Ultramar

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

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

November 15, 1999

Mr. Scott Seery Senior Hazardous Materials Specialist Alameda County Health Care Services Agency, Environmental Health Services 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502-6577

SUBJECT:

Third Quarter 1999 Ground Water Monitoring Report

Former Beacon Station No. 574

22315 Redwood Road, Castro Valley, California

Dear Mr. Seery:

Enclosed is a copy of the *Third Quarter 1999 Ground Water Monitoring Report*, prepared by El Dorado Environmental Inc., for the above-referenced Ultramar facility. Also enclosed is a copy of the *Quarterly Status Report* describing the work performed this quarter and the work anticipated to be conducted in the next quarter.

If you have questions regarding this project, please contact me at 559-583-3231.

Sincerely,

ULTRAMAR INC.

Joseph A. Aldridge, RG Senior Project Manager

h alaba

Retail Environmental Services

Enclosures:

Third Quarter 1999 Ground Water Monitoring Report

Quarterly Status Report

cc w/encl.:

Mr. Rich Hiett, CRWQCB-San Francisco Bay Region

Mr. Paul Wilson



BEACON
#1 Quality and Service

litramar

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

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DATE REPORT SUBMITTED: November 15, 1999

QUARTER ENDING: September 30, 1999

FORMER SERVICE STATION NO.: 574

ADDRESS: 22315 Redwood Road, Castro Valley, CA

COUNTY: Alameda

ULTRAMAR CONTACT: Joseph A. Aldridge

TEL. NO: 559-583-3231

PROJECT BACKGROUND:

On May 5, 1987, five underground storage tanks (two gasoline, two diesel and one waste oil) were excavated and removed from the site. Soil samples were collected from beneath the tanks and analyzed for hydrocarbon constituents. It was determined that gasoline and diesel were present in the soil beneath the former fuel tanks. Soil was over-excavated to the depth of groundwater. Most soil samples collected after the over-excavation confirmed removal of impacted soil. A sample collected from the over-excavation northeast of the former tanks contained petroleum hydrocarbons at a concentration of 1989 parts per million. No further excavation was conducted.

During March 1991, three groundwater monitoring wells were installed on-site. Laboratory analysis of soil samples obtained from monitoring well borings indicated that soil had been impacted in the vicinity of a previous generation of USTs (these USTs were no longer present when Beacon operated the station) to the depth of groundwater, where it then apparently spread across the site and impacted soil immediately above groundwater.

Installed five groundwater monitoring wells in May of 1993. With the installation of these new wells the extent of impacted groundwater was fully defined.

Conducted a soil gas survey/performance test, aquifer pump test, and air-sparging test during the first quarter of 1994. Submitted a PAR/RAP during the fourth quarter 1994.

A Problem Assessment Report/Remedial Action Plan was prepared in November 1994. The consultant concluded that further assessment and remediation were not necessary. It was recommended that groundwater monitoring continue.

A Risk-Based Corrective Action (RBCA) assessment was prepared and submitted to the County in December 1996. Correspondence prepared by the County in May 1997, and July 1998, requested further RBCA analyses. A Supplement to Risk-Based Corrective Action Tier 1 and Tier 2 Analyses was completed in March 1999.



Page 2

Monitoring Wells MW-7 and MW-8 were abandoned in September 1998, as required by the Alameda County Department of Public Works.

In July 1999, the property owner had a geophysical survey completed, which concluded that USTs are not present at the site.

SUMMARY OF THIS QUARTER'S ACTIVITIES:

Performed quarterly groundwater monitoring on September 7, 1999.

RESULT OF QUARTERLY MONITORING:

Benzene was not detected in the samples collected from the two off-site monitoring wells. MTBE was detected in one of the samples (MW-6) collected from the two off-site monitoring wells.

PROPOSED ACTIVITY OR WORK FOR NEXT QUARTER:

ACTIVITY

ESTIMATED COMPLETION DATE

Quarterly groundwater monitoring

December 1999

El Dorado Environmental, Inc.

2221 Goldorado Trail, El Dorado, California 95623

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

October 23, 1999

Mr. Joe Aldridge Senior Project Manager Ultramar Inc. 525 West Third Street Hanford, California 93230

Subject:

Third Quarter 1999 Ground Water Monitoring Report

Former Beacon Station #574

22315 Redwood Road, Castro Valley, California

Dear Mr. Aldridge:

El Dorado Environmental, Inc. (EDE) has prepared this report to document the results of quarterly ground water monitoring conducted on September 7, 1999, 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 contained in Attachment C. On the basis of the current measurements, ground water flows toward the southwest (Figure 2) at a gradient of approximately 0.01 foot per foot. Ground water elevations decreased an average of 0.32 feet compared to the last monitoring event.

GROUND WATER SAMPLING AND ANALYSES

Ground water samples were collected from five monitoring wells (by agreement with Alameda County, ground water samples were collected from monitoring wells MW-1, MW-2, MW-3, MW-5, and MW-6 this quarter). All samples were analyzed for concentrations of:

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

Analytical results collected since March 1992 are summarized in Table 2. Historical analytical data are contained in Attachment D. Figure 3 illustrates the inferred distribution of dissolved benzene in ground water based on the current data. The laboratory report and chain-of-custody form for the current sampling event are included in Attachment E. Benzene was not detected in ground water samples collected from monitoring wells MW-5 and MW-6. Benzene concentrations increased in the ground water samples collected from monitoring wells MW-1 and MW-2 and decreased in the ground water sample collected from monitoring well MW-3 compared to the most recent sampling event.

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

Mr. Scott Seery
Alameda County Health Agency, Division of Hazardous Materials
Department of Environmental Health
80 Swan Way, Room 350
Oakland, California 94621

Mr. Rich Hiett
California Regional Water Quality Control Board
San Francisco Bay Region
2101 Webster Street, Suite 500
Oakland, California 94612

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 (530) 626-3898.

Regards,

EL DORADO ENVIRONMENTAL, INC.

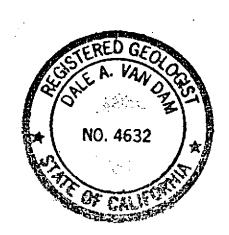
Dale A. van Dam, R.G.

