



GETTLER-RYAN INC.

TRANSMITTAL

October 26, 1999

G-R #:180109

STID
1746

TO: Mr. David B. De Witt
Tosco Marketing Company
2000 Crow Canyon Place, Suite 400
San Ramon, California 94583

CC: Mr. Tim Ripp
IT Corporation
1921 Ringwood Avenue
San Jose, California 95131

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

RE: Tosco (Unocal) SS #5760
376 Lewelling Boulevard
San Lorenzo, California

Resp. memo
to 11/17/99

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DATED	DESCRIPTION
1	October 18, 1999	Groundwater Monitoring and Sampling Report Semi-Annual 1999 - Event of September 13, 1999

COMMENTS:

This report is being sent to you for your review/comment, prior to being distributed on your behalf. If no comments are received by *November 8, 1999*, this report will be distributed to the following:

Enclosure

cc: ~~Ms. Amy Leech, Alameda County Health Care Services, 1131 Harbor Bay Parkway, Alameda, CA 94501~~

99 NOV -9 PM 3:34
PROTECTION
ENVIRONMENTAL

agency/5760dbd.qmt



Ringwood Avenue
San Jose, CA 95131-1721
Tel. 408.453.7300
Fax. 408.437.9526

*RESPOND
10/13/99*

5760 1746

October 19, 1999
Project 311-058.1A

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

Re: 76 Service Station 5760
Quarterly Summary Report
Third Quarter 1999

Dear Mr. Hiatt:

As directed by Mr. David DeWitt of Tosco Marketing Company, Pacific Environmental Group, Inc. is forwarding the quarterly summary report for the following location:

<u>Service Station</u>	<u>Location</u>
5760	376 Lewelling Boulevard, San Lorenzo

If you have questions or comments, please do not hesitate to contact our office at (408) 453-7300.

Sincerely,

Pacific Environmental Group, Inc.

Timothy L. Ripp
Project Geologist

Enclosure

cc: Mr. David DeWitt, Tosco Marketing Company
Ms. Amy Leech, Alameda County Environmental Health Care Services

**Quarterly Summary Report
Third Quarter 1999**

76 Service Station 5760
376 Lewelling Boulevard
San Lorenzo, California

STID 1746

City/County ID #: None
County: Alameda

BACKGROUND

The underground storage tanks were removed and replaced in November 1987. Currently, there are nine monitoring wells on site. Groundwater monitoring and sampling began in February 1988, and have been performed semiannually since February 1996.

Groundwater extraction and soil vapor extraction systems were installed in August and September 1995. In response to a diminishing mass removal rate, the remedial system was shut down in February 1997.

The underground product piping was replaced in June 1998.

RECENT QUARTER ACTIVITIES

Semi-annual groundwater monitoring and sampling activities were performed in September 1999.

NEXT QUARTER ACTIVITIES

The report documenting the March 1999 semi-annual groundwater monitoring and sampling activities will be submitted in May 1999.

CHARACTERIZATION/REMEDIAL STATUS

Soil contamination delineated? Yes.
Dissolved groundwater delineated? Yes.
Free product delineated? Yes.
Amount of groundwater contaminant recovered to date? Approximately 115 pounds.
Soil remediation in progress? No.
Start? October 1995.
Completion date? February 1997.
Dissolved/free product remediation in progress? No.
Start? October 1995.
Completion? February 1997.

CONSULTANT: PEG/IT



GETTLER-RYAN INC.

October 18, 1999
G-R Job #180109

Mr. David B. De Witt
Tosco Marketing Company
2000 Crow Canyon Place, Suite 400
San Ramon, California 94583

RE: Semi-Annual 1999 Groundwater Monitoring & Sampling Report
Tosco (Unocal) Service Station #5760
376 Lewelling Boulevard
San Lorenzo, California

Dear Mr. De Witt:

This report documents the semi-annual groundwater monitoring and sampling event performed by Gettler-Ryan Inc. (G-R). On September 13, 1999, field personnel monitored seven wells (U-1 through U-5, U-8, and U-9) and sampled three wells (U-1, U-3 and U-9). Two wells (U-6 and U-7) were inaccessible.

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. Dissolved Oxygen Concentrations are summarized in Table 2. 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. A Concentration Map is included as Figure 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

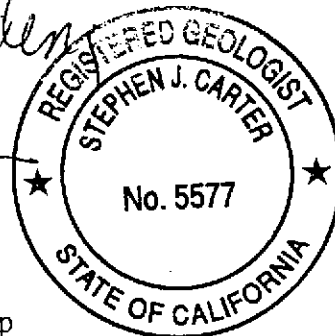


Figure 1: Potentiometric Map
Figure 2: Concentration Map
Table 1: Groundwater Monitoring Data and Analytical Results
Table 2: Dissolved Oxygen Concentrations
Attachments: Standard Operating Procedure - Groundwater Sampling
Field Data Sheets
Chain of Custody Document and Laboratory Analytical Reports

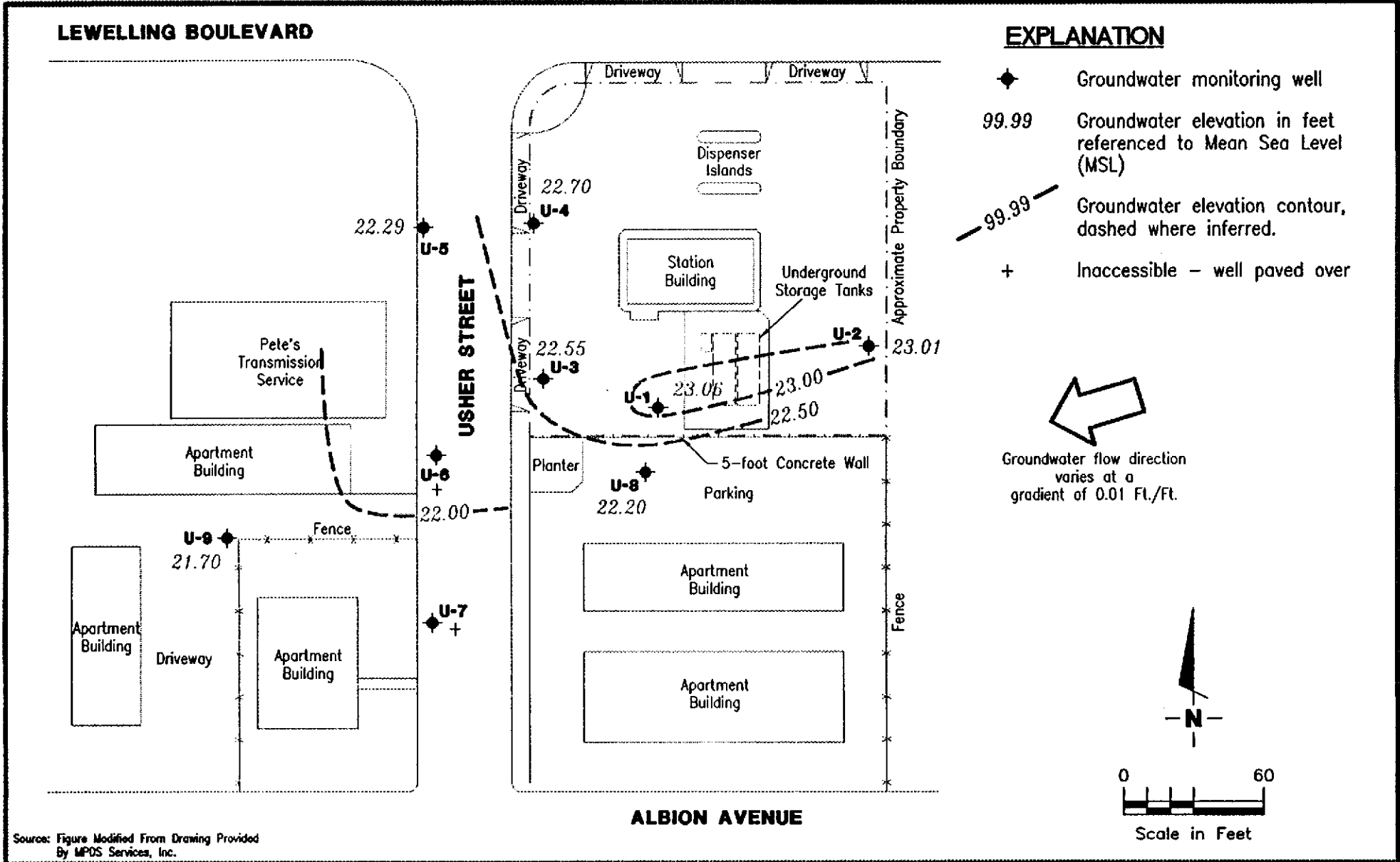
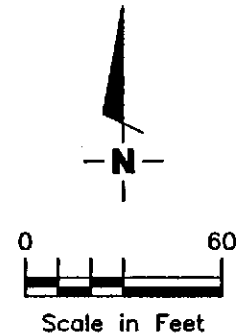
5760.qml

