1/12/96

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

January 8, 1996

Ms. Amy Leech
Senior Hazardous Materials Specialist
Alameda County Health Care Services
80 Swan Way, Room 200
Oakland, CA 94621

SUBJECT: FORMER BEACON STATION NO. 574, 22315 REDWOOD ROAD, CASTRO VALLEY, CALIFORNIA

Dear Ms. Leech:

Enclosed is a copy of the **Third Quarter 1995 Groundwater Monitoring Report** for the above-referenced Ultramar facility prepared by El Dorado Environmental, Inc. Also included with the report 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.

Please do not hesitate to call if you have any questions about this project at (209) 583-5571.

Sincerely,

ULTRAMAR INC.

Kenneth R. Earnest
Environmental Specialist II
Marketing Environmental Department

Enclosure: Third Quarter 1995 Groundwater Monitoring Report
Quarterly Status Report

cc w/encl: Mr. Rich Hiett, San Francisco Bay Region, RWQCB
Mr. Peter J. Pugnale, Shell Oil Company

RESULT OF QUARTERLY MONITORING:

Results indicate that the dissolved petroleum hydrocarbon plume continues to be defined.

PROPOSED ACTIVITY OR WORK FOR NEXT QUARTER:

ACTIVITY	ESTIMATED COMPLETION DATE
Fourth quarter monitoring	December 1995
Initiate MTBE sampling	March 1996

El Dorado Environmental, Inc.

2221 Goldorado Trail, El Dorado, California 95623

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

January 4, 1996

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

Subject: **Third Quarter 1995 Ground Water Monitoring Report**
Beacon Station #574
22315 Redwood Road, Castro Valley, California

Dear Mr. Earnest:

El Dorado Environmental, Inc. (EDE) has prepared this report to document the results of quarterly ground water monitoring conducted on September 26, 1995 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 0.01 foot per foot. Ground water levels have decreased an average of 0.72 feet compared to the last monitoring event.

GROUND WATER SAMPLING AND ANALYSES

Ground water samples were collected from six monitoring wells. In accordance with an agreement with Alameda County, monitoring wells MW-4 and MW-8 were not sampled this quarter. 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 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 present at detectable concentrations in ground water samples collected from monitoring wells MW-5, MW-6, and MW-7. Benzene concentrations decreased in the sample collected from monitoring well MW-3; and increased in samples collected from monitoring wells MW-1 and MW-2 compared to prior sampling.

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

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

Mr. Rich Hiett
San Francisco Bay Regional Water Quality Control Board
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 (916) 626-3898.

Regards,

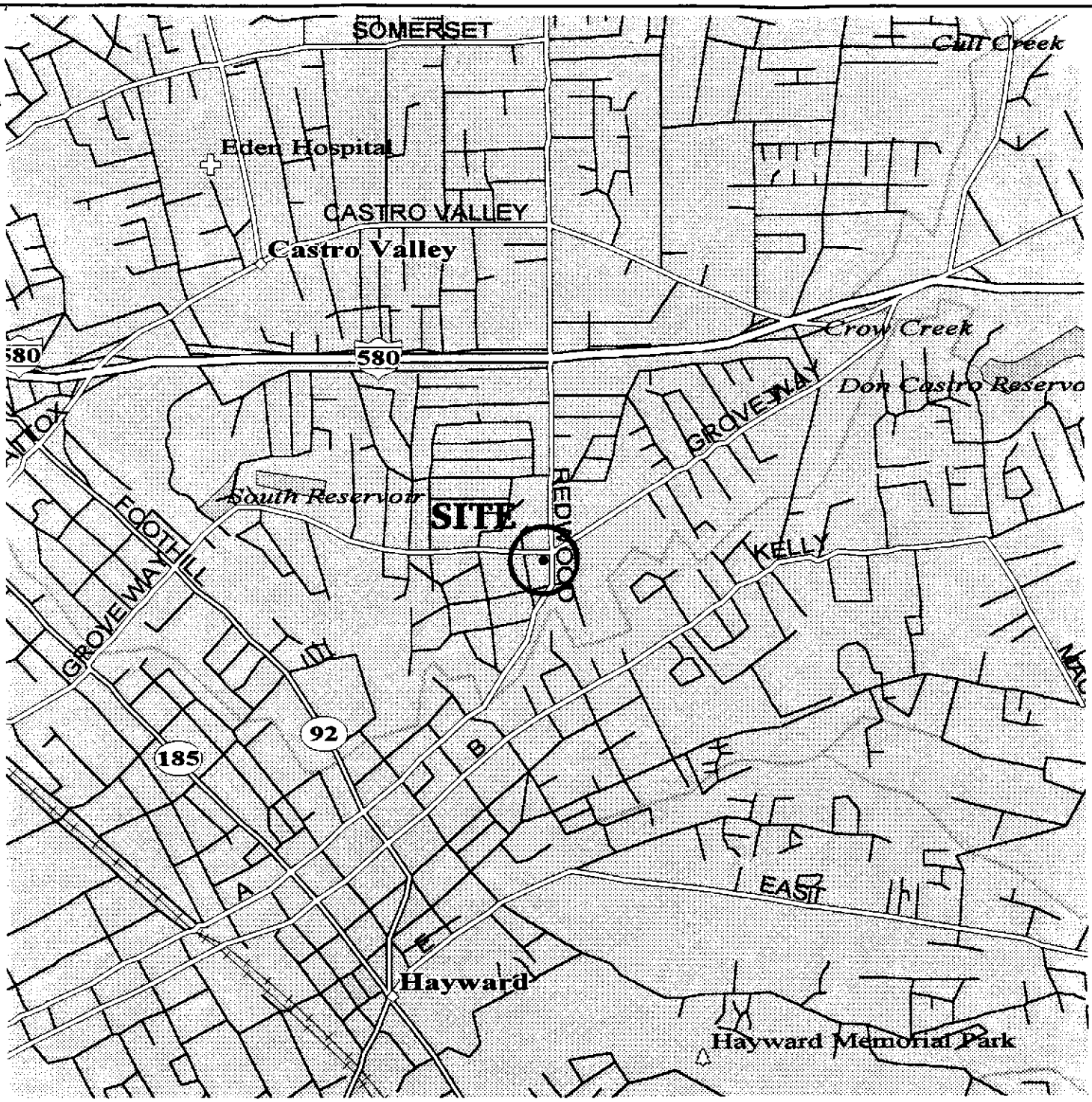
EL DORADO ENVIRONMENTAL, INC.