Dale a. m. Ja

Hydrogeologist

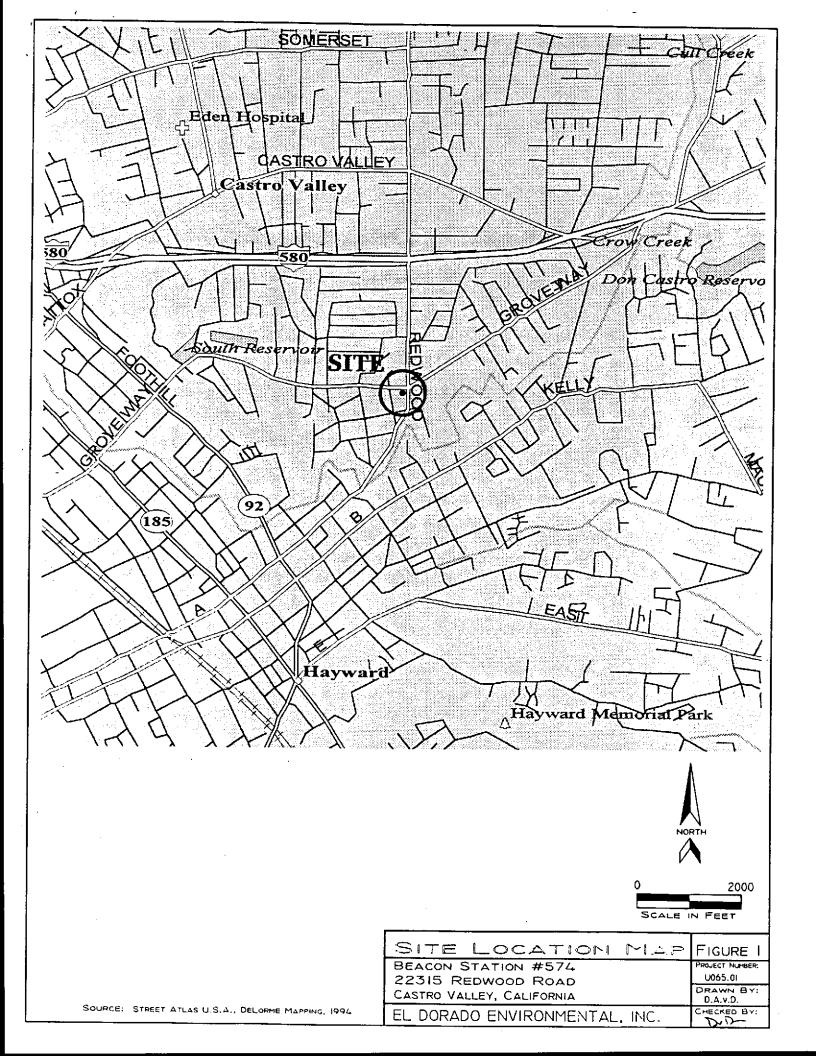
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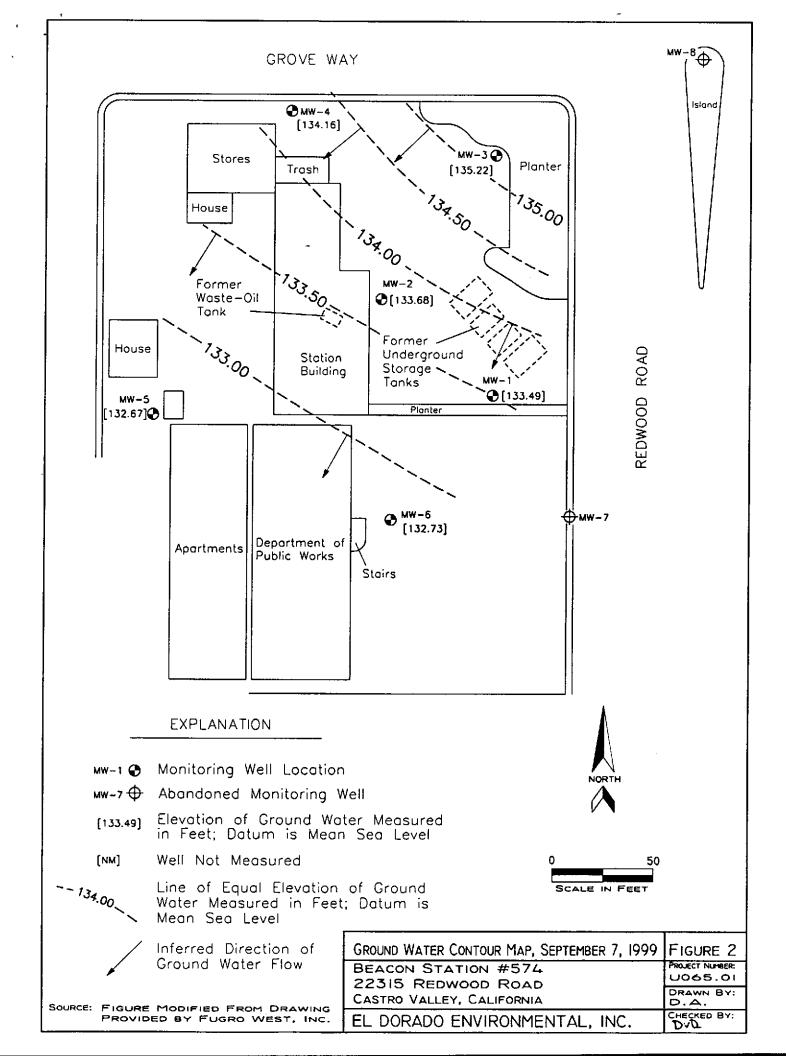
Attachments

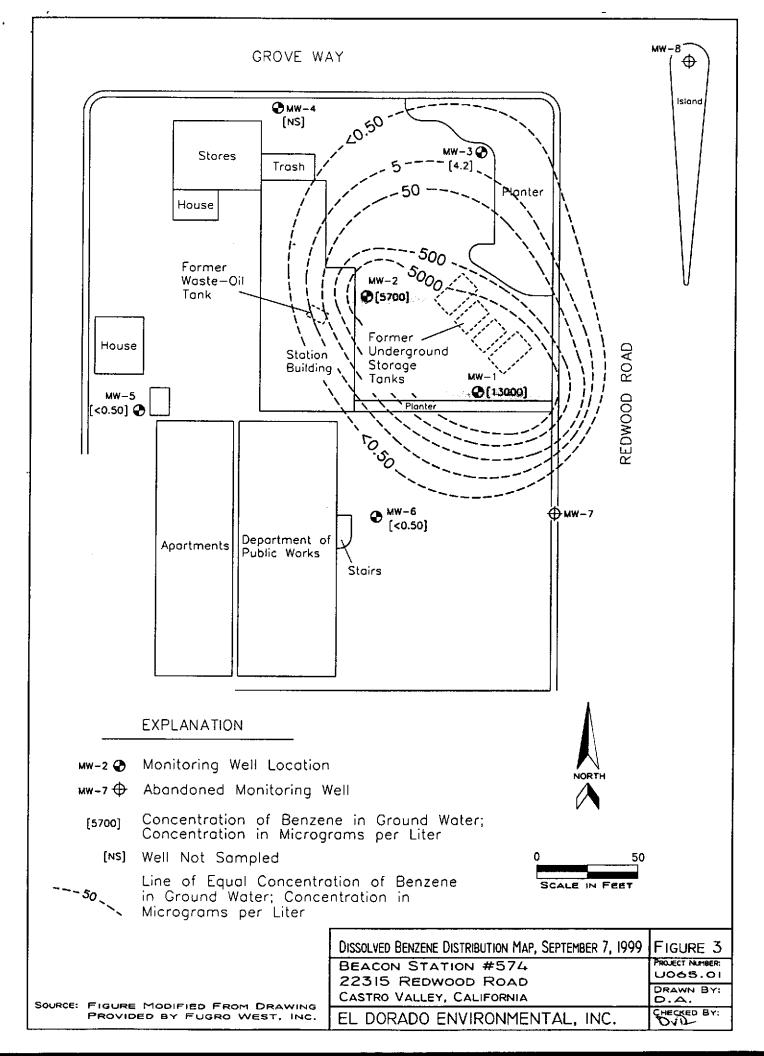


FIGURES:	FIGURE 1 SITE LOCATION MAP
	FIGURE 2 GROUND WATER CONTOUR MAP SEPTEMBER 7, 1999
	FIGURE 3 DISSOLVED BENZENE DISTRIBUTION MAP SEPTEMBER 7, 1999
TABLES:	TABLE 1 GROUND WATER ELEVATION DATA
	TABLE 2 GROUND WATER ANALYTICAL RESULTS
ATTACHMENTS:	A
	B DOULOS ENVIRONMENTAL FIELD DATA SHEETS
	C HISTORICAL GROUND WATER ELEVATION DATA
	D HISTORICAL GROUND WATER ANALYTICAL DATA
	E LABORATORY REPORT AND CHAIN-OF-CUSTODY FORM

.







(Measurements in feet)

Monitoring Well	Date	Reference Elevation (top of casing) ¹	Depth to Ground Water ⁱ	Ground Water Elevation ²	Well Depth	Comments
MW-1	03/27/92	156.55	22.43	134.12		
""" '	06/04/92	150.55	23,40	133.15		
	09/23/92	-	24,07	132.48		
	11/12/92		24.16	132.39	29.33	
	02/02/93		21.87	134.68	29.80	
	05/07/93		22.58	133.97	29.84	
	05/18/93		22.66	133.89		
	08/11/93		23.41	133.14	29.81	
	11/05/93		24.09	132,46	29.81	
	03/01/94	j	22.76	133.79	29.85	
	06/02/94		23.24	133.31	29.85	
	09/09/94		23.93	132.62	29.86	
	12/20/94		22.94	133.61	29.85	
	03/08/95		22.20	134.35	29.71	
	06/14/95		22.65	133.90	29.70	
	09/26/95		23.44	133.11	29.71	
	12/27/95		23.04	133.51	29.72	
	03/26/96		21.39	135.16	29.71	
	06/05/96		22.43	134.12	29.73	
	09/16/96	İ	24.42	132.13	29.74	
	12/02/96		23.14	133.41	29.75	
	03/10/97	1	22.30	134.25	29.76	
	06/12/97		22.97	133.58	29.76	
	09/29/97		23.35	133.20	29.78	
	12/01/97		22.73	133.82	29.79	
	03/19/98		20.56	135.99	29.78	
	05/28/98		21.78	134.77	29.76	
	08/31/98		22.64	133.91	29.78	
	12/08/98		22.87	133.68	29.76	
	02/1 <i>7/</i> 99		21.53	135.02	29.75	
	06/10/99		22,74	133.81	29.74	
	09/07/99		23.06	133,49	29.73	

NOTES.

Measurement and reference elevation taken from notch/mark on top north side of well casing Elevation referenced to mean sea level. Measurement from top of casing to bottom of well Well abandoned.

