GETTLER-RYAN INC.

TRANSMITTAL

TO: Mr. Scott Seery
Alameda County Health Care Services
1131 Harbor Bay Parkway
Alameda, California 94502

DATE: July 3, 1998
G-R #: 180108

FROM: Deanna L. Harding
Project Coordinator
Gettler-Ryan Inc.
6747 Sierra Court, Suite J
Dublin, California 94568

RE: Tosco (Unocal) SS #5367
500 Bancroft Avenue
San Leandro, California

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DATED	DESCRIPTION
1	June 24, 1998	Groundwater Monitoring and Sampling Report Semi-Annual 1998 - March 20, 1998

COMMENTS:

At the request of Tosco Marketing Company, we are providing you a copy of the above referenced report. The site is monitored and sampled on a semi-annual basis. If you have questions please contact the Tosco Project Manager, Ms. Tina R. Berry at (925) 277-2321.

Enclosure

cc: Mr. Michael Bakaldin, City of San Leandro Fire Department, 835 East 14th Street, San Leandro, CA 94577
Mr. Tim Ripp, PEG Inc., 2025 Gateway Place, Suite 440, San Jose, CA

agency/5367trb.qmt

PACIFIC
ENVIRONMENTAL
GROUP, INC.

AN EA COMPANY

July 7, 1998
Project 311-127.1A

STID 7 58
105

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

Re: 76 Service Station 5367
Quarterly Summary Report
Second Quarter 1998

Dear Mr. Hiett:

As directed by Ms. Tina Berry of Tosco Marketing Company, Pacific Environmental Group, Inc. is forwarding the quarterly summary report for the following location:

Service Station	Location
5367	500 Bancroft Avenue, San Leandro

Should you have questions or comments, please do not hesitate to contact our office at (408) 441-7500.

Sincerely,

Pacific Environmental Group, Inc.

Timothy L. Ripp
Project Geologist

Enclosure

cc: Ms. Tina Berry, Tosco Marketing Company
Ms. Amy Leech, Alameda County Health Care Services

Quarterly Summary Report
Second Quarter 1998

76 Service Station 5367
500 Bancroft Avenue
San Leandro, California

City/County ID #: None
County: Alameda

BACKGROUND

The site is an active Unocal service station. In 1987, limited soil excavation was performed at the site during the replacement of underground storage tanks, product lines, and product dispensers. One groundwater monitoring well was installed following these activities. Between 1988 and 1994, eight monitoring wells were installed, aquifer testing was performed, and a remedial action plan was prepared. In 1995, one additional monitoring well was installed, and a soil vapor extraction (SVE) and groundwater extraction remediation system was constructed. During the first quarter of 1996, remedial system start-up and operation were performed. During the third quarter 1996, revisions were submitted to the groundwater monitoring program requesting a sampling reduction from quarterly to semiannually. During February and March 1997, the SVE system was operated in pulsed mode to increase petroleum hydrocarbon vapor recovery. However, influent concentrations remained at non-detectable levels. Therefore, the SVE and dewatering system was shut down on March 13, 1997.

RECENT QUARTER ACTIVITIES

Semiannual groundwater monitoring and sampling were performed in June 1998.

NEXT QUARTER ACTIVITIES

No activities are planned.

CHARACTERIZATION/REMEDIAL STATUS

Soil contamination delineated? Yes.
Dissolved groundwater delineated? Yes.
Free product delineated? Not applicable.
Total amount of groundwater contaminant recovered? Approximately 108 pounds.
Soil remediation in progress? No. System shut down in March 1997.
Start? March 1996.
Completion date? March 1997.
Dissolved/free product remediation in progress? No. System shut down in March 1997.
Start? March 1996.
Completion? March 1997.

CONSULTANT: Pacific Environmental Group, Inc.

GETTLER-RYAN INC.

June 24, 1998
G-R Job #180108

Ms. Tina R. Berry
Tosco Marketing Company
2000 Crow Canyon Place, Suite 400
San Ramon, California 94583

RE: Semi-Annual 1998 Groundwater Monitoring & Sampling Report
Tosco (Unocal) Service Station #5367
500 Bancroft Avenue
San Leandro, California

Dear Ms. Berry:

This report documents the semi-annual groundwater monitoring and sampling event performed by Gettler-Ryan Inc. (G-R). On March 20, 1998, field personnel monitored and sampled ten wells (MW-1 through MW-10) at the above referenced site.

Static groundwater levels were measured and all wells were checked for the presence of separate-phase hydrocarbons. Separate-phase hydrocarbons were not present in the wells. Static water level data and groundwater elevations are summarized in Table 1. A Potentiometric Map is included as Figure 1.

Groundwater samples were collected from the monitoring wells as specified by G-R Standard Operating Procedure - Groundwater Sampling (attached). The field data sheets are also attached. The samples were analyzed by Sequoia Analytical. Analytical results are summarized in Table 1, and a Concentration Map is included as Figure 2. Dissolved Oxygen Concentrations are summarized in Table 2. The chain of custody document and laboratory analytical reports are also attached.

