



GETTLER-RYAN INC.

01-08-03A08:44 RCVD

TRANSMITTAL

July 17, 2001
G-R #180061

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

CC: Mr. David Vossler
Gettler-Ryan Inc.
Petaluma, California

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

RE: Tosco (Unocal) Service Station #5325
3220 Lakeshore Avenue
Oakland, California

Barney Chan
KO# 229
ST10 1059

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DATED	DESCRIPTION
1	July 13, 2001	Groundwater Monitoring and Sampling Report Second Quarter - Event of June 6, 2001

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 **July 31, 2001**, this report will be distributed to the following:

cc: Alameda County Health Care Services, 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502

Enclosure

need to continue GW extraction from wells, MTBE still elevated

trans/5325-DBD



GETTLER-RYAN INC.

July 13, 2001
G-R Job #180061

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

RE: Second Quarter Event of June 6, 2001
Groundwater Monitoring & Sampling Report
Tosco (Unocal) Service Station #5325
3220 Lakeshore Avenue
Oakland, California

Dear Mr. De Witt:

This report documents the most recent groundwater monitoring and sampling event performed by Gettler-Ryan Inc. (G-R) at the referenced site. All field work was conducted in accordance with G-R Standard Operating Procedure - Groundwater Sampling (attached).

Static groundwater levels were measured and all wells were checked for the presence of separate-phase hydrocarbons. Separate-phase hydrocarbons were not present in any wells. Static water level data and groundwater elevations are summarized in Table 1. Dissolved Oxygen Concentrations are summarized in Table 4. A Potentiometric Map is included as Figure 1.

Groundwater samples were collected from the monitoring wells as specified by 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, 2 and 3. A Concentration Map is included as Figure 2. The chain of custody document and laboratory analytical reports are also attached.

Sincerely,

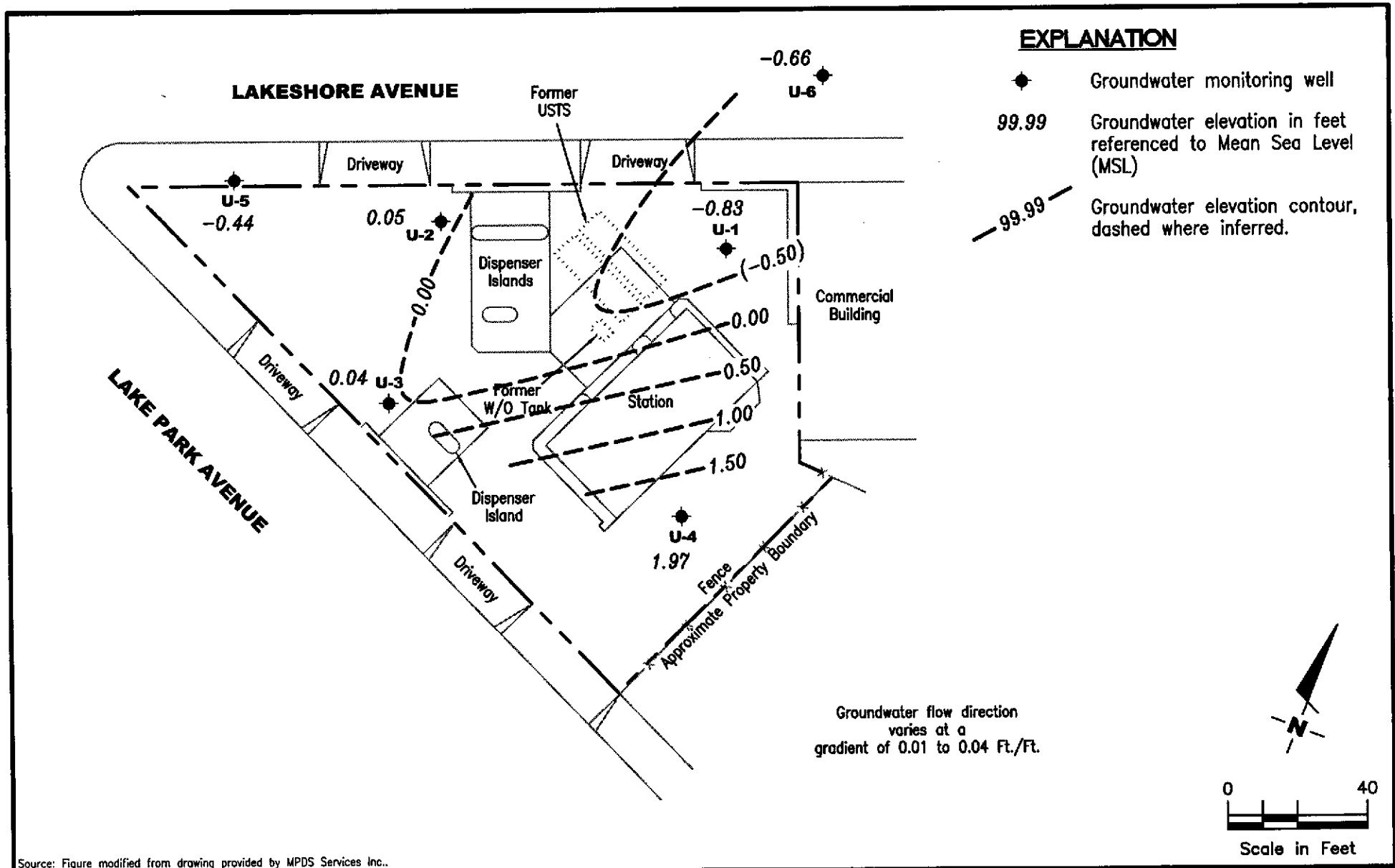
Deanna L. Harding
Project Coordinator

Hagop Kevork
P.E. No. C55734



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

5325.qxd



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

GETTLER - RYAN INC.
 6747 Sierra Ct., Suite J
 Dublin, CA 94568 (925) 551-7555

POTENTIOMETRIC MAP
 Tosco (Unocal) Service Station #5325
 3220 Lakeshore Avenue
 Oakland, California

FIGURE

1

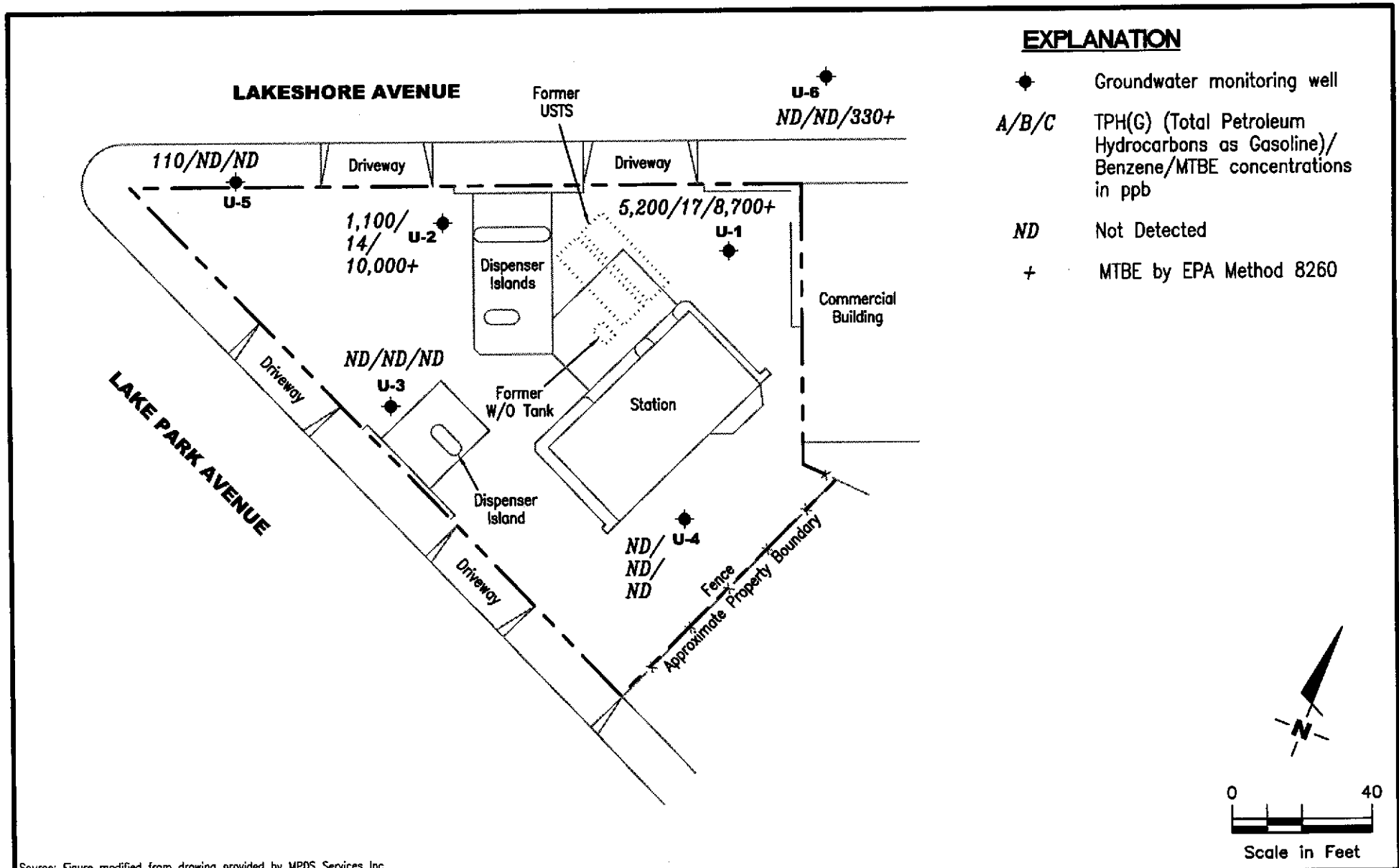
PROJECT NUMBER
 180061

REVIEWED BY

DATE
 June 6, 2001

REVISED DATE

FILE NAME: P:\ENVIRO\TOSCO\5325\001-5325.DWG | Layout Tab: Pot2



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
 Tosco (Unocal) Service Station #5325
 3220 Lakeshore Avenue
 Oakland, California

FIGURE
2

PROJECT NUMBER
 180061

REVIEWED BY

DATE
 June 6, 2001

REVISED DATE

FILE NAME: P:\ENVIRO\TOSCO\5325\Q01-5325.DWG | Layout Tab: Con2

Table 1
Groundwater Monitoring Data and Analytical Results
Tosco (Unocal) Service Station #5325
3220 Lakeshore Avenue
Oakland, California

