

0.5 Rec'd 2/14/01

product thickness in MW-5 increasing - see recent release occurred. Replace skimmer in well



GETTLER-RYAN INC.

TRANSMITTAL

January 26, 2001
G-R #: 180063

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

CC: Mr. Douglas Lee
Gettler Ryan, Inc.
Dublin, California

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

RE: Tosco (Unocal) SS #0746
3943 Broadway
Oakland California

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DATED	DESCRIPTION
1	December 28, 2000	Groundwater Monitoring and Sampling Report Second Semi-Annual - Event of November 22, 2000

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 **February 8, 2001**, this report will be distributed to the following:

Ms. Eva Chu, Alameda County Health Care Services, 1131 Harbor Bay Parkway, Alameda, CA 94502

Enclosure

trans/0746-DBD



GETTLER-RYAN INC.

December 28, 2000
G-R Job #180063

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

RE: Second Semi-Annual 2000 Groundwater Monitoring & Sampling Report
Tosco (Unocal) Service Station #0746
3943 Broadway
Oakland, California

Dear Mr. De Witt:

This report documents the semi-annual groundwater monitoring and sampling event performed by Gettler-Ryan Inc. (G-R). On November 22, 2000, field personnel monitored twelve wells (MW-1 through MW-12) and sampled six wells (MW-1, MW-3, MW-4, MW-8, MW-9, and MW-11) 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 present in one well (MW-5).~~ Static water level data and groundwater elevations are summarized in Table 1. Product Thickness/Removal Data are presented in Table 3. 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 Tables 1 and 4. A Concentration Map is included as Figure 2. The chain of custody document and laboratory analytical reports are also attached.

Sincerely,

Deanna L. Harding

Deanna L. Harding
Project Coordinator

Stephen J. Carter

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

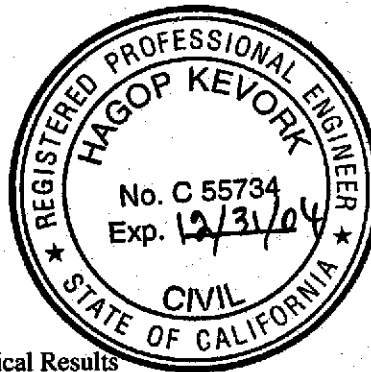
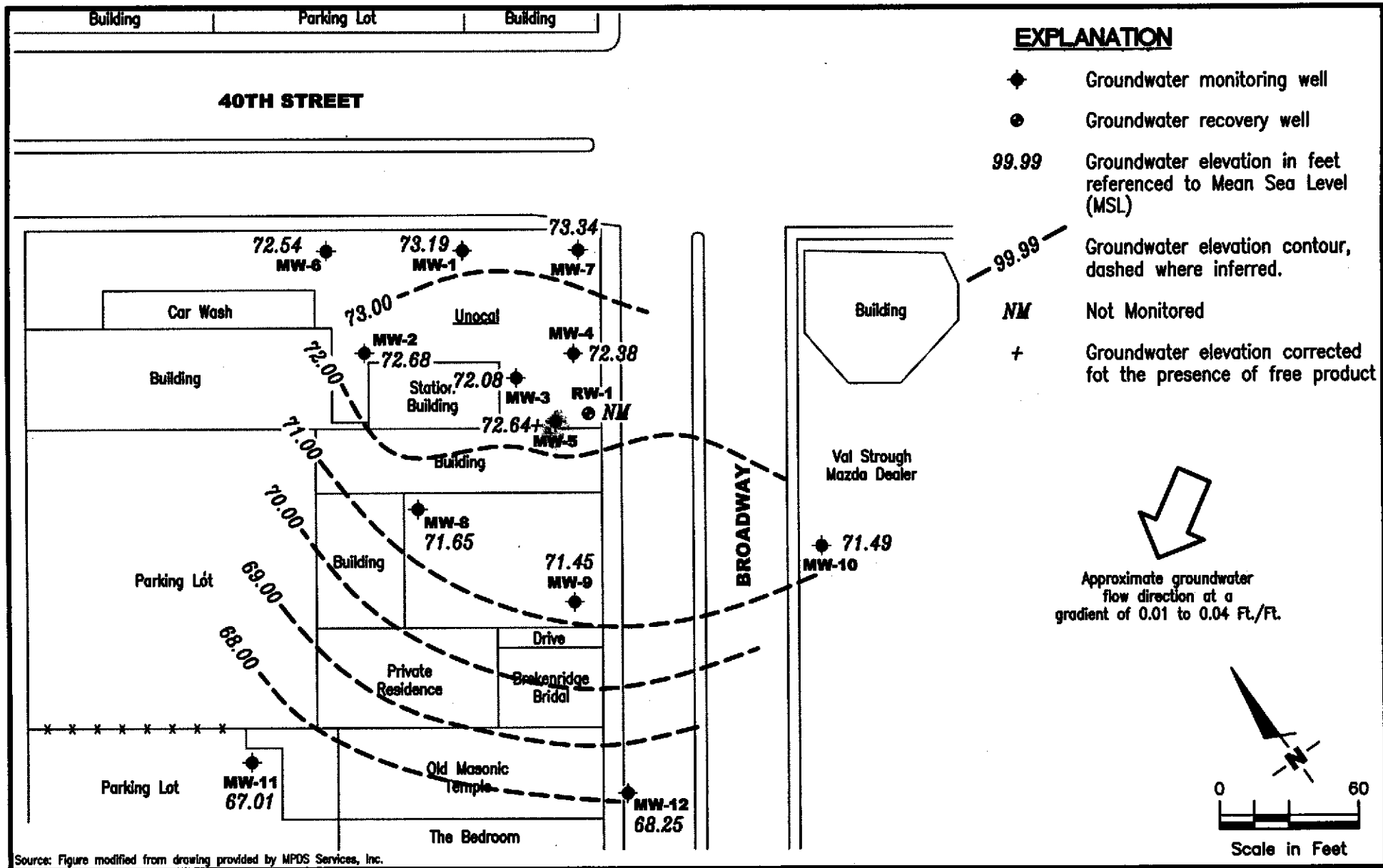


Figure 1: Potentiometric Map
Figure 2: Concentration Map
Table 1: Groundwater Monitoring Data and Analytical Results
Table 2: Dissolved Oxygen Concentrations
Table 3: Product Thickness/Removal Data
Table 4: Groundwater Analytical Results - Oxygenate Compounds
Attachments: Standard Operating Procedure - Groundwater Sampling
Field Data Sheets
Chain of Custody Document and Laboratory Analytical Reports

0746.qml



Source: Figure modified from drawing provided by MPDS Services, Inc.



Gettler - Ryan Inc.

8747 Sierra Ct., Suite J
Dublin, CA 94568 (925) 551-7555

POTENTIOMETRIC MAP
Tosco (Unocal) Service Station #0746
3943 Broadway
Oakland, California

FIGURE

1

JOB NUMBER
180063

REVIEWED BY

DATE
November 22, 2000

REVISED DATE

Table 1
Groundwater Monitoring Data and Analytical Results
 Tosco (Unocal) Service Station #0746
 3943 Broadway
 Oakland, California

WELL ID/ TOC*	DATE	DTW (ft.)	GWE (msl)	Product		B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
				Thickness (ft.)	TPH(G) (ppb)					
MW-1	11/01/89	--	--	--	ND	ND	ND	ND	0.3	--
	02/15/90	--	--	--	170	7.9	ND	2.2	2.8	--
	08/16/90	--	--	--	ND	ND	ND	ND	ND	--
	11/07/90	--	--	--	45	ND	ND	ND	ND	--
	02/25/91	--	--	--	ND	ND	ND	ND	ND	--
	05/28/91	--	--	--	ND	ND	ND	ND	ND	--
	08/28/91	--	--	--	ND	ND	ND	ND	ND	--
	11/19/91	--	--	--	ND	ND	ND	ND	ND	--
	02/06/92	--	--	--	ND	ND	ND	ND	ND	--
	05/23/92	--	--	--	ND	ND	ND	ND	ND	--
	08/26/92	--	--	--	ND	ND	ND	ND	ND	--
11/20/92	--	--	--	ND	0.75	ND	ND	ND	--	
81.07	12/21/92	8.12	72.95	0.00	--	--	--	--	--	--
	01/30/93	7.63	73.44	0.00	--	--	--	--	--	--
	02/24/93	7.16	73.91	0.00	1,100	280	4.9	120	140	--
	03/22/93	6.26	74.81	0.00	--	--	--	--	--	--
	04/28/93	7.91	73.16	0.00	--	--	--	--	--	--
80.54	05/25/93	7.87	73.20	0.00	260	27	4.9	2.6	54	--
	06/23/93	7.66	72.88	0.00	--	--	--	--	--	--
	07/22/93	7.87	72.67	0.00	--	--	--	--	--	--
	08/25/93	8.00	72.54	0.00	ND	ND	ND	ND	ND	--
	09/22/93	8.10	72.44	0.00	--	--	--	--	--	--
	10/28/93	8.15	72.39	0.00	--	--	--	--	--	--
	11/30/93	7.65	72.89	0.00	SAMPLED SEMI-ANNUALLY			--	--	--
	02/16/94	7.46	73.08	0.00	ND	0.84	ND	ND	0.59	--
	05/31/94	7.80	72.74	0.00	--	--	--	--	--	--
	08/31/94	8.27	72.27	0.00	ND	ND	0.98	ND	0.84	--
	09/27/94	8.37	72.17	0.00	--	--	--	--	--	--
	10/11/94	8.36	72.18	0.00	--	--	--	--	--	--
	11/10/94	6.43	74.11	0.00	--	--	--	--	--	--
	02/07/95	7.06	73.48	0.00	6,100	670	ND	120	60	--
05/03/95	6.85	73.69	0.00	260	21	39	17	24	--	
08/03/95	7.69	72.85	0.00	--	--	--	--	--	--	

Table 1
Groundwater Monitoring Data and Analytical Results
 Tosco (Unocal) Service Station #0746
 3943 Broadway
 Oakland, 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)
MW-1	11/07/95	8.15	72.39	0.00	ND	ND	ND	ND	ND	--
(cont)	05/06/96	7.40	73.14	0.00	170	1.0	20	2.3	17	55
	11/05/96	7.90	72.64	0.00	ND	ND	ND	ND	ND	5.2
	05/15/97	7.77	72.77	0.00	ND	ND	ND	ND	ND	16
	11/12/97	7.48	73.06	0.00	ND	ND	ND	ND	ND	11
NP	05/04/98	7.39	73.15	0.00	ND	ND	ND	ND	ND	320
NP	11/11/98	7.37	73.17	0.00	ND	ND	ND	ND	ND	200
NP	05/20/99	7.41	73.13	0.00	ND	ND	ND	ND	ND	89/47 ^{7,8,9}
	11/15/99	7.84	72.70	0.00	ND	ND	ND	ND	ND	8.12/7.19 ¹²
	05/22/00	7.53	73.01	0.00	ND	0.89	ND	ND	ND	220/290 ¹²
	11/22/00	7.35	73.19	0.00	ND	ND	ND	ND	ND	105/142 ⁷
MW-2	11/01/89	--	--	--	200	ND	ND	3.0	1.2	--
	02/15/90	--	--	--	ND	ND	ND	ND	ND	--
	08/16/90	--	--	--	ND	ND	6.7	ND	ND	--
	11/07/90	--	--	--	ND	ND	ND	ND	ND	--
	02/25/91	--	--	--	ND	0.68	0.42	ND	0.86	--
	05/28/91	--	--	--	ND	ND	ND	ND	ND	--
	08/28/91	--	--	--	ND	ND	ND	ND	ND	--
	11/19/91	--	--	--	ND	ND	ND	ND	ND	--
	02/06/92	--	--	--	ND	0.36	0.66	ND	0.62	--
	05/23/92	--	--	--	ND	ND	ND	ND	ND	--
	08/26/92	--	--	--	ND	ND	ND	ND	ND	--
	11/20/92	--	--	--	510 ¹	ND	ND	ND	ND	--
81.62	12/21/92	9.14	72.48	0.00	--	--	--	--	--	--
	01/30/93	8.99	72.63	0.00	--	--	--	--	--	--
	02/24/93	8.03	73.59	0.00	11,000 ¹	ND	ND	ND	ND	--
	03/22/93	9.50	72.12	0.00	--	--	--	--	--	--
	04/28/93	8.87	72.75	0.00	--	--	--	--	--	--
	05/25/93	9.04	72.58	0.00	1,300 ¹	ND	ND	ND	ND	2,700
81.32	06/23/93	9.17	72.15	0.00	--	--	--	--	--	--
	07/22/93	9.42	71.90	0.00	--	--	--	--	--	--

