Ultramar

Ultramar Inc.

P.O. Box 466 525 W. Third Street Hanford, CA 93232-0466 (209) 582-0241 Telecopy: 209-584-6113 Credit & Wholesale 209-583-3330 Administrative 209-583-3302 Information Services 209-583-3358 Accounting

November 17, 1994

Mr. Scott O. Seery, CHMM 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 Mr. Seery:

Enclosed is a copy of the Third Quarter 1994 Groundwater Monitoring Report for the above-referenced Ultramar facility prepared by Fugro West, 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 1994 Groundwater Monitoring Report

Quarterly Status Report

cc w/encl: Mr. Rich Hiett, San Francisco Bay Region, RWQCB

Mr. Peter J. Pugnale, Shell Oil Company



FUGRO WEST, INC.



1050 Melody Lane, Suite 160 Roseville, California 95678 Tel: (916) 782-2110 FAX: (916) 786-7830

RECEIVED

1367 1 7 1894

November 8, 1994

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

Subject:

Third Quarter 1994 Groundwater Mentitoring Report

Beacon Station #574

22315 Redwood Road, Castro Valley, California

Dear Mr. Earnest:

This report documents the results of quarterly groundwater monitoring conducted on September 9, 1994 at the subject site (Figure 1). The monitoring, conducted by Doulos Environmental, included measurements of depth to groundwater, subjective analysis for free product, groundwater purging and collection of groundwater samples. All field activities pertaining to events in this report were conducted according to the Ultramar Field Procedures included in the Attachments.

GROUNDWATER ELEVATIONS

Prior to purging, Doulos Environmental personnel collected depth to groundwater measurements. Groundwater level data from March 1992 to date are summarized in Table 1. Historic groundwater levels are presented as an Attachment. On the basis of the current measurements, groundwater flows to the northwest (Figure 2) at a gradient of 0.01 left. Groundwater levels have decreased an average of 0.66 feet compared to the last monitoring event.



GROUNDWATER SAMPLING AND ANALYSES

Groundwater samples were collected from eight wells. All samples were analyzed for concentrations of:

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

Analytical results from March 1992 to date are summarized in Table 2. Historic analytical data are presented as an Attachment. Figure 3 is a distribution map of benzene in groundwater based on the current data. The laboratory report and chain-of-custody form for the current sampling event are attached. Benzene concentrations remain nondetectable in wells MW-4, MW-5, MW-6, MW-7, and MW-8. Concentrations decreased in wells MW-1, MW-2, and MW-3 compared to prior sampling.

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

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 shall be at such parties' sole risk. This report was prepared under the review and supervision of the professional geologist, registered with the State of California, whose signature appears below.

If you have any questions or comments, please contact us at (916) 782-2110.

Sincerely,

FUGRO WEST, INC.

Sheila R. Richgels

Report Coordinator

Owen M. K Registered

CRG No.

No. 5853 Exp. 11/30/95

Date

SRR/OMK/srr

Attachments

FIGURE 1 SITE LOCATION MAP

FIGURE 2 POTENTIOMETRIC SURFACE MAP
(SEPTEMBER 9, 1994)

FIGURE 3 DISTRIBUTION MAP OF BENZENE
IN GROUNDWATER (SEPTEMBER 9, 1994)

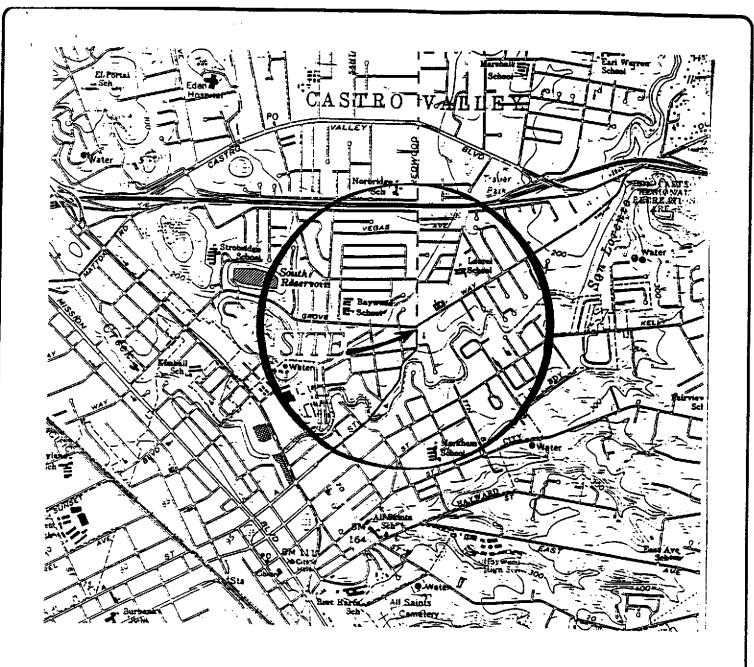
TABLES: TABLE 1 WATER LEVEL DATA
TABLE 2 ANALYTICAL RESULTS: GROUNDWATER

ATTACHMENTS: ULTRAMAR FIELD PROCEDURES

HISTORICAL DATA

LABORATORY REPORT AND CHAIN-OF-CUSTODY FORM

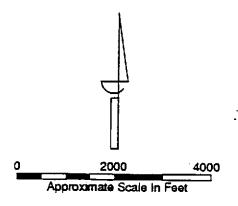
DOULOS ENVIRONMENTAL FIELD DATA SHEETS





GENERAL NOTES:

BASE MAP FROM USGS 7.5 MINUTE TOPOGRAPHIC HAYWARD, CA



4	5 -	
	VG:	2 0
(38)		· · · · · · · · · · · · · · · · · · ·
	Commission and party	W 2 2 2 2
		No.