LEWELLING BOULEVARD

EXPLANATION

- ◆ Groundwater monitoring well
- 99.99 Groundwater elevation in feet referenced to Mean Sea Level (MSL)
- - - 99.99 - - - Groundwater elevation contour, dashed where inferred.
- + Inaccessible - well paved over

Groundwater flow direction varies at a gradient of 0.01 Ft./Ft.



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



Gettler - Ryan Inc.

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Dublin, CA 94568

POTENTIOMETRIC MAP

Tosco (Unocal) Service Station No. 5760
376 Lewelling Boulevard
San Lorenzo, California

FIGURE

1

JOB NUMBER
180109

REVIEWED BY

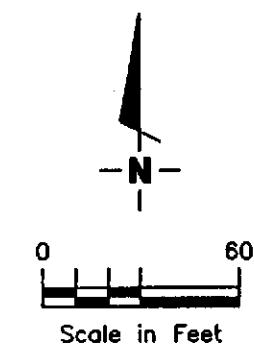
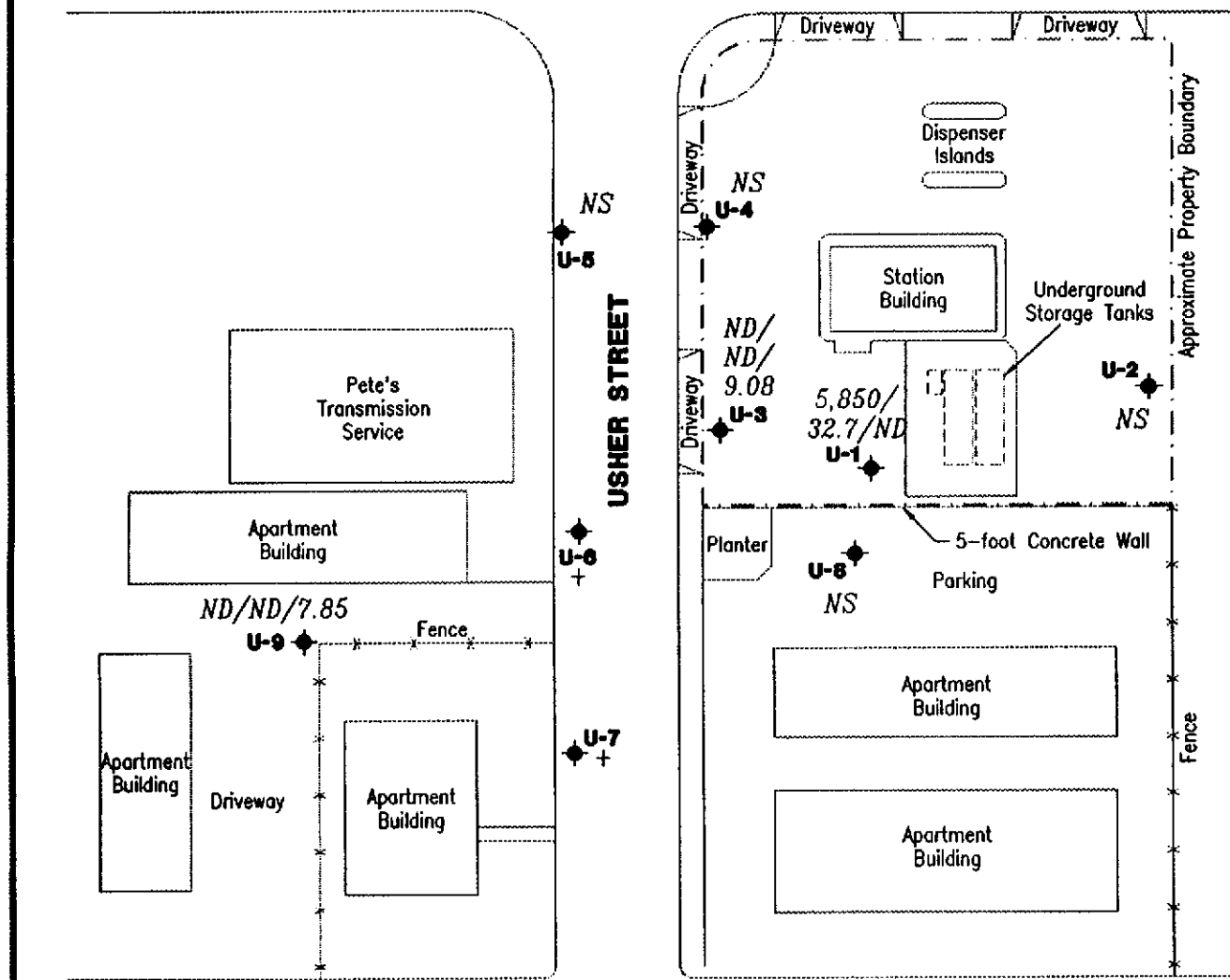
DATE
September 13, 1999

REVISED DATE

LEWELLING BOULEVARD

EXPLANATION

- ◆ Groundwater monitoring well
- A/B/C TPH(G) (Total Petroleum Hydrocarbons as Gasoline)/Benzene/MTBE concentrations in ppb
- ND Not Detected
- + Inaccessible – well paved over
- NS Not Sampled



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



Gertler - Ryan Inc.
 6747 Sierra Ct., Suite J (925) 551-7555
 Dublin, CA 94568

CONCENTRATION MAP
 Tosco (Unocal) Service Station No. 5760
 376 Lewelling Boulevard
 San Lorenzo, California

FIGURE
2

JOB NUMBER
 180109

REVIEWED BY

DATE
 September 13, 1999

REVISED DATE

Table 1
Groundwater Monitoring Data and Analytical Results
Tosco (Unocal) Service Station #5760
376 Lewelling Boulevard
San Lorenzo, California