Dale A van Dam

Dale A. van Dam, R.G.
Hydrogeologist

DAvD/davd

Attachments



NORTH

0 2000

SCALE IN FEET

SITE LOCATION MAP

FIGURE 1

BEACON STATION #574
22315 REDWOOD ROAD
CASTRO VALLEY, CALIFORNIA

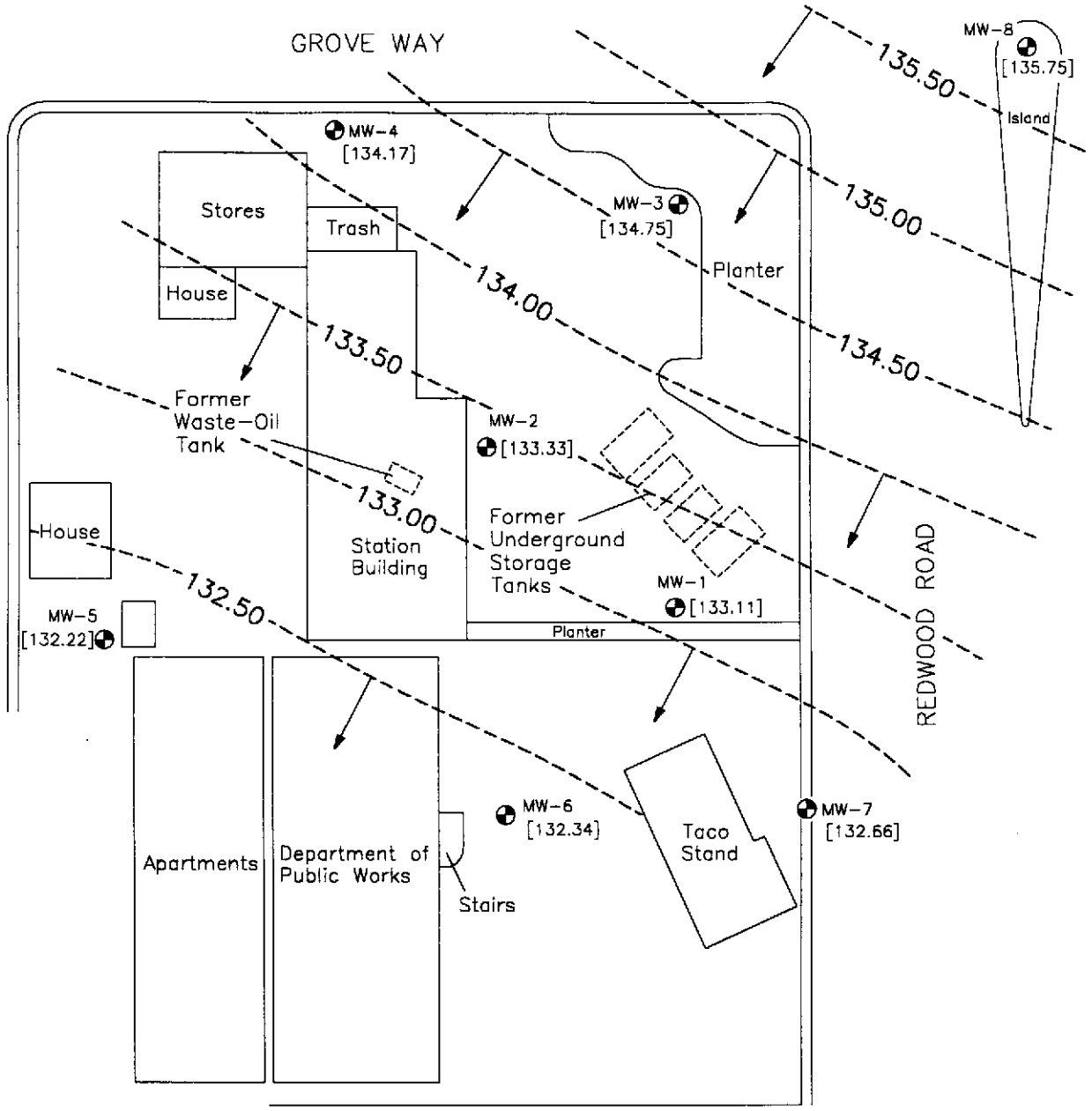
PROJECT NUMBER: U065.01

DRAWN BY: D.A.V.D.

CHECKED BY:

EL DORADO ENVIRONMENTAL, INC.

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



EXPLANATION

MW-8 ⊕ Monitoring Well Location

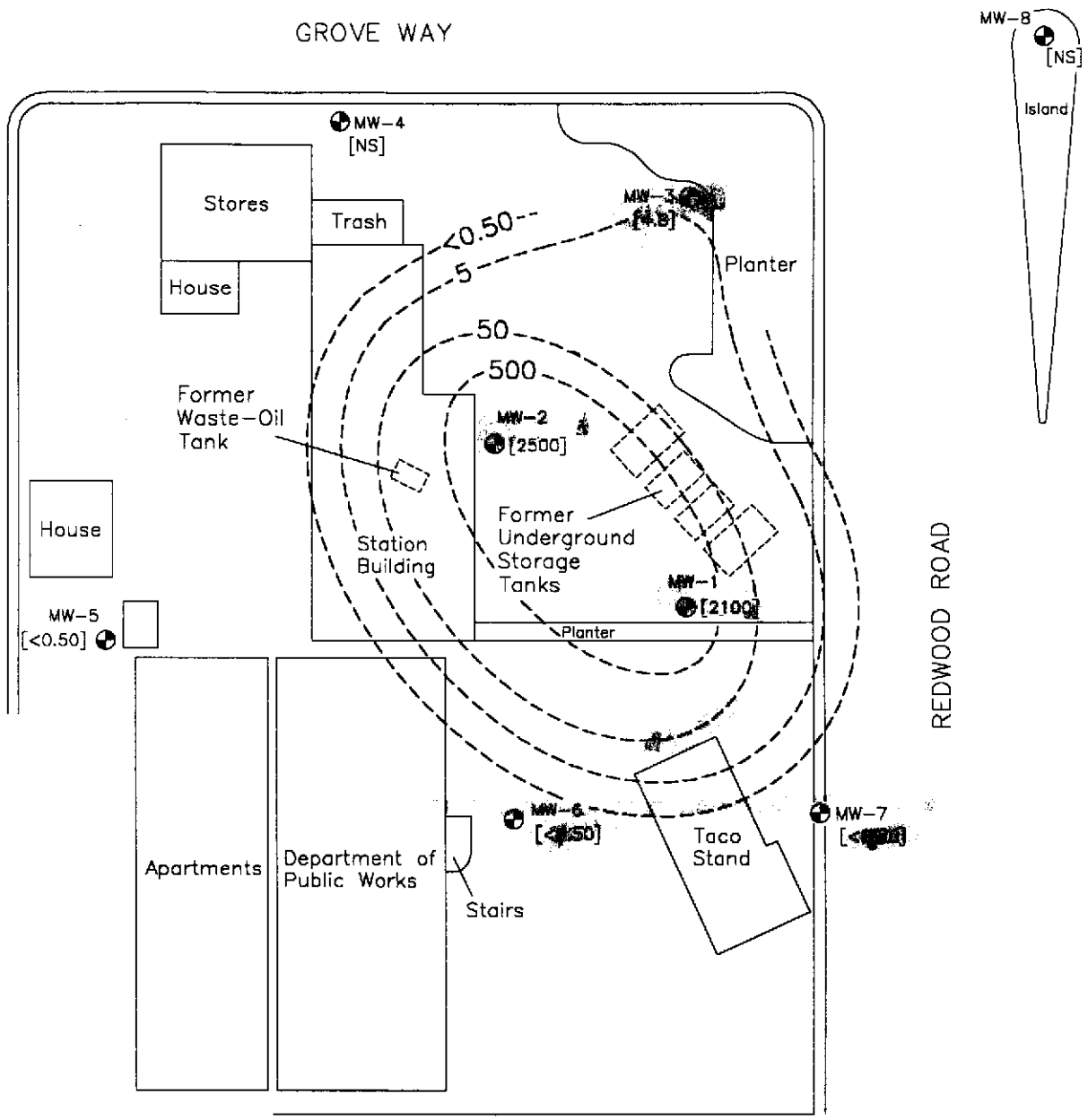
[135.75] Elevation of Ground Water Measured in Feet; Datum is Mean Sea Level

