethylene bailer. If the well is bailed or pumped dry prior to removing the minimum volume of water, the ground water is allowed to recharge. If the well has recharged to within 80% of the initial depth to water reading within two hours, the well will continue to be purged until the minimum volume of water has been removed. If the well has not recharged to at least 80% of the initial depth to water reading within two hours, the well is considered to contain formational water and a ground water sample is collected. Ground water removed from the well is stored in 55-gallon drums at the site and labeled pending disposal.

In wells where free product is detected, the wells will be bailed to remove the free product. An estimate of the volume of product and water well be recorded. If the free product thickness is reduced to the point where a measurable thickness is no longer present in the well, a ground water sample will be collected. If free product persists throughout the purging process, a final free product thickness measurement will be taken and a ground water sample will not be collected.

Ground water samples are stored in 40-milliliter vials so that air passage through the sample is minimized (to prevent volatilization of the sample). The vial is tilted and filled slowly until an upward convex meniscus forms over the mouth of the vial. The Teflon™ side of the septum (in cap) is then placed against the meniscus, and the cap is screwed on tightly. The sample is then inverted and the bottle is tapped lightly to check for air bubbles. If an air bubble is present in the vial, the cap is removed and more sample is transferred from the bailer. The vial is then resealed and rechecked for air bubbles. The sample is then appropriately labeled and stored on ice from the time of collection through the time of delivery to the laboratory. The Chain-of-Custody form is completed to ensure sample integrity. Ground water samples are transported to a state-certified laboratory and analyzed within the U.S. Environmental Protection Agency-specified hold times for the specified analytes.

**ATTACHMENT B**  
**DOULOS ENVIRONMENTAL FIELD DATA SHEETS**

**DOULOS ENVIRONMENTAL COMPANY  
GROUNDWATER/LIQUID LEVEL DATA  
(measurements in feet)**

Project Address: Beacon #720, 1088 Marina Blvd.

Date: 3-26-96

San Leandro, CA

Project No.: 94-720-01

Recorded by: Hal Hansen

Well No	Time	Well Elev. TOC	Depth to Gr. Water	Measured Total Depth	Gr. Water Elevation	Depth to Product	Product Thickness	Comments
MW-1	8:56		12.13	29.90				slightly no shen
MW-2	9:07		12.05	25.83				slightly no shen
MW-3	8:50		11.62	26.01				no shen
MW-4	9:30		12.30	28.70				slightly no shen
MW-5	9:13		12.20	28.84				slightly no shen
MW-6	8:45		12.26	14.97				no shen
MW-7	8:40		11.03	25.21				no shen
MW-8	9:01		13.09	29.73				slightly no shen
MW-9	9:24		12.27	24.70				slightly no shen

Notes:

Client: Ultramar

Sampling Date: 3-26-96

Site: Beacon #720

Project No.: 94-720-01

1088 Marina Boulevard

Well Designation: MW-1

San Leandro, CA

Is setup of traffic control devices required?  NO YES time: \_\_\_\_\_ hours  
 Is there standing water in well box?  NO YES Above TOC Below TOC  
 Is top of casing cut level? NO  YES If no, see remarks  
 Is well cap sealed and locked? NO  YES If no, see remarks  
 Height of well casing riser (in inches): \_\_\_\_\_  
 Well cover type: 8" UV \_\_\_\_\_ 12" UV \_\_\_\_\_ 12" EMCO \_\_\_\_\_ 8" BK \_\_\_\_\_  
 12" BK \_\_\_\_\_ 12" DWP \_\_\_\_\_ 12" CNI \_\_\_\_\_ 36" CNI \_\_\_\_\_ Other 12" CRISTY  
 General condition of wellhead assembly: Excellent  Good Fair Poor

Purging Equipment: \_\_\_\_\_ 2" disposable bailer \_\_\_\_\_ Submersible pump  
 \_\_\_\_\_ 2" PVC bailer \_\_\_\_\_ Dedicated bailer  
 \_\_\_\_\_ 4" PVC bailer \_\_\_\_\_  Centrifugal pump

Sampled with: Disposable bailer:  Teflon bailer: \_\_\_\_\_

Well Diameter: 2"  4" \_\_\_\_\_ 6" \_\_\_\_\_ 8" \_\_\_\_\_

Purge Vol. Multiplier: 0.16 0.65 1.47 2.61 gal/ft.  
Initial Measurement Recharge Measurement  
 Time: 8:56 Time: 10:14 Calculated purge: 11.4 gal  
 Depth of well: 29.90 Depth to water: 12.91 Actual purge: 11.4 gal  
 Depth to water: 12.13

Start purge: 10:06 Sampling time: 10:15

Time	Temp.	E.C.	pH	Turbidity	Volume
10:07	65.3	1391	7.68	—	1
10:08	65.9	1370	7.61	—	2
10:08	66.8	1231	7.40	—	3
10:09	66.9	1221	7.38	—	4

Sample appearance: clear Lock: Dolphin

Equipment replaced: (Check all that apply) Note condition of replaced item  
 2" Locking Cap: \_\_\_\_\_ Lock #3753: \_\_\_\_\_ 7/32 Allenhead: \_\_\_\_\_  
 4" Locking Cap: \_\_\_\_\_ Lock-Dolphin: \_\_\_\_\_ 9/16 Bolt: \_\_\_\_\_  
 6" Locking Cap: \_\_\_\_\_ Pinned Allenhead (DWP): \_\_\_\_\_

Remarks: \_\_\_\_\_

Signature: [Handwritten Signature]

Client: Ultramar

Sampling Date: 3-26-96

Site: Beacon #720

Project No.: 94-720-01

1088 Marina Boulevard

Well Designation: MW-2

San Leandro, CA

Is setup of traffic control devices required?  NO YES time: \_\_\_\_\_ hours  
 Is there standing water in well box?  NO YES Above TOC Below TOC  
 Is top of casing cut level? NO  YES If no, see remarks  
 Is well cap sealed and locked? NO  YES If no, see remarks  
 Height of well casing riser (in inches): 2  
 Well cover type: 8" UV \_\_\_\_\_ 12" UV \_\_\_\_\_ 12" EMCO \_\_\_\_\_ 8" BK \_\_\_\_\_  
 12" BK \_\_\_\_\_ 12" DWP \_\_\_\_\_ 12" CNI \_\_\_\_\_ 36" CNI \_\_\_\_\_ Other 12" CRISTY  
 General condition of wellhead assembly: Excellent Good Fair Poor

Purging Equipment: \_\_\_\_\_ 2" disposable bailer \_\_\_\_\_ Submersible pump  
 \_\_\_\_\_ 2" PVC bailer \_\_\_\_\_ Dedicated bailer  
 \_\_\_\_\_ 4" PVC bailer  Centrifugal pump

Sampled with: Disposable bailer:  Teflon bailer: \_\_\_\_\_

Well Diameter: 2"  4" \_\_\_\_\_ 6" \_\_\_\_\_ 8" \_\_\_\_\_

Purge Vol. Multiplier: 0.16 0.65 1.47 2.61 gal/ft.

Initial Measurement

Recharge Measurement

Time: 9:01

Time: 10:45

Calculated purge: 8.8 gal

Depth of well: 15.83

Depth to water: 12.10

Actual purge: 8.8 gal

Depth to water: 12.05

Start purge: 10:35

Sampling time: 10:46

Time	Temp.	E.C.	pH	Turbidity	Volume
10:37	66.7	1363	7.50	—	1
10:38	66.8	1394	7.76	—	2
10:39	67.4	1299	7.43	—	3
10:40	67.1	1291	7.41	—	4

Sample appearance: clear

Lock: Dolphin

Equipment replaced: (Check all that apply) Note condition of replaced item

2" Locking Cap: \_\_\_\_\_ Lock #3753: \_\_\_\_\_ 7/32 Allenhead: \_\_\_\_\_

4" Locking Cap: \_\_\_\_\_ Lock-Dolphin: \_\_\_\_\_ 9/16 Bolt: \_\_\_\_\_

6" Locking Cap: \_\_\_\_\_ Pinned Allenhead (DWP): \_\_\_\_\_

Remarks: \_\_\_\_\_

Signature: Hal He

Client: Ultramar

Sampling Date: 3-26-96

Site: Beacon #720

Project No.: 94-720-01

1088 Marina Boulevard

Well Designation: MW- 3

San Leandro, CA

Is setup of traffic control devices required?  NO YES time: \_\_\_\_\_ hours  
 Is there standing water in well box?  NO YES Above TOC Below TOC  
 Is top of casing cut level? NO  YES If no, see remarks  
 Is well cap sealed and locked? NO  YES If no, see remarks  
 Height of well casing riser (in inches): 3  
 Well cover type: 8" UV \_\_\_\_\_ 12" UV \_\_\_\_\_ 12" EMCO \_\_\_\_\_ 8" BK \_\_\_\_\_  
 12" BK \_\_\_\_\_ 12" DWP \_\_\_\_\_ 12" CNI \_\_\_\_\_ 36" CNI \_\_\_\_\_ Other 12" CRISTY  
 General condition of wellhead assembly: Excellent  Good Fair Poor

Purging Equipment: \_\_\_\_\_ 2" disposable bailer \_\_\_\_\_ Submersible pump  
 \_\_\_\_\_ 2" PVC bailer \_\_\_\_\_ Dedicated bailer  
 \_\_\_\_\_ 4" PVC bailer  Centrifugal pump

Sampled with: Disposable bailer:  Teflon bailer: \_\_\_\_\_

Well Diameter: 2"  4" \_\_\_\_\_ 6" \_\_\_\_\_ 8" \_\_\_\_\_

Purge Vol. Multiplier: 0.16 0.65 1.47 2.61 gal/ft.