Well ID/ TOC*	Date	DTW (ft.)	GWE (mst)	Product Thickness (ft.)	TPH(G) (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
U-1	02/09/88	--	--	--	93,000	3,600	11,000	-- ¹	20,000	--
	03/20/90	--	--	--	36,000	2,100	5,500	1,900	9,300	--
	06/05/90	--	--	--	46,000	2,300	5,500	2,500	11,000	--
	08/24/90	--	--	--	27,000	1,200	1,800	1,400	5,500	--
	12/05/90	--	--	--	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				--	--
	03/04/91	--	--	--	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				--	--
	06/03/91	--	--	--	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				--	--
	09/19/91	--	--	--	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				--	--
	12/04/91	--	--	--	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				--	--
	03/05/92	--	--	--	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				--	--
	04/07/92	--	--	--	NOT SAMPLED - PRODUCT SKIMMER INSTALLED IN WELL				--	--
	08/06/92	--	--	--	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				--	--
	11/20/92	--	--	--	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				--	--
	02/12/93	--	--	--	70,000	2,200	8,400	3,100	18,000	--
40.51	06/04/93	16.72	23.79	0.00	35,000	1,300	5,700	900	9,200	--
	09/09/93	17.77	22.74	0.00	67,000	2,900	18,000	6,200	32,000	--
40.20	12/02/93	18.36	21.84	<0.01	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				--	--
	03/09/94	17.20	23.00	0.00	45,000	930	4,100	2,000	11,000	--
	06/09/94	17.42	22.78	0.00	59,000	5,200	1,300	5,200	15,000	--
	09/07/94	18.17	22.03	0.00	41,000	1,600	6,200	3,100	16,000	--
	12/05/94	16.67	23.53	0.00	1,300	55	20	16	330	--
	03/09/95	15.82	24.38	0.00	49,000	860	3,200	1,900	10,000	1,500
	06/13/95	14.70	25.50	0.00	53,000	1,400	5,000	2,500	14,000	2,800
40.01**	09/12/95	16.77	23.24	0.00	43,000	910	2,700	1,700	9,600	1,400
40.20	12/14/95	INACCESSIBLE - WELL CONNECTED TO REMEDIATION SYSTEM WHICH WAS NOT RUNNING							--	--
	03/20/96	INACCESSIBLE - WELL CONNECTED TO REMEDIATION SYSTEM WHICH WAS NOT RUNNING							--	--
	03/22/96	--	--	--	13,000	200	590	640	4,000	790
	09/24/96	INACCESSIBLE - WELL CONNECTED TO REMEDIATION SYSTEM WHICH WAS NOT RUNNING							--	--
	03/27/97	15.29	24.91	0.00	1,300	8.0	ND	ND	400	ND
	09/23/97	17.20	23.00	0.00	2,000	15	ND	ND	530	ND
	03/10/98	12.68	27.52	0.00	2,200 ⁶	19	4.8	ND ⁷	980	38
	09/04/98	16.84	23.36	0.00	5,300 ⁸	53	ND ⁷	410	620	ND ⁷
	03/04/99	13.04	27.16	0.00	1,500	19	ND ⁷	56	110	310
	09/13/99	17.14	23.06	0.00	5,850⁸	32.7	ND⁷	520	925	ND⁷

Table 1
Groundwater Monitoring Data and Analytical Results
 Tosco (Unocal) Service Station #5760
 376 Lewelling Boulevard
 San Lorenzo, California

Well ID/ TOC*	Date	DTW (ft.)	GWE (msl)	Product Thickness (ft.)	TPH(G) (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
U-2	08/23/90	--	--	--	ND	ND	ND	ND	ND	--
	12/05/90	--	--	--	ND	ND	ND	ND	ND	--
	03/04/91	--	--	--	ND	ND	0.9	ND	2.6	--
	06/03/91	--	--	--	ND	ND	ND	ND	ND	--
	09/19/91	--	--	--	ND	ND	ND	ND	ND	--
	12/04/91	--	--	--	ND	ND	ND	ND	ND	--
	03/05/92	--	--	--	ND	ND	0.36	ND	ND	--
	04/07/92	--	--	--	ND	ND	ND	ND	ND	--
	08/06/92	--	--	--	ND	ND	ND	ND	ND	--
	11/20/92	--	--	--	ND	ND	ND	ND	ND	--
	02/12/93	--	--	--	ND	ND	ND	ND	ND	--
41.62	06/04/93	17.59	24.03	0.00	ND	ND	ND	ND	ND	--
	09/09/93	18.68	22.94	0.00	ND	ND	ND	ND	ND	--
41.26	12/02/93	19.23	22.03	0.00	ND	ND	ND	ND	ND	--
	03/09/94	18.05	23.21	0.00	62	1.1	5.4	1.1	9.7	--
	04/13/94	18.18	23.08	0.00	ND	ND	ND	ND	ND	--
	06/09/94	18.26	23.00	0.00	ND	ND	ND	ND	ND	--
	09/07/94	19.28	21.98	0.00	ND	ND	0.63	ND	0.61	--
	12/05/94	18.82	22.44	0.00	ND	ND	ND	ND	ND	--
	03/09/95	16.96	24.30	0.00	ND	ND	ND	ND	ND	ND
	06/13/95	16.71	24.55	0.00	ND	ND	ND	ND	ND	ND
	09/12/95	17.80	23.46	0.00	ND	ND	ND	ND	ND	ND
	12/14/95	18.18	23.08	0.00	ND	ND	ND	ND	ND	ND
	03/20/96	15.02	26.24	0.00	--	--	--	--	--	--
	09/24/96	17.90	23.36	0.00	--	--	--	--	--	--
	03/27/97	16.45	24.81	0.00	ND	ND	ND	ND	ND	ND
	09/23/97	18.40	22.86	0.00	--	--	--	--	--	--
	03/10/98	13.79	27.47	0.00	ND	ND	ND	ND	ND	ND
	09/04/98	17.98	23.28	0.00	--	--	--	--	--	--
	03/04/99	14.96	26.30	0.00	ND	ND	ND	ND	ND	ND
	09/13/99	18.25	23.01	0.00	--	--	--	--	--	--

Table 1
Groundwater Monitoring Data and Analytical Results
 Tosco (Unocal) Service Station #5760
 376 Lewelling Boulevard
 San Lorenzo, California

Well ID/ TOC*	Date	DTW (ft.)	GWE (msl)	Product Thickness (ft.)	TPH(G) (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
U-3	08/23/90	--	--	--	110,000	4,400	13,000	2,800	17,000	--
	12/05/90	--	--	--	69,000	1,900	3,500	1,600	9,800	--
	01/18/91	--	--	--	51,000	1,700	3,100	1,500	7,500	--
	03/04/91	--	--	--	84,000	1,400	10,000	2,900	17,000	--
	06/03/91	--	--	--	130,000	5,800	19,000	4,600	24,000	--
	09/19/91	--	--	--	61,000	3,300	9,700	2,800	15,000	--
	12/04/91	--	--	--	75,000	2,500	6,100	1,900	11,000	--
	03/05/92	--	--	--	160,000	5,300	15,000	5,400	26,000	--
	04/07/92	--	--	--	97,000	6,100	16,000	5,400	28,000	--
	08/06/92	--	--	--	140,000	5,100	13,000	5,000	23,000	--
	11/20/92	--	--	--	50,000	3,200	4,700	1,900	10,000	--
	02/12/93	--	--	--	80,000	3,700	9,400	3,700	18,000	--
39.64	06/04/93	15.48	24.16	0.00	92,000	2,900	8,700	4,300	20,000	--
	09/09/93	17.04	22.60	0.00	110,000	2,800	10,000	6,500	31,000	--
39.26	12/02/93	17.55	21.71	0.00	110,000	3,200	7,700	5,600	26,000	--
	03/09/94	16.35	22.91	0.00	120,000	4,500	8,300	5,600	28,000	--
	06/09/94	16.60	22.66	0.00	120,000 ⁴	3,300	6,100	5,200	26,000	--
	09/07/94	17.61	21.65	0.00	100,000	2,400	4,900	4,200	21,000	--
	12/05/94	17.08	22.18	0.00	140,000	3,100	5,100	4,900	21,000	--
	03/09/95	15.20	24.06	0.00	100,000	2,300	3,300	4,800	21,000	54,000
	06/13/95	15.11	24.15	0.00	64,000	1,700	1,500	3,800	18,000	900
39.26**	09/12/95	16.11	23.15	0.00	69,000	1,700	820	4,000	19,000	29,000
	12/14/95	INACCESSIBLE - WELL CONNECTED TO REMEDIATION SYSTEM WHICH WAS NOT RUNNING							--	--
	03/20/96	INACCESSIBLE - WELL CONNECTED TO REMEDIATION SYSTEM WHICH WAS NOT RUNNING							--	--
	03/22/96	--	--	--	15,000	150	490	480	3,100	400
	09/24/96	INACCESSIBLE - WELL CONNECTED TO REMEDIATION SYSTEM WHICH WAS NOT RUNNING							--	--
	03/27/97	14.77	24.49	0.00	110	ND	ND	ND	0.62	9.6
	09/23/97	16.74	22.52	0.00	ND	ND	ND	ND	ND	ND
	03/10/98	12.18	27.08	0.00	ND	ND	ND	ND	3.1	ND
	09/04/98	16.46	22.80	0.00	ND	ND	ND	1.2	2.3	ND
	03/04/99	13.48	25.78	0.00	ND	ND	ND	ND	ND	ND
	09/13/99	16.71	22.55	0.00	ND	ND	1.77	ND	1.06	9.08