WELL ID/ TOC*	DATE	DTW (ft.)	S.I. (ft. bgs)	GWE (ft.)	Product Thickness (ft.)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
U-1	08/10/90	--	5.0-20.0	--	--	690	38	75	8.6	130	--
	01/07/91	--		--	--	250	22	16	4.2	17	--
	04/01/91	--		--	--	160	13	8.6	1.0	15	--
	07/03/91	--		--	--	140	21	4.3	0.36	17	--
	10/09/91	--		--	--	ND	ND	ND	ND	ND	--
	02/12/92	--		--	--	250	ND	ND	ND	ND	--
	05/05/92	--		--	--	230	1.2	ND	ND	ND	--
	06/11/92	--		--	--	1,000	80	1.4	6.7	41	--
	08/20/92	--		--	--	400 ¹	1.0	ND	ND	0.6	--
	02/22/93	--		--	--	34,000	1,400	5,500	910	7,300	--
5.32	05/07/93	--		--	--	8,700	600	240	650	3,300	--
	08/08/93	--		--	--	4,900 ²	79	ND	832	270	--
8.46	11/16/93	8.61		-3.29	0.00	690 ³	ND	ND	ND	ND	--
	02/16/94	8.54		-3.22	0.00	6,800 ⁴	ND	ND	ND	ND	--
8.46	06/22/94	8.39		0.07	0.00	200	ND	ND	5.9	21	--
	09/22/94	8.66		-0.20	0.00	6,100 ³	ND	ND	ND	ND	--
	12/24/94	8.04		0.42	0.00	50,000	2,500	9,700	2,400	17,000	--
	03/25/95	7.72		1.02**	0.37	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					--
	06/21/95	9.30		-0.69**	0.20	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					--
	09/19/95	9.29		-0.53**	0.40	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					--
	12/19/95	8.98		-0.50**	0.03	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					--
	03/18/96	8.25		0.21	0.00	27,000	ND	2,300	1,400	11,000	4,900
	06/27/96	7.92		0.54	<0.01	120,000	540	4,300	2,600	26,000	ND
	09/26/96	9.10		-0.62**	0.02	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					--
	12/09/96	6.88		1.60**	0.03	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					--
	03/14/97	9.02		-0.15**	0.55	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					--
	06/30/97	8.41		0.07**	0.02	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					--
	09/19/97	8.56		-0.08**	0.02	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					--
	12/12/97	8.58		-0.11**	0.01	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					--
	03/03/98 ¹⁷	8.23		0.26**	0.04	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					--
	06/15/98 ¹⁷	8.37		0.09	Sheen	52,000	ND ⁷	900	1,800	13,000	ND ⁷

Table 1
Groundwater Monitoring Data and Analytical Results
 Tosco (Unocal) Service Station #5325
 3220 Lakeshore Avenue
 Oakland, California

WELL ID/ TOC*	DATE	DTW (ft.)	S.I. (ft. bgs)	GWE (ft.)	Product Thickness (ft.)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
U-1 (cont)	09/30/98 ¹⁷	8.94	5.0-20.0	-0.48	Sheen	1,000,000 ⁸	ND ⁷	2,600	13,000	83,000	4,800
	12/28/98 ¹⁷	8.57		-0.11	<0.01	1,100,000 ⁹	ND ⁷	1,600	8,600	71,000	5,700
	03/22/99 ¹⁷	8.18		0.28	Sheen	130,000	470	1,100	2,000	28,000	5,700
	06/09/99	9.37		-0.91	0.00	40,000	230	640	590	13,000	3,500/2,100 ¹⁰
	09/08/99 ¹⁷	9.53		-1.07	0.00	55,000 ¹¹	217	202	745	14,300	6,890/6,690 ¹⁰
	12/07/99 ¹⁷	9.67		-1.21	0.00	41,200 ¹³	89.3	ND ⁷	385	6,930	15,800/14,700 ¹²
	03/13/00 ¹⁷	8.44		0.02	0.00	48,000 ¹¹	490	610	2,400	10,000	22,000/23,000 ¹⁰
	06/21/00 ¹⁷	9.45		-0.99	0.00	37,000 ¹¹	200	ND ⁷	1,200	7,200	15,000/20,000 ¹⁰
	09/27/00 ¹⁷	9.29		-0.83	0.00	15,000 ¹¹	92	ND ⁷	540	2,800	74,000/83,000 ¹⁵
	12/12/00 ¹⁷	9.37		-0.91	0.00	50,000 ¹⁶	ND ⁷	ND ⁷	250	1,900	12,000/15,000 ¹²
	03/07/01 ¹⁷	8.45		0.01	0.00	6,220 ¹³	29.8	10.4	96.3	638	11,200/11,800 ¹⁰
	06/06/01 ¹⁷	9.29		-0.83	0.00	5,200 ¹³	17	ND ⁷	69	420	6,500/8,700 ¹²
U-2	08/10/90	--	5.0-20.0	--	--	780	27	46	15	130	--
	01/07/91	--		--	--	1,900	67	5.8	58	69	--
	04/01/91	--		--	--	1,700	250	89	34	190	--
	07/03/91	--		--	--	2,100	150	25	3.1	290	--
	10/09/91	--		--	--	230	7.1	ND	ND	11	--
	02/12/92	--		--	--	410	1.9	ND	0.36	0.4	--
	05/05/92	--		--	--	1,600	120	52	6.2	290	--
	06/11/92	--		--	--	620	17	2.1	ND	37	--
	08/20/92	--		--	--	700	28	6.5	1.3	4.6	--
	02/22/93	--		--	--	3,400	2,400	2,100	1,200	5,800	--
	05/07/93	--		--	--	17,000	1,800	660	1,700	4,000	--
	08/08/93	--		--	--	5,600 ²	420	ND	410	670	--
4.53	11/16/93	8.17	-3.64	0.00	510 ³	ND	ND	ND	ND	--	
	02/16/94	7.73	-3.20	0.00	980 ⁴	49	13	2.7	40	--	
7.62	06/22/94	7.60	0.02	0.00	31,000	2,200	62	1,500	3,500	--	
	09/22/94	7.93	-0.31	0.00	8,500 ³	29	ND	ND	ND	--	
	12/24/94	7.27	0.35	0.00	32,000	1,500	890	1,300	5,000	--	

Table 1
Groundwater Monitoring Data and Analytical Results
 Tosco (Unocal) Service Station #5325
 3220 Lakeshore Avenue
 Oakland, California

WELL ID/ TOC*	DATE	DTW (ft.)	S.I. (ft. bgs)	GWE (ft.)	Product Thickness (ft.)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
U-2	03/25/95	7.01	5.0-20.0	0.61	0.00	170,000	1,900	21,000	4,800	33,000	--
(cont)	06/21/95	6.98		0.64	0.00	16,000	2,100	ND	1,800	1,700	--
	09/19/95	7.70		-0.08	0.00	3,000	610	ND	78	240	-- ⁵
	12/19/95	7.30		0.32	0.00	1,600	140	55	52	270	-- ⁶
	03/18/96	6.45		1.17	0.00	12,000	2,200	ND	1,200	2,200	22,000
	06/27/96	7.41		0.21	0.00	28,000	3,400	ND	2,800	3,100	3,000
	09/26/96	7.90		-0.28	0.00	5,900	750	ND	ND	ND	18,000
	12/09/96	6.76		0.86	0.00	13,000	5,100	290	980	370	2,700
	03/14/97	7.12		0.52**	0.03	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					--
	06/30/97	6.19		1.43	<0.01	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					--
	09/19/97	7.31		0.31	<0.01	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					--
	12/12/97	6.75		0.88**	<0.01	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					--
	03/03/98	6.36		1.26	Sheen	80,000	3,000	1,100	820	16,000	16,000
	06/15/98	6.51		1.11	Sheen	48,000	1,800	330	470	7,900	20,000
	09/30/98	7.17		0.45	Sheen	60,000	1,300	ND ⁷	500	9,700	19,000
	12/28/98	7.06		0.56	0.00	63,000	590	160	320	5,600	16,000
	03/22/99	6.82		0.80	0.00	28,000	1,100	ND ⁷	360	2,900	25,000
	06/09/99	7.51		0.11	0.00	21,000	110	190	310	2,600	7,900/7,800 ¹⁰
	09/08/99	8.16		-0.54	0.00	23,300 ¹¹	477	138	286	4,110	16,400/15,300 ¹⁰
	12/07/99	8.31		-0.69	0.00	4,840 ¹³	17.2	ND ⁷	ND ⁷	157	14,900/15,600 ¹²
	03/13/00	6.69		0.93	0.00	11,000 ¹¹	380	160	ND ⁷	2,100	22,000/26,000 ¹⁰
	06/21/00	7.67		-0.05	0.00	9,100 ¹¹	22	ND ⁷	ND ⁷	800	16,000/22,000 ¹⁰
	09/27/00	7.44		0.18	0.00	2,900 ¹¹	43	ND ⁷	ND ⁷	39	20,000/26,000 ¹⁵
	12/12/00	7.51		0.11	0.00	3,600 ¹¹	17	ND ⁷	ND ⁷	87	8,000/7,800 ¹²
	03/07/01	7.15		0.47	0.00	1,670 ¹³	51.0	ND ⁷	7.20	19.5	5,930/7,900 ¹⁰
	06/06/01	7.57		0.05	0.00	1,100 ¹¹	14	ND ⁷	9.3	35	9,200/10,000 ¹²

Table 1
Groundwater Monitoring Data and Analytical Results
 Tosco (Unocal) Service Station #5325
 3220 Lakeshore Avenue
 Oakland, California