Initial Measurement Time: 8:50 Recharge Measurement Time: 9:59 Calculated purge: 9.2 ga  
 Depth of well: 26.01 Depth to water: 11.50 Actual purge: 9.2 ga  
 Depth to water: 11.62

Start purge: 9:54 Sampling time: 10:02

Time	Temp.	E.C.	pH	Turbidity	Volume
9:55	65.7	1374	6.99	—	1
9:56	65.8	1321	6.97	—	2
9:57	66.0	1209	6.87	—	3
9:57	66.3	1213	6.83	—	4

Sample appearance: clear Lock: Dolphin

Equipment replaced: (Check all that apply) Note condition of replaced item  
 2" Locking Cap: \_\_\_\_\_ Lock #3753: \_\_\_\_\_ 7/32 Allenhead: \_\_\_\_\_  
 4" Locking Cap: \_\_\_\_\_ Lock-Dolphin: \_\_\_\_\_ 9/16 Bolt: \_\_\_\_\_  
 6" Locking Cap: \_\_\_\_\_ Pinned Allenhead (DWP): \_\_\_\_\_

Remarks: \_\_\_\_\_

Signature: [Handwritten Signature]



Client: Ultramar

Sampling Date: 3-26-96

Site: Beacon #720

Project No.: 94-720-01

1088 Marina Boulevard

Well Designation: MW- 4

San Leandro, CA

Is setup of traffic control devices required?  NO  YES time: \_\_\_\_\_ hours  
 Is there standing water in well box?  NO  YES Above TOC  Below TOC  
 Is top of casing cut level?  NO  YES If no, see remarks  
 Is well cap sealed and locked?  NO  YES If no, see remarks  
 Height of well casing riser (in inches): \_\_\_\_\_  
 Well cover type: 8" UV \_\_\_\_\_ 12" UV \_\_\_\_\_ 12" EMCO \_\_\_\_\_ 8" BK \_\_\_\_\_  
 12" BK \_\_\_\_\_ 12" DWP \_\_\_\_\_ 12" CNI \_\_\_\_\_ 36" CNI \_\_\_\_\_ Other DLD CNI NOBOX  
 General condition of wellhead assembly: Excellent  Good  Fair  Poor

Purging Equipment: \_\_\_\_\_ 2" disposable bailer \_\_\_\_\_ Submersible pump  
 \_\_\_\_\_ 2" PVC bailer \_\_\_\_\_ Dedicated bailer  
 \_\_\_\_\_ 4" PVC bailer  Centrifugal pump

Sampled with: Disposable bailer:  Teflon bailer: \_\_\_\_\_

Well Diameter: 2"  4" \_\_\_\_\_ 6" \_\_\_\_\_ 8" \_\_\_\_\_

Purge Vol. Multiplier: 0.16 0.65 1.47 2.61 gal/ft.

Initial Measurement

Recharge Measurement

Time: 9:20 Time: 11:20 Calculated purge: 10.5 gal  
 Depth of well: 28.70 Depth to water: 12.49 Actual purge: 10.5 gal  
 Depth to water: 12.30

Start purge: 11:03 Sampling time: 11:22

Time	Temp.	E.C.	pH	Turbidity	Volume
11:04	67.4	1328	7.61	—	1
11:05	67.8	1291	7.58	—	2
11:06	67.6	1280	7.49	—	3
11:07	67.4	1278	7.46	—	4

Sample appearance: clear Lock: Dolphin

Equipment replaced: (Check all that apply) Note condition of replaced item  
 2" Locking Cap: \_\_\_\_\_ Lock #3753: \_\_\_\_\_ 7/32 Allenhead: \_\_\_\_\_  
 4" Locking Cap: \_\_\_\_\_ Lock-Dolphin: \_\_\_\_\_ 9/16 Bolt: \_\_\_\_\_  
 6" Locking Cap: \_\_\_\_\_ Pinned Allenhead (DWP): \_\_\_\_\_

Remarks: \_\_\_\_\_

Signature: [Handwritten Signature]

Client: Ultramar

Sampling Date: 3-26-96

Site: Beacon #720

Project No.: 94-720-01

1088 Marina Boulevard

Well Designation: MW- 5

San Leandro, CA

Is setup of traffic control devices required?  NO YES time: \_\_\_\_\_ hours  
 Is there standing water in well box?  NO YES Above TOC Below TOC  
 Is top of casing cut level? NO  YES If no, see remarks  
 Is well cap sealed and locked? NO  YES If no, see remarks  
 Height of well casing riser (in inches): 4  
 Well cover type: 8" UV \_\_\_\_\_ 12" UV \_\_\_\_\_ 12" EMCO \_\_\_\_\_ 8" BK \_\_\_\_\_  
 12" BK \_\_\_\_\_ 12" DWP \_\_\_\_\_ 12" CNI \_\_\_\_\_ 36" CNI \_\_\_\_\_ Other 12" CRISTY  
 General condition of wellhead assembly: Excellent  Good Fair Poor

Purging Equipment: \_\_\_\_\_ 2" disposable bailer \_\_\_\_\_ Submersible pump  
 \_\_\_\_\_ 2" PVC bailer \_\_\_\_\_ Dedicated bailer  
 \_\_\_\_\_ 4" PVC bailer  Centrifugal pump

Sampled with: Disposable bailer:  Teflon bailer: \_\_\_\_\_

Well Diameter: 2"  4" \_\_\_\_\_ 6" \_\_\_\_\_ 8" \_\_\_\_\_

Purge Vol. Multiplier: 0.16 0.65 1.47 2.61 gal/ft.  
Initial Measurement Time: 9:13 Recharge Measurement Time: 11:00  
 Depth of well: 28.84 Depth to water: 13.17 Calculated purge: 10.6  
 Depth to water: 12.20 Actual purge: 16.6

Start purge: 10:50 Sampling time: 11:01

Time	Temp.	E.C.	pH	Turbidity	Volume
10:51	65.7	1200	7.46	—	1
10:53	66.8	1114	7.21	—	2
10:55	67.3	1090	7.10	—	3
10:56	67.4	1083	7.08	—	4

Sample appearance: Clear Lock: Dolphin

Equipment replaced: (Check all that apply) Note condition of replaced item  
 2" Locking Cap: \_\_\_\_\_ Lock #3753: \_\_\_\_\_ 7/32 Allenhead: \_\_\_\_\_  
 4" Locking Cap: \_\_\_\_\_ Lock-Dolphin: \_\_\_\_\_ 9/16 Bolt: \_\_\_\_\_  
 6" Locking Cap: \_\_\_\_\_ Pinned Allenhead (DWP): \_\_\_\_\_

Remarks: \_\_\_\_\_

Signature: [Handwritten Signature]

Client: Ultramar Sampling Date: 3-26-96  
 Site: Beacon #720 Project No.: 94-720-01  
1088 Marina Boulevard Well Designation: MW-6  
San Leandro, CA

Is setup of traffic control devices required?  NO  YES time: \_\_\_\_\_ hours  
 Is there standing water in well box?  NO  YES Above TOC Below TOC  
 Is top of casing cut level?  NO  YES If no, see remarks  
 Is well cap sealed and locked?  NO  YES If no, see remarks  
 Height of well casing riser (in inches): \_\_\_\_\_  
 Well cover type: 8" UV \_\_\_\_\_ 12" UV \_\_\_\_\_ 12" EMCO \_\_\_\_\_ 8" BK \_\_\_\_\_  
 12" BK  12" DWP \_\_\_\_\_ 12" CNI \_\_\_\_\_ 36" CNI \_\_\_\_\_ Other \_\_\_\_\_  
 General condition of wellhead assembly: Excellent  Good Fair Poor

Purging Equipment: \_\_\_\_\_ 2" disposable bailer \_\_\_\_\_ Submersible pump  
 \_\_\_\_\_ 2" PVC bailer \_\_\_\_\_ Dedicated bailer  
 \_\_\_\_\_ 4" PVC bailer  Centrifugal pump

Sampled with: Disposable bailer:  Teflon bailer: \_\_\_\_\_

Well Diameter: 2"  4" \_\_\_\_\_ 6" \_\_\_\_\_ 8" \_\_\_\_\_

Purge Vol. Multiplier: 0.16 0.65 1.47 2.61 gal/ft.  
Initial Measurement Recharge Measurement  
 Time: 8:45 Time: 9:50 Calculated purge: 1.7 ga  
 Depth of well: 14.97 Depth to water: 12.28 Actual purge: 1.7 ga  
 Depth to water: 12.26