Sincerely,

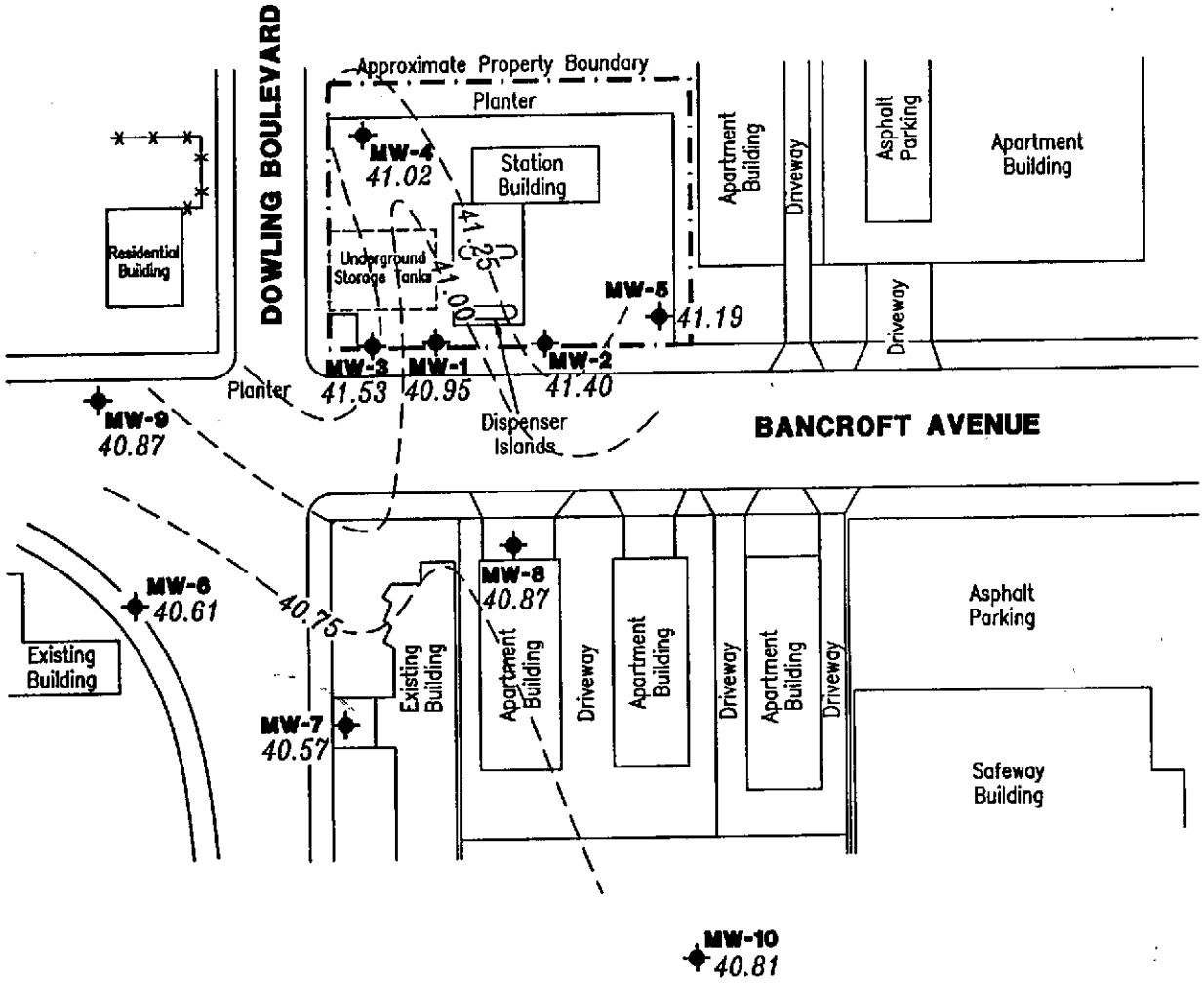
Deanna L. Harding
Project Coordinator

Stephen J. Carter
Senior Geologist, R.G. No. 5577

REGISTERED GEOLOGIST
STEPHEN J. CARTER
No. 5577
STATE OF CALIFORNIA

Figure 1: Potentiometric Map
Figure 2: Concentration Map
Table 1: Groundwater Monitoring Data and Analytical Results
Table 2: Dissolved Oxygen Concentrations
Attachments: Standard Operating Procedure - Groundwater Sampling
Field Data Sheets
Chain of Custody Document and Laboratory Analytical Reports

5367.qml



EXPLANATION

- ✦ Groundwater monitoring well
- 41.53 Groundwater elevation in feet referenced to Mean Sea Level (MSL)
- 41.25 Groundwater elevation contour, dashed where inferred.

Approximate groundwater flow direction at a gradient of 0.008 Ft./Ft.

0 80

Scale in Feet

Source: Figure Modified From Drawing Provided By MPDS Services, Inc.

FIGURE 1

Gettler - Ryan Inc.

6747 Sierra Ct., Suite J
Dublin, CA 94568
(510) 551-7555

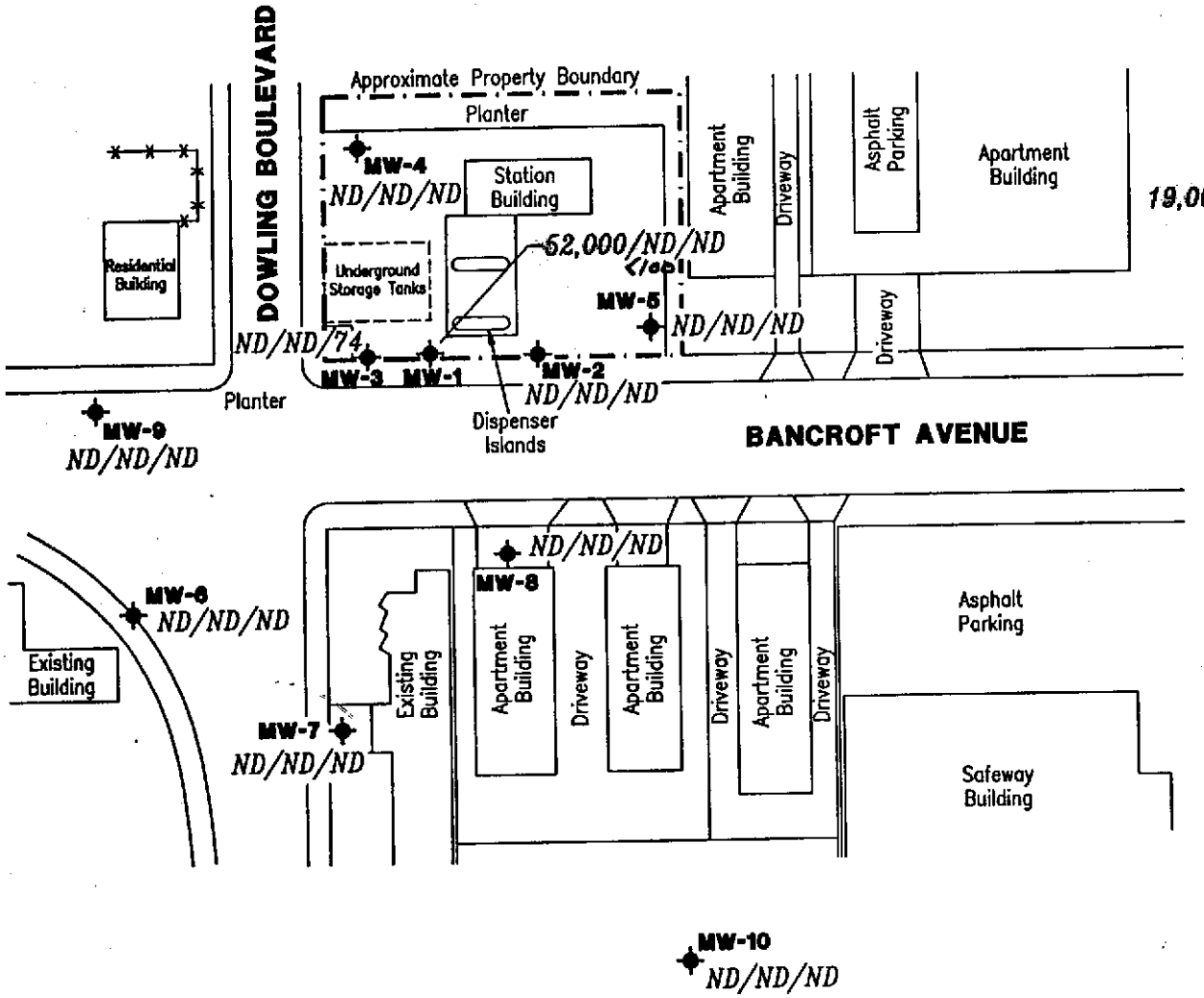
POTENTIOMETRIC MAP
Tosco (Unocal) Service Station No. 5367
500 Bancroft Avenue
San Leandro, California

JOB NUMBER 180108

REVIEWED BY

DATE March 20, 1998

REVISED DATE



EXPLANATION

- Groundwater monitoring well
- 19,000/160/ND — TPH(g) as gasoline/Benzene/MTBE in ppb
- ND — Not detected

N

0 80

Scale in Feet

Source: Figure Modified From Drawing Provided By MPDS Services, Inc.

