

ENVIRONMENTAL
PROTECTION

11/5/97

Ultramar

96 DEC -4 PM 3:25

Ultramar, Inc.
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December 2, 1996

3579

Mr. Scott Seery
Alameda Co Env Health Dept
1131 Harbor Bay Pkwy
Alameda CA 94502-6577

SUBJECT: *Beacon Service Station No. 574, 22315 Redwood Road, Castro Valley, CA*

Dear Mr. Seery:

Enclosed for your review and files is a copy of our consultant's *Third Quarter 1996 Ground-Water Monitoring report* for the above-referenced Ultramar facility.

Please do not hesitate to call if you have any questions regarding this information.

Sincerely,

ULTRAMAR INC.

Julie Johns for

Kenneth R. Earnest
Environmental Specialist II
Marketing Environmental

KRE/jj

Enclosure

cc w/enc.: Mr. Rich Hiett
CRWQCB - San Francisco Bay Region
2101 Webster St Ste 500
Oakland CA 94612



El Dorado Environmental, Inc.

2221 Goldorado Trail, El Dorado, California 95623

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

November 21, 1996

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

Subject: **Third Quarter 1996 Ground Water Monitoring Report
Former 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 16, 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 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 1.12 feet compared to the last monitoring event.

GROUND WATER SAMPLING AND ANALYSES

Ground water samples were collected from eight 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 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-4, MW-5, MW-6, and MW-7. Benzene concentrations decreased in ground water samples collected from monitoring wells MW-1 and MW-2; concentrations increased in the sample collected from monitoring well MW-3.

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 Hiatt
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 (916) 626-3898.

Regards,

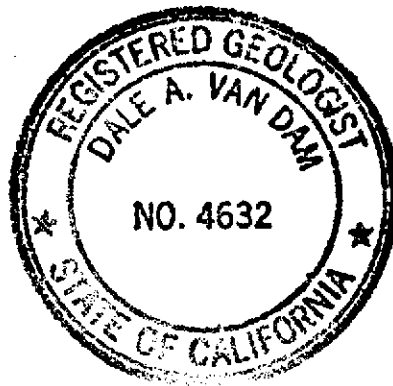
EL DORADO ENVIRONMENTAL, INC.

Dale A. van Dam

Dale A. van Dam, R.G.
Hydrogeologist

DAvD/davd

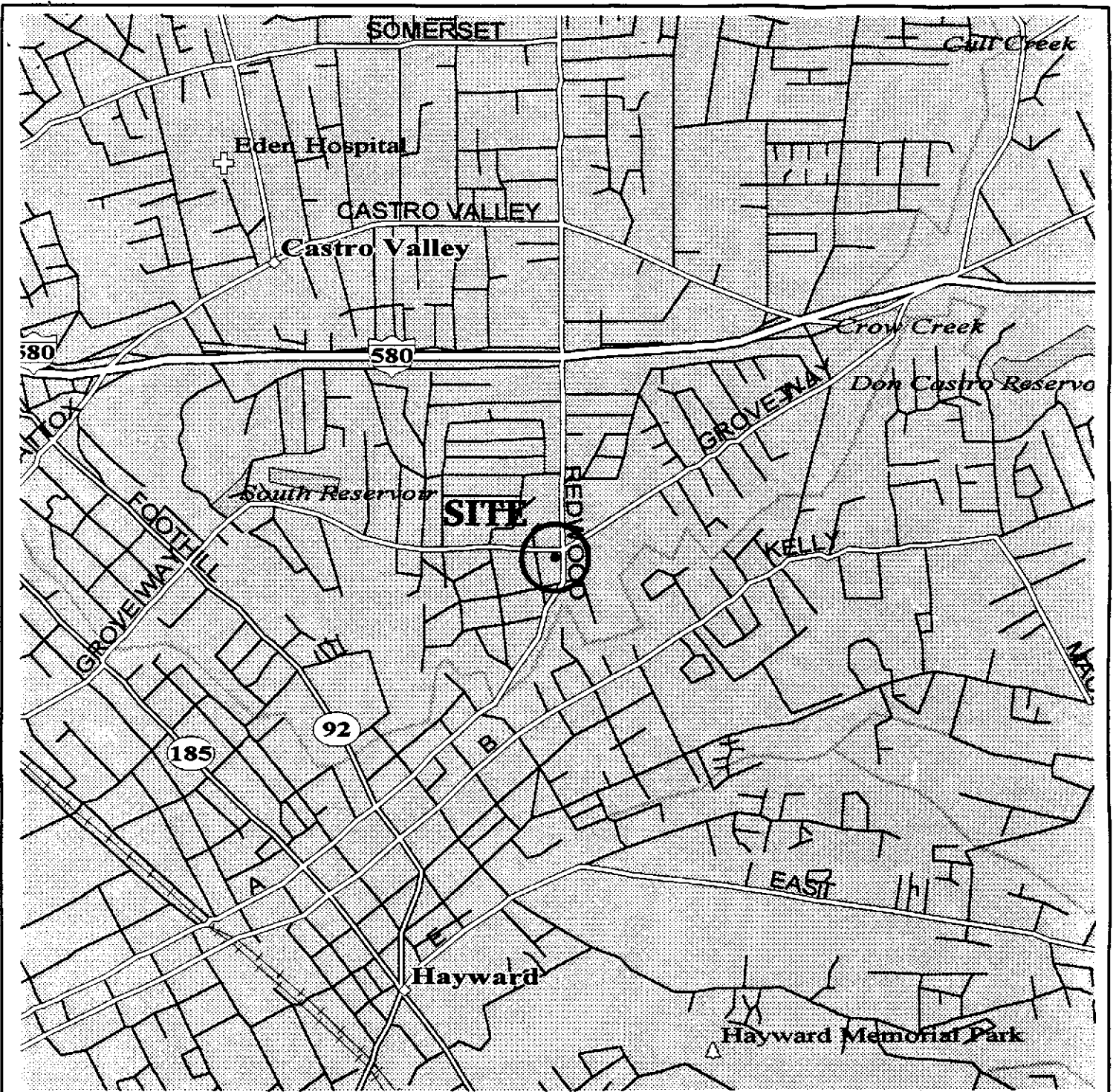
Attachments



- FIGURES:**
- FIGURE 1 SITE LOCATION MAP
 - FIGURE 2 GROUND WATER CONTOUR MAP
SEPTEMBER 16, 1996
 - FIGURE 3 DISSOLVED BENZENE DISTRIBUTION MAP
SEPTEMBER 16, 1996