Table 1
Groundwater Monitoring Data and Analytical Results
 Tosco (Unocal) Service Station #0746
 3943 Broadway
 Oakland, 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)
MW-2	08/25/93	9.53	71.79	0.00	190 ¹	ND	ND	ND	ND	--
(cont)	09/22/93	9.67	71.65	0.00	--	--	--	--	--	--
	10/28/93	9.65	71.67	0.00	--	--	--	--	--	--
	11/30/93	9.18	72.14	0.00	480 ¹	ND	ND	ND	ND	--
	02/16/94	8.91	72.41	0.00	3,200 ¹	ND	ND	ND	ND	--
	05/31/94	9.36	71.96	0.00	1,100 ¹	ND	ND	ND	ND	--
	08/31/94	9.85	71.47	0.00	310 ¹	ND	ND	ND	ND	--
	09/27/94	9.95	71.37	0.00	--	--	--	--	--	--
	10/11/95	9.95	71.37	0.00	--	--	--	--	--	--
	11/10/94	7.47	73.85	0.00	95 ²	ND	ND	ND	ND	--
	02/07/95	8.29	73.03	0.00	1,600 ¹	ND	ND	ND	ND	--
	05/03/95	8.12	73.20	0.00	ND	ND	ND	ND	ND	--
	08/03/95	9.35	71.97	0.00	ND	ND	ND	ND	ND	--
	11/07/95	9.65	71.67	0.00	ND	ND	ND	ND	ND	160 ³
	05/06/96	8.90	72.42	0.00	SAMPLING DISCONTINUED ⁴			--	--	--
	11/05/96	10.98	70.34	0.00	--	--	--	--	--	--
	05/15/97	9.13	72.19	0.00	--	--	--	--	--	--
	11/12/97	9.84	71.48	0.00	--	--	--	--	--	--
	05/04/98	9.26	72.06	0.00	--	--	--	--	--	--
	11/11/98	8.88	72.44	0.00	--	--	--	--	--	--
	05/20/99	8.68	72.64	0.00	--	--	--	--	--	--
	11/15/99	8.91	72.41	0.00	--	--	--	--	--	--
	05/22/00	8.61	72.71	0.00	--	--	--	--	--	--
	11/22/00	8.64	72.68	0.00	--	--	--	--	--	--
 MW-3	11/01/89	--	--	--	13,000	57	48	1.7	120	--
	02/15/90	--	--	--	20,000	1,700	2,100	750	3,100	--
	08/16/90	--	--	--	6,800	600	660	760	160	--
	11/07/90	--	--	--	42,000	1,400	5,000	1,800	7,500	--
	02/25/91	--	--	--	37,000	730	2,900	1,300	7,300	--
	05/28/91	--	--	--	24,000	570	1,100	810	4,200	--
	08/28/91	--	--	--	16,000	650	2,200	1,100	5,400	--

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Groundwater Monitoring Data and Analytical Results
 Tosco (Unocal) Service Station #0746
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 Oakland, California

WELL ID/ TOC*	DATE	DTW (ft.)	GWE (msl)	Product	TPH(G) (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
				Thickness (ft.)						
MW-3	11/19/91	--	--	--	22,000	250	440	660	3,000	--
(cont)	02/06/92	--	--	--	24,000	600	1,800	1,200	5,800	--
	05/23/92	--	--	--	25,000	300	130	880	4,900	--
	08/26/92	--	--	--	20,000	690	1,900	1,300	5,700	--
	11/20/92	--	--	--	1,100,000 ²	1,800	6,400	3,000	15,000	--
82.01	12/04/92	10.30	71.71**	0.00	--	--	--	--	--	--
	12/21/92	9.78	72.23	Trace	--	--	--	--	--	--
	01/09/93	8.55	73.46	0.00	--	--	--	--	--	--
	01/30/93	8.90	73.11	0.00	--	--	--	--	--	--
	02/10/93	9.01	73.01**	0.01	--	--	--	--	--	--
	02/24/93	8.26	73.76**	0.01	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					--
	03/09/93	9.18	72.85**	0.02	--	--	--	--	--	--
	03/22/93	8.81	73.22**	0.02	--	--	--	--	--	--
	04/08/93	9.14	72.89**	0.02	--	--	--	--	--	--
	04/28/93	9.44	72.59**	0.03	--	--	--	--	--	--
	05/12/93	9.57	72.46**	0.03	--	--	--	--	--	--
	05/25/93	9.45	72.58**	0.03	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					--
81.41	06/07/93	8.94	72.47	<0.01	--	--	--	--	--	--
	06/23/93	9.20	72.23**	0.02	--	--	--	--	--	--
	07/08/93	9.31	72.12**	0.03	--	--	--	--	--	--
	07/22/93	9.47	71.94	<0.01	--	--	--	--	--	--
	08/11/93	9.59	71.82	<0.01	--	--	--	--	--	--
	08/25/93	9.67	71.76**	0.03	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					--
	09/08/93	10.34	71.07	<0.01	--	--	--	--	--	--
	09/22/93	9.84	71.59**	0.02	--	--	--	--	--	--
	10/07/93	9.87	71.54	<0.01	--	--	--	--	--	--
	10/28/93	10.03	71.38	0.00	--	--	--	--	--	--
	11/12/93	9.76	71.65	<0.01	--	--	--	--	--	--
	11/30/93	9.66	71.77**	0.02	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					--
	02/16/94	8.87	72.54	Sheen	57,000	910	2,500	2,100	9,000	--
	05/31/94	9.48	71.93	<0.01	39,000	670	630	1,500	6,200	--
	08/31/94	10.08	71.33	0.00	44,000	500	240	1,400	5,700	--
	09/24/94	10.22	71.19	0.00	--	--	--	--	--	--

Table 1
Groundwater Monitoring Data and Analytical Results
 Tosco (Unocal) Service Station #0746
 3943 Broadway
 Oakland, 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)
MW-3	10/11/94	10.41	71.01**	0.01	--	--	--	--	--	--
(cont)	11/10/94	7.47	73.94	Sheen	86,000	3,300	3,800	1,800	8,300	--
	02/07/95	8.05	73.36	0.00	45,000	1,400	1,300	1,500	5,600	--
	03/14/95	7.05	74.36	0.00	--	--	--	--	--	--
	05/03/95	7.91	73.50	0.00	26,000	740	990	1,100	4,400	--
	08/03/95	9.28	72.13	0.00	18,000	59	ND	530	1,900	--
	11/07/95	10.79	70.62	0.00	17,000	110	26	400	1,500	880 ³
	05/06/96	9.44	71.97	Sheen	5,100	48	ND	87	210	370
	11/05/96	10.64	70.77	0.00	35,000	2,200	ND	1,200	2,800	460
	05/15/97	9.61	71.80	0.00	2,400	110	ND	ND	140	100
	11/12/97	9.18	72.23	0.00	29,000	2,000	ND	1,800	3,000	ND
	NP 05/04/98	9.50	71.91	0.00	8,200	430	ND ⁵	310	320	ND ⁵
	NP 11/11/98	9.25	72.16	0.00	8,700	500	ND ⁵	330	310	ND ⁵
	NP 05/20/99	8.95	72.46	0.00	4,300	250	ND ⁵	ND ⁵	86	ND ⁵
	11/15/99	10.35	71.06	0.00	6,720 ¹¹	326	ND ⁵	398	226	120/45.1 ¹²
	05/22/00	9.14	72.27	0.00	4,000 ¹¹	99	4.5	190	75	100/94 ¹²
	11/22/00	9.33	72.08	0.00	6,130 ¹⁵	93.7	6.71	174	47.8	212/131 ⁷
MW-4	02/15/90	--	--	--	150	8.0	8.0	10	45	--
	08/16/90	--	--	--	3,600	480	17	230	260	--
	11/07/90	--	--	--	180	1.5	0.37	6.3	26	--
	02/25/91	--	--	--	22,000	600	1,300	780	2,800	--
	05/28/91	--	--	--	38	ND	ND	ND	1.9	--
	08/28/91	--	--	--	2,000	1,500	20	120	300	--
	11/19/91	--	--	--	55	9.2	4.5	1.4	6.7	--
	02/06/92	--	--	--	5,700	2,200	140	57	980	--
	05/23/92	--	--	--	ND	ND	ND	ND	ND	--
	08/26/92	--	--	--	120	86	0.52	0.57	1.6	--
	11/20/92	--	--	--	ND	6.2	ND	1.2	0.52	--
81.48	12/21/93	9.10	72.38	0.00	--	--	--	--	--	--
	01/30/93	8.35	73.13	0.00	--	--	--	--	--	--
	02/24/93	8.17	73.31	0.00	140	12	0.64	9.4	3.7	--

Table 1
Groundwater Monitoring Data and Analytical Results
 Tosco (Unocal) Service Station #0746
 3943 Broadway
 Oakland, 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)
MW-4	03/22/93	8.12	73.36	0.00	--	--	--	--	--	--
(cont)	04/28/93	9.36	72.12	0.00	--	--	--	--	--	--
	05/25/93	8.75	72.73	0.00	74	10	ND	4.6	1.8	--
81.29	06/23/93	8.90	72.39	0.00	--	--	--	--	--	--
	07/22/93	9.26	72.03	0.00	--	--	--	--	--	--
	08/25/93	9.45	71.84	0.00	640	100	1.1	100	22	--
	09/22/93	9.63	71.66	0.00	--	--	--	--	--	--
	10/28/93	9.62	71.67	0.00	--	--	--	--	--	--
	11/30/93	9.40	71.89	0.00	200	28	ND	17	8.1	--
	02/16/94	9.21	72.08	0.00	190	11	0.98	21	6.6	--
	05/31/94	9.11	72.18	0.00	1,100	190	ND	100	58	--
	08/31/94	10.01	71.28	0.00	400	17	0.94	14	5.2	--
	09/27/94	10.09	71.20	0.00	--	--	--	--	--	--
	10/11/94	11.50	69.79	0.00	--	--	--	--	--	--
	11/10/94	9.21	72.08	0.00	7,700	1,800	280	460	1,300	--
	02/07/95	7.66	73.63	0.00	540	47	ND	17	2.5	--
	05/03/95	8.29	73.00	0.00	160	8.3	0.52	1.5	3.7	--
	08/03/95	8.60	72.69	0.00	57	2.0	ND	ND	ND	--
	11/07/95	10.28	71.01	0.00	ND	0.71	ND	ND	ND	0.86
	05/06/96	8.70	72.59	0.00	1,200	12	11	15	36	ND
	11/05/96	10.00	71.29	0.00	700	32	0.71	1.8	1.3	6.5
	05/15/97	9.37	71.92	0.00	51	ND	ND	ND	ND	ND
	11/12/97	8.92	72.37	0.00	74	1.7	ND	ND	ND	ND
NP	05/04/98	9.48	71.81	0.00	ND	ND	ND	ND	ND	ND
NP	11/11/98	9.13	72.16	0.00	ND	0.63	ND	ND	ND	ND
NP	05/20/99	8.41	72.88	0.00	ND	ND	ND	ND	ND	ND
	11/15/99	9.68	71.61	0.00	ND	ND	ND	ND	ND	ND
	05/22/00	8.60	72.69	0.00	ND	ND	ND	ND	ND	ND
	11/22/00	8.91	72.38	0.00	ND	ND	ND	ND	ND	ND