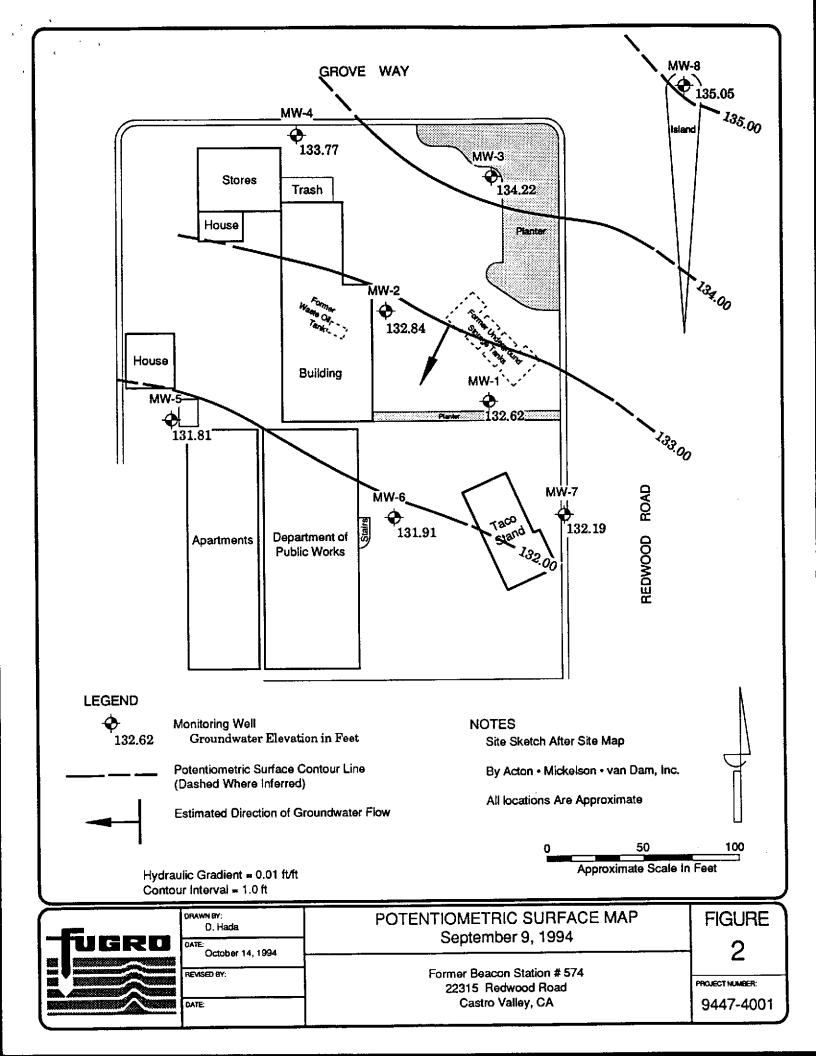
DRAWN BY: J. Paradis	ı
DATE: Mary 23, 1994	7
REVISED BY:	1
DATE	7

SITE LOCATION MAP

Beacon Station #574 22315 Redwood Road Castro Valley, CA FIGURE

PROJECT NUMBER:

91-212



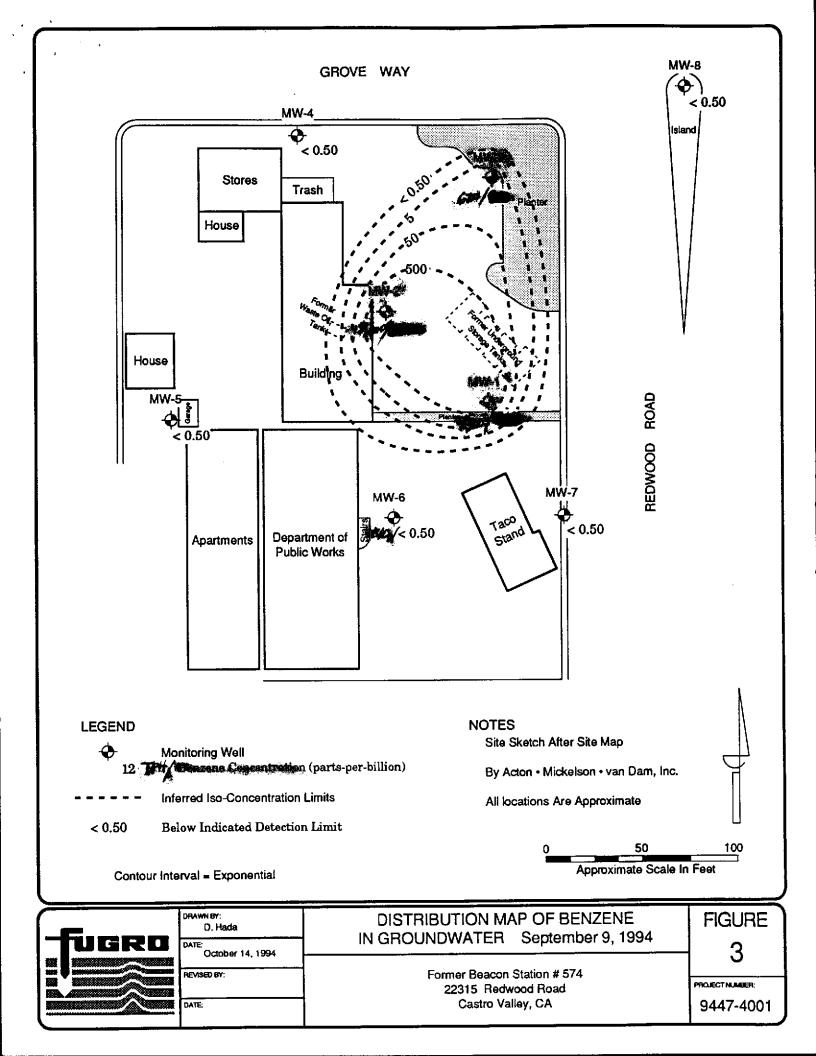


TABLE 1 WATER LEVEL DATA **BEACON STATION #574** 22315 REDWOOD ROAD, CASTRO VALLEY, CALIFORNIA

(Measurements in feet)