Start purge: 9:35 Sampling time: 9:51

Time	Temp.	E.C.	pH	Turbidity	Volume
9:35	65.7	1937	7.17	—	1
9:36	66.1	1209	7.14	—	2
9:38	66.4	1194	7.10	—	3
9:38	66.3	1181	7.08	—	4

Sample appearance: Clear Lock: Dolphin

Equipment replaced: (Check all that apply) Note condition of replaced item  
 2" Locking Cap: \_\_\_\_\_ Lock #3753: \_\_\_\_\_ 7/32 Allenhead: \_\_\_\_\_  
 4" Locking Cap: \_\_\_\_\_ Lock-Dolphin: \_\_\_\_\_ 9/16 Bolt: \_\_\_\_\_  
 6" Locking Cap: \_\_\_\_\_ Pinned Allenhead (DWP): \_\_\_\_\_

Remarks: \_\_\_\_\_

Signature: Hal Hansen

Client: Ultramar

Sampling Date: 3-26-96

Site: Beacon #720

Project No.: 94-720-01

1088 Marina Boulevard

Well Designation: MW- 7

San Leandro, CA

Is setup of traffic control devices required?  NO YES time: \_\_\_\_\_ hours  
 Is there standing water in well box?  NO YES Above TOC Below TOC  
 Is top of casing cut level? NO  YES If no, see remarks  
 Is well cap sealed and locked? NO  YES If no, see remarks  
 Height of well casing riser (in inches): 4  
 Well cover type: 8" UV \_\_\_\_\_ 12" UV \_\_\_\_\_ 12" EMCO \_\_\_\_\_ 8" BK \_\_\_\_\_  
 12" BK  12" DWP \_\_\_\_\_ 12" CNI \_\_\_\_\_ 36" CNI \_\_\_\_\_ Other \_\_\_\_\_  
 General condition of wellhead assembly: Excellent  Good Fair Poor

Purging Equipment: \_\_\_\_\_ 2" disposable bailer \_\_\_\_\_ Submersible pump  
 \_\_\_\_\_ 2" PVC bailer \_\_\_\_\_ Dedicated bailer  
 \_\_\_\_\_ 4" PVC bailer \_\_\_\_\_  Centrifugal pump

Sampled with: Disposable bailer:  Teflon bailer: \_\_\_\_\_

Well Diameter: 2"  4" \_\_\_\_\_ 6" \_\_\_\_\_ 8" \_\_\_\_\_

Purge Vol. Multiplier: 0.16 0.65 1.47 2.61 gal/ft.

Initial Measurement Time: 8:40 Recharge Measurement Time: 9:32  
 Depth of well: 25.21 Depth to water: 11.31 Calculated purge: 2.8 gal  
 Depth to water: 11.03 Actual purge: 2.8 gal

Start purge: 9:26 Sampling time: 9:31

Time	Temp.	E.C.	pH	Turbidity	Volume
9:27	66.4	1310	7.99	—	1
9:27	66.5	1291	7.48	—	2
9:28	66.7	1289	7.38	—	3
9:29	66.8	1288	7.31	—	4

Sample appearance: clear Lock: Dolphin

Equipment replaced: (Check all that apply) Note condition of replaced item  
 2" Locking Cap: \_\_\_\_\_ Lock #3753: \_\_\_\_\_ 7/32 Allenhead: \_\_\_\_\_  
 4" Locking Cap: \_\_\_\_\_ Lock-Dolphin: \_\_\_\_\_ 9/16 Bolt: \_\_\_\_\_  
 6" Locking Cap: \_\_\_\_\_ Pinned Allenhead (DWP): \_\_\_\_\_

Remarks: \_\_\_\_\_

Signature: Neil Hansen

Client: Ultramar

Sampling Date: 3-26-96

Site: Beacon #720

Project No.: 94-720-01

1088 Marina Boulevard

Well Designation: MW-8

San Leandro, CA

Is setup of traffic control devices required?  NO YES time: \_\_\_\_\_ hours  
 Is there standing water in well box?  NO YES Above TOC Below TOC  
 Is top of casing cut level?  NO  YES If no, see remarks  
 Is well cap sealed and locked?  NO  YES If no, see remarks  
 Height of well casing riser (in inches): 0  
 Well cover type: ~~8" UV~~ 12" UV \_\_\_\_\_ 12" EMCO \_\_\_\_\_ 8" BK \_\_\_\_\_  
 12" BK \_\_\_\_\_ ~~12" DWP~~  12" CNI \_\_\_\_\_ 36" CNI \_\_\_\_\_ Other \_\_\_\_\_  
 General condition of wellhead assembly: Excellent  Good Fair Poor

Purging Equipment: \_\_\_\_\_ 2" disposable bailer \_\_\_\_\_ Submersible pump  
 \_\_\_\_\_ 2" PVC bailer \_\_\_\_\_ Dedicated bailer  
 \_\_\_\_\_ 4" PVC bailer  Centrifugal pump

Sampled with: Disposable bailer:  Teflon bailer: \_\_\_\_\_

Well Diameter: 2"  4" \_\_\_\_\_ 6" \_\_\_\_\_ 8" \_\_\_\_\_

Purge Vol. Multiplier: 0.16 0.65 1.47 2.61 gal/ft.

Initial Measurement

Recharge Measurement

Time: 9:01 Time: 10:27 Calculated purge: 10.6  
 Depth of well: 29.73 Depth to water: 13.98 Actual purge: 10.68 gal  
 Depth to water: 13.09

Start purge: 10:20

Sampling time: 10:30

Time	Temp.	E.C.	pH	Turbidity	Volume
10:21	65.3	1361	7.46	—	1
10:21	66.4	1291	7.31	—	2
10:22	66.8	1242	7.20	—	3
10:23	67.1	1246	7.18	—	4

Sample appearance: Clear Lock: Dolphin

Equipment replaced: (Check all that apply) Note condition of replaced item  
 2" Locking Cap: \_\_\_\_\_ Lock #3753: \_\_\_\_\_ 7/32 Allenhead: \_\_\_\_\_  
 4" Locking Cap: \_\_\_\_\_ Lock-Dolphin: \_\_\_\_\_ 9/16 Bolt: \_\_\_\_\_  
 6" Locking Cap: \_\_\_\_\_ Pinned Allenhead (DWP): \_\_\_\_\_

Remarks: \_\_\_\_\_

Signature: [Handwritten Signature]

Client: Ultramar

Sampling Date: 3-26-96

Site: Beacon #720

Project No.: 94-720-01

1088 Marina Boulevard

Well Designation: MW-9

San Leandro, CA

Is setup of traffic control devices required?  NO YES time: \_\_\_\_\_ hours  
 Is there standing water in well box?  NO YES Above TOC Below TOC  
 Is top of casing cut level? NO YES If no, see remarks  
 Is well cap sealed and locked? NO YES If no, see remarks  
 Height of well casing riser (in inches): 6  
 Well cover type: 8" UV \_\_\_\_\_ 12" UV \_\_\_\_\_ 12" EMCO X 8" BK \_\_\_\_\_  
 12" BK \_\_\_\_\_ 12" DWP \_\_\_\_\_ 12" CNI \_\_\_\_\_ 36" CNI \_\_\_\_\_ Other \_\_\_\_\_  
 General condition of wellhead assembly: Excellent GOOD Fair Poor

Purging Equipment: \_\_\_\_\_ 2" disposable bailer \_\_\_\_\_ Submersible pump  
 \_\_\_\_\_ 2" PVC bailer \_\_\_\_\_ Dedicated bailer  
 \_\_\_\_\_ 4" PVC bailer X Centrifugal pump

Sampled with: Disposable bailer: X Teflon bailer: \_\_\_\_\_

Well Diameter: 2" \_\_\_\_\_ 4" X 6" \_\_\_\_\_ 8" \_\_\_\_\_

Purge Vol. Multiplier: 0.16 0.65 1.47 2.61 gal/ft.