133.00 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, SEPTEMBER 26, 1995	FIGURE 2
BEACON STATION #574 22315 REDWOOD ROAD CASTRO VALLEY, CALIFORNIA	PROJECT NUMBER: U065.01 DRAWN BY: D.A.
EL DORADO ENVIRONMENTAL, INC.	CHECKED BY:



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

DISSOLVED BENZENE DISTRIBUTION MAP, SEPTEMBER 26, 1995	FIGURE 3
BEACON STATION #574 22315 REDWOOD ROAD CASTRO VALLEY, CALIFORNIA	PROJECT NUMBER: U065.01 DRAWN BY: D.A.
EL DORADO ENVIRONMENTAL, INC.	CHECKED BY: DD

TABLE 1
GROUND WATER ELEVATION DATA
BEACON STATION #574
22315 REDWOOD ROAD, CASTRO VALLEY, CALIFORNIA
(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-1	03/27/92	156.55	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	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		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	
MW-2	03/27/92	155.17	20.82	134.35	—	
	06/04/92		21.81	133.36	—	
	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		21.04	134.13	29.54	
	09/26/95		21.84	133.33	29.53	
MW-3	03/27/92	157.13	21.46	135.67	—	
	06/04/92		22.34	134.79	—	
	09/23/92		22.84	134.29	—	
	11/12/92		23.04	134.09	29.55	
	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	—	
	08/11/93		22.31	134.82	29.41	
	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	
MW-4	05/18/93	151.96	17.55	134.41	—	
	08/11/93		17.50	134.46	28.43	
	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	

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.

TABLE 1
GROUND WATER ELEVATION DATA
BEACON STATION #574
22315 REDWOOD ROAD, CASTRO VALLEY, CALIFORNIA
(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-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	
	06/14/95		15.69	132.99	24.86	
	09/26/95		16.46	132.22	24.81	
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		21.62	132.34	29.66	
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		23.90	132.19	30.12	
	12/20/94		22.98	133.11	30.10	
	03/08/95		22.14	133.95	29.91	
	06/14/95		22.61	133.48	29.91	
	09/26/95		23.43	132.66	29.90	
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	
	03/08/95		21.25	136.79	34.48	
	06/14/95		21.70	136.34	34.49	
	09/26/95		22.29	135.75	34.40	

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.

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 Petroleum Hydrocarbons			Aromatic Volatile Organics			
		Gasoline	Diesel	Motor Oil	Benzene	Toluene	Ethyl-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	1,400	1,000	260	1,600
	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	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	550	260	150	510
	03/08/95	8,100	NA	NA	1,100	540	250	1,100
	06/14/95	NS	NS	NS	NS	NS	NS	NS
	09/26/95	8,600	NA	NA	2,100	550	420	1,300
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	NA	NA	2,100	1,500	760	2,900
	11/12/92	29,000	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
	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	440	1,000
	12/20/94	16,000	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	770	2,700
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	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	NA	13	4.9	14	31
	09/09/94	620	NA	NA	12	4.8	9.7	20
	12/20/94	770	NA	NA	24	11	16	36
	03/08/95	300	NA	NA	6.1	0.97	4.8	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
MW-4	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	<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	<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

NOTES:
< = Below indicated detection limit.
NS = Not sampled.
NA = Not analyzed.
* = Product is not typical gasoline.

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 Petroleum Hydrocarbons			Aromatic Volatile Organics			
		Gasoline	Diesel	Motor Oil	Benzene	Toluene	Ethyl-benzene	Total Xylenes
MW-5	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	<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	<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
	09/26/95	<50	NA	NA	<0.50	<0.50	<0.50	<0.50
MW-6	05/18/93	170	NA	NA	<0.5	<0.5	<0.5	<0.5
	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	<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	<0.5	<0.5	<0.5	<0.5
	12/20/94	210	NA	NA	<0.5	<0.5	<0.5	<0.5
	03/08/95	180*	NA	NA	<0.5	<0.5	<0.5	<0.5
	06/14/95	220*	NA	NA	<0.5	<0.5	<0.5	<0.5
	09/26/95	110*	NA	NA	<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
	09/26/95	<50	NA	NA	<0.50	<0.50	<0.50	<0.50
MW-8	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	<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	<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

NOTES:
< = Below indicated detection limit.
NS = Not sampled.
NA = Not analyzed.
* = Product is not typical gasoline.

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 fro 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 Road
Castro Valley, CA

Date: 9-26-95

Project No.: 94-574-01

Recorded by: Hal Hansen

Well No.	Time	Well Elev. TOC	Depth to Ground Water	Measured Total Depth	Ground Water Elevation	Depth to Product	Product Thickness	Comments
MW-1	9:35		23.44	29.71				Petroleum odor no sheen
MW-2	9:27		21.84	29.53				Petroleum odor no sheen
MW-3	9:24		22.38	29.37				Petroleum odor no sheen
MW-4	9:20		17.79	27.91				no odor no sheen
MW-5	9:01		16.46	24.81				no odor no sheen
MW-6	9:06		21.62	29.66				no odor no sheen
MW-7	9:10		23.43	29.90				no odor no sheen
MW-8	9:16		22.29	34.40				no odor no sheen

NOTES:

DOULOS ENVIRONMENTAL COMPANY SAMPLING INFORMATION SHEET

Client: Ultramar
Site: Beacon #574
22315 Redwood Road
Castro Valley, CA

Sampling Date: 9-26-95
Project No.: 94-574-01
Well Designation: MW- 1

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 X 12" EMCO _____ 8" BK _____
12" BK _____ 12" DPW _____ 12" CNI _____ 36" CNI _____ Other _____
General condition of wellhead assembly: Excellent (Good) Fair Poor

Purging Equipment: _____ 2" disposable bailer _____ Submersible pump
_____ 3" 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
Time: 9:35
Depth of well: 29.71
Depth to water: 23.44

Recharge Measurement
Time: 12:04
Depth to water: 23.47

Calculated purge: 16.3 gal
Actual purge: 16.3 gal

Start purge: 11:27 Sampling time: 12:06

Time	Temperature	E. C.	pH	Turbidity	Volume
11:28	65.7	1259	7.89	—	1
11:34	66.0	1247	7.71	—	2
11:39	65.9	1235	7.64	—	3
11:45	65.8	1231	7.63	—	4

