



# GETTLER-RYAN INC.

## TRANSMITTAL

May 13, 2003

G-R #180047

TO: Mr. David B. De Witt  
ConocoPhillips  
76 Broadway Avenue  
Sacramento, California 95818

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  
#6034  
4700 First Street  
Livermore, California**

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DATED	DESCRIPTION
1	May 12, 2003	Groundwater Monitoring and Sampling Report First Semi-Annual - Event of April 3, 2003

### 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 **May 27, 2003**, this report will be distributed to the following:

cc: Alameda County Health Care Services, 1131 Harbor Bay Pkwy., Alameda, CA 94502

Enclosure

trans/6034-dbd



# GETTLER-RYAN INC.

May 12, 2003  
G-R Job #180047

Mr. David De Witt  
ConocoPhillips  
76 Broadway Avenue  
Sacramento, California 95818

**RE: First Semi-Annual Event April 3, 2003**  
Groundwater Monitoring & Sampling Report  
Tosco (Unocal) Service Station #6034  
4700 First Street  
Livermore, 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 the wells. Static water level data and groundwater elevations are summarized in Table 1. Dissolved Oxygen Concentrations are summarized in Table 3. A Potentiometric Map is included as Figure 1.

Groundwater samples were collected from the monitoring wells and submitted to a state certified laboratory for analyses. The field data sheets for this event are attached. Analytical results are presented in the table(s) listed below. 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

Robert C. Mallory  
Registered Geologist No. 7285

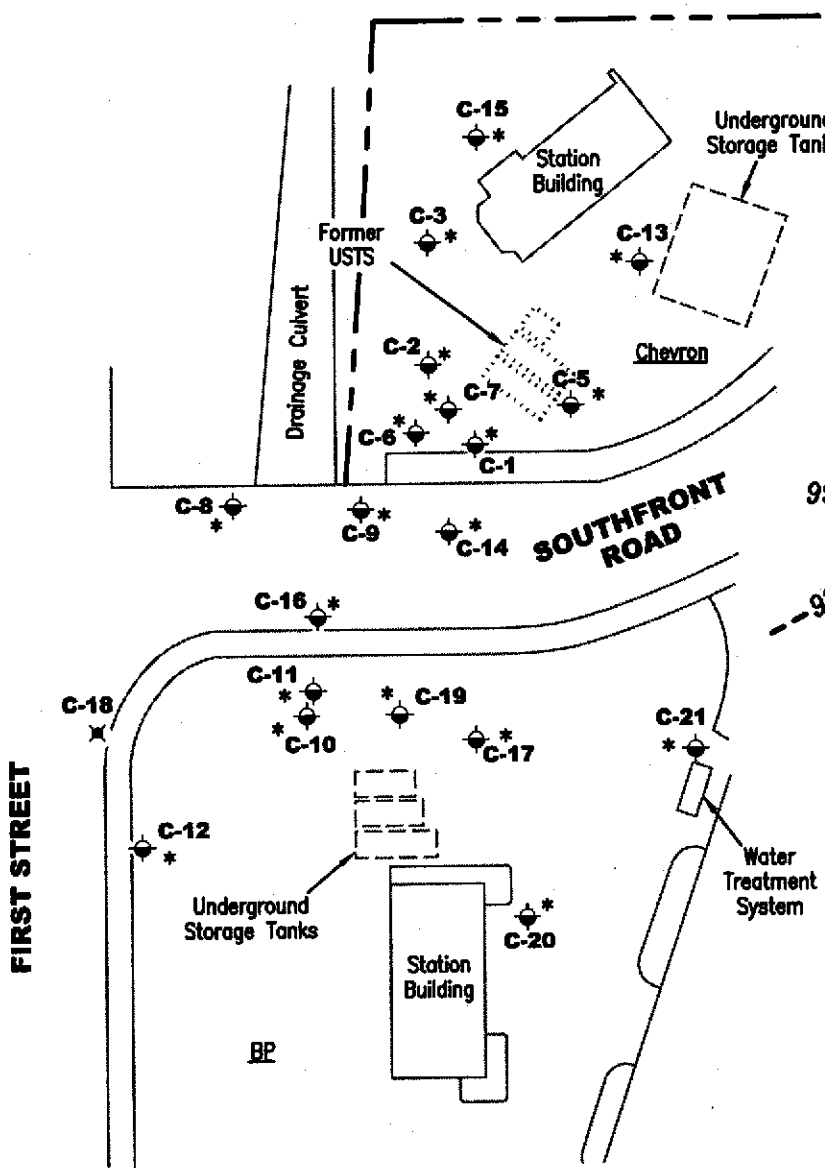
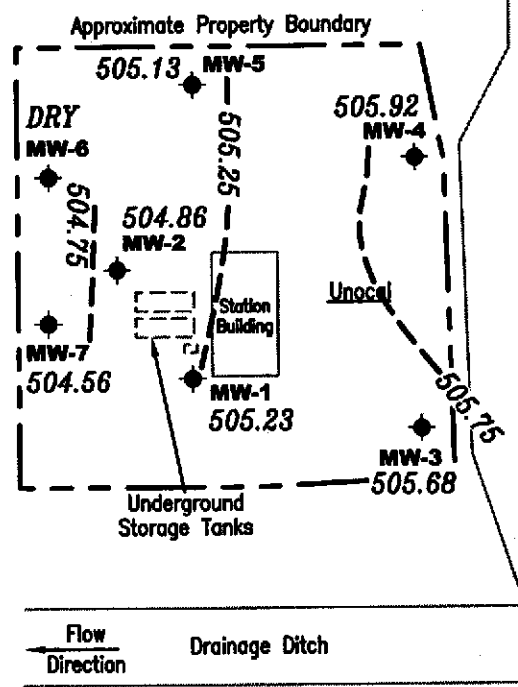