Initial Measurement

Recharge Measurement

Time: 9:24

Time: 11:30

Calculated purge: 32.3 gal

Depth of well: 24.70

Depth to water: 13.10

Actual purge: 32.3 gal

Depth to water: 12.27

Start purge: 11:25

Sampling time: 11:40

Time	Temp.	E.C.	pH	Turbidity	Volume
11:26	66.8	1708	7.58	—	1
11:29	67.8	12.81	7.41	—	2
11:33	67.9	1270	7.30	—	3
11:35	67.9	1268	7.28	—	4

Sample appearance: clear

Lock: Dolphin

Equipment replaced: (Check all that apply) Note condition of replaced item

2" Locking Cap: \_\_\_\_\_ Lock #3753: \_\_\_\_\_ 7/32 Allenhead: \_\_\_\_\_

4" Locking Cap: \_\_\_\_\_ Lock-Dolphin: \_\_\_\_\_ 9/16 Bolt: \_\_\_\_\_

6" Locking Cap: \_\_\_\_\_ Pinned Allenhead (DWP): \_\_\_\_\_

Remarks: \_\_\_\_\_

Signature: Paul [Signature]

**ATTACHMENT C**

**HISTORICAL GROUND WATER ELEVATION DATA**

TABLE 1  
GROUNDWATER ELEVATIONS  
Page 1 of 5

Date Sampled	Depth to Groundwater (Feet)	Groundwater Elevation (Feet)
<b>Groundwater Monitoring Well MW-1:</b>		<b>Elevation of Top of Casing = 29.89 feet</b>
June 23, 1987	14.79	15.10
July 06, 1987	14.93	14.96
August 06, 1987	14.22	15.67
November 04, 1987	15.74	14.15
February 02, 1988	13.99	15.90
May 02, 1988	14.99	14.90
November 21, 1988	13.03	16.86
February 14, 1989	15.86	14.03
May 02, 1989	14.77	15.12
August 10, 1989	16.35	13.54
November 08, 1989	16.46	13.43
February 20, 1990	15.58	14.31
May 18, 1990	16.40	13.49
September 15, 1990	16.83	13.06
November 26, 1990	17.16	12.73
February 07, 1991	16.43	13.46
May 14, 1991	14.93	14.96
August 16, 1991	16.35	13.54
<b>Groundwater Monitoring Well MW-1:</b>		<b>New Elevation of Top of Casing = 33.10 feet</b>
December 24, 1991	17.20	15.90
March 30, 1992	13.58	19.52
<b>Groundwater Monitoring Well MW-2:</b>		<b>Elevation of Top of Casing = 29.57 feet</b>
June 23, 1987	14.51	15.06



TABLE 1  
GROUNDWATER ELEVATIONS  
Page 2 of 5

Date Sampled	Depth to Groundwater (Feet)	Groundwater Elevation (Feet)
July 06, 1987	14.63	14.94
August 06, 1987	14.95	14.62
November 04, 1987	15.45	14.12
February 02, 1988	13.74	15.83
May 02, 1988	14.63	14.94
November 21, 1988	12.99	16.58
February 14, 1989	15.66	13.91
May 02, 1989	14.56	15.01
August 10, 1989	16.22	13.35
November 08, 1989	16.19	13.38
February 20, 1990	15.34	14.23
May 18, 1990	16.20	13.37
September 15, 1990	16.42	13.05
November 26, 1990	16.83	12.74
February 07, 1991	16.13	13.44
May 14, 1991	14.62	14.95
August 16, 1991	16.00	13.57
<b>Groundwater Monitoring Well MW-2:</b>		<b>New Elevation of Top of Casing = 32.80 feet</b>
December 24, 1991	16.90	15.90
March 30, 1992	13.32	19.48
<b>Groundwater Monitoring Well MW-3:</b>		<b>Elevation of Top of Casing = 29.13 feet</b>
June 23, 1987	14.13	15.00
July 06, 1987	14.24	14.89
August 06, 1987	14.52	14.61
November 04, 19887	15.09	14.04
February 02, 1988	13.37	15.76

TABLE 1  
GROUNDWATER ELEVATIONS  
Page 3 of 5

Date Sampled	Depth to Groundwater (Feet)	Groundwater Elevation (Feet)
May 02, 1988	14.22	14.91
November 21, 1988	13.01	16.12
February 14, 1989	15.22	13.91
May 02, 1989	14.16	14.97
August 10, 1989	15.61	13.52
November 08, 1989	15.75	13.38
February 20, 1990	14.95	14.18
May 18, 1990	15.79	13.34
September 15, 1990	16.07	13.06
November 26, 1990	16.36	12.77
February 07, 1991	15.74	13.39
May 14, 1991	14.19	14.94
August 16, 1991	15.55	13.58
<b>Groundwater Monitoring Well MW-3:</b>		<b>New Elevation of Top of Casing = 32.30 feet</b>
December 24, 1991	16.40	15.90
March 30, 1992	12.96	19.34
<b>Groundwater Monitoring Well MW-4:</b>		<b>Elevation of Top of Casing = 29.72 feet</b>
June 23, 1987	14.77	14.95
July 06, 1987	14.91	14.81
August 06, 1987	15.19	14.53
November 04, 1987	15.72	14.00
February 02, 1988	14.03	15.69
May 02, 1988	14.89	14.83
November 21, 1988	12.88	16.84
February 14, 1989	15.83	13.89
May 02, 1989	14.75	14.97

TABLE 1

## GROUNDWATER ELEVATIONS

Page 4 of 5

Date Sampled	Depth to Groundwater (Feet)	Groundwater Elevation (Feet)
August 10, 1989	16.30	13.42
November 08, 1989	16.29	13.43
February 20, 1990	15.62	14.10
May 18, 1990	16.34	13.38
September 15, 1990	16.79	12.93
November 26, 1990	17.08	12.64
February 07, 1991	16.37	13.35
May 14, 1991	14.87	14.85
August 16, 1991	16.25	13.47
<b>Groundwater Monitoring Well MW-4:</b>		<b>New Elevation of Top of Casing = 32.90 feet</b>
December 24, 1991	17.10	15.80
March 30, 1992	13.60	19.30
<b>Groundwater Monitoring Well MW-5:</b>		<b>Elevation of Top of Casing = 29.55 feet</b>
June 23, 1987	14.63	14.92
July 06, 1987	14.79	14.76
August 06, 1987	15.07	14.48
November 04, 1987	15.61	13.94
February 02, 1988	13.84	15.71
May 02, 1988	14.77	14.78
November 21, 1988	12.84	16.71
February 14, 1989	15.72	13.83
May 02, 1989	14.68	14.87
August 10, 1989	16.03	13.52
November 08, 1989	16.33	13.22
February 20, 1990	15.44	14.11

**TABLE 1**  
**GROUNDWATER ELEVATIONS**  
Page 5 of 5

Date Sampled	Depth to Groundwater (Feet)	Groundwater Elevation (Feet)
May 18, 1990	16.22	13.33
September 15, 1990	16.65	12.90
November 26, 1990	16.95	12.60
February 07, 1991	16.20	13.35
May 14, 1991	14.72	14.38
August 16, 1991	16.10	13.45
<b>Groundwater Monitoring Well MW-5:</b>		<b>New Elevation of Top of Casing = 32.70 feet</b>
December 24, 1991	16.92	15.78
March 30, 1992	13.48	19.22
<b>Groundwater Monitoring Well MW-6:</b>		<b>Elevation of Top of Casing = 30.40 feet</b>
December 24, 1991	14.12	16.28
March 30, 1992	12.62	17.78
<b>Groundwater Monitoring Well MW-7:</b>		<b>Elevation of Top of Casing = 31.20 feet</b>
December 24, 1991	15.70	15.50
March 30, 1992	12.34	18.86
<b>Groundwater Monitoring Well MW-8:</b>		<b>Elevation of Top of Casing = 33.80 feet</b>
December 24, 1991	18.00	15.80
March 30, 1992	14.66	19.14
<b>Notes:</b>		
1)	All elevations surveyed to an arbitrary datum	
2)	Elevations and depths are given in feet	
3)	Groundwater Technology, Inc., made measurements until February 1989	
4)	Du Pont Environmental Services collected samples from February 1989 through February 1991	
5)	Environmental Geotechnical Consultants, Inc., made measurements beginning in May 1991	

**ATTACHMENT D**

**HISTORICAL GROUND WATER ANALYTICAL DATA**

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
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
MW-4	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
MW-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
MW-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	2,600	980	390	1,100	29,000	Odor, sheen
MW-6	Dec. 24, 1991	ND	ND	ND	ND	79	
	Mar. 30, 1992	2.1	1.1	ND	0.6	73	
MW-7	Dec. 24, 1991	ND	ND	ND	ND	ND	
	Mar. 30, 1992	ND	ND	ND	ND	ND	
MW-8	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

- 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)

**ATTACHMENT E**

**LABORATORY REPORT AND  
CHAIN-OF-CUSTODY FORM**

April 9, 1996  
Sample Log 14383

Dale van Dam  
El Dorado Environmental  
2221 Goldorado Trail  
El Dorado, CA 95623

Subject: Analytical Results for 9 Water Samples  
Identified as: Beacon 720 (Proj. # 94-720-01)  
Received: 03/29/96

Dear Mr. van Dam:

Analysis of the sample(s) referenced above has been completed. This report is written to confirm results communicated on April 9, 1996 and describes procedures used to analyze the samples.

Sample(s) were analyzed using the following method(s):

"BTEX" (EPA Method 602/5030)  
"TPH as Gasoline" (Modified EPA Method 8015/Purge-and-Trap)

Please refer to the following table(s) for summarized analytical results and contact us at 916-753-9500 if you have questions regarding procedures or results. The chain-of-custody document is enclosed.