Well Depth 3

(Measurements in feet)

Monitoring Well	Date	Reference Elevation (top of casing) ¹	Depth to Ground Water ⁱ	Ground Water Elevation ²	Well Depth	Comments
MW-2	03/27/92	155.17	20.82	134.35		
(-1177 -2	06/04/92	133.17	21.81	133,36		İ
	09/23/92	-	22.45	132.72		
	11/12/92		22.60	132.57	29.71	
	02/02/93		20.28	134.89	29.73	
	05/07/93		20.97	134.20	29.73	
	05/18/93		21.06	134.11		
	08/11/93		21.85	133.32	29.70	
	11/05/93		22.32	132.85	29.70	
	03/01/94		21.19	133.98	29.68	
	06/02/94		21,59	133.58	29.69	
	09/09/94		22.33	132.84	29.66	
	12/20/94		21.37	133.80	29.65	
	03/08/95		20.60	134.57	29.52	
	06/14/95	i	21.04	134.13	29.54	
	09/26/95		21.84	133.33	29.53	
	12/27/95		21.44	133.73	29.56	
	03/26/96		19.81	135.36	29.56	
	06/05/96		20.83	134.34	29.59	
	09/16/96		21.93	133.24	29.58	
	12/02/96		21.54	133.63	29.58	
	03/10/97		20.71	134.46	29.58	
	06/12/97		21.41	133.76	29.52	
	09/29/97		21.26	133.91	29.51	
	12/01/97	ļ	20.97	134.20	29.50	
	03/19/98		18.98	136.19	29.51	
	05/28/98		20.22	134.95	29.50	
	08/31/98		21.09	134.08	29.51	
	12/08/98		21.31	133.86	29.50	
	02/17/99		20.02	135.15	29.51	
	06/10/99	į	21.30	133.87	29.50	
	09/07/99		21.49	133.68	29.50	

NOTES:

Measurement and reference elevation taken from notch/merk on top north side of well casing. Elevation referenced to mean sea level.

Measurement from top of casing to bottom of well.

Well abandoned.

Well Depth

(Measurements in feet)

Monitoring Well	Date	Reference Elevation (top of casing) ¹	Depth to Ground Water ¹	Ground Water Elevation ²	Well Depth	Comments
MW-3	03/27/92	157.13	21.46	135.67		
	06/04/92	157.15	22.34	134.79		
	09/23/92	_	22.84	134.29		
	11/12/92		23.04	134.09	29.55	
ŀ	02/02/93		21.03	136.10	29.45	
	05/07/93		21.59	135.54	29.53	
	05/18/93		21.73	135.40	27.33	
ļ	08/11/93		22.31	134.82	29.41	
ŀ	11/05/93		22.85	134.28	29.41	
	03/01/94		21.97	135.16	29.55	
	06/02/94		22.29	134.84	29.56	
	09/09/94		22.91	134.22	29.56	
	12/20/94		22.11	135.02	29.54	
	03/08/95		21.40	135.73	29.38	
	06/14/95		21.80	135.33	29.36	
	09/26/95	·	22.38	134.75	29.37	
	12/27/95		22.07	135.06	29.37	
	03/26/96		20.73	136.40	29.38	
	06/05/96		21.54	135.59	29.40	
	09/16/96		22.37	134.76	29.43	
	12/02/96		22.35	134.78	29.45	
	03/10/97		21,44	135.69	29.47	
	06/12/97		21.97	135.16	29.45	
	09/29/97		22.30	134.83	29.45	
	12/01/97		21.78	135.35	29.46	
	03/19/98		19.88	137.25	29.46	
	05/28/98		20.91	136.22	29.47	
	08/31/98		21.61	135.52	29.47	
	12/08/98	[21.83	135.30	29.47	
	02/17/99	ĺ	20.81	136.32	29.45	
	06/10/99		21.61	135.52	29.45	
	09/07/99		21.91	135.22	29.45	

NOTES:

Measurement and reference elevation taken from notch/mark on top north side of well casing,

2 Well Depth 3

Elevation referenced to mean sea level.

Measurement from top of casing to bottom of well

Weil abandoned

(Measurements in feet)

Monitoring Well	Date	Reference Elevation (top of casing) ¹	Depth to Ground Water ^t	Ground Water Elevation ¹	Well Depth	Comments
MW-4	05/18/93	151.96	17.55	134.41		
	08/11/93		17.50	134.46	28.43	į
İ	11/05/93	-	15.84	136.12	28.43	
	03/01/94		17.35	134.61	28.11	
	06/02/94		17.68	134.28	28,12	
	09/09/94		18.19	133.77	28,13	
	12/20/94		17.52	134.44	28.10	
	03/08/95		16.82	135.14	27.97	
	06/14/95		17.22	134.74	27.97	
	09/26/95		17.79	134.17	27.91	
	12/27/95		17.47	134.49	27.8 9	
	03/26/96		16.32	135.64	27.89	
	06/05/96		17.10	134.86	27.88	
	09/16/96		17.85	134.11	27.89	
	12/02/96		17.59	134.37	27.88	
	03/10/97		16.79	135.17	27.89	
	06/12/97		17.49	134.47	27.90	
	09/29/97 12/01/97		18.33	133.63	27.91	
	03/19/98		17.36 15.90	134.60 136.06	27.90	
	05/28/98		16.34	135.62	27.91 27.90	
	08/31/98		16.83	135.13	27.90 27.90	
	12/08/98		17.37	134.59	27.91	
	02/17/99		16.49	135.47	27.98	
	06/10/99]	17.63	134.33	24.76	
	09/07/99		17.80	134.16	24.75	
MW-5	05/18/93	148.68	15.72	132.96	_ 	
	08/11/93		16.42	132.26	25.43	
	11/05/93		16.92	131.76	25.43	
	03/01/94		15.54	133.14	25.00	
	06/02/94		16.19	132.49	25.00	
	09/09/94		16.87	131.81	25.00	
	12/20/94		15.84	132.84	25.01	
;	03/08/95		15.11	133.57	24.85	
İ	06/14/95		15.69	132.99	24.86	
	09/26/95		16.46	132.22	24.81	
	12/27/95		15.91	132.77	24.80	
i	03/26/96		14.31	134.37	24.81	
į	06/05/96		15.43	133.25	24.75	
	09/16/96 12/02/96		16.52 16.05	132.16 132.63	24.74	
	03/10/97		14.80	132.63	24.76 24.74	
	06/12/97		15.95	133.88	24.74 24.75	
	09/29/97		16.33	132.78	24.75	
	12/01/97		15.48	133.20	24.78 24.78	
	03/19/98		13.16	135.52	24.77	
	05/28/98	i	14.04	134.64	24.77	i
	08/31/98		14.81	133.87	24.79	
	12/08/98		15.75	132.93	24.76	
	02/17/99		14.80	133.88	24.78	
	06/10/99	ì	15.54	133.14	29.62	
	09/07/99		16.01	132.67	29.61	

NOTES:

Measurement and reference elevation taken from notch/mark on top north side of well casing. Elevation referenced to mean sea level.

Measurement from top of casing to bottom of welf.

Well abandoned.

Well Depth

(Measurements in feet)

Monitoring Well	Date	Reference Elevation (top of casing) ¹	Depth to Ground Water ⁱ	Ground Water Elevation ²	Well Depth	Comments
MW-6	05/18/93	153.96	20.80	133.16		
	08/11/93		21.64	132.32	31.15	
	11/05/93	-	22.11	131.85	31.15	!
	03/01/94		20.80	133.16	29.96	
	06/02/94		21.37	132.59	29.98	
	09/09/94		22,05	131.91	29.96	
	12/20/94		21.06	132.90	29.89	
	03/08/95		20.29	133.67	29.67	
	06/14/95		20.81	133.15	29.65	
	09/26/95 12/27/95		21.62	132.34	29.66	
	03/26/96		21.12	132.84	29.63	
	06/05/96		19.50 20.56	134.46 133.40	29.60 2 9 .63	
	09/16/96	İ	21.70	132.26	29.65 29.65	
	12/02/96		21.75	132.71	29.66	
	03/10/97	-	20.16	133.80	29.64	
	06/12/97		21.16	132.80	29.62	
	09/29/97		21.51	132.45	29.62	
	12/01/97		20.89	133.07	29.61	
	03/19/98		18,71	135.25	29.60	
	05/28/98		19.99	133.97	29.62	
	08/31/98		20.81	133.15	29.63	
	12/08/98		21.00	132.96	29.64	
	02/17/99	ŀ	19.54	134.42	29.63	
	06/10/99		20.74	133.22	27.98	
7	09/07/99		21.23	132.73	27.98	
MW-7	05/18/93	156.09	22.64	133.45		
	08/11/93		23.25	132,84	30.75	
	11/05/93		23.93	132.16	30.75	
	03/01/94		22.72	133.37	30.11	
	06/02/94		23.22	132.87	30.12	
	09/09/94 12/20/94		23.90 22.98	132.19	30.12	
i	03/08/95		22.98	133.11	30.10	
	05/08/95	Ī	22.14	133.95 133.48	29.91 29.91	
	09/26/95		23.43	132.66	29.90	
	12/27/95		23.01	133.08	29.90 29.90	
	03/26/96		21.32	134.77	29.87	
	06/05/96	1	22.37	133.72	29.91	
	09/16/96	l	23.51	132.58	29.90	
	12/02/96		23.08	133.01	29.91	
	03/10/97	1	21.94	134.15	29.90	
	06/12/97		22.96	133.13	29.88	
	09/29/97		23,35	132.74	29.87	
	12/01/97		22.68	133.41	29.88	
	03/19/98		20.52	135.57	29.88	
Ì	05/28/98	j	21.76	134.33	29.88	
İ	08/31/98	İ	22.66	133.43	29.86	
	12/08/983					

NOTES:

Measurement and reference elevation taken from notch/mark on top north side of well casing. Elevation referenced to mean sea level. Measurement from top of casing to bottom of well. Well abandoned.