Figure 1: Potentiometric Map  
Figure 2: Concentration Map  
Table 1: Groundwater Monitoring Data and Analytical Results  
Table 2: Groundwater Analytical Results  
Table 3: Dissolved Oxygen Concentrations  
Table 4: Joint Groundwater Monitoring Data - Chevron Service Station #9-1924  
Attachments: Standard Operating Procedure - Groundwater Sampling  
Field Data Sheets  
Chain of Custody Document and Laboratory Analytical Reports

6034.qml

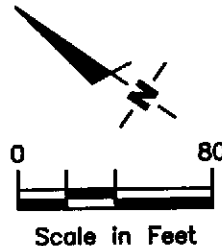


Approximate groundwater flow direction at a gradient of 0.006 to 0.009 Ft./Ft.



### EXPLANATION

- ◆ Groundwater monitoring well (Unocal)
- ◆ Groundwater monitoring well (Chevron)
- ✖ Abandoned well
- 99.99 Groundwater elevation in feet referenced to Mean Sea Level
- - - 99.99 Groundwater elevation contour, dashed where inferred
- \* Discontinued from monitoring/sampling program



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 #6034  
 4700 First Street  
 Livermore, California

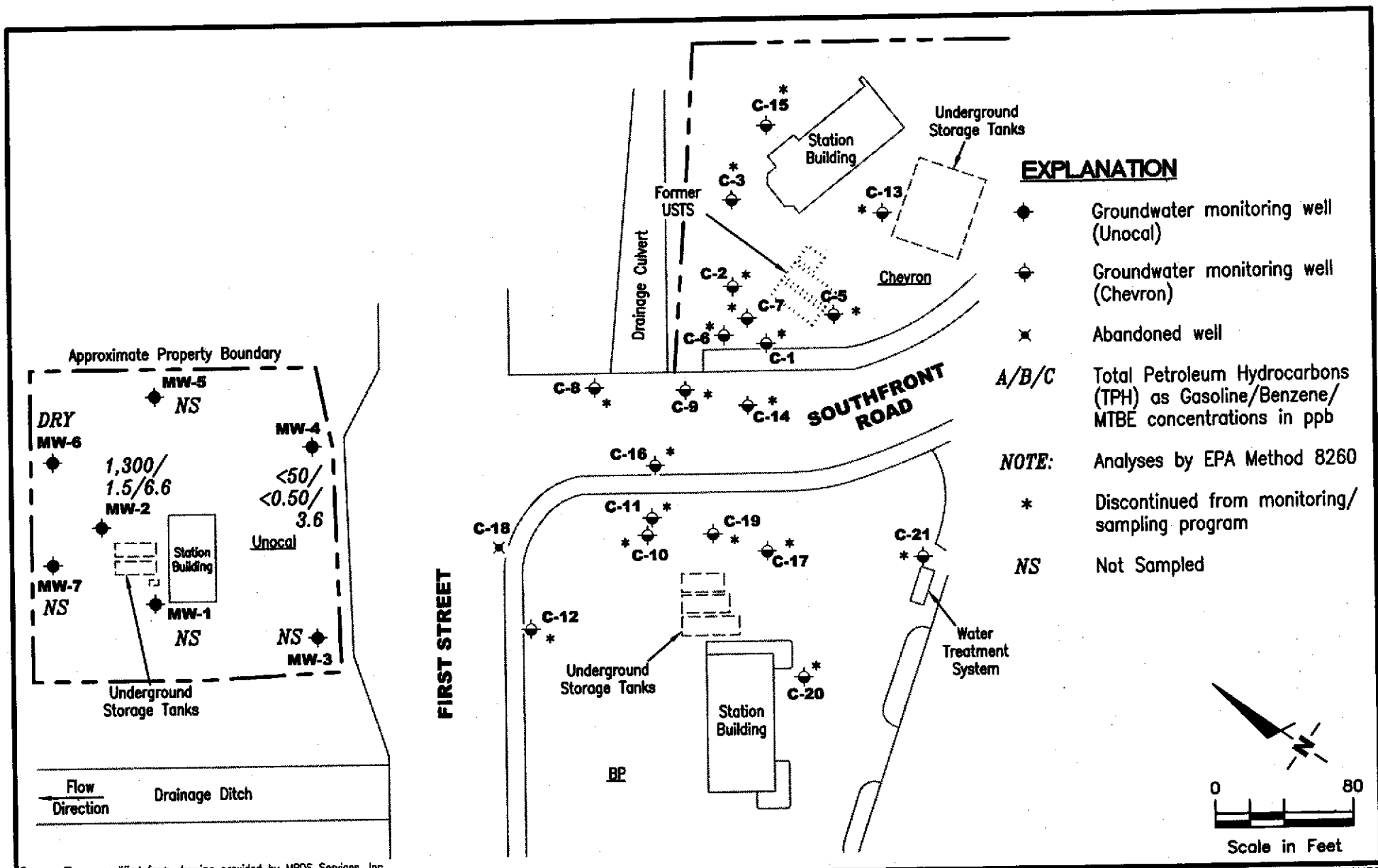
FIGURE 1

PROJECT NUMBER  
180047

REVIEWED BY

DATE  
April 3, 2003

REVISED DATE



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



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 Dublin, CA 94568 (925) 551-7555

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DATE  
 April 3, 2003

REVISED DATE

FILE NAME: P:\ENVIRO\TOSCO\6034\003-6034.DWG | Layout Tab: Con2

FIGURE

2

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
 Tosco (Unocal) Service Station #6034  
 4700 First Street  
 Livermore, California