WELL ID/ TOC*	DATE	DTW (ft.)	S.I. (ft. bgs)	GWE (ft.)	Product Thickness (ft.)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
U-3	08/10/90	--	5.0-20.0	--	--	ND	ND	ND	ND	ND	--
	01/07/91	--		--	--	ND	ND	ND	ND	1.8	--
	04/01/91	--		--	--	ND	1.0	2.9	0.53	5.4	--
	07/03/91	--		--	--	ND	ND	ND	ND	ND	--
	10/09/91	--		--	--	ND	ND	ND	ND	ND	--
	02/12/92	--		--	--	ND	ND	ND	ND	ND	--
	05/05/92	--		--	--	ND	ND	ND	ND	ND	--
	06/11/92	--		--	--	ND	ND	ND	ND	ND	--
	08/20/92	--		--	--	ND	ND	ND	ND	ND	--
	02/22/93	--		--	--	ND	ND	ND	ND	ND	--
	05/07/93	--		--	--	ND	ND	ND	ND	ND	--
08/08/93	--		--	--	210	5.0	9.7	0.7	4.1	--	
7.86	11/16/93	11.82		-3.96	0.00	ND	ND	ND	ND	ND	--
	02/16/94	11.62		-3.76	0.00	ND	ND	ND	ND	ND	--
10.98	06/22/94	11.64		-0.66	0.00	ND	ND	ND	ND	ND	--
	09/22/94	11.76		-0.78	0.00	ND	ND	ND	ND	ND	--
	12/24/94	11.28		-0.30	0.00	ND	ND	ND	ND	ND	--
	03/25/95	10.96		0.02	0.00	ND	ND	ND	ND	ND	--
	06/21/95	11.37		-0.39	0.00	ND	ND	ND	ND	ND	--
	09/19/95	11.55		-0.57	0.00	ND	ND	ND	ND	ND	-- ⁵
	12/19/95	11.45		-0.47	0.00	ND	ND	ND	ND	ND	--
	03/18/96	11.10		-0.12	0.00	ND	ND	ND	ND	ND	--
	06/27/96	11.16		-0.18	0.00	440	49	50	51	140	50
	09/26/96	11.55		-0.57	0.00	ND	ND	ND	ND	ND	ND
	12/09/96	10.12		0.86	0.00	ND	ND	ND	ND	ND	29
	03/14/97	10.87		0.11	0.00	ND	ND	ND	ND	ND	ND
	06/30/97	11.08		-0.10	0.00	ND	ND	ND	ND	ND	ND
	09/19/97	11.05		-0.07	0.00	ND	ND	ND	ND	ND	ND
	12/12/97	10.58		0.40	0.00	ND	ND	ND	ND	ND	ND
	03/03/98	9.84		1.14	0.00	ND	ND	ND	ND	ND	ND
	06/15/98	10.56		0.42	0.00	ND	ND	ND	ND	ND	ND

Table 1
Groundwater Monitoring Data and Analytical Results
Tosco (Unocal) Service Station #5325
3220 Lakeshore Avenue
Oakland, California

WELL ID/ TOC*	DATE	DTW (ft.)	S.I. (ft. bgs)	GWE (ft.)	Product							
					Thickness (ft.)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)	
U-3	09/30/98	11.12	5.0-20.0	-0.14	0.00	ND	ND	ND	ND	ND	ND	ND
(cont)	12/28/98	10.96		0.02	0.00	ND	ND	ND	ND	ND	ND	ND
	03/22/99	9.46		1.52	0.00	ND	ND	ND	ND	ND	ND	ND
	06/09/99	11.01		-0.03	0.00	ND	ND	ND	ND	ND	ND	ND
	09/08/99	11.31		-0.33	0.00	ND	ND	ND	ND	ND	ND	ND
	12/07/99	11.26		-0.28	0.00	ND	ND	ND	ND	ND	ND	ND
	03/13/00	8.28		2.70	0.00	ND	ND	ND	ND	ND	ND	ND
	06/21/00	11.12		-0.14	0.00	ND	ND	ND	ND	ND	ND	ND
	09/27/00	11.07		-0.09	0.00	ND	ND	ND	ND	ND	ND	ND
	12/12/00	10.94		0.04	0.00	ND	ND	ND	ND	ND	ND	ND
	03/07/01	8.32		2.66	0.00	ND	ND	ND	ND	ND	ND	ND
	06/06/01	10.94		0.04	0.00	ND	ND	ND	ND	ND	ND	ND
U-4												
11.15	06/22/94	10.16	5.0-20.0	0.99	0.00	ND	ND	ND	ND	ND	ND	--
	09/22/94	10.79		0.36	0.00	ND	0.78	1.3	ND	1.4	ND	--
	12/24/94	9.81		1.34	0.00	ND	ND	ND	ND	ND	ND	--
	03/25/95	9.51		1.64	0.00	ND	ND	ND	ND	ND	ND	--
	06/21/95	9.54		1.61	0.00	ND	ND	ND	ND	ND	ND	--
	09/19/95	10.17		0.98	0.00	ND	ND	ND	ND	ND	ND	--
	12/19/95	9.98		1.17	0.00	ND	ND	ND	ND	ND	ND	--
	03/18/96	9.66		1.49	0.00	ND	ND	ND	ND	ND	ND	--
	06/27/96	9.74		1.41	0.00	ND	ND	ND	ND	ND	ND	ND
	09/26/96	10.14		1.01	0.00	ND	ND	ND	ND	ND	ND	ND
	12/09/96	8.67		2.48	0.00	ND	ND	ND	ND	ND	ND	33
	03/14/97	9.35		1.80	0.00	ND	ND	ND	ND	ND	ND	ND
	06/30/97	9.89		1.26	0.00	ND	ND	ND	ND	ND	ND	ND
	09/19/97	9.96		1.19	0.00	ND	ND	ND	ND	ND	ND	ND
	12/12/97	8.56		2.59	0.00	ND	ND	ND	ND	ND	ND	ND
	03/03/98	7.85		3.30	0.00	ND	ND	ND	ND	ND	ND	ND

Table 1
Groundwater Monitoring Data and Analytical Results
Tosco (Unocal) Service Station #5325
3220 Lakeshore Avenue
Oakland, California

WELL ID/ TOC*	DATE	DTW (ft.)	S.L. (ft. bgs)	GWE (ft.)	Product Thickness (ft.)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
U-4	06/15/98	9.08	5.0-20.0	2.07	0.00	ND	ND	ND	ND	ND	ND
(cont)	09/30/98	9.75		1.40	0.00	ND	ND	ND	ND	ND	ND
	12/28/98	9.59		1.56	0.00	ND	ND	ND	ND	ND	ND
	03/22/99	8.34		2.81	0.00	ND	ND	ND	ND	ND	ND
	06/09/99	9.39		1.76	0.00	ND	ND	ND	ND	ND	ND
	09/08/99	9.90		1.25	0.00	ND	ND	ND	ND	ND	ND
	12/07/99	10.05		1.10	0.00	ND	ND	ND	ND	ND	ND
	03/13/00	7.24		3.91	0.00	ND	ND	ND	ND	ND	ND
	06/21/00	9.48		1.67	0.00	ND	ND	ND	ND	ND	ND
	09/27/00	9.42		1.73	0.00	ND	ND	ND	ND	ND	ND
	12/12/00	9.50		1.65	0.00	ND	ND	ND	ND	ND	ND
	03/07/01	6.88		4.27	0.00	ND	ND	ND	ND	ND	ND
	06/06/01	9.18		1.97	0.00	ND	ND	ND	ND	ND	ND
U-5											
6.98	06/22/94	6.83	5.0-20.0	0.15	0.00	210	7.1	13	4.5	26	--
	09/22/94	6.90		0.08	0.00	170	8.4	10	8.5	18	--
	12/24/94	6.43		0.55	0.00	8,700	560	70	670	430	--
	03/25/95	6.35		0.63	0.00	44,000	390	960	1,500	7,600	--
	06/21/95	7.11		-0.13	0.00	400	2.3	ND	9.1	3.5	--
	09/19/95	6.99		-0.01	0.00	850	14	7.1	13	66	-- ⁵
	12/19/95	7.17		-0.19	0.00	ND	ND	ND	ND	ND	--
	03/18/96	6.65		0.33	0.00	100	0.67	0.5	0.51	5.4	--
	06/27/96	6.49		0.49	0.00	16,000	280	150	1,400	4,600	530
	09/26/96	7.13		-0.15	0.00	ND	ND	0.57	ND	0.96	ND
	12/09/96	5.90		1.08	0.00	1,300	29	46	ND	140	97
	03/14/97	6.99		-0.01	0.00	ND	ND	ND	ND	ND	14
	06/30/97	7.08		-0.10	0.00	4,200	74	51	180	980	270
	09/19/97	6.78		0.20	0.00	6,300	160	13	370	1000	480
	12/12/97	6.94		0.04	0.00	60	1.3	ND	1.6	2.1	47

Table 1
Groundwater Monitoring Data and Analytical Results
 Tosco (Unocal) Service Station #5325
 3220 Lakeshore Avenue
 Oakland, California

WELL ID/ TOC*	DATE	DTW (ft.)	S.L. (ft. bgs)	GWE (ft.)	Product Thickness (ft.)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)	
U-5 (cont)	03/03/98	6.50	5.0-20.0	0.48	0.00	1,700	29	ND ⁷	150	190	330	
	06/15/98	6.85		0.13	0.00	1,500	32	ND ⁷	91	83	330	
	09/30/98	7.31		-0.33	0.00	1,700	44	ND ⁷	39	150	60	
	12/28/98	7.25		-0.27	0.00	1,400	59	ND ⁷	13	27	150	
	03/22/99	6.86		0.12	0.00	780	8.9	ND	0.76	4.5	350	
	06/09/99	7.28		-0.30	0.00	1,000	ND ⁷	ND ⁷	10	35	280/350 ¹⁰	
	09/08/99	7.52		-0.54	0.00	2,620 ¹¹	26.2	ND ⁷	32.2	157	280/239 ¹²	
	12/07/99	7.67		-0.69	0.00	949 ¹¹	9.26	ND ⁷	11.2	22.7	235/301 ¹²	
	03/13/00	6.73		0.25	0.00	880 ¹⁴	12	1.0	5.6	8.7	46/37 ¹⁰	
	06/21/00	7.39		-0.41	0.00	700 ¹¹	4.0	ND	0.99	4.0	120/140 ¹⁰	
	09/27/00	7.45		-0.47	0.00	400 ¹¹	1.9	ND	ND	1.5	160/250 ¹⁵	
	12/12/00	7.68		-0.70	0.00	770 ¹¹	3.2	ND ⁷	ND ⁷	ND ⁷	27/13 ¹²	
	03/07/01	6.83		0.15	0.00	623 ¹³	5.15	ND	ND	ND	0.669	35.7/43.4 ¹⁰
	06/06/01	7.42		-0.44	0.00	110 ¹³	ND	ND	ND	ND	ND	ND
U-6 7.14	06/22/94	7.14	5.0-24.0	0.00	0.00	ND	ND	ND	ND	ND	--	
	09/22/94	7.34		-0.20	0.00	130	1.3	0.8	ND	0.73	--	
	12/24/94	6.67		0.47	0.00	6,900	500	59	600	380	--	
	03/25/95	6.29		0.85	0.00	47,000	450	1,300	1,700	8,200	--	
	06/21/95	7.60		-0.46	0.00	ND	ND	ND	ND	ND	--	
	09/19/95	7.70		-0.56	0.00	ND	ND	ND	ND	ND	-- ⁵	
	12/19/95	7.75		-0.61	0.00	210	2.5	1.0	2.9	17	--	
	03/18/96	6.86		0.28	0.00	ND	ND	ND	ND	ND	--	
	06/27/96	6.52		0.62	0.00	ND	ND	ND	ND	ND	510	
	09/26/96	7.62		-0.48	0.00	ND	ND	ND	ND	ND	1,400	
	12/09/96	5.88		1.26	0.00	1,200	29	48	6.4	140	58	
	03/14/97	7.30		-0.16	0.00	ND	ND	ND	ND	ND	1,500	
	06/30/97	7.35		-0.21	0.00	ND	ND	ND	ND	ND	990	
09/19/97	7.25		-0.11	0.00	ND	ND	ND	ND	ND	1,400		