Table 1
Groundwater Monitoring Data and Analytical Results
Tosco (Unocal) Service Station #5760
376 Lewelling Boulevard
San Lorenzo, California

Well ID/ TOC*	Date	DTW (ft.)	GWE (msl)	Product Thickness (ft.)	TPH(G) (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
U-4	08/23/90	--	--	--	ND	ND	1.0	ND	1.8	--
	12/05/90	--	--	--	ND	ND	ND	ND	ND	--
	01/18/91	--	--	--	ND	ND	ND	ND	ND	--
	03/04/91	--	--	--	ND	ND	ND	ND	ND	--
	06/03/91	--	--	--	ND	ND	ND	ND	ND	--
	09/19/91	--	--	--	ND	ND	ND	ND	ND	--
	12/04/91	--	--	--	ND	ND	ND	ND	ND	--
	03/05/92	--	--	--	ND	ND	ND	ND	ND	--
	04/07/92	--	--	--	ND	ND	ND	ND	ND	--
	08/06/92	--	--	--	ND	ND	ND	ND	ND	--
	11/20/92	--	--	--	ND	ND	2.5	ND	ND	--
	02/12/93	--	--	--	ND	ND	ND	ND	ND	--
40.53	06/04/93	16.73	23.80	0.00	ND	ND	ND	ND	ND	--
	09/09/93	16.89	23.64	0.00	ND	ND	ND	ND	ND	--
40.25	12/02/93	18.46	21.79	0.00	ND	ND	ND	ND	2.6	--
	03/09/94	17.30	22.95	0.00	ND	1.4	4.7	1.1	8.1	--
	04/13/94	17.44	22.81	0.00	ND	ND	ND	ND	ND	--
40.28	06/09/94	17.53	22.72	0.00	ND	ND	ND	ND	ND	--
	09/07/94	18.52	21.76	0.00	ND	ND	1.1	ND	1.0	--
	12/05/94	18.08	22.20	0.00	ND	ND	ND	ND	ND	--
40.25	03/09/95	16.16	24.12	0.00	ND	ND	ND	ND	ND	ND
	06/13/95	15.95	24.30	0.00	ND	ND	ND	ND	ND	2.7
	09/12/95	17.10	23.15	0.00	ND	ND	ND	ND	ND	ND
	12/14/95	17.43	22.82	0.00	ND	ND	ND	ND	ND	1.3
	03/20/96	14.93	25.32	0.00	--	--	--	--	--	--
	09/24/96	17.19	23.06	0.00	--	--	--	--	--	--
	03/27/97	15.66	24.59	0.00	ND	ND	ND	ND	ND	ND
	09/23/97	17.69	22.56	0.00	--	--	--	--	--	--
	03/10/98	12.99	27.26	0.00	ND	ND	ND	ND	ND	ND
	09/04/98	17.28	22.97	0.00	--	--	--	--	--	--
03/04/99	14.17	26.08	0.00	ND	ND	ND	ND	ND	ND	
	09/13/99	17.55	22.70	0.00	--	--	--	--	--	--

Table 1
Groundwater Monitoring Data and Analytical Results
 Tosco (Unocal) Service Station #5760
 376 Lewelling Boulevard
 San Lorenzo, California

Well ID/ TOC*	Date	DTW (ft.)	GWE (msl)	Product Thickness (ft.)	TPH(G) (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)	
U-5	04/07/92	--	--	--	ND	ND	ND	ND	ND	--	
	08/06/92	--	--	--	ND	ND	ND	ND	ND	--	
	11/20/92	--	--	--	ND	ND	ND	ND	ND	--	
	02/12/93	--	--	--	ND	ND	ND	ND	ND	--	
39.61	06/04/93	16.05	23.56	0.00	ND	ND	ND	ND	ND	--	
	09/09/93	16.90	22.71	0.00	ND	ND	ND	ND	ND	--	
39.31	12/02/93	17.66	21.65	0.00	ND	ND	ND	ND	ND	--	
	03/09/94	16.45	22.86	0.00	71	1.7	6.3	1.5	10	--	
	04/13/94	16.64	22.67	0.00	ND	ND	ND	ND	ND	--	
	06/09/94	16.70	22.61	0.00	ND	ND	ND	ND	ND	--	
	09/07/94	17.73	21.58	0.00	ND	ND	0.73	ND	0.84	--	
	12/05/94	17.23	22.08	0.00	ND	ND	ND	ND	ND	--	
	03/09/95	15.35	23.96	0.00	ND	ND	ND	ND	ND	ND	
	06/13/95	15.16	24.15	0.00	ND	ND	ND	ND	ND	0.87	
	09/12/95	16.30	23.01	0.00	ND	ND	ND	ND	ND	ND	
	12/14/95	16.56	22.75	0.00	ND	ND	ND	ND	ND	ND	
	03/20/96	14.07	25.24	0.00	--	--	--	--	--	--	
	09/24/96	16.55	22.76	0.00	--	--	--	--	--	--	
	03/27/97	14.85	24.46	0.00	ND	ND	ND	ND	ND	ND	
	09/23/97	16.90	22.41	0.00	--	--	--	--	--	--	
	03/10/98	12.21	27.10	0.00	ND	ND	ND	ND	ND	ND	
	09/04/98	16.57	22.74	0.00	--	--	--	--	--	--	
	03/04/99	13.42	25.89	0.00	ND	ND	0.67	ND	ND	ND	
	09/13/99	17.02	22.29	0.00	0.00	--	--	--	--	--	--
	U-6	04/07/92	--	--	--	6,600	90	ND	820	1,200	--
		08/06/92	--	--	--	9,200	160	ND	360	150	--
11/20/92		INACCESSIBLE	--	--	--	--	--	--	--	--	
02/12/93		--	--	--	2,600	27	ND	120	51	--	
37.94	06/04/93	14.45	23.49	0.00	13,000	100	38	450	320	--	
	09/09/93	15.56	22.38	0.00	6,300 ³	29	ND	120	34	--	
37.68	12/02/93	16.08	21.60	0.00	2,100	12	1.6	21	1.1	--	
	03/09/94	14.90	22.78	0.00	2,200	11	8.2	24	16	--	
	06/09/94	15.18	22.50	0.00	2,600 ⁴	16	ND	29	ND	--	

Table 1
Groundwater Monitoring Data and Analytical Results
Tosco (Unocal) Service Station #5760
376 Lewelling Boulevard
San Lorenzo, California