Sample appearance: clear Lock: Dolphin

Equipment replaced: (Check all that apply) Note condition of replaced items
2" locking cap: _____ Lock #3753: _____ 7/32 Allenhead _____
4" locking cap: _____ Lock-Dolphin: _____ 9/16 bolt _____
6" locking cap: _____ Pinned Allenhead (DPW): _____

Remarks _____

Signature _____

DOULOS ENVIRONMENTAL COMPANY SAMPLING INFORMATION SHEET

Client: Ultramar
Site: Beacon #574
22315 Redwood Road
Castro Valley, CA

Sampling Date: 9-26-95
Project No.: 94-574-01
Well Designation: MW- 2

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 X 12" EMCO _____ 8" BK _____
12" BK _____ 12" DPW _____ 12" CNI _____ 36" CNI _____ Other _____
General condition of wellhead assembly: Excellent (Good) Fair Poor

Purging Equipment: _____ 2" disposable bailer _____ Submersible pump
_____ 3" 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
Time: 9:27
Depth of well: 29.53
Depth to water: 21.84

Recharge Measurement
Time: 12:14
Depth to water: 21.89

Calculated purge: 200 gal
Actual purge: 20.0 gal

Start purge: 11:07 Sampling time: 12:16

Time	Temperature	E. C.	pH	Turbidity	Volume
11:09	65.6	1241	7.71	—	1
11:14	65.7	1219	7.61	—	2
11:20	65.8	1210	7.32	—	3
11:26	65.8	1201	7.28	—	4

Sample appearance: Clear Lock: 3753

Equipment replaced: (Check all that apply) Note condition of replaced items
2" locking cap: _____ Lock #3753: _____ 7/32 Allenhead: _____
4" locking cap: _____ Lock-Dolphin: _____ 9/16 bolt: _____
6" locking cap: _____ Pinned Allenhead (DPW): _____

Remarks _____

Signature: Val Rea

DOULOS ENVIRONMENTAL COMPANY — SAMPLING INFORMATION SHEET

Client: Ultramar
Site: Beacon #574
22315 Redwood Road
Castro Valley, CA

Sampling Date: 9-26-95
Project No.: 94-574-01
Well Designation: MW- 3

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 X 12" EMCO _____ 8" BK _____
12" BK _____ 12" DPW _____ 12" CNI _____ 36" CNI _____ Other _____
General condition of wellhead assembly: Excellent (Good) Fair Poor

Purging Equipment: _____ 2" disposable bailer _____ Submersible pump
_____ 3" 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
Time: _____
Depth of well: 29.37
Depth to water: 29.38

Recharge Measurement
Time: 12:09
Depth to water: 22.39

Calculated purge: 18.1 Gal
Actual purge: 18.1 Gal

Start purge: 10:42 Sampling time: 12:11

Time	Temperature	E. C.	pH	Turbidity	Volume
10:44	65.6	1207	7.49	—	1
10:49	65.7	1197	7.36	—	2
10:59	65.4	1189	7.27	—	3
11:05	65.2	1187	7.31	—	4

Sample appearance: clear Lock: Dolphin

Equipment replaced. (Check all that apply) Note condition of replaced items
2" locking cap: _____ Lock #3753: _____ 7/32 Allenhead: _____
4" locking cap: _____ Lock-Dolphin: _____ 9/16 bolt: _____
6" locking cap: _____ Pinned Allenhead (DPW): _____

Remarks: _____

Signature: _____

DOULOS ENVIRONMENTAL COMPANY SAMPLING INFORMATION SHEET

Client: Ultramar
Site: Beacon #574
22315 Redwood Road
Castro Valley, CA

Sampling Date: 9-26-95
Project No.: 94-574-01
Well Designation: MW- 5

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 X 12" UV _____ 12" EMCO _____ 8" BK _____
12" BK _____ 12" DPW _____ 12" CNI _____ 36" CNI _____ Other _____
General condition of wellhead assembly: Excellent (Good) Fair Poor

Purging Equipment: _____ 2" disposable bailer _____ Submersible pump
_____ 3" PVC bailer _____ Dedicated bailer
_____ 4" PVC bailer X Centrifugal pump
Sampled with: Disposable bailer: X Teflon bailer: _____

Well diameter: 2" X 4" _____ 6" _____ 8" _____
Purge Vol. Multiplier: 0.16 0.65 1.47 2.61 gal/ft.

Initial Measurement
Time: 9:01
Depth of well: 24.81
Depth to water: 16.46

Recharge Measurement
Time: 9:49
Depth to water: 16.80

Calculated purge: 5.3 gal
Actual purge: 5.3 gal

Start purge: 9:40 Sampling time: 9:50

Time	Temperature	E. C.	pH	Turbidity	Volume
9:41	65.4	757	7.40	—	1
9:42	65.3	748	7.21	—	2
9:43	65.1	740	7.14	—	3
9:44	65.3	731	7.10	—	4

Sample appearance: clear Lock: Dolphin

Equipment replaced: (Check all that apply) Note condition of replaced items
2" locking cap: _____ Lock #3753: _____ 7/32 Allenhead: _____
4" locking cap: _____ Lock-Dolphin: _____ 9/16 bolt: _____
6" locking cap: _____ Pinned Allenhead (DPW): _____

Remarks: _____

Signature _____

DOULOS ENVIRONMENTAL COMPANY — SAMPLING INFORMATION SHEET

Client: Ultramar
Site: Beacon #574
22315 Redwood Road
Castro Valley, CA

Sampling Date: 9-26-95
Project No.: 94-574-01
Well Designation: MW- 6

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): 10
Well cover type: 8" UV X 12" UV _____ 12" EMCO _____ 8" BK _____
12" BK _____ 12" DPW _____ 12" CNI _____ 36" CNI _____ Other _____
General condition of wellhead assembly: Excellent (Good) Fair Poor

Purging Equipment: _____ 2" disposable bailer _____ Submersible pump
_____ 3" PVC bailer _____ Dedicated bailer
_____ 4" PVC bailer X Centrifugal pump
Sampled with: Disposable bailer: X Teflon bailer: _____

Well diameter: 2" X 4" _____ 6" _____ 8" _____
Purge Vol. Multiplier: 0.16 0.65 1.47 2.61 gal/ft.