WELL ID/ TOC* (ft.)	DATE	DTW (ft.)	S.I. (ft. bgs)	GWE (msl)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)	
MW-1	11/18/89 <sup>9</sup>	--	11.0-28.5	--	ND	ND	ND	ND	ND	--	
	03/08/90 <sup>10</sup>	--		--	ND	ND	ND	ND	ND	--	
	06/05/90 <sup>11</sup>	--		--	ND	ND	ND	ND	ND	--	
	09/07/90 <sup>11</sup>	--		--	ND	ND	1.2	ND	ND	--	
	12/24/90 <sup>11</sup>	--		--	ND	ND	ND	ND	0.40	--	
	04/10/91 <sup>11</sup>	--		--	ND	ND	ND	ND	ND	--	
	07/10/91 <sup>11</sup>	--		--	ND	ND	ND	ND	ND	--	
520.88	04/22/93	15.47		505.41	--	--	--	--	--	--	
	07/20/93	18.04		502.84	--	--	--	--	--	--	
520.64	10/20/93	15.69		504.95	--	--	--	--	--	--	
	01/20/94	15.65		504.99	--	--	--	--	--	--	
	04/21/94 <sup>11</sup>	15.58		505.06	ND	ND	ND	ND	ND	--	
	07/21/94	15.62		505.02	SAMPLED ANNUALLY					--	--
	10/19/94	15.28		505.36	--	--	--	--	--	--	
	01/18/95	14.56		506.08	--	--	--	--	--	--	
	04/17/95 <sup>12</sup>	14.82		505.82	ND	ND	ND	ND	ND	--	
	07/18/95	14.78		505.86	--	--	--	--	--	--	
	10/17/95	14.83		505.81	--	--	--	--	--	--	
	01/17/96	14.96		505.68	--	--	--	--	--	--	
	04/17/96 <sup>13</sup>	14.47		506.17	ND	ND	ND	ND	ND	ND	
	07/16/96	14.57		506.07	--	--	--	--	--	--	
	10/16/96	14.50		506.14	--	--	--	--	--	--	
	04/08/97	15.05		505.59	SAMPLING DISCONTINUED					--	--
	10/06/97	15.00		505.64	--	--	--	--	--	--	
	04/02/98	14.80		505.84	--	--	--	--	--	--	
	10/07/98	14.72		505.92	--	--	--	--	--	--	
	04/14/99	14.89		505.75	--	--	--	--	--	--	
	10/12/99	14.79		505.85	--	--	--	--	--	--	
	04/10/00	14.93		505.71	--	--	--	--	--	--	
10/02/00	15.18		505.46	--	--	--	--	--	--		
04/02/01	14.72		505.92	--	--	--	--	--	--		
10/05/01	15.51		505.13	--	--	--	--	--	--		

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
 Tosco (Unocal) Service Station #6034  
 4700 First Street  
 Livermore, California

WELL ID/ TOC* (ft.)	DATE	DTW (ft.)	S.L. (ft.bgs)	GWE (msl)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
MW-1	04/01/02	15.40	11.0-28.5	505.24	--	--	--	--	--	--
(cont)	10/16/02	15.54		505.10	--	--	--	--	--	--
	04/03/03	15.41		505.23	--	--	--	--	--	--
MW-2	11/18/89	--	11.0-25.0	--	53,000	540	500	130	22,000	--
	03/08/90	--		--	26,000	230	410	1,300	2,100	--
	06/05/90	--		--	31,000	250	460	950	9,200	--
	09/07/90	--		--	ND	ND	1.5	ND	ND	--
	12/24/90	--		--	32,000	440	340	460	13,000	--
	04/10/91	--		--	22,000	170	190	490	6,200	--
	07/10/91	--		--	14,000	70	160	570	5,400	--
	10/14/91	--		--	11,000	79	130	660	4,700	--
	01/14/92	--		--	5,600	36	120	450	2,600	--
	04/06/92	--		--	760	6.3	2.1	ND	130	--
	07/07/92	--		--	44,000	160	1,100	1,000	17,000	--
	10/16/92	--		--	290	2.3	ND	5.1	15	--
	01/14/93	--		--	19,000	75	430	900	8,400	--
520.17	04/22/93	14.98		505.19	49,000	150	1,000	3,000	18,000	--
	07/20/93	17.41		502.76	25,000	68	94	1,000	6,200	--
519.82	10/20/93	15.08		504.74	12,000	27	10	100	3,000	--
	01/20/94	15.02		504.80	20,000	ND	ND	270	3,300	--
	04/21/94	14.96		504.86	27,000	85	65	880	5,300	--
	07/21/94	14.99		504.83	31,000	58	29	940	6,200	--
	10/19/94	14.80		505.02	4,100	16	3.5	8.6	1,100	--
	01/18/95	14.10		505.72	5,100	6.8	7.3	100	1,500	--
	04/17/95	14.13		505.69	320	1.3	0.67	6.6	74	--
	07/18/95	14.11		505.71	12,000	25	24	550	3,700	--
	10/17/95	14.15		505.67	77,000	60	58	760	8,300	220
	01/17/96	14.35		505.47	7,000	15	ND	150	1,600	370
	04/17/96	13.93		505.89	19,000	ND	ND	600	4,900	6,100
	07/16/96	14.00		505.82	23,000	16	22	900	4,500	410
	10/16/96	14.12		505.70	14,000	28	31	1,600	6,900	9,600

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
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 4700 First Street  
 Livermore, California