Table 1
Groundwater Monitoring Data and Analytical Results
 Tosco (Unocal) Service Station #5325
 3220 Lakeshore Avenue
 Oakland, California

WELL ID/ TOC*	DATE	DTW (ft.)	S.I. (ft. bgs)	GWE (ft.)	Product Thickness (ft.)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
U-6	12/12/97	7.29	5.0-24.0	-0.15	0.00	ND	ND	ND	ND	ND	680
(cont)	03/03/98	7.00		0.14	0.00	ND	ND	ND	ND	ND	1,600
	06/15/98	7.18		-0.04	0.00	ND ⁷	ND ⁷	ND ⁷	ND ⁷	ND ⁷	1,000
	09/30/98	7.90		-0.76	0.00	ND	ND	ND	ND	ND	1,200
	12/28/98	7.79		-0.65	0.00	ND ⁷	ND ⁷	ND ⁷	ND ⁷	ND ⁷	730
	03/22/99	7.47		-0.33	0.00	ND	ND	ND	ND	ND	1,800
	06/09/99	7.73		-0.59	0.00	ND ⁷	ND ⁷	ND ⁷	ND ⁷	ND ⁷	1,000/850 ¹⁰
	09/08/99	7.95		-0.81	0.00	ND	ND	ND	ND	ND	851/1,040 ¹⁰
	12/07/99	8.10		-0.96	0.00	ND	ND	ND	ND	ND	1,140/1,150 ¹²
	03/13/00	6.95		0.19	0.00	ND	ND	ND	ND	ND	560/670 ¹⁰
	06/21/00	7.84		-0.70	0.00	ND	ND	ND	ND	ND	400/590 ¹⁰
	09/27/00	7.68		-0.54	0.00	ND	ND	ND	ND	ND	2,500/2,800 ¹⁵
	12/12/00	7.74		-0.60	0.00	ND	ND	ND	ND	ND	590/580 ¹²
	03/07/01	7.27		-0.13	0.00	ND	ND	ND	ND	ND	310/321 ¹²
	06/06/01	7.80		-0.66	0.00	ND	ND	ND	ND	ND	250/330 ¹²
Trip Blank											
TB-LB	03/03/98	--		--	--	ND	ND	ND	ND	ND	ND
	06/15/98	--		--	--	ND	ND	ND	ND	ND	ND
	09/30/98	--		--	--	ND	ND	1.7	ND	2.2	ND
	12/28/98	--		--	--	ND	ND	0.71	ND	0.72	9.5
	03/22/99	--		--	--	ND	ND	ND	ND	ND	ND
	06/09/99	--		--	--	ND	ND	ND	ND	ND	ND
	09/08/99	--		--	--	ND	ND	ND	ND	ND	ND
	12/07/99	--		--	--	ND	ND	0.762	ND	ND	ND
	03/13/00	--		--	--	ND	ND	ND	ND	ND	ND

Table 1
Groundwater Monitoring Data and Analytical Results
 Tosco (Unocal) Service Station #5325
 3220 Lakeshore Avenue
 Oakland, California

WELL ID/ TOC*	DATE	DTW (ft.)	S.I. (ft. bgs)	GWE (ft.)	Product Thickness (ft.)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
TB-LB	06/21/00	--		--	--	ND	ND	ND	ND	ND	ND
(cont)	09/27/00	--		--	--	ND	ND	ND	ND	ND	ND
	12/12/00	--		--	--	ND	ND	ND	ND	ND	ND
	03/07/01	--		--	--	ND	ND	ND	ND	ND	ND
	06/06/01	--		--	--	ND	ND	ND	ND	ND	ND

Table 1
Groundwater Monitoring Data and Analytical Results
 Tosco (Unocal) Service Station #5325
 3220 Lakeshore Avenue
 Oakland, California

EXPLANATIONS:

Groundwater monitoring data and laboratory analytical results prior to March 3, 1998, were compiled from reports prepared by MPDS Services, Inc.

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

* TOC elevations are surveyed relative to City of Oakland Benchmark, at the northeasterly corner of Weller and Cheney Avenue (Elevation = 9.055 feet, city datum; add 3.00' to U.S.G.S. datum). Prior to November 16, 1993, the DTW measurements were taken from the well cover.

** Groundwater elevation corrected due to the presence of free product; correction factor = [(TOC-DTW)+(Product Thickness x 0.75)].

- 1 The positive result for gasoline does not appear to have a typical gasoline pattern.
- 2 The concentration reported as gasoline is primarily due to the presence of a combination of gasoline and a discrete peak not indicative of gasoline.
- 3 Laboratory report indicates the hydrocarbons detected did not appear to be gasoline
- 4 Laboratory report indicates the hydrocarbons detected appeared to be a gasoline and non-gasoline mixture.
- 5 Laboratory has potentially identified the presence of MTBE at reportable levels in the groundwater sample collected from this well.
- 6 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.
- 7 Detection limit raised. Refer to analytical reports.
- 8 Laboratory report indicates unidentified hydrocarbons C6-C12.
- 9 Laboratory report indicates gasoline and unidentified hydrocarbons >C8.
- 10 MTBE by EPA Method 8260.
- 11 Laboratory report indicates gasoline C6-C12.
- 12 MTBE by EPA Method 8260 analyzed past the recommended holding time.
- 13 Laboratory report indicates weathered gasoline C6-C12.
- 14 Laboratory report indicates gasoline C6-C12 + unidentified hydrocarbons <C6.
- 15 Laboratory report indicates sample was originally analyzed within holding time. Re-analysis for confirmation or dilution was performed past the recommended holding time.
- 16 Laboratory report indicates gasoline C6-C12 + unidentified hydrocarbons >C10.
- 17 Skimmer present in well.

Table 2
Groundwater Analytical Results - Oxygenate Compounds
 Tosco (Unocal) Service Station #5325
 3220 Lakeshore Avenue
 Oakland, California

WELL ID	DATE	ETHANOL (ppb)	TBA (ppb)	MTBE (ppb)	DIPE (ppb)	ETBE (ppb)	TAME (ppb)	1,2-DCA (ppb)	EDB (ppb)
U-1	09/27/00 ¹	--	ND ²	83,000	ND ²	ND ²	ND ²	ND ²	ND ²
	12/12/00	--	--	15,000 ³	--	--	--	--	--
	03/07/01	ND ²	ND ²	11,800	ND ²	ND ²	ND ²	ND ²	ND ²
	06/06/01 ³	ND ²	ND ²	8,700	ND ²	ND ²	ND ²	ND ²	ND ²
U-2	09/27/00	--	--	26,000 ¹	--	--	--	--	--
	12/12/00	--	--	7,800 ³	--	--	--	--	--
	03/07/01	ND ²	ND ²	7,900	ND ²	ND ²	ND ²	ND ²	ND ²
	06/06/01 ³	ND ²	ND ²	10,000	ND ²	ND ²	ND ²	ND ²	ND ²
U-5	09/27/00	--	--	250 ¹	--	--	--	--	--
	12/12/00	--	--	13 ³	--	--	--	--	--
	03/07/01	ND	ND	43.4	ND	ND	ND	ND	ND
U-6	09/27/00	--	--	2,800 ¹	--	--	--	--	--
	12/12/00	--	--	580 ³	--	--	--	--	--
	03/07/01 ³	ND ²	ND ²	321	ND ²	ND ²	ND ²	ND ²	ND ²
	06/06/01 ³	ND ²	ND ²	330	ND ²	ND ²	ND ²	ND ²	ND ²

Table 2
Groundwater Analytical Results - Oxygenate Compounds
Tosco (Unocal) Service Station #5325
3220 Lakeshore Avenue
Oakland, California

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 Laboratory report indicates sample was originally analyzed within holding time. Re-analysis for confirmation or dilution was performed past the recommended holding time.
- ² Detection limit raised. Refer to analytical reports.
- ³ Laboratory report indicates sample was analyzed outside the EPA recommended holding time.

Table 3
Groundwater Analytical Results
 Tosco (Unocal) Service Station #5325
 3220 Lakeshore Avenue
 Oakland, California

WELL ID	DATE	Ferrous Iron (ppm)	Nitrate as NO3 (ppm)	Phosphate as PO4 (ppm)	Redox Potential mV ²
U-1	06/15/98	39	ND	ND	382 ²
	09/30/98	17	ND	ND	366 ²
	12/28/98	4.3	6.3	28	298 ²
	03/22/99	4.9	ND	3.5	320 ³
	06/09/99	1.2	ND	ND	260 ³
	09/08/99	1.80	ND ¹	ND ¹	85 ³
	12/07/99	5.70	ND ¹	17.0	404 ³
	03/13/00	8.0	0.18	ND	² 117/262 ³
	06/21/00	9.3	ND ¹	ND ¹	148 ²
	09/27/00	2.8	ND ¹	18.4	119 ²
	12/12/00	0.49	ND ¹	16.0	131 ²
	03/07/01	0.483	2.64	6.89	125 ²
	06/06/01	1.0 ⁴	ND	2.7	141 ²
U-2	03/03/98	25	ND	ND	369 ²
	06/15/98	42	ND	ND	341 ²
	09/30/98	25	ND	ND	354 ²
	12/28/98	28	ND	ND	276 ²
	03/22/99	0.68	ND	2.3	320 ³
	06/09/99	0.50	ND	ND	290 ³
	09/08/99	1.90	ND ¹	ND ¹	235 ³
	12/07/99	0.250	ND ¹	ND ¹	389 ³
	03/13/00	4.3	0.31	ND	² 121/184 ³
	06/21/00	0.26	ND ¹	ND ¹	136 ²
	09/27/00	0.64	ND ¹	10.5	142 ²
	12/12/00	2.7	ND ¹	ND ¹	155 ²
	03/07/01	0.677	2.24	3.02	148 ²
06/06/01	0.80 ⁴	ND	2.8	163 ²	
U-3	06/30/97	1.4	21	0.86	190 ³
	09/19/97	0.57	19	ND	75 ³
	12/12/97	1.9	23	0.85	390 ³
	03/03/98	0.013	36	ND	358 ²
	06/15/98	0.16	33	ND	318 ²
	09/30/98	0.040	31	ND	295 ²
	12/28/98	ND	29	ND	281 ²
	03/22/99	0.015	30	0.14	310 ³
	06/09/99	ND	26	1.2	350 ³
	09/08/99	ND	32.9	ND ¹	417 ³
	12/07/99	0.0520	27.9	ND ¹	437 ³
	03/13/00	0.15	33	ND	² 226/307 ³