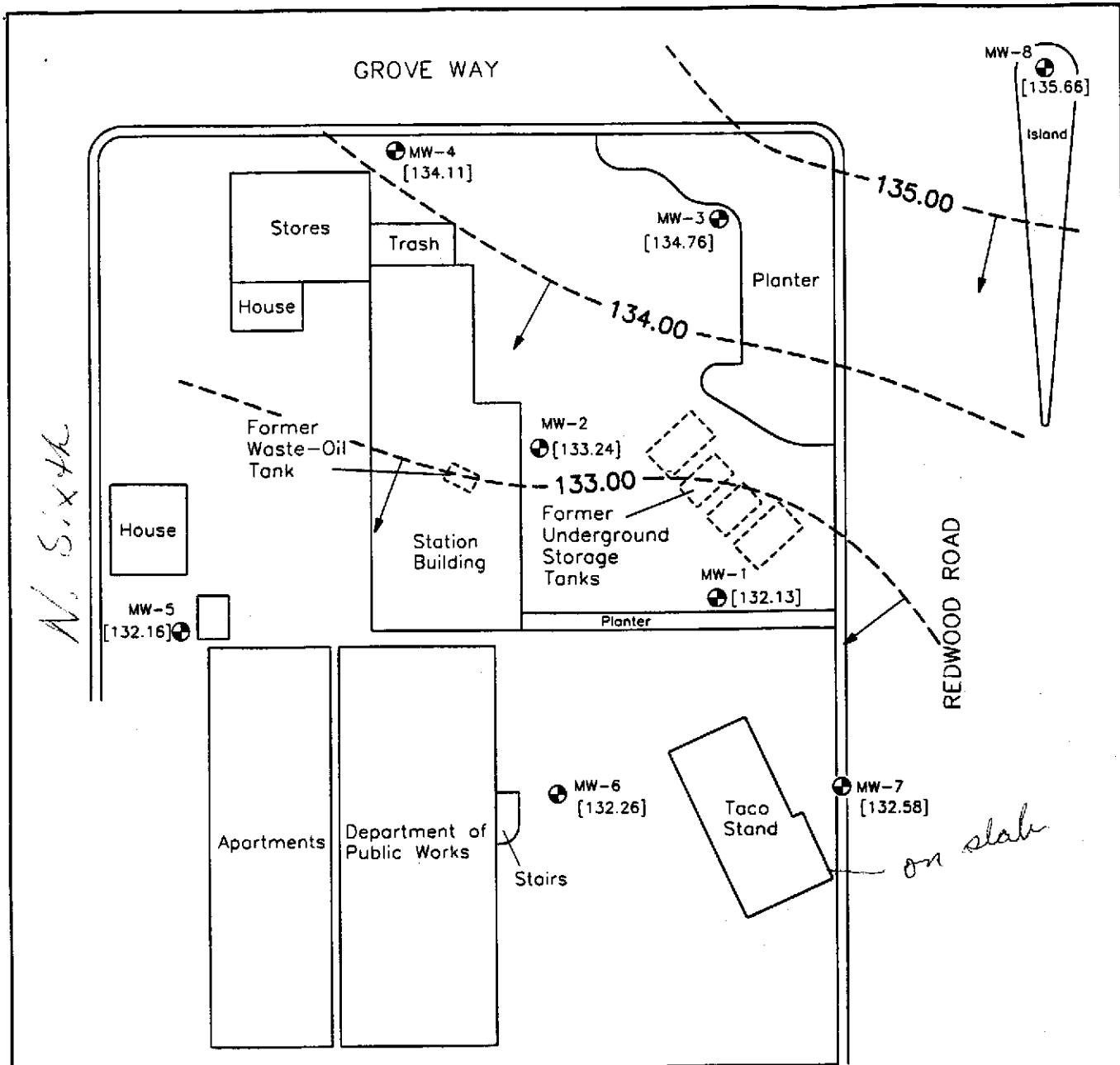
- TABLES:**
- TABLE 1 GROUND WATER ELEVATION DATA
 - TABLE 2 GROUND WATER ANALYTICAL RESULTS

- 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



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: <i>D.V.D.</i>
EL DORADO ENVIRONMENTAL, INC.	

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



EXPLANATION

MW-8 ⊕ Monitoring Well Location

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

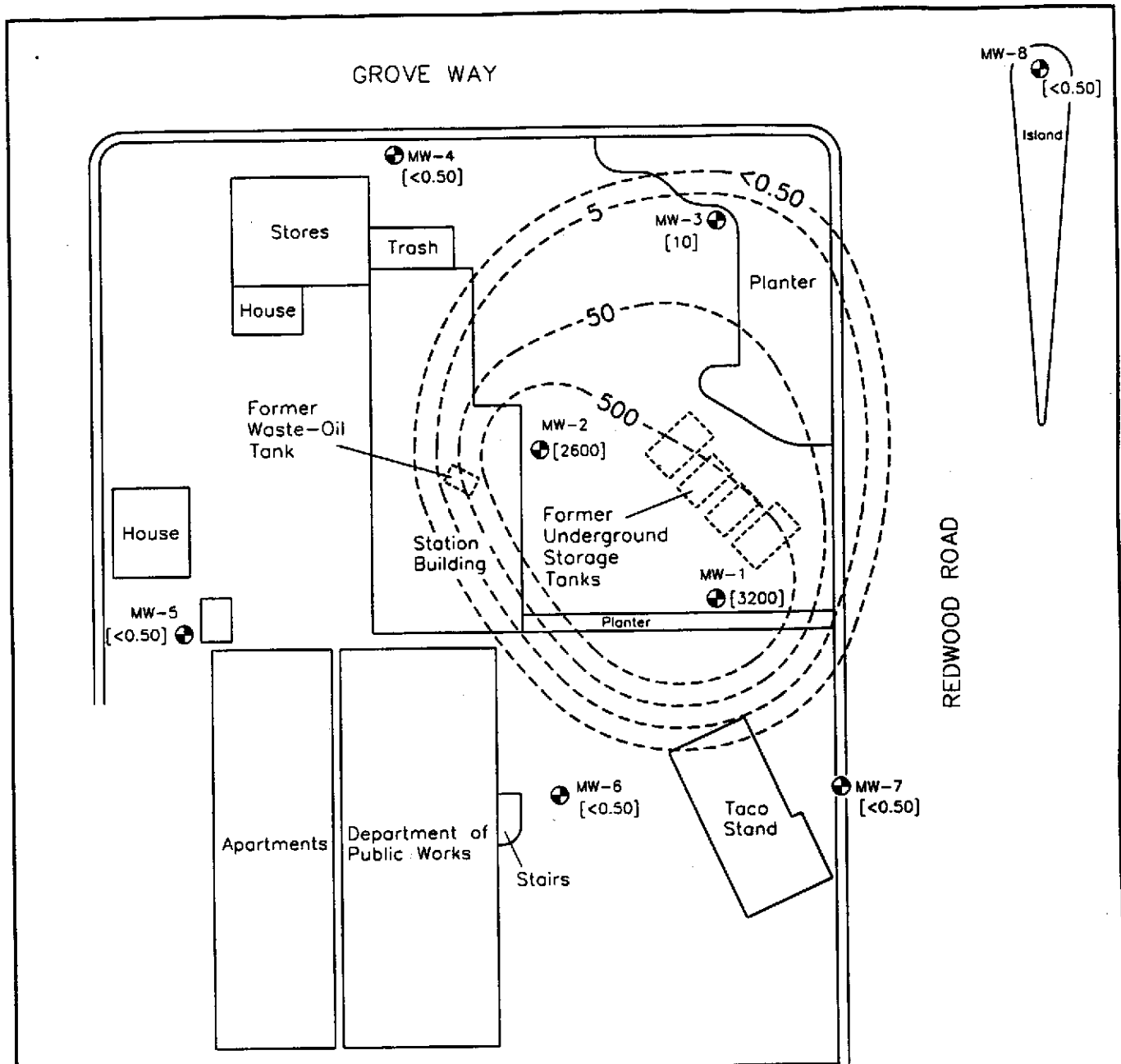
--- 134.00 ---
Line of Equal Elevation of Ground Water Measured in Feet; Datum is Mean Sea Level

↙ Inferred Direction of Ground Water Flow



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

GROUND WATER CONTOUR MAP, SEPTEMBER 16, 1996		FIGURE 2
BEACON STATION #574 22315 REDWOOD ROAD CASTRO VALLEY, CALIFORNIA		PROJECT NUMBER: U065.01
EL DORADO ENVIRONMENTAL, INC.		DRAWN BY: D.A.
		CHECKED BY: D.M.



