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GETTLER-RYAN INC.

TRANSMITTAL

September 14, 2000

G-R #180106

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

CC: Mr. Doug Lee
Gettler-Ryan Inc.
Dublin, California 94568

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

RE: Tosco (Unocal) SS #7004
15599 Hesperian Blvd.
San Leandro, California

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DATED	DESCRIPTION
1	September 11, 2000	Groundwater Monitoring and Sampling Report Semi-Annual - Events of July 15, and August 25, 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 **September 26, 2000**, this report will be distributed to the following:

Enclosure

cc: ~~Ms. Susan Hugo, Alameda County Health Care Services, 1131 Harbor Bay Parkway, Alameda, CA 94502~~
Mr. Michael Bakaldin, City of San Leandro Fire Department, 835 East 14th Street, San Leandro, CA 94577

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GETTLER-RYAN INC.

September 11, 2000
G-R Job #180106

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

RE: Semi-Annual 2000 Groundwater Monitoring & Sampling Report
Tosco (Unocal) Service Station #7004
15599 Hesperian Boulevard
San Leandro, California

Dear Mr. De Witt:

This report documents the semi-annual groundwater monitoring and sampling event performed by Gettler-Ryan Inc. (G-R). On July 15, 2000, field personnel monitored and sampled seven wells (MW-1 through MW-6 and RW-1) at the above referenced site. In addition, on August 25, 2000, field personnel monitored and sampled one well (MW-3).

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 Tables 1 and 3. 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

Barbara Sieminski

Barbara Sieminski
Project Geologist, R.G. No. 6676

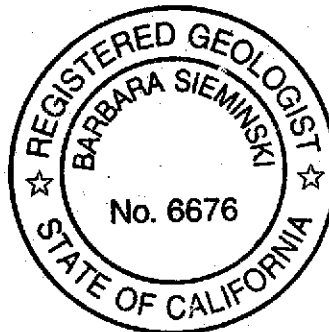
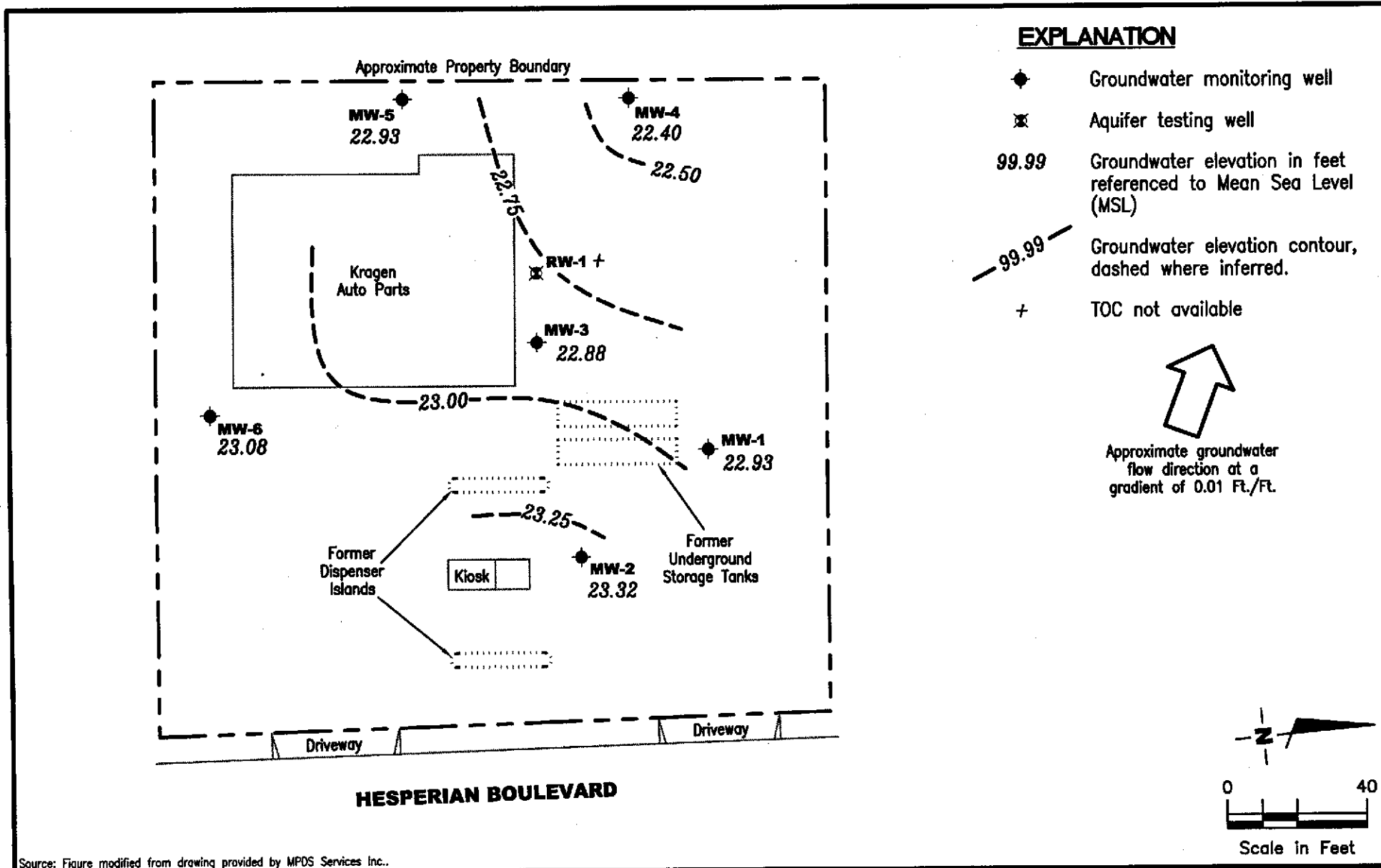


Figure 1: Potentiometric Map
Figure 2: Concentration Map
Table 1: Groundwater Monitoring Data and Analytical Results
Table 2: Dissolved Oxygen Concentrations
Table 3: Groundwater Analytical Results - Oxygenate Compounds
Attachments: Standard Operating Procedure - Groundwater Sampling
Field Data Sheets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

7004.qml



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



Gettler - Ryan Inc.

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Dublin, CA 94568 (925) 551-7555

POTENTIOMETRIC MAP
Former Tosco (76) Service Station #7004
15599 Hesperian Boulevard
San Leandro, California