Well ID/ TOC*	Date	DTW (ft.)	GWE (msl)	Product Thickness (ft.)	TPH(G) (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
U-6	09/07/94	16.20	21.48	0.00	16,004	ND	ND	ND	ND	--
(cont)	12/05/94	15.60	22.08	0.00	450 ⁵	ND	ND	ND	ND	--
	03/09/95	13.74	23.94	0.00	2,500	29	ND	70	120	320
	06/13/95	13.73	23.95	0.00	1,300	ND	ND	20	46	5,400
	09/12/95	14.85	22.83	0.00	ND	ND	ND	ND	ND	6,600
	12/14/95	14.89	22.79	0.00	760	ND	ND	7.0	8.4	1,100
	03/20/96	12.41	25.27	0.00	52	1.1	0.98	ND	0.75	1,200
	09/24/96	15.06	22.62	0.00	ND	ND	ND	ND	ND	750
	03/27/97	13.48	24.20	0.00	ND	ND	ND	ND	ND	150
	09/23/97	15.36	22.32	0.00	66	0.81	ND	ND	ND	150
	03/10/98	10.90	26.78	0.00	ND	ND	ND	ND	ND	18
	09/04/98	14.85	22.83	0.00	ND	ND	ND	ND	ND	ND
	03/04/99	12.10	25.58	0.00	ND	ND	ND	ND	ND	6.5
	09/13/99	INACCESSIBLE - PAVED OVER			--	--	--	--	--	--
U-7	04/07/92	--	--	--	ND	ND	ND	ND	ND	--
	08/06/92	--	--	--	ND	ND	ND	ND	ND	--
	11/20/92	--	--	--	ND	ND	ND	ND	ND	--
	02/12/93	--	--	--	ND	ND	ND	ND	ND	--
37.49	06/04/93	14.17	23.32	0.00	ND	ND	ND	ND	ND	--
	09/09/93	15.23	22.26	0.00	ND	ND	ND	ND	ND	--
37.11	12/02/93	15.61	21.50	0.00	ND	ND	ND	ND	ND	--
	03/09/94	14.45	22.66	0.00	ND	1.4	4.4	0.96	7.5	--
	04/13/94	14.63	22.48	0.00	ND	ND	ND	ND	ND	--
	06/09/94	14.70	22.41	0.00	ND	ND	ND	ND	ND	--
	09/07/94	15.72	21.39	0.00	ND	ND	ND	ND	ND	--
	12/05/94	15.10	22.01	0.00	ND	ND	ND	ND	ND	--
	03/09/95	13.36	23.75	0.00	ND	ND	ND	ND	ND	ND
	06/13/95	13.33	23.78	0.00	ND	ND	ND	ND	ND	3.5
	09/12/95	14.40	22.71	0.00	ND	ND	ND	ND	ND	ND
	12/14/95	14.39	22.72	0.00	ND	ND	ND	ND	ND	1.4
	03/20/96	11.96	25.15	0.00	--	--	--	--	--	--
	09/24/96	14.59	22.52	0.00	--	--	--	--	--	--
	03/27/97	13.08	24.03	0.00	ND	ND	ND	ND	ND	ND

Table 1
Groundwater Monitoring Data and Analytical Results
 Tosco (Unocal) Service Station #5760
 376 Lewelling Boulevard
 San Lorenzo, California

Well ID/ TOC*	Date	DTW (ft.)	GWE (msl)	Product Thickness (ft.)	TPH(G) (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
U-7	09/23/97	14.90	22.21	0.00	--	--	--	--	--	--
(cont)	03/10/98	10.46	26.65	0.00	ND	ND	ND	ND	ND	ND
	09/04/98	14.42	22.69	0.00	--	--	--	--	--	--
	03/04/99	11.64	25.47	0.00	ND	ND	ND	ND	ND	6.6
	09/13/99	INACCESSIBLE - PAVED OVER			--	--	--	--	--	--
U-8	04/07/92	--	--	--	ND	ND	ND	ND	ND	--
	08/06/92	--	--	--	ND	ND	ND	ND	ND	--
	02/12/93	--	--	--	ND	ND	ND	ND	ND	--
38.94	06/04/93	15.26	23.68	0.00	ND	ND	ND	ND	ND	--
	09/09/93	16.38	22.56	0.00	ND	ND	ND	ND	ND	--
38.57	12/02/93	16.80	21.77	0.00	ND	ND	ND	ND	ND	--
	03/09/94	15.62	22.95	0.00	ND	1.2	3.7	0.79	6.1	--
	04/13/94	15.80	22.77	0.00	ND	ND	0.78	ND	0.98	--
	06/09/94	15.86	22.71	0.00	ND	ND	ND	ND	ND	--
	09/07/94	16.87	21.70	0.00	ND	ND	ND	ND	ND	--
	12/05/94	16.32	22.25	0.00	ND	ND	ND	ND	ND	--
	03/09/95	14.56	24.01	0.00	ND	ND	ND	ND	ND	ND
	06/13/95	14.40	24.17	0.00	ND	ND	ND	ND	ND	ND
	09/12/95	15.50	23.07	0.00	ND	ND	ND	ND	ND	ND
	12/14/95	15.67	22.90	0.00	ND	ND	ND	ND	ND	ND
	03/20/96	13.25	25.32	0.00	--	--	--	--	--	--
	09/24/96	15.75	22.82	0.00	--	--	--	--	--	--
	03/27/97	14.18	24.39	0.00	ND	ND	ND	ND	ND	ND
	09/23/97	16.05	22.52	0.00	--	--	--	--	--	--
	03/10/98	11.63	26.94	0.00	ND	ND	ND	ND	ND	ND
	09/04/98	15.81	22.76	0.00	--	--	--	--	--	--
	03/04/99	12.81	25.76	0.00	ND	ND	ND	ND	ND	ND
	09/13/99	16.37	22.20	0.00	--	--	--	--	--	--

Table 1
Groundwater Monitoring Data and Analytical Results
Tosco (Unocal) Service Station #5760
376 Lewelling Boulevard
San Lorenzo, California

Well ID/ TOC*	Date	DTW (ft.)	GWE (msl)	Product Thickness (ft.)	TPH(G) (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
U-9										
37.88	06/04/93	14.67	23.21	0.00	2,100 ²	ND	ND	ND	ND	--
	09/09/93	15.79	22.09	0.00	1,200 ²	ND	ND	ND	ND	--
37.31	12/02/93	15.93	21.38	0.00	ND	ND	ND	ND	ND	--
	03/09/94	14.74	22.57	0.00	5,700 ⁴	ND	ND	ND	ND	--
	04/13/94	14.96	22.35	0.00	ND	ND	ND	ND	ND	--
	06/09/94	15.05	22.26	0.00	2,900 ⁵	ND	ND	ND	ND	--
	09/07/94	16.06	21.25	0.00	2,700 ⁵	ND	ND	ND	ND	--
	12/05/94	15.43	21.88	0.00	3,700 ⁵	ND	ND	ND	ND	--
	03/09/95	13.50	23.81	0.00	2,500 ⁵	ND	ND	ND	ND	5,800
	06/13/95	13.63	23.68	0.00	ND	ND	ND	ND	ND	1,200
	09/12/95	14.73	22.58	0.00	ND	ND	ND	ND	ND	1,600
	12/14/95	14.67	22.64	0.00	ND	ND	ND	ND	ND	4,400
	03/20/96	12.27	25.04	0.00	ND	ND	ND	ND	ND	480
	09/24/96	14.92	22.39	0.00	ND	ND	ND	ND	ND	ND
	03/27/97	13.36	23.95	0.00	ND	ND	ND	ND	ND	42
	09/23/97	15.28	22.03	0.00	ND	ND	ND	ND	ND	ND
	03/10/98	10.86	26.45	0.00	ND	ND	ND	ND	3.1	ND
	09/04/98	15.03	22.28	0.00	ND	ND	ND	ND	ND	ND
	03/04/99	11.95	25.36	0.00	ND	ND	ND	ND	ND	ND
	09/13/99	15.61	21.70	0.00	ND	ND	1.67	ND	1.01	7.85
Trip Blank										
TB-LB	03/10/98	--	--	--	ND	ND	ND	ND	ND	ND
	09/04/98	--	--	--	ND	ND	ND	ND	ND	ND
	03/04/99	--	--	--	ND	ND	ND	ND	ND	ND
	09/13/99	--	--	--	ND	ND	ND	ND	ND	ND

Table 1
Groundwater Monitoring Data and Analytical Results
Tosco (Unocal) Service Station #5760
376 Lewelling Boulevard
San Lorenzo, California

EXPLANATIONS:

Groundwater monitoring data and laboratory analytical results prior to March 10, 1998, were compiled from reports prepared by MPDS Services, Inc.

TOC = Top of Casing	B = Benzene	ppb = Parts per billion
DTW = Depth to Water	T = Toluene	ND = Not Detected
(ft.) = Feet	E = Ethylbenzene	-- = Not Measured/Not Analyzed
GWE = Groundwater Elevation	X = Xylenes	
msl = Relative to mean sea level	MTBE = Methyl tertiary butyl ether	
TPH(G) = Total Petroleum Hydrocarbons as Gasoline		

* TOC elevations have been surveyed relative to mean sea level (msl). Prior to December 2, 1993, the DTW measurements were taken from the top of well covers.