EXPLANATION

- MW-2 ● Monitoring Well Location
- [2600] Concentration of Benzene in Ground Water; Concentration in Micrograms per Liter
- [NS] Well Not Sampled
- 50--- Line of Equal Concentration of Benzene in Ground Water; Concentration in Micrograms per Liter



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

DISSOLVED BENZENE DISTRIBUTION MAP, SEPTEMBER 16, 1996		FIGURE 3
BEACON STATION #574 22315 REDWOOD ROAD CASTRO VALLEY, CALIFORNIA		PROJECT NUMBER: U065.01
EL DORADO ENVIRONMENTAL, INC.		DRAWN BY: D.A.
		CHECKED BY: WB

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	
	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	24.42	132.13	29.74			
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	
	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			

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-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	
	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			
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	
	12/27/95		17.47	134.49	27.89	
	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			
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	
	12/27/95		15.91	132.77	24.80	
	03/26/96		14.31	134.37	24.81	
	06/05/96		15.43	133.25	24.75	
09/16/96	16.52	132.16	24.74			

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-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	
	12/27/95		21.12	132.84	29.63	
	03/26/96		19.50	134.46	29.60	
	06/05/96		20.56	133.40	29.63	
	09/16/96		21.70	132.26	29.65	
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	
	12/27/95		23.01	133.08	29.90	
	03/26/96		21.32	134.77	29.87	
	06/05/96		22.37	133.72	29.91	
	09/16/96		23.51	132.58	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	
	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	

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				
	06/04/92	2,600	<800	NA	760	900	230	1,100
	09/23/92	3,400	NA	NA	270	57	230	440
	11/12/92	2,700	NA	NA	480	430	110	550
	02/02/93	8,500	NA	NA	5.8	<5.0	140	340
	05/07/93	7,700	NA	NA	760	770	250	1,200
	08/11/93	11,000	NA	NA	970	630	280	1,500
	11/05/93	36,000	NA	NA	1,400	1,000	260	1,600
	03/01/94	3,800	NA	NA	6,200	4,700	1,400	7,100
	06/02/94	8,900	NA	NA	580	490	110	620
	09/09/94	4,300	NA	NA	1,900	1,200	420	2,100
	12/20/94	3,900	NA	NA	740	290	200	630
	03/08/95	8,100	NA	NA	550	260	150	510
	06/14/95	NS	NS	NS	1,100	540	250	1,100
	09/26/95	8,600	NA	NS	NS	NS	NS	NS
	12/27/95	NS	NS	NS	2,100	550	420	1,300
	03/26/96	21,000	NA	NA	NS	NS	NS	NS
	06/05/96	NS	NS	NS	7,000	2,700	590	7,000
	09/16/96	13,000	NA	NA	NS	NS	NS	NS
	MW-2	03/27/92	18,000	<50	<50			
06/04/92		14,000	<5,000	NA	2,400	2,300	870	3,300
09/23/92		22,000	NA	NA	1,900	1,700	580	2,300
11/12/92		29,000	NA	NA	2,100	1,500	760	2,900
02/02/93		24,000	NA	NA	2,400	860	540	3,500
05/07/93		19,000	NA	NA	2,700	1,900	590	2,600
08/11/93		23,000	NA	NA	1,800	1,300	460	2,600
11/05/93		30,000	NA	NA	2,300	1,500	550	2,300
03/01/94		13,000	NA	NA	3,100	2,900	860	3,700
06/02/94		12,000	NA	NA	1,500	490	350	1,000
09/09/94		13,000	NA	NA	2,000	790	460	1,300
12/20/94		16,000	NA	NA	1,800	660	440	1,000
03/08/95		16,000	NA	NA	2,300	1,000	650	1,900
06/14/95		NS	NS	NS	2,200	1,000	550	2,100
09/26/95		18,000	NA	NA	NS	NS	NS	NS
12/27/95		NS	NS	NS	2,500	1,000	770	2,700
03/26/96		33,000	NA	NA	NS	NS	NS	NS
06/05/96		NS	NS	NS	4,200	2,600	1,000	5,000
09/16/96		19,000	NA	NA	NS	NS	NS	NS
					2,600	490	560	2,000

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-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
	12/27/95	NS	NS	NS	NS	NS	NS	NS
	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	10	2.9	4.4	15	
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
	12/27/95	NS	NS	NS	NS	NS	NS	NS
	03/26/96	NS	NS	NS	NS	NS	NS	NS
	06/05/96	NS	NS	NS	NS	NS	NS	NS
09/16/96	<50	NA	NA	<0.50	<0.50	<0.50	<0.50	
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
	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	<0.50	<0.50	<0.50	<0.50
09/16/96	<50	NA	NA	<0.50	<0.50	<0.50	<0.50	

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-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	<0.5
	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	0.65
	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	<0.5	<0.5	<0.5	<0.5
	12/27/95	130*	NA	NA	<0.50	<0.50	<0.50	<0.50
	03/26/96	100*	NA	NA	<0.50	<0.50	<0.50	<0.50
	06/05/96	100*	NA	NA	<0.50	<0.50	<0.50	<0.50
	09/16/96	170	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	<0.5	<0.5	<0.5	<0.5
	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	<0.50	<0.50	<0.50	<0.50
	09/16/96	<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	<0.5	<0.5	<0.5	<0.5
	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	NS	NS	NS	NS	NS
	06/05/96	NS	NS	NS	NS	NS	NS	NS
	09/16/96	<50	NA	NA	<0.50	<0.50	<0.50	<0.50

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 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: 9-16-96

Castro Valley, CA

Project No.: 94-574-01

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	2:35		24.42	29.74				Petroleum odor no sheen
MW-2	2:30		21.93	29.58				Petroleum odor no sheen
MW-3	2:24		22.37	29.43				Petroleum odor no sheen
MW-4	2:06		17.85	27.89				no odor no sheen
MW-5	2:01		16.52	24.74				no odor no sheen
MW-6	2:10		21.70	29.65				no odor no sheen
MW-7	2:15		23.51	29.90				no odor no sheen
MW-8	2:20		22.38	34.43				no odor no sheen

Notes:

Client: Ultramar Sampling Date: 9-16-96
 Site: Beacon #574 Project No.: 94-574-01
22315 Redwood Road Well Designation: MW-1
Castro Valley, 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: Disposal 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: 2:35 Time: 6:30 Calculated purge: 13.8
 Depth of well: 29.74 Depth to water: 24.50 Actual purge: 13.8
 Depth to water: 94.42

Start purge: 5:00 Sampling time: 6:33

Time	Temp.	E.C.	pH	Turbidity	Volume
5:08	71.7	20134	5.10	—	1
5:12	71.6	16300	4.96	—	2
5:20	71.4	15100	4.81	—	3
5:26	71.3	14790	4.90	—	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: PPM 3

Signature: [Signature]

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

Sampling Date: 9-16-96
 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 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: Disposal 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: 9:30 Time: 6:15 Calculated purge: 19.8
 Depth of well: 29.58 Depth to water: 21.99 Actual purge: 19.8
 Depth to water: 9.93

Start purge: 4:17 Sampling time: 6:20

Time	Temp.	E.C.	pH	Turbidity	Volume
4:23	72.8	23780	4.94	—	1
4:30	72.7	22370	4.81	—	2
4:40	72.4	21490	4.73	—	3
4:53	72.3	21370	4.70	—	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: PPM 2

Signature: [Handwritten Signature]

Client: Ultramar Sampling Date: 9-16-96
 Site: Beacon #574 Project No.: 94-574-01
22315 Redwood Road Well Designation: MW- 3
Castro Valley, 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: Disposal 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: 2:24 Time: 5:48 Calculated purge: 18.3
 Depth of well: 29.43 Depth to water: 22.41 Actual purge: 18.3
 Depth to water: 22.37

Start purge: 3:40 Sampling time: 5:50

Time	Temp.	E.C.	pH	Turbidity	Volume
3:48	79.0	1920	4.93	—	1
3:54	71.6	1831	4.81	—	2
4:08	71.4	1760	4.73	—	3
4:14	71.2	1758	4.70	—	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: PPM 2

Signature: [Signature]