FIGURE

1

PROJECT NUMBER
180106

REVIEWED BY

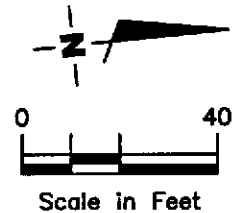
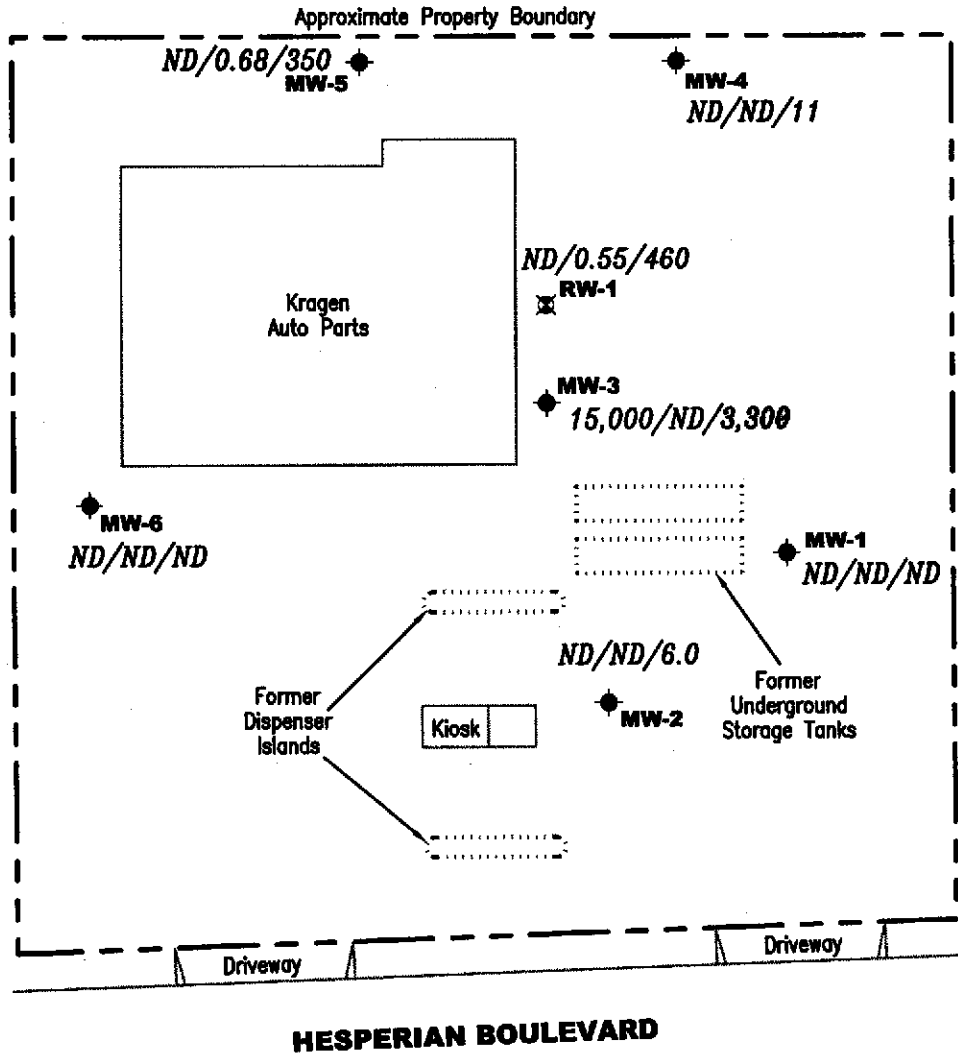
DATE
July 15, 2000

REVISED DATE

FILE NAME: P:\ENVIRO\TOSCO\7004\Q00-7004.DWG | Layout Tab: pot3

EXPLANATION

- ◆ Groundwater monitoring well
- ⊠ Aquifer testing well
- A/B/C TPH(G) (Total Petroleum Hydrocarbons as Gasoline)/Benzene/~~MTE~~ concentrations in ppb
- ND Not Detected



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

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

CONCENTRATION MAP
 Former Tosco (76) Service Station #7004
 15599 Hesperian Boulevard
 San Leandro, California

FIGURE
2

PROJECT NUMBER 180106	REVIEWED BY	DATE July 15, 2000	REVISED DATE
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Table 1
Groundwater Monitoring Data and Analytical Results
 Tosco (Unocal) Service Station #7004
 15599 Hesperian Boulevard
 San Leandro, California

WELL ID/ TOC*	DATE	DTW (ft.)	S.L. (ft. bgs.)	GWE (msl)	TPH(G) (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)	
MW-1	05/04/91	--	10.0-25.0	--	ND	ND	ND	ND	ND	--	
	07/23/91	--		--	ND	ND	ND	ND	ND	--	
	10/14/91	--		--	ND	ND	ND	ND	ND	--	
	01/14/92	--		--	ND	ND	ND	ND	ND	--	
	04/14/92	--		--	76 ¹	ND	ND	ND	ND	--	
	07/09/92	--		--	70 ¹	ND	ND	ND	ND	130	
	10/28/92	--		--	SAMPLED SEMI-ANNUALLY			--	--	--	--
	01/21/93	--		--	ND	ND	ND	ND	ND	42	
	36.89	04/20/93	14.89		22.00	--	--	--	--	--	56
		07/22/93	14.34		22.55	ND	ND	ND	ND	ND	77
36.39	10/06/93	14.87		21.52	--	--	--	--	--	--	
	01/11/94	15.14		21.25	ND	ND	ND	ND	ND	--	
	04/06/94	14.19		22.20	--	--	--	--	--	--	
	07/08/94	14.66		21.73	ND	ND	ND	ND	ND	--	
	10/06/94	16.71		19.68	--	--	--	--	--	--	
	01/05/95	14.68		21.71	ND	ND	ND	ND	ND	--	
	04/05/95	11.76		24.63	--	--	--	--	--	--	
	07/14/95	12.93		23.46	ND	0.65	2.2	ND	2.3	--	
	10/12/95	14.29		22.10	--	--	--	--	--	--	
	01/08/96	14.18		22.21	ND	ND	ND	ND	ND	--	
	07/08/96	12.74		23.65	ND	ND	ND	ND	ND	ND	
	01/03/97	12.89		23.50	87 ¹	ND	ND	ND	ND	ND	
	07/02/97	13.66		22.73	ND	ND	ND	ND	ND	ND	
	01/15/98	13.08		23.31	ND	ND	ND	ND	ND	ND	
	07/08/98	11.25		25.14	ND	ND	ND	ND	ND	ND	
	01/11/99	13.68		22.71	51 ⁹	ND	ND	ND	ND	4.8	
	07/07/99	12.15		24.24	ND	ND	ND	ND	ND	ND	
	01/04/00	13.95		22.44	ND	ND	ND	ND	ND	ND	
		07/15/00	13.46		22.93	ND	ND	0.86	ND	ND	ND
	MW-2	05/04/91	--	10.0-25.0	--	ND	ND	ND	ND	ND	--
07/23/91		--		--	ND	ND	ND	ND	ND	--	
10/14/91		--		--	ND	ND	ND	ND	ND	--	

Table 1
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 San Leandro, California