FIGURE 2

Gettler - Ryan Inc.
6747 Sierra Ct., Suite J
Dublin, CA 94568
(510) 551-7555

CONCENTRATION MAP
Tosco (Unocal) Service Station No. 5367
500 Bancroft Avenue
San Leandro, California

JOB NUMBER 180108

REVIEWED BY

DATE March 20, 1998

REVISED DATE

Table 1

Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #5367

500 Bancroft Avenue

San Leandro, California

Well ID/ TOC*	Date	DTW (ft.)	GWE (msl)	TPH(G)	B	T	E	X	MTBE
				<--------		ppb			-------->
MW-1	09/23/87			NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				--	--
	09/24/87			NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				--	--
	10/06/87			NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				--	--
	11/05/87			NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				--	--
	11/13/87			NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				--	--
	11/19/87			NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				--	--
	04/27/88			NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				--	--
	09/07/88	DRY	--	--	--	--	--	--	--
	10/03/88	DRY	--	--	--	--	--	--	--
	01/27/89	DRY	--	--	--	--	--	--	--
	02/16/90	DRY	--	--	--	--	--	--	--
	07/19/90	DRY	--	--	--	--	--	--	--
	08/24/90	DRY	--	--	--	--	--	--	--
	11/30/90	DRY	--	--	--	--	--	--	--
	02/06/91	DRY	--	--	--	--	--	--	--
	05/06/91				--	--	--	--	--
	09/27/91	DRY	--	--	--	--	--	--	--
	03/31/92			330,000	8,200	33,000	6,800	36,000	--
	06/18/92			680,000	9,000	40,000	7,600	44,000	--
	10/16/92	DRY	--	--	--	--	--	--	--
	11/18/92	DRY	--	--	--	--	--	--	--
	03/03/93			330,000	3,800	21,000	4,200	24,000	--
	06/25/93			160,000	4,300	36,000	5,800	34,000	--
	09/03/93			160,000	3,900	41,000	6,800	38,000	--
	12/13/93			140,000	3,600	37,000	7,100	40,000	--
	03/18/94			99,000	3,800	37,000	6,800	36,000	--
	06/23/94			150,000	2,500	33,000	6,400	37,000	--
	09/21/94			110,000	2,500	23,000	4,500	25,000	--
	12/19/94			200,000	2,400	28,000	6,600	37,000	--
	03/27/95			88,000	1,500	20,000	4,200	25,000	--
	06/26/95			130,000	1,000	23,000	5,600	33,000	--
	09/28/95			100,000	810	21,000	6,500	37,000	--
	12/29/95			110,000	990	22,000	8,300	47,000	--
57.83	03/27/96	22.29	35.54	120,000	920	17,000	7,100	41,000	180
	09/21/96	29.44	28.39	110,000	270	3,500	5,900	16,000	260
	03/31/97	24.18	33.65	82,000	240	8,700	3,800	23,000	ND

Table 1

Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #5367

500 Bancroft Avenue

San Leandro, California

Well ID/ TOC*	Date	DTW (ft.)	GWE (msl)	TPH(G)	B	T	E	X	MTBE
				<----------	ppb	----------			---------->
MW-1	09/27/97	31.86	25.97	81,000	ND	1,000	5,900	31,000	ND
(cont)	**03/20/98**	**16.88**	**40.95**	**52,000**	**ND[5]**	**350**	**2,900**	**14,000**	**ND[5]**
MW-2	10/03/88			1,760	47.8	7.4	20.9	81.6	--
	01/27/89			510	58	8.7	22.6	20.3	--
	02/16/90			840	50	0.5	28	44	--
	05/90			1,000	39	ND	32	52	--
	07/19/90			--	--	--	--	--	--
	08/24/90			330	17	ND	19	20	--
	11/30/90			400	41	ND	39	37	--
	02/07/91			510	40	ND	29	44	--
	05/06/91			2,300	150	10	52	110	--
	09/27/91			110	2.6	ND	5.6	5.1	--
	12/27/91			170	3.9	ND	7.3	60	--
	06/18/92			1,200	35	1.6	56	26	--
	09/30/92			820	21	ND	42	25	--
	10/16/92			--	--	--	--	--	--
	11/18/92			65	1.2	ND	2.8	1.4	--
	03/03/93			4,200	62	2.9	97	120	--
	06/25/93			4,000	110	ND	320	280	--
	09/03/93			1,400	31	4.3	99	53	--
	12/13/93			260	7.7	0.83	17	23	--
	03/18/94			250	6.4	0.64	28	24	--
	06/23/94			420	3.9	0.66	23	11	--
	09/21/94			ND	ND	ND	ND	ND	--
	12/19/94			190	1.9	ND	15	6.8	--
	03/27/95[2]			ND	ND	0.55	1.2	2.5	--
	06/26/95			ND	ND	0.93	0.88	3.4	--
	09/28/95			730	2.9	ND	41	29	--
	12/29/95			860	4.3	1.0	27	50	--
58.13	03/27/96	22.30	35.83	NOT SAMPLED (CONNECTED TO REMEDIATION SYSTEM)				--	--
	09/21/96	29.47	28.66	NOT SAMPLED (CONNECTED TO REMEDIATION SYSTEM)				--	--
	03/31/97	24.20	33.93	ND	ND	ND	ND	ND	ND
	09/27/97	31.07	27.06	ND	ND	ND	ND	ND	ND
	03/20/98	**16.73**	**41.40**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**

Table 1

Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #5367

500 Bancroft Avenue

San Leandro, California

Well ID/ TOC*	Date	DTW (ft.)	GWE (msl)	TPH(G)	B	T	E	X	MTBE
				<----------ppb---------->					
MW-3	10/03/88			61,000	1,060	3,380	1,520	8,720	--
	01/27/89			39,000	1,570	2,830	1,250	7,070	--
	02/16/90			22,000	710	4,100	6,900	33,000	--
	05/90			19,000	330	170	310	1,500	--
	07/19/90			--	--	--	--	--	--
	08/24/90			19,000	480	160	510	1,500	--
	11/30/90			13,000	390	81	410	1,000	--
	02/06/91			13,000	310	150	380	1,200	--
	05/06/91			39,000	1,000	570	930	3,900	--
	09/27/91			4,000	160	84	180	560	--
	12/27/91			31,000	240	280	400	1,600	--
	03/31/92			100,000	1,900	1,900	2,300	9,400	--
	06/18/92			180,000	2,200	1,700	2,300	1,100	--
	09/30/92			36,000	730	200	1,000	4,400	--
	10/16/92			--	--	--	--	--	--
	11/18/92			24,000[1]	430	160	640	2,800	--
	03/03/93			96,000[1]	1,400	1,900	1,400	8,400	--
	06/25/93			27,000	1,200	980	1,700	6,900	--
	09/03/93			82,000	2,400	3,400	4,200	21,000	--
	12/13/93			49,000	1,300	360	2,300	9,200	--
	03/18/94			22,000	1,200	430	2,200	9,700	--
	06/23/94			37,000	1,300	670	3,100	14,000	--
	09/21/94			24,000	890	110	2,200	8,800	--
	12/19/94			100,000	1,200	2,900	4,200	23,000	--
	03/27/95[2]			33,000	410	66	1,600	6,500	--
	06/26/95			14,000	300	ND	1,300	3,900	--
	09/28/95			17,000	730	30	4,000	8,800	--[3]
	12/29/95			55,000	700	ND	4,900	16,000	--[4]
57.92	03/27/96	21.99	35.93	NOT SAMPLED (CONNECTED TO REMEDIATION SYSTEM)				--	--
	09/21/96	29.15	28.77	34,000	140	ND	2,200	6,600	1,800
	03/31/97	23.86	34.06	17,000	58	110	530	1,500	ND
	09/27/97	30.76	27.16	11,000	19	ND	850	420	140
	03/20/98	**16.39**	**41.53**	**ND**	**ND**	**ND**	**ND**	**ND**	**74**