Client: Ultramar

Sampling Date: 9-16-96

Site: Beacon #574

Project No.: 94-574-01

22315 Redwood Road

Well Designation: MW-4

Castro Valley, 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): 12
 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: Disposal 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: 2:06 Time: 5:33 Calculated purge: 6.4 gal
 Depth of well: 27.89 Depth to water: 17.90 Actual purge: 6.4 gal
 Depth to water: 17.85

Start purge: 5:27 Sampling time: 5:34

Time	Temp.	E.C.	pH	Turbidity	Volume
5:28	72.1	731	7.66	—	1
5:29	71.3	721	7.40	—	2
5:30	71.4	698	7.23	—	3
5:31	71.6	691	7.20	—	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: VAM 2

Signature: [Signature]

Client: Ultramar

Sampling Date: 9-16-96

Site: Beacon #574

Project No.: 94-574-01

22315 Redwood Road

Well Designation: MW-5

Castro Valley, 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: Disposal 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: 2:01 Time: 2:50 Calculated purge: 5.2 gal
 Depth of well: 94.74 Depth to water: 16.71 Actual purge: 5.2 gal
 Depth to water: 16.52

Start purge: 2:40 Sampling time: 2:54

Time	Temp.	E.C.	pH	Turbidity	Volume
2:41	70.8	>10	7.46	—	1
2:42	70.6	699	7.31	—	2
2:43	70.2	693	7.20	—	3
2:45	70.1	690	7.17	—	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: ppm 4

Signature: [Signature]

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

Sampling Date: 9-16-96
 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): 4
 Well cover type: 8" UV ~~X~~ 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: Disposal 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: 2:10 Time: 3:10 Calculated purge: 5.0 gal
 Depth of well: 29.65 Depth to water: 21.80 Actual purge: 5.0 gal
 Depth to water: 21.70

Start purge: 3:00 Sampling time: 3:15

Time	Temp.	E.C.	pH	Turbidity	Volume
3:01	71.8	721	7.31	—	1
3:02	71.6	708	7.20	—	2
3:03	71.4	698	7.14	—	3
3:05	71.3	691	7.10	—	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: SPM 3

Signature: Ned [Signature]

Client: Ultramar

Sampling Date: 9-16-96

Site: Beacon #574

Project No.: 94-574-01

22315 Redwood Road

Well Designation: MW- 7

Castro Valley, 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 _____ 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: Disposal 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: 2:15 Recharge Measurement Time: 3:34 Calculated purge: 4.0 gal
 Depth of well: 29.90 Depth to water: 23.60 Actual purge: 4.0 gal
 Depth to water: 23.51

Start purge: 3:19 Sampling time: 3:35

Time	Temp.	E.C.	pH	Turbidity	Volume
3:20	71.9	810	7.46	—	1
3:22	71.6	799	7.30	—	2
3:23	71.4	792	7.24	—	3
3:25	71.3	790	7.21	—	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: DPM 4

Signature: Malcolm

Client: Ultramar Sampling Date: 9-16-96
 Site: Beacon #574 Project No.: 94-574-01
22315 Redwood Road Well Designation: MW- 8
Castro Valley, 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: Disposal 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: 2:20 Recharge Measurement Time: 5:45 Calculated purge: 7.7 gal
 Depth of well: 34.43 Depth to water: 22.40 Actual purge: 7.7 gal
 Depth to water: 12.98

Start purge: 5:36 Sampling time: 5:46

Time	Temp.	E.C.	pH	Turbidity	Volume
5:37	79.4	790	7.58	—	1
5:38	79.3	710	7.36	—	2
5:39	72.0	691	7.21	—	3
5:40	71.0	691	7.13	—	4

Sample appearance: clear Lock: 1/2" nylon

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: PPM 3

Signature: [Handwritten Signature]

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			Total Xylenes
		Gasoline	Diesel	Motor Oil	Benzene	Toluene	Ethylbenzene	
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	<100	-	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**

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

Subject : 8 Water Samples
Project Name : Beacon 574
Project Number : 94-574-01

Location : Castro Valley

Dear Mr. van Dam,

Chemical analysis on 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. USEPA protocols for sample storage and preservation were followed.

WEST Laboratory is certified by the State of California (# 1346). If you have any questions regarding procedures or results, please call me at 916-753-9500.

Sincerely,



Joel L. Kiff

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

Date Received : 09/17/96

Sample : MW-1

Matrix : Water

Date Sampled : 09/16/96

Parameter	Result	MRL	Units	Analysis Method	Date Analyzed
Alkalinity	770	10	mg CaCO3/L	EPA 310.1	10/02/96
Nitrate as N	<0.050	0.050	mg/L	EPA 353.3	09/26/96
Nitrite as N	<0.050	0.050	mg/L	EPA 353.3	09/17/96
Sulfate	<10	10	mg/L	EPA 375.4	10/02/96
Total Dissolved Solids	880	15	mg/L	EPA 160.1	09/20/96
Dissolved Iron	4.1	0.10	mg/L	EPA 200.7	10/01/96

Sample : MW-2

Matrix : Water

Date Sampled : 09/16/96

Parameter	Result	MRL	Units	Analysis Method	Date Analyzed
Alkalinity	670	10	mg CaCO3/L	EPA 310.1	10/02/96
Nitrate as N	<0.050	0.050	mg/L	EPA 353.3	09/26/96
Nitrite as N	<0.050	0.050	mg/L	EPA 353.3	09/17/96
Sulfate	<10	10	mg/L	EPA 375.4	10/02/96
Total Dissolved Solids	960	15	mg/L	EPA 160.1	09/20/96
Dissolved Iron	3.4	0.10	mg/L	EPA 200.7	10/01/96

Sample : MW-3


Matrix : Water

Date Sampled : 09/16/96

Parameter	Result	MRL	Units	Analysis Method	Date Analyzed
Alkalinity	370	10	mg CaCO3/L	EPA 310.1	10/02/96
Nitrate as N	<0.050	0.050	mg/L	EPA 353.3	09/26/96
Nitrite as N	<0.050	0.050	mg/L	EPA 353.3	09/17/96
Sulfate	22	10	mg/L	EPA 375.4	10/02/96
Total Dissolved Solids	840	15	mg/L	EPA 160.1	09/20/96
Dissolved Iron	<0.10	0.10	mg/L	EPA 200.7	10/01/96

MRL = Method Reporting Limit

Approved By :


Joe L. Kiff

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

Date Received : 09/17/96

Sample : MW-4

Matrix : Water

Date Sampled : 09/16/96

Parameter	Result	MRL	Units	Analysis Method	Date Analyzed
Alkalinity	320	10	mg CaCO ₃ /L	EPA 310.1	10/02/96
Nitrate as N	<0.050	0.050	mg/L	EPA 353.3	09/26/96
Nitrite as N	<0.050	0.050	mg/L	EPA 353.3	09/17/96
Sulfate	<10	10	mg/L	EPA 375.4	10/02/96
Total Dissolved Solids	1000	15	mg/L	EPA 160.1	09/20/96
Dissolved Iron	<0.10	0.10	mg/L	EPA 200.7	10/01/96

Sample : MW-5

Matrix : Water

Date Sampled : 09/16/96

Parameter	Result	MRL	Units	Analysis Method	Date Analyzed
Alkalinity	220	10	mg CaCO ₃ /L	EPA 310.1	10/02/96
Nitrate as N	16	2.5	mg/L	EPA 353.3	09/27/96
Nitrite as N	<0.050	0.050	mg/L	EPA 353.3	09/17/96
Sulfate	87	10	mg/L	EPA 375.4	10/02/96
Total Dissolved Solids	680	15	mg/L	EPA 160.1	09/20/96
Dissolved Iron	<0.10	0.10	mg/L	EPA 200.7	10/01/96