(Measurements in feet)

Monitoring Well	Date	Reference Elevation (top of casing) ¹	Depth to Ground Water ¹	Ground Water Elevation ²	Well Depth	Comments
MW-8	05/18/93	158.04	21.55	136.49		
	08/11/93		22.43	135.61	34.82	•
	11/05/93	•	23.00	135.04	34.82	
	03/01/94		22.05	135.99	34.04	
	06/02/94		22.29	135.75	34.04	
	09/09/94		22.99	135.05	34.04	
	12/20/94		22.14	135.90	33.98	1
	03/08/95	İ	21.25	136.79	34.48	
	06/14/95		21.70	136.34	34,49	
	09/26/95		22,29	135.75	34.40	
	12/27/95		21.96	136.08	34.43	
	03/26/96		20.48	137.56	34.42	
	06/05/96		21.50	136.54	34.41	
	09/16/96		22.38	135.66	34.43	
	12/02/96		22.39	135.65	34.42	
	03/10/97		20.89	137.16	34.43	
	06/12/97		21.80	136.24	34.42	
	09/29/97		22.81	135.23	34.40	
	12/01/97		21.70	136.34	34.41	
	03/19/98	l	19.35	138.69	34.42	i
	05/28/98		20.52	137.52	34.41	
	08/31/98		21.40	136.64	34.40	
	12/08/983					

NOTES.

Measurement and reference elevation taken from notch/mark on top north side of well casing. Elevation referenced to mean sea level.

Measurement from top of casing to bottom of well.

Well abandoned.

2 Well Depth

TABLE 2 **GROUND WATER ANALYTICAL RESULTS BEACON STATION #574**

22315 REDWOOD ROAD, CASTRO VALLEY, CALIFORNIA

(All results in micrograms per Liter)

Monitoring Well	Date Collected	Total Pe	troleum Hydi	rocarbons	Aromatic Volatile Organics					
		Gasoline	Diesel	Motor Oil	MTBE ¹	Benzene	Toluene	Ethy i- benzene	Total Xylenes	
MW-1	03/27/92	5,600	<50	<50		760	900	230	1,100	
	06/04/92	2,600	<800	- NA		270	57	230	440	
	09/23/92	3,400	NA	NA		480	430	110	550	
	11/12/92	2,700	NA	NA		5.8	<5.0	140	340	
	02/02/93	8,500	NA	NA		760	770	250	1,200	
	05/07/93	7,700	NA	NA		970	630	280	1,500	
	08/11/93	11,000	NA	NA NA		1,400	1,000	260	1,600	
1	11/05/93	36,000	NA	NA		6,200	4,700	1,400	7,100	
	03/01/94	3,800	NA	NA		580	490	110	620	
	06/02/94	8,900	NA	NA NA		1,900	1,200	420	2,100	
	09/09/94	4,300	NA	NA		740	290	200	630	
	12/20/94	3,900	NA	NA NA		550	260	150	510	
	03/08/95	8,100	NA	NA NA		1,100	540	250	1,100	
	06/14/95	NS	NS	NS		NS	NS	NS	NS	
ľ	09/26/95	8,600	NA	NA		2,100	550	420	1,300	
	12/27/95	NS	NS	NS		NS	NS	NS	NS	
	03/26/96	21,000	NA	NA I		7,000	2,700	590	7,000	
İ	06/05/96	NS	NS	NS		NS	NS	NS	NS	
	09/16/96	13,000	NA	NA	1,400	3,200	770	4 0	2,900	
i	12/02/96	NS	NS	NS	NS	NS	NS	NS	NS	
	03/10/97	30,000	NA	NA	1,100	7,300	1,900	850	7,100	
	06/12/97	NS	NS	NS	NS	NS	NS	NS	NS	
i	09/29/97	25,000	NA	NA	840	5,500	920	920	4,000	
l	12/01/97	NS	NS	NS	NS	NS	NS	NS	NS	
ļ.	03/19/98	90,000	NA	NA	<1,500	15,000	7,000	3,300	20,000	
	05/28/98	NS	NS	NS	NS	NS NS	NS NS	NS	NS NS	
	08/31/98	50,000	NA	NA I	890	9,900	1,500	2,100	9,400	
	12/08/98	NS	NS	NS I	NS	NS	NS NS	NS	NS	
ŀ	02/17/99	30,000	NA	NA NA	720	8,000	1,100	2,200	10,000	
I	06/10/99	NS	NS	NS	NS	NS NS	NS NS	NS	NS NS	
	09/07/99	37,000	NA	NA I	570	13.000	410	2,000	10,000	

NOTES.

Below indicated detection limit. Not sampled.

NS NA 1 2 Not enalyzed. Product is not typical gasoline. Well abandoned.

(All results in micrograms per Liter)

Monitoring Well	Date Collected	Total Pe	troleum Hydr	ocarbons	Aromatic Volatile Organics					
		Gasoline	Diesel	Motor Oil	мтве	Benzene	Toluene	Ethyl- benzene	Total Xylenes	
MW-2	03/27/92	18,000	<50	<50		2,400	2,300	870	3,300	
	06/04/92	14,000	<5,000	NA		1,900	1,700	580	2,300	
	09/23/92	22,000	ŃΑ	_ NA		2,100	1,500	760	2,900	
	11/12/92	29,000	NA	NA NA		2,400	860	540	3,500	
	02/02/93	24,000	NA	NA		2,700	1,900	590	2,600	
	05/07/93	19,000	NA	NA		1,800	1,300	460	2,600	
i	08/11/93	23,000	NA	NA		2,300	1,500	550	2,300	
	11/05/93	30,000	NA	NA		3,100	2,900	860	3,700	
	03/01/94	13,000	NA	NA		1,500	490	350	1,000	
	06/02/94	12,000	NA	NA		2,000	790	460	1,300	
	09/09/94	13,000	NA	NA :		1,800	660	4↓0	1,000	
i	12/20/94	16,000	NA	NA NA		2,300	1,000	650	1,900	
	03/08/95	16,000	NA	NA.		2,200	1,000	550	2,100	
	06/14/95	NS	NS	NS		NS	NS	NS	NS	
	09/26/95	18,000	NA	NA.		2,500	1,000	7^0	2,700	
	12/27/95	NS	NS	NS		NS	NS	NS	NS	
	03/26/96	33,000	NA	NA I		4,200	2,600	1,000	5,000	
	06/05/96	NS	NS	NS		NS	NS	NS	NS	
	09/16/96	19,000	NA	NA NA	940	2,600	490	560	2,000	
	12/02/96	NS	NS	NS	NS	NS	NS	NS	NS	
	03/10/97	23,000	NA	NA	1,400	3,700	870	650	3,000	
i	06/12/97	ŃS	NS	NS	ŃS	NS	NS	NS	NS	
	09/29/97	30,000	NA	NA	1,400	4,900	880	940	3,800	
	12/01/97	NS	NS	NS	NS	NS	NS	NS	NS	
	03/19/98	72,000	NA	NA NA	<1,500	14,000	9,500	2,300	11,000	
1	05/28/98	NS	NS	NS	NS	NS	NS	NS	NS	
	08/31/98	29,000	NA	NA	890	4,900	1,600	960	3,900	
	12/08/98	NS	NS	NS	NS	NS	NS	NS	NS	
ŀ	02/17/99	26,000	NA	NA	640	5,200	930	1,200	4,400	
	06/10/99	NS	NS	NS	NS	NS	NS	NS	NS	
l	09/07/99	32,000	NA	NA	1.100	5,700	600	1,200	3,500	

NOTES.

Below indicated detection limit.
 Not sampled.
 Not analyzed.
 Product is not typical gasoline.
 Well abandoned.