Monitoring Well	Date	Reference Elevation (top of casing) ¹	Depth to Groundwater ^t	Groundwater 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	
1	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	
MW-2	03/27/92	155.17	20.82	134.35		
	06/04/92		21.81	133.36		
	09/23/92	ļ	22.45	132.72		
	11/12/92		22.60	132.57	29.71	1
	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	ļ	21.19	133.98	29.68	
	06/02/94		21.59	133.58	29.69	
	09/09/94		22.33	132.84	29.66	
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	
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	
1	06/02/94	•	17.68	134.28	28.12	
	09/09/94		18.19	133.77	28.13	
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	

NOTES:

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

2 = Well Depth = Elevation referenced to mean sea level.

Measurement from top of casing to bottom of well.

Not measured.

Fugro

94-574/September 1994

TABLE 1 WATER LEVEL DATA **BEACON STATION #574** 22315 REDWOOD ROAD, CASTRO VALLEY, CALIFORNIA

(Measurements in feet)

Monitoring Well	Date	Reference Elevation (top of casing) ¹	Depth to Groundwater ^t	Groundwater 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	1
	03/01/94	1	20.80	133.16	29.96	
	06/02/94		21.37	132.59	29.98	
<u> </u>	09/09/94		22.05	131.91	29.96	
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	
MW-8	05/18/93	158.04	21.55	136.49		
	08/11/93		22.43	135.61	34.82	1
	11/05/93		23.00	135.04	34.82	1
	03/01/94		22.05	135.99	34.04	
	06/02/94		22.29	135.75	34.04	Ì
	09/09/94		22.99	135.05	34.04	

NOTES:

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

Elevation referenced to mean sea level. Well Depth

Measurement from top of casing to bottom of well.

Not measured.

TABLE 2 ANALYTICAL RESULTS: GROUNDWATER **BEACON STATION #574**

22315 REDWOOD ROAD, CASTRO VALLEY, CALIFORNIA

(All	results	in	parts-per-billion)

Monitoring Date Well Collected		Total	Petroleum Hydrod	carbons	Aromatic Volatile Organics			
		Gasoline	Diesel	Motor Oil	Benzene	Toluene	Ethyl- benzene	Total Xylenes
400	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		NA	NA		290	200	630
1999W-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		NA	NA		660	440	1,000
	03/27/92	160	<50	<50	9.2	4.8	10	23
200 E 1 1111	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		NA	NA	***	4.8	9.7	20
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
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

NOTES: < = Below indicated detection limit.

NS = Not sampled.

NA = Not analyzed.

Fugro 94-574/September 1994

TABLE 2

ANALYTICAL RESULTS: GROUNDWATER

BEACON STATION #574

22315 REDWOOD ROAD, CASTRO VALLEY, CALIFORNIA

(All results in parts-per-billion)

Monitoring Well	Date Collected	Total Petroleum Hydrocarbons		Aromatic Volatile Organics				
		Gasoline	Diesel	Motor Oil	Веплене	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	0.65
ļ	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
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
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
ļ	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

NOTES.

Below indicated detection limit,

NS = Not sampled.

NA =

Not analyzed.

Fugro

94-574/September 1994

ULTRAMAR FIELD PROCEDURES

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

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 are monitored. The well is sufficiently purged when: the four casing volumes have been removed; the temperature, pH, and conductivity 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 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 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 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 will 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 bailing, a final free product thickness measurement will be taken and a ground water sample will not be collected.

Samples are stored in 40-milliliter vials so that air passage through the sample is minimized (to prevent volatilizing 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. A Chain-of-Custody form is completed to ensure sample integrity. Ground water samples are transported to a state-certified laboratory and analyzed within the EPA-specified holding times for the requested analyses.

TABLE 2
WATER LEVEL DATA
(measurements in feet)

Monitoring. "Well."	. Dute	Reference: Elevation (top of casing)	Depth to Ground Water	Ground Water
MW-1	04-01-91	156.55	***************************************	Elevation
	03-27-92	130.33	22,37	134.18
	06-04-92		22.43 23.40	134.12
	09-23-92		24.07	133.15
	11-12-92	;	24.16	132.48
	02-02-93	·	21.87	132.39
	05-18-93		22.66	134.68 133.89
MW-2	04-01-91	155.17	20.82	134.25
	03-27-92		20.82	134.35
į	06-04-92		21.81	133.36
ĺ	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
Ĭ	03-27-92	1	21.46	135.67
	06-04-92 09-23-92		22.34	134.79
İ	11-12-92		22.84	134.29
ŀ	02-02-93		23.03	134.09
	05-18-93	1	21.03	136.10
10114			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

TABLE 3
GROUND WATER ANALYTICAL RESULTS
(concentrations in parts per billion)

 \rightarrow ι ι

Monkoring	Date	Total 7	troloum Hý	Total Recoleum Hydroexchon			Aromate Voletile Organice			
Well -	Collected		10.00		T T T LOCAL CO	44 (ivy)		Total		
in the second		Casolino	Deci	Motor OII	Benzene	Toluene	Ethylbantent	Xylene		
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		
	09-23-92	3,400	•	•	480	430	110	550		
	11-12-92	2,700	•	-	5.B	<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			
İ	06-04-92	14,000	<5,000		1,900	1,700	580	3,300 2,300		
j	09-23-92	22,000	•	-	2,100	1,500	760	2,900		
ł	11-12-92	29,000	•	.	2,400	860	540	3,500		
- 1	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			
1	06-04-92	120	<50		7.5	2.7	0.5	23 15		
}	09-23-92	220		- 1	8.3	4.3	6.2	19		
Ì	11-12-92	230	. [- 1	12	5.5	7.7	19		
- !	02-02-93	86	-	- 1	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.