WELL ID/ TOC*	DATE	DTW (ft.)	S.I. (ft. bgs.)	GWE (msl)	TPH(G) (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
MW-2	01/14/92	--	10.0-25.0	--	ND	ND	ND	ND	ND	--
(cont)	04/14/92	--		--	45 ¹	ND	ND	ND	ND	--
	07/09/92	--		--	ND	ND	ND	ND	ND	49
	10/28/92	--		--	SAMPLED SEMI-ANNUALLY		--	--	--	--
	01/21/93	--		--	ND	ND	ND	ND	ND	17
37.35	04/20/93	15.20		22.15	--	--	--	--	--	80
	07/22/93	14.75		22.60	62 ¹	ND	ND	ND	ND	42
37.07	10/06/93	15.49		21.58	--	--	--	--	--	--
	01/11/94	15.77		21.30	120 ¹	ND	ND	ND	ND	--
	04/06/94	14.83		22.24	--	--	--	--	--	--
	07/08/94	15.28		21.79	140 ¹	ND	ND	ND	ND	--
	10/06/94	16.32		20.75	--	--	--	--	--	--
	01/05/95	15.30		21.77	310 ¹	ND	ND	ND	ND	--
	04/05/95	12.12		24.95	--	--	--	--	--	--
	07/14/95	13.55		23.52	86 ¹	ND	ND	ND	ND	--
	10/12/95	14.88		22.19	--	--	--	--	--	--
	01/08/96	14.81		22.26	91 ¹	ND	ND	ND	ND	--
	07/08/96	13.37		23.70	100 ¹	ND	ND	ND	ND	ND
	01/03/97	13.14		23.93	160 ¹	ND	ND	ND	ND	ND
	07/02/97	14.26		22.81	91 ¹	ND	ND	ND	ND	ND
	01/15/98	13.31		23.76	ND	ND	ND	ND	ND	ND
	07/08/98	11.57		25.50	ND	ND	ND	ND	ND	ND
	01/11/99	14.26		22.81	ND	ND	ND	ND	ND	9.8
	07/07/99	12.24		24.83	ND	ND	ND	ND	ND	9.4
	01/04/00	14.14		22.93	ND	ND	0.518	ND	ND	9.07
	07/15/00	13.75		23.32	ND	ND	0.51	ND	ND	6.0
MW-3	05/04/91	--	10.0-25.0	--	34,000	6,100	32	1,200	6,100	--
	07/23/91	--		--	17,000	5,500	26	1,800	2,800	--
	10/14/91	--		--	25,000	6,300	78	2,000	1,400	--
	01/14/92	--		--	13,000	6,600	19	2,600	1,800	--
	04/14/92	--		--	16,000	3,400	19	1,400	1,300	--
	07/09/92	--		--	13,000	3,200	12	1,900	1,100	--

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WELL ID/ TOC*	DATE	DTW (ft.)	S.I. (ft. bgs.)	GWE (msl)	TPH(G) (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
MW-3	10/28/92	--	10.0-25.0	--	15,000	4,400	15	2,400	800	--
(cont)	01/21/93	--		--	12,000	2,800	11	1,600	590	--
37.22	04/20/93	15.13		22.09	18,000	3,700	11	2,300	1,300	410
	07/22/93	13.52		23.70	16,000	4,500	17	3,600	1,900	440
36.79	10/06/93	15.41		21.38	24,000	4,100	ND	3,600	2,000	ND
	01/11/94	15.66		21.13	19,000	3,300	31	3,300	890	--
	04/06/94	14.72		22.07	24,000	3,100	ND	3,300	820	--
	07/08/94	15.20		21.59	18,000	2,200	25	2,500	860	--
	10/06/94	16.23		20.56	20,000	2,100	26	3,000	900	--
	01/05/95	15.12		21.67	20,000	2,100	ND	3,200	3,800	--
	04/05/95	12.03		24.76	18,000	2,100	ND	3,700	690	--
	07/14/95	13.46		23.33	21,000	1,600	ND	3,900	1,500	--
	10/12/95	14.81		21.98	17,000	1,000	ND	3,600	1,000	-- ³
	01/08/96	14.70		22.09	14,000	760	ND	3,100	380	-- ⁴
	07/08/96	13.29		23.50	16,000	470	45	4,400	1,000	340
	01/03/97	13.09		23.70	14,000	160	ND	2,100	120	620
	07/02/97	13.96		22.83	23,000	110	ND	3,600	1,600	1,200
	01/15/98	13.26		23.53	12,000	33	ND ⁵	2,800	120	1,100
	07/08/98	11.64		25.15	20,000	76	ND ⁵	4,100	1,400	750
	01/11/99	14.17		22.62	23,000 ¹⁰	ND ⁵	ND ⁵	4,100	460	920
	07/07/99	13.18		23.61	15,000 ¹¹	35	ND ⁵	3,400	470	1,700
	01/04/00	14.27		22.52	15,500	ND ⁵	ND ⁵	3,330	191	827
	07/15/00	13.91		22.88	15,000 ¹²	ND ⁵	ND ⁵	3,400	420	3,300
	08/25/00	14.24		22.55	--	--	--	--	--	1,920 ¹³
MW-4	07/23/91	--	10.0-26.0	--	ND	ND	ND	ND	ND	--
	10/14/91	--		--	ND	ND	ND	ND	ND	--
	01/14/92	--		--	ND	ND	ND	ND	ND	--
	04/14/92	--		--	ND	ND	ND	ND	ND	--
	07/09/92	--		--	ND	ND	ND	ND	ND	--

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 San Leandro, California

WELL ID/ TOC*	DATE	DTW (ft.)	S.L. (ft. bgs.)	GWE (msl)	TPH(G) (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
MW-4	10/28/92	--	10.0-26.0	--	SAMPLED SEMI-ANNUALLY		--	--	--	--
(cont)	01/21/93	--		--	ND	ND	ND	ND	ND	--
35.81	04/20/93	13.84		21.97	--	--	--	--	--	65
	07/22/93	13.52		22.29	ND	ND	ND	ND	ND	54
35.44	10/06/93	14.17		21.27	--	--	--	--	--	--
	01/11/94	14.42		21.02	ND	ND	ND	ND	ND	--
	04/06/94	13.44		22.00	--	--	--	--	--	--
	07/08/94	13.96		21.48	ND	ND	ND	ND	ND	--
	10/06/94	15.00		20.44	--	--	--	--	--	--
	01/05/95	13.83		21.61	ND	ND	ND	ND	ND	--
	04/05/95	11.05		24.39	--	--	--	--	--	--
	07/14/95	12.23		23.21	ND	ND	ND	ND	ND	--
	10/12/95	13.59		21.85	--	--	--	--	--	--
	01/08/96	13.43		22.01	ND	ND	ND	ND	ND	-- ⁴
	07/08/96	12.04		23.40	ND	ND	ND	ND	ND	ND
	01/03/97	12.38		23.06	80 ¹	ND	ND	ND	ND	ND
	07/02/97	13.00		22.44	ND	ND	ND	ND	ND	25
	01/15/98	12.50		22.94	ND	ND	ND	ND	ND	ND
	07/08/98	10.53		24.91	ND	ND	ND	ND	ND	25
	01/11/99	12.95		22.49	ND	ND	ND	ND	ND	23
	07/07/99	11.76		23.68	ND	ND	ND	ND	ND	15
	01/04/00	13.17		22.27	ND	ND	ND	ND	ND	13.2
	07/15/00	13.04		22.40	ND	ND	ND	ND	ND	11
MW-5	07/23/91	--	10.0-26.0	--	260	1.2	0.39	10	0.71	--
	10/14/91	--		--	140	0.72	ND	1.3	0.89	--
	01/14/92	--		--	60 ¹	ND	ND	ND	ND	--
	04/14/92	--		--	86 ¹	ND	ND	ND	ND	--
	07/09/92	--		--	ND	ND	ND	ND	ND	71

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 15599 Hesperian Boulevard
 San Leandro, California