Sample : MW-6

Matrix : Water

Date Sampled : 09/16/96

Parameter	Result	MRL	Units	Analysis Method	Date Analyzed
Alkalinity	480	10	mg CaCO ₃ /L	EPA 310.1	10/02/96
Nitrate as N	3.0	0.42	mg/L	EPA 353.3	09/27/96
Nitrite as N	<0.050	0.050	mg/L	EPA 353.3	09/17/96
Sulfate	13	10	mg/L	EPA 375.4	10/02/96
Total Dissolved Solids	890	15	mg/L	EPA 160.1	09/20/96
Dissolved Iron	<0.10	0.10	mg/L	EPA 200.7	10/01/96

MRL = Method Reporting Limit

Approved By :


Joel L. Kiff

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

Date Received : 09/17/96

Sample : MW-7

Matrix : Water

Date Sampled : 09/16/96

Parameter	Result	MRL	Units	Analysis Method	Date Analyzed
Alkalinity	420	10	mg CaCO3/L	EPA 310.1	10/02/96
Nitrate as N	0.33	0.050	mg/L	EPA 353.3	09/27/96
Nitrite as N	<0.050	0.050	mg/L	EPA 353.3	09/17/96
Sulfate	37	10	mg/L	EPA 375.4	10/02/96
Total Dissolved Solids	710	15	mg/L	EPA 160.1	09/20/96
Dissolved Iron	<0.10	0.10	mg/L	EPA 200.7	10/01/96

Sample : MW-8

Matrix : Water

Date Sampled : 09/16/96

Parameter	Result	MRL	Units	Analysis Method	Date Analyzed
Alkalinity	380	10	mg CaCO3/L	EPA 310.1	10/02/96
Nitrate as N	<0.050	0.050	mg/L	EPA 353.3	09/27/96
Nitrite as N	<0.050	0.050	mg/L	EPA 353.3	09/17/96
Sulfate	42	10	mg/L	EPA 375.4	10/02/96
Total Dissolved Solids	760	15	mg/L	EPA 160.1	09/20/96
Dissolved Iron	<0.10	0.10	mg/L	EPA 200.7	10/01/96

MRL = Method Reporting Limit

Approved By :


Joe L. Kiff

MTBE (Methyl-t-butyl ether) By EPA Method 8020/602

From : Beacon 574 (Proj. # 94-574-01)

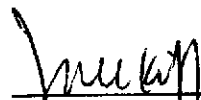
Sampled : 09/16/96

Received : 09/17/96

Matrix : Water

MTBE	(MRL) ug/L	Measured Value ug/L
MW-1	(250)	1400
MW-2	(250)	940
MW-3	(5.0)	<5.0
MW-4	(5.0)	<5.0
MW-5	(5.0)	20
MW-6	(25)	430
MW-7	(5.0)	26
MW-8	(5.0)	<5.0

Approved By:



Joel Kiff
Senior Chemist

Sample: MW-1

From : Beacon 574 (Proj. # 94-574-01)

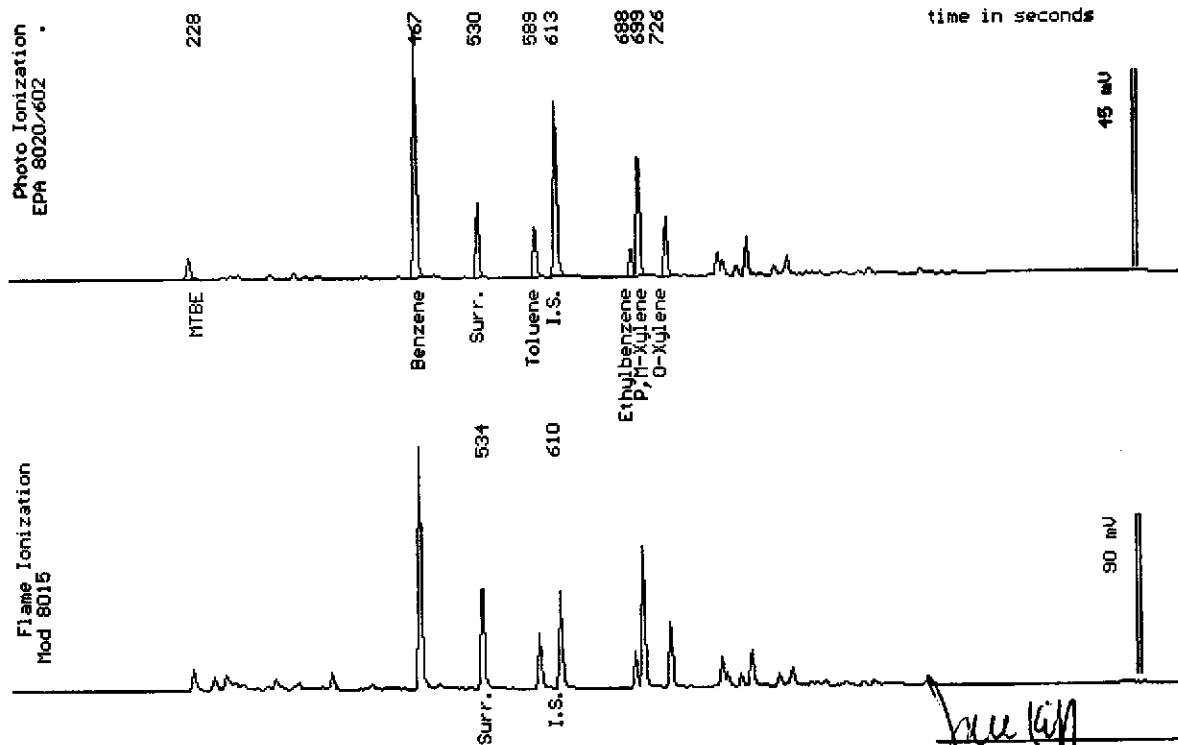
Sampled : 09/16/96

Dilution : 1:50

QC Batch : 6176U

Matrix : Water

Parameter	(MRL) ug/L	Measured Value ug/L
Benzene	(25)	3200
Toluene	(25)	770
Ethylbenzene	(25)	470
Total Xylenes	(25)	2900
TPH as Gasoline	(2500)	13000
Surrogate Recovery		115 %



Date Analyzed: 09-23-96
 Column : 0.45mm ID X 30m DB624 (J&M Scientific)

Joel Kiff
 Senior Chemist

Sample: MW-2

From : Beacon 574 (Proj. # 94-574-01)