Table 1
Groundwater Monitoring Data and Analytical Results
 Tosco (Unocal) Service Station #0746
 3943 Broadway
 Oakland, 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)
MW-5	02/15/90	--	--	--	24,000	1,500	1,700	260	3,600	--
	08/16/90	--	--	--	16,000	1,400	1,900	2,800	660	--
	11/07/90	--	--	--	20,000	640	1,100	670	3,000	--
	02/25/91	--	--	--	25,000	950	1,300	900	3,500	--
	05/28/91	--	--	--	24,000	2,300	3,400	1,300	6,000	--
	08/28/91	--	--	--	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					--
	11/19/91	--	--	--	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					--
	02/06/92	--	--	--	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					--
	05/23/92	--	--	--	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					--
	08/26/92	--	--	--	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					--
11/20/92	--	--	--	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					--	
81.59	12/04/92	10.03	71.62**	0.08	--	--	--	--	--	--
	12/21/92	9.50	72.10**	0.01	--	--	--	--	--	--
	01/09/93	8.22	73.37	0.00	--	--	--	--	--	--
	01/30/93	8.58	73.01	Trace	--	--	--	--	--	--
	02/10/93	8.68	72.91	Trace	--	--	--	--	--	--
	02/24/93	7.91	73.69**	0.01	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					--
	03/09/93	8.87	72.73**	0.01	--	--	--	--	--	--
	03/22/93	8.46	73.14**	0.01	--	--	--	--	--	--
	04/08/93	8.84	72.76**	0.01	--	--	--	--	--	--
	04/28/93	9.14	72.47**	0.02	--	--	--	--	--	--
	05/12/93	9.28	72.33**	0.02	--	--	--	--	--	--
	05/25/93	9.63	72.06**	0.13	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					--
	81.38	06/07/93	9.75	71.64**	0.01	--	--	--	--	--
06/23/93		9.32	72.08**	0.03	--	--	--	--	--	--
07/08/93		9.48	71.93**	0.04	--	--	--	--	--	--
07/22/93		9.73	71.77**	0.16	--	--	--	--	--	--
08/11/93		9.84	71.57**	0.04	--	--	--	--	--	--
08/25/93		9.81	71.59**	0.02	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					--
09/08/93		10.09	71.31**	0.03	--	--	--	--	--	--
09/22/93		10.01	71.41**	0.05	--	--	--	--	--	--
10/07/93		9.94	71.46**	0.03	--	--	--	--	--	--
10/28/93	10.04	71.36**	0.02	--	--	--	--	--	--	

Table 1
Groundwater Monitoring Data and Analytical Results
 Tosco (Unocal) Service Station #0746
 3943 Broadway
 Oakland, California

WELL ID/ TOC*	DATE	DTW (ft.)	GWE (msl)	Product						MTBE (ppb)
				Thickness (ft.)	TPH(G) (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	
MW-5	11/12/93	9.79	71.59	<0.01	--	--	--	--	--	--
(cont)	11/30/93	9.62	71.76	<0.01	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					--
	02/16/94	8.95	72.45**	0.02	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					--
	05/31/94	9.63	71.75	<0.01	43,000	1,500	1,200	1,600	6,700	--
	08/31/94	10.25	71.15**	0.02	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					--
	09/27/94	10.38	71.00	<0.01	--	--	--	--	--	--
	10/11/94	10.45	70.95**	0.02	--	--	--	--	--	--
	11/10/94	7.54	73.90**	0.08	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					--
	02/07/95	8.10	73.28	0.00	25,000	1,400	740	990	3,000	--
	03/14/95	7.04	74.34	0.00	--	--	--	--	--	--
	05/03/95	7.98	73.40	0.00	12,000	680	160	600	1,800	--
	08/03/95	9.25	72.13	0.00	23,000	940	280	810	2,700	--
	11/07/95	10.00	71.38	0.00	40,000	510	280	1,000	5,700	630 ³
	05/06/96	9.03	72.35	Sheen	13,000	200	ND	180	610	170
	11/05/96	10.41	70.97	0.00	35,000	1,800	ND	1,300	4,900	580
	05/15/97	9.41	71.97	Sheen	10,000	490	ND	ND	1,300	ND
	11/12/97	9.27	72.11	0.00	100	5.1	ND	ND	ND	74
NP	05/04/98	9.18	72.20	0.00	39,000	1,600	230	1,000	3,200	ND ⁵
	11/11/98	9.23	72.43**	0.37	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					--
	02/22/99	7.69	73.88**	0.25	--	--	--	--	--	--
	04/02/99 ⁶	8.19	73.40**	0.28	--	--	--	--	--	--
	05/04/99	8.44	72.95**	0.01	--	--	--	--	--	--
	05/20/99	8.73	72.68**	0.04	--	--	--	--	--	--
	06/29/99	8.91	72.51**	0.05	--	--	--	--	--	--
	07/29/99	9.12	72.31**	0.07	--	--	--	--	--	--
	08/24/99	9.37	72.08**	0.09	--	--	--	--	--	--
	09/27/99	9.51	71.92**	0.06	--	--	--	--	--	--
	10/28/99	--	--	0.05	--	--	--	--	--	--
	11/15/99	9.29	72.09	Sheen	--	--	--	--	--	--

Table 1
Groundwater Monitoring Data and Analytical Results
 Tosco (Unocal) Service Station #0746
 3943 Broadway
 Oakland, 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)
MW-5 (cont)	12/20/99 ¹³	9.14	72.24	0.00	--	--	--	--	--	--
	01/20/00 ¹³	9.08	72.30	0.00	--	--	--	--	--	--
	02/26/00 ¹³	8.69	72.69	0.00	--	--	--	--	--	--
	03/31/00 ¹³	8.48	72.90	0.00	--	--	--	--	--	--
	04/13/00	8.66	72.72	0.00	--	--	--	--	--	--
	05/22/00 ¹⁴	9.06	72.32	0.00	240,000 ¹¹	33,000	5,000	18,000	59,000	640/21 ¹²
	11/22/00 ¹⁶	9.24	72.64**	0.67	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					
MW-6	11/07/90	--	--	--	ND	ND	ND	ND	ND	--
	02/25/91	--	--	--	ND	0.37	0.4	0.35	1.5	--
	05/28/91	--	--	--	ND	ND	ND	ND	0.42	--
	08/28/91	--	--	--	ND	ND	ND	ND	ND	--
	11/19/91	--	--	--	ND	ND	ND	ND	ND	--
	02/06/92	--	--	--	ND	ND	ND	ND	ND	--
	05/23/92	--	--	--	ND	ND	ND	ND	ND	--
	08/26/92	--	--	--	ND	ND	ND	ND	ND	--
	11/20/92	--	--	--	ND	ND	ND	ND	ND	--
80.47	12/21/92	7.71	72.76	0.00	--	--	--	--	--	--
	01/30/93	7.25	73.22	0.00	--	--	--	--	--	--
	02/24/93	6.74	73.73	0.00	ND	ND	ND	ND	ND	--
	03/22/93	5.85	74.62	0.00	--	--	--	--	--	--
	04/28/93	7.58	72.89	0.00	--	--	--	--	--	--
	05/25/93	7.48	72.99	0.00	ND	ND	ND	ND	ND	--
79.94	06/23/93	7.34	72.60	0.00	--	--	--	--	--	--
	07/22/93	7.53	72.41	0.00	--	--	--	--	--	--
	08/25/93	7.66	72.28	0.00	ND	ND	ND	ND	ND	--
	09/22/93	7.76	72.18	0.00	--	--	--	--	--	--
	10/28/93	8.30	71.64	0.00	--	--	--	--	--	--
	11/30/93	7.40	72.54	0.00	SAMPLED SEMI-ANNUALLY			--	--	--
	02/16/94	7.13	72.81	0.00	ND	ND	ND	ND	ND	--
	05/31/94	7.49	72.45	0.00	--	--	--	--	--	--
	08/31/94	7.93	72.01	0.00	ND	ND	1.5	ND	1.6	--

Table 1
Groundwater Monitoring Data and Analytical Results
 Tosco (Unocal) Service Station #0746
 3943 Broadway
 Oakland, 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)
MW-6	09/27/94	8.03	71.91	0.00	--	--	--	--	--	--
(cont)	10/11/94	8.05	71.89	0.00	--	--	--	--	--	--
	11/10/94	6.12	73.82	0.00	--	--	--	--	--	--
	02/07/95	6.65	73.29	0.00	ND	ND	ND	ND	ND	--
	05/03/95	6.47	73.47	0.00	ND	ND	ND	ND	1.0	--
	08/03/95	7.28	72.66	0.00	--	--	--	--	--	--
	11/07/95	7.98	71.96	0.00	ND	ND	ND	ND	ND	--
	05/06/96	7.80	72.14	0.00	SAMPLING DISCONTINUED ⁴			--	--	--
	11/05/96	7.63	72.31	0.00	--	--	--	--	--	--
	05/15/97	7.41	72.53	0.00	--	--	--	--	--	--
	11/12/97	7.51	72.43	0.00	--	--	--	--	--	--
	05/04/98	7.15	72.79	0.00	--	--	--	--	--	--
	11/11/98	7.04	72.90	0.00	--	--	--	--	--	--
	05/20/99	7.00	72.94	0.00	--	--	--	--	--	--
	11/15/99	7.42	72.52	0.00	--	--	--	--	--	--
	05/22/00	7.24	72.70	0.00	--	--	--	--	--	--
	11/22/00	7.40	72.54	0.00	--	--	--	--	--	--
MW-7	11/07/90	--	--	--	ND	ND	ND	ND	ND	--
	02/25/91	--	--	--	70	ND	ND	ND	0.52	--
	05/28/91	--	--	--	39	ND	ND	ND	0.73	--
	08/28/91	--	--	--	ND	ND	ND	ND	ND	--
	11/19/91	--	--	--	32	ND	ND	ND	ND	--
	02/06/92	--	--	--	ND	ND	ND	ND	ND	--
	05/23/92	--	--	--	ND	ND	ND	ND	ND	--
	08/26/92	--	--	--	ND	ND	ND	0.73	ND	--
	11/20/92	--	--	--	ND	ND	ND	ND	ND	--
81.83	12/21/92	8.42	73.41	0.00	--	--	--	--	--	--
	01/30/93	8.21	73.62	0.00	--	--	--	--	--	--
	02/24/93	7.85	73.98	0.00	ND	ND	ND	ND	ND	--

Table 1
Groundwater Monitoring Data and Analytical Results
 Tosco (Unocal) Service Station #0746
 3943 Broadway
 Oakland, California

WELL ID/ TOC*	DATE	DTW (ft.)	GWE (msf)	Product							
				Thickness (ft.)	TPH(G) (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)	
MW-7	03/22/93	6.97	74.86	0.00	--	--	--	--	--	--	
(cont)	04/28/93	8.39	73.44	0.00	--	--	--	--	--	--	
	05/25/93	8.43	73.40	0.00	ND	ND	ND	ND	ND	--	
81.64	06/23/93	8.47	73.17	0.00	--	--	--	--	--	--	
	07/22/93	8.83	72.81	0.00	--	--	--	--	--	--	
	08/25/93	8.81	72.83	0.00	ND	ND	ND	ND	ND	--	
	09/22/93	8.96	72.68	0.00	--	--	--	--	--	--	
	10/28/93	8.98	72.66	0.00	--	--	--	--	--	--	
	11/30/93	8.65	72.99	0.00	SAMPLED SEMI-ANNUALLY						
	02/16/94	8.36	73.28	0.00	ND	ND	ND	ND	0.7	--	
	05/31/94	8.67	72.97	0.00	--	--	--	--	--	--	
	08/31/94	9.12	72.52	0.00	ND	ND	0.8	ND	0.75	--	
	09/27/94	9.22	72.42	0.00	--	--	--	--	--	--	
	10/11/94	9.23	72.41	0.00	--	--	--	--	--	--	
	11/10/94	7.66	73.98	0.00	--	--	--	--	--	--	
	02/07/95	7.88	73.76	0.00	ND	ND	ND	ND	ND	--	
	05/03/95	7.71	73.93	0.00	ND	ND	ND	ND	1.0	--	
	08/03/95	8.40	73.24	0.00	--	--	--	--	--	--	
	11/07/95	8.95	72.69	0.00	ND	ND	ND	ND	ND	--	
	05/06/96	8.15	73.49	0.00	--	--	--	--	--	--	
	11/05/96	8.67	72.97	0.00	--	--	--	--	--	--	
	05/15/97	8.47	73.17	0.00	--	--	--	--	--	--	
	11/12/97	7.88	73.76	0.00	--	--	--	--	--	--	
	05/04/98	7.93	73.71	0.00	--	--	--	--	--	--	
	11/11/98	8.20	73.44	0.00	--	--	--	--	--	--	
	05/20/99	8.04	73.60	0.00	--	--	--	--	--	--	
	11/15/99	8.17	73.47	0.00	--	--	--	--	--	--	
NP	05/22/00	8.10	73.54	0.00	--	--	--	--	--	--	
	11/22/00	8.30	73.34	0.00	--	--	--	--	--	--	