Approved by:



---

Stewart Podolsky  
Senior Chemist

## MTBE (Methyl-t-butyl ether) Results

From : Beacon 720 (Proj. # 94-720-01)

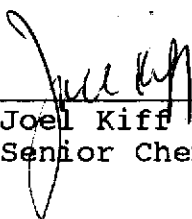
Sampled : 03/26/96

Received : 03/29/96

Matrix : Water

MTBE	(MRL) $\mu\text{g/L}$	Measured Value $\mu\text{g/L}$
MW-1	(25)	<25
MW-2	(130)	130
MW-3	(25)	<25
MW-4	(250)	1500
MW-5	(250)	1400
MW-6	(5.0)	<5.0
MW-7	(5.0)	<5.0
MW-8	(25)	<25
MW-9	(25)	420

Approved By:



Joel Kiff  
Senior Chemist

Sample: MW-1

From : Beacon 720 (Proj. # 94-720-01)

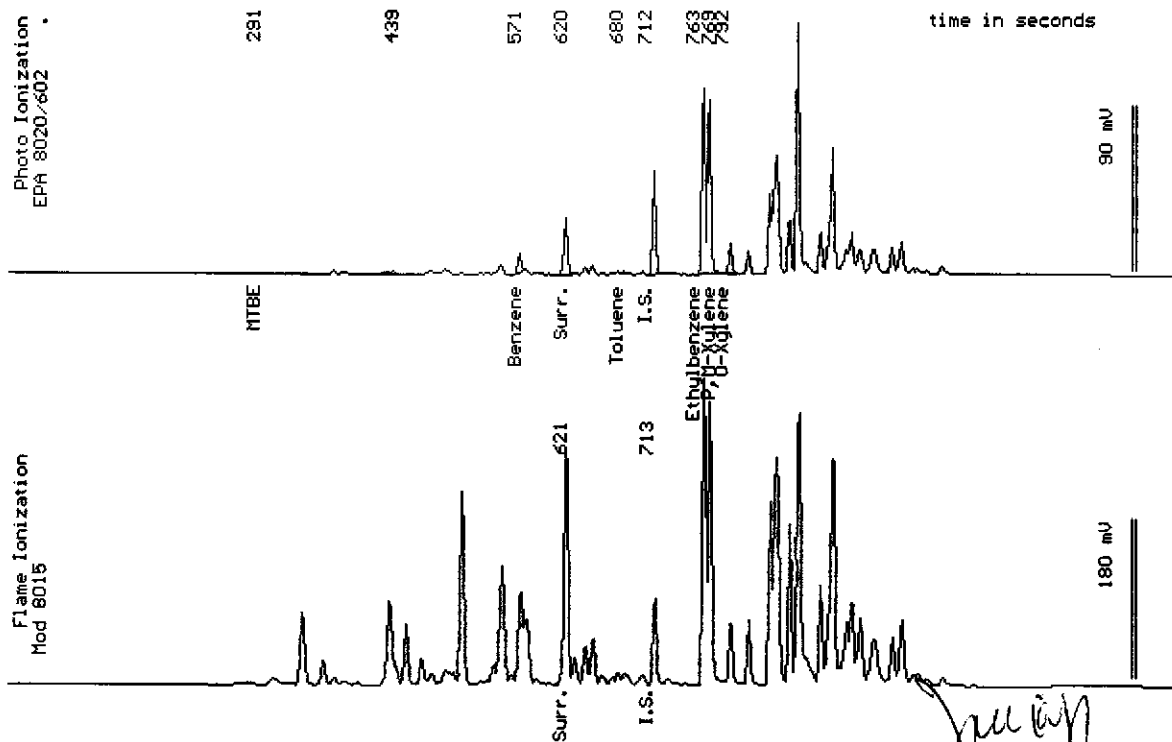
Sampled : 03/26/96

Dilution : 1:5

QC Batch : 6169S

Matrix : Water

Parameter	(MRL) ug/L	Measured Value ug/L
Benzene	(2.5)	42
Toluene	(2.5)	4.9
Ethylbenzene	(2.5)	560
Total Xylenes	(2.5)	600
TPH as Gasoline	(250)	6400
Surrogate Recovery		165 %



Date Analyzed: 04-05-96  
 Column : 0.53mm ID X 75m DB624 (J&W Scientific)

Joe Kiff  
 Senior Chemist

Sample: **MW-2**

From : Beacon 720 (Proj. # 94-720-01)

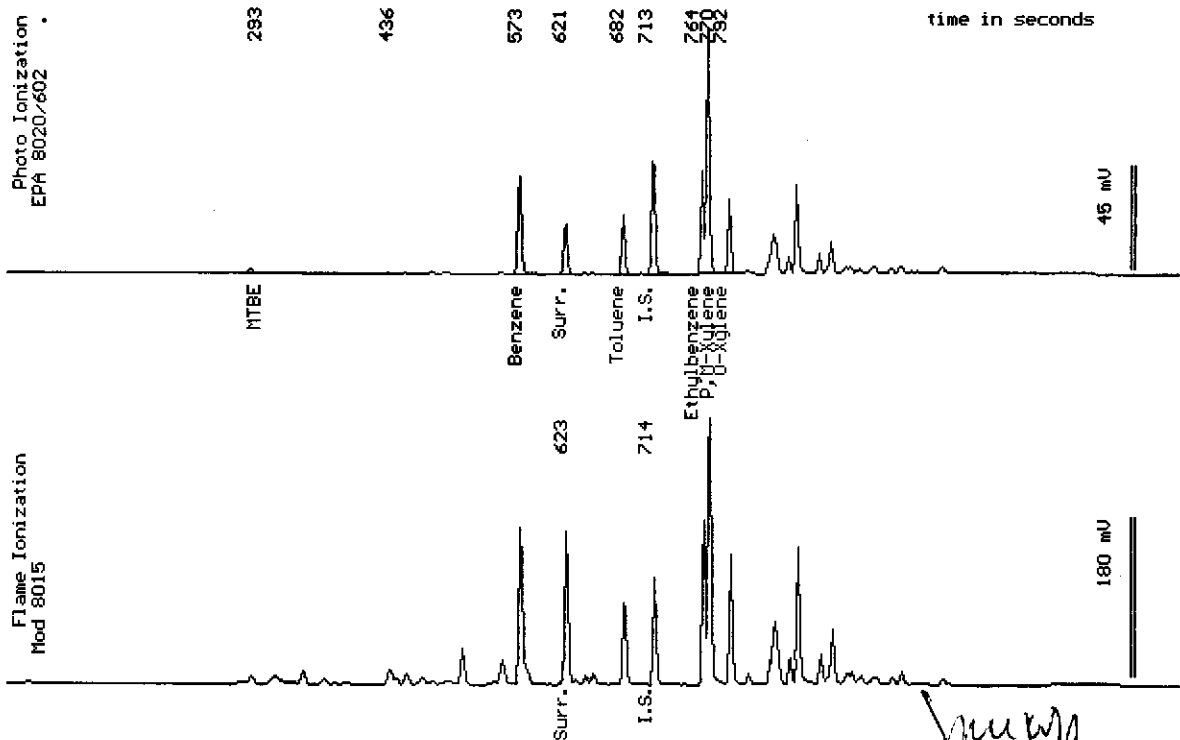
Sampled : 03/26/96

Dilution : 1:25

QC Batch : 6169S

Matrix : Water

Parameter	(MRL) ug/L	Measured Value ug/L
Benzene	(13)	930
Toluene	(13)	520
Ethylbenzene	(13)	970
Total Xylenes	(13)	3000
TPH as Gasoline	(1300)	11000
Surrogate Recovery		114 %



Date Analyzed: 04-05-96  
 Column : 0.53mm ID X 75m DB624 (J&W Scientific)

*Joel Kiff*  
 Joel Kiff  
 Senior Chemist

Sample: MW-3

From : Beacon 720 (Proj. # 94-720-01)