RECEIVEL

September 23, 1994 Sample Log 10188

TOT BY LO

Sheila Richgels Fugro West, Inc.- Roseville 1050 Melody Lane, Suite 160 Roseville, CA 95678 Ans'd Ser

Subject: Analytical Results for 8 Water Samples

Identified as: Project # 94-574-01 (Former Beacon 574)

Received: 09/16/94

Dear Ms. Richgels:

Analysis of the sample(s) referenced above has been completed. This report is written to confirm results communicated on September 23, 1994 and describes procedures used to analyze the samples.

Sample(s) were received in 40-milliliter glass vials sealed with TFE lined septae and plastic screw-caps. Each sample was transported and received under documented chain of custody and stored at 4 degrees C until analysis was performed.

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:

Joed Kiff / Senior Chemist



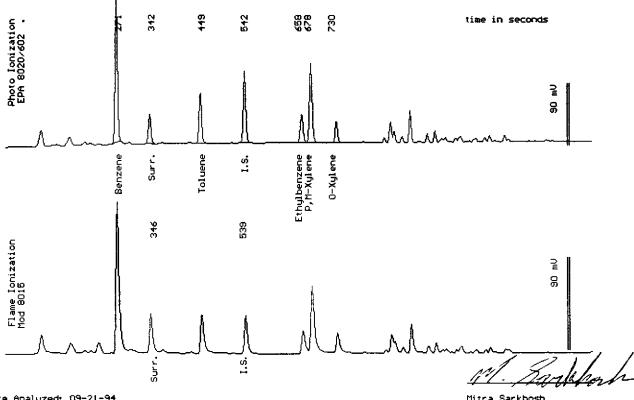
Sample: MW-1

From : Project # 94-574-01 (Former Beacon 574)

Sampled: 09/09/94

Dilution: 1:10 QC Batch: 6128W

Parameter	(MRL) ug/L	Measured Value ug/L
Benzene	(5.0)	740
Toluene	(5.0)	290
Ethylbenzene	(5.0)	200
Total Xylenes	(5.0)	630
TPH as Gasoline	(500)	4300
Surrogate Recovery	7	98 %



Date Analyzed: 09-21-94 Column: 0.53mm ID X 30m DB5 (J&W Scientific)

Mitra Sarkhosh Senior Chemist



Sample: MW-2

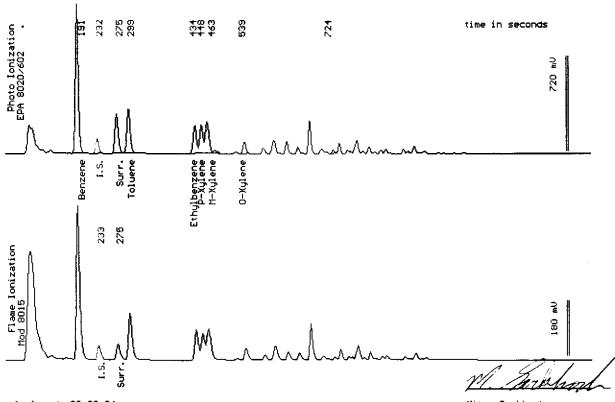
From : Project # 94-574-01 (Former Beacon 574)

Sampled : 09/09/94

Dilution: 1:10

QC Batch : 2104H

Parameter	(MRL) ug/L	Measured Value ug/L
Benzene Toluene Ethylbenzene Total Xylenes TPH as Gasoline	(5.0) (5.0) (5.0) (5.0) (500)	1800 660 440 1000 13000
Surrogate Recovery	<i>!</i>	109 %



Date Analyzed: 09-22-94 Column: 0.53mm ID X 30m DBHAX (J&H Scientific)

Mitra Sarkhosh Senior Chemist



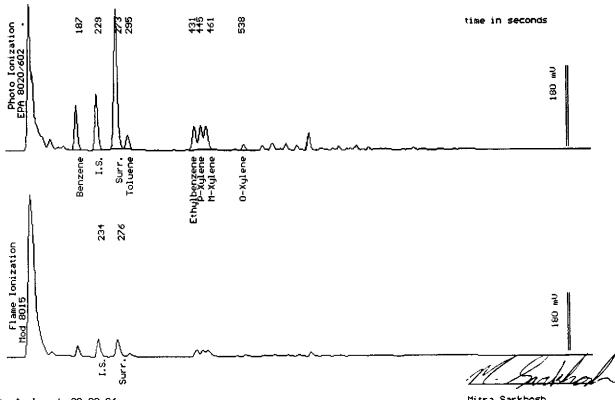
Sample: MW-3

From : Project # 94-574-01 (Former Beacon 574)

Sampled: 09/09/94

Dilution: 1:1 QC Batch: 2104f

Parameter	(MRL) ug/t	Measured Value ug/L
Benzene Toluene Ethylbenzene Total Xylenes TPH as Gasoline	(.50) (.50) (.50) (.50) (50)	12 4.8 9.7 20 620
Surrogate Recovery	<i>!</i>	96 %



Date Analyzed: 09-22-94 Column: 0.53mm ID X 30m DBWAX (J&W Scientific)