Table 1

Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #5367

500 Bancroft Avenue

San Leandro, California

Well ID/ TOC*	Date	DTW (ft.)	GWE (msl)	TPH(G)	B	T	E	X	MTBE
				<----------ppb---------->					
MW-4	10/03/88			ND	ND	ND	ND	ND	--
	01/27/89			ND	ND	ND	ND	ND	--
	02/16/90			ND	ND	ND	ND	ND	--
	05/90			ND	ND	ND	0.68	1.4	--
	07/19/90			--	--	--	--	--	--
	08/24/90			ND	ND	ND	ND	ND	--
	11/30/90			ND	ND	ND	ND	1.2	--
	02/06/91			ND	ND	ND	ND	ND	--
	05/06/91			--	--	--	--	--	--
	09/27/91			ND	ND	ND	ND	ND	--
	12/27/91			ND	ND	ND	ND	ND	--
	03/31/92			ND	ND	ND	ND	ND	--
	06/18/92			ND	ND	ND	ND	ND	--
	10/16/92			ND	ND	ND	ND	ND	--
	11/18/92			--	--	--	--	--	--
	03/03/93			68	0.9	0.6	ND	1.9	--
	06/25/93			--	--	--	--	--	--
	09/03/93			86	14	13	1.4	7.1	--
	12/13/93			SAMPLED SEMI-ANNUALLY		--	--	--	--
	03/18/94			ND	ND	ND	ND	ND	--
	09/21/94			ND	ND	0.78	ND	0.81	--
	12/19/94			--	--	--	--	--	--
	03/27/95			ND	ND	0.79	0.5	3.1	--
	06/26/95			--	--	--	--	--	--
	09/28/95			ND	ND	ND	ND	ND	--[3]
	12/29/95			--	--	--	--	--	--
58.29	03/27/96	22.71	35.58	ND	ND	0.70	ND	0.79	ND
	09/21/96	29.88	28.41	ND	ND	ND	ND	ND	ND
	03/31/97	24.72	33.57	ND	ND	ND	ND	ND	ND
	09/27/97	31.68	26.61	ND	ND	ND	ND	ND	ND
	03/20/98	**17.27**	**41.02**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**

Table 1

Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #5367

500 Bancroft Avenue

San Leandro, California

Well ID/ TOC*	Date	DTW (ft.)	GWE (msl)	TPH(G)	B	T	E	X	MTBE
				<----------		ppb			---------->
MW-5	02/16/90			67	0.51	1.6	2.9	7.5	--
	05/90			ND	ND	ND	ND	ND	--
	07/19/90			--	--	--	--	--	--
	08/24/90			ND	ND	ND	ND	ND	--
	11/30/90			ND	ND	0.7	ND	ND	--
	02/06/91			ND	ND	ND	ND	ND	--
	05/06/91			--	--	--	--	--	--
	09/27/91			ND	ND	ND	ND	ND	--
	12/27/91			ND	ND	ND	ND	ND	--
	03/31/92			ND	ND	ND	ND	1.1	--
	06/18/92			--	--	--	--	--	--
	10/16/92			ND	ND	ND	ND	ND	--
	11/18/92			--	--	--	--	--	--
	03/03/93			ND	ND	ND	ND	ND	--
	06/25/93	INACCESSIBLE	--	--	--	--	--	--	--
	09/03/93			ND	ND	1.5	ND	7.9	--
	12/13/93			SAMPLED SEMI-ANNUALLY		--	--	--	--
	03/18/94			ND	ND	ND	ND	ND	--
	09/21/94			ND	ND	0.98	ND	1.6	--
	12/19/94			--	--	--	--	--	--
	03/27/95			ND	ND	0.66	ND	2.9	--
	06/26/95			--	--	--	--	--	--
	09/28/95			ND	ND	ND	ND	ND	--
	12/29/95			--	--	--	--	--	--
58.50	03/27/96	22.75	35.75	ND	ND	1.7	ND	2.4	ND
	09/21/96	29.95	28.55	ND	ND	ND	ND	ND	ND
	03/31/97	24.80	33.70	ND	ND	ND	ND	ND	ND
	09/27/97	31.65	26.85	ND	ND	ND	ND	ND	ND
	03/20/98	**17.31**	**41.19**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**
MW-6	02/16/90			ND	ND	ND	ND	ND	--
	05/90			ND	ND	ND	ND	ND	--
	07/19/90			ND	ND	ND	ND	ND	--
	08/24/90			ND	ND	ND	ND	ND	--
	11/30/90			ND	ND	ND	ND	ND	--

Table 1

Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #5367

500 Bancroft Avenue

San Leandro, California

Well ID/ TOC*	Date	DTW (ft.)	GWE (msl)	TPH(G)	B	T	E	X	MTBE
				<--------		ppb			-------->
MW-6	02/06/91			ND	ND	ND	ND	ND	--
(cont)	05/06/91			--	--	--	--	--	--
	09/27/91			ND	ND	ND	ND	ND	--
	12/27/91			ND	ND	ND	ND	ND	--
	03/31/92			ND	ND	1.3	ND	2	--
	06/18/92			ND	ND	ND	ND	ND	--
	10/16/92			ND	ND	ND	ND	ND	--
	11/18/92			--	--	--	--	--	--
	03/03/93			ND[1]	ND	ND	ND	ND	--
	06/25/93			--	--	--	--	--	--
	09/03/93			ND	ND	ND	ND	ND	--
	12/13/93			SAMPLED SEMI-ANNUALLY		--	--	--	--
	03/18/94			ND	ND	0.93	ND	1.4	--
	09/21/94			ND	ND	ND	ND	ND	--
	12/19/94			--	--	--	--	--	--
	03/27/95			56	ND	0.65	ND	3.3	--
	06/26/95			--	--	--	--	--	--
	09/28/95			ND	ND	ND	ND	ND	--
	12/29/95			--	--	--	--	--	--
56.96	03/27/96	21.59	35.37	50	ND	0.92	ND	0.96	ND
	09/21/96	28.72	28.24	ND	ND	ND	ND	ND	ND
	03/31/97	23.72	33.24	73	0.67	0.82	ND	ND	ND
	09/27/97	30.52	26.44	ND	ND	ND	ND	ND	ND
	03/20/98	**16.35**	**40.61**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**
MW-7	02/16/90			ND	ND	ND	ND	ND	--
	05/90			24	ND	ND	0.74	1.7	--
	07/19/90			--	--	--	--		--
	08/24/90			ND	ND	ND	ND	ND	--
	11/30/90			ND	ND	ND	0.6	1.5	--
	02/06/91			ND	ND	ND	ND	ND	--
	05/06/91			ND	ND	ND	ND	ND	--
	09/27/91			ND	ND	ND	ND	ND	--
	12/27/91			ND	ND	ND	ND	ND	--
	03/31/92			ND	ND	ND	ND	0.9	--