Table 3
Groundwater Analytical Results
 Tosco (Unocal) Service Station #5325
 3220 Lakeshore Avenue
 Oakland, California

WELL ID	DATE	Ferrous Iron (ppm)	Nitrate as NO3 (ppm)	Phosphate as PO4 (ppm)	Redox Potential mV ¹
U-3	06/21/00	0.20	32	ND ¹	225 ²
(cont)	09/27/00	ND	34	15.7	211 ²
	12/12/00	ND	31	ND ¹	246 ²
	03/07/01	ND	36.5	0.443	251 ²
	06/06/01	ND⁴	8.0	0.18	214²
U-4	06/30/97	0.13	35	0.52	200 ³
	09/19/97	0.35	30	ND	45 ³
	12/12/97	0.68	31	0.73	380 ³
	03/03/98	0.018	3.2	ND	284 ²
	06/15/98	0.14	33	ND	256 ²
	09/30/98	0.049	31	ND	276 ²
	12/28/98	0.36	31	ND	280 ²
	03/22/99	ND	30	0.14	320 ³
	06/09/99	ND	35	0.91	340 ³
	09/08/99	ND	24	ND ¹	391 ³
	12/07/99	ND	27.7	ND ¹	478 ³
	03/13/00	ND	33	ND	² 219/ ³ 244 ³
	06/21/00	0.034	32	ND ¹	248 ²
	09/27/00	ND	28	ND ¹	198 ²
	12/12/00	ND	30	ND ¹	210 ²
	03/07/01	ND	33.9	0.226	233 ²
	06/06/01	ND⁴	7.4	0.21	248²
U-5	06/30/97	16	ND	ND	160 ³
	09/19/97	0.22	ND	ND	63 ³
	12/12/97	6.7	ND	ND	400 ³
	03/03/98	18	3.1	ND	345 ²
	06/15/98	17	ND	ND	333 ²
	09/30/98	17	ND	ND	318 ²
	12/28/98	17	6.6	ND	305 ²
	03/22/99	0.12	ND	2.4	340 ³
	06/09/99	0.23	ND	ND	320 ³
	09/08/99	2.10	ND ¹	ND ¹	335 ³
	12/07/99	0.310	ND ¹	ND ¹	408 ³
	03/13/00	0.33	0.16	ND	² 111/ ³ 264 ³
	06/21/00	0.15	ND ¹	ND ¹	159 ²
	09/27/00	0.33	ND ¹	ND ¹	136 ²
	12/12/00	0.086	ND ¹	ND ¹	122 ²
	03/07/01	1.07	3.02	4.00	141 ²
	06/06/01	ND⁴	ND	1.2	112²

Table 3
Groundwater Analytical Results
 Tosco (Unocal) Service Station #5325
 3220 Lakeshore Avenue
 Oakland, California

WELL ID	DATE	Ferrous Iron (ppm)	Nitrate as NO3 (ppm)	Phosphate as PO4 (ppm)	Redox Potential mV ²
U-6	06/30/97	88	0.80	ND	190 ³
	09/19/97	2.9	1.80	ND	ND ³
	12/12/97	51	ND	ND	380 ³
	03/03/98	60	3.5	ND	327 ²
	06/15/98	590	4.8	ND	315 ²
	09/30/98	33	ND	ND	345 ²
	12/28/98	83	7.2	ND	297 ²
	03/22/99	2.1	ND	0.98	330 ³
	06/09/99	0.47	0.20	ND	320 ³
	09/08/99	0.140	5.59	ND ¹	305 ³
	12/07/99	0.260	ND ¹	ND ¹	443 ³
	03/13/00	0.79	0.26	ND	² 68/ ²²² 3
	06/21/00	1.9	ND ¹	ND ¹	159 ²
	09/27/00	2.6	ND ¹	ND ¹	170 ²
	12/12/00	ND	2.7	ND ¹	128 ²
	03/07/01	2.52	3.11	37.0	117 ²
06/06/01	0.47 ⁴	0.15	0.70	97 ²	

EXPLANATIONS:

Groundwater analytical results prior to March 3, 1998, were compiled from reports prepared by MPDS Services, Inc.

(ppm) = Parts per million

ND = Not Detected

mV = millivolts

-- = Not Analyzed

¹ Detection limit raised. Refer to analytical reports.

² Field measurement.

³ Analyzed by laboratory.

⁴ Due to the transfer of samples from one laboratory to another laboratory; the sample was received beyond the EPA recommended holding time.

Table 4
Dissolved Oxygen Concentrations
 Tosco (Unocal) Service Station #5325
 3220 Lakeshore Avenue
 Oakland, California

WELL ID	DATE	Before Purge (mg/L)
U-1	12/07/99	1.36
	06/21/00	1.53
	09/27/00	1.63
	12/12/00	1.48
	03/07/01	1.91
	06/06/01	1.77
U-2	12/07/99	2.28
	06/21/00	1.96
	09/27/00	2.12
	12/12/00	2.35
	03/07/01	2.21
	06/06/01	2.67
U-3	06/30/97	4.1
	09/19/97	4.2
	12/12/97	2.97
	03/03/98	2.63
	06/15/98	2.93
	09/30/98	3.11
	12/28/98	3.59
	03/22/99	4.02
	06/09/99	3.70
	09/08/99	3.96
	12/07/99	4.21
	06/21/00	4.27
	09/27/00	4.67
	12/12/00	4.79
03/07/01	5.16	
06/06/01	4.79	
U-4	06/30/97	5.4
	09/19/97	5.1
	12/12/97	3.11
	03/03/98	2.94
	06/15/98	3.08
	09/30/98	4.05
	12/28/98	4.57
	03/22/99	4.26
	06/09/99	3.61
	09/08/99	3.75

Table 4
Dissolved Oxygen Concentrations
 Tosco (Unocal) Service Station #5325
 3220 Lakeshore Avenue
 Oakland, California

WELL ID	DATE	Before Purge (mg/L)
U-4 (cont)	12/07/99	4.03
	06/21/00	4.89
	09/27/00	5.09
	12/12/00	4.86
	03/07/01	4.97
	06/06/01	5.12
U-5	06/30/97	3.4
	09/19/97	0.6
	12/12/97	1.75
	03/03/98	2.36
	06/15/98	2.55
	09/30/98	1.93
	12/28/98	1.64
	03/22/99	1.99
	06/09/99	2.10
	09/08/99	2.21
	12/07/99	2.66
	06/21/00	3.42
	09/27/00	3.85
	12/12/00	3.53
03/07/01	2.98	
06/06/01	2.67	
U-6	06/30/97	0.30
	09/19/97	0.60
	12/12/97	2.70
	03/03/98	2.18
	06/15/98	2.48
	09/30/98	3.06
	12/28/98	3.42
	03/22/99	3.88
	06/09/99	3.29
	09/08/99	3.12
	12/07/99	3.44
	06/21/00	3.27
	09/27/00	3.49
	12/12/00	3.06
03/07/01	2.85	
06/06/01	2.46	

Table 4
Dissolved Oxygen Concentrations
Tosco (Unocal) Service Station #5325
3220 Lakeshore Avenue
Oakland, California

EXPLANATIONS:

Dissolved oxygen concentrations prior to March 3, 1998, were compiled from reports prepared by MPDS Services, Inc.

(mg/L) = milligrams per liter

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 # 5325
Address: 3220 Lakeshore Ave.
City: Oakland

Job#: 180061
Date: 6-6-01
Sampler: Joe

Well ID: U-1
Well Diameter: 3 in.
Total Depth: 19.68 ft.
Depth to Water: 9.29 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" = 5.80	

10.39 x VF 0.38 = 3.94 x 3 (case volume) = Estimated Purge Volume: 13 (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: 10:35 A.M. (10:35)
Purging Flow Rate: 1 gpm.
Did well de-water? _____

Weather Conditions: Hot
Water Color: clear Odor: yes
Sediment Description: _____
If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity μ mhos/cm X	Temperature F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>10:18</u>	<u>4</u>	<u>6.95</u>	<u>1.20</u>	<u>71.5</u>	<u>1.77</u>	<u>141</u>	
<u>10:20</u>	<u>9</u>	<u>6.90</u>	<u>1.02</u>	<u>71.1</u>			
<u>10:22</u>	<u>13</u>	<u>6.92</u>	<u>0.98</u>	<u>70.9</u>			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>U-1</u>	<u>3 vol</u>	<u>Y</u>	<u>HCL</u>	<u>Seq.</u>	<u>TPHG, BTEX, MTBE</u>
	<u>1 plastic</u>	<u>"</u>	<u>—</u>	<u>"</u>	<u>Ferrous Iron</u>
					<u>Nitrate</u>
					<u>phosphate</u>

COMMENTS: NO FP found in skimmer.

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Client/
Facility # 5325
Address: 3220 Lakeshore Ave.
City: Oakland

Job#: 180061
Date: 6-6-01
Sampler: Joe

Well ID U-2
Well Diameter 3 in.
Total Depth 19.60 ft.
Depth to Water 7.57 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" = 5.80

12.03 x VF 0.38 = 4.57 x 3 (case volume) = Estimated Purge Volume: 14 (gal.)