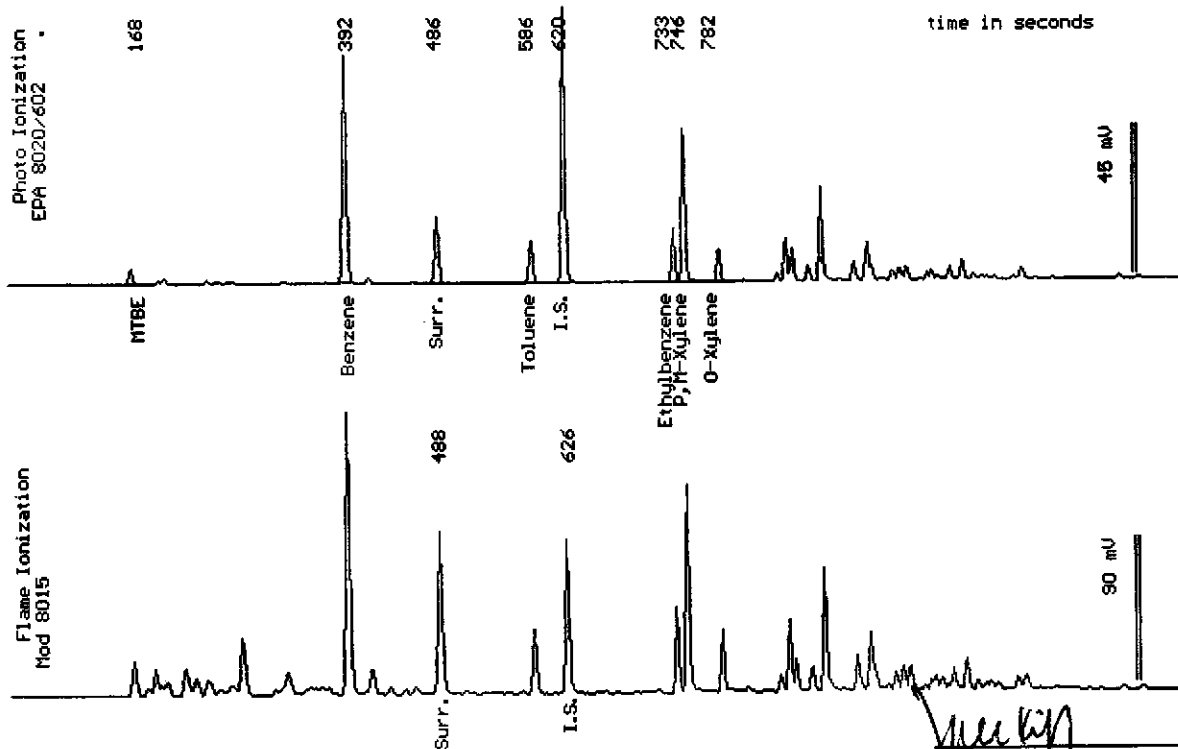
Sampled : 09/16/96

Dilution : 1:50

QC Batch : 4153C

Matrix : Water

Parameter	(MRL) ug/L	Measured Value ug/L
Benzene	(25)	2600
Toluene	(25)	490
Ethylbenzene	(25)	560
Total Xylenes	(25)	2000
TPH as Gasoline	(2500)	19000
Surrogate Recovery		99 %



Date Analyzed: 09-23-96
 Column : 0.53mm ID X 60m Restek Rtx-1701

Joel Kiff
 Joel Kiff
 Senior Chemist

Sample: MW-3

From : Beacon 574 (Proj. # 94-574-01)

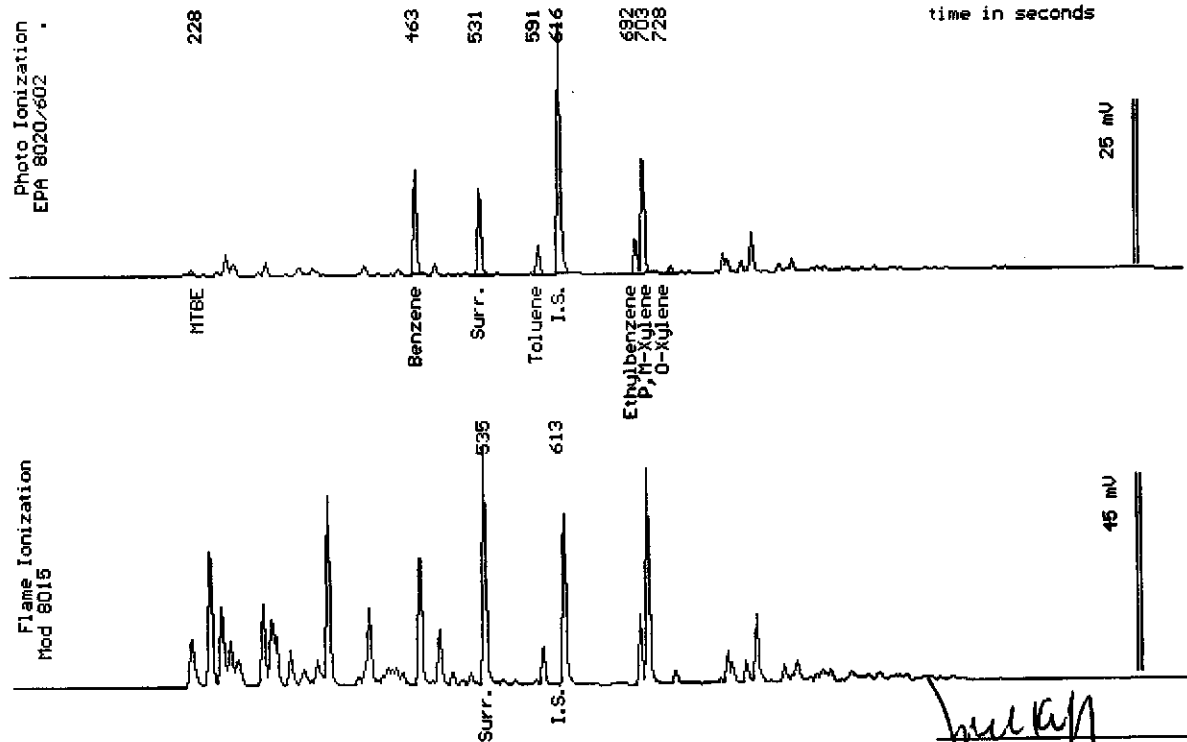
Sampled : 09/16/96

Dilution : 1:1

Matrix : Water

QC Batch : 6176U

Parameter	(MRL) $\mu\text{g/L}$	Measured Value $\mu\text{g/L}$
Benzene	(.50)	10
Toluene	(.50)	2.9
Ethylbenzene	(.50)	4.4
Total Xylenes	(.50)	15
TPH as Gasoline	(50)	170
Surrogate Recovery		108 %



Date Analyzed: 09-23-96
 Column : 0.45mm ID X 30m DB624 (J&M Scientific)


 Joel Kiff
 Senior Chemist

Sample: MW-4

From : Beacon 574 (Proj. # 94-574-01)

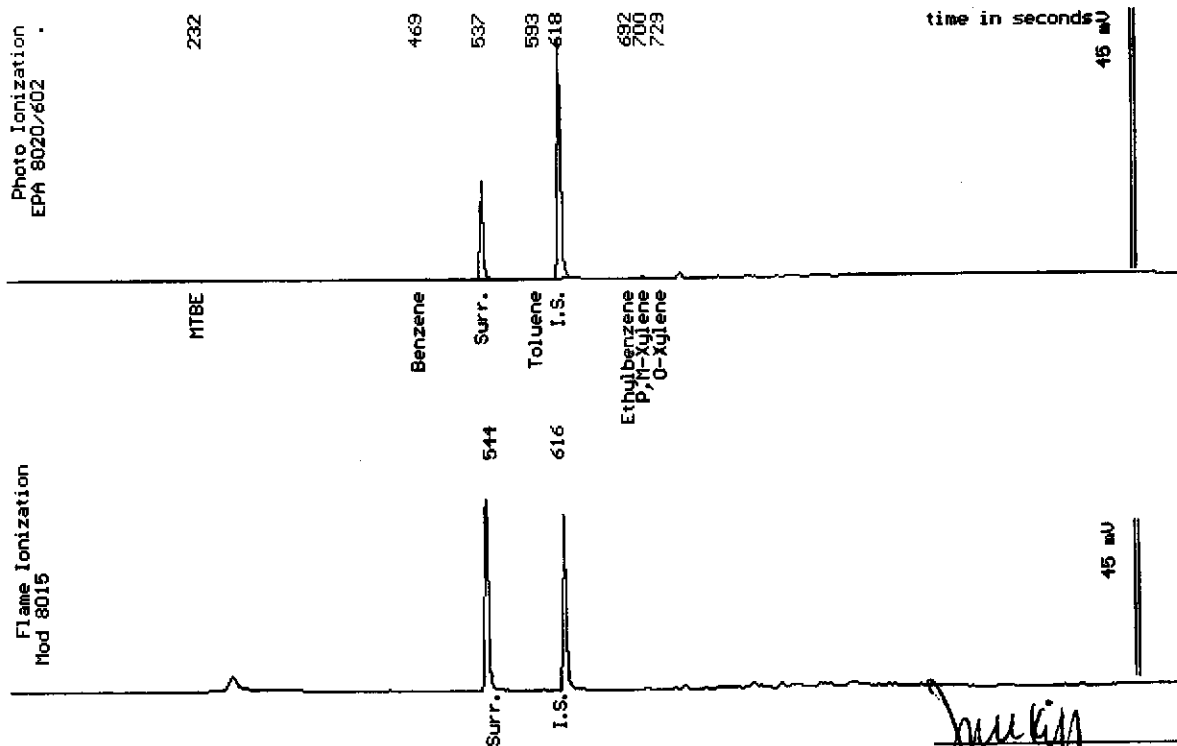
Sampled : 09/16/96

Dilution : 1:1

QC Batch : 6176U

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		111 %



Date Analyzed: 09-23-96
 Column : 0.45mm ID X 30m DB624 (J&W Scientific)