Table 1
Groundwater Monitoring Data and Analytical Results
 Tosco (Unocal) Service Station #0746
 3943 Broadway
 Oakland, 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)
MW-8	11/07/90	--	--	--	4,700	28	38	86	7,200	--
	02/25/91	--	--	--	5,300	17	6.1	53	300	--
	05/28/91	--	--	--	4,800	4.2	1.3	5.1	170	--
	08/28/91	--	--	--	1,800	3.2	1.9	19	74	--
	11/19/91	--	--	--	1,600	8.1	1.8	19	52	--
	02/06/92	--	--	--	2,600	4.1	7.0	31	93	--
	05/23/92	--	--	--	2,100	8.6	1.6	1.7	28	--
	08/26/92	--	--	--	1,800	12	8.0	4.0	13	--
	11/20/92	INACCESSIBLE	--	--	--	--	--	--	--	--
	12/21/92	INACCESSIBLE	--	--	--	--	--	--	--	--
81.71	01/09/93	INACCESSIBLE	--	--	--	--	--	--	--	--
	01/30/93	INACCESSIBLE	--	--	--	--	--	--	--	--
	02/10/93	INACCESSIBLE	--	--	--	--	--	--	--	--
	02/24/93	INACCESSIBLE	--	--	--	--	--	--	--	--
	03/09/93	INACCESSIBLE	--	--	--	--	--	--	--	--
	03/22/93	INACCESSIBLE	--	--	--	--	--	--	--	--
	04/08/93	INACCESSIBLE	--	--	--	--	--	--	--	--
	04/28/93	INACCESSIBLE	--	--	--	--	--	--	--	--
	05/12/93	INACCESSIBLE	--	--	--	--	--	--	--	--
	05/25/93	10.12	71.59	0.00	1,200	5.4	ND	9.0	21	--
81.41	06/07/93	9.98	71.43	0.00	--	--	--	--	--	--
	06/23/93	10.36	71.05	0.00	--	--	--	--	--	--
	07/08/93	10.52	70.89	0.00	--	--	--	--	--	--
	07/22/93	INACCESSIBLE	--	--	--	--	--	--	--	--
	08/11/93	INACCESSIBLE	--	--	--	--	--	--	--	--
	08/25/93	10.95	70.46	0.00	1,800	11	17	8.9	29	--
	09/08/93	11.34	70.07	0.00	--	--	--	--	--	--
	09/22/93	11.13	70.28	0.00	--	--	--	--	--	--
	10/07/93	10.96	70.45	0.00	--	--	--	--	--	--
	10/28/93	11.19	70.22	0.00	--	--	--	--	--	--
11/12/93	INACCESSIBLE	--	--	--	--	--	--	--	--	
11/30/93	10.42	70.99	0.00	3,500	18	ND	ND	ND	--	
02/16/94	9.86	71.55	0.00	990	4.9	1.8	2.4	4.5	--	

Table 1
Groundwater Monitoring Data and Analytical Results
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 3943 Broadway
 Oakland, 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)
MW-8	05/31/94	10.61	70.80	0.00	350	3.0	1.0	0.73	1.7	--
(cont)	08/31/94	11.37	70.04	0.00	1,800 ¹	ND	ND	ND	ND	--
	09/27/94	INACCESSIBLE (PARKED OVER)			--	--	--	--	--	--
	10/11/94	11.50	69.91	0.00	--	--	--	--	--	--
	11/10/94	7.81	73.60	0.00	940	6.7	6.3	ND	16	--
	02/07/95	8.69	72.72	0.00	230	1.4	0.95	0.9	1.1	--
	05/03/95	8.60	72.81	0.00	75	ND	ND	ND	1.0	--
	08/03/95	INACCESSIBLE (PARKED OVER)			--	--	--	--	--	--
	11/07/95	11.05	70.36	0.00	210	1.3	1.2	ND	ND	-- ³
	05/06/96	INACCESSIBLE (PARKED OVER)			--	--	--	--	--	--
	11/05/96	INACCESSIBLE (PARKED OVER)			--	--	--	--	--	--
	05/15/97	10.46	70.95	0.00	ND	ND	ND	ND	ND	43
	11/12/97	INACCESSIBLE (PARKED OVER)			--	--	--	--	--	--
	05/04/98	INACCESSIBLE (PARKED OVER)			--	--	--	--	--	--
	11/11/98	INACCESSIBLE (PARKED OVER)			--	--	--	--	--	--
NP	05/20/99	9.75	71.66	0.00	ND	ND	ND	ND	ND	23/10 ^{7,8,10}
	11/15/99	INACCESSIBLE (PARKED OVER)			--	--	--	--	--	--
NP	05/22/00	9.80	71.61	0.00	ND	ND	1.9	ND	3.3	ND
NP	11/22/00	9.76	71.65	0.00	ND	ND	1.16	ND	1.22	ND
MW-9	11/07/90	--	--	--	480	7.8	1.2	13	47	--
	02/25/91	--	--	--	390	13	1.1	2.8	14	--
	05/28/91	--	--	--	590	6.0	0.43	6.8	1.4	--
	08/28/91	--	--	--	450	17	0.9	13	14	--
	11/19/91	--	--	--	360	17	0.45	15	11	--
	02/06/92	--	--	--	660	41	1.0	33	15	--
	05/23/92	--	--	--	460	18	0.66	1.4	3.2	--
	08/26/92	--	--	--	250	13	ND	8.6	3.8	--
	11/20/92	INACCESSIBLE			--	--	--	--	--	--
81.13	12/21/92	INACCESSIBLE			--	--	--	--	--	--
	01/30/93	INACCESSIBLE			--	--	--	--	--	--
	02/24/93	INACCESSIBLE			--	--	--	--	--	--

Table 1
Groundwater Monitoring Data and Analytical Results
 Tosco (Unocal) Service Station #0746
 3943 Broadway
 Oakland, 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)
MW-9	03/22/93	INACCESSIBLE	--	--	--	--	--	--	--	--
(cont)	04/28/93	INACCESSIBLE	--	--	--	--	--	--	--	--
	05/25/93	11.50	69.63	0.00	160	6.1	ND	7.4	1.1	--
80.53	06/23/93	9.78	70.75	0.00	--	--	--	--	--	--
	07/22/93	10.10	70.43	0.00	--	--	--	--	--	--
	08/25/93	10.44	70.09	0.00	220	10	ND	6.8	1.4	--
	09/22/93	10.64	69.89	0.00	--	--	--	--	--	--
	10/28/93	10.68	69.85	0.00	--	--	--	--	--	--
	11/30/93	9.87	70.66	0.00	200	5.6	ND	2.9	2.7	--
	02/16/94	9.21	71.32	0.00	250	5.1	1.3	4.4	1.5	--
	05/31/94	10.15	70.38	0.00	360	7.8	0.97	4.6	2.2	--
	08/31/94	10.97	69.56	0.00	650	7.7	2.8	4.4	5.0	59
	09/27/94	11.10	69.43	0.00	--	--	--	--	--	--
	10/11/94	11.20	69.33	0.00	--	--	--	--	--	--
	11/10/94	7.25	73.28	0.00	ND	ND	ND	ND	ND	--
	02/07/95	7.76	72.77	0.00	57	0.7	ND	0.86	ND	--
	05/03/95	7.82	72.71	0.00	ND	0.85	0.67	1.3	1.0	--
	08/03/95	9.70	70.83	0.00	91	1.1	ND	ND	ND	--
	11/07/95	10.64	69.89	0.00	130	1.5	0.62	0.71	ND	60 ³
	05/06/96	9.01	71.52	0.00	860	6.1	13	6.0	25	ND
	11/05/96	11.42	69.11	0.00	84	0.74	ND	1.2	4.5	ND
	05/15/97	9.89	70.64	0.00	ND	ND	ND	ND	ND	ND
	11/12/97	10.22	70.31	0.00	ND	0.55	ND	ND	ND	74
NP	05/04/98	10.05	70.48	0.00	ND	ND	ND	ND	ND	45
NP	11/11/98	9.23	71.30	0.00	ND	ND	ND	ND	ND	ND
NP	05/20/99	8.78	71.75	0.00	ND	ND	ND	ND	ND	ND
	11/15/99	9.12	71.41	0.00	ND	ND	ND	ND	ND	ND
	05/22/00	9.17	71.36	0.00	ND	ND	1.9	ND	3.5	ND
	11/22/00	9.08	71.45	0.00	ND	ND	1.18	ND	1.16	ND

Table 1
Groundwater Monitoring Data and Analytical Results
 Tosco (Unocal) Service Station #0746
 3943 Broadway
 Oakland, 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)
MW-10	02/06/92	--	--	--	ND	ND	ND	ND	ND	--
	05/23/92	--	--	--	ND	ND	ND	ND	ND	--
	08/26/92	--	--	--	ND	ND	ND	ND	ND	--
	11/20/92	--	--	--	ND	ND	ND	ND	ND	--
81.90	12/21/92	13.41	68.49	0.00	--	--	--	--	--	--
	01/30/93	11.60	70.30	0.00	--	--	--	--	--	--
	02/24/93	11.23	70.67	0.00	ND	ND	ND	ND	ND	--
	03/22/93	10.89	71.01	0.00	--	--	--	--	--	--
	04/28/93	12.11	69.79	0.00	--	--	--	--	--	--
	05/25/93	12.02	69.88	0.00	ND	ND	ND	ND	ND	--
81.61	06/23/93	12.11	69.50	0.00	--	--	--	--	--	--
	07/22/93	12.49	69.12	0.00	--	--	--	--	--	--
	08/25/93	12.78	68.83	0.00	ND	ND	ND	ND	ND	--
	09/22/93	13.06	68.55	0.00	--	--	--	--	--	--
	10/28/93	13.23	--	0.00	--	--	--	--	--	--
	11/30/93	INACCESSIBLE	--	--	--	--	--	--	--	--
	02/16/94	12.43	69.18	0.00	ND	ND	ND	ND	ND	--
	05/31/94	12.69	68.92	0.00	ND	ND	0.9	ND	0.91	--
	08/31/94	13.47	68.14	0.00	ND	ND	0.64	ND	0.54	--
	09/27/94	13.72	67.89	0.00	--	--	--	--	--	--
	10/11/94	14.80	66.81	0.00	--	--	--	--	--	--
	11/10/94	12.64	68.97	0.00	ND	ND	ND	ND	ND	--
	02/07/95	10.29	71.32	0.00	SAMPLED SEMI-ANNUALLY			--	--	--
	05/03/95	10.22	71.39	0.00	ND	ND	ND	ND	0.65	--
	08/03/95	11.73	69.88	0.00	--	--	--	--	--	--
	11/07/95	12.98	68.63	0.00	ND	ND	ND	ND	ND	--
05/06/96	10.90	70.71	0.00	SAMPLING DISCONTINUED ⁴			--	--	--	
11/05/96	11.96	69.65	0.00	--	--	--	--	--	--	