** The P.V.C. well casing was shortened in September 1995.

¹ Ethylbenzene and xylenes were combined prior to March 1990.

² The concentration reported as gasoline is primarily due to the presence of a discrete hydrocarbon peak not indicative of standard gasoline

³ The concentration reported as gasoline is primarily due to the presence of a combination of gasoline and a discrete peak not indicative of gasoline

⁴ Laboratory report indicates the hydrocarbons detected appeared to be gasoline and non-gasoline mixture

⁵ Laboratory report indicates the hydrocarbons detected did not appear to be gasoline.

⁶ Laboratory report indicates gasoline and unidentified hydrocarbons > C8.

⁷ Detection limit raised. Refer to analytical reports.

⁸ Laboratory report indicates gasoline C6-C12.

Table 2
Dissolved Oxygen Concentrations
 Tosco (Unocal) Service Station #5760
 376 Lewelling Boulevard
 San Lorenzo, California

Well ID	Date	Before Purging (mg/L)	After Purging (mg/L)
U-1	03/27/97	2.41	2.35
U-2	03/27/97	4.36	4.49
U-3	03/27/97	3.18	3.32
U-4	03/27/97	3.32	3.26
U-5	03/27/97	3.74	3.77
U-6	03/20/96	3.85	3.89
	09/20/96	3.73	3.81
	03/27/97	4.43	4.36
	09/23/97	--	4.14
	03/10/98	--	3.95
U-7	03/27/97	3.29	3.38
U-8	03/27/97	3.04	3.11
U-9	03/20/96	4.02	4.00
	09/20/96	3.85	3.98
	03/27/97	3.65	3.57
	09/23/97	--	3.80
	03/10/98	--	3.62

EXPLANATIONS:

Dissolved oxygen concentrations prior to March 10, 1998, were compiled from reports prepared by MPDS Services, Inc.

mg/L = milligrams per liter

-- = Not Measured

Note : 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, temperature, pH and electrical conductivity are measured. If purging is to occur, each well is purged a minimum of three well casing volumes of water using pre-cleaned pumps (stack, suction, Grundfos), or polyvinyl chloride bailers. The measurements are taken 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 # 5760 Job#: 180109
 Address: 376 Lewelling Blvd. Date: 9-13-99
 City: San Lorenzo Sampler: Joe

Well ID U-1 Well Condition: O.K.

Well Diameter _____ in. Hydrocarbon Amount Bailed
 Thickness: 0 (feet) (product/water): 0 (Gallons)
 Total Depth 29.05 ft.
 Depth to Water 17.14 ft.

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

11.91 X VF 0.38 = 393 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: 11:30 Weather Conditions: clear
 Sampling Time: 11:55 AM Water Color: clear Odor: none
 Purging Flow Rate: 1 gpm. Sediment Description: none
 Did well de-water? _____ If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity $\mu\text{mhos/cm} \times 10^0$	Temperature °F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>11:37</u>	<u>4</u>	<u>7.36</u>	<u>5.18</u>	<u>71.3</u>			
<u>11:40</u>	<u>8</u>	<u>7.46</u>	<u>4.97</u>	<u>71.5</u>			
<u>11:42</u>	<u>12</u>	<u>7.39</u>	<u>5.07</u>	<u>71.7</u>			
_____	_____	_____	_____	_____	_____	_____	_____

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>U-1</u>	<u>300A</u>	<u>Y</u>	<u>HCL</u>	<u>SEQUOIA</u>	<u>TPH(GI)/btex/mtbe</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

COMMENTS: _____

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Client/Facility # 5760 Job#: 180109
 Address: 376 Lewelling Blvd. Date: 9-13-99
 City: San Lorenzo Sampler: Joe

Well ID U-2 Well Condition: O.K.
 Well Diameter 3 in. Hydrocarbon Amount Bailed
 Thickness: 0 (feet) (product/water): 0 (Gallons)
 Total Depth 29.88 ft.
 Depth to Water 18.25 ft.

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

_____ X VF _____ = _____ X 3 (case volume) = Estimated Purge Volume: _____ (gal.)

Purge Equipment: Disposable Bailer
 Bailer
 Stack
~~Suction~~
 Grundfos
 Other: _____

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

Starting Time: _____ Weather Conditions: clear
 Sampling Time: _____ Water Color: clear Odor: ~~none~~ yes
 Purging Flow Rate: _____ gpm. Sediment Description: none
 Did well de-water? _____ If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity $\mu\text{mhos/cm} \times 10^0$	Temperature °F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
U-2	3WA	Y	HEC	SEQUOIA	TPH(GI)/bTEX/mtbe

COMMENTS: m. only

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Client/ Facility: # 5760 Job#: 180109
 Address: 376 Lewelling Blvd. Date: 9-13-99
 City: San Lorenzo Sampler: Joe

Well ID: U-3 Well Condition: O.K.
 Well Diameter: 3 in. Hydrocarbon Amount Bailed
 Thickness: 0 (feet) (product/water): 0 (Gallons)
 Total Depth: 29.80 ft.
 Depth to Water: 16.71 ft.

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

8.09 x VF 0.33 = 2.67 x 3 (case volume) = Estimated Purge Volume: 8 (gal.)

Purge Equipment: Disposable Bailer, Stack, Suction, Grundfos, Other: _____
 Sampling Equipment: Disposable Bailer, Pressure Bailer, Grab Sample, Other: _____

Starting Time: 11:00 Weather Conditions: clear
 Sampling Time: 11:18 A.M. Water Color: clear Odor: none
 Purging Flow Rate: 1 gpm. Sediment Description: none
 Did well de-water? _____ If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity $\mu\text{mhos/cm} \times 10^0$	Temperature °F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>11:07</u>	<u>2.5</u>	<u>7.50</u>	<u>7.10</u>	<u>71.2</u>			
<u>11:09</u>	<u>5</u>	<u>7.26</u>	<u>6.95</u>	<u>71.5</u>			
<u>11:11</u>	<u>8</u>	<u>7.34</u>	<u>6.92</u>	<u>72.0</u>			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>U-3</u>	<u>3VVA</u>	<u>Y</u>	<u>HCL</u>	<u>SEQUOIA</u>	<u>TPH(GI)/btex/mtbe</u>

COMMENTS: _____

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Client/Facility # 5760 Job#: 180109
 Address: 376 Lewelling Blvd. Date: 9-13-99
 City: San Lorenzo Sampler: Joe

Well ID U-4 Well Condition: O.K.
 Well Diameter 3 in. Hydrocarbon Thickness: 0 (feet) Amount Bailed (product/water): 0 (Gallons)
 Total Depth 27.85 ft. Volume Factor (VF) 2" = 0.17 3" = 0.38 4" = 0.66
 Depth to Water 17.55 ft. 6" = 1.50 12" = 5.80

_____ X VF _____ = _____ X 3 (case volume) = Estimated Purge Volume: _____ (gal.)

Purge Equipment: Disposable Bailer
 Bailer
 Stack
~~Suction~~
 Grundfos
 Other: _____

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

Starting Time: _____ Weather Conditions: clear
 Sampling Time: _____ Water Color: clear Odor: none
 Purging Flow Rate: _____ gpm. Sediment Description: none
 Did well de-water? _____ If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity μ mhos/cm $\times 10^3$	Temperature $^{\circ}$ F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>U-4</u>	<u>300A</u>	<u>Y</u>	<u>HEL</u>	<u>SEQUOIA</u>	<u>TPH(HI)BTEX/MTBO</u>

COMMENTS: M. only

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Client/Facility # 5760 Job#: 180109
 Address: 376 Lewelling Blvd. Date: 9-13-99
 City: San Lorenzo Sampler: Joe

Well ID U-5 Well Condition: O.K.

Well Diameter 2 in. Hydrocarbon Amount Bailed
 Thickness: 0 (feet) (product/water): 0 (Gallons)
 Total Depth 28.45 ft.
 Depth to Water 17.02 ft.