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

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

Starting Time: 9:35
Sampling Time: 10:00 AM (10:00)
Purging Flow Rate: 1 gpm.
Did well de-water? _____

Weather Conditions: flat
Water Color: clear Odor: yes
Sediment Description: _____
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>9:43</u>	<u>4.5</u>	<u>7.10</u>	<u>2.61</u>	<u>71.6</u>	<u>2.67</u>	<u>163</u>	
<u>9:45</u>	<u>9</u>	<u>7.14</u>	<u>2.62</u>	<u>72.0</u>			
<u>9:47</u>	<u>14</u>	<u>7.11</u>	<u>2.63</u>	<u>72.2</u>			
_____	_____	_____	_____	_____	_____	_____	_____

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>U-2</u>	<u>3 Vol</u>	<u>Y</u>	<u>HCL</u>	<u>Seq.</u>	<u>TPHG, BTEX, MTBE</u>
	<u>1 plastic</u>	<u>"</u>	<u>-</u>	<u>"</u>	<u>Ferrous Iron</u>
					<u>Nitrate</u>
					<u>phosphate</u>

COMMENTS: _____

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Client/
Facility # 5325
Address: 3220 Lakeshore Ave.
City: Oakland

Job#: 180061
Date: 6-6-01
Sampler: Joe

Well ID U-3
Well Diameter 3 in.
Total Depth 19.36 ft.
Depth to Water 10.94 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" = 5.80

8.42 x VF 0.38 = 3.20 x 3 (case volume) = Estimated Purge Volume: 10 (gal.)

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

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

Starting Time: 6:45
Sampling Time: 7:15 A.M. (7:15)
Purging Flow Rate: 1 gpm.
Did well de-water? _____

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

Time	Volume (gal.)	pH	Conductivity (µmhos/cm) X	Temperature F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>6:55</u>	<u>3.5</u>	<u>7.97</u>	<u>10.33</u>	<u>70.8</u>	<u>4.79</u>	<u>214</u>	
<u>6:57</u>	<u>7.5</u>	<u>7.57</u>	<u>10.38</u>	<u>71.0</u>			
<u>7:59</u>	<u>10</u>	<u>7.49</u>	<u>10.42</u>	<u>71.0</u>			
_____	_____	_____	_____	_____	_____	_____	_____

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>U-3</u>	<u>3 Vol</u>	<u>Y</u>	<u>HCL</u>	<u>Seq.</u>	<u>TPHG, BTEX, MTBE</u>
	<u>1 plastic</u>	<u>"</u>	<u>—</u>	<u>"</u>	<u>Ferrous Iron</u>
					<u>Nitrate</u>
					<u>phosphate</u>

COMMENTS: _____

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Client/
Facility # 5325
Address: 3220 Lakeshore Ave.
City: Oakland

Job#: 180061
Date: 6-6-01
Sampler: Joe

Well ID: U-4
Well Diameter: 4 in.
Total Depth: 20.15 ft.
Depth to Water: 9.18 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 6" = 1.50	3" = 0.38 12" = 5.80	4" = 0.66

10.97 X VF 0.66 = 7.24 X 3 (case volume) = Estimated Purge Volume: 22 (gal.)

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

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

Starting Time: 7:25
Sampling Time: 7:28 AM (7:58)
Purging Flow Rate: 2 gpm.
Did well de-water? _____

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

Time	Volume (gal.)	pH	Conductivity μ mhos/cm X	Temperature F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>7:35</u>	<u>7.5</u>	<u>7.60</u>	<u>8.88</u>	<u>71.1</u>	<u>5.12</u>	<u>248</u>	
<u>7:37</u>	<u>15</u>	<u>7.40</u>	<u>9.06</u>	<u>71.0</u>			
<u>7:40</u>	<u>22</u>	<u>7.35</u>	<u>9.10</u>	<u>71.4</u>			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>U-4</u>	<u>3Yot</u>	<u>Y</u>	<u>HCL</u>	<u>Seq.</u>	<u>TPHG, BTEX, MTBE</u>
	<u>1 plastic</u>	<u>"</u>	<u>—</u>	<u>"</u>	<u>Ferrous Iron</u>
					<u>Nitrate</u>
					<u>phosphate</u>

COMMENTS: _____

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/
Facility # 5325
Address: 3220 Lakeshore Ave.
City: Oakland

Job #: 180061
Date: 6-6-01
Sampler: Joe

Well ID: U-5
Well Diameter: 4 in.
Total Depth: 20.05 ft
Depth to Water: 7.42 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" = 5.80	

12.63 x VF 0.66 = 8.34 x 3 (case volume) = Estimated Purge Volume: 25 (gal.)

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

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

Starting Time: 9:10
Sampling Time: 9:26 A.M. (9:20)
Purging Flow Rate: 2 gpm
Did well de-water? _____

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

Time	Volume (gal.)	pH	Conductivity $\mu\text{mhos/cm} \times 10^2$	Temperature $^{\circ}\text{F}$	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>9:12</u>	<u>8</u>	<u>7.07</u>	<u>5.58</u>	<u>71.6</u>	<u>2.67</u>	<u>112</u>	
<u>9:15</u>	<u>16</u>	<u>7.15</u>	<u>5.51</u>	<u>71.6</u>			
<u>9:18</u>	<u>25</u>	<u>7.20</u>	<u>5.46</u>	<u>71.8</u>			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>U-5</u>	<u>3Y04</u>	<u>Y</u>	<u>HCL</u>	<u>Seq.</u>	<u>TPHG, BTEX, MTBE</u>
	<u>1 plastic</u>	<u>"</u>	<u>—</u>	<u>"</u>	<u>Ferrous Iron</u>
					<u>Nitrate</u>
					<u>phosphate</u>

COMMENTS: _____

**WELL MONITORING/SAMPLING
FIELD DATA SHEET**

Client/Facility # 5325 Job#: 180061
 Address: 3220 Lakeshore Ave. Date: 6-6-01
 City: Oakland Sampler: Joe

Well ID U-6 Well Condition: O.K.
 Well Diameter 2 in. Hydrocarbon Thickness: 0 in. Amount Bailed (product/water): 0 (gal.)
 Total Depth 23.78 ft.
 Depth to Water 7.80 ft.

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

15.98 x VF 0.17 = 2.72 x 3 (case volume) = Estimated Purge Volume: 8.5 (gal.)

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

Starting Time: 8:16 Weather Conditions: Hot
 Sampling Time: 8:48 A.M. (8:48) Water Color: clear Odor: mild
 Purging Flow Rate: 1 gpm. Sediment Description: _____
 Did well de-water? _____ 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>8:22</u>	<u>3</u>	<u>7.49</u>	<u>6.16</u>	<u>72.2</u>	<u>2.46</u>	<u>97</u>	
<u>8:24</u>	<u>6</u>	<u>7.40</u>	<u>6.18</u>	<u>72.0</u>			
<u>8:26</u>	<u>8.5</u>	<u>7.31</u>	<u>6.21</u>	<u>72.4</u>			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>U-6</u>	<u>3 vol</u>	<u>Y</u>	<u>HCL</u>	<u>Seq.</u>	<u>TPHG, BTEX, MTBE</u>
	<u>1 plastic</u>	<u>"</u>	<u>-</u>	<u>"</u>	<u>Ferrous Iron</u>
					<u>Nitrate</u>
					<u>phosphate</u>

COMMENTS: _____



**Sequoia
Analytical**

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

RECEIVED

JUL 02 2001

GETTLER-RYAN INC.
GENERAL CONTRACTORS

June 28 , 2001

Deanna Harding
Gettler-Ryan/Geostrategies(1)
6747 Sierra Court, Suite J
Dublin, CA 94568
RE: Tosco(1) / L106026

Enclosed are the results of analyses for samples received by the laboratory on 06/06/01. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Latonya K. Pelt

Latonya Pelt
Project Manager

CA ELAP Certificate Number 2360



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

Project: Tosco(1)
Project Number: Tosco #5325, Oakland, CA
Project Manager: Deanna Harding

Reported:
06/28/01 15:21

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
TB-LB	L106026-01	Water	06/06/01 00:00	06/06/01 15:50
U-1	L106026-02	Water	06/06/01 10:35	06/06/01 15:50
U-2	L106026-03	Water	06/06/01 10:00	06/06/01 15:50
U-3	L106026-04	Water	06/06/01 07:15	06/06/01 15:50
U-4	L106026-05	Water	06/06/01 07:58	06/06/01 15:50
U-5	L106026-06	Water	06/06/01 09:26	06/06/01 15:50
U-6	L106026-07	Water	06/06/01 08:48	06/06/01 15:50

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

Project: Tosco(1)
 Project Number: Tosco #5325, Oakland, CA
 Project Manager: Deanna Harding

Reported:
 06/28/01 15:21

Total Purgeable Hydrocarbon (C6-C12) by EPA 8015M and BTEX/MTBE by EPA 8020
Sequoia Analytical - San Carlos

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
TB-LB (L106026-01) Water Sampled: 06/06/01 00:00 Received: 06/06/01 15:50									
Purgeable Hydrocarbons as Gasoline	ND	50	ug/l	1	1060072	06/18/01	06/18/01	DHS LUFT	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		74.9 %	70-130		"	"	"	"	
U-1 (L106026-02) Water Sampled: 06/06/01 10:35 Received: 06/06/01 15:50									
Purgeable Hydrocarbons as Gasoline	5200	1000	ug/l	20	1060072	06/18/01	06/18/01	DHS LUFT	P-02
Benzene	17	10	"	"	"	"	"	"	
Toluene	ND	10	"	"	"	"	"	"	
Ethylbenzene	69	10	"	"	"	"	"	"	
Xylenes (total)	420	10	"	"	"	"	"	"	
Methyl tert-butyl ether	6500	100	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		113 %	70-130		"	"	"	"	
U-2 (L106026-03) Water Sampled: 06/06/01 10:00 Received: 06/06/01 15:50									
Purgeable Hydrocarbons as Gasoline	1100	500	ug/l	10	1060072	06/18/01	06/18/01	DHS LUFT	P-01
Benzene	14	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	9.3	5.0	"	"	"	"	"	"	
Xylenes (total)	35	5.0	"	"	"	"	"	"	
Methyl tert-butyl ether	9200	250	"	50	"	"	06/19/01	"	M-04
<i>Surrogate: a,a,a-Trifluorotoluene</i>		106 %	70-130		"	"	06/18/01	"	

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

Project: Tosco(1)
 Project Number: Tosco #5325, Oakland, CA
 Project Manager: Deanna Harding

Reported:
 06/28/01 15:21

Total Purgeable Hydrocarbon (C6-C12) by EPA 8015M and BTEX/MTBE by EPA 8020
Sequoia Analytical - San Carlos

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	-----------------	-------	----------	-------	----------	----------	--------	-------