Table 1

Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #5367

500 Bancroft Avenue

San Leandro, California

Well ID/ TOC*	Date	DTW (ft.)	GWE (msl)	TPH(G)	B	T	E	X	MTBE
				<----------ppb---------->					
MW-7	06/18/92			--	--	--	--	--	--
(cont)	10/16/92			ND	ND	ND	ND	ND	--
	11/18/92			--	--	--	--	--	--
	03/03/93			ND	ND	ND	ND	ND	--
	06/25/93			--	--	--	--	--	--
	09/03/93			ND	ND	ND	ND	ND	--
	12/13/93			SAMPLED SEMI-ANNUALLY		--	--	--	--
	03/18/94			ND	ND	ND	ND	ND	--
	09/21/94			ND	0.5	ND	ND	0.89	--
	12/19/94			--	--	--	--	--	--
	03/27/95			ND	ND	0.54	ND	1.9	--
	06/26/95			--	--	--	--	--	--
	09/28/95			ND	ND	ND	ND	ND	--[3]
	12/29/95			--	--	--	--	--	--
57.25	03/27/96	21.94	35.31	ND	ND	1.1	ND	1.7	ND
	09/21/96	29.07	28.18	ND	ND	ND	ND	ND	ND
	03/31/97	24.02	33.23	ND	ND	ND	ND	ND	ND
	09/27/97	30.84	26.41	ND	ND	ND	ND	ND	ND
	03/20/98	**16.68**	**40.57**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**
MW-8	02/16/90			1,900	11	ND	52	55	--
	05/90			770	6.5	ND	20	32	--
	07/19/90			--	--	--	--	--	--
	08/24/90			990	13	ND	48	66	--
	11/30/90			570	13	ND	45	36	--
	02/06/91			630	9.6	ND	35	36	--
	05/06/91			14,000	80	ND	250	550	--
	09/27/91			720	13	4.3	26	26	--
	12/27/91			1,600	15	2.9	40	49	--
	03/31/92			15,000	120	1.0	430	530	--
	06/18/92	INACCESSIBLE	--	--	--	--	--	--	--
	10/16/92			300	0.96	ND	4.0	3.5	--

Table 1

Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #5367

500 Bancroft Avenue

San Leandro, California

Well ID/ TOC*	Date	DTW (ft.)	GWE (msl)	TPH(G)	B	T	E	X	MTBE
				<----------ppb---------->					
MW-8	11/18/92			1,100	6.1	ND	13	5.6	--
(cont)	03/03/93			13,000	33	ND	160	290	--
	06/25/93			8,100	160	ND	580	740	--
	09/03/93			9,800	180	ND	580	700	--
	12/13/93			6,900	180	ND	240	550	--
	03/18/94			6,100	85	ND	260	260	--
	06/23/94			12,000	210	ND	610	860	--
	09/21/94			6,900	190	ND	460	510	--
	12/19/94			6,200	91	ND	230	210	--
	03/27/95[2]			9,200	240	ND	200	1,400	--
	06/26/95			11,000	320	ND	680	2,000	--
	09/28/95			10,000	250	ND	760	910	--[3]
	12/29/95			7,500	260	ND	580	870	--[4]
57.71	03/27/96	22.20	35.51	970	29	0.77	82	85	ND
	09/21/96	29.34	28.37	3,800	27	ND	46	45	ND
	03/31/97	24.35	33.36	ND	ND	ND	ND	ND	ND
	09/27/97	31.15	26.56	78	0.90	ND	12	ND	ND
	03/20/98	**16.84**	**40.87**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**
MW-9	12/19/94			ND	ND	1.6	1.5	8.4	--
	03/27/95			ND	ND	0.61	ND	2.8	--
	06/26/95			ND	ND	ND	ND	3.9	--
	09/28/95			ND	ND	ND	ND	ND	--
	12/29/95			ND	ND	0.58	ND	0.52	--
56.47	03/27/96	20.91	35.56	ND	ND	0.68	ND	0.51	ND
	09/21/96	28.05	28.42	ND	ND	ND	ND	ND	ND
	03/31/97	23.48	32.99	ND	ND	ND	ND	ND	ND
	09/27/97	30.38	26.09	ND	ND	ND	ND	ND	ND
	03/20/98	**15.60**	**40.87**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**

Table 1

Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #5367

500 Bancroft Avenue

San Leandro, California

Well ID/ TOC*	Date	DTW (ft.)	GWE (msl)	TPH(G)	B	T	E	X	MTBE
				<----------ppb---------->					
MW-10	07/28/95			ND	ND	ND	ND	ND	--
	10/24/95			ND	ND	ND	ND	ND	--
	12/29/95			ND	ND	0.65	ND	1.1	--
58.94	03/27/96	23.62	35.32	ND	ND	0.68	ND	0.69	ND
	09/21/96	30.77	28.17	ND	ND	ND	ND	ND	ND
	03/31/97	26.05	32.89	ND	ND	ND	ND	ND	ND
	09/27/97	32.80	26.14	ND	ND	ND	ND	ND	ND
	03/20/98	**18.13**	**40.81**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**
Trip Blank									
TB-LB	**03/20/98**	--	--	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**

Table 1

Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #5367

500 Bancroft Avenue

San Leandro, California

EXPLANATIONS:

Groundwater monitoring data and laboratory analytical results prior to March 20, 1998, were provided by MPDS Services, Inc.

TOC = Top of Casing
DTW = Depth to Water
(ft.) = Feet
GWE = Groundwater Elevation
msl = Relative to mean sea level
TPH(G) = Total Petroleum Hydrocarbons as Gasoline

B = Benzene
T = Toluene
E = Ethylbenzene
X = Xylenes
MTBE = Methyl tertiary butyl ether

ppb = Parts per billion
ppm = Parts per million
ND = Not Detected
-- = Not Measured/Not Analyzed

* TOC elevations have been surveyed relative to mean seal level (msl).

1 Chromatogram contains early eluting peak.

2 On March 27, 1995, total dissolved solid concentrations were as follows: MW-2 at 410 ppm; MW-3 at 450 ppm; MW-8 at 490 ppm.

3 Laboratory has potentially identified the presence of MTBE at reportable levels in the groundwater sample collected from this well.

4 Laboratory has identified the presence of MTBE at a level above or equal to the taste odor threshold of 40 ppb in the groundwater sample from this well.

5 Detection limit raised. Refer to analytical results.

Depth to water and groundwater elevation history will be updated in future reports.