WELL ID/ TOC*	DATE	DTW (ft.)	S.I. (ft. bgs.)	GWE (mst)	TPH(G) (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
MW-5	10/28/92	--	10.0-26.0	--	ND	ND	ND	ND	ND	45
(cont)	01/21/93	--		--	100 ¹	ND	ND	ND	ND	160
37.01	04/20/93	14.87		22.14	99 ¹	ND	ND	ND	ND	120
	07/22/93	14.82		22.19	59 ²	ND	ND	2.6	ND	42
36.81	10/06/93	15.61		21.20	150	1.1	ND	3.1	0.85	57
	01/11/94	15.84		20.97	160	ND	0.79	0.54	ND	--
	04/06/94	14.90		21.91	260	1.4	ND	0.88	ND	--
	07/08/94	15.38		21.43	200	ND	ND	ND	ND	--
	10/06/94	16.42		20.39	350	1.3	ND	ND	ND	--
	01/05/95	15.20		21.61	85	ND	ND	ND	ND	--
	04/05/95	11.72		25.09	ND	ND	ND	ND	ND	--
	07/14/95	13.69		23.12	180	1.3	ND	7.9	ND	--
	10/12/95	15.02		21.79	310	ND	ND	31	1.2	-- ³
	01/08/96	14.85		21.96	ND	0.55	ND	ND	0.58	-- ⁴
	07/08/96	13.52		23.29	140	2.1	1.4	5.6	0.51	110
	07/12/96	14.50		22.31	--	--	--	--	--	--
	01/03/97	12.85		23.96	12,000	150	ND	2,100	120	660
	07/02/97	13.79		23.02	ND	ND	ND	ND	ND	72
	01/15/98	13.03		23.78	69 ⁶	ND	ND	ND	ND	-- ⁷
	07/08/98	12.05		24.76	ND	0.74	ND	ND	ND	95
	01/11/99	14.41		22.40	ND	1.0	ND	ND	ND	170
	07/07/99	12.38		24.43	130	0.64	ND	ND	ND	330
	01/04/00	14.33		22.48	ND	ND	ND	ND	ND	183
	07/15/00	13.88		22.93	ND	0.68	ND	ND	ND	350
MW-6	07/23/91	--	10.0-26.0	--	ND	ND	ND	ND	ND	--
	10/14/91	--		--	ND	ND	ND	ND	ND	--
	01/14/92	--		--	ND	ND	ND	ND	ND	--
	04/14/92	--		--	ND	ND	ND	ND	ND	--
	07/09/92	--		--	ND	ND	ND	ND	ND	--

Table 1
Groundwater Monitoring Data and Analytical Results
 Tosco (Unocal) Service Station #7004
 15599 Hesperian Boulevard
 San Leandro, California

WELL ID/ TOC*	DATE	DTW (ft.)	S.I. (ft. bgs.)	GWE (msl)	TPH(G) (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
MW-6	10/28/92	--	10.0-26.0	--	SAMPLED SEMI-ANNUALLY		--	--	--	--
(cont)	01/21/93	--		--	ND	ND	ND	ND	ND	--
37.55	04/20/93	15.27		22.28	--	--	--	--	--	ND
	07/22/93	15.20		22.35	ND	ND	ND	ND	ND	ND
37.13	10/06/93	15.75		21.38	--	--	--	--	--	--
	01/11/94	16.02		21.11	ND	ND	ND	ND	ND	--
	04/06/94	15.07		22.06	--	--	--	--	--	--
	07/08/94	15.55		21.58	ND	ND	ND	ND	ND	--
	10/06/94	16.58		20.55	--	--	--	--	--	--
	01/05/95	15.42		21.71	ND	ND	ND	ND	ND	--
	04/05/95	12.14		24.99	--	--	--	--	--	--
	07/14/95	13.87		23.26	ND	ND	ND	ND	ND	--
	10/12/95	15.17		21.96	--	--	--	--	--	--
	01/08/96	15.05		22.08	ND	ND	ND	ND	ND	--
	07/08/96	13.71		23.42	ND	ND	ND	ND	ND	ND
	01/03/97	13.12		24.01	97 ¹	ND	ND	ND	ND	ND
	07/02/97	14.57		22.56	ND	ND	ND	ND	ND	ND
	01/15/98	13.30		23.83	ND	ND	ND	ND	ND	ND
	07/08/98	12.33		24.80	ND	ND	ND	ND	ND	ND
	01/11/99	14.60		22.53	ND	ND	ND	ND	ND	ND
	07/07/99	13.23		23.90	ND	ND	ND	ND	ND	ND
	01/04/00	14.41		22.72	ND	ND	ND	ND	ND	ND
	07/15/00	14.05		23.08	ND	ND	ND	ND	ND	ND
RW-1	07/08/98	11.72	12.5-27.5	--	80 ⁸	1.7	ND	ND	ND	1,300
	01/11/99	14.05		--	ND ⁵	3.0	ND ⁵	ND ⁵	ND ⁵	1,200
	07/07/99	13.05		--	ND	ND	ND	ND	ND	590
	01/04/00	14.26		--	ND	ND	ND	ND	ND	270
	07/15/00	13.77		--	ND	0.55	ND	ND	ND	460

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WELL ID/ TOC*	DATE	DTW (ft.)	S.L. (ft. bgs.)	GWE (msl)	TPH(G) (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
Trip Blank										
TB-LB	01/15/98	--	--	--	ND	ND	ND	ND	ND	ND
	07/08/98	--	--	--	ND	ND	ND	ND	ND	ND
	01/11/99	--	--	--	ND	ND	ND	ND	ND	ND
	07/07/99	--	--	--	ND	ND	ND	ND	ND	ND
	01/04/00	--	--	--	ND	ND	ND	ND	ND	ND
	07/15/00	--	--	--	ND	ND	ND	ND	ND	ND

Table 1
Groundwater Monitoring Data and Analytical Results
 Tosco (Unocal) Service Station #7004
 15599 Hesperian Boulevard
 San Leandro, California

EXPLANATIONS:

Groundwater monitoring data and laboratory analytical results prior to January 15, 1998, were compiled from reports prepared by MPDS Services, Inc.

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

* TOC elevations are relative to mean sea level (msl), based on the City of San Leandro Benchmark (Elevation = 36.04 feet msl). Prior to October 6, 1993, the DTW measurements were taken from the top of well covers.

- 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 potentially identified the presence of MTBE at reportable levels in the groundwater sample collected from this well.
- 4 Laboratory has identified the presence of MTBE at a level above or equal to the taste and odor threshold of 40 ppb in the sample collected from this well.
- 5 Detection limit raised. Refer to analytical reports.
- 6 Laboratory report indicates unidentified hydrocarbons C6-C8.
- 7 Laboratory narrative: MTBE was not reported due to the presence of a chlorinated hydrocarbon pattern.
- 8 Laboratory report indicates discrete peaks and unidentified hydrocarbons <C7.
- 9 Laboratory report indicates discrete peaks.
- 10 Laboratory report indicates gasoline and unidentified hydrocarbons C6-C12.
- 11 Laboratory report indicates gasoline and unidentified hydrocarbons <C6.
- 12 Laboratory report indicates gasoline C6-C12.
- 13 MTBE by EPA Method 8260.

Table 2
Dissolved Oxygen Concentrations
 Tosco (Unocal) Service Station #7004
 15599 Hesperian Boulevard
 San Leandro, California

WELL ID	DATE	Before Purging (mg/L)	After Purging (mg/L)
MW-5	07/02/97	3.82	3.97
	01/03/97	4.35	4.27
	07/12/96	3.44	3.67
	01/15/98	4.19	4.38
	07/08/98	4.67	4.60

EXPLANATIONS:

Dissolved oxygen concentrations prior to January 15, 1998, were compiled from reports prepared by MPDS Services, Inc.

mg/L = milligrams per liter

Table 3
Groundwater Analytical Results - Oxygenate Compounds
 Tosco (Unocal) Service Station #7004
 15599 Hesperian Boulevard
 San Leandro, California

WELL ID	DATE	TBA (ppb)	MTBE (ppb)	DIPE (ppb)	ETBE (ppb)	TAME (ppb)	1,2-DCA (ppb)	EDB (ppb)
MW-3	08/25/00	ND ¹	1,920	ND ¹	ND ¹	ND ¹	ND ¹	ND ¹

EXPLANATIONS:

TBA = Tertiary butyl alcohol
 MTBE = Methyl tertiary butyl ether
 DIPE = Di-isopropyl ether
 ETBE = Ethyl tertiary butyl ether
 TAME = Tertiary amyl methyl ether
 1,2-DCA = 1,2-Dichloroethane
 EDB = 1,2-Dibromoethane
 ppb = Parts per billion
 ND = Not Detected

ANALYTICAL METHOD:

EPA Method 8260 for Oxygenate Compounds

¹ Dectection limit raised. Refer to analytical reports.