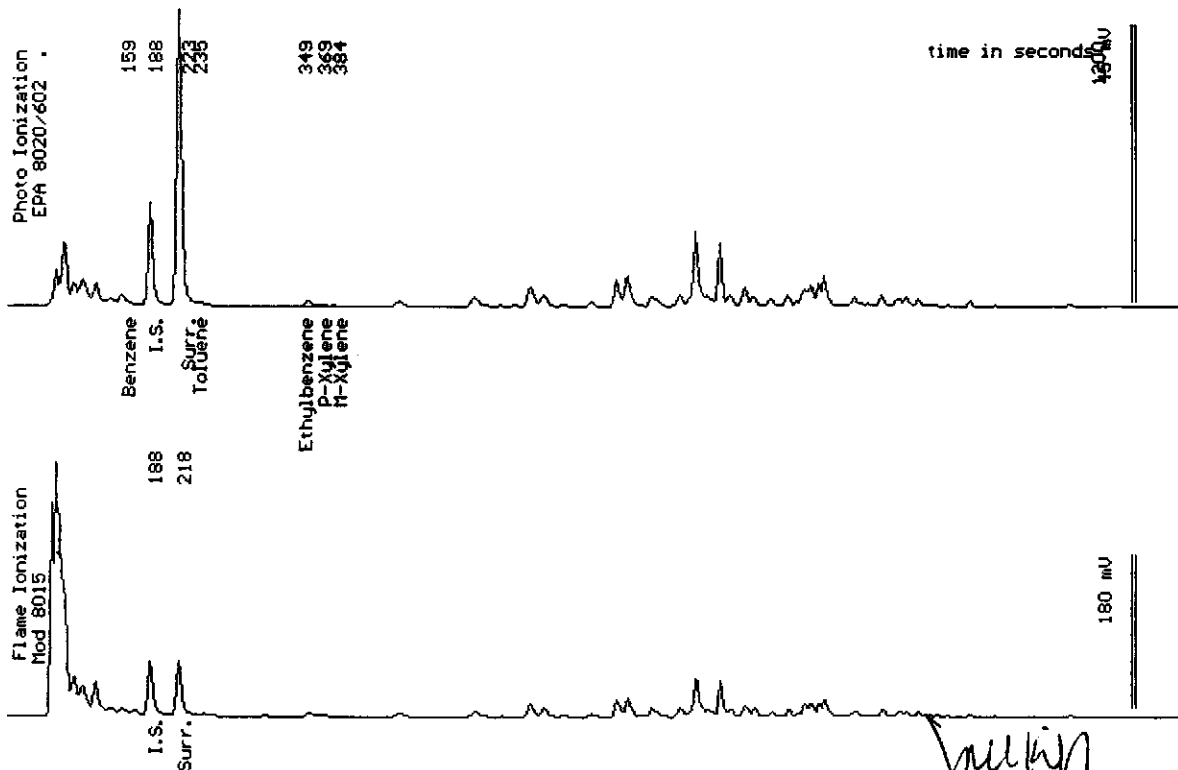
Sampled : 03/26/96

Dilution : 1:3

QC Batch : 4145P

Matrix : Water

Parameter	(MRL) ug/L	Measured Value ug/L
Benzene	(1.3)	4.3
Toluene	(1.3)	<1.3
Ethylbenzene	(1.3)	4.2
Total Xylenes	(1.3)	2.0
TPH as Gasoline	(130)	1200
Surrogate Recovery		101 %



Date Analyzed: 04-08-96  
 Column : 0.53mm ID X 30m DBWAX (J&W Scientific)

*Joel Kiff*  
 Joel Kiff  
 Senior Chemist

Sample: MW-4

From : Beacon 720 (Proj. # 94-720-01)

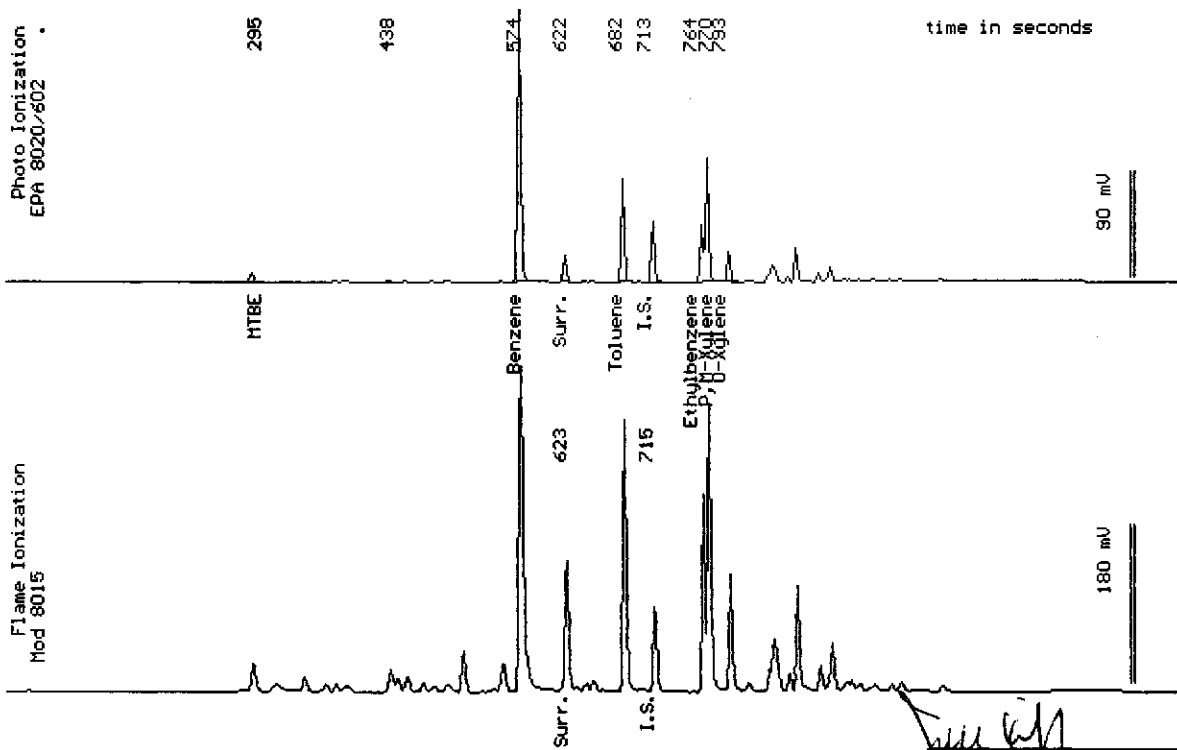
Sampled : 03/26/96

Dilution : 1:50

QC Batch : 6169S

Matrix : Water

Parameter	(MRL) ug/L	Measured Value ug/L
Benzene	(25)	9600
Toluene	(25)	3700
Ethylbenzene	(25)	2300
Total Xylenes	(25)	6200
TPH as Gasoline	(2500)	31000
Surrogate Recovery		107 %



Date Analyzed: 04-05-96  
 Column : 0.53mm ID X 75m DB624 (J&W Scientific)

Joel Kiff  
 Senior Chemist



Sample: MW-5

From : Beacon 720 (Proj. # 94-720-01)

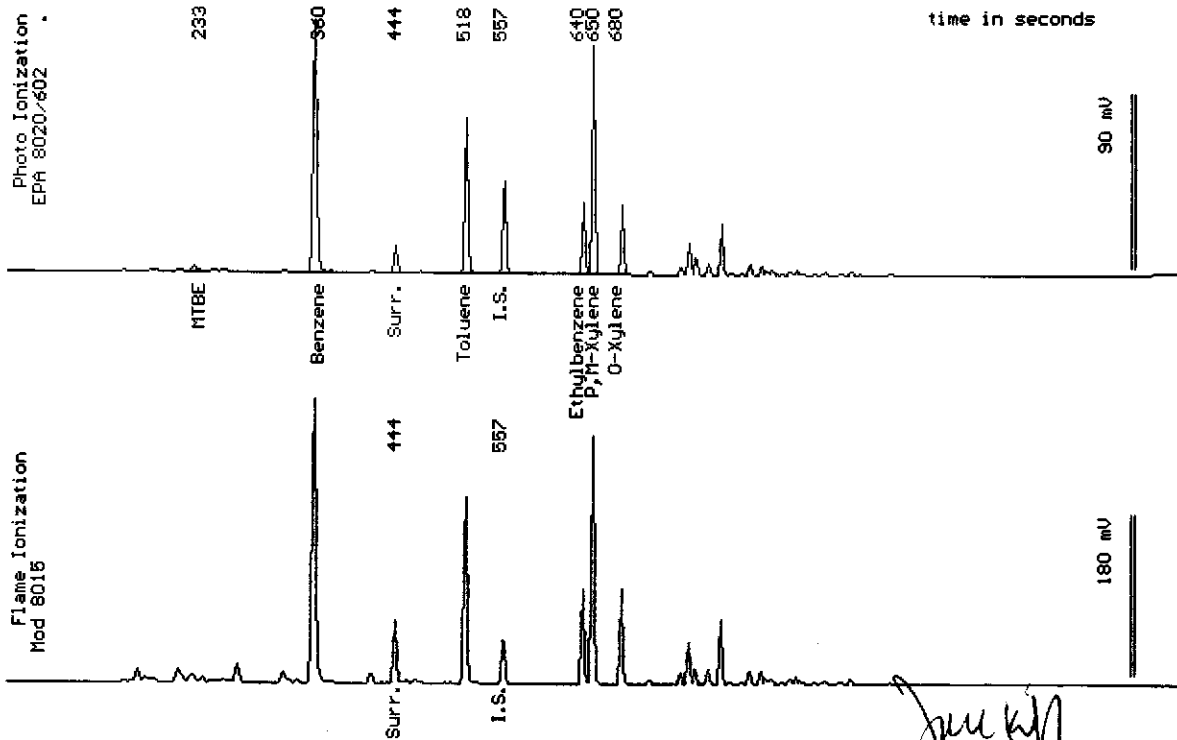
Sampled : 03/26/96

Dilution : 1:50

QC Batch : 2141L

Matrix : Water

Parameter	(MRL) ug/L	Measured Value ug/L
Benzene	(25)	9800
Toluene	(25)	4900
Ethylbenzene	(25)	2300
Total Xylenes	(25)	8800
TPH as Gasoline	(2500)	37000
Surrogate Recovery		106 %