(All results in micrograms per Liter)

Monitoring Well	Date Collected	Total Pe	troleum Hydr	ocarbons		Aron	natic Volatile Org	ganics	
		Gasoline	Diesel	Motor Oil	мтве'	Benzene	Toluene	Ethyl- benzene	Total Xylenes
MW-3	03/27/92	160	<50	<50		9.2	4.8	10	23
	06/04/92	120	<50	NA		7.5	2.7	0.5	15
	09/23/92	220	NA	- NA		8.3	4.3	6.2	19
	11/12/92	230	NA	NA		12	5.5	7 7	19
	02/02/93	86	NA	NA	j	2.4	0.71	2 7	6.2
	05/07/93	140	NA	NA		2.6	1.2	3.9	8.4
	08/11/93	490	NA	NA		15	8.1	14	37
	11/05/93	820	NA	NA		45	24	34	93
	03/01/94	410	NA	NA		7,4	2.7	5 6	10
	06/02/94	440	NA	ÑΑ		13	4.9	14	31
	09/09/94	620	NA	NA		12	4.8	97	20
	12/20/94	770	NA	NA		24	11	16	36
	03/08/95	300	NA	NA		6.1	0.97	48	7.5
	06/14/95	NS	NS	NS		NS	NS	NS	NS
	09/26/95	130	NA	NA		4.8	1.6	4.8	9.4
	12/27/95	NS	NS	NS		NS	NS	NS	NS
ŀ	03/26/96	<50	NA	NA		< 0.50	< 0.50	< 0.50	< 0.50
	06/05/96	NS	NS	NS		NS	NS	NS	NS
	09/16/96	170	NA	NA	<5.0	10	2.9	4.4	15
	12/02/96	N\$	NS	NS	NS	NS	NS	NS	NS
	03/10/97	84	NA	NA.	<5.0	2.3	< 0.50	1.4	2.6
	06/12/97	NS	NS	NS	NS	NS	NS	NS	NS
	09/29/97	740	NA	NA NA	<5.0	61	9.8	42	61
	12/01/97	NS	NS	NS	NS	NS	NS	N'S	NS
	03/19/98	<50	NA	NA	<5.0	<0.50	<0.50	<0.50	<0.50
ŀ	05/28/98	NS	NS	NS	NS	NS	NS	NS	NS
İ	08/31/98	320	NA	NA	3.4	6.7	1.0	10	9.3
	12/08/98	NS	NS	NS	NS	NS	NS	NS	NS
ļ	02/17/99	310	NA	NA	<5.0	8.6	1.8	13	14
	06/10/99	NS	NS	NS	NS	NS	NS	NS	NS
	09/07/99	99	NA	NA	<5.0	4.2	0.51	4 0	3.0

NOTES:

Below indicated detection limit.

NS NA 1 2 Not sampled. Not analyzed. Product is not typical gasoline.

Well abandoned.

(All results in micrograms per Liter)

Monitoring Well	Date Collected	Total Pe	troleum Hydr	ocarbons		Aron	natic Volatile Org	ganics	
		Gasoline	Diesel	Motor Oil	мтве'	Benzene	Toluene	Ethyl- benzene	Total Xylenes
MW-4	05/18/93	<50	NA	NA		<0.5	<0.5	<0.5	<0.5
] 1	08/11/93	<50	NA	NA	i	<0.5	<0.5	<0.5	<0.5
# 1	11/05/93	<50	NA	- NA		< 0.5	<0.5	<0.5	<0.5
	03/01/94	<50	NA	NA		<0.5	<0.5	<0.5	<0.5
	06/02/94	<50	NA	NA		<0.5	<0.5	<0.5	<0.5
	09/09/94	<50	NA	NA		<0.5	<0.5	<0.5	<0.5
1	12/20/94	<50	NA	NA	}	<0.5	<0.5	<0.5	<0.5
1	03/08/95	NS	NS	NS		NS	NS	NS	NS
1 1	06/14/95	NS	NS	NS		NS	NS	NS	NS
l i 1	09/26/95 12/27/95	NS NS	NS NS	NS NS		NS	NS	NS S	NS
	03/26/96	NS NS	NS NS	NS NS		NS NS	NS NS	NS NS	NS NS
]	06/05/96	NS	NS	NS NS		NS NS	NS NS	NS NS	NS NS
	09/16/96	<50	NA.	NA NA	<5.0	<0.50	<0.50	<0.50	<0.50
<u> </u>	12/02/96	NS	NS	NS	NS	NS	NS NS	NS NS	NS
li i	03/10/97	NS	NS	NS	NS	NS	NS	NS	NS
	06/12/97	NS	NS	NS	NS	NS	NS	NS	NS
]	09/29/97	NS	NS	NS	NS	NS	NS	NS	NS -
	12/01/97	NS	NS	NS	NS	NS	NS	NS	NS
	03/19/98	NS	NS	N\$	NS	NS	NS	NS	NS
-	05/28/98	NS	NS	NS	NS	NS	NS	NS	NS
	08/31/98	NS	NS	NS	NS	NS	NS	NS	NS
	12/08/98 02/17/99	NS NC	NS	NS	NS	NS NS	NS NS	NS NS	NS
į (06/10/99	NS NS	NS NS	NS NS	NS NS	NS NS	NS	NS NS	NS
	09/07/99	NS	NS	NS NS	NS NS	NS NS	NS NS	NS NS	NS NS
MW-5	05/18/93	<50	NA	NA		<0.5	-O.E		-0.6
"""	08/11/93	<50 <50	NA.	NA NA		<0.5 <0.5	<0.5 <0.5	<0.5	<0.5 <0.5
	11/05/93	<50	NA	NA NA		<0.5	<0.5	<0.5	<0.5
	03/01/94	<50	NA	NA		<0.5	<0.5	<0.5	<0.5
1	06/02/94	<50	NA	NA		<0.5	<0.5	<0,5	<0.5
	09/09/94	<50	NA	NA		<0.5	<0.5	<0.5	<0.5
	12/20/94	<50	NA	NA	İ	<0.5	<0.5	<0.5	<0.5
[03/08/95	<50	NA	NA		<0.5	<0.5	<0.5	<0.5
	06/14/95	<50	NA NA	NA NA		<0.5	<0.5	<0.5	<0.5
	09/26/95 12/27/95	<50 <50	NA NA	NA NA		<0.50	<0.50	<0.50	<0.50
	03/26/96	<50	NA NA	NA NA		<0.50 <0.50	<0.50 <0.50	<0.50 <0.50	<0.50
] [06/05/96	<50 <50	NA NA	NA NA	15	<0.50	<0.50	<0.50	<0.50 <0.50
	09/16/96	<50 <50	NA.	NA NA	20	<0.50	<0.50	<0.50	<0.50
	12/02/96	<50	NA	NA	12	<0.50	<0.50	<0.50	<0.50
	03/10/97	<50	NA	NA	7.0	<0.50	<0.50	<0.50	<0.50
ĺ	06/12/97	<50	NA	NA	7.2	<0.50	<0.50	<0.50	<0.50
	09/29/97	<50	NA	NA]	<5.0	<0.50	< 0.50	<0.50	<0.50
j t	12/01/97	<50	NA	NA	<5.0	<0.50	<0.50	<0.50	<0.50
	03/19/98	<50	NA	NA	<5.0	<0.50	<0.50	<0.50	<0.50
	05/28/98	<50	NA	NA	<5.0	<0.50	< 0.50	<0.50	<0.50
j	08/31/98 12/08/98	<50	NA NA	NA NA	< 0.50	<0.50	<0.50	<0.50	<0.50
	02/17/99	<50 <50	NA NA	NA NA	<5.0 <5.0	<0.50 <0.50	< 0.50	<0.50	<0.50
	06/10/99	<50	NA NA	NA NA	<5.0 <5.0	<0.50	<0.50 <0.50	<0.50 <0.50	<0.50 <0.50
	09/07/99	<50	NA NA	NA NA	<5.0 <5.0	<0.50	< 0.50	<0.50	<0.50

NOTES

Below indicated detection limit.
 Not sampled.
 Not analyzed.
 Product is not typical gasoline.
 Well abandoned.