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.

**TOSCO (UNOCAL) SS#7004
SAN LEANDRO, CA**

**MONITORING AND SAMPLING
EVENT OF JULY 15, 2000**

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Client/
Facility # 7004
Address: 15599
City: San Leandro

Job#: 180106
Date: 7-15-00
Sampler: Joe

Well ID MW-1

Well Condition: OK

Well Diameter 2 in

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

Total Depth 24.44 ft

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

Depth to Water 13.46 ft

10.98 x VF 0.17 = 1.87 x 3 (case volume) = Estimated Purge Volume: 6 (gal.)

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

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

Starting Time: 8:00
Sampling Time: 8:18 AM
Purging Flow Rate: 1 gpm
Did well de-water? _____

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

Time	Volume (gal.)	pH	Conductivity $\mu\text{mhos/cm} \times 100$	Temperature F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>8:08</u>	<u>2</u>	<u>7.20</u>	<u>12.57</u>	<u>71.5</u>			
<u>8:09</u>	<u>4</u>	<u>7.22</u>	<u>11.55</u>	<u>72.4</u>			
<u>8:10</u>	<u>6</u>	<u>7.29</u>	<u>11.00</u>	<u>72.7</u>			

LABORATORY INFORMATION

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

COMMENTS: _____

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Client/
Facility # 7004
Address: 15599
City: San Leandro

Job#: 180106
Date: 7-15-00
Sampler: Joe

Well ID MW-2
Well Diameter 2 in.
Total Depth 24.53 ft.
Depth to Water 13.75 ft.

Well Condition: OK

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" = 5.90	

10.78 x VF 0.17 = 1.83 x 3 (case volume) = Estimated Purge Volume: 6 (gal.)

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

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

Starting Time: 8:30
Sampling Time: 8:48 AM
Purging Flow Rate: 1 gpm
Did well de-water? _____

Weather Conditions: clear
Water Color: clear Odor: none
Sediment Description: none
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>8:37</u>	<u>2</u>	<u>7.57</u>	<u>9.68</u>	<u>72.9</u>			
<u>8:38</u>	<u>4</u>	<u>7.60</u>	<u>9.62</u>	<u>74.1</u>			
<u>8:39</u>	<u>6</u>	<u>7.64</u>	<u>9.55</u>	<u>73.8</u>			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-2</u>	<u>3 VCA</u>	<u>Y</u>	<u>HCL</u>	<u>Sequoia</u>	<u>TPH, BTEX, MTBE</u>

COMMENTS: _____

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Client/
Facility # 7004
Address: 15599
City: San Leandro

Job#: 180106
Date: 7-15-00
Sampler: Joe

Well ID MW-3

Well Condition: OK

Well Diameter 2 in.

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

Total Depth 25.00 ft.

Depth to Water 13.91 ft.

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

11.09 x VF 0.17 = 1.88 x 3 (case volume) = Estimated Purge Volume: 6 (gal)

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

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

Starting Time: 11:00

Weather Conditions: clear

Sampling Time: 11:20 AM

Water Color: clear Odor: yes

Purging Flow Rate: 1 gpm.

Sediment Description: none

Did well de-water? _____

If yes; Time: _____ Volume: _____ (gal)

Time	Volume (gal)	pH	Conductivity μ mhos/cm X ¹⁰	Temperature F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>11:08</u>	<u>2</u>	<u>7.08</u>	<u>2.89</u>	<u>73.2</u>	_____	_____	_____
<u>11:09</u>	<u>4</u>	<u>7.10</u>	<u>2.95</u>	<u>73.5</u>	_____	_____	_____
<u>11:16</u>	<u>6</u>	<u>7.14</u>	<u>2.96</u>	<u>73.6</u>	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____

LABORATORY INFORMATION

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

COMMENTS: _____

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Client/
Facility # 7004
Address: 15599
City: San Leandro

Job #: 180106
Date: 7-15-00
Sampler: Joe

Well ID MW-4 Well Condition: OK

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

Total Depth 25.64 ft

Depth to Water 13.04 ft

Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66
	6" = 1.50	12" = 5.90	

12.6 X VF 0.17 = 2.14 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: 9:10

Weather Conditions: clear

Sampling Time: 9:30 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 μ mhos/cm X ¹⁰⁰	Temperature F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>9:17</u>	<u>2.5</u>	<u>7.72</u>	<u>8.58</u>	<u>74.1</u>			
<u>9:18</u>	<u>5</u>	<u>7.52</u>	<u>9.16</u>	<u>74.6</u>			
<u>9:19</u>	<u>6.5</u>	<u>7.41</u>	<u>9.18</u>	<u>74.3</u>			

LABORATORY INFORMATION

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

COMMENTS: _____

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Client/
Facility # 7004
Address: 15599
City: San Leandro

Job#: 180106
Date: 7-15-00
Sampler: Joe

Well ID MW-5
Well Diameter 2 in.
Total Depth 26.20 ft.
Depth to Water 13.88 ft.

Well Condition: OK
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" = 5.90

12.32 x VF 0.17 = 2.09 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: 9:40
Sampling Time: 10:00 AM
Purging Flow Rate: 1 gpm.
Did well de-water? _____

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

Time	Volume (gal.)	pH	Conductivity μ mhos/cm $\times 10^2$	Temperature F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>9:46</u>	<u>2</u>	<u>7.27</u>	<u>3.66</u>	<u>72.8</u>	_____	_____	_____
<u>9:47</u>	<u>4</u>	<u>7.35</u>	<u>3.67</u>	<u>73.0</u>	_____	_____	_____
<u>9:48</u>	<u>6.5</u>	<u>7.37</u>	<u>3.72</u>	<u>73.2</u>	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-5</u>	<u>3VCA</u>	<u>Y</u>	<u>HCL</u>	<u>Sequoia</u>	<u>TPHG, BTEX, MTBE</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

COMMENTS: _____

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Client/
Facility # 7004
Address: 15599
City: Sau Leandro

Job#: 180106
Date: 7-15-00
Sampler: Joe

Well ID MW-6
Well Diameter 6 1/2 in.
Total Depth 25.65 ft.
Depth to Water 14.05 ft.