Date Analyzed: 04-06-96  
 Column : 0.53mm X 60m Restek Rtx-1301

*Joel Kiff*  
 Joel Kiff  
 Senior Chemist

Sample: MW-6

From : Beacon 720 (Proj. # 94-720-01)

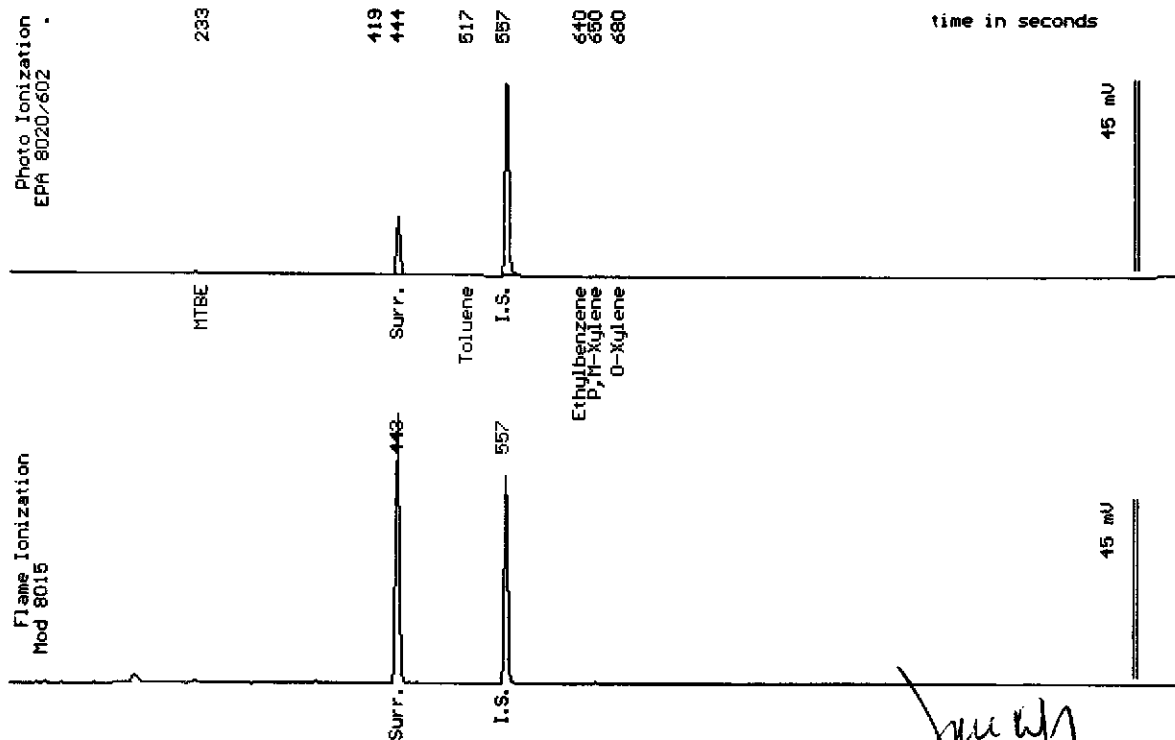
Sampled : 03/26/96

Dilution : 1:1

QC Batch : 2141L

Matrix : Water

Parameter	(MRL) ug/L	Measured Value ug/L
Benzene	(.50)	<.50
Toluene	(.50)	<.50
Ethylbenzene	(.50)	<.50
Total Xylenes	(.50)	<.50
TPH as Gasoline	(50)	<50
Surrogate Recovery		98 %



Date Analyzed: 04-05-96  
 Column : 0.53mm X 60m Restek Rtx-1301

*Joel Kiff*  
 Joel Kiff  
 Senior Chemist

Sample: MW-7

From : Beacon 720 (Proj. # 94-720-01)

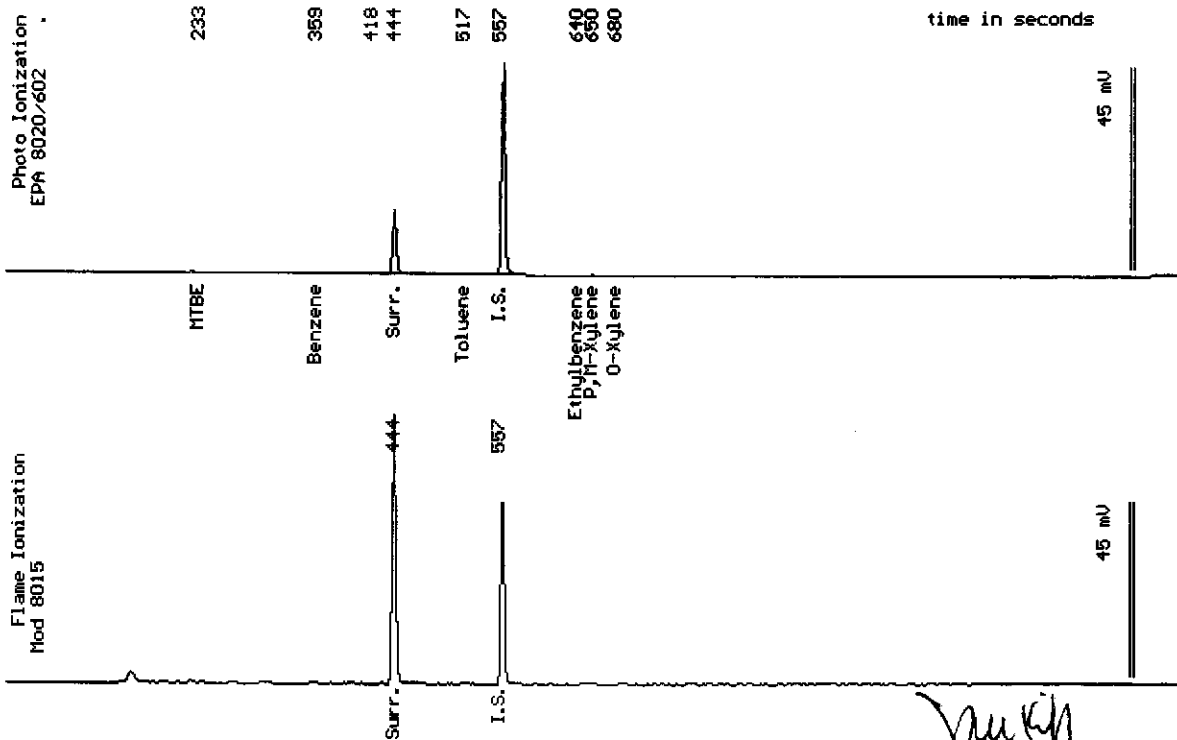
Sampled : 03/26/96

Dilution : 1:1

QC Batch : 2141L

Matrix : Water

Parameter	(MRL) ug/L	Measured Value ug/L
Benzene	(.50)	<.50
Toluene	(.50)	<.50
Ethylbenzene	(.50)	<.50
Total Xylenes	(.50)	<.50
TPH as Gasoline	(50)	<50
Surrogate Recovery		103 %



Date Analyzed: 04-05-96  
 Column : 0.53mm X 60m Restek Rtx-1301

*Joel Kiff*  
 Joel Kiff  
 Senior Chemist

Sample: MW-8

From : Beacon 720 (Proj. # 94-720-01)

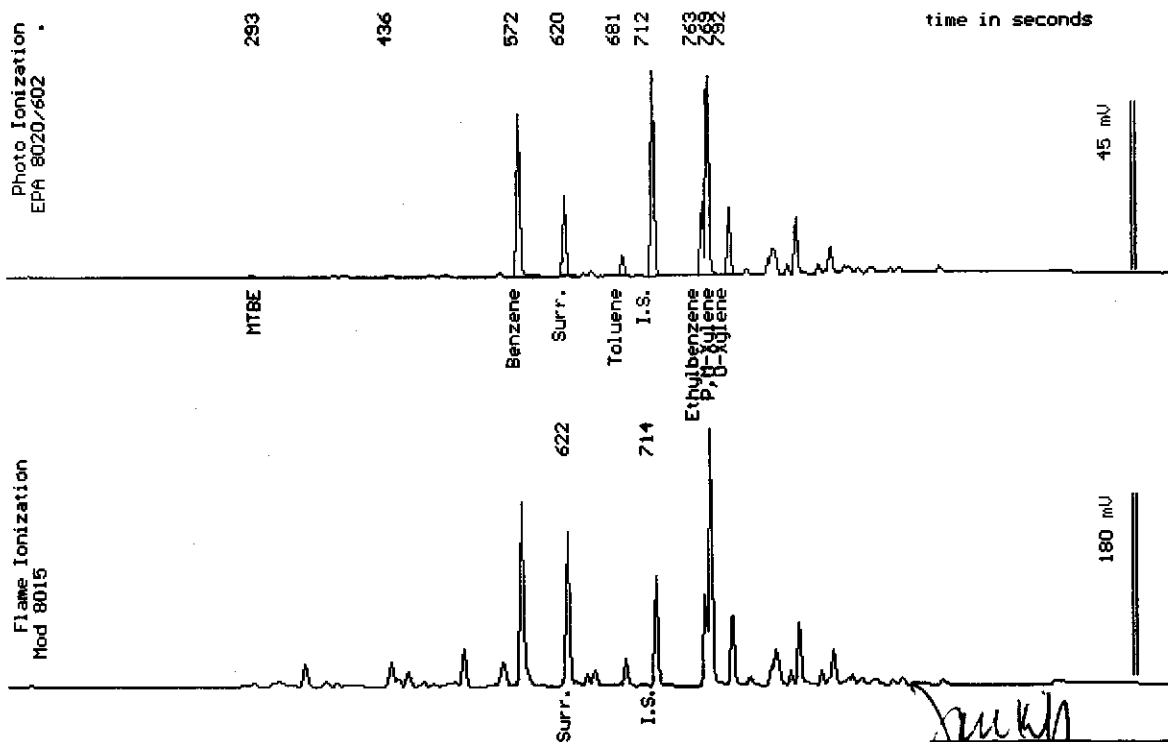
Sampled : 03/26/96

Dilution : 1:5

QC Batch : 6169S

Matrix : Water

Parameter	(MRL) ug/L	Measured Value ug/L
Benzene	(2.5)	180
Toluene	(2.5)	27
Ethylbenzene	(2.5)	100
Total Xylenes	(2.5)	370
TPH as Gasoline	(250)	1700
Surrogate Recovery		108 %