(All results in micrograms per Liter)

Monitoring Well	Date Collected	Total Pe	etroleum Hydr	ocarbons		Aron	natic Volatile Org	ganics	
		Gasoline	Diesel	Motor Oil	мтве'	Benzene	Toluene	Ethyl- benzene	Total Xylenes
MW-6	05/18/93	170	NA	NA		<0.5	<0.5	<0.5	<0.5
l.	08/11/93	78	NA	NA		<0.5	<0.5	<0.5	<0.5
	11/05/93	170	NA	_ NA		<0.5	<0.5	<0.5	0.65
	03/01/94	210	NA	NA	ľ	<0.5	<0.5	<0.5	<0.5
	06/02/94	190	NA	NA		<0.5	<0.5	<0.5	<0.5
	09/09/94	140	NA	NA	1	<0.5	<0.5	<0.5	<0.5
1	12/20/94	210	NA	NA		<0.5	<0.5	<0.5	<0.5
	03/08/95	180¹	NA	NA	i	<0.5	<0.5	<0.5	<0.5
	06/14/95	220¹	NA	NA.		<0.5	<0.5	<0.5	<0.5
	09/26/95	110 ^t	NA	NA		<0.50	<0.50	<0.50	<0.50
	12/27/95	1301	NA	NA		<0.50	<0.50	<0.50	<0.50
-	03/26/96	1001	NA	NA		<0.50	<0.50	<0.50	<0.50
	06/05/96	1001	NA	NA	430	<0.50	<0.50	<0.50	<0.50
	09/16/96	170	NA.	NA	430	<0.50	<0.50	<0.50	< 0.50
	12/02/96	160	NA	NA NA	160	<0.50	<0.50	<0.50	<0.50
	03/10/97	140	NA	NA	390	<0.50	<0.50	<0.50	<0.50
	06/12/97	<50	NA	NA	330	<0.50	<0.50	<0.50	<0.50
	09/29/97	<50	NA	NA	130	<0.50	<0.50	<0.50	<0.50
	12/01/97	<50	NA	NA	200	<0.50	<0.50	<0.50	<0.50
	03/19/98	<50	NA	NA	240	<0.50	<0.50	<0.50	<0.50
-	05/28/98	<50	NA	NA.	290	<0.50	<0.50	<0.50	<0.50
	08/31/98	<50 <50	NA	NA NA	290	<0.50	<0.50	<0.50	<0.50
	12/08/98 02/17/99	<50 <50	NA NA	NA NA	230	<0.50	<0.50	<0.50	<0.50
	06/10/99	<50 <50	NA NA	NA NA	200	<0.50 <0.50	<0.50 <0.50	<0.50 <0.50	<0.50
	09/07/99	<50 <50	NA NA	NA NA	290 230	<0.50	<0.50	<0.50	<0.50 <0.50
MW-7	05/18/93	<50	NA	NA		<0.5	<0.5	<0.5	<0.5
*****	08/11/93	<50	NA	NA		<0.5	<0.5	<0.5	<0.5
	11/05/93	<50	NA	NA		<0.5	<0.5	<0.5	<0.5
	03/01/94	60	NA	NA		<0.5	<0.5	<0.5	<0.5
	06/02/94	<50	NA	NA		<0.5	<0.5	<0.5	<0.5
	09/09/94	<50	NA	NA		<0.5	<0.5	<0.5	<0.5
	12/20/94	<50	NA	NA		<0.5	<0.5	<0.5	<0.5
	03/08/95	<50	NA	NA		<0.5	<0.5	<0.5	<0.5
	06/14/95	<50	NA	NA		<0.5	<0.5	<0.5	<0.5
1	09/26/95	<50	NA	NA		<0.50	<0.50	<0.50	<0.50
	12/27/95	<50	NA	NA ;		<0.50	<0.50	<0.50	<0.50
	03/26/96	<50	NA	NA		<0.50	<0.50	<0.50	<0.50
	06/05/96	<50	NA	NA	20	<0.50	<0.50	<0.50	<0.50
	09/16/96	<50	NA	NA	26	<0.50	<0.50	<0.50	<0.50
	12/02/96	140	NA	NA	140	<0.50	<0.50	<0.50	<0.50
	03/10/97	<50	NA	NA	29	<0.50	<0.50	<0.50	<0.50
	06/12/97	<50	NA	NA	28	<0.50	<0.50	<0.50	<0.50
	09/29/97	<50	NA	NA	27	<0.50	<0.50	<0.50	<0.50
	12/01/97	<50	NA	NA	29	<0.50	<0.50	<0.50	<0.50
	03/19/98	<50	NA	NA	6.0	<0.50	<0.50	<0.50	<0.50
	05/28/98	<50	NA	NA	25	<0.50	<0.50	<0.50	<0.50
	08/31/98 12/08/98²	<50	NA	NA	20	<0.50	<0.50	<0.50	<0.50

NOTES:

Below indicated detection limit. Not sampled.

Not sampled.
Not analyzed
Product is not typical gasoline.
Well abandoned.

NS NA 1 2

(All results in micrograms per Liter)

Monitoring Well	Date Collected	Total Pe	troleum Hydr	ocarbons	Aromatic Volatile Organics					
		Gasoline	Diesel	Motor Oil	мтве	Benzene	Toluene	Ethyl- benzene	Total Xylenes	
MW-8	05/18/93	<50	NA	NA NA		<0.5	<0.5	<0.5	<0.5	
	08/11/93	<50	NA	NA I		<0.5	<0.5	<0.5	<0.5	
	11/05/93	<50	NA	l NA		<0.5	<0.5	<0.5	<0.5	
	03/01/94	<50	NA	NA		<0.5	<0.5	<0.5	<0.5	
	06/02/94	<50	NA	NA		<0.5	<0.5	<0.5	<0.5	
	09/09/94	<50	NA	NA .		<0.5	<0.5	<0.5	<0.5	
	12/20/94	<50	NA	NA NA		<0.5	<0.5	<0.5	<0.5	
	03/08/95	NS	NS	NS		NS	NS	NS	NS	
	06/14/95	NS	NS	NS		NS	NS	NS	NS	
	09/26/95	NS	NS	NS		NS	NS	NS	NS	
	12/27/95	NS	NS	NS		NS	NS	NS	NS	
	03/26/96	NS	NS	N\$		NS	NS	NS	NS	
	06/05/96	NS	NS	NS		NS	NS	NS	NS	
	09/16/96	<50	NA	NA.	<5.0	< 0.50	< 0.50	<0.50	<0.50	
	12/02/96	NS	NS	NS	NS	NS	NS	NS	NS	
i	03/10/97	NS	NS	NS	NS	NS	NS	NS	l NS	
	06/12/97	NS	NS	NS	NS	NS	NS	NS	NS	
ļ	09/29/97	NS	NS	NS	NS	NS	NS	NS NS	NS	
ľ	12/01/97	NS	NS	NS	NS	NS	NS	NS	NS	
	03/19/98	NS	NS	NS	NS	NS	NS	NS	NS	
	05/28/98	NS	NS	NS	NS	NS	NS	NS	NS	
	08/31/98 12/08/98 ²	NS	NS	NS	NS	NS	NS	NS	NS	

NOTES:

Below indicated detection limit. Not sampled.

Product is not typical gasoline. Well abandoned.

NS NA 1 2

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 #574, 22315 Redwood Rd.

Date: 9-7-99

Castro Valley, CA

Project No.: 94-574-01

Recorded by:

Hal Hansen

Well 1	T 08	ime	Well Elev. TOC	Depth to Gr. Water	Measured Total Depth	Gr. Water Elevation	Depth to Product	Product Thickness	Comments
Mir-1	9	:50		23.06	29-73				
MW-3	7	:46		21.49	29-50				
MW-	3 9:	43		21.91	29.45				
Mir-	19:	:40		17.80	24.75				
mw-				16.01	29.61				
MW-6	19	:34		21-23	27.98				
	_								
		-							
	<u> </u>					**			
	_								
· · · · · · · · · · · · · · · · · · ·				***					
·			-						
<u> </u>	_		···						

Notes:

Signature: ____

(Client:	Ultramar			Sampling Date	: 9-7-0	79
	Site:	Beacon #	574			lo.: <u>94-574-</u>	
	_	22315 Re	dwood Road	We	ell Designati	on: <u>MW-/</u>	
			alley, CA				
Is the Is top Is well to Well to 12" BF	of cas ll cap s of well cover ty	iding water sing cut le sealed and ll casing n pe: 8" U 12" DWP	r in well bevel? locked? riser (in i V 12 12" CN	nches): "UV_X_	NO CES	Above TOC If no, s If no, s	Below TOO ee remarks ee remarks
Purgir	ng Equip	oment:	2" dispo 2" PVC b 4" PVC b	sable bai ailer ailer	lor	_Submersibl _Dedicated _Centrifuga	e pump bailer
					6"		·
Time:_ Depth Depth	9:00 of well to wate	r: 13.02	Rec Time: //: Depth to	harge Meas So water:	<u> 4.10</u> Calcu		
	Time	Temp.	E.C.	рН	Turbidity	/ Volume	9
	11:07	70.1	1780	5.17		1	
	11:10	71.0	1710	5.10		2	
	11:14	71.6	1690	5.00		3	
	//:/7	71-8	1640	4.70		4	
Sa 	ample ar	ppearance:	_(le	a	Lock:	appa	
2" Lo 4" Lo	ent replocking (ocking (ocking (Cap:	neck all th Lock Lock-D	at apply) #3753: olphin:		ion of repl 32 Allenhea 9/16 Bol enhead (DWP	d: t:
Remar	ks: _						
· · · · · · · · · · · · · · · · · · ·							