Mitra Sarkhosh Senior Chemist



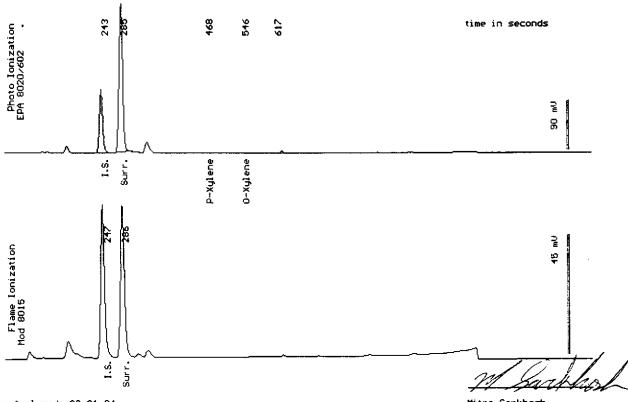
Sample: MW-4

From : Project # 94-574-01 (Former Beacon 574)

Sampled: 09/09/94

Dilution: 1:1 QC Batch: 2104f

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	,	100 %



Date Analyzed: 09-21-94 Column: 0.53mm ID X 30m DBWAX (J&W Scientific)

Mitra Sarkhosh Senior Chemist



Sample Log 10188 10188-5

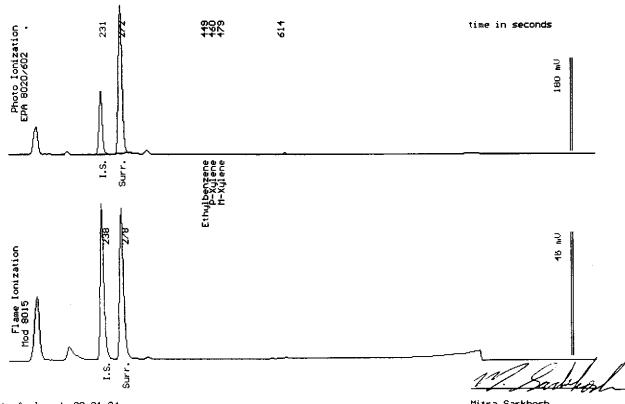
Sample: MW-5

From : Project # 94-574-01 (Former Beacon 574)

Sampled: 09/09/94

Dilution: 1:1 QC Batch: 2104f

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	7	100 %



Date Analyzed: 09-21-94 Column: 0.53mm ID X 30m DSWAX (J&W Scientific)

Mitra Sarkhosh Senior Chemist



Sample Log 10188 10188-6

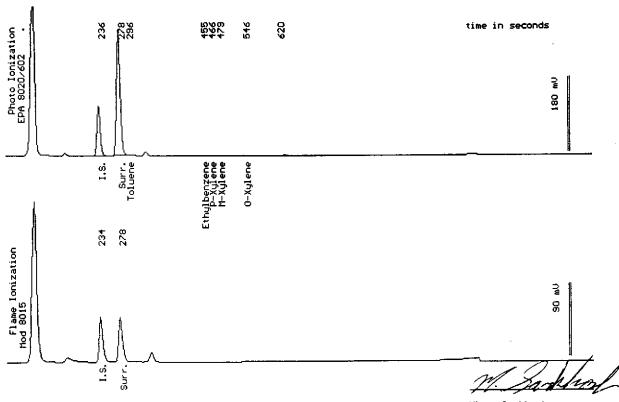
Sample: MW-6

From : Project # 94-574-01 (Former Beacon 574)

Sampled: 09/09/94

Dilution: 1:1 QC Batch: 2104f

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)	140
Surrogate Recovery	7	100 %



Date Analyzed: 09-21-94 Column: 0.53mm ID X 30m DBHAX (J&H Scientific)

Mitra Sarkhosh Senior Chemist



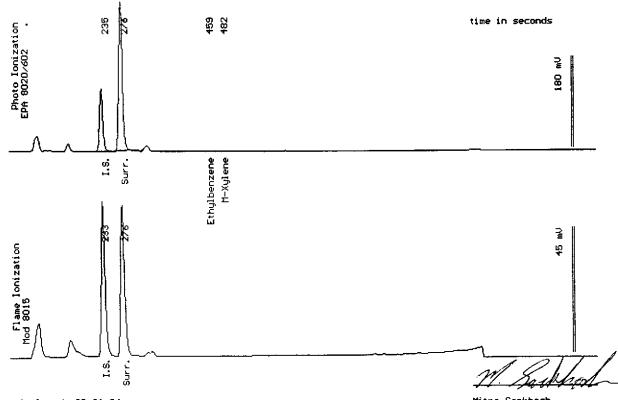
Sample: MW-7

From : Project # 94-574-01 (Former Beacon 574)

Sampled: 09/09/94

Dilution: 1:1 QC Batch: 2104f

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	<i>y</i>	100 %



Date Analyzed: 09-21-94 Column: 0.53mm ID X 30m DBMAX (J&W Scientific)

Mitra Sarkhosh Senior Chemist



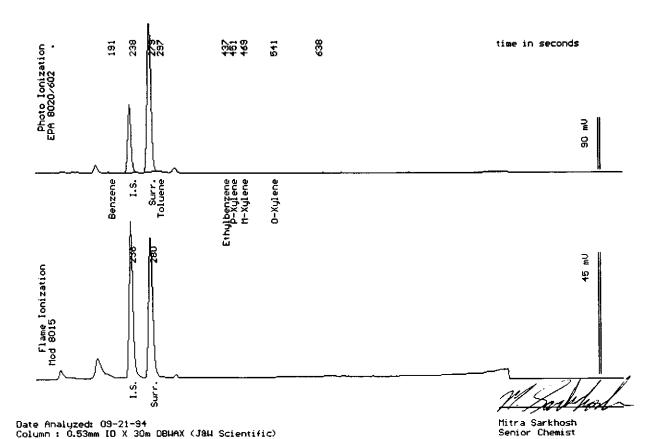
Sample: MW-8

From : Project # 94-574-01 (Former Beacon 574)