Table 2

Dissolved Oxygen Concentrations

Tosco (Unocal) Service Station #5367

500 Bancroft Avenue

San Leandro, California

Well ID	Date	Before Purging (mg/L)	After Purging (mg/L)
MW-1	03/27/95[1]	--	1.5
	06/26/95	--	1.60
	09/28/95	--	1.22
	12/29/95	--	1.74
	03/27/96	1.48	1.02
	09/21/96	--	1.01
	03/31/97	1.47	1.49
MW-2	03/27/95[1]	--	1.7
	06/26/95	--	4.55
	09/28/95	--	3.00
	12/29/95	--	8.71
	03/27/96	--	--
	09/21/96	--	--
	03/31/97	2.18	2.12
MW-3	03/27/95[1]	--	0.90
	06/26/95	--	1.55
	09/28/95	--	1.63
	12/29/95	--	6.97
	03/27/96	--	--
	09/21/96	--	--
	03/31/97	1.95	2.06
MW-4	03/27/95[1]	--	4.90
	06/26/95	--	--
	09/28/95	--	6.29
	12/29/95	--	--
	03/27/96	4.32	3.91
	09/21/96	--	2.82
	03/31/97	2.66	2.63
MW-5	03/27/95[1]	--	5.20
	06/26/95	--	--
	09/28/95	--	1.96
	12/29/95	--	--
	03/27/96	4.03	4.71
	09/21/96	--	4.12
	03/31/97	2.98	3.11

Table 2

Dissolved Oxygen Concentrations

Tosco (Unocal) Service Station #5367

500 Bancroft Avenue

San Leandro, California

Well ID	Date	Before Purging (mg/L)	After Purging (mg/L)
MW-6	03/27/95[1]	--	7.4
	06/26/95	--	--
	09/28/95	--	4.19
	12/29/95	--	--
	03/27/96	5.94	4.96
	09/21/96	--	3.74
	03/31/97	3.21	3.11
MW-7	03/27/95[1]	--	8.4
	06/26/95	--	--
	09/28/95	--	2.04
	12/29/95	--	--
	03/27/96	6.63	5.23
	09/21/96	--	1.19
	03/31/97	2.29	2.16
MW-8	03/27/95[1]	--	2.2
	06/26/95	--	3.86
	09/28/95	--	1.85
	12/29/95	--	2.03
	03/27/96	11.73	9.76
	09/21/96	--	2.16
	03/31/97	2.81	2.91
	09/27/97	3.11	--
	03/20/98	--	**2.65**
MW-9	03/27/95[1]	--	7.8
	06/26/95	--	4.61
	09/28/95	--	5.76
	12/29/95	--	5.32
	03/27/96	5.62	5.23
	09/21/96	--	4.13
	03/31/97	3.36	3.27
MW-10	12/29/95	--	5.11
	03/27/96	4.38	4.57
	09/21/96	--	5.38
	03/31/97	4.48	4.83

Table 2

Dissolved Oxygen Concentrations

Tosco (Unocal) Service Station #5367

500 Bancroft Avenue

San Leandro, California

EXPLANATIONS:

Dissolved oxygen concentrations prior to March 20, 1998, were provided by MPDS Services, Inc.

mg/L = Milligrams per liter

-- = Not Measured

[1] The measurements were taken at Sequoia Analytical Laboratory.

Note: Field measurements were taken using a LaMotte DO4000 dissolved oxygen meter.

STANDARD OPERATING PROCEDURE - GROUNDWATER SAMPLING

Gettler-Ryan Inc. field personnel adhere to the following procedures for the collection and handling of groundwater samples prior to analysis by the analytical laboratory. Prior to sample collection, the type of analysis to be performed is determined. Loss prevention of volatile compounds is controlled and sample preservation for subsequent analysis is maintained.

Prior to sampling, the presence or absence of free-phase hydrocarbons is determined using a MMC flexi-dip interface probe. Product thickness, if present, is measured to the nearest 0.01 foot and is noted in the field notes. In addition, static water level measurements are collected with the interface probe and are also recorded in the field notes.

After water levels are collected and prior to sampling, each well is purged a minimum of three well casing volumes of water using pre-cleaned pumps (stack, suction, Grundfos), or polyvinyl chloride bailers. Temperature, pH and electrical conductivity are measured a minimum of three times during the purging. Purging continues until these parameters stabilize.

Groundwater samples are collected using disposable bailers. The water samples are transferred from the bailer into appropriate containers. Pre-preserved containers, supplied by analytical laboratories, are used when possible. When pre-preserved containers are not available, the laboratory is instructed to preserve the sample as appropriate. Duplicate samples are collected for the laboratory to use in maintaining quality assurance/quality control standards. The samples are labeled to include the job number, sample identification, collection date and time, analysis, preservation (if any), and the sample collector's initials. The water samples are placed in a cooler, maintained at 4°C for transport to the laboratory. Once collected in the field, all samples are maintained under chain of custody until delivered to the laboratory.

The chain of custody document includes the job number, type of preservation, if any, analysis requested, sample identification, date and time collected, and the sample collector's name. The chain of custody is signed and dated (including time of transfer) by each person who receives or surrenders the samples, beginning with the field personnel and ending with the laboratory personnel.

A laboratory supplied trip blank accompanies each sampling set. For sampling sets greater than 20 samples, 5% trip blanks are included. The trip blank is analyzed for some or all of the same compounds as the groundwater samples.

As requested by Tosco Marketing Company, the purge water and decontamination water generated during sampling activities is transported to Tosco - San Francisco Area Refinery, located in Rodeo, California.

WELL MONITORING/SAMPLING
FIELD DATA SHEET

Client/
Facility # TOSCO-UNOCAL #5367 Job#: 180108

Address: 500 BANCROFT AVE. Date: 3/20/98

City: SAN LEANDRO Sampler: HAIG KEVORK

Well ID MW-1 Well Condition: GOOD

Well Diameter 2" in. Hydrocarbon Thickness: Ø in. Amount Bailed (product/water): _____ (gal.)

Total Depth 35.14 ft.

Depth to Water 16.88 ft.

Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66
	6" = 1.50	12" = 5.80	

18.26 x VF 0.17 = 3.10 x 3 (case volume) = Estimated Purge Volume: 9 (gal.)

Purge Equipment:
- Disposable Bailer
- Bailer
- Stack
- [x] Suction
- Grundfos
- Other: _____

Sampling Equipment:
- [x] Disposable Bailer
- Bailer
- Pressure Bailer
- Grab Sample
- Other: _____

Starting Time: 5:45 Weather Conditions: CLOUDY

Sampling Time: 5:57 Water Color: _____ Odor: _____

Purging Flow Rate: 3 gpm Sediment Description: _____

Did well de-water? NO If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity µmhos/cm	Temperature °C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
5:46	3	7.21	432	18.3			
	6	7.16	444	18.0			
5:49	9	7.14	450	17.8			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-1	3 VOA	YES	HCl	SEQUOIA	G/BTEX/MTBE

COMMENTS: _____

WELL MONITORING/SAMPLING
FIELD DATA SHEET

Client/
Facility # Tosco-UNOCAL #5367 Job#: 180108

Address: 500 BANCROFT AVE. Date: 3/20/98

City: SAN LEANDRO, CA Sampler: HAIG KEVORK

Well ID MW-2 Well Condition: GOOD

Well Diameter 4 in. Hydrocarbon Thickness: Ø in. Amount Bailed (product/water): _____ (gal.)

Total Depth 46.90 ft.

Depth to Water 16.73 ft.

Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66
	6" = 1.50	12" = 5.80	

30.17 X VF 0.66 = 19.91 X 3 (case volume) = Estimated Purge Volume: 60 (gal.)

Purge Equipment:
- Disposable Bailer
- Bailer
- Stack
- [x] Suction
- Grundfos
- Other: _____

Sampling Equipment:
- [x] Disposable Bailer
- Bailer
- Pressure Bailer
- Grab Sample
- Other: _____

Starting Time: 2:50 Weather Conditions: CLOUDY

Sampling Time: 3:13 Water Color: _____ Odor: _____

Purging Flow Rate: 3 gpm. Sediment Description: _____

Did well de-water? NO If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity µmhos/cm	Temperature °C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
2:56	20	6.97	540	18.6			
	40	6.95	518	18.3			
3:09	60	6.92	512	18.1			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-2	3 VOA	YES	HCl	SEQUOIA	G/BTEX/MTBE

COMMENTS: _____

9/97-fieldst.frm

WELL MONITORING/SAMPLING
FIELD DATA SHEET

Client/
Facility # TOSCO - UNOCAL #5367 Job#: 180108

Address: 500 BANCROFT AVE. Date: 3/20/98

City: SAN LEANDRO Sampler: HAIG KEVORK

Well ID MW-3 Well Condition: GOOD

Well Diameter 4 in. Hydrocarbon Thickness: Ø in. Amount Bailed (product/water): _____ (gal.)

Total Depth 48.20 ft.

Depth to Water 16.39 ft.

Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66
	6" = 1.50	12" = 5.80	

31.81 x VF 0.66 = 20.99 x 3 (case volume) = Estimated Purge Volume: 60 (gal.)

Purge Equipment: Disposable Bailer / Bailer / Stack / [Suction] / Grundfos / Other: _____

Sampling Equipment: [Disposable Bailer] / Bailer / Pressure Bailer / Grab Sample / Other: _____

Starting Time: 5:05 Weather Conditions: CLOUDY

Sampling Time: 5:35 Water Color: _____ Odor: _____

Purging Flow Rate: 3 gpm. Sediment Description: _____

Did well de-water? NO If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity µmhos/cm	Temperature °C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
5:12	20	6.98	352	18.6			
	40	6.95	370	18.3			
5:26	60	6.99	378	18.4	[redacted]		

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-3	3 VOA	YES	HCl	SEQUOIA	G/BTEX/MTBE

COMMENTS: _____

WELL MONITORING/SAMPLING
FIELD DATA SHEET

Client/
Facility # TOSCO-UNOCAL #5367 Job#: 180108

Address: 500 BANCROFT AVE. Date: 3/20/98

City: SAN LEANDRO Sampler: HAIG KEVORK

Well ID MW-4 Well Condition: GOOD

Well Diameter 4 in. Hydrocarbon Thickness: Ø in. Amount Bailed (product/water): _____ (gal.)

Total Depth 48.50 ft.

Depth to Water 17.27 ft.

Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66
	6" = 1.50	12" = 5.80	

31.23 x VF 0.66 = 20.61 x 3 (case volume) = Estimated Purge Volume: 60 (gal.)

Purge Equipment: Disposable Bailer / Bailer / Stack / [Suction] / Grundfos / Other: _____

Sampling Equipment: [Disposable Bailer] / Bailer / Pressure Bailer / Grab Sample / Other: _____

Starting Time: 2:04 Weather Conditions: CLOUDY

Sampling Time: 2:28 Water Color: _____ Odor: _____

Purging Flow Rate: 3 gpm. Sediment Description: _____

Did well de-water? NO If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity µmhos/cm	Temperature °C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
2:10	20	7.43	318	18.2			
	40	7.41	329	17.8			
2:23	60	7.38	324	17.6			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-4	3 VOA	YES	HCl	SEQUOIA	G/BTEX/MTBE

COMMENTS: _____

WELL MONITORING/SAMPLING
FIELD DATA SHEET

Client/
Facility # TOSCO-UNOCAL #5367 Job#: 180108

Address: 500 BANCROFT AVE. Date: 3/20/98

City: SAN LEANDRO Sampler: HAIG KEVORK

Well ID MW-5 Well Condition: GOOD

Well Diameter 2 in. Hydrocarbon Thickness: 0 in. Amount Bailed (product/water): _____ (gal.)

Total Depth 44.40 ft.

Depth to Water 17.31 ft.

Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66
	6" = 1.50	12" = 5.80	

27.09 x VF 0.17 = 4.61 X 3 (case volume) = Estimated Purge Volume: 14 (gal.)

Purge Equipment: Disposable Bailer / Bailer / Stack / [Suction] / Grundfos / Other: _____

Sampling Equipment: [Disposable Bailer] / Bailer / Pressure Bailer / Grab Sample / Other: _____

Starting Time: 2:36 Weather Conditions: CLOUDY

Sampling Time: 2:48 Water Color: _____ Odor: _____

Purging Flow Rate: 3 gpm. Sediment Description: _____

Did well de-water? NO If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity µmhos/cm	Temperature °C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
2:38	5	7.49	440	18.8			
	10	7.44	431	18.4			
2:42	14	7.41	417	18.2			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-5	3 VOA	YES	HCl	SEQUOIA	G/BTEX/MTBE

COMMENTS: _____

9/97-fieldat.frm

WELL MONITORING/SAMPLING
FIELD DATA SHEET

Client/
Facility # TOSCO-UNOCAL #5367 Job#: 180108

Address: 500 BANCROFT AVE. Date: 3/20/98

City: SAN LEANDRO Sampler: HAIG KEVORK

Well ID MW-6 Well Condition: GOOD

Well Diameter 2 in. Hydrocarbon Thickness: Ø in. Amount Bailed (product/water): _____ (gal.)

Total Depth 44.61 ft.

Depth to Water 16.35 ft.

Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66
	6" = 1.50	12" = 5.80	

28.26 X VF 0.17 = 4.80 X 3 (case volume) = Estimated Purge Volume: 14 (gal.)

Purge Equipment: Disposable Bailer / Bailer / Stack / [Suction] / Grundfos / Other: _____

Sampling Equipment: [Disposable Bailer] / Bailer / Pressure Bailer / Grab Sample / Other: _____

Starting Time: 3:21 Weather Conditions: CLOUDY

Sampling Time: 3:34 Water Color: _____ Odor: _____

Purging Flow Rate: 3 gpm Sediment Description: _____

Did well de-water? NO If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity µmhos/cm	Temperature °C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
3:23	5	7.35	320	18.5			
	10	7.33	336	18.2			
3:27	14	7.29	341	19.9			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-6	3 VOA	YES	HCl	SEQUOIA	G/BTEX/MTBE

COMMENTS: _____

WELL MONITORING/SAMPLING
FIELD DATA SHEET

Client/
Facility # Tosco-UNOCAL #5367 Job#: 180108

Address: 500 BANCROFT AVE. Date: 3/20/98

City: SAN LEANDRO Sampler: HAIG KEVORK

Well ID MW-7 Well Condition: GOOD

Well Diameter 2 in. Hydrocarbon Thickness: 0 in. Amount Bailed (product/water): _____ (gal.)

Total Depth 43.96 ft.

Depth to Water 16.68 ft.

Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66
	6" = 1.50	12" = 5.80	

27.28 x VF 0.17 = 4.64 X 3 (case volume) = Estimated Purge Volume: 14 (gal.)