Well Condition: OK

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" = 5.90	

11.6 X VF 0.17 = 1.97 X 3 (case volume) = Estimated Purge Volume: 6 (gal.)

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

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

Starting Time: 7:08
Sampling Time: 7:38 AM
Purging Flow Rate: 1 gpm
Did well de-water? _____

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

Time	Volume (gal.)	pH	Conductivity μ hos/cm X ¹⁰⁰	Temperature F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>7:22</u>	<u>2</u>	<u>7.70</u>	<u>9.67</u>	<u>73.9</u>	_____	_____	_____
<u>7:24</u>	<u>4</u>	<u>7.40</u>	<u>10.15</u>	<u>74.0</u>	_____	_____	_____
<u>7:25</u>	<u>6</u>	<u>7.46</u>	<u>10.21</u>	<u>74.1</u>	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-6</u>	<u>3 YEA</u>	<u>Y</u>	<u>HCL</u>	<u>Sequoia</u>	<u>TPHG, BTEX, MTBE</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

COMMENTS: _____

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Client/
Facility # 7004
Address: 15599
City: San Leandro

Job#: 180106
Date: 7-15-00
Sampler: Joe

Well ID RW-1

Well Condition: O.K.

Well Diameter 2 in.

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

Total Depth 26.48 ft.

Depth to Water 13.77 ft.

Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66
	6" = 1.50	12" = 5.90	

12.71 X VF 1.50 = 19.07 X 3 (case volume) = Estimated Purge Volume: 58 (gal.)

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

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

Starting Time: 10:10
Sampling Time: 10:32 AM
Purging Flow Rate: 3.5 gpm
Did well de-water? _____

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

Time	Volume (gal.)	pH	Conductivity $\mu\text{mhos/cm} \times 10^2$	Temperature F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>10:20</u>	<u>20</u>	<u>7.19</u>	<u>4.65</u>	<u>69.2</u>	_____	_____	_____
<u>10:25</u>	<u>39</u>	<u>7.27</u>	<u>4.62</u>	<u>69.8</u>	_____	_____	_____
<u>10:30</u>	<u>58</u>	<u>7.33</u>	<u>4.61</u>	<u>69.3</u>	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>RW-1</u>	<u>3 YCA</u>	<u>Y</u>	<u>HCL</u>	<u>Sequoia</u>	<u>TPHG, BTEX, MTBE</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

COMMENTS: _____

Chain-of-Custody-Record



Tosco Marketing Company
2000 Cow Canyon Pl., Ste. 400
San Ramon, California 94583

Facility Number UNOCAL SS# 7004
 Facility Address 15999 Hesperian Blvd, San Leandro, CA
 Consultant Project Number 180-106
 Consultant Name Gettler-Ryan Inc. (G-R Inc.)
 Address 6747 Sierra Court, Suite J, Dublin, CA 94568
 Project Contact (Name) Deanna L. Harding
 (Phone) 925-551-7555 (Fax Number) 925-551-7888

Contact (Name) Mr. David Dewitt
 (Phone) (925) 277-2384
 Laboratory Name Sequoia Analytical
 Laboratory Release Number W007337
 Samples Collected by (Name) JOE ASEMIAN
 Collection Date 7-15-00
 Signature [Signature]

Sample Number	Lab Sample Number	Number of Containers	Matrix S = Soil W = Water A = Air C = Charcoal	Type G = Grab C = Composite D = Discrete	Time	Sample Preservation	Iced (Yes or No)	Analytes To Be Performed										DO NOT BILL TB-LB ANALYSIS	Remarks		
								TPH Gas + BTEX w/MTBE (8016)	TPH Diesel (8015)	Oil and Grease (5520)	Purgeable Halocarbons (8010)	Purgeable Aromatics (8020)	Purgeable Organics (8240)	Extractable Organics (8270)	Metals Cd, Cr, Pb, Zn, Ni (ICAP or AA)						
TB-LB	01A	1 10A	W	G	-	HCL	Y	✓													
MW-1	02AC	3 20A	/	/	8:18	/	/	✓													
MW-2	03	1	/	/	8:48	/	/	✓													
MW-3	04	1	/	/	11:20	/	/	✓													
MW-4	05	1	/	/	9:30	/	/	✓													
MW-5	06	1	/	/	10:00	/	/	✓													
MW-6	07	1	/	/	7:38	/	/	✓													
RW-1	08V	1	/	/	10:37	/	/	✓													

Relinquished By (Signature) <u>[Signature]</u>	Organization G-R Inc.	Date/Time 7-17-00	Received By (Signature) <u>[Signature]</u>	Organization Seq	Date/Time 7-17/1545	Turn Around Time (Circle Choice) 24 Hrs. 48 Hrs. 5 Days 10 Days <u>As Contracted</u>
Relinquished By (Signature) <u>[Signature]</u>	Organization Seq	Date/Time 7-17/16:20	Received By (Signature)	Organization	Date/Time	
Relinquished By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature) <u>[Signature]</u>		Date/Time 7/17/00 16:20	



Sequoia Analytical

404 N. Wiget Lane
Walnut Creek, CA 94598
(925) 988-9600
FAX (925) 988-9673
www.sequoialabs.com

31 July, 2000

Deanna L. Harding
Gettler Ryan, Inc. - Dublin
6747 Sierra Court Suite J
Dublin, CA 94568

RE: Unocal
Sequoia Report W007332

Enclosed are the results of analyses for samples received by the laboratory on 17-Jul-00 16:20. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Charlie Westwater
Project Manager

CA ELAP Certificate #1271





Gettler Ryan, Inc. - Dublin
6747 Sierra Court Suite J
Dublin CA, 94568

Project: Unocal
Project Number: Unocal # 7004
Project Manager: Deanna L. Harding

Reported:
31-Jul-00 11:43

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
TB-LB	W007332-01	Water	15-Jul-00 00:00	17-Jul-00 16:20
MW-1	W007332-02	Water	15-Jul-00 08:18	17-Jul-00 16:20
MW-2	W007332-03	Water	15-Jul-00 08:48	17-Jul-00 16:20
MW-3	W007332-04	Water	15-Jul-00 11:20	17-Jul-00 16:20
MW-4	W007332-05	Water	15-Jul-00 09:30	17-Jul-00 16:20
MW-5	W007332-06	Water	15-Jul-00 10:00	17-Jul-00 16:20
MW-6	W007332-07	Water	15-Jul-00 07:38	17-Jul-00 16:20
RW-1	W007332-08	Water	15-Jul-00 10:37	17-Jul-00 16:20



Gettler Ryan, Inc. - Dublin
6747 Sierra Court Suite J
Dublin CA, 94568

Project: Unocal
Project Number: Unocal # 7004
Project Manager: Deanna L. Harding

Reported:
31-Jul-00 11:43

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
TB-LB (W007332-01) Water Sampled: 15-Jul-00 00:00 Received: 17-Jul-00 16:20									
Purgeable Hydrocarbons	ND	50	ug/l	1	0G25001	25-Jul-00	25-Jul-00	EPA 8015M/8020	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.5	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		107 %	70-130		"	"	"	"	
MW-1 (W007332-02) Water Sampled: 15-Jul-00 08:18 Received: 17-Jul-00 16:20									
Purgeable Hydrocarbons	ND	50	ug/l	1	0G25001	25-Jul-00	25-Jul-00	EPA 8015M/8020	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	0.86	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.5	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		96.3 %	70-130		"	"	"	"	
MW-2 (W007332-03) Water Sampled: 15-Jul-00 08:48 Received: 17-Jul-00 16:20									
Purgeable Hydrocarbons	ND	50	ug/l	1	0G25001	25-Jul-00	25-Jul-00	EPA 8015M/8020	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	0.51	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	6.0	2.5	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		98.7 %	70-130		"	"	"	"	