Table 1
Groundwater Monitoring Data and Analytical Results
 Tosco (Unocal) Service Station #0746
 3943 Broadway
 Oakland, 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)
MW-10	05/15/97	10.79	70.82	0.00	--	--	--	--	--	--
(cont)	11/12/97	10.07	71.54	0.00	--	--	--	--	--	--
	05/04/98	10.01	71.60	0.00	--	--	--	--	--	--
	11/11/98	12.03	69.58	0.00	--	--	--	--	--	--
	05/20/99	10.05	71.56	0.00	--	--	--	--	--	--
	11/15/99	10.16	71.45	0.00	--	--	--	--	--	--
	05/22/00	10.06	71.55	0.00	--	--	--	--	--	--
	11/22/00	10.12	71.49	0.00	--	--	--	--	--	--
MW-11	02/06/92	--	--	--	ND	ND	ND	ND	ND	--
	05/23/92	--	--	--	ND	ND	ND	ND	ND	--
	08/26/92	--	--	--	ND	ND	ND	ND	ND	--
	11/20/92	--	--	--	ND	ND	ND	ND	ND	--
78.43	12/21/92	12.34	66.09	0.00	--	--	--	--	--	--
	01/30/93	14.17	64.26	0.00	--	--	--	--	--	--
	02/24/93	12.70	65.73	0.00	ND	ND	ND	ND	ND	--
	03/22/93	8.95	69.48	0.00	--	--	--	--	--	--
	04/28/93	13.87	64.56	0.00	--	--	--	--	--	--
	05/25/93	15.14	63.29	0.00	ND	ND	0.75	ND	1.0	--
78.18	06/23/93	15.08	63.10	0.00	--	--	--	--	--	--
	07/22/93	15.46	62.72	0.00	--	--	--	--	--	--
	08/25/93	14.10	64.08	0.00	ND	ND	ND	ND	ND	--
	09/22/93	15.03	63.15	0.00	--	--	--	--	--	--
	10/28/93	13.84	64.34	0.00	--	--	--	--	--	--
	11/30/93	13.04	65.14	0.00	ND	ND	ND	ND	ND	--
	02/16/94	12.76	65.42	0.00	ND	ND	ND	ND	ND	--
	05/31/94	12.79	65.39	0.00	ND	ND	ND	ND	ND	--
	08/31/94	12.97	65.21	0.00	ND	ND	1.5	ND	1.8	--
	09/27/94	14.88	63.30	0.00	--	--	--	--	--	--
	10/11/94	13.40	64.78	0.00	--	--	--	--	--	--
	11/10/94	13.57	64.61	0.00	ND	ND	ND	ND	ND	--
	02/07/95	12.28	65.90	0.00	SAMPLED SEMI-ANNUALLY			--	--	--

Table 1
Groundwater Monitoring Data and Analytical Results
 Tosco (Unocal) Service Station #0746
 3943 Broadway
 Oakland, 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)
MW-11	05/03/95	9.28	68.90	0.00	ND	ND	ND	ND	ND	--
(cont)	08/03/95	12.67	65.51	0.00	--	--	--	--	--	--
	11/07/95	12.28	65.90	0.00	ND	ND	ND	ND	ND	--
	05/06/96	13.30	64.88	0.00	SAMPLING DISCONTINUED ⁴					--
	11/05/96	10.90	67.28	0.00	--	--	--	--	--	--
	05/15/97	11.65	66.53	0.00	--	--	--	--	--	--
	11/12/97	9.66	68.52	0.00	--	--	--	--	--	--
	05/04/98	10.87	67.31	0.00	--	--	--	--	--	--
	11/11/98	11.40	66.78	0.00	--	--	--	--	--	--
NP	05/20/99	10.71	67.47	0.00	ND	ND	ND	ND	ND	ND
	11/15/99	11.32	66.86	0.00	ND	ND	1.04	ND	ND	ND
	05/22/00	10.98	67.20	0.00	ND	ND	ND	ND	ND	ND
	11/22/00	11.17	67.01	0.00	ND	ND	ND	ND	ND	ND
MW-12	08/26/92	--	--	--	ND	ND	ND	ND	ND	--
	11/20/92	--	--	--	ND	ND	ND	ND	ND	--
79.89	12/21/92	12.11	67.78	0.00	--	--	--	--	--	--
	01/30/93	13.18	66.71	0.00	--	--	--	--	--	--
	02/24/93	12.13	67.76	0.00	ND	ND	ND	ND	ND	--
	03/22/93	11.22	68.67	0.00	--	--	--	--	--	--
	04/28/93	13.42	66.47	0.00	--	--	--	--	--	--
	05/25/93	13.68	66.21	0.00	ND	ND	ND	ND	ND	--
79.61	06/23/93	14.56	65.05	0.00	--	--	--	--	--	--
	07/22/93	14.96	64.65	0.00	--	--	--	--	--	--
	08/25/93	13.61	66.00	0.00	ND	ND	ND	ND	ND	--
	09/22/93	15.02	64.59	0.00	--	--	--	--	--	--
	10/28/93	14.04	65.57	0.00	--	--	--	--	--	--
	11/30/93	13.28	66.33	0.00	ND	ND	ND	ND	ND	--
	02/16/94	12.76	66.85	0.00	ND	ND	ND	ND	ND	--
	08/31/94	12.82	66.79	0.00	ND	ND	1.0	ND	1.0	ND
	05/31/94	12.64	66.97	0.00	ND	ND	0.81	ND	0.82	--
	09/27/94	14.66	64.95	0.00	--	--	--	--	--	--

Table 1
Groundwater Monitoring Data and Analytical Results
 Tosco (Unocal) Service Station #0746
 3943 Broadway
 Oakland, 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)
MW-12	10/11/94	14.25	65.36	0.00	--	--	--	--	--	--
(cont)	11/10/94	13.40	66.21	0.00	ND	ND	ND	ND	ND	--
	02/07/95	11.72	67.89	0.00	SAMPLED SEMI-ANNUALLY			--	--	--
	05/03/95	13.38	66.23	0.00	ND	ND	ND	ND	ND	--
	08/03/95	13.47	66.14	0.00	--	--	--	--	--	--
	11/07/95	12.78	66.83	0.00	ND	ND	ND	ND	ND	--
	05/06/96	13.25	66.36	0.00	SAMPLING DISCONTINUED ⁴			--	--	--
	11/05/96	11.88	67.73	0.00	--	--	--	--	--	--
	05/15/97	11.72	67.89	0.00	--	--	--	--	--	--
	11/12/97	10.01	69.60	0.00	--	--	--	--	--	--
	05/04/98	10.96	68.65	0.00	--	--	--	--	--	--
	11/11/98	11.53	68.08	0.00	--	--	--	--	--	--
	05/20/99	10.84	68.77	0.00	--	--	--	--	--	--
	11/15/99	11.36	68.25	0.00	--	--	--	--	--	--
	05/22/00	11.19	68.42	0.00	--	--	--	--	--	--
	11/22/00	11.36	68.25	0.00	--	--	--	--	--	--
RW-1										
81.20	02/24/93	7.19	74.01	0.00	--	--	--	--	--	--
	05/12/93	8.82	72.38	0.00	--	--	--	--	--	--
	05/25/93	8.58	72.62	0.00	--	--	--	--	--	--
80.63	06/07/93	8.16	72.47	0.00	--	--	--	--	--	--
	06/23/93	8.53	72.10	0.00	--	--	--	--	--	--
	07/08/93	8.69	71.94	0.00	--	--	--	--	--	--
	08/11/93	9.00	71.63	0.00	--	--	--	--	--	--
	08/25/93	9.07	71.56	0.00	--	--	--	--	--	--
	09/08/93	9.71	70.92	0.00	--	--	--	--	--	--
	09/22/93	9.25	71.38	0.00	--	--	--	--	--	--
	11/12/93	9.00	71.63	<0.01	--	--	--	--	--	--

Table 1
Groundwater Monitoring Data and Analytical Results
 Tosco (Unocal) Service Station #0746
 3943 Broadway
 Oakland, 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)
RW-1	02/16/94	7.82	72.81	0.00	--	--	--	--	--	--
(cont)	05/31/94	8.81	71.82	0.00	--	--	--	--	--	--
	08/31/94	9.61	71.02	0.00	--	--	--	--	--	--
	11/10/94	6.34	74.29	0.00	--	--	--	--	--	--
	02/07/95	7.18	73.45	0.00	--	--	--	--	--	--
	03/14/95	6.01	74.62	0.00	--	--	--	--	--	--
Trip Blank										
TB-LB	05/04/98	--	--	--	ND	ND	ND	ND	ND	ND
	11/11/98	--	--	--	ND	ND	ND	ND	ND	ND
	05/20/99	--	--	--	ND	ND	ND	ND	ND	ND
	11/15/99	--	--	--	ND	ND	1.12	ND	ND	ND
	05/22/00	--	--	--	ND	ND	ND	ND	ND	ND
	11/22/00	--	--	--	ND	ND	ND	ND	ND	ND

Table 1
Groundwater Monitoring Data and Analytical Results
 Tosco (Unocal) Service Station #0746
 3943 Broadway
 Oakland, California

EXPLANATIONS:

Groundwater monitoring data and laboratory analytical results prior to May 4, 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	NP = No Purge
(msl) = 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) per the City of Oakland Benchmark BM#1336 (Elevation = 82.28 feet msl).
Prior to June 7, 1993, DTW measurements were taken from the top of well covers.
- ** Groundwater elevation corrected due to the presence of free product; correction factor: [(TOC-DTW)+(Product Thickness x 0.75)].
- 1 Laboratory report indicates the hydrocarbons detected did not appear to be gasoline.
- 2 Laboratory report indicates the hydrocarbons detected appeared to be a gasoline and non-gasoline mixture.
- 3 Laboratory has identified the presence of MTBE at a level greater than or equal to the taste and odor threshold of 40 ppb in the sample collected from this well.
- 4 Sampling discontinued per Alameda County Health Care Services' letter dated January 24, 1996.
- 5 Detection limit raised. Refer to analytical reports.
- 6 Twelve minutes after water/product was bailed, well was monitored again, (DTW = 8.06 ft. and Product Thickness 0.04 ft.).
- 7 MTBE by EPA Method 8260.
- 8 Sample analyzed past hold time (June 9, 1999).
- 9 First run on MTBE by EPA Method 8260 was 92 ppb and analyzed past hold time (June 9, 1999).
- 10 First run on MTBE by EPA Method 8260 was 12 ppb and analyzed past hold time (June 9, 1999).
- 11 Laboratory report indicates gasoline C6-C12.
- 12 MTBE by EPA Method 8260 analyzed outside the EPA recommended holding time.
- 13 Less than 1 ounce of product found in skimmer.
- 14 1.5 ounces of product found in skimmer.
- 15 Laboratory report indicates weathered gasoline C6-C12.
- 16 Skimmer not present in well.

Table 2
Dissolved Oxygen Concentrations
 Tosco (Unocal) Service Station #0746
 3943 Broadway
 Oakland, California

WELL ID	DATE	Before Purging (mg/L)	After Purging (mg/L)
MW-1	05/06/96	5.21	4.13
	11/05/96	3.12	-- ¹
	05/15/97	3.92	-- ¹
	11/12/97	4.16	-- ¹
	05/04/98	3.84	-- ¹
	11/11/98	2.85	-- ¹
	05/20/99	3.30	-- ¹
MW-2	08/19/95	--	2.77
	05/15/97	3.01	-- ¹
	11/12/97	3.27	-- ¹
	05/04/98	3.63	-- ¹
MW-3	08/19/95	--	2.06
	11/07/95	--	1.68
	05/06/96	3.18	3.40
	11/05/96	2.03	-- ¹
	05/15/97	3.08	-- ¹
	05/04/98	2.98	-- ¹
	11/11/98	2.22	-- ¹
	05/20/99	2.60	-- ¹
MW-4	08/19/95	--	2.19
	11/07/95	--	8.43
	05/06/96	3.75	5.97
	11/05/96	2.11	-- ¹
	05/15/97	3.24	-- ¹
	11/12/97	3.11	-- ¹
	05/04/98	3.73	-- ¹
	11/11/98	4.33	-- ¹
	05/20/99	3.90	-- ¹
MW-5	08/19/95	--	2.09
	11/07/95	--	1.79
	05/06/96	2.91	1.80
	11/05/96	1.85	-- ¹
	05/15/97	2.10	-- ¹
	11/12/97	1.98	-- ¹
	05/04/98	1.69	-- ¹
MW-6	05/15/97	2.90	-- ¹
	05/04/98	3.57	-- ¹

Table 2
Dissolved Oxygen Concentrations
 Tosco (Unocal) Service Station #0746
 3943 Broadway
 Oakland, California

WELL ID	DATE	Before Purging (mg/L)	After Purging (mg/L)
MW-7	05/15/97	2.21	-- ¹
	05/04/98	3.09	-- ¹
MW-8	11/05/96	INACCESSIBLE (PARKED OVER)	
	05/15/97	2.88	-- ¹
	11/12/97	INACCESSIBLE (PARKED OVER)	
	05/04/98	INACCESSIBLE (PARKED OVER)	
	11/11/98	INACCESSIBLE (PARKED OVER)	
	05/20/99	3.55	-- ¹
MW-9	05/06/96	4.23	3.25
	11/05/96	2.98	-- ¹
	05/15/97	3.04	-- ¹
	11/12/97	4.02	-- ¹
	05/04/98	3.41	-- ¹
	11/11/98	5.19	-- ¹
	05/20/99	4.46	-- ¹
MW-10	05/15/97	1.61	-- ¹
	05/04/98	2.85	-- ¹
MW-11	05/15/97	1.68	-- ¹
	05/04/98	2.94	-- ¹
	05/20/99	3.22	-- ¹
MW-12	05/15/97	2.10	-- ¹
	05/04/98	3.41	-- ¹
RW-1	11/07/95	--	2.13

EXPLANATIONS:

Dissolved oxygen concentrations prior to May 4, 1998, were compiled from reports prepared by MPDS Services, Inc.