Initial Measurement
Time: 9:05
Depth of well: 29.60
Depth to water: 21.62

Recharge Measurement
Time: 10:17
Depth to water: 21.81

Calculated purge: 5.1 gal
Actual purge: 5.1 gal

Start purge: 1010
Sampling time: 10:18

Time	Temperature	E. C.	pH	Turbidity	Volume
10:11	65.9	671	7.80	—	1
10:12	65.7	860	7.47	—	2
10:13	65.6	845	7.35	—	3
10:14	65.7	840	7.31	—	4

Sample appearance: clear Lock: Dolphin

Equipment replaced: (Check all that apply) Note condition of replaced items
2" locking cap: _____ Lock #3753: _____ 7/32 Allenhead: _____
4" locking cap: _____ Lock-Dolphin: _____ 9/16 bolt: _____
6" locking cap: _____ Pinned Allenhead (DPW): _____

Remarks _____

Signature: [signature]

DOULOS ENVIRONMENTAL COMPANY SAMPLING INFORMATION SHEET

Client: Ultramar
Site: Beacon #574
22315 Redwood Road
Castro Valley, CA

Sampling Date: 9-26-95
Project No.: 94-574-01
Well Designation: MW- 7

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 X 12" UV _____ 12" EMCO _____ 8" BK _____
12" BK _____ 12" DPW _____ 12" CNI _____ 36" CNI _____ Other _____
General condition of wellhead assembly: Excellent (Good) Fair Poor

Purging Equipment: _____ 2" disposable bailer _____ Submersible pump
_____ 3" PVC bailer _____ Dedicated bailer
_____ 4" PVC bailer X Centrifugal pump
Sampled with: Disposable bailer: X Teflon bailer: _____

Well diameter: 2" X 4" _____ 6" _____ 8" _____
Purge Vol. Multiplier: 0.16 0.65 1.47 2.61 gal/ft.

Initial Measurement
Time: 9:10
Depth of well: 29.90
Depth to water: 23.43

Recharge Measurement
Time: 10:39
Depth to water: 23.60

Calculated purge: 4.1 gal
Actual purge: 4.1 gal

Start purge: 10:30 Sampling time: 10:40

Time	Temperature	E. C.	pH	Turbidity	Volume
10:31	65.0	907	7.58	—	1
10:32	65.4	891	7.41	—	2
10:34	65.3	897	7.34	—	3
10:35	65.7	884	7.31	—	4

Sample appearance: Clear Lock No Gplum

Equipment replaced: (Check all that apply) Note condition of replaced items
2" locking cap: _____ Lock #3753: _____ 7/32 Allenhead: _____
4" locking cap: _____ Lock-Dolphin: _____ 9/16 bolt: _____
6" locking cap: _____ Pinned Allenhead (DPW): _____

Remarks _____

Signature Karl Yan

ATTACHMENT C

HISTORICAL GROUND WATER ELEVATION DATA

TABLE 2

WATER LEVEL DATA
(measurements in feet)

Monitoring Well	Date	Reference Elevation (top of casing)	Depth to Ground Water	Ground Water Elevation
MW-1	04-01-91	156.55	22.37	134.18
	03-27-92		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
	11-12-92		22.60	132.57
	02-02-93		20.28	134.89
	05-18-93		21.06	134.11
MW-3	04-01-91	157.13	21.55	135.58
	03-27-92		21.46	135.67
	06-04-92		22.34	134.79
	09-23-92		22.84	134.29
	11-12-92		23.03	134.09
	02-02-93		21.03	136.10
	05-18-93		21.73	135.40
MW-4	05-18-93	151.96	17.55	134.41
MW-5	05-18-93	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

TABLE 3

GROUND WATER ANALYTICAL RESULTS
(concentrations in parts per billion)

Monitoring Well	Date Collected	Total Petroleum Hydrocarbons			Aromatic Volatile Organics			
		Gasoline	Diesel	Motor Oil	Benzene	Toluene	Ethylbenzene	Total Xylenes
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	<800	-	270	57	230	440
	09-23-92	3,400	-	-	480	430	110	550
	11-12-92	2,700	-	-	5.8	<5.0	140	340
	02-02-93	8,500	-	-	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
MW-3	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
	09-23-92	220	-	-	8.3	4.3	6.2	19
	11-12-92	230	-	-	12	5.5	7.7	19
	02-02-93	86	-	-	2.4	0.71	2.7	6.2
	05-07-93	140	-	-	2.6	1.2	3.9	8.4
MW-4	05-18-93	<50	-	-	<0.50	<0.50	<0.50	<0.50
MW-5	05-18-93	<50	-	-	<0.50	<0.50	<0.50	<0.50
MW-6	05-18-93	170	-	-	<0.50	<0.50	<0.50	<0.50
MW-7	05-18-93	<50	-	-	<0.50	<0.50	<0.50	<0.50
MW-8	05-18-93	<50	-	-	<0.50	<0.50	<0.50	<0.50

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

ATTACHMENT E

LABORATORY REPORT AND CHAIN-OF-CUSTODY FORM

WEST LABORATORY

October 6, 1995
Sample Log 12902

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

Subject: Analytical Results for 6 Water Samples
Identified as: Beacon 574 (Proj. # 94-574-01)
Received: 09/29/95

Dear Mr. van Dam:

Analysis of the sample(s) referenced above has been completed. This report is written to confirm results communicated on October 6, 1995 and describes procedures used to analyze the samples.

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

"BTEX" (EPA Method 602/Purge-and-Trap)
"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:

Joel Kiff
Senior Chemist

WEST LABORATORY

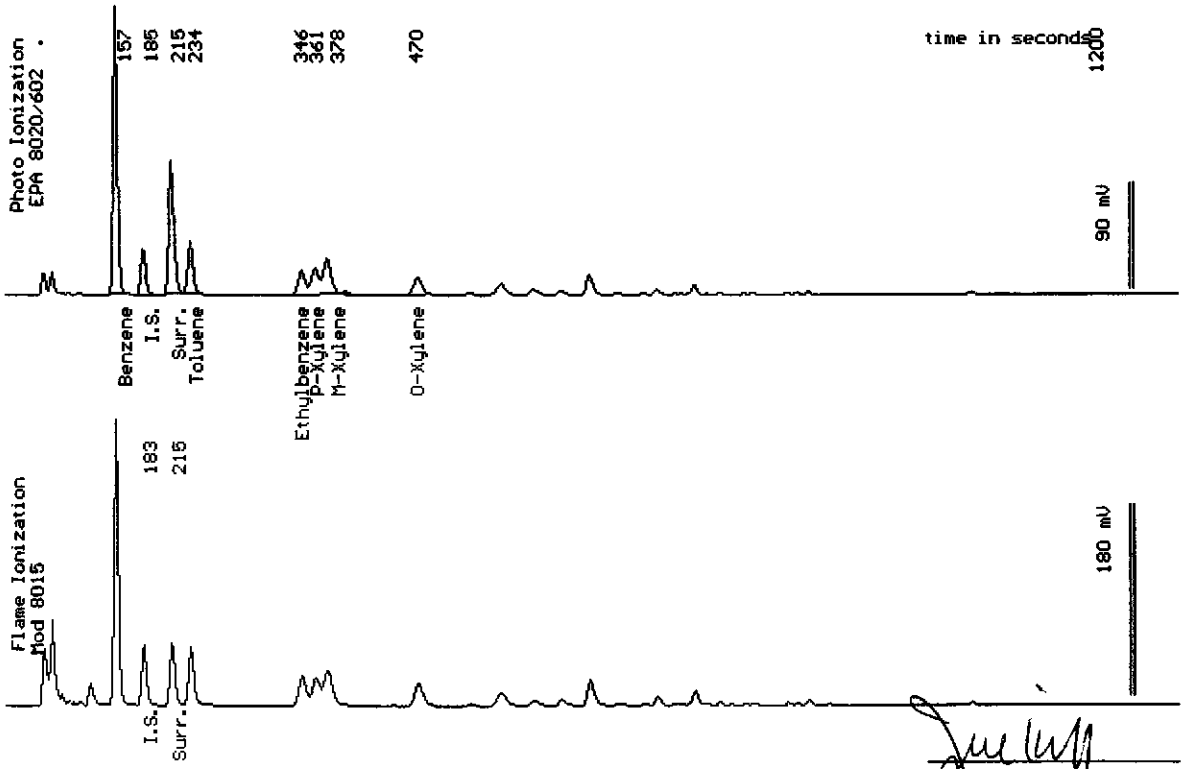
Sample Log 12902

12902-01

Sample: **MW-1**

From : Beacon 574 (Proj. # 94-574-01)
Sampled : 09/26/95
Dilution : 1:25 QC Batch : 4132U
Matrix : Water

Parameter	(MRL) ug/L	Measured Value ug/L
Benzene	(13)	2100
Toluene	(13)	550
Ethylbenzene	(13)	420
Total Xylenes	(13)	1300
TPH as Gasoline	(1300)	8600
Surrogate Recovery		94 %



Date Analyzed: 10-04-95
Column : 0.53mm ID X 30m DBWAX (J&W Scientific)

Joel Kiff
Senior Chemist

WEST LABORATORY

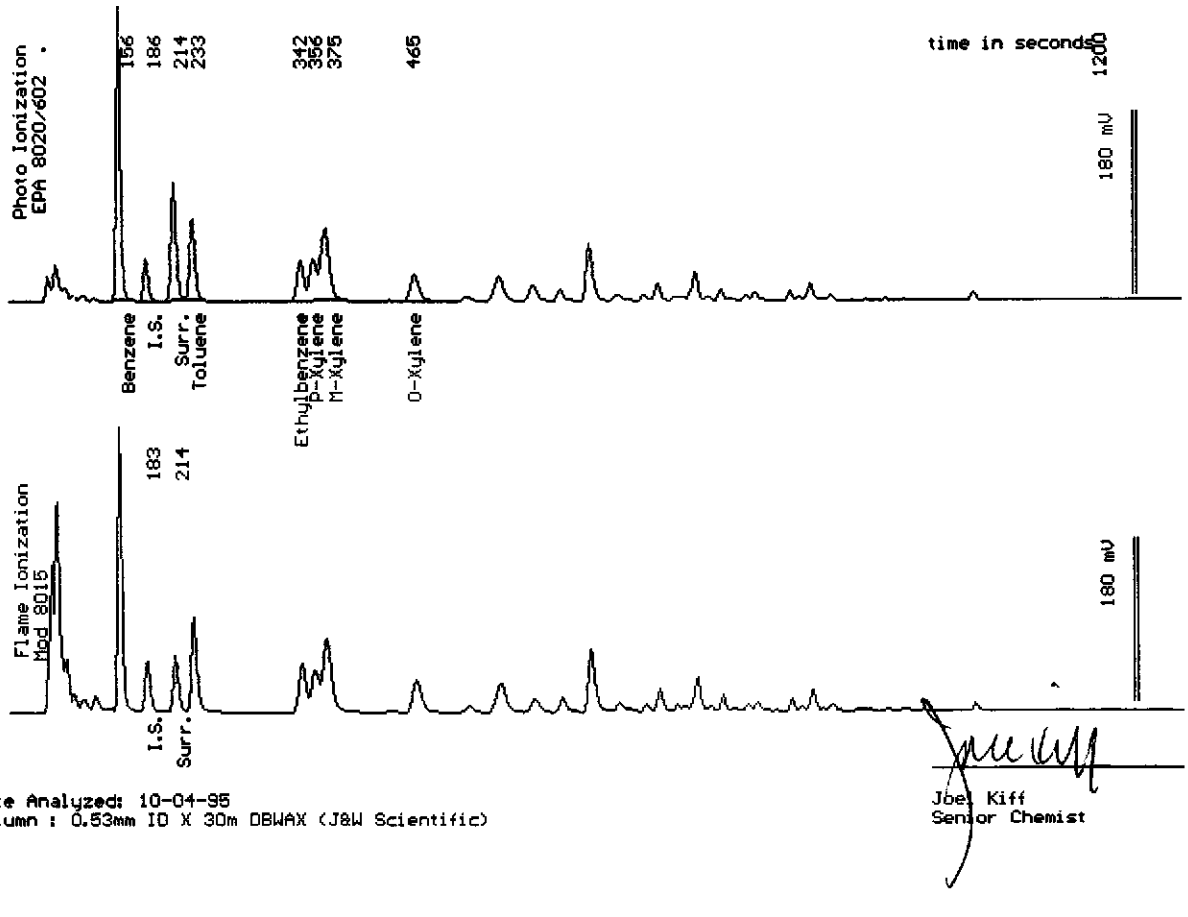
Sample Log 12902

12902-02

Sample: **MW-2**

From : Beacon 574 (Proj. # 94-574-01)
Sampled : 09/26/95
Dilution : 1:25 QC Batch : 4132U
Matrix : Water

Parameter	(MRL) ug/L	Measured Value ug/L
Benzene	(13)	2500
Toluene	(13)	1000
Ethylbenzene	(13)	770
Total Xylenes	(13)	2700
TPH as Gasoline	(1300)	18000
Surrogate Recovery		93 %



Date Analyzed: 10-04-95
Column : 0.53mm ID X 30m DBWAX (J&W Scientific)