Gettler Ryan, Inc. - Dublin
6747 Sierra Court Suite J
Dublin CA, 94568

Project: Unocal
Project Number: Unocal # 7004
Project Manager: Deanna L. Harding

Reported:
31-Jul-00 11:43

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-3 (W007332-04) Water Sampled: 15-Jul-00 11:20 Received: 17-Jul-00 16:20									P-01
Purgeable Hydrocarbons	15000	5000	ug/l	100	0G25001	25-Jul-00	25-Jul-00	EPA 8015M/8020	
Benzene	ND	50	"	"	"	"	"	"	
Toluene	ND	50	"	"	"	"	"	"	
Ethylbenzene	3400	50	"	"	"	"	"	"	
Xylenes (total)	420	50	"	"	"	"	"	"	
Methyl tert-butyl ether	3300	250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		93.3 %	70-130	"	"	"	"	"	
MW-4 (W007332-05) Water Sampled: 15-Jul-00 09:30 Received: 17-Jul-00 16:20									
Purgeable Hydrocarbons	ND	50	ug/l	1	0G25001	25-Jul-00	25-Jul-00	EPA 8015M/8020	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	11	2.5	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		104 %	70-130	"	"	"	"	"	
MW-5 (W007332-06) Water Sampled: 15-Jul-00 10:00 Received: 17-Jul-00 16:20									
Purgeable Hydrocarbons	ND	50	ug/l	1	0G25001	25-Jul-00	25-Jul-00	EPA 8015M/8020	
Benzene	0.68	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	350	2.5	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		103 %	70-130	"	"	"	"	"	





Gettler Ryan, Inc. - Dublin
6747 Sierra Court Suite J
Dublin CA, 94568

Project: Unocal
Project Number: Unocal # 7004
Project Manager: Deanna L. Harding

Reported:
31-Jul-00 11:43

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT
Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-6 (W007332-07) Water Sampled: 15-Jul-00 07:38 Received: 17-Jul-00 16:20									
Purgeable Hydrocarbons	ND	50	ug/l	1	0G25001	25-Jul-00	25-Jul-00	EPA 8015M/8020	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.5	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		105 %	70-130		"	"	"	"	
RW-1 (W007332-08) Water Sampled: 15-Jul-00 10:37 Received: 17-Jul-00 16:20									
Purgeable Hydrocarbons	ND	50	ug/l	1	0G25001	25-Jul-00	25-Jul-00	EPA 8015M/8020	
Benzene	0.55	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	460	2.5	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		104 %	70-130		"	"	"	"	





Gettler Ryan, Inc. - Dublin
6747 Sierra Court Suite J
Dublin CA, 94568

Project: Unocal
Project Number: Unocal # 7004
Project Manager: Deanna L. Harding

Reported:
31-Jul-00 11:43

**Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT - Quality Control
Sequoia Analytical - Walnut Creek**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 0G25001 - EPA 5030B [P/T]

Blank (0G25001-BLK1)

Prepared & Analyzed: 25-Jul-00

Purgeable Hydrocarbons	ND	50	ug/l							
Benzene	ND	0.50	"							
Toluene	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Xylenes (total)	ND	0.50	"							
Methyl tert-butyl ether	ND	2.5	"							
<i>Surrogate: a,a,a-Trifluorotoluene</i>	30.6		"	30.0		102	70-130			

LCS (0G25001-BS1)

Prepared & Analyzed: 25-Jul-00

Benzene	16.5	0.50	ug/l	20.0		82.5	70-130			
Toluene	18.5	0.50	"	20.0		92.5	70-130			
Ethylbenzene	22.0	0.50	"	20.0		110	70-130			
Xylenes (total)	61.4	0.50	"	60.0		102	70-130			
<i>Surrogate: a,a,a-Trifluorotoluene</i>	25.8		"	30.0		86.0	70-130			

Matrix Spike (0G25001-MS1)

Source: W007332-05

Prepared & Analyzed: 25-Jul-00

Benzene	16.3	0.50	ug/l	20.0	ND	81.5	70-130			
Toluene	17.9	0.50	"	20.0	ND	89.5	70-130			
Ethylbenzene	20.5	0.50	"	20.0	ND	103	70-130			
Xylenes (total)	59.1	0.50	"	60.0	ND	98.5	70-130			
<i>Surrogate: a,a,a-Trifluorotoluene</i>	25.5		"	30.0		85.0	70-130			

Matrix Spike Dup (0G25001-MSD1)

Source: W007332-05

Prepared & Analyzed: 25-Jul-00

Benzene	16.5	0.50	ug/l	20.0	ND	82.5	70-130	1.22	20	
Toluene	18.1	0.50	"	20.0	ND	90.5	70-130	1.11	20	
Ethylbenzene	22.2	0.50	"	20.0	ND	111	70-130	7.96	20	
Xylenes (total)	60.0	0.50	"	60.0	ND	100	70-130	1.51	20	
<i>Surrogate: a,a,a-Trifluorotoluene</i>	25.6		"	30.0		85.3	70-130			





Gettler Ryan, Inc. - Dublin
6747 Sierra Court Suite J
Dublin CA, 94568

Project: Unocal
Project Number: Unocal # 7004
Project Manager: Deanna L. Harding

Reported:
31-Jul-00 11:43

Notes and Definitions

P-01 Chromatogram Pattern: Gasoline C6-C12
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
RPD Relative Percent Difference



**TOSCO (UNOCAL) SS#7004
SAN LEANDRO, CA**

**MONITORING AND SAMPLING
EVENT OF AUGUST 25, 2000**

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Client/ Facility Tosco #7004 Job#: 180106
 Address: 15599 Hepperian Blvd. Date: 8/25/00
 City: San Leandro Sampler: Ventura

Well ID MW-3 Well Condition: OK
 Well Diameter 2 in. Hydrocarbon Thickness: ∅ (feet) Amount Bailed (product/water): ∅ (Gallons)
 Total Depth 24.70 ft.
 Depth to Water 14.24 ft.

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

10.46 x VF 0.17 = 1.77 x 3 (case volume) = Estimated Purge Volume: 5.5 (gal.)

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

Starting Time: 10:15 Weather Conditions: clear
 Sampling Time: 10:30 Water Color: clear Odor: Y
 Purging Flow Rate: 1 gpm. Sediment Description: _____
 Did well de-water? no If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity (µmhos/cm)	Temperature (°F)	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>10:17</u>	<u>2</u>	<u>7.38</u>	<u>776</u>	<u>70.3</u>			
<u>10:19</u>	<u>4</u>	<u>7.21</u>	<u>761</u>	<u>69.9</u>			
<u>10:21</u>	<u>5.5</u>	<u>7.12</u>	<u>752</u>	<u>69.5</u>			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-3</u>	<u>3 Y VOA</u>	<u>Y</u>	<u>HCl</u>	<u>SEQUOIA</u>	<u>(5) oxy's + 1,2 DCA + EDB (8260)</u>

COMMENTS: _____

Chain-of-Custody-Record



Tosco Marketing Company
2000 Crow Canyon Pl., Ste. 400
San Ramon, California 94583

Facility Number UNOCAL SS# 7004
Facility Address 15999 Hesperian Blvd, San Leandro, CA
Consultant Project Number 180-106
Consultant Name Gettler-Ryan Inc. (G-R Inc.)
Address 6747 Sierra Court, Suite J, Dublin, CA 94568
Project Contact (Name) Deanna L. Harding
(Phone) 925-551-7555 (Fax Number) 925-551-7888