Sampled: 09/09/94

Dilution: 1:1 QC Batch: 2104f

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	,		100 %		





Ultramar Inc.CHAIN OF CUSTODY REPORT

Beacon Station No.	Sampler (Pri	nt Name)		Date Form No.					
574 Beaca	143 /	Ha1500		ANA	LYSES	+-	9-16-94	/ of /	
Project No.	Sampler (Sig	<i>├/a.15 ↔</i> gnature)		┦				w.	
, ·	3/a	Chlanois				Containers	Rear	dord.	
94-574-01 Project Location 223 15 Radwood Ad						ntai	TAT	7	
Costro Valley Co	Da	ulos En i	/ -	X (gasoline) (diesel)		of Co			
Sample No./Identification	Date	Time	Lab No.	TPH TPH		S S S	REMAR	RKS	:
MW-1	9-9-94	645		+X		3			
MW-2		530							
M W-3		440				$\frac{\parallel}{\parallel}$	A CONTRACTOR	/TEY	30
MW-4		405				\prod	9/14	10 (2) - 00 (3)	
M W-5		225				\prod		1	
MW-6		250					WEST. LAB		
MW-7		3/0					-	··	
NW-8		340	1			M			1 =:
Relinquished by: (Signature/Affiliation)	Date	1 1 1 2	ved by: (Signatu	re/ Affiliation	1/1	1	/	Date /	Time
Hal Warren Davies Fort	/ 9/10	24197/	TAK!	The/	Colo	M		7149	1/1/1
Relinquished by (Signature/Affiliation)	Date	, -	ved by://Signate	re/Affiliation				/bate/	Time /
CATHOLICA SAN	9/10	4145							
Relinquished by: (Signature/Affiliation)	Date	e Time Recei	ved by: (Signatu	re/Affiliation)			Date/	Time
			Mhall	[[[]]	NE	31		11994	1530
Report To: Fax Dasalto No RA	sila Rec	Agels Bill to		K INC. Third Street					
(416) 782-1277			Hanford, C	A 93230	next ?	<u>ر</u> ـ	annist		
WHITE: Return to Client with Report	YELLOW: L	aboratory Copy	PINK: Origi	nator Copy				32-8	003 1/90

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

Project Address:

Beacon #574, 22315 Redwood Rd.

Date: <u>9-9-94</u>

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		Product Thickness	Comments
MW-L	140	156.55	23.93 7	29.86	132,62			Petroleum odor no akcen
MW-2	137	155.17	22.33 5	29.66	132.84			Petroleum ader no shen
MW-3	/35	15 7.13	22.91 4	29.56	134,22			Patroleun oder no sheen
MW-4	132	151.96	18.19	28,13	133.77			no odor no skeen
MW-5	117	148.68	16.87	25.00	131.81			no odor no sheen
MW-6	122	153,96	12.05 6	29.96	131.91			no odor no skeen
MW-7	124	156.09	23.90 8	30.12	132.19		, 	nooder nosteen
MW8	178	158.04	22.993	34.04	135.05		,	nooder nooheen
	····							
						· -		

Notes:

		_ _					
, c	lient:_	Ultramar		s	ampling Date	9-9-94	
	Site:	Beacon #5	74		Project No	o.: <u>94-574</u> -	-01
		22315 Red	wood Road	We	ll Designatio	on: <u>MW-</u>	μ,
	·	Castro VA	lley, CA				
Is the Is top Is well	re stand of casi l cap se	ing water ng cut leveled and i	locked?	ox?	no Ves	time:Above TOC If no, se If no, se 8" E Other	ee remarks ee remarks
		<u></u>	4" PVC b	ailer		_Centrifuga]	e pump pailer pump
s	-				Teflon bas		·
	Well D	iameter:	2"	4" <u>X</u>	6"	8"	
Initia Time: Depth	l Measur /4ク	_ 19.86	Rec	harge Meas	1.47 surement Calcu	_	,
Start	purge: <u>6</u>	35	Sam	pling time	e: <u>6845</u>		
	Time	· Temp.	E.C.	На	Turbidity	Volume	•
	540	73.1	1243	6.97		1	
	5 45	723	11\$3	6.94		2	
	553	71.0	7132	6.92		3	Pump to
	610	70.0	1115	6.92	-	- 4	Pump tr
s	ample ap	pearance:	dear		Lock: <u>d</u>	olphin	
2" L	ocking C ocking C	aced: (Ch ap: ap:		nat apply) k #3753:_ Dolphin:_		tion of repl /32 Allenhea 9/16 Bol Lenhead (DWF	d: t:
Rema:	rks:						
Signati	ure:	Wal	Vansen				