Joel Kiff
Senior Chemist

WEST LABORATORY

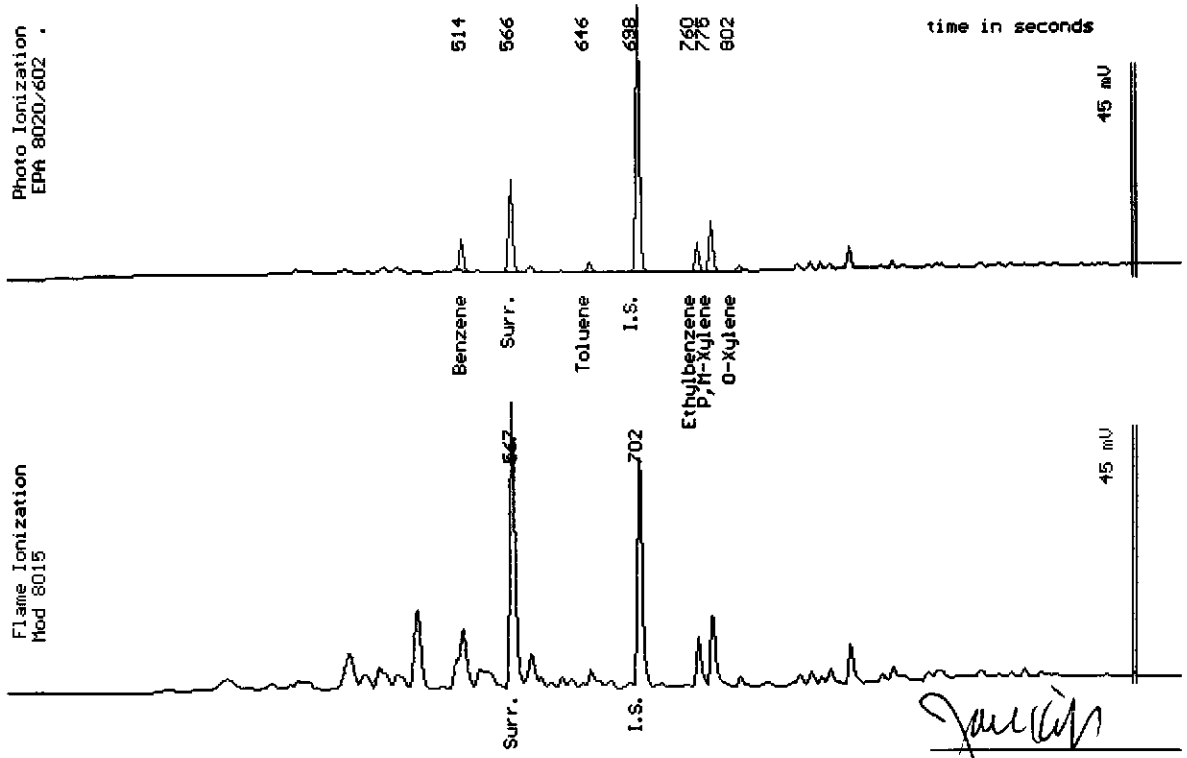
Sample Log 12902

12902-03

Sample: **MW-3**

From : Beacon 574 (Proj. # 94-574-01)
Sampled : 09/26/95
Dilution : 1:1 QC Batch : 6158X
Matrix : Water

Parameter	(MRL) ug/L	Measured Value ug/L	
Benzene	(.50)	4.8	
Toluene	(.50)	1.6	
Ethylbenzene	(.50)	4.8	
Total Xylenes	(.50)	9.4	
TPH as Gasoline	(50)	130	
Surrogate Recovery		83	%



Date Analyzed: 10-04-95
Column : 0.45mm ID X 75m DBVRX (J&W Scientific)

Joel Kiff
Senior Chemist

WEST LABORATORY

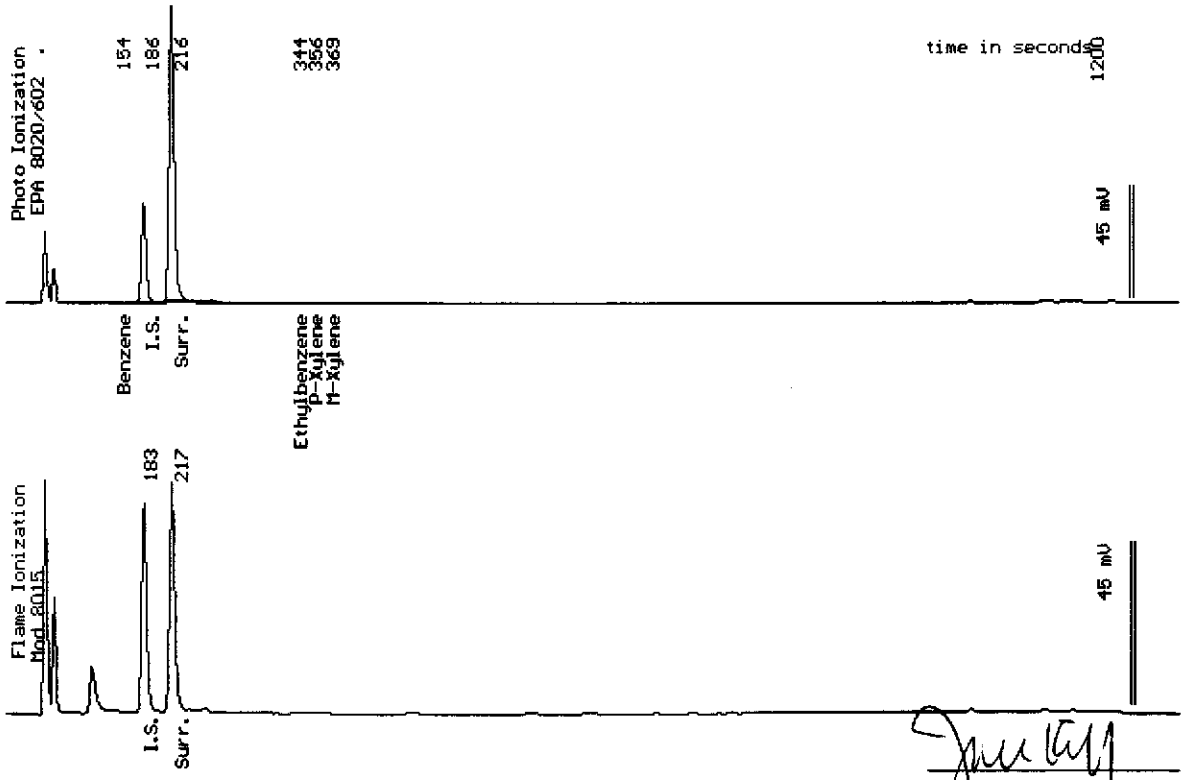
Sample Log 12902

12902-05

Sample: **MW-5**

From : Beacon 574 (Proj. # 94-574-01)
Sampled : 09/26/95
Dilution : 1:1 QC Batch : 4132U
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: 10-04-95
Column : 0.53mm ID X 30m DBWAX (J&W Scientific)