Joel Kiff
 Joel Kiff
 Senior Chemist

Sample: MW-5

From : Beacon 574 (Proj. # 94-574-01)

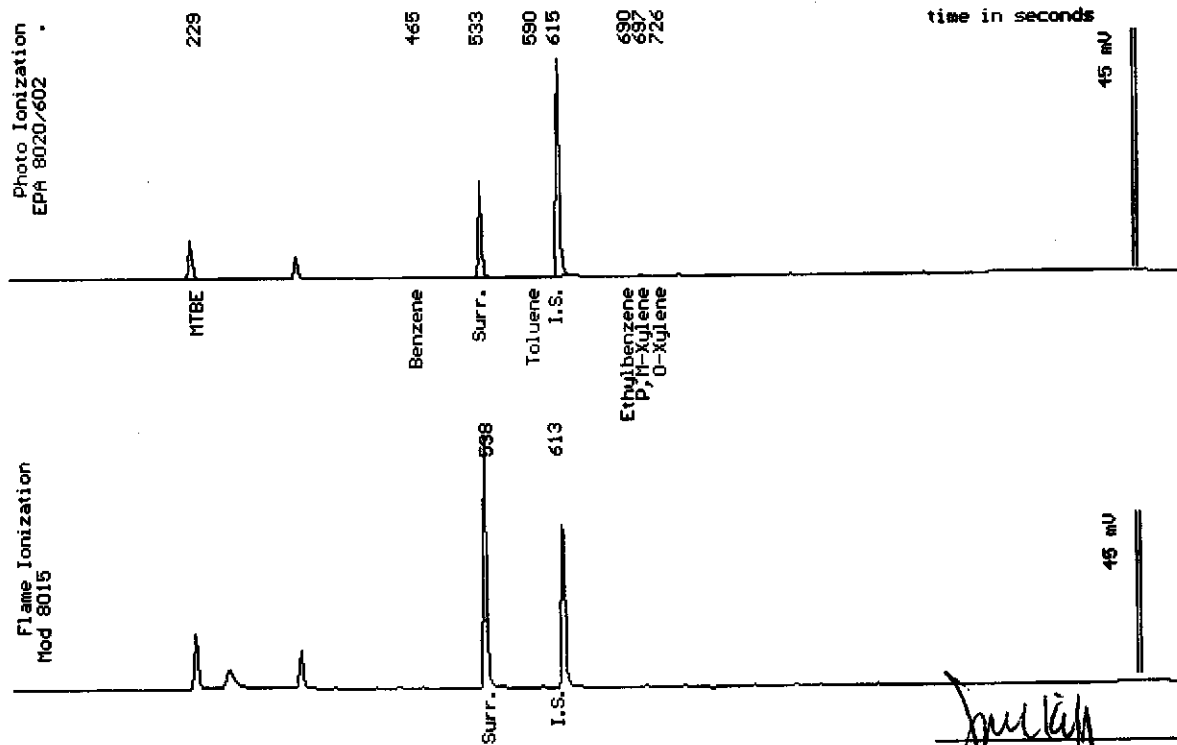
Sampled : 09/16/96

Dilution : 1:1

Matrix : Water

QC Batch : 6176U

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		113 %



Date Analyzed: 09-23-96
 Column : 0.45mm ID X 30m DB624 (J&M Scientific)

Joel Kiff
 Senior Chemist

Sample: MW-6

From : Beacon 574 (Proj. # 94-574-01)

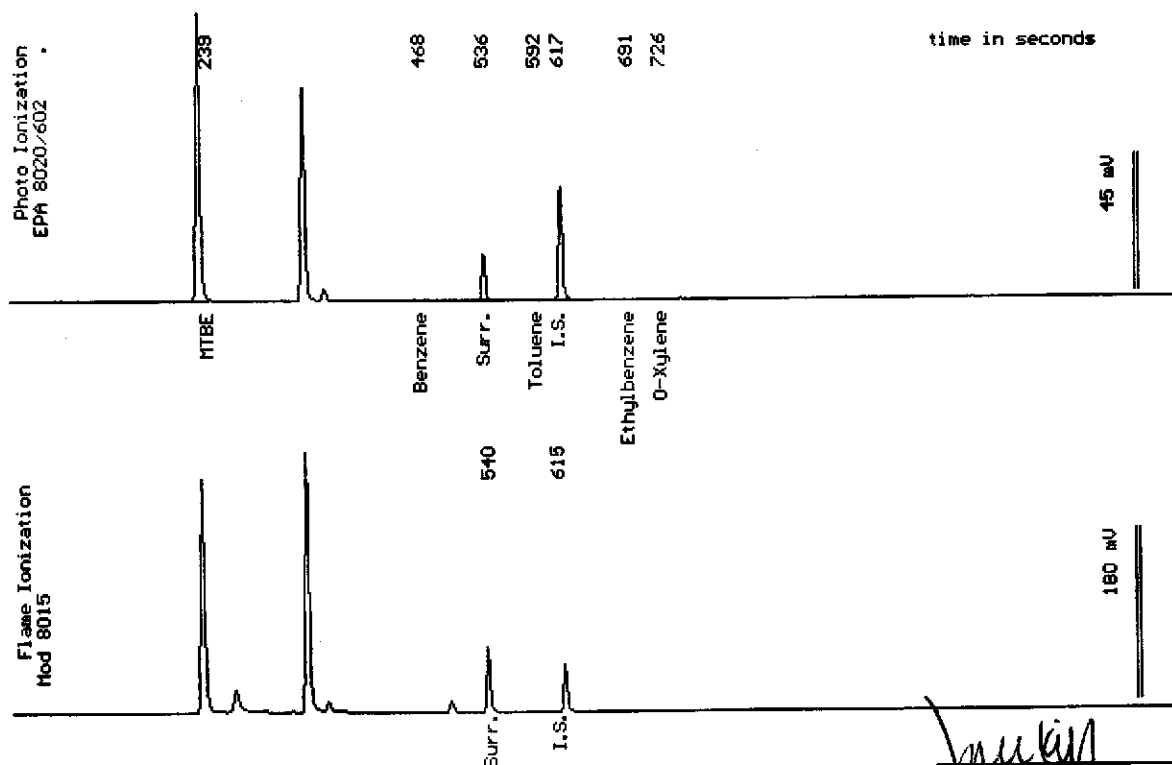
Sampled : 09/16/96

Dilution : 1:1

QC Batch : 6176U

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)	170
Surrogate Recovery		112 %



Date Analyzed: 09-23-96
 Column : 0.45mm ID X 30m DB624 (J&W Scientific)

Joel Kiff
 Joel Kiff
 Senior Chemist

Sample: MW-7

From : Beacon 574 (Proj. # 94-574-01)