	Client:	Ultramar			Sampling Date:	9-7-99	
	Site:	Beacon #	574		Project No.	: <u>94-574-01</u>	
	-	22315 Re	dwood Road	We	ell Designation	: <u>MW- 9</u>	,
		Castro V	alley, CA			•	*
Is to Is we Heigh Well 12" B Gener	ere star op of cas all cap s at of wel cover ty	sing cut losealed and lose sealed and lose series with the lose series w	r in well pevel? locked? riser (in V 1 12" Clellhead ass	inches): 2" UV3 Sembly: E	NO VES NO	Above TOC Be If no, see If no, see	elow TOO remarks remarks
•			2" PVC 1 4" PVC 1	pailer	D	edicated bai entrifugal p	ler
;	Sampled				Teflon baile	_	ump
· · · · · · · · · · · · · · · · · · ·					6"8'		
Initia Time: Depth Depth	al Measu 9:46 of well to wate	ltiplier: rement - 29.50 r: 21.49	Rec Time: // Depth to	harge Meas :32 water: 2	1.47 surement 2.0/ Calcula 2://:35	_ •	
	Time	Temp.	E.C.	рН	Turbidity	Volume	
	10:53	70 . 1	2260	6-10		,	
	10:55	70.3	2171	598		2	
	10:57	71.5	2110	579		3	
	10:59	71.6	2040	590		4	
s	ample ar	pearance:	(L	ear	Lock:	Man	·
Equipm 2" L	ent repl ocking C ocking C		neck all th _ Loc		Note condition 7/32	Allenhead:_ 9/16 Bolt:_	
Equipm 2" L	ent repl ocking C ocking C ocking C	aced: (Ch	neck all th _ Loc	at apply) c #3753:	Note condition 7/32	Allenhead:_ 9/16 Bolt:_	

Equipment replaced: 2" Locking Cap: 4" Locking Cap: 6" Locking Cap:	(Check all that apply) Lock #3753: Lock-Dolphin:	:em
Remarks:		

De Filis

Lock:

Clear

Signature:

Sample appearance:

Client: <u>Ultramar</u>			Sampling Date: 9-7-99				
Site: <u>Beacon #</u>	574		Project No.:	94-574-01			
22315 Rec	lwood Road	We	ell Designation:	<u>mw- 5</u>			
Castro Va	alley, CA						
Is setup of traffic conditions there standing water is top of casing cut less well cap sealed and Height of well casing result well cover type: 8" UV 12" BK 12" DWP General condition of we	in well bevel? locked? iser (in i	nches): 2" UV3	NO YES A NO YES NO YES 12" EMCO 6" CNI Otl	bove TOC Below TOC If no, see remarks If no, see remarks 8" BK			
Purging Equipment: Sampled with: Dis	2" dispo 2" PVC b 4" PVC b	ailer ailer	Dec Cer	omersible pump dicated bailer ntrifugal pump			
Well Diameter:				***			
Purge Vol. Multiplier: Initial Measurement Time: 9:30 Depth of well: 19.63 Depth to water: 14.80 Start purge: 9:55	Rec Time: / Depth to	harge Mea: 0:10 water:	1.47 2. Surement Calculat IS. 16 Actu	ted purge:			
Time Temp.	E.C.	рН	Turbidity	Volume			
9:56 68.1	1460	7.30		1			
9:57 69.1	1410	7.25		2			
9:58 70-0	1398	7.20	-	3			
10:00 70.6	1396	7.17		4			
Sample appearance:	_Clas	<u> </u>	Lock: Joly	MNV			
Equipment replaced: (Ch 2" Locking Cap: 4" Locking Cap: 6" Locking Cap:	. Lock	at apply) (#3753: Oolphin:	7/32	of replaced item Allenhead: 9/16 Bolt: ead (DWP):			
Remarks:							

	Client:	Ultramar		8	Sampling Date:	9-7-99	
	Site:	Beacon #	574		Project No.:	94-574-01	
	-	22315 Rec	dwood Road	We	ell Designation:		
<u></u>		Castro Va	alley, CA			. <u>.</u> .	
Is th Is to Is we Heigh Well 12" B Gener	ere star op of cas ell cap s t of wel cover ty K al condi	nding water sing cut lessealed and ll casing rype: 8" UV 12" DWPtion of we	in well hevel? locked?	nches): 2" UV3 embly: E	NO VES NO VES NO VES 12" EMCO 6" CNI Ot xcellent 600d	bove TOC Bel If no, see re If no, see re 8* BK her Fair Poc	ow TO
	Sampled				Teflon baile		
	Well	Diameter:	2"	4"	6"8"_		
Initia Time: Depth	Vol. Mu al Measu 9:30 of well	ltiplier: rement : 27.98 r: 21.23	0.16 Rec	0.65 harge Meas	1.47 2.	61 gal/ft.	
Start	purge:_	10:10	Sam	pling time	: 10:21		
	Time	(T)	E.C.	На	Turbidity	7	
	111116	Temp.	1.0.	P	Turbiarcy	Volume	
		_			Turbraity	Volume	
		_	1791		Turbraity	Volume	
	10:11	70.5	1791	7.90		3	
	10:11	70.5	1791	7.90		Volume () 3 4	
S	10:11 10:12 10:14 10:15	70.5	1791 1740 1700	7.90 7.56 7.50 7.42	Lock: Dele	3	***************************************
Equipm 2" L 4" L	/0:// /0:// /0:// /0:// /0:// /0:// /0:// /0:// /o:// /o:// /o:// /o:// /o:// /o:// /o:// /o:// /o:// /o:// /o:// /o:// /o://	70.5 71.0 71.8 73.0	/79/ /790 /700 /6/6 	7.90 7.56 7.50 7.42	Lock: Dele Note condition 7/32	of replaced Allenhead:9/16 Bolt:_	
Equipm 2" L 4" L	/0:// /0:// /0:// /0:// /0:// /0:// /0:// /0:// /0:// /ocking Cock	70.5 71.0 71.8 73.0 pearance:	/79/ /790 /700 /6/6 	7.90 7.56 7.50 7.42 at apply) : #3753:_	Lock: Dele Note condition 7/32	of replaced Allenhead:9/16 Bolt:_	

ATTACHMENT C HISTORICAL GROUND WATER ELEVATION DATA

TABLE 2
WATER LEVEL DATA
(measurements in feet)

Mell (Die St	Reference Elevation (top to casing)	Depth to Ground Water	Ground Wate
MW-1	04-01-91 -	156.55	22.37	134.18
	03-27-92	130.55	22.43	134.12
!	06-04-92		23.40	133.15
	09-23-92		24.07	132.48
	11-12-92		24.16	132.39
	02-02-93		21.87	134.68
	05-18-93		22,66	133.89
MW-2	04-01-91	155.17	20.82	134,25
	03-27-92		20,82	134.35
	06-04-92		21.81	133.36
	09-23-92		22.45	132.72
ļ	11-12-92 02-02-93		22,60	132.57
ŀ	05-18-93		20.28	134.89
			21.06	134.11
MW-3	04-01-91	157.13	21.55	135.58
·	03-27-92		21.46	135.67
ľ	06-04-92		22.34	134.79
	09-23-92		22.84	134.29
	11-12-92 02-02-93	ŀ	23.03	134.09
	05-18-93		21.03	136.10
1.77			21.73	135.40
MW-4	05-18- 9 3	151.96	17.55	134,41
MW-5	05-18 -9 3	148.68	15.72	132.96
MW-6	05-18-93	153.96	20.80	133.16
MW-7	05-18-93	156.09	22.64	133.45
MW-8	05-18-93	158.04	21.55	136,49

ATTACHMENT D HISTORICAL GROUND WATER ANALYTICAL DATA

GROUND WATER ANALYTICAL RESULTS (concentrations in parts per billion)