Date Analyzed: 04-06-96  
 Column : 0.53mm ID X 75m DB624 (J&W Scientific)

Joel Kiff  
 Senior Chemist

Sample: MW-9

From : Beacon 720 (Proj. # 94-720-01)

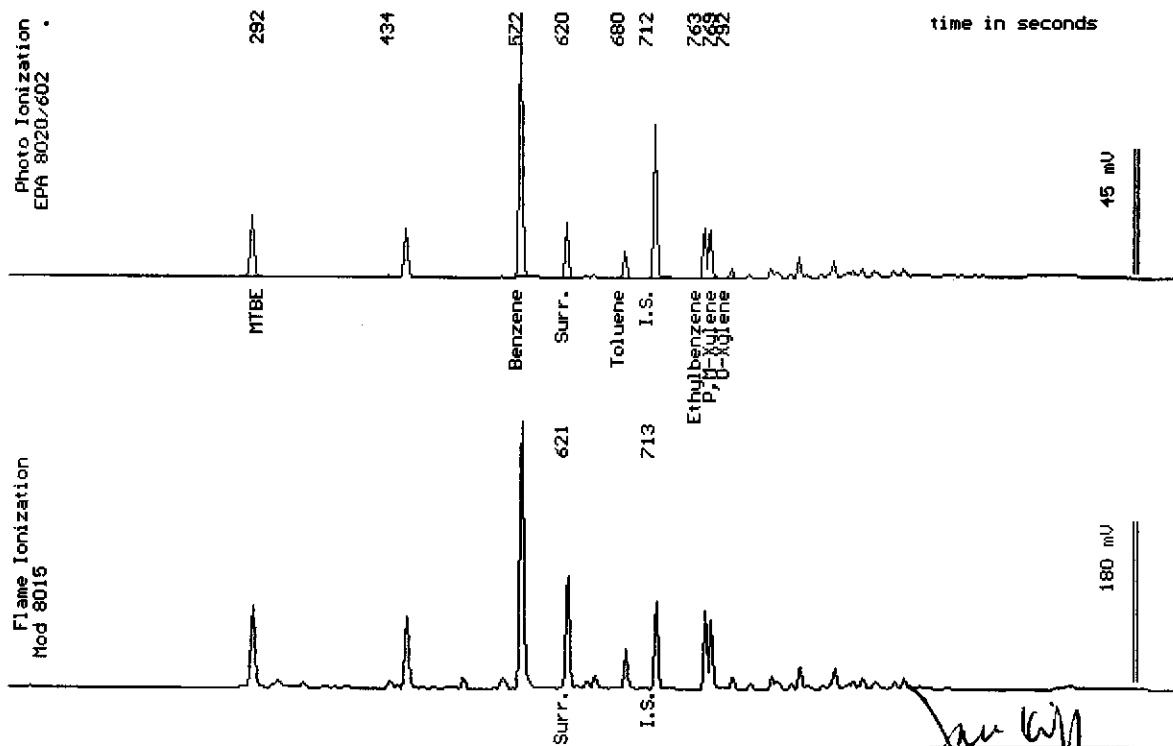
Sampled : 03/26/96

Dilution : 1:5

QC Batch : 6169S

Matrix : Water

Parameter	(MRL) ug/L	Measured Value ug/L
Benzene	(2.5)	380
Toluene	(2.5)	44
Ethylbenzene	(2.5)	96
Total Xylenes	(2.5)	110
TPH as Gasoline	(250)	1600
Surrogate Recovery		99 %



Date Analyzed: 04-06-96  
 Column : 0.53mm ID X 75m DB624 (J&M Scientific)

*Joel Kiff*  
 Joel Kiff  
 Senior Chemist



**Ultramar Inc.**  
**CHAIN OF CUSTODY REPORT**

**BEACON**

Beacon Station No. <i>720</i>		Sampler (Print Name) <i>Hal House</i>			ANALYSES				Date <i>3-26-96</i>	Form No. <i>1 of 2</i>	
Project No. <i>94-720-01</i>		Sampler (Signature) <i>[Signature]</i>			BTEX	TPH (gasoline)	TPH (diesel)			No. of Containers <i>2</i>	REMARKS <i>Standard TAT</i>
Project Location <i>San Francisco</i>		Affiliation <i>Danmore</i>									
Sample No./Identification	Date	Time	Lab No.								
<i>MW-1</i>	<i>3-26-96</i>	<i>1015</i>	<i>14383-01</i>	<i>X</i>							
<i>MW-2</i>		<i>1046</i>	<i>02</i>								
<i>MW-3</i>		<i>1002</i>	<i>03</i>								
<i>MW-4</i>		<i>1122</i>	<i>04</i>								
<i>MW-5</i>		<i>1101</i>	<i>05</i>								<i>DATE 03/29/96 1840</i>
<i>MW-6</i>		<i>951</i>	<i>06</i>								<i>0'</i>
<i>MW-7</i>		<i>931</i>	<i>07</i>								<i>W</i>
<i>MW-9</i>	<i>1</i>	<i>1030</i>	<i>08</i>								<i>W</i>
Relinquished by: (Signature/Affiliation) <i>[Signature] Danmore</i>		Date <i>3-29-96</i>	Time <i>17:34</i>	Received by: (Signature/Affiliation) <i>Jerry A. Jager / WEST</i>				Date <i>3-29-96</i>	Time <i>17:30</i>		
Relinquished by: (Signature/Affiliation) <i>Jerry A. Jager / WEST</i>		Date <i>03/29/96</i>	Time <i>1840</i>	Received by: (Signature/Affiliation)				Date	Time		
Relinquished by: (Signature/Affiliation)		Date	Time	Received by: (Signature/Affiliation) <i>John Mandy</i>				Date <i>03/29/96</i>	Time <i>1840</i>		
Report To: <i>Danmore</i>				Bill to: ULTRAMAR INC. 525 West Third Street Hanford, CA 93230 Attention: <i>Terry Fox</i>							

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YELLOW: Laboratory Copy

PINK: Originator Copy



**Ultramar Inc.**  
**CHAIN OF CUSTODY REPORT**

**BEACON**

Beacon Station No. <i>710</i>		Sampler (Print Name) <i>Hal Hansen</i>			ANALYSES				Date <i>3-26-96</i>	Form No. <i>2 of 2</i>
Project No. <i>94-720-01</i>		Sampler (Signature) <i>[Signature]</i>			BTEX	TPH (gasoline)	TPH (diesel)	No. of Containers	<i>Standard TAT</i>	
Project Location <i>San Joaquin</i>		Affiliation <i>Danvers</i>								
Sample No./Identification <i>MW-9</i>		Date <i>3-26-96</i>	Time <i>1140</i>	Lab No. <i>14383 09</i>						
									REMARKS	
									<i>03/29/96 1840</i>	
									<i>0°</i>	
									<i>in</i>	
									<i>VES.</i>	
Relinquished by: (Signature/Affiliation) <i>[Signature] Danvers</i>		Date <i>3-29-96</i>	Time <i>17:33</i>	Received by: (Signature/Affiliation) <i>[Signature] WEST</i>				Date <i>3-29-96</i>	Time <i>17:33</i>	
Relinquished by: (Signature/Affiliation) <i>[Signature] WEST</i>		Date <i>03/29/96</i>	Time <i>1840</i>	Received by: (Signature/Affiliation) <i>[Signature]</i>				Date	Time	
Relinquished by: (Signature/Affiliation) <i>[Signature]</i>		Date	Time	Received by: (Signature/Affiliation) <i>[Signature]</i>				Date	Time	
Report To: <i>Dale Paul Davis</i>		Bill to:		ULTRAMAR INC. 525 West Third Street Hanford, CA 93230 Attention: <i>[Signature]</i>				Date <i>03/29/96 1840</i>	Time	

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