U-3 (L106026-04) Water Sampled: 06/06/01 07:15 Received: 06/06/01 15:50

Purgeable Hydrocarbons as Gasoline	ND	50	ug/l	1	1060072	06/18/01	06/19/01	DHS LUFT	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	

Surrogate: a,a,a-Trifluorotoluene 104 % 70-130 " " " "

U-4 (L106026-05) Water Sampled: 06/06/01 07:58 Received: 06/06/01 15:50

Purgeable Hydrocarbons as Gasoline	ND	50	ug/l	1	1060072	06/18/01	06/18/01	DHS LUFT	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	

Surrogate: a,a,a-Trifluorotoluene 119 % 70-130 " " " "

U-5 (L106026-06) Water Sampled: 06/06/01 09:26 Received: 06/06/01 15:50

Purgeable Hydrocarbons as Gasoline	110	50	ug/l	1	1060077	06/19/01	06/19/01	DHS LUFT	P-02
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	

Surrogate: a,a,a-Trifluorotoluene 98.4 % 70-130 " " " "

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

Project: Tosco(1)
 Project Number: Tosco #5325, Oakland, CA
 Project Manager: Deanna Harding

Reported:
 06/28/01 15:21

Total Purgeable Hydrocarbon (C6-C12) by EPA 8015M and BTEX/MTBE by EPA 8020
Sequoia Analytical - San Carlos

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
U-6 (L106026-07) Water Sampled: 06/06/01 08:48 Received: 06/06/01 15:50										
Purgeable Hydrocarbons as Gasoline	ND	50		ug/l	1	1060077	06/19/01	06/19/01	DHS LUFT	
Benzene	ND	0.50		"	"	"	"	"	"	
Toluene	ND	0.50		"	"	"	"	"	"	
Ethylbenzene	ND	0.50		"	"	"	"	"	"	
Xylenes (total)	ND	0.50		"	"	"	"	"	"	
Methyl tert-butyl ether	250	5.0		"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		97.5 %		70-130		"	"	"	"	

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

Project: Tosco(1)
Project Number: Tosco #5325, Oakland, CA
Project Manager: Deanna Harding

Reported:
06/28/01 15:21

Volatile Organic 8 Oxygenated Compounds by EPA Method 8260B
Sequoia Analytical - San Carlos

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
U-1 (L106026-02) Water Sampled: 06/06/01 10:35 Received: 06/06/01 15:50									HT-04
Ethanol	ND	50000	ug/l	50	1060123	06/27/01	06/27/01	EPA 8260B	
1,2-Dibromoethane	ND	100	"	"	"	"	"	"	
1,2-Dichloroethane	ND	100	"	"	"	"	"	"	
Di-isopropyl ether	ND	100	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	100	"	"	"	"	"	"	
Methyl tert-butyl ether	8700	100	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	100	"	"	"	"	"	"	
Tert-butyl alcohol	ND	5000	"	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		95.8 %		76-114	"	"	"	"	
<i>Surrogate: Toluene-d8</i>		106 %		88-110	"	"	"	"	
U-2 (L106026-03) Water Sampled: 06/06/01 10:00 Received: 06/06/01 15:50									HT-04
Ethanol	ND	62000	ug/l	62.5	1060123	06/27/01	06/27/01	EPA 8260B	
1,2-Dibromoethane	ND	120	"	"	"	"	"	"	
1,2-Dichloroethane	ND	120	"	"	"	"	"	"	
Di-isopropyl ether	ND	120	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	120	"	"	"	"	"	"	
Methyl tert-butyl ether	10000	120	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	120	"	"	"	"	"	"	
Tert-butyl alcohol	ND	6200	"	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		95.8 %		76-114	"	"	"	"	
<i>Surrogate: Toluene-d8</i>		101 %		88-110	"	"	"	"	
U-6 (L106026-07) Water Sampled: 06/06/01 08:48 Received: 06/06/01 15:50									HT-04
Ethanol	ND	1700	ug/l	1.67	1060123	06/27/01	06/27/01	EPA 8260B	
1,2-Dibromoethane	ND	3.3	"	"	"	"	"	"	
1,2-Dichloroethane	ND	3.3	"	"	"	"	"	"	
Di-isopropyl ether	ND	3.3	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	3.3	"	"	"	"	"	"	
Methyl tert-butyl ether	330	3.3	"	"	"	"	"	"	
Tert-amyl methyl ether	ND	3.3	"	"	"	"	"	"	
Tert-butyl alcohol	ND	170	"	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		97.2 %		76-114	"	"	"	"	
<i>Surrogate: Toluene-d8</i>		106 %		88-110	"	"	"	"	

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

Project: Tosco(1)
 Project Number: Tosco #5325, Oakland, CA
 Project Manager: Deanna Harding

Reported:
 06/28/01 15:21

Conventional Chemistry Parameters by APHA/EPA Methods
Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
U-1 (L106026-02) Water Sampled: 06/06/01 10:35 Received: 06/06/01 15:50									
Ferrous Iron	1.0	0.10	mg/l	1	1060226	06/07/01	06/07/01	SM 3500 Fe D#4	HT-01
Nitrate as N	ND	0.050	"	"	1060215	06/07/01	06/07/01	EPA 353.2	
Nitrate/Nitrite as N	ND	0.050	"	"	1060214	"	"	"	
Orthophosphate as P	2.7	0.050	"	"	1060228	06/07/01	06/07/01	EPA 365.2	
U-2 (L106026-03) Water Sampled: 06/06/01 10:00 Received: 06/06/01 15:50									
Ferrous Iron	0.80	0.10	mg/l	1	1060226	06/07/01	06/07/01	SM 3500 Fe D#4	HT-01
Nitrate as N	ND	0.050	"	"	1060215	06/07/01	06/07/01	EPA 353.2	
Nitrate/Nitrite as N	ND	0.050	"	"	1060214	"	"	"	
Orthophosphate as P	2.8	0.050	"	"	1060228	06/07/01	06/07/01	EPA 365.2	
U-3 (L106026-04) Water Sampled: 06/06/01 07:15 Received: 06/06/01 15:50									
Ferrous Iron	ND	0.10	mg/l	1	1060226	06/07/01	06/07/01	SM 3500 Fe D#4	HT-01
Nitrate as N	8.0	0.050	"	"	1060215	06/07/01	06/07/01	EPA 353.2	
Nitrite as N	ND	0.050	"	"	"	"	"	"	
Nitrate/Nitrite as N	8.0	0.25	"	5	1060214	"	"	"	
Orthophosphate as P	0.18	0.050	"	1	1060228	06/07/01	06/07/01	EPA 365.2	
U-4 (L106026-05) Water Sampled: 06/06/01 07:58 Received: 06/06/01 15:50									
Ferrous Iron	ND	0.10	mg/l	1	1060226	06/07/01	06/07/01	SM 3500 Fe D#4	HT-01
Nitrate as N	7.4	0.050	"	"	1060215	06/07/01	06/07/01	EPA 353.2	
Nitrite as N	ND	0.050	"	"	"	"	"	"	
Nitrate/Nitrite as N	7.4	0.25	"	5	1060214	"	"	"	
Orthophosphate as P	0.21	0.050	"	1	1060228	06/07/01	06/07/01	EPA 365.2	

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

Project: Tosco(1)
 Project Number: Tosco #5325, Oakland, CA
 Project Manager: Deanna Harding

Reported:
 06/28/01 15:21

Conventional Chemistry Parameters by APHA/EPA Methods
Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
U-5 (L106026-06) Water Sampled: 06/06/01 09:26 Received: 06/06/01 15:50									
Ferrous Iron	ND	0.10	mg/l	1	1060226	06/07/01	06/07/01	SM 3500 Fe D#4	HT-01
Nitrate as N	ND	0.050	"	"	1060215	06/07/01	06/07/01	EPA 353.2	
Nitrate/Nitrite as N	ND	0.050	"	"	1060214	"	"	"	
Orthophosphate as P	1.2	0.050	"	"	1060228	06/07/01	06/07/01	EPA 365.2	
U-6 (L106026-07) Water Sampled: 06/06/01 08:48 Received: 06/06/01 15:50									
Ferrous Iron	0.47	0.10	mg/l	1	1060226	06/07/01	06/07/01	SM 3500 Fe D#4	HT-01
Nitrate as N	0.15	0.050	"	"	1060215	06/07/01	06/07/01	EPA 353.2	
Nitrite as N	ND	0.050	"	"	"	"	"	"	
Nitrate/Nitrite as N	0.15	0.050	"	"	1060214	"	"	"	
Orthophosphate as P	0.70	0.050	"	"	1060228	06/07/01	06/07/01	EPA 365.2	

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

Project: Tosco(1)
 Project Number: Tosco #5325, Oakland, CA
 Project Manager: Deanna Harding

Reported:
 06/28/01 15:21

Total Purgeable Hydrocarbon (C6-C12) by EPA 8015M and BTEX/MTBE by EPA 8020 - Quality Control
Sequoia Analytical - San Carlos

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1060072 - EPA 5030B (P/T)										
Blank (1060072-BLK1) Prepared & Analyzed: 06/18/01										
Purgeable Hydrocarbons as Gasoline	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	5.0	"							
Surrogate: a,a,a-Trifluorotoluene	9.12		"	10.0		91.2	70-130			
LCS (1060072-BS1) Prepared & Analyzed: 06/18/01										
Benzene	8.44	0.50	ug/l	10.0		84.4	70-130			
Toluene	8.17	0.50	"	10.0		81.7	70-130			
Ethylbenzene	8.27	0.50	"	10.0		82.7	70-130			
Xylenes (total)	24.4	0.50	"	30.0		81.3	70-130			
Surrogate: a,a,a-Trifluorotoluene	9.14		"	10.0		91.4	70-130			
LCS (1060072-BS2) Prepared & Analyzed: 06/18/01										
Purgeable Hydrocarbons as Gasoline	260	50	ug/l	250		104	70-130			
Surrogate: a,a,a-Trifluorotoluene	10.1		"	10.0		101	70-130			
Matrix Spike (1060072-MS1) Source: L106026-05 Prepared: 06/18/01 Analyzed: 06/19/01										
Purgeable Hydrocarbons as Gasoline	264	50	ug/l	250	ND	106	60-140			
Surrogate: a,a,a-Trifluorotoluene	11.1		"	10.0		111	70-130			
Matrix Spike Dup (1060072-MSD1) Source: L106026-05 Prepared: 06/18/01 Analyzed: 06/19/01										
Purgeable Hydrocarbons as Gasoline	269	50	ug/l	250	ND	108	60-140	1.88	25	
Surrogate: a,a,a-Trifluorotoluene	11.4		"	10.0		114	70-130			