	The second secon	Total P	Coleum Hy	liocubour	The second secon	Aromakia Y	nistila Organics 🤻	
Monitoring Well	Collected				THE PERSON	r	- TOylbanzere	
Carried States		Chromite	(· Deld:	Mobile OII	Berzone	Toluene :-	Ethylbenzene	Xylen
MW-1	04-01-91	4,100	<100		140	570	76	460
	03-27-92	5,600	<50	<50	760	900	230	1,100
	06-04-92	2,600	<\$00	_	270	57	230	440
	09-21-92	3,400	•	-	480	430	110	550
ļ	11-12-92	2,700	-	•	5.8	<5.0	140	340
	02-02-93	5,500			760	770	250	1,200
	05-07-93	7,700	•	-	970	630	280	1,500
MW-2	04-01-91	10,000	<100		650	640	150	960
	03-27-92	18,000	<50	<50	2,400	2,300	870	3.300
	06-04-92	14,000	<5,000	-	1,900	1,700	580	2,300
	09-23-92	22,000	-	-	2,100	1,500	760	2,900
	11-12-92	29,000		-	2,400	860	540	3.500
	02-02-93	24,000	•	- (2,700	1,900	590	2,600
	05-07-93	19,000		•	1,800	1,300	460	2,600
E-WM	04-01-91	3,100	<100	•	41	91	37	420
	03-27-92	160	<50	<50	9.2	4.8	10	23
.	06-04-92	120	<50	-	7.5	2.7	0.5	15
- 1	09-23-92	220	.]	· •	E.3	4.3	6.2	19
ľ	11-12-92	230]	-	12	5.5	7.7	19
ì	02-02-93	86	•	• (2.4	0.71	2.7	6.
	05-07-93	140	-]		2.6	1.2	3.9	8.
MW-4	05-18-93	<50		•	< 0.50	< 0.50	<0.50	<0
W-S	05-18-93	<50	-		<0.50	< 0.50	< 0.50	<0
MW-6	05-18-93	170		•	<0.50	< 0.50	<0.50	<0.:
MW-7	05-18-93	<50		_	<0.50	< 0.50	<0.40	<0
B-WN.	05-18-93	<50	.	_	< 0.50	< 0.50	< 0.50	<0

Note: Dush (-) indicates that the sample was not analyzed for this constituent.

ATTACHMENT E

LABORATORY REPORT AND CHAIN-OF-CUSTODY FORM



Date: 09/20/99

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

Subject: 5 Water Samples Project Name: Beacon 574 Project Number: 94-574-01

Dear Mr. van Dam,

Chemical analysis of the samples referenced above has been completed. Summaries of the data are contained
on the following pages. Sample(s) were received under documented chain-of-custody. US EPA protocols for
sample storage and preservation were followed.

Kiff Analytical is certified by the State of California (# 2236). If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,



Date: 09/20/99

Project Name: Beacon 574 Project Number: 94-574-01

Sample: MW-1

Matrix: Water

Sample Date :09/07/99

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	13000	50	ug/L	EPA 8020	09/17/99
Toluene	410	5.0	ug/L	EPA 8020	09/14/99
Ethylbenzene	2000	5.0	ug/L	EPA 8020	09/14/99
Total Xylenes	10000	50	ug/L	EPA 8020	09/17/99
Methyl-t-butyl ether	570	50	ug/L	EPA 8020	09/14/99
TPH as Gasoline	37000	500	ug/L	M EPA 8015	09/14/99
aaa-Trifluorotoluene (8020 Surrogate)	122		% Recovery	EPA 8020	09/14/99
aaa-Trifluorotoluene (Gasoline Surrogate)	109		% Recovery	M EPA 8015	09/14/99

Sample: MW-2

Matrix: Water

Sample Date :09/07/99

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	5700	10	ug/L	EPA 8020	09/16/99
Toluene	600	10	ug/L	EPA 8020	09/16/99
Ethylbenzene	1200	10	ug/L	EPA 8020	09/16/99
Total Xylenes	3500	10	ug/L	EPA 8020	09/16/99
Methyl-t-butyl ether	1100	100	ug/L	EPA 8020	09/16/99
TPH as Gasoline	32000	1000	ug/L	M EPA 8015	09/16/99
aaa-Trifluorotoluene (8020 Surrogate)	107		% Recovery	EPA 8020	09/16/99
aaa-Trifluorotoluene (Gasoline Surrogate)	100		% Recovery	M EPA 8015	09/16/99

Approved By: Apel Kiff

720 Olive Drive, Suite D Davis, CA 95616 530-297-4800



Date: 09/20/99

Project Name: Beacon 574
Project Number: 94-574-01

Sample: MW-3

Matrix: Water

Sample Date :09/07/99

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	4.2	0.50	ug/L	EPA 8020	09/13/99
Toluene	0.51	0.50	ug/L	EPA 8020	09/13/99
Ethylbenzene	4.0	0.50	ug/L	EPA 8020	09/13/99
Total Xylenes	3.0	0.50	ug/L	EPA 8020	09/13/99
Methyl-t-butyl ether	< 5.0	5.0	ug/L	EPA 8020	09/13/99
TPH as Gasoline	99	50	ug/L	M EPA 8015	09/13/99
aaa-Trifluorotoluene (8020 Surrogate)	99.8		% Recovery	EPA 8020	09/13/99
aaa-Trifluorotoluene (Gasoline Surrogate)	88.7		% Recovery	M EPA 8015	09/13/99

Sample: MW-5

Matrix: Water

Sample Date :09/07/99

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed		
Benzene	< 0.50	0.50	ug/L	EPA 8020	09/13/99		
Toluene	< 0.50	0.50	ug/L	EPA 8020	09/13/99		
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8020	09/13/99		
Total Xylenes	< 0.50	0.50	ug/L	EPA 8020	09/13/99		
Methyl-t-butyl ether	< 5.0	5.0	ug/L	EPA 8020	09/13/99		
TPH as Gasoline	< 50	50	ug/L	M EPA 8015	09/13/99		
aaa-Trifluorotoluene (8020 Surrogate)	103		% Recovery	EPA 8020	09/13/99		
aaa-Trifluorotoluene (Gasoline Surrogate)	91.8		% Recovery	M EPA 8015	09/13/99		

Approved By: Joel K

720 Olive Drive, Suite D Davis, CA 95616 530-297-4800



Date: 09/20/99

Project Name: Beacon 574 Project Number: 94-574-01

Sample: MW-6

Matrix: Water

Sample Date :09/07/99

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed	
Benzene	< 0.50	0.50	ug/L	EPA 8020	09/13/99	
Toluene	< 0.50	0.50	ug/L	EPA 8020	09/13/99	
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8020	09/13/99	
Total Xylenes	< 0.50	0.50	ug/L	EPA 8020	09/13/99	
Methyi-t-butyl ether	230	5.0	ug/L	EPA 8020	09/13/99	
TPH as Gasoline	< 50	50	ug/L	M EPA 8015	09/13/99	
aaa-Trifluorotoluene (8020 Surrogate)	104		% Recovery	EPA 8020	09/13/99	
aaa-Trifluorotoluene (Gasoline Surrogate)	92.1		% Recovery	M EPA 8015	09/13/99	

Approved By: Joel Kiff

720 Olive Drive, Suite D Davis, CA 95616 530-297-4800



Ultramar Inc.CHAIN OF CUSTODY REPORT

BEACON

14925

Beacon Station No.	Sampler (Print Name)									Π	9-7-99	Form No).
574	Edgar albruta					ANALYSES					9-1-99	/ of	<u>f</u>
Project No.	Sampler (Stopeture)											_	
94-574-01	1						11			Sign	State		
Project Location	Affiliation	7-				2 2 a	3			Containers	1	FAT	
CASTRO VALLEY	90	ULC	25			(gasc				of Con	÷		
Sample No./Identification	Date	Tir	ne	Lab No.	BTE	TPH (diesel)	트			No. o	REMARI	KS	ı
mm -/	9-7-99	11:52		-01	X	X				3			
Mu-2	1	11:35		-02	1	1	П						
MW-3		(1:	22	-03		\prod			\top				
mn-5	1	10:		-04							· · · · · · · · · · · · · · · · · · ·		
MW-6		10:	21	-05			\prod	11		И	/		
				***************************************			\prod	11	1				
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						\dagger	\prod		T			M	
Relinquished by: (Signature/Affiliation)	Date	Time	Receiv	ed by: (Signature	Aff	iliat	ion)	<u> </u>	_!_	LI		Date	Time
Relinquished by: (Signature/Affiliation)												 	
Relinquished by: (Signature/Affiliation)	Date	Time	Receive	ed by: (Signature	ηΑγ	iliati	ion)					Date	Time
Relinquished by: (Signature/Affiliation)	Det -												
	Date	Time	Heceive	ed by: (Signature	**************************************	iliati /	ion) ///		\mathcal{U}	N	alitical	Date 09/099	Time 1550
Report To:	· · · · · · · · · · · · · · · · · · ·		Bill to:	ULTHAMAH	INC	. /		00			- J-	1	
				5/25 West Th Hanford, CA	ira 5 932	30 30	et						}
van	DAM			Attention:			10	E		4	PLPRIPE	<u>E</u>	
WHITE: Return to Client with Report	YELLOW: Labo	ratory C	ору	PINK: Origina	lor	Cop	y					32-80	03 1/90