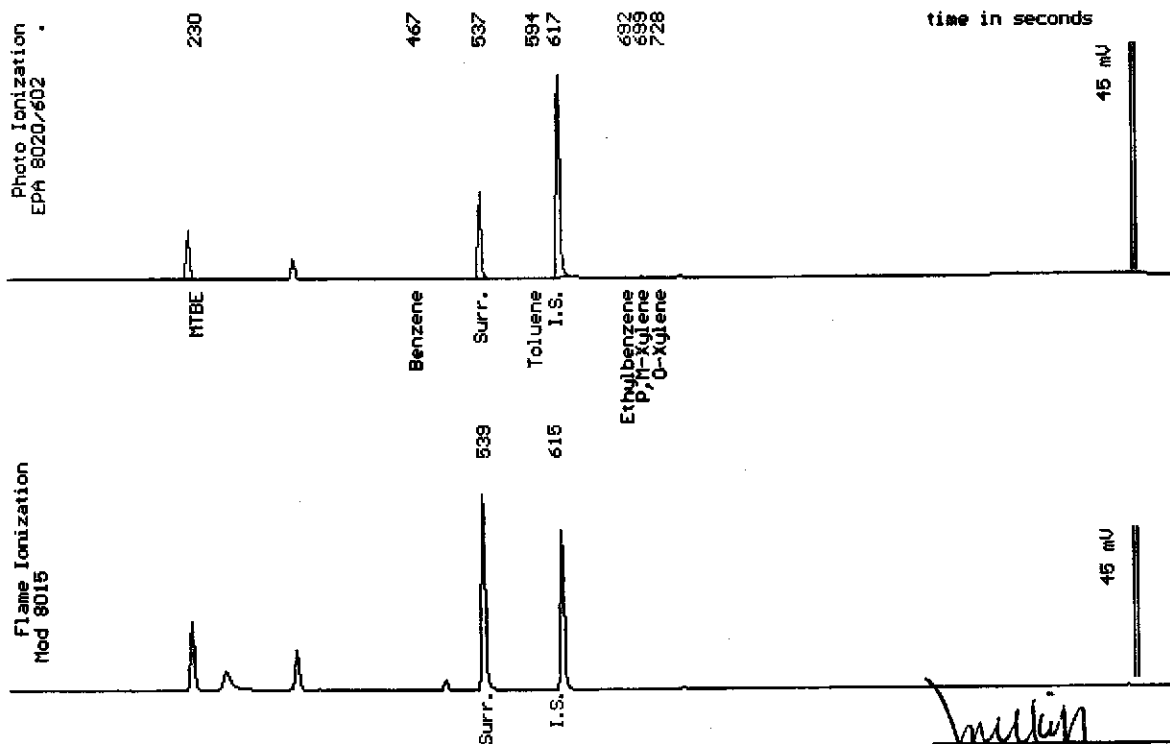
Sampled : 09/16/96

Dilution : 1:1

QC Batch : 6176U

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		113 %



Date Analyzed: 09-23-96
 Column : 0.45mm ID X 30m DB624 (J&W Scientific)

Joel Kiff
 Senior Chemist

Sample: MW-8

From : Beacon 574 (Proj. # 94-574-01)

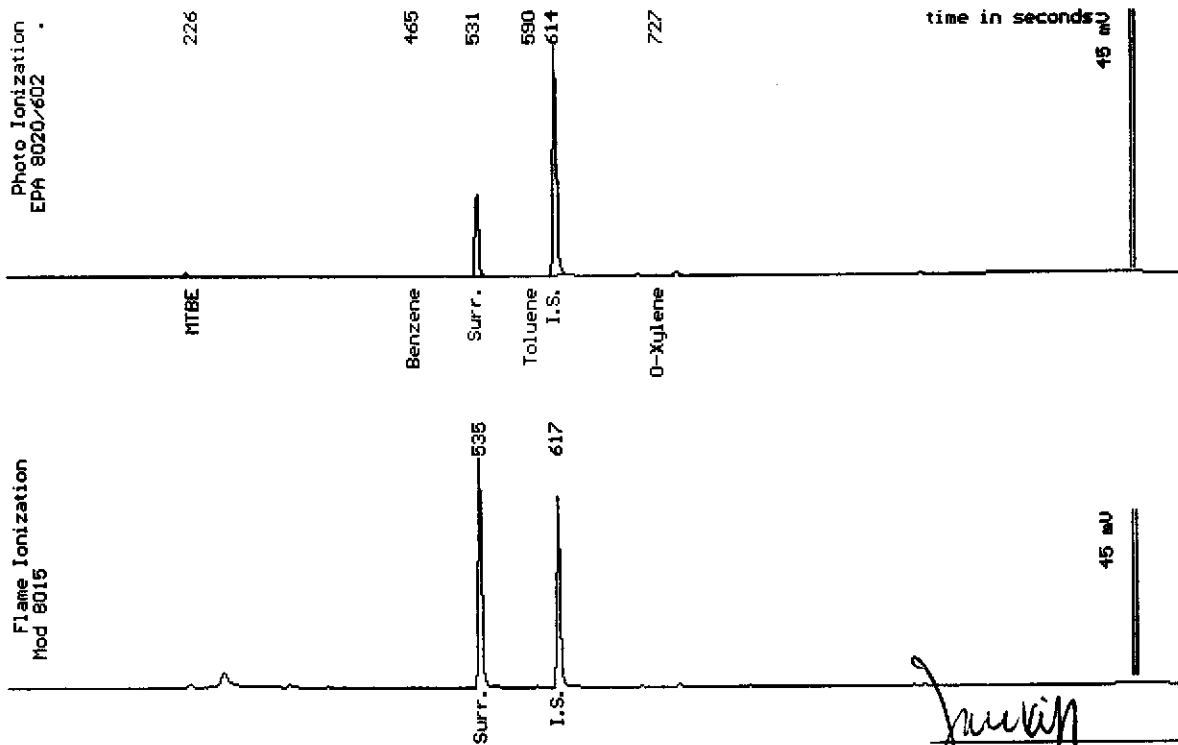
Sampled : 09/16/96

Dilution : 1:1

QC Batch : 6176U

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		109 %



Date Analyzed: 09-23-96
Column : 0.45mm ID X 30m DB624 (J&W Scientific)

Joel Kiff
Joel Kiff
Senior Chemist



Ultramar Inc.
CHAIN OF CUSTODY REPORT

BEACON

Beacon Station No. 574	Sampler (Print Name) HJ Hansen			ANALYSES						Date 9-16-96	Form No. 1 of 1			
Project No. 94-574-01	Sampler (Signature) <i>[Signature]</i>			BTEX	TPH (gasoline)	TPH (diesel)	TOS	ALK	SULFATES	NITRATES	NITRITES	DISOLVED Fe	No. of Containers	REMARKS STANDARD FIAT
Project Location CASTRO VALLEY	Affiliation DOULOS													
Sample No./Identification	Date	Time	Lab No.	BTEX	TPH (gasoline)	TPH (diesel)	TOS	ALK	SULFATES	NITRATES	NITRITES	DISOLVED Fe	No. of Containers	REMARKS
MW-1	9-16-96	6:33	15558-01	X	X	X	X	X	X	X	X	X	4	
MW-2		6:20	02											
MW-3		5:50	03											
MW-4		5:34	04											
MW-5		2:54	05											
MW-6		3:15	06											
MW-7		3:35	07											
MW-8		5:46	08											
Relinquished by: (Signature/Affiliation) <i>[Signature]</i>	Date 9-17-96	Time 11:15	Received by: (Signature/Affiliation) <i>[Signature]</i>						Date 9-17-96	Time 11:15				
Relinquished by: (Signature/Affiliation)	Date	Time	Received by: (Signature/Affiliation)						Date	Time				
Relinquished by: (Signature/Affiliation)	Date	Time	Received by: (Signature/Affiliation)						Date	Time				
Report To: VAN DAM	Bill to: ULTRAMAR INC. 525 West Third Street Hanford, CA 93230 Attention: KENNETH EARNEST													

WHITE: Return to Client with Report

YELLOW: Laboratory Copy

PINK: Originator Copy