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

_____ X VF _____ = _____ X 3 (case volume) = Estimated Purge Volume: _____ (gal.)

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

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

Starting Time: _____ Weather Conditions: clear
 Sampling Time: _____ Water Color: clear Odor: none
 Purging Flow Rate: _____ gpm. Sediment Description: none
 Did well de-water? _____ If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity $\mu\text{mhos/cm} \times 10^3$	Temperature °F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>U-5</u>	<u>300A</u>	<u>Y</u>	<u>HEC</u>	<u>SEQUOIA</u>	<u>TPH(C)/Benz/metals</u>

COMMENTS: M-only

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Client/Facility: # 5760 Job#: 180109
 Address: 376 Lewelling Blvd. Date: 9-13-99
 City: San Lorenzo Sampler: Joe

Well ID: U-6 Well Condition: o.k. * Paved Over
 Well Diameter: 2 in. Hydrocarbon Thickness: 0 (feet) Amount Bailed (product/water): 0 (Gallons)
 Total Depth: 28.25 ft.

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

 Depth to Water: _____ ft.

_____ X VF _____ = _____ X 3 (case volume) = Estimated Purge Volume: _____ (gal.)

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

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

Starting Time: _____ Weather Conditions: clear
 Sampling Time: _____ Water Color: clear Odor: none
 Purging Flow Rate: _____ gpm. Sediment Description: none
 Did well de-water? _____ If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity μ mhos/cm $\times 10^3$	Temperature $^{\circ}$ F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>U-6</u>	<u>30A</u>	<u>X</u>	<u>HEL</u>	<u>SEQUOIA</u>	<u>TPHIG/TOX/MTBE</u>

COMMENTS: Well was paved over on Usher st.

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Client/
Facility # 5760 Job#: 180109
Address: 376 Lemelling Blvd. Date: 9-13-99
City: San Lorenzo Sampler: Joe

Well ID U-7 Well Condition: O.K. * Paved Over
Well Diameter 2 in. Hydrocarbon Amount Bailed
Thickness: 0 (feet) (product/water): 0 (Gallons)
Total Depth 34.87 ft. Volume 2" = 0.17 3" = 0.38 4" = 0.66
Depth to Water _____ ft. Factor (VF) 6" = 1.50 12" = 5.80

_____ X VF _____ = _____ X 3 (case volume) = Estimated Purge Volume: _____ (gal.)

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

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

Starting Time: _____ Weather Conditions: clear
Sampling Time: _____ Water Color: clear Odor: none
Purging Flow Rate: _____ gpm. Sediment Description: none
Did well de-water? _____ If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity $\mu\text{mhos/cm} \times 10^0$	Temperature $^{\circ}\text{F}$	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>U-7</u>	<u>3WA</u>	<u>X</u>	<u>HEC</u>	<u>SEQUOIA</u>	<u>TPH(C), Hexen/metho</u>

COMMENTS: Well was paved-over on Usher st.

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Client/Facility: # 5760 Job#: 180109
 Address: 376 Lewelling Blvd. Date: 9-13-99
 City: San Lorenzo Sampler: Joe

Well ID: U-8 Well Condition: O.K.

Well Diameter: 2 in.

Hydrocarbon Thickness: 0 (feet) Amount Bailed (product/water): 0 (Gallons)

Total Depth: 29.85 ft.

Depth to Water: 16.37 ft.

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

_____ X VF _____ = _____ X 3 (case volume) = Estimated Purge Volume: _____ (gal.)

Purge Equipment: Disposable Bailer
 Bailer
 Stack
~~Suction~~
 Grundfos
 Other: _____

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

Starting Time: _____ Weather Conditions: clear
 Sampling Time: _____ Water Color: clear Odor: none
 Purging Flow Rate: _____ gpm. Sediment Description: none
 Did well de-water? _____ If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity μ mhos/cm X 100	Temperature °F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>U-8</u>	<u>300A</u>	<u>X</u>	<u>HEL</u>	<u>SEQUOIA</u>	<u>TPHIG/Hex/mtbo</u>

COMMENTS: m. only

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Client/Facility: #5760 Job#: 180109
 Address: 376 Lewelling Blvd. Date: 9-13-99
 City: San Lorenzo Sampler: Joc

Well ID: U-9 Well Condition: O.K.

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

Total Depth: 28.20 ft.

Depth to Water: 15.6 ft.

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

12.59 x VF 0.17 = 2.14 x 3 (case volume) = Estimated Purge Volume: 7 (gal.)

Purge Equipment: Disposable Bailer, Stack, Suction, Grundfos, Other: _____
 Sampling Equipment: Disposable Bailer, Bailer, Pressure Bailer, Grab Sample, Other: _____

Starting Time: 10:25 Weather Conditions: clear

Sampling Time: 10:46 A.M. Water Color: clear Odor: none

Purging Flow Rate: 1 gpm. Sediment Description: none

Did well de-water? _____ If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity $\mu\text{mhos/cm} \times 10^0$	Temperature $^{\circ}\text{F}$	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>10:35</u>	<u>2.5</u>	<u>7.25</u>	<u>8.14</u>	<u>73.1</u>			
<u>10:37</u>	<u>5</u>	<u>7.30</u>	<u>8.25</u>	<u>73.0</u>			
<u>10:39</u>	<u>7</u>	<u>7.36</u>	<u>8.31</u>	<u>72.8</u>			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>U-9</u>	<u>3VVA</u>	<u>Y</u>	<u>HCL</u>	<u>SEQUOIA</u>	<u>TPH(G)/btex/mtbe</u>

COMMENTS: _____



Gettler-Ryan/Geostrategies(1) 6747 Sierra Court, Suite D Dublin, CA 94568	Project: Tosco(4) Project Number: UNOCAL SS#5760, 180109.85 Project Manager: Deanna Harding	Sampled: 9/13/99 Received: 9/13/99 Reported: 9/27/99
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ANALYTICAL REPORT FOR L909113

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
TB-LB	L909113-01	Water	9/13/99
U-1	L909113-02	Water	9/13/99
U-3	L909113-03	Water	9/13/99
U-9	L909113-04	Water	9/13/99





Gettler-Ryan/Geostrategies(1) 6747 Sierra Court, Suite D Dublin, CA 94568	Project: Tosco(4) Project Number: UNOCAL SS#5760, 180109.85 Project Manager: Deanna Harding	Sampled: 9/13/99 Received: 9/13/99 Reported: 9/27/99
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Sample Description: **TB-LB**
Laboratory Sample Number: **L909113-01**

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method/ Surrogate Limits	Reporting Limit	Result	Units	Notes*
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Sequoia Analytical - San Carlos

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT

Purgeable Hydrocarbons as Gasoline	9090107	8/22/99	9/22/99		50.0	ND	ug/l	
Benzene	"	"	"		0.500	ND	"	
Toluene	"	"	"		0.500	ND	"	
Ethylbenzene	"	"	"		0.500	ND	"	
Xylenes (total)	"	"	"		0.500	ND	"	
Methyl tert-butyl ether	"	"	"		5.00	ND	"	
Surrogate: <i>a,a,a-Trifluorotoluene</i>	"	"	"	70.0-130		87.4	%	





Gettler-Ryan/Geostrategies(1) 6747 Sierra Court, Suite D Dublin, CA 94568	Project: Tosco(4) Project Number: UNOCAL SS#5760, 180109.85 Project Manager: Deanna Harding	Sampled: 9/13/99 Received: 9/13/99 Reported: 9/27/99
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Sample Description: U-1
Laboratory Sample Number: L909113-02

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method/ Surrogate Limits	Reporting Limit	Result	Units	Notes*
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Sequoia Analytical - San Carlos

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT

Purgeable Hydrocarbons as Gasoline	9090107	8/22/99	9/22/99		2500	5850	ug/l	1
Benzene	"	"	"		25.0	32.7	"	
Toluene	"	"	"		25.0	ND	"	
Ethylbenzene	"	"	"		25.0	520	"	
Xylenes (total)	"	"	"		25.0	925	"	
Methyl tert-butyl ether	"	"	"		250	ND	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	70.0-130		83.8	%	