Purge Equipment: Disposable Bailer; Bailer; Stack; [Suction]; Grundfos; Other: _____

Sampling Equipment: [Disposable Bailer]; Bailer; Pressure Bailer; Grab Sample; Other: _____

Starting Time: 3:45 Weather Conditions: CLOUDY

Sampling Time: 3:58 Water Color: _____ Odor: _____

Purging Flow Rate: 3 gpm. Sediment Description: _____

Did well de-water? NO If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity µmhos/cm	Temperature °C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
3:47	5	7.40	552	19.2			
	10	7.36	574	18.5			
3:51	14	7.34	583	18.6			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-7	3 VOA	YES	HCl	SEQUOIA	G/BTEX/MTBE

COMMENTS: _____

WELL MONITORING/SAMPLING
FIELD DATA SHEET

Client/
Facility # TOSCO-UNOCAL #5367 Job#: 180108

Address: 500 BANCROFT AVE. Date: 3/20/98

City: SAN LEANDRO Sampler: HAIG KEVORK

---

* Well ID MW-8 Well Condition: GOOD

Well Diameter 2 in. Hydrocarbon Thickness: Ø in. Amount Bailed (product/water): _____ (gal.)

Total Depth 43.89 ft.

Depth to Water 16.84 ft.

Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66
	6" = 1.50	12" = 5.80	

27.05 x VF 0.17 = 4.60 X 3 (case volume) = Estimated Purge Volume: 14 (gal.)

Purge Equipment: Disposable Bailer / Bailer / Stack / [Suction] / Grundfos / Other: _____

Sampling Equipment: [Disposable Bailer] / Bailer / Pressure Bailer / Grab Sample / Other: _____

Starting Time: 4:36 Weather Conditions: CLOUDY

Sampling Time: 4:50 Water Color: _____ Odor: _____

Purging Flow Rate: 3 gpm. Sediment Description: _____

Did well de-water? NO If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity µmhos/cm	Temperature °C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
4:38	5	7.20	454	18.3			
	10	7.16	438	18.1			
4:42	14	7.17	441	18.0	2.65		

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-8	3 VOA	YES	HCl	SEQUOIA	G/BTEX/MTBE

COMMENTS: * WELL HAS ORC
DO READING WAS TAKEN AFTER PURGING.

WELL MONITORING/SAMPLING
FIELD DATA SHEET

Client/
Facility # TOSCO - UNOCAL #5367 Job#: 180108

Address: 500 BANCROFT AVE. Date: 3/20/98

City: SAN LEANDRO Sampler: HAIG KEVORK

Well ID MW-9 Well Condition: GOOD

Well Diameter 2 in. Hydrocarbon Thickness: Ø in. Amount Bailed (product/water): _____ (gal.)

Total Depth 44.64 ft.

Depth to Water 15.60 ft.

Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66
	6" = 1.50	12" = 5.80	

29.04 x VF 0.17 = 4.94 X 3 (case volume) = Estimated Purge Volume: 15 (gal.)

Purge Equipment: Disposable Bailer; Bailer; Stack; (Suction); Grundfos; Other: _____

Sampling Equipment: (Disposable Bailer); Bailer; Pressure Bailer; Grab Sample; Other: _____

Starting Time: 4:10 Weather Conditions: CLOUDY

Sampling Time: 4:24 Water Color: _____ Odor: _____

Purging Flow Rate: 3 gpm. Sediment Description: _____

Did well de-water? NO If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity µmhos/cm	Temperature °C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
4:12	5	7.14	367	18.5			
	10	7.12	380	18.2			
4:16	15	7.10	389	18.3			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-9	3 VOA	YES	HCl	SEQUOIA	G/BTEX/MTBE

COMMENTS: _____

WELL MONITORING/SAMPLING
FIELD DATA SHEET

Client/
Facility # TOSCO-UNOCAL #5367 Job#: 180108

Address: 500 BANCROFT AVE. Date: 3/20/98

City: SAN LEANDRO Sampler: HAIG KEVORK

Well ID MW-10 Well Condition: GOOD

Well Diameter 2 in. Hydrocarbon Thickness: 0 in. Amount Bailed (product/water): _____ (gal.)

Total Depth 42.67 ft.

Depth to Water 18.13 ft.

Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66
	6" = 1.50	12" = 5.80	

24.54 X VF 0.17 = 4.17 X 3 (case volume) = Estimated Purge Volume: 12 (gal.)

Purge Equipment: Disposable Bailer / Bailer / Stack / **Suction** / Grundfos / Other: _____

Sampling Equipment: **Disposable Bailer** / Bailer / Pressure Bailer / Grab Sample / Other: _____

Starting Time: 1:40 Weather Conditions: CLOUDY

Sampling Time: 1:53 Water Color: _____ Odor: _____

Purging Flow Rate: 3 gpm Sediment Description: _____

Did well de-water? NO If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity µmhos/cm	Temperature °C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
1:42	4	7.28	560	18.8			
	8	7.23	551	18.6			
1:45	12	7.20	545	18.5			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-10	3 VOA	YES	HCl	SEQUOIA	G/BTEX/MTBE

COMMENTS: _____

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (650) 364-9600, FAX (650) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Gettler Ryan/Geostrategies
6747 Sierra Court Suite J
Dublin, CA 94568

Attention: Deanna Harding

Client Proj. ID: Unocal SS#5367, 180108.85
Sample Descript: TB-LB
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9803F13-01

Sampled: 03/20/98
Received: 03/23/98

Analyzed: 04/01/98
Reported: 04/08/98

QC Batch Number: GC040198802004A
Instrument ID: GCHP04

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	105

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1271

Mike Gregory
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (650) 364-9600, FAX (650) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Gettler Ryan/Geostrategies
6747 Sierra Court Suite J
Dublin, CA 94568

Attention: Deanna Harding

Client Proj. ID: Unocal SS#5367, 180108.85
Sample Descript: MW-1
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9803F13-02

Sampled: 03/20/98
Received: 03/23/98

Analyzed: 04/01/98
Reported: 04/08/98

QC Batch Number: GC040198802004A
Instrument ID: GCHP04

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**10000**	**52000**
Methyl t-Butyl Ether	500	N.D.
Benzene	[illegible]	N.D.
Toluene	**100**	**350**
Ethyl Benzene	**100**	**2900**
Xylenes (Total)	**100**	**14000**
Chromatogram Pattern:		**Gas**

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	100

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1271

Mike Gregory
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (650) 364-9600, FAX (650) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Gettler Ryan/Geostrategies	Client Proj. ID: Unocal SS#5367, 180108.85	Sampled: 03/20/98
6747 Sierra Court Suite J	Sample Descript: MW-2	Received: 03/23/98
Dublin, CA 94568	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 04/01/98
Attention: Deanna Harding	Lab Number: 9803F13-03	Reported: 04/08/98

QC Batch Number: GC040198802004A
Instrument ID: GCHP04

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	103

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1271

Mike Gregory
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (650) 364-9600, FAX (650) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Gettler Ryan/Geostrategies
6747 Sierra Court Suite J
Dublin, CA 94568

Attention: Deanna Harding

Client Proj. ID: Unocal SS#5367, 180108.85
Sample Descript: MW-3
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9803F13-04

Sampled: 03/20/98
Received: 03/23/98

Analyzed: 04/01/98
Reported: 04/08/98

QC Batch Number: GC040198802004A
Instrument ID: GCHP04

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	**2.5**	**74**
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	72

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1271

Mike Gregory
Project Manager