WELL ID/ TOC* (ft.)	DATE	DTW (ft.)	S.I. (ft.bgs)	GWE (msl)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
MW-2	01/13/97	--	11.0-25.0	--	4,300	12	5.0	28	890	1,300
(cont)	04/08/97	14.49		505.33	4,700	ND	6.5	170	830	290
	10/06/97	14.41		505.41	5,800	14	ND	19	860	570
	04/02/98	14.26		505.56	24,000	ND <sup>3</sup>	ND <sup>3</sup>	980	5,200	6,800
	10/07/98	14.35		505.47	41,000 <sup>5</sup>	ND <sup>3</sup>	ND <sup>3</sup>	2,100	7,800	3,700/2,700 <sup>6</sup>
	04/14/99	14.54		505.28	720	1.2	ND	29	260	95/57 <sup>6</sup>
	10/12/99	14.50		505.32	2,200 <sup>R</sup>	ND <sup>3</sup>	ND <sup>3</sup>	78	480	52/11 <sup>6</sup>
	04/10/00	14.72		505.10	ND	ND	ND	0.815	2.99	28.5/40.1 <sup>6</sup>
	10/02/00	14.91		504.91	ND	ND	ND	0.71	1.0	9.2/11 <sup>6</sup>
	04/02/01	14.12		505.70	ND	ND	ND	ND	ND	ND/ND <sup>6</sup>
	10/05/01	15.02		504.80	1,300 <sup>5</sup>	4.4	<2.5	29	79	<25/12 <sup>6</sup>
	04/01/02	14.94		504.88	3,500 <sup>5</sup>	5.1	<5.0	120	460	<50/14 <sup>6</sup>
	10/16/02 <sup>14</sup>	15.06		504.76	240	<0.50	<0.50	8.2	15	<2.0
	04/03/03 <sup>14</sup>	14.96		504.86	1,300	1.5	1.8	23	160	6.6
MW-3	11/18/89	--	11.0-25.0	--	ND	0.35	ND	ND	ND	--
	03/08/90	--		--	ND	ND	ND	ND	ND	--
	06/05/90	--		--	ND	ND	ND	ND	ND	--
	09/07/90	--		--	1,100	11	ND	6.6	16	--
	12/24/90	--		--	ND	ND	ND	ND	ND	--
	04/10/91	--		--	ND	ND	ND	ND	ND	--
	07/10/91	--		--	ND	ND	ND	ND	ND	--
	10/14/91	--		--	ND	ND	ND	ND	ND	--
	01/14/92	--		--	ND	ND	ND	ND	ND	--
	04/06/92	--		--	ND	ND	ND	ND	ND	--
	07/07/92	--		--	ND	ND	ND	ND	ND	--
	10/16/92	--		--	ND	ND	ND	ND	ND	--
	01/14/93	--		--	ND	ND	ND	ND	ND	--
519.91	04/22/93	14.33		505.58	ND	ND	ND	ND	ND	--
	07/20/93	16.90		503.01	ND	ND	ND	ND	ND	--
519.66	10/20/93	14.42		505.24	ND	ND	ND	ND	ND	--
	01/20/94	14.37		505.29	SAMPLED ANNUALLY	--	--	--	--	--

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
 Tosco (Unocal) Service Station #6034  
 4700 First Street  
 Livermore, California