Gettler-Ryan/Geostrategies(1)	Project: Tosco(4)	Sampled: 9/13/99
6747 Sierra Court, Suite D	Project Number: UNOCAL SS#5760, 180109.85	Received: 9/13/99
Dublin, CA 94568	Project Manager: Deanna Harding	Reported: 9/27/99

Sample Description: U-3
Laboratory Sample Number: L909113-03

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method/ Surrogate Limits	Reporting Limit	Result	Units	Notes*
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Sequoia Analytical - San Carlos

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT

Purgeable Hydrocarbons as Gasoline	9090112	9/23/99	9/23/99		50.0	ND	ug/l	
Benzene	"	"	"		0.500	ND	"	
Toluene	"	"	"		0.500	1.77	"	
Ethylbenzene	"	"	"		0.500	ND	"	
Xylenes (total)	"	"	"		0.500	1.06	"	
Methyl tert-butyl ether	"	"	"		5.00	9.08	"	
Surrogate: <i>a,a,a-Trifluorotoluene</i>	"	"	"	70.0-130		94.6	%	





Gettler-Ryan/Geostrategies(1)	Project: Tosco(4)	Sampled: 9/13/99
6747 Sierra Court, Suite D	Project Number: UNOCAL SS#5760, 180109.85	Received: 9/13/99
Dublin, CA 94568	Project Manager: Deanna Harding	Reported: 9/27/99

Sample Description: U-9
Laboratory Sample Number: L909113-04

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method/ Surrogate Limits	Reporting Limit	Result	Units	Notes*
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Sequoia Analytical - San Carlos

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT

Purgeable Hydrocarbons as Gasoline	9090112	9/23/99	9/23/99		50.0	ND	ug/l	
Benzene	"	"	"		0.500	ND	"	
Toluene	"	"	"		0.500	1.67	"	
Ethylbenzene	"	"	"		0.500	ND	"	
Xylenes (total)	"	"	"		0.500	1.01	"	
Methyl tert-butyl ether	"	"	"		5.00	7.85	"	
Surrogate: <i>a,a</i> -Trifluorotoluene	"	"	"	70.0-130		85.3	%	





Gettler-Ryan/Geostrategies(1) 6747 Sierra Court, Suite D Dublin, CA 94568	Project: Tosco(4) Project Number: UNOCAL SS#5760, 180109.85 Project Manager: Deanna Harding	Sampled: 9/13/99 Received: 9/13/99 Reported: 9/27/99
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Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT/Quality Control
Sequoia Analytical - San Carlos

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 9090107			Date Prepared: 8/22/99			Extraction Method: EPA 5030B [P/T]				
Blank			9090107-BLK1							
Purgeable Hydrocarbons as Gasoline	9/22/99			ND	ug/l	50.0				
Benzene	"			ND	"	0.500				
Toluene	"			ND	"	0.500				
Ethylbenzene	"			ND	"	0.500				
Xylenes (total)	"			ND	"	0.500				
Methyl tert-butyl ether	"			ND	"	5.00				
Surrogate: a,a,a-Trifluorotoluene	"	10.0		9.21	"	70.0-130	92.1			
LCS			9090107-BS1							
Benzene	9/22/99	10.0		8.57	ug/l	70.0-130	85.7			
Toluene	"	10.0		8.08	"	70.0-130	80.8			
Ethylbenzene	"	10.0		8.22	"	70.0-130	82.2			
Xylenes (total)	"	30.0		24.1	"	70.0-130	80.3			
Surrogate: a,a,a-Trifluorotoluene	"	10.0		8.10	"	70.0-130	81.0			
LCS			9090107-BS2							
Purgeable Hydrocarbons as Gasoline	9/22/99	250		260	ug/l	70.0-130	104			
Surrogate: a,a,a-Trifluorotoluene	"	10.0		11.1	"	70.0-130	111			
Matrix Spike			9090107-MS1 L909157-02							
Purgeable Hydrocarbons as Gasoline	9/22/99	250	ND	232	ug/l	60.0-140	92.8			
Surrogate: a,a,a-Trifluorotoluene	"	10.0		8.72	"	70.0-130	87.2			
Matrix Spike Dup			9090107-MSD1 L909157-02							
Purgeable Hydrocarbons as Gasoline	9/22/99	250	ND	244	ug/l	60.0-140	97.6	25.0	5.04	
Surrogate: a,a,a-Trifluorotoluene	"	10.0		9.99	"	70.0-130	99.9			
Batch: 9090112			Date Prepared: 9/23/99			Extraction Method: EPA 5030B [P/T]				
Blank			9090112-BLK1							
Purgeable Hydrocarbons as Gasoline	9/23/99			ND	ug/l	50.0				
Benzene	"			ND	"	0.500				
Toluene	"			ND	"	0.500				
Ethylbenzene	"			ND	"	0.500				
Xylenes (total)	"			ND	"	0.500				
Methyl tert-butyl ether	"			ND	"	5.00				
Surrogate: a,a,a-Trifluorotoluene	"	10.0		9.17	"	70.0-130	91.7			
LCS			9090112-BS1							
Benzene	9/23/99	10.0		8.73	ug/l	70.0-130	87.3			
Toluene	"	10.0		8.64	"	70.0-130	86.4			





Gettler-Ryan/Geostrategies(1) 6747 Sierra Court, Suite D Dublin, CA 94568	Project: Tosco(4) Project Number: UNOCAL SS#5760, 180109.85 Project Manager: Deanna Harding	Sampled: 9/13/99 Received: 9/13/99 Reported: 9/27/99
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Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT/Quality Control
Sequoia Analytical - San Carlos

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
LCS (continued)										
	9090112-BS1									
Ethylbenzene	9/23/99	10.0		8.80	ug/l	70.0-130	88.0			
Xylenes (total)	"	30.0		26.2	"	70.0-130	87.3			
Surrogate: a,a,a-Trifluorotoluene	"	10.0		8.55	"	70.0-130	85.5			
LCS										
	9090112-BS2									
Purgeable Hydrocarbons as Gasoline	9/23/99	250		220	ug/l	70.0-130	88.0			
Surrogate: a,a,a-Trifluorotoluene	"	10.0		8.19	"	70.0-130	81.9			
Matrix Spike										
	9090112-MS1					L909159-01				
Benzene	9/23/99	10.0	ND	8.99	ug/l	60.0-140	89.9			
Toluene	"	10.0	ND	8.85	"	60.0-140	88.5			
Ethylbenzene	"	10.0	ND	8.96	"	60.0-140	89.6			
Xylenes (total)	"	30.0	ND	26.6	"	60.0-140	88.7			
Surrogate: a,a,a-Trifluorotoluene	"	10.0		9.85	"	70.0-130	98.5			
Matrix Spike Dup										
	9090112-MSD1					L909159-01				
Benzene	9/23/99	10.0	ND	8.01	ug/l	60.0-140	80.1	25.0	11.5	
Toluene	"	10.0	ND	7.88	"	60.0-140	78.8	25.0	11.6	
Ethylbenzene	"	10.0	ND	7.93	"	60.0-140	79.3	25.0	12.2	
Xylenes (total)	"	30.0	ND	23.8	"	60.0-140	79.3	25.0	11.2	
Surrogate: a,a,a-Trifluorotoluene	"	10.0		10.1	"	70.0-130	101			





Gettler-Ryan/Geostrategies(1)
6747 Sierra Court, Suite D
Dublin, CA 94568

Project: Tosco(4)
Project Number: UNOCAL SS#5760, 180109.85
Project Manager: Deanna Harding

Sampled: 9/13/99
Received: 9/13/99
Reported: 9/27/99

Notes and Definitions

#	Note
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1	Chromatogram Pattern: Gasoline C6 - C12.
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DET	Analyte DETECTED
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ND	Analyte NOT DETECTED at or above the reporting limit
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NR	Not Reported
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dry	Sample results reported on a dry weight basis
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Recov.	Recovery
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RPD	Relative Percent Difference
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