(mg/L) = milligrams per liter

-- = Not Measured

¹ Wells were not purged prior to sampling.

Table 3
Product Thickness/Removal Data
 Tosco (Unocal) Service Station #0746
 3943 Broadway
 Oakland, California

WELL ID	DATE	DTW (ft.)	Product Thickness (ft.)	Amount Bailed Product	Amount Bailed Water	Amount Bailed (Product + Water)
MW-5	11/11/98	9.23	0.37	--	--	0.25 gallons
	02/22/99	7.69	0.25	5 oz.	3 gallons	--
	04/02/99 ^{1,2}	8.19	0.28	9 oz.	20 oz.	29 oz.
	05/04/99	8.44	0.01	--	--	--
	05/20/99	8.73	0.04	--	--	1 oz.
	06/29/99	8.91	0.05	--	--	4 oz.
	07/29/99	9.12	0.07	4 oz.	8 oz.	12 oz.
	08/24/99	9.37	0.09	--	--	4 oz.
	09/27/99	9.51	0.06	--	--	3.5 oz.
	10/28/99 ³	--	0.05	--	--	3.0 oz.
	11/15/99	9.29	Sheen	--	--	16 oz.
	12/20/99	9.14	0.00	-- ⁴	--	<1.0 oz
	01/20/00	9.08	0.00	-- ⁴	--	<1.0 oz
	02/26/00	8.69	0.00	-- ⁴	--	<1.0 oz
	03/31/00	8.48	0.00	-- ⁴	--	<1.0 oz
	04/13/00	8.66	0.00	0.00	0.00	0.00
	05/22/00	9.06	0.00	-- ⁵	--	1.5 oz.
	11/22/00 ⁶	9.24	0.67	15 oz.	3 gallons	3.12 gallons

EXPLANATIONS:

DTW = Depth to water

(ft.) = Feet

oz. = ounces

-- = Not Measured

¹ A new skimmer (Petro Trap) was installed.

² Twelve minutes after water/product was bailed, well was monitored again, (DTW = 8.06 ft. and Product Thickness 0.04 ft.).

³ Replaced skimmer.

⁴ Less than 1 oz. Of product found in skimmer.

⁵ 1.5 oz. of product found in skimmer.

⁶ Skimmer not present in well.

Table 4
Groundwater Analytical Results - Oxygenate Compounds
 Tosco (Unocal) Service Station #0746
 3943 Broadway
 Oakland, California

WELL ID	DATE	ETHANOL (ppb)	TBA (ppb)	MTBE (ppb)	DIPE (ppb)	ETBE (ppb)	TAME (ppb)
MW-1	05/20/99 ^{1,3}	ND	ND	² 92/47	ND	ND	ND
	11/15/99 ⁴	ND	ND	7.19	ND	ND	ND
	05/22/00 ⁴	ND	130	290	ND	ND	ND
	11/22/00	-- ⁶	-- ⁶	142	ND	ND	ND
MW-3	05/22/00 ⁴	ND	ND	94	ND	ND	ND
	11/22/00	-- ⁶	-- ⁶	131	ND	ND	ND
MW-5	05/22/00 ⁴	ND ⁵	ND ⁵	21	ND ⁵	ND ⁵	ND ⁵
MW-8	05/20/99 ^{1,3}	ND	ND	² 12/10	ND	ND	ND
	11/15/99 ⁴	ND ⁵	ND ⁵	45.1	ND ⁵	ND ⁵	ND ⁵

EXPLANATIONS:

TBA = Tertiary butyl alcohol
 MTBE = Methyl tertiary butyl ether
 DIPE = Di-isopropyl ether
 ETBE = Ethyl tertiary butyl ether
 TAME = Tertiary amyl methyl ether

(ppb) = Parts per billion
 ND = Not Detected

ANALYTICAL METHOD:

EPA Method 8260 for Oxygenate Compounds

- ¹ Analyzed past hold time (June 9, 1999).
- ² First run MTBE was for qualitative use only.
- ³ Report revised July 6, 1999.
- ⁴ Laboratory report indicates sample was analyzed past holding time.
- ⁵ Detection limit raised. Refer to analytical reports.
- ⁶ Laboratory did not analyze for Ethanol and TBA.

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 an 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 # 0746
Address: 3943 Broadway
City: Oakland

Job#: 180063
Date: 11-22-00
Sampler: Joe

Well ID MW-1
Well Diameter 2 in
Total Depth 19.90 ft
Depth to Water 7.35 ft

Well Condition: O.K.

Hydrocarbon Thickness:	<u>0</u> in	Amount Bailed (product/water):	<u>0</u> (gal)
Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.65
	6" = 1.50	12" = 5.50	

12.55 x VF 0.17 = 2.13 x 3 (case volume) = Estimated Purge Volume: 6.5 (gal)

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

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

Starting Time: 10:37
Sampling Time: 11:00 A.M.
Purging Flow Rate: 1 gpm
Did well de-water? _____

Weather Conditions: cloudy
Water Color: clear Odor: none
Sediment Description: none
If yes; Time: _____ Volume: _____ (gal)

Time	Volume (gal)	pH	Conductivity $\mu\text{mhos/cm}$	Temperature F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>10:46</u>	<u>2</u>	<u>7.40</u>	<u>5.85</u>	<u>73.6</u>			
<u>10:48</u>	<u>4</u>	<u>7.50</u>	<u>5.90</u>	<u>73.7</u>			
<u>10:49</u>	<u>6.5</u>	<u>7.43</u>	<u>5.96</u>	<u>73.8</u>			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-1</u>	<u>3V0A</u>	<u>Y</u>	<u>HCL</u>	<u>Sequoia</u>	<u>TPH, BTEX, MTBE</u>

COMMENTS: _____

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Client/
Facility # 0746
Address: 3943 Broadway
City: Oakland

Job#: 180063
Date: 11-22-00
Sampler: Joe

Well ID MW-2

Well Condition: o.k.

Well Diameter 2 in

Hydrocarbon Thickness: 0 in Amount Bailed (product/water): 0 (gal)

Total Depth 19.96 +

Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66
	6" = 1.50	12" = 5.50	

Depth to Water 8.64 +

 x VF 0.17 = 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: cloudy

Sampling Time:

Water Color: clear Odor:

Purging Flow Rate: gpm

Sediment Description: None

Did well de-water?

If yes; Time: Volume: (gal)

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

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-	3YOA	Y	HCL	Sequoia	TPH, BTEX, MTBC

COMMENTS: M - only

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/
Facility # 0746
Address: 3943 Broadway
City: Oakland

Job#: 180063
Date: 11-22-00
Sampler: Joe

Well ID MW-3
Well Diameter 2 in
Total Depth 22.43 +
Depth to Water 9.33 +

Well Condition: O.K.

Hydrocarbon Thickness: 0 in Amount Bailed (product/water): 0 (gal)

Volume	2" = 0.17	3" = 0.38	4" = 0.66
Factor (VF)	6" = 1.50	12" = 5.50	

13.1 x VF 0.17 = 2.23 x 3 (case volume) = Estimated Purge Volume: 7 (gal)

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

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

Starting Time: 11:10 Weather Conditions: cloudy
Sampling Time: 11:30 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 $\mu\text{mhos/cm}$	Temperature F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>11:20</u>	<u>2.5</u>	<u>6.86</u>	<u>1.86</u>	<u>72.2</u>			
<u>11:22</u>	<u>5</u>	<u>6.85</u>	<u>1.87</u>	<u>73.0</u>			
<u>11:23</u>	<u>7</u>	<u>6.94</u>	<u>1.90</u>	<u>73.4</u>			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-3</u>	<u>3V0A</u>	<u>Y</u>	<u>HCL</u>	<u>Sequoia</u>	<u>TPH, BTEX, MTBC</u>

COMMENTS: _____

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Client/
Facility # 0746
Address: 3943 Broadway
City: Oakland

Job#: 180063
Date: 11-22-00
Sampler: Joe

Well ID MW-4
Well Diameter 2 in
Total Depth 20.03 ft
Depth to Water 8.91 ft

Well Condition: O.K.

Hydrocarbon Thickness:	<u>0</u> in	Amount Bailed (product/water):	<u>0</u> (gal)
Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66
	6" = 1.50	12" = 5.50	

11.12 X VF 0.17 = 1.89 X 3 (case volume) = Estimated Purge Volume: 6 (gal)

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

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

Starting Time: 11:43
Sampling Time: 12:21 P.M.
Purging Flow Rate: 1 gpm
Did well de-water? _____

Weather Conditions: cloudy
Water Color: clear Odor: none
Sediment Description: none
If yes: Time: _____ Volume: _____ (gal)

Time	Volume (gal)	pH	Conductivity $\mu\text{mhos/cm}$ ¹⁰	Temperature F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>11:50</u>	<u>2</u>	<u>8.08</u>	<u>8.32</u>	<u>71.6</u>			
<u>11:52</u>	<u>4</u>	<u>7.59</u>	<u>8.35</u>	<u>71.4</u>			
<u>11:53</u>	<u>6</u>	<u>7.47</u>	<u>8.39</u>	<u>71.5</u>			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-4</u>	<u>3VOA</u>	<u>Y</u>	<u>HCL</u>	<u>Sequoia</u>	<u>TPH, BTEX, MTBE</u>

COMMENTS: _____

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Client/
Facility # 0746
Address: 3943 Broadway
City: Oakland

Job#: 180063
Date: 11-22-00
Sampler: Joe

Well ID MW-5
Well Diameter 2 in
Total Depth 20.18 ft
Depth to Water 9.24 ft

Well Condition: O.K.
Hydrocarbon Thickness: 0.67'
Amount Bailed (product/water): 15 ounces FP / 3 q. water
Volume Factor (VF):

2" = 0.17	3" = 0.38	4" = 0.66
6" = 1.50	12" = 5.50	

_____ X VF 0.17 = _____ 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: cloudy
Sampling Time: _____ Water Color: clear Odor: _____
Purging Flow Rate: _____ gpm Sediment Description: None
Did well de-water? _____ If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity (umhos/cm)	Temperature (F)	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-</u>	<u>3YOA</u>	<u>Y</u>	<u>HCL</u>	<u>Sequoia</u>	<u>TPNG, STEX, MTEC</u>

COMMENTS: No skimmer found in well. Dark, strong odored FP removed and stored in Amber bottle. After it was double zip-locked. FP was disposed at Sequoia Lab.

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Client/
Facility # 0746
Address: 3943 Broadway
City: Oakland

Job#: 180063
Date: 11-22-00
Sampler: Joe

Well ID: MW-6
Well Diameter: 2 in
Total Depth: 19.78 +
Depth to Water: 7.40 +

Well Condition: o.k.