	Client:_	Ultramaı			Sampling Date:_	9-9-94		
	Site:	Beacon #9	574	·		:94-574-01		
	_		···					
	_			w	ell Designation	:		
***********			lley, CA					
Is the Is top Is well to Well to 12" B	ere stan o of cas il cap s of wel cover ty	12" DWP	in well level? locked? locked in :	inches): 2" UV	NO YES NO YES NO YES	time:hour Above TOC Below of If no, see remainder BK By Fair Poor	TOC rks	
-	Purging Equipment:2" disposable bailerSubmersible pump2" PVC bailerDedicated bailer Centrifugal pump Sampled with: Disposal bailer: Teflon bailer:							
	Well	Diameter:	2"	4" X	6" 8"			
Initia Time:_ Depth Depth	l Measu /3 7 of well to wate	29.60	Time: Rec	charge Mea		.61 gal/ft. ted purge: <u>/9 ga/</u> ual purge: <u>/9 ga/</u>	ρ <u>-</u>	
	Time	Temp.	E.C.	рН	Turbidity	Volume		
	455	72,4	1342	696				
	500	70.9	1241	6.87		2		
	501	70.4	1220	6.74		3		
	520	70.1	12/3	6.61		4		
c	20010 20		0 -					
		pearance:			Lock: _ <u> </u>	3	_	
2" L 4" L	ocking (ocking (aced: (Ch Cap: Cap: Cap:	_ Loc Lock-	nat apply k #3753:_ Dolphin:_	7/32	n of replaced it Allenhead: 9/16 Bolt: head (DWP):	_	
Rema	rks: _						_ _	
Signati	ıre:	2/4/2	James					

	Client:_	Ultramar	•		Sampling Date:	9-9-94	
	Site:	Beacon #5	574		-	.:94-574-	
					ell Designation	··	<u>01.</u>
	_			WE	ell besignation	n: <u>mw-J</u>	
-			lley, CA		a	<u> </u>	
Is top Is well	of cas ll cap s	uing water ing cut le ealed and	vel? locked?	nahaa\.	3	Above TOC If no, see If no, see	Below TOC remarks remarks
Purging Equipment:2" disposable bailerSubmersible pump2" PVC bailerDedicated bailer Zentrifugal pump						iler	
S	ampled v	vith: Dis	posal bail	er: <u>\</u>	Teflon bail	.er:	
	Well I	Diameter:	2"	4"	6"8	, 11	
Initia Time:_ Depth Depth	1 Measur 135 of well: to water	19.56	Time: Depth to	harge Mea	Calcul <u>13.60</u> Ac		
Statt	Time			pling time	<u> </u>		¬
		Temp.	E.C.	PH	Turbidity	Volume	
	409	74.1	1141	7.28		1	
	412	72.9	1130	7.19		<u>2</u>	_
	418	72.3	1126	7.17		3	Dempt
	425	72.1	1113	7.01		4	Purp by
Sa	ample ap	pearance:	_lea		Lock: TA	lohin	
2" Lo 4" Lo	ocking C	ap: ap:		at apply) x #3753: Dolphin:	Note conditi 7/3: Pinned Aller	2 Allenhead 9/16 Bolt	
Remai	rks:						
Signatu	ıre:	geleet	Marzo	m			

C	:lient:_	Ultramar		S	ampling I	Date: <u>9</u> -	9-94	
	Site:_	Beacon #5	74				94-574-0)1_
		22315 Red	wood Road	We	ll Design	nation:	MW-4	
	_							
		Castro VA						
Is the Is top Is well Height Well c	re stan of cas l cap s of wel over ty	raffic conding water ing cut leveled and leasing ripe: 8" UV 12" DWP_tion of we	in well by vel? locked? iser (in in X_{-}	ox? nches): " UV	NO NO NO <u>U</u> 12" E	YES Ab YES I YES I MCO	ove TOC l f no, see f no, see _ 8" BK	Below Too e remarks e remarks
	Purging Equipment: 2" disposable bailer 2" PVC bailer 4" PVC bailer Submersible pump Dedicated bailer Centrifugal pump Sampled with: Disposal bailer: Teflon bailer:							iler
- 5								
	Well	Diameter:	2"	4 "	6" <u> </u>	. 8" <u>.</u>		
Initia Time: Depth	l Measu /3人	ltiplier: rement : 18,13 r:18.19	Recl	0.65 harge Meas O <i>U</i> water: /	surement			
Start	purge:_	353	Samp	pling time	e: <i><u>1405</u></i>			
	Time	Temp.	E.C.	На	Turbi	dity	Volume	
	355	77.t	1581	7.41			J	
	3 56	16.9	1409	7.38			2	_
	357	76.8	1407	7,25			3	
	359	76.4	1395	7.17			4	
s	ample ap	ppearance:	cloud	ly	Lock:	dolp	shin	
2" Lo 4" Lo	ocking (ocking (laced: (Ch Cap: Cap:	Loc	at apply) (#3753: Dolphin:		7/32 P	of repla Allenhead 9/16 Bolt ead (DWP)	:
Remai		9100	Vansa					
Signatu	ure: _	NAN	Vansa					

С	lient:_	Ultramar		S	ampling Date:_	9-9-94	_
	Site:_	Beacon #5	74	·	Project No.	: 94-574-01	_
	_	22315 Red	wood Road	We:	ll Designation	: <u> mw- 5</u>	
		Castro VA					
Is the Is top Is well	re stan of cas l cap s	raffic conding water ing cut led ealed and lasing ripe: 8" UV 12" DWP_tion of we	in well bovel? locked?	ox?	no (TES) no (TES) no (TES)	If no, see I	low TOE remarks remarks
Purgin	g Equip	ment:	2" dispos 2" PVC ba 4" PVC ba	sable bai ailer ailer	ler S	Submersible pure dedicated bail centrifugal pure	ump ler
			•		6" 8		
Initia Time: Depth Depth	l <u>Measu</u> 117 of well to wate	: 25.00 r: 16.87	Recl Time: 1 Depth to	harge Meas 2-3 water:_/	7.34 Calcul		
Start	purge:_	200	Sam	pling time	e: <u>215</u>		1
	Time	Temp.	E.C.	рН	Turbidity	Volume	
	201	69.4	692	7.41		1	
	202	68.7	681	7.38		2	
	202	68.4	669	7.33		3	
	203	68.2	660	7.32		4	
S	ample a	ppearance:	clear	<u> </u>	Lock: de	lplin]
2" L	ocking ocking	laced: (Ch Cap: Cap: Cap:	_ Lock-I	nat apply) k #3753:_ Dolphin:_	Note conditi		
Rema		9/	l Wars				
Signat	ure: _	Du	(Nan	ln_	·	•	