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

Project: Tosco(1)
Project Number: Tosco #5325, Oakland, CA
Project Manager: Deanna Harding

Reported:
06/28/01 15:21

Total Purgeable Hydrocarbon (C6-C12) by EPA 8015M and BTEX/MTBE by EPA 8020 - Quality Control
Sequoia Analytical - San Carlos

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch 1060077 - EPA 5030B (P/T)

Blank (1060077-BLK1)

Prepared & Analyzed: 06/19/01

Purgeable Hydrocarbons as Gasoline	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	5.0	"							
Surrogate: a,a,a-Trifluorotoluene	9.29		"	10.0		92.9	70-130			

LCS (1060077-BS1)

Prepared & Analyzed: 06/19/01

Benzene	8.56	0.50	ug/l	10.0		85.6	70-130			
Toluene	8.36	0.50	"	10.0		83.6	70-130			
Ethylbenzene	8.37	0.50	"	10.0		83.7	70-130			
Xylenes (total)	25.5	0.50	"	30.0		85.0	70-130			
Surrogate: a,a,a-Trifluorotoluene	9.50		"	10.0		95.0	70-130			

LCS (1060077-BS2)

Prepared & Analyzed: 06/19/01

Purgeable Hydrocarbons as Gasoline	267	50	ug/l	250		107	70-130			
Surrogate: a,a,a-Trifluorotoluene	11.3		"	10.0		113	70-130			

Matrix Spike (1060077-MS1)

Source: L106035-05

Prepared & Analyzed: 06/19/01

Benzene	8.53	0.50	ug/l	10.0	ND	85.3	60-140			
Toluene	8.41	0.50	"	10.0	ND	84.1	60-140			
Ethylbenzene	8.49	0.50	"	10.0	ND	84.9	60-140			
Xylenes (total)	25.6	0.50	"	30.0	ND	85.3	60-140			
Surrogate: a,a,a-Trifluorotoluene	9.67		"	10.0		96.7	70-130			

Matrix Spike Dup (1060077-MSD1)

Source: L106035-05

Prepared & Analyzed: 06/19/01

Benzene	8.50	0.50	ug/l	10.0	ND	85.0	60-140	0.352	25	
Toluene	8.40	0.50	"	10.0	ND	84.0	60-140	0.119	25	
Ethylbenzene	8.38	0.50	"	10.0	ND	83.8	60-140	1.30	25	
Xylenes (total)	25.4	0.50	"	30.0	ND	84.7	60-140	0.784	25	
Surrogate: a,a,a-Trifluorotoluene	10.2		"	10.0		102	70-130			

Sequoia Analytical - San Carlos

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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

Project: Tosco(1)
 Project Number: Tosco #5325, Oakland, CA
 Project Manager: Deanna Harding

Reported:
 06/28/01 15:21

Volatile Organic 8 Oxygenated Compounds by EPA Method 8260B - Quality Control
Sequoia Analytical - San Carlos

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch 1060123 - EPA 5030B [P/T]

Blank (1060123-BLK1)

Prepared: 06/27/01 Analyzed: 06/28/01

Ethanol	ND	1000	ug/l							
1,2-Dibromoethane	ND	2.0	"							
1,2-Dichloroethane	ND	2.0	"							
Di-isopropyl ether	ND	2.0	"							
Ethyl tert-butyl ether	ND	2.0	"							
Methyl tert-butyl ether	ND	2.0	"							
Tert-amyl methyl ether	ND	2.0	"							
Tert-butyl alcohol	ND	100	"							
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.00</i>		"	<i>50.0</i>		<i>95.6</i>	<i>76-114</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.00</i>		"	<i>50.0</i>		<i>106</i>	<i>88-110</i>			

Blank (1060123-BLK2)

Prepared & Analyzed: 06/27/01

Ethanol	ND	1000	ug/l							
1,2-Dibromoethane	ND	2.0	"							
1,2-Dichloroethane	ND	2.0	"							
Di-isopropyl ether	ND	2.0	"							
Ethyl tert-butyl ether	ND	2.0	"							
Methyl tert-butyl ether	ND	2.0	"							
Tert-amyl methyl ether	ND	2.0	"							
Tert-butyl alcohol	ND	100	"							
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>47.8</i>		"	<i>50.0</i>		<i>95.6</i>	<i>76-114</i>			
<i>Surrogate: Toluene-d8</i>	<i>53.1</i>		"	<i>50.0</i>		<i>106</i>	<i>88-110</i>			

LCS (1060123-BS1)

Prepared: 06/27/01 Analyzed: 06/28/01

Methyl tert-butyl ether	ND	2.0	ug/l	50.0			70-130			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.00</i>		"	<i>50.0</i>			<i>76-114</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.00</i>		"	<i>50.0</i>			<i>88-110</i>			

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

Project: Tosco(1)
 Project Number: Tosco #5325, Oakland, CA
 Project Manager: Deanna Harding

Reported:
 06/28/01 15:21

**Volatile Organic 8 Oxygenated Compounds by EPA Method 8260B - Quality Control
 Sequoia Analytical - San Carlos**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch 1060123 - EPA 5030B [P/T]

LCS (1060123-BS2)

Prepared & Analyzed: 06/27/01

Methyl tert-butyl ether	47.1	2.0	ug/l	50.0		94.2	70-130			
Surrogate: 1,2-Dichloroethane-d4	47.0		"	50.0		94.0	76-114			
Surrogate: Toluene-d8	53.6		"	50.0		107	88-110			

Matrix Spike (1060123-MS1)

Source: L106151-05

Prepared: 06/27/01 Analyzed: 06/28/01

Methyl tert-butyl ether	ND	2.0	ug/l	50.0	ND		60-140			
Surrogate: 1,2-Dichloroethane-d4	0.00		"	50.0			76-114			
Surrogate: Toluene-d8	0.00		"	50.0			88-110			

Matrix Spike Dup (1060123-MSD1)

Source: L106151-05

Prepared: 06/27/01 Analyzed: 06/28/01

Methyl tert-butyl ether	ND	2.0	ug/l	50.0	ND		60-140		25	
Surrogate: 1,2-Dichloroethane-d4	0.00		"	50.0			76-114			
Surrogate: Toluene-d8	0.00		"	50.0			88-110			

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

Project: Tosco(1)
Project Number: Tosco #5325, Oakland, CA
Project Manager: Deanna Harding

Reported:
06/28/01 15:21

Conventional Chemistry Parameters by APHA/EPA Methods - Quality Control
Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch 1060214 - General Preparation

Prepared & Analyzed: 06/07/01										
Blank (1060214-BLK1)										
Nitrate/Nitrite as N	ND	0.050	mg/l							
LCS (1060214-BS1)										
Nitrate/Nitrite as N	4.62	0.050	mg/l	4.00		116	80-120			
Matrix Spike (1060214-MS1)										
Nitrate/Nitrite as N	17.9	0.050	mg/l	10.0	7.4	105	75-125			
Matrix Spike Dup (1060214-MSD1)										
Nitrate/Nitrite as N	17.7	0.050	mg/l	10.0	7.4	103	75-125	1.12	20	

Batch 1060215 - General Preparation

Prepared & Analyzed: 06/07/01										
Blank (1060215-BLK1)										
Nitrite as N	ND	0.050	mg/l							
LCS (1060215-BS1)										
Nitrite as N	4.54	0.050	mg/l	4.00		114	80-120			
Matrix Spike (1060215-MS1)										
Nitrite as N	4.08	0.050	mg/l	4.00	ND	102	75-125			
Matrix Spike Dup (1060215-MSD1)										
Nitrite as N	3.76	0.050	mg/l	4.00	ND	94.0	75-125	8.16	20	

Batch 1060226 - General Preparation

Prepared & Analyzed: 06/07/01										
Blank (1060226-BLK1)										
Ferrous Iron	ND	0.10	mg/l							

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

Project: Tosco(1)
 Project Number: Tosco #5325, Oakland, CA
 Project Manager: Deanna Harding

Reported:
 06/28/01 15:21

Conventional Chemistry Parameters by APHA/EPA Methods - Quality Control
Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch 1060226 - General Preparation

LCS (1060226-BS1)

Prepared & Analyzed: 06/07/01

Ferrous Iron	0.851	0.10	mg/l	0.800		106	80-120			
--------------	-------	------	------	-------	--	-----	--------	--	--	--

Matrix Spike (1060226-MS1)

Source: L106026-04

Prepared & Analyzed: 06/07/01

Ferrous Iron	0.876	0.10	mg/l	0.800	ND	110	75-125			
--------------	-------	------	------	-------	----	-----	--------	--	--	--

Matrix Spike Dup (1060226-MSD1)

Source: L106026-04

Prepared & Analyzed: 06/07/01

Ferrous Iron	0.778	0.10	mg/l	0.800	ND	97.2	75-125	11.9	20	
--------------	-------	------	------	-------	----	------	--------	------	----	--

Batch 1060228 - General Preparation

Blank (1060228-BLK1)

Prepared & Analyzed: 06/07/01

Orthophosphate as P	ND	0.050	mg/l							
---------------------	----	-------	------	--	--	--	--	--	--	--

LCS (1060228-BS1)

Prepared & Analyzed: 06/07/01

Orthophosphate as P	0.606	0.050	mg/l	0.526		115	80-120			
---------------------	-------	-------	------	-------	--	-----	--------	--	--	--

Matrix Spike (1060228-MS1)

Source: L106026-05

Prepared & Analyzed: 06/07/01

Orthophosphate as P	0.748	0.050	mg/l	0.526	0.21	102	75-125			
---------------------	-------	-------	------	-------	------	-----	--------	--	--	--

Matrix Spike Dup (1060228-MSD1)

Source: L106026-05

Prepared & Analyzed: 06/07/01

Orthophosphate as P	0.684	0.050	mg/l	0.526	0.21	90.1	75-125	8.94	20	
---------------------	-------	-------	------	-------	------	------	--------	------	----	--

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

Project: Tosco(1)
Project Number: Tosco #5325, Oakland, CA
Project Manager: Deanna Harding

Reported:
06/28/01 15:21

Notes and Definitions

HT-01 This sample was received beyond the EPA recommended holding time. The results may still be useful for their intended purpose.

HT-04 This sample was analyzed beyond the EPA recommended holding time. The results may still be useful for their intended purpose.

M-04 MTBE was reported from second analysis.

P-01 Chromatogram Pattern: Gasoline C6-C12

P-02 Chromatogram Pattern: Weathered 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