Hydrocarbon Thickness:	<u>0</u> in	Amount Bailed (product/water):	<u>0</u> (gal)
Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66
	6" = 1.50	12" = 5.50	

0.17 X VF = 0.17 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: cloudy
 Sampling Time: _____ Water Color: clear Odor: _____
 Purging Flow Rate: _____ gpm Sediment Description: none
 Did well de-water? _____ If yes, Time: _____ Volume: _____ (gal)

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

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-</u>	<u>3Y0A</u>	<u>Y</u>	<u>HCL</u>	<u>Sequoia</u>	<u>TPHG, BTEX, MTBE</u>

COMMENTS: M. only

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Client/
Facility # 0746
Address: 3943 Broadway
City: Oakland

Job#: 180063
Date: 11-22-00
Sampler: Joe

Well ID MW-7
Well Diameter 2 in
Total Depth 18.50 ft
Depth to Water 8.30 ft

Well Condition: o.k.

Hydrocarbon Thickness: 0 in Amount Bailed (product/water): 0 (gal)

Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66
	6" = 1.50	12" = 5.50	

 X VF 0.17 = 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:
Sampling Time:
Purging Flow Rate: gpm
Did well de-water?

Weather Conditions: cloudy
Water Color: clear Odor:
Sediment Description: none
If yes: Time: Volume: (gal)

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

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-	3 VOL	Y	HCL	Sequoia	TPH, BTEX, MTBE

COMMENTS: M. only

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Client/
Facility # 0746
Address: 3943 Broadway
City: Oakland

Job#: 180063
Date: 11-22-00
Sampler: Joe

Well ID MW-8
Well Diameter 2 in
Total Depth 21.40
Depth to Water 9.76

Well Condition: o.k.
Hydrocarbon Thickness: 0 in (product/water): 0 (gal)
Amount Bailed
Volume Factor (VF)
2" = 0.17 3" = 0.38 4" = 0.66
6" = 1.50 12" = 5.50

0.17 X VF = 0.17 X 3 (case volume) = Estimated Purge Volume: 0.51 (gal)

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

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

Starting Time: 1:22 Weather Conditions: cloudy
Sampling Time: 1:35 PM 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 (µmhos/cm)	Temperature (F)	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
/	/	/	/	/	/	/	/
/	/	/	/	/	/	/	/
/	/	/	/	/	/	/	/
/	/	/	/	/	/	/	/
/	/	/	/	/	/	/	/

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-8	3VOL	Y	HCL	Sequoia	TPHG, BTEX, MTBE

COMMENTS: No purge^{grab} sample. Barely enough room. Fightily packed cars - owner refuses to move.

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Client/
Facility # 0746
Address: 3943 Broadway
City: Oakland

Job #: 180063
Date: 11-22-00
Sampler: Joe

Well ID MW-9
Well Diameter 2 in
Total Depth 21.93 ft
Depth to Water 9.08 ft

Well Condition: O.K.

Hydrocarbon Thickness: 0 in. Amount Bailed (product/water): 0 (gal)

Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66
	6" = 1.50	12" = 5.50	

12.85 x VF 0.17 = 2.18 x 3 (case volume) = Estimated Purge Volume: 6.5 (gal)

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

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

Starting Time: 1:42
Sampling Time: 2:10 P.M.
Purging Flow Rate: 0.2 gpm
Did well de-water? _____

Weather Conditions: cloudy
Water Color: clear Odor: none
Sediment Description: none
If yes, Time: _____ Volume: _____ (gal)

Time	Volume (gal)	pH	Conductivity (umhos/cm) ¹⁰⁰	Temperature (F)	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>1:50</u>	<u>2</u>	<u>7.40</u>	<u>8.18</u>	<u>65.6</u>			
<u>1:53</u>	<u>4</u>	<u>7.28</u>	<u>8.20</u>	<u>65.1</u>			
<u>1:57</u>	<u>6.5</u>	<u>7.31</u>	<u>8.24</u>	<u>65.2</u>			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-9</u>	<u>3YOA</u>	<u>Y</u>	<u>HCL</u>	<u>Sequoia</u>	<u>TPHC, BTEX, MTBE</u>

COMMENTS: _____

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Client/
Facility # 0746
Address: 3943 Broadway
City: Oakland

Job#: 180063
Date: 11-22-00
Sampler: Joe

Well ID MW-10
Well Diameter 2 in
Total Depth 21.78 +
Depth to Water 10.12 +

Well Condition: O.K.

Hydrocarbon Thickness: 0 in Amount Bailed (product/water): 0 (gal)

Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66
	6" = 1.50	12" = 5.50	

 x VF 0.17 = 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:
Sampling Time:
Purging Flow Rate: gpm
Did well de-water?

Weather Conditions: cloudy
Water Color: clear Odor:
Sediment Description: none
If yes; Time: Volume: (gal)

Time	Volume (gal.)	pH	Conductivity (umhos/cm) ¹⁰	Temperature (F)	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-</u>	<u>3V0A</u>	<u>Y</u>	<u>HCL</u>	<u>Sequoia</u>	<u>TPH, BTEX, MTBE</u>

COMMENTS: M. only

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Client/
Facility # 0746
Address: 3943 Broadway
City: Oakland

Job#: 180063
Date: 11-22-00
Sampler: Joe

Well ID MW-11
Well Diameter 2 in.
Total Depth 19.20 +
Depth to Water 11.17 +

Well Condition: O.K.
Hydrocarbon Thickness: 0 in. Amount Bailed (product/water): 0 gal

Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66
	6" = 1.50	12" = 5.50	

8.03 x VF 0.17 = 1.37 x 3 (case volume) = Estimated Purge Volume: 4 (gal)

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

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

Starting Time: 12:40 Weather Conditions: cloudy
Sampling Time: 1:05 P.M. Water Color: clear Odor: none
Purging Flow Rate: 0.5 gpm Sediment Description: none
Did well de-water? _____ If yes, Time: _____ Volume: _____ (gal)

Time	Volume (gal.)	pH	Conductivity (umhos/cm) ¹⁰⁰	Temperature F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>12:49</u>	<u>1.5</u>	<u>7.72</u>	<u>7.95</u>	<u>65.2</u>			
<u>12:53</u>	<u>3</u>	<u>7.70</u>	<u>10.63</u>	<u>65.1</u>			
<u>12:57</u>	<u>4</u>	<u>7.65</u>	<u>10.64</u>	<u>65.4</u>			
_____	_____	_____	_____	_____	_____	_____	_____

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-11</u>	<u>3 VOA</u>	<u>Y</u>	<u>HCL</u>	<u>Sequoia</u>	<u>TPH, BTEX, MTBE</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

COMMENTS: _____

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Client/
Facility # 0746
Address: 3943 Broadway
City: Oakland

Job#: 180063
Date: 11-22-00
Sampler: Joe

Well ID MW-12
Well Diameter 2 in
Total Depth 17.65 +
Depth to Water 11.36 +

Well Condition: o.k.

Hydrocarbon Thickness:	<u>0</u> in.	Amount Bailed (product/water):	<u>0</u> gal
Volume Factor (VF)	2' = 0.17	3' = 0.38	4' = 0.66
	6' = 1.50	12' = 5.50	

 x VF 0.17 = 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:
Sampling Time:
Purging Flow Rate: gpm
Did well de-water?

Weather Conditions: cloudy
Water Color: clear Odor:
Sediment Description: none
If yes; Time: Volume: (gal)

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

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-</u>	<u>3 VOL</u>	<u>Y</u>	<u>HCL</u>	<u>Sequoia</u>	<u>TPHG, BTEX, MTBE</u>

COMMENTS: M. Only



Tosco Marketing Company
3500 Civic Center Pl., Ste. 400
San Ramon, California 94583

Facility Number UNOCAL SS#BP0746
 Facility Address 3943 BROADWAY, OAKLAND, CA
180063.85
 Consultant Project Number 180063.85
 Consultant Name Gettler-Ryan Inc. (G-R Inc.)
 Address 6747 Sierra Court, Suite I, Dublin, CA 94568
 Project Contact (Name) Deanna L. Harding
 (Phone) 510-551-7555 (Fax Number) 510-551-7888

Contact (Name) Dennis DeWitt
 (Phone) 925-277-2384
 Laboratory Name Sequoia Analytical
 Laboratory Release Number _____
 Samples Collected by (Name) JOE AJEMIAN
 Collection Date 11-22-00
 Signature [Signature]

Sample Number	Lab Sample Number	Number of Containers	Matrix S = Soil W = Water C = Charcoal	Type G = Grab C = Composites D = Discrete	Time	Sample Preservation	Iced (Yes or No)	Analyses To Be Performed														
								TPH Gas + STEK W/MTBE (8018)	TPH Dissolved (8015)	Oil and Grease (8026)	Purgeable Hydrocarbons (8010)	Purgeable Aromatics (8020)	Purgeable Organics (8240)	Extractable Organics (8270)	Metals Cd, Cr, Pb, Zn, Ni (ICAP or AA)							
TB-LB	01	1	W	G	-	HCL	Y	✓														
MW-1	02	3	/	/	11:00 AM	/	/	✓														
MW-3	03	"	/	/	11:30 AM	/	/	✓														
MW-4	04	"	/	/	12:21 PM	/	/	✓														
MW-8	05	"	/	/	1:35 PM	/	/	✓														
MW-9	06	"	/	/	2:00 PM	/	/	✓														
MW-11	07	"	/	/	1:05 PM	/	/	✓														

DO NOT BILL
TB-LB ANALYSIS

* CONFIRM
ANY MTBE HIT
BY RUNNING
10% Dilution
Remarks: [Signature]

LO11224

Relinquished By (Signature) <u>[Signature]</u>	Organization G-R Inc.	Date/Time 11-22-00	Received By (Signature) <u>[Signature]</u>	Organization SP2	Date/Time 11/22/00
Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
Relinquished By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature)		Date/Time

Turn Around Time (Circle Choice)
 24 Hrs.
 48 Hrs.
 5 Days
 10 Days
 As Contracted



Sequoia Analytical

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December 8, 2000

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

RE: Tosco(4)/L011224

Dear Deanna Harding

Enclosed are the results of analyses for sample(s) received by the laboratory on November 22, 2000. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Latonya Pelt
Project Manager

CA ELAP Certificate Number I2360





Gettler-Ryan/Geostrategies(1) 6747 Sierra Court, Suite J Dublin, CA 94568	Project: Tosco(4) Project Number: UNOCAL SS#BP0746/3943 BROADWAY Project Manager: Deanna Harding	Sampled: 11/22/00 Received: 11/22/00 Reported: 12/8/00
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ANALYTICAL REPORT FOR L011224

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
TB-LB	L011224-01	Water	11/22/00
MW-1	L011224-02	Water	11/22/00
MW-3	L011224-03	Water	11/22/00
MW-4	L011224-04	Water	11/22/00
MW-8	L011224-05	Water	11/22/00
MW-9	L011224-06	Water	11/22/00
MW-11	L011224-07	Water	11/22/00





Gettler-Ryan/Geostrategies(1)	Project: Tosco(4)	Sampled: 11/22/00
6747 Sierra Court, Suite J	Project Number: UNOCAL SS#BP0746/3943 BROADWAY	Received: 11/22/00
Dublin, CA 94568	Project Manager: Deanna Harding	Reported: 12/8/00

**Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT
Sequoia Analytical - San Carlos**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
				<u>L011224-01</u>				
<u>TB-LB</u>								<u>Water</u>
Purgeable Hydrocarbons as Gasoline	0120010	12/4/00	12/4/00		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	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>	"	"	"	70.0-130		93.1	%	
				<u>L011224-02</u>				
<u>MW-1</u>								<u>Water</u>
Purgeable Hydrocarbons as Gasoline	0120010	12/4/00	12/4/00		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	105	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>	"	"	"	70.0-130		76.9	%	
				<u>L011224-03</u>				
<u>MW-3</u>								<u>Water</u>
Purgeable Hydrocarbons as Gasoline	0120011	12/4/00	12/4/00		500	6130	ug/l	1
Benzene	"	"	"		5.00	93.7	"	
Toluene	"	"	"		5.00	6.71	"	
Ethylbenzene	"	"	"		5.00	174	"	
Xylenes (total)	"	"	"		5.00	47.8	"	
Methyl tert-butyl ether	"	"	"		50.0	212	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>	"	"	"	70.0-130		101	%	
				<u>L011224-04</u>				
<u>MW-4</u>								<u>Water</u>
Purgeable Hydrocarbons as Gasoline	0120010	12/4/00	12/4/00		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	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>	"	"	"	70.0-130		71.4	%	
				<u>L011224-05</u>				
<u>MW-8</u>								<u>Water</u>
Purgeable Hydrocarbons as Gasoline	0120010	12/4/00	12/4/00		50.0	ND	ug/l	
Benzene	"	"	"		0.500	ND	"	
Toluene	"	"	"		0.500	1.16	"	
Ethylbenzene	"	"	"		0.500	ND	"	
Xylenes (total)	"	"	"		0.500	1.22	"	