Contact (Name) _____
(Phone) _____
Laboratory Name Sequoia Analytical
Laboratory Release Number _____
Samples Collected by (Name) Varthas Tashjian
Collection Date 8/25/95
Signature Varthas Tashjian

Sample Number	Lab Sample Number	Number of Containers	Matrix S = Soil W = Water A = Air C = Charcoal	Type G = Grab C = Composite D = Discrete	Time	Sample Preservation	Iced (Yes or No)	Analysis To Be Performed											DO NOT BILL TB-LB ANALYSIS	Remarks						
								TPH Gas + BTEX w/MTBE (8016)	TPH Diesel (8015)	Oil and Grease (5820)	Purgeable Halocarbons (8010)	Purgeable Aromatics (8020)	Purgeable Organics (8240)	Extractable Organics (8270)	Metals Cd, Cr, Pb, Zn, Ni (ICAP or AA)											
LB-1																										
MW-3	01	3	W	G	10:20 AM	HCl	Y																	X		

5) 8240's (8240)
1/2-DCA+EDB

00884

Relinquished By (Signature) <u>Varthas Tashjian</u>	Organization <u>G-R Inc.</u>	Date/Time <u>8/25</u>	Received By (Signature) <u>[Signature]</u>	Organization _____	Date/Time <u>8/25 2035</u>
Relinquished By (Signature) _____	Organization _____	Date/Time _____	Received By (Signature) _____	Organization _____	Date/Time _____
Relinquished By (Signature) _____	Organization _____	Date/Time _____	Received For Laboratory By (Signature) _____	Organization _____	Date/Time _____

Turn Around Time (Circle Choice)

24 Hrs.
48 Hrs.
5 Days
10 Days
As Contracted



Sequoia Analytical

1551 Industrial Road
San Carlos, CA 94070-4111
(650) 232-9600
FAX (650) 232-9612
www.sequiolabs.com

August 31, 2000

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

RE: Tosco(4)/L008184

Dear Deanna Harding:

Enclosed are the results of analyses for sample(s) received by the laboratory on August 25, 2000. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Richard G. Yee
Organics Dept. Manager

CA ELAP Certificate Number I-2360





Gettler-Ryan/Geostrategies(1) 6747 Sierra Court, Suite J Dublin, CA 94568	Project: Tosco(4) Project Number: Unocal SS# 7004/ 15599 Hesperian Blvd. Project Manager: Deanna Harding	Sampled: 8/25/00 Received: 8/25/00 Reported: 8/31/00
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ANALYTICAL REPORT FOR L008184

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
MW-3	L008184-01	Water	8/25/00





Gettler-Ryan/Geostrategies(1) 6747 Sierra Court, Suite J Dublin, CA 94568	Project: Tosco(4)	Sampled: 8/25/00
	Project Number: Unocal SS# 7004/ 15599 Hesperian Blvd.	Received: 8/25/00
	Project Manager: Deanna Harding	Reported: 8/31/00

Sample Description: MW-3
Laboratory Sample Number: L008184-01

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method/ Surrogate Limits	Reporting Limit	Result	Units	Notes*
Sequoia Analytical - San Carlos								
Volatile Organic Oxygenated Compounds by EPA Method 8260B								
1,2-Dibromoethane	0080132	8/29/00	8/29/00		50.0	ND	ug/l	
1,2-Dichloroethane	"	"	"		50.0	ND	"	
Di-isopropyl ether	"	"	"		50.0	ND	"	
Ethyl tert-butyl ether	"	"	"		50.0	1920	"	
Methyl tert-butyl ether	"	"	"		50.0	ND	"	
Tert-amyl methyl ether	"	"	"		2500	ND	"	
Tert-butyl alcohol	"	"	"					
Surrogate: 1,2-Dichloroethane-d4	"	"	"	76.0-114		104	%	
Surrogate: Toluene-d8	"	"	"	88.0-110		101	"	





Gettler-Ryan/Geostrategies(1) 6747 Sierra Court, Suite J Dublin, CA 94568	Project: Tosco(4) Project Number: Unocal SS# 7004/ 15599 Hesperian Blvd. Project Manager: Deanna Harding	Sampled: 8/25/00 Received: 8/25/00 Reported: 8/31/00
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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: 0080132		Date Prepared: 8/29/00			Extraction Method: EPA 5030B (P/T)					
Blank		0080132-BLK1								
1,2-Dibromoethane	8/29/00			ND	ug/l	2.00				
1,2-Dichloroethane	"			ND	"	2.00				
Di-isopropyl ether	"			ND	"	2.00				
Ethyl tert-butyl ether	"			ND	"	2.00				
Methyl tert-butyl ether	"			ND	"	2.00				
Tert-amyl methyl ether	"			ND	"	2.00				
Tert-butyl alcohol	"			ND	"	100				
Surrogate: 1,2-Dichloroethane-d4	"	50.0		49.9	"	76.0-114	99.8			
Surrogate: Toluene-d8	"	50.0		50.1	"	88.0-110	100			
Blank		0080132-BLK2								
1,2-Dibromoethane	8/30/00			ND	ug/l	2.00				
1,2-Dichloroethane	"			ND	"	2.00				
Di-isopropyl ether	"			ND	"	2.00				
Ethyl tert-butyl ether	"			ND	"	2.00				
Methyl tert-butyl ether	"			ND	"	2.00				
Tert-amyl methyl ether	"			ND	"	2.00				
Tert-butyl alcohol	"			ND	"	100				
Surrogate: 1,2-Dichloroethane-d4	"	50.0		51.6	"	76.0-114	103			
Surrogate: Toluene-d8	"	50.0		49.5	"	88.0-110	99.0			
LCS		0080132-BS1								
Methyl tert-butyl ether	8/29/00	50.0		52.1	ug/l	70.0-130	104			
Surrogate: 1,2-Dichloroethane-d4	"	50.0		50.4	"	76.0-114	101			
Surrogate: Toluene-d8	"	50.0		50.2	"	88.0-110	100			
LCS		0080132-BS2								
Methyl tert-butyl ether	8/30/00	50.0		52.6	ug/l	70.0-130	105			
Surrogate: 1,2-Dichloroethane-d4	"	50.0		52.0	"	76.0-114	104			
Surrogate: Toluene-d8	"	50.0		50.7	"	88.0-110	101			
Matrix Spike		0080132-MS1		L008198-01						
Methyl tert-butyl ether	8/29/00	50.0	ND	46.7	ug/l	60.0-140	93.4			
Surrogate: 1,2-Dichloroethane-d4	"	50.0		50.5	"	76.0-114	101			
Surrogate: Toluene-d8	"	50.0		51.3	"	88.0-110	103			
Matrix Spike Dup		0080132-MSD1		L008198-01						
Methyl tert-butyl ether	8/29/00	50.0	ND	53.3	ug/l	60.0-140	107	25.0	13.6	
Surrogate: 1,2-Dichloroethane-d4	"	50.0		51.3	"	76.0-114	103			
Surrogate: Toluene-d8	"	50.0		50.8	"	88.0-110	102			





Gettler-Ryan/Geostrategies(1) 6747 Sierra Court, Suite J Dublin, CA 94568	Project: Tosco(4) Project Number: Unocal SS# 7004/ 15599 Hesperian Blvd. Project Manager: Deanna Harding	Sampled: 8/25/00 Received: 8/25/00 Reported: 8/31/00
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Notes and Definitions

#	Note
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- 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