Joel Kiff
Senior Chemist

WEST LABORATORY

Sample Log 12902

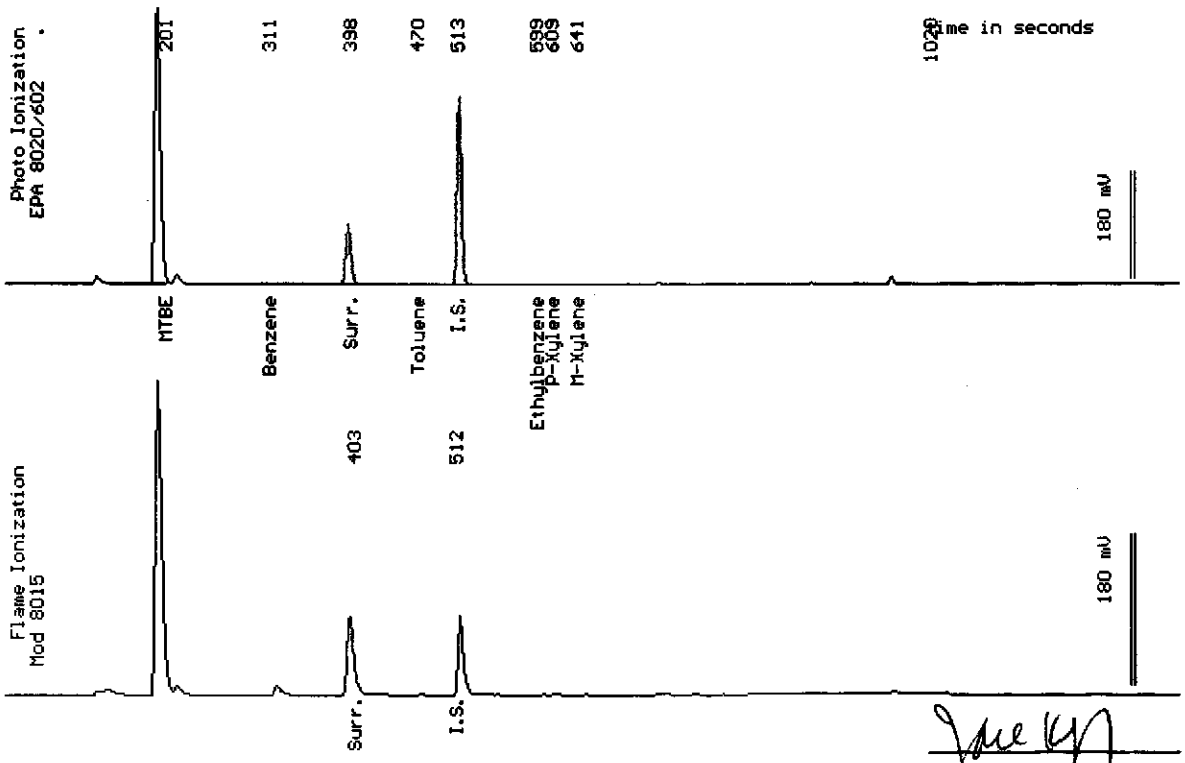
12902-06

Sample: **MW-6**

From : Beacon 574 (Proj. # 94-574-01)
Sampled : 09/26/95
Dilution : 1:1 QC Batch : 2130D
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)	110 *
Surrogate Recovery		101 %

* Product is not typical gasoline.



Date Analyzed: 10-04-95
Column : 0.53mm ID X 60m RTX-1301 (Restek)

Joel Kiff
Senior Chemist

WEST LABORATORY

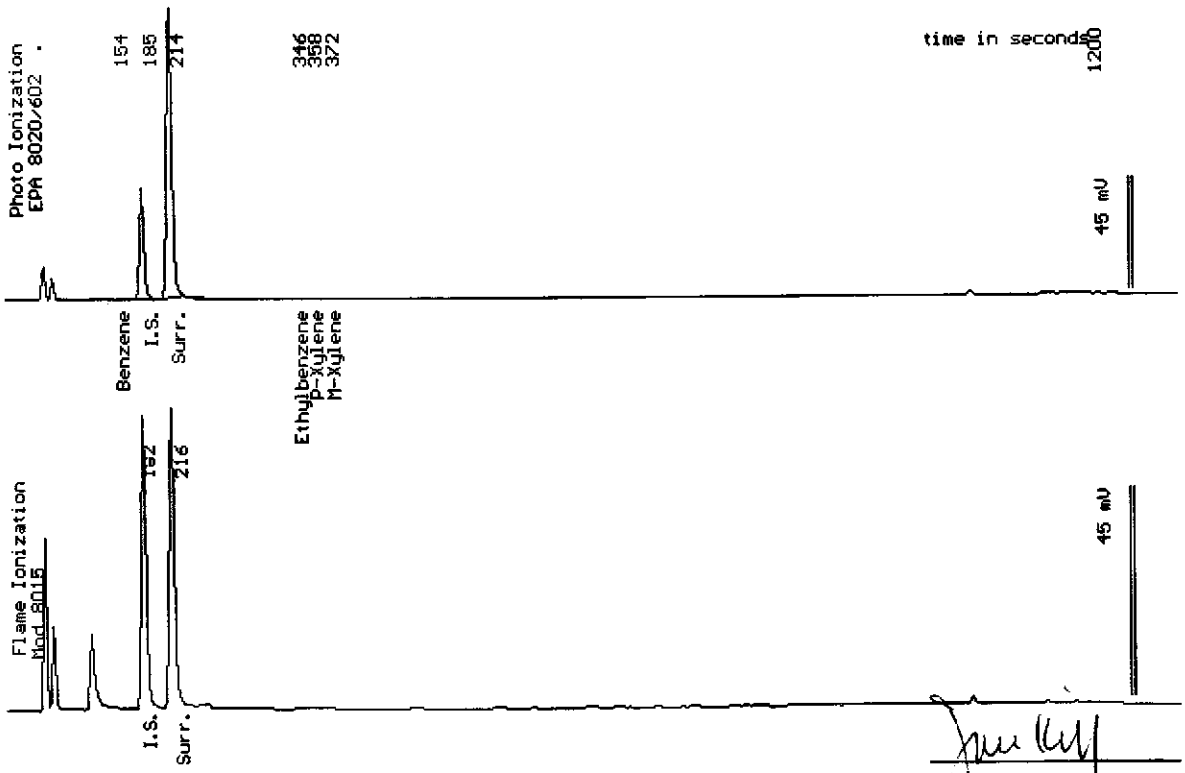
Sample Log 12902

12902-07

Sample: **MW-7**

From : Beacon 574 (Proj. # 94-574-01)
Sampled : 09/26/95
Dilution : 1:1 QC Batch : 4132V
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		99 %



Date Analyzed: 10-04-95
Column : 0.53mm ID X 30m DBWAX (J&W Scientific)

Joel Kiff
Senior Chemist

Ultramar Inc.

CHAIN OF CUSTODY REPORT

BEACON

Beacon Station No. Beacon 574	Sampler (Print Name) Hal Hansen			ANALYSES									Date	Form No. 1 of ___
Project No. 94-574-01	Sampler (Signature)													
Project Location Castro Valley	Affiliation Doulos Environmental													
Sample No./Identification	Date	Time	Lab No.	BTEX	TPH (Gasoline)	TPH (Diesel)						No. of Containers	REMARKS	
MW-1	9-29-95	[illegible]	12902-01											
MW-2		[illegible]	12902-02											
MW-3		[illegible]	12902-03											
MW-4			12902-04											
MW-5		[illegible]	12902-05											
MW-6		[illegible]	12902-06											
MW-7		[illegible]	12902-07											
MW-8			12902-08											

Relinquished by:(Signature/Affiliation)	Date	Time	Received by:(Signature/Affiliation)	Date	Time
[illegible]	9/29/95	1452	Sid Paderna	9/29/95	1452
Relinquished by:(Signature/Affiliation)	Date	Time	Received by: (Signature/Affiliation)	Date	Time
Sid Paderna	9/29/95	1552			
Relinquished by:(Signature/Affiliation)	Date	Time	Received by: (Signature/Affiliation)	Date	Time
				9/29/95	1552

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

Bill To:
Ultramar
525 W. 3rd Street
Hanford, CA 93230
Attention: Kenneth Earnest