Client: <u>Ultramar</u>					ampling Date	: 9-9-94			
Site: Beacon #574					Project No.: 94-574-01				
22315 Redwood Road					ll Designati	on: MW-6			
		Castro VA							
~					10 000	4. 5			
Is the Is top Is well to Well of	re stand of cas l cap so of wel	ding water ing cut le ealed and l casing r	in well bevel? locked? iser (in i	ox?	NO YES NO YES NO YES /2	time:Above TOC If no, second If no, second 8" Blood Fair	Below TOC e remarks e remarks		
_	g Equip		2" dispo 2" PVC b 4" PVC b	aller	ler Teflon ba	_Submersible _Dedicated ba _Centrifugal iler:	ailer		
					6"				
Purge Vol. Multiplier: Initial Measurement Time: /22									
Jear e	Time	Temp.	E.C.	pH	Turbidit	y Volume	\neg		
				-		, volume	\dashv		
	241	74,6	1371	7.51		1			
	141	74.5	1382	7.50		2_	_		
	244	737	1394	7.49		3			
	245	73.2	1395	7.41		- 4	_		
s	ample a	ppearance:	lear		Lock:a	lolphin			
2" Le 4" Le	ocking (ocking (Laced: (Cl Cap: Cap:	neck all th _ Lock _ Lock-I	at apply) c #3753: Dolphin:		tion of repla /32 Allenhead 9/16 Bolt lenhead (DWP)	l:		
Remai	rks: _								
Signati	ure:	Val	! Harie	h					

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? Well YES time: hours there standing water in well box? YES Above TOC Below TO Is top of casing cut level? NO YES Above TOC Below TO Is well cap sealed and locked? NO YES If no, see remark the inches of Well casing riser (in inches):
Is setup of traffic control devices required? W YES time: hours there standing water in well box? YES Above TOC Below TO TES top of casing cut level?
Is setup of traffic control devices required? W YES time: hours there standing water in well box? YES Above TOC Below TO Test top of Casing Cut level?
Is there standing water in well box? NO YES Above TOC Below TO
Is well cap sealed and locked? Height of well casing riser (in inches): Well cover type: 8" UV \(\lambda \) 12" UV \(\lambda \) 12" EMCO \(\lambda \) 8" BK \(\lambda \) 12" BK \(\lambda \) 12" DWP \(\lambda \) 12" CNI \(\lambda \) 36" CNI \(\lambda \) Other \(\lambda \) General condition of wellhead assembly: Excellent Good Fair Poor Purging Equipment: \(\lambda \) 2" disposable bailer \(\lambda \) Submersible pump \(\lambda \) 2" PVC bailer \(\lambda \) Dedicated bailer \(\lambda \) Centrifugal pump Sampled with: Disposal bailer: \(\lambda \) Teflon bailer: \(\lambda \) Teflon bailer: \(\lambda \)
Well Diameter: 2"_X 4" 6" 8"
Purge Vol. Multiplier: 0.16 0.65 1.47 2.61 gal/ft. Initial Measurement Time: 124
Time Temp. E.C. pH Turbidity Volume
IS6 752 1120 7.47 — 1
257 75.6 1138 7.56 - 2
259 74.8 1137 7-54 - 3
301 743 1130 7.52 4
Sample appearance: cloudy Lock: dolphin
Equipment replaced: (Check all that apply) Note condition of replaced ite 2" Locking Cap: Lock #3753: 7/32 Allenhead: 4" Locking Cap: Lock-Dolphin: 9/16 Bolt: 6" Locking Cap: Pinned Allenhead (DWP):
Signature: 9/a/9/ansh

Client: <u>Ultramar</u>					ampling Date:	: 9-9-94	
Site: Beacon #574					Project No	o.: <u>94-574-</u> 0)1_
		22315 Red	wood Road	We	ll Designatio	on: <u>MW-8</u>	
		Castro VA					
Genera	1 condi	tion of we	trol device in well be vel? locked? iser (in in X 12 CN 12" CN 11head asse 2" dispos 2" PVC be 4" PVC be	embly: Example bai	kcellent (Go	time: Above TOC I If no, see If no, see 8" BK Other OO Fair Submersible Dedicated ba Centrifugal	Poor pump iler
S	ampled v				Teflon bai	ler:	
					6"		
Initia Time: Depth Depth	l Measur 실상 of well: to water	: 34,04 :: 32,99	Recl Time: 33° Depth to	harge Meas) water:上3	Calcu Calcu	2.61 gal/ llated purge: Actual purge:	ft. 1gal
Start	purge:_		Samı	<u>,</u>	=: <u>340</u>		 1
	Time	Temp.	E.C.	Нq	Turbidity	Volume	_
	332	73.8	1210	7.26		1	_
	333	73.8	1182	7-16		2	╛
	334	73.7	1180	7-15		3	
	335	73.2	1178	724		4	
S	ample ap	ppearance:	Dan		Lock: <u>d</u>	lolphu	
2" L	ocking (ocking (Laced: (Ch Cap: Cap:	_ Lock-!	at apply) k #3753: Dolphin:	7/	cion of repla 32 Allenhead 9/16 Bolt enhead (DWP)	:
Rema:	rks: _						
Signati	ure: _	92019	Vansa				