Gettler-Ryan/Geostrategies(1) 6747 Sierra Court, Suite J Dublin, CA 94568	Project: Tosco(4) Project Number: UNOCAL SS#BP0746/3943 BROADWAY Project Manager: Deanna Harding	Sampled: 11/22/00 Received: 11/22/00 Reported: 12/8/00
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**Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT
Sequoia Analytical - San Carlos**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
MW-8 (continued)				<u>L011224-05</u>			<u>Water</u>	
Methyl tert-butyl ether	0120010	12/4/00	12/4/00		5.00	ND	ug/l	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	70.0-130		76.5	%	
MW-9				<u>L011224-06</u>			<u>Water</u>	
Purgeable Hydrocarbons as Gasoline	0120010	12/4/00	12/4/00		50.0	ND	ug/l	
Benzene	"	"	"		0.500	ND	"	
Toluene	"	"	"		0.500	1.18	"	
Ethylbenzene	"	"	"		0.500	ND	"	
Xylenes (total)	"	"	"		0.500	1.16	"	
Methyl tert-butyl ether	"	"	"		5.00	ND	"	
Surrogate: a,a,a-Trifluorotoluene	"	"	"	70.0-130		81.4	%	
MW-11				<u>L011224-07</u>			<u>Water</u>	
Purgeable Hydrocarbons as Gasoline	0120010	12/4/00	12/4/00		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: a,a,a-Trifluorotoluene	"	"	"	70.0-130		80.6	%	





Gettler-Ryan/Geostrategies(1) 6747 Sierra Court, Suite J Dublin, CA 94568	Project: Tosco(4) Project Number: UNOCAL SS#BP0746/3943 BROADWAY Project Manager: Deanna Harding	Sampled: 11/22/00 Received: 11/22/00 Reported: 12/8/00
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**Volatile Organic Oxygenated Compounds by EPA Method 8260B
Sequoia Analytical - San Carlos**

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
MW-1				<u>L011224-02</u>			<u>Water</u>	<u>2</u>
Methyl tert-butyl ether	0120021	12/6/00	12/6/00		2.00	142	ug/l	
Di-isopropyl ether	"	"	"		2.00	ND	"	
Ethyl tert-butyl ether	"	"	"		2.00	ND	"	
Tert-amyl methyl ether	"	"	"		2.00	ND	"	
Surrogate: 1,2-Dichloroethane-d4	"	"	"	76.0-114		102	%	
MW-3				<u>L011224-03</u>			<u>Water</u>	<u>2</u>
Methyl tert-butyl ether	0120021	12/6/00	12/6/00		2.00	131	ug/l	
Di-isopropyl ether	"	"	"		2.00	ND	"	
Ethyl tert-butyl ether	"	"	"		2.00	ND	"	
Tert-amyl methyl ether	"	"	"		2.00	ND	"	
Surrogate: 1,2-Dichloroethane-d4	"	"	"	76.0-114		91.8	%	





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Gettler-Ryan/Geostrategies(1) 6747 Sierra Court, Suite J Dublin, CA 94568	Project: Tosco(4) Project Number: UNOCAL SS#BP0746/3943 BROADWAY Project Manager: Deanna Harding	Sampled: 11/22/00 Received: 11/22/00 Reported: 12/8/00
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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*
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Batch: 0120010	Date Prepared: 12/4/00		Extraction Method: EPA 5030B [P/T]							
Blank	0120010-BLK1									
Purgeable Hydrocarbons as Gasoline	12/4/00			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		8.73	"	70.0-130	87.3			

LCS	0120010-BS1									
Benzene	12/4/00	10.0		10.2	ug/l	70.0-130	102			
Toluene	"	10.0		9.83	"	70.0-130	98.3			
Ethylbenzene	"	10.0		9.81	"	70.0-130	98.1			
Xylenes (total)	"	30.0		29.5	"	70.0-130	98.3			
Surrogate: a,a,a-Trifluorotoluene	"	10.0		8.99	"	70.0-130	89.9			

LCS	0120010-BS2									
Purgeable Hydrocarbons as Gasoline	12/4/00	250		230	ug/l	70.0-130	92.0			
Surrogate: a,a,a-Trifluorotoluene	"	10.0		8.15	"	70.0-130	81.5			

Matrix Spike	0120010-MS1		L011212-11							
Benzene	12/4/00	10.0	ND	9.83	ug/l	60.0-140	98.3			
Toluene	"	10.0	ND	9.18	"	60.0-140	91.8			
Ethylbenzene	"	10.0	ND	9.59	"	60.0-140	95.9			
Xylenes (total)	"	30.0	ND	28.6	"	60.0-140	95.3			
Surrogate: a,a,a-Trifluorotoluene	"	10.0		9.77	"	70.0-130	97.7			

Matrix Spike Dup	0120010-MSD1		L011212-11							
Benzene	12/4/00	10.0	ND	10.3	ug/l	60.0-140	103	25.0	4.67	
Toluene	"	10.0	ND	9.94	"	60.0-140	99.4	25.0	7.95	
Ethylbenzene	"	10.0	ND	10.1	"	60.0-140	101	25.0	5.18	
Xylenes (total)	"	30.0	ND	30.4	"	60.0-140	101	25.0	5.81	
Surrogate: a,a,a-Trifluorotoluene	"	10.0		9.67	"	70.0-130	96.7			

Batch: 0120011	Date Prepared: 12/4/00		Extraction Method: EPA 5030B [P/T]							
Blank	0120011-BLK1									
Purgeable Hydrocarbons as Gasoline	12/4/00			ND	ug/l	50.0				
Benzene	"			ND	"	0.500				
Toluene	"			ND	"	0.500				
Ethylbenzene	"			ND	"	0.500				
Xylenes (total)	"			ND	"	0.500				





Gettler-Ryan/Geostrategies(1) 6747 Sierra Court, Suite J Dublin, CA 94568	Project: Tosco(4) Project Number: UNOCAL SS#BP0746/3943 BROADWAY Project Manager: Deanna Harding	Sampled: 11/22/00 Received: 11/22/00 Reported: 12/8/00
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**Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS EUP/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*
Blank (continued)										
0120011-BLK1										
Methyl tert-butyl ether	12/4/00			ND	ug/l	5.00				
Surrogate: a,a,a-Trifluorotoluene	"	10.0		11.1	"	70.0-130	111			
LCS										
0120011-BS1										
Benzene	12/4/00	10.0		10.7	ug/l	70.0-130	107			
Toluene	"	10.0		10.9	"	70.0-130	109			
Ethylbenzene	"	10.0		11.0	"	70.0-130	110			
Xylenes (total)	"	30.0		33.1	"	70.0-130	110			
Surrogate: a,a,a-Trifluorotoluene	"	10.0		11.3	"	70.0-130	113			
LCS										
0120011-BS2										
Purgeable Hydrocarbons as Gasoline	12/4/00	250		223	ug/l	70.0-130	89.2			
Surrogate: a,a,a-Trifluorotoluene	"	10.0		10.5	"	70.0-130	105			
Matrix Spike										
0120011-MS1		L011212-08								
Benzene	12/4/00	10.0	ND	9.70	ug/l	60.0-140	97.0			
Toluene	"	10.0	ND	9.76	"	60.0-140	97.6			
Ethylbenzene	"	10.0	ND	10.0	"	60.0-140	100			
Xylenes (total)	"	30.0	ND	30.0	"	60.0-140	100			
Surrogate: a,a,a-Trifluorotoluene	"	10.0		9.65	"	70.0-130	96.5			
Matrix Spike Dup										
0120011-MSD1		L011212-08								
Benzene	12/4/00	10.0	ND	9.88	ug/l	60.0-140	98.8	25.0	1.84	
Toluene	"	10.0	ND	10.0	"	60.0-140	100	25.0	2.43	
Ethylbenzene	"	10.0	ND	10.4	"	60.0-140	104	25.0	3.92	
Xylenes (total)	"	30.0	ND	31.2	"	60.0-140	104	25.0	3.92	
Surrogate: a,a,a-Trifluorotoluene	"	10.0		9.32	"	70.0-130	93.2			





Gettler-Ryan/Geostrategies(1) 6747 Sierra Court, Suite J Dublin, CA 94568	Project: Tosco(4) Project Number: UNOCAL SS#BP0746/3943 BROADWAY Project Manager: Deanna Harding	Sampled: 11/22/00 Received: 11/22/00 Reported: 12/8/00
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**Volatile Organic Oxygenated Compounds by EPA Method 8260B/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: 0120021			Date Prepared: 12/6/00			Extraction Method: EPA 5030B [P/T]				
Blank			0120021-BLK1							
Methyl tert-butyl ether	12/6/00			ND	ug/l	2.00				
Di-isopropyl ether	"			ND	"	2.00				
Ethyl tert-butyl ether	"			ND	"	2.00				
Tert-amyl methyl ether	"			ND	"	2.00				
Surrogate: 1,2-Dichloroethane-d4	"	50.0		50.7	"	76.0-114	101			
Blank			0120021-BLK2							
Methyl tert-butyl ether	12/7/00			ND	ug/l	2.00				
Di-isopropyl ether	"			ND	"	2.00				
Ethyl tert-butyl ether	"			ND	"	2.00				
Tert-amyl methyl ether	"			ND	"	2.00				
Surrogate: 1,2-Dichloroethane-d4	"	50.0		50.2	"	76.0-114	100			
Blank			0120021-BLK3							
Methyl tert-butyl ether	12/8/00			ND	ug/l	2.00				
Di-isopropyl ether	"			ND	"	2.00				
Ethyl tert-butyl ether	"			ND	"	2.00				
Tert-amyl methyl ether	"			ND	"	2.00				
Surrogate: 1,2-Dichloroethane-d4	"	50.0		48.8	"	76.0-114	97.6			
LCS			0120021-BS1							
Methyl tert-butyl ether	12/6/00	50.0		60.6	ug/l	70.0-130	121			
Surrogate: 1,2-Dichloroethane-d4	"	50.0		50.4	"	76.0-114	101			
LCS			0120021-BS2							
Methyl tert-butyl ether	12/7/00	50.0		49.7	ug/l	70.0-130	99.4			
Surrogate: 1,2-Dichloroethane-d4	"	50.0		47.4	"	76.0-114	94.8			
LCS			0120021-BS3							
Methyl tert-butyl ether	12/8/00	50.0		64.4	ug/l	70.0-130	129			
Surrogate: 1,2-Dichloroethane-d4	"	50.0		43.6	"	76.0-114	87.2			
Matrix Spike			0120021-MS1 L012011-02							
Methyl tert-butyl ether	12/6/00	50.0	ND	61.3	ug/l	60.0-140	123			
Surrogate: 1,2-Dichloroethane-d4	"	50.0		49.8	"	76.0-114	99.6			
Matrix Spike Dup			0120021-MSD1 L012011-02							
Methyl tert-butyl ether	12/6/00	50.0	ND	59.1	ug/l	60.0-140	118	25.0	4.15	
Surrogate: 1,2-Dichloroethane-d4	"	50.0		50.0	"	76.0-114	100			





Gettler-Ryan/Geostrategies(1) 6747 Sierra Court, Suite J Dublin, CA 94568	Project: Tosco(4) Project Number: UNOCAL SS#BP0746/3943 BROADWAY Project Manager: Deanna Harding	Sampled: 11/22/00 Received: 11/22/00 Reported: 12/8/00
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Notes and Definitions

#	Note
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- 1 Chromatogram Pattern: Weathered Gasoline C6-C12
- 2 Ethanol and tert-butyl alcohol was not analyzed. Gettler-Ryan project manager was informed 12/8/00.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- Recov. Recovery
- RPD Relative Percent Difference