WELL ID/ TOC*(ft.)	DATE	DTW (ft.)	S.I. (ft.hgs)	GWE (msl)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
MW-3	04/21/94	14.30	11.0-25.0	505.36	ND	ND	ND	ND	ND	--
(cont)	07/21/94	14.34		505.32	SAMPLED SEMI-ANNUALLY		--	--	--	--
	10/19/94	14.08		505.58	ND	ND	0.61	ND	0.51	--
	01/18/95	13.23		506.43	--	--	--	--	--	--
	04/17/95	13.20		506.46	ND	ND	ND	ND	ND	--
	07/18/95	13.19		506.47	--	--	--	--	--	--
	10/17/95	13.24		506.42	ND	ND	ND	ND	ND	ND
	01/17/96	13.68		505.98	SAMPLED ANNUALLY <sup>2</sup>		--	--	--	--
	04/17/96	13.04		506.62	ND	ND	ND	ND	ND	ND
	07/16/96	13.24		506.42	--	--	--	--	--	--
	10/16/96	13.10		506.56	--	--	--	--	--	--
	04/08/97	13.73		505.93	SAMPLING DISCONTINUED		--	--	--	--
	10/06/97	13.70		505.96	--	--	--	--	--	--
	04/02/98	13.43		506.23	--	--	--	--	--	--
	10/07/98	13.33		506.33	--	--	--	--	--	--
	04/14/99	13.47		506.19	--	--	--	--	--	--
	10/12/99	13.38		506.28	--	--	--	--	--	--
	04/10/00	13.51		506.15	--	--	--	--	--	--
	10/02/00	13.62		506.04	--	--	--	--	--	--
	04/02/01	13.38		506.28	--	--	--	--	--	--
	10/05/01	14.10		505.56	--	--	--	--	--	--
	04/01/02	13.98		505.68	--	--	--	--	--	--
	10/16/02	14.16		505.50	--	--	--	--	--	--
	04/03/03	13.98		505.68	--	--	--	--	--	--
MW-4	11/18/89	--	11.0-25.0	--	990	9.8	10	7.1	4.7	--
	03/08/90	--		--	1,200	18	8.4	37	28	--
	06/05/90	--		--	1,400	1.2	4.7	24	12	--
	09/07/90	--		--	15,000	100	140	210	4,600	--
	12/24/90	--		--	1,400	ND	8.7	15	10	--
	04/10/91	--		--	950	0.84	4.3	9.6	5.0	--
	07/10/91	--		--	830	8.4	19	7.7	7.2	--



**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
**Tosco (Unocal) Service Station #6034**  
**4700 First Street**  
**Livermore, California**

WELL ID/ TOC* (ft.)	DATE	DTW (ft.)	S.L. (ft.bgs)	GWE (msf)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)	
MW-4	10/14/91	--	11.0-25.0	--	880	3.8	2.2	8.6	5.8	--	
(cont)	01/14/92	--		--	1,500	4.2	7.1	18	9.2	--	
	04/06/92	--		--	660	1.3	3.8	2.9	4.1	--	
	07/07/92	--		--	340	ND	2.2	2.4	2.4	--	
	10/16/92	--		--	300	2.1	ND	4.8	13	--	
	01/14/93	--		--	920	ND	6.3	12	3.9	--	
520.12	04/22/93	14.30		505.82	1,100	8.8	1.0	7.2	6.0	--	
	07/20/93	16.35		503.77	NOT SAMPLED - SAMPLING ACCESS DENIED			--	--	--	
519.61	10/20/93	14.16		505.45	640	ND	2.5	2.3	1.9	--	
	01/20/94	14.15		505.46	1,200	ND	2.6	4.7	7.4	--	
	04/21/94	14.13		505.48	380	0.83	1.2	1.2	1.7	--	
	07/21/94	14.26		505.35	320	0.51	1.4	1.0	1.6	--	
	10/19/94	13.95		505.66	750	ND	3.6	4.2	3.4	--	
	01/18/95	13.16		506.45	790	1.5	3.3	1.2	2.6	--	
	04/17/95	13.19		506.42	570	2.8	ND	3.3	3.9	--	
	07/18/95	13.21		506.40	340	1.0	1.9	2.8	2.7	--	
	10/17/95	13.22		506.39	260	1.1	0.57	0.69	1.6	2.0	
	01/17/96	13.02		506.59	SAMPLED SEMI-ANNUALLY			--	--	--	--
	04/17/96	13.08		506.53	720	3.0	2.6	6.1	6.9	ND	
	07/16/96	12.91		506.70	--	--	--	--	--	--	
	10/16/96	12.98		506.63	1,100	6.6	23	24	85	15	
	01/13/97	--		--	--	--	--	--	--	--	
	04/08/97	13.36		506.25	470	1.2	1.9	1.2	6.9	ND	
	10/06/97	13.42		506.19	240	ND	0.85	0.83	2.3	ND	
	04/02/98	12.76		506.85	270 <sup>4</sup>	ND <sup>3</sup>	1.2	ND <sup>3</sup>	4.5	10	
	10/07/98	13.04		506.57	350 <sup>7</sup>	ND	ND	ND	4.8	ND	
	04/14/99	13.21		506.40	250 <sup>7</sup>	1.6	ND	3.1	5.6	ND/16 <sup>6</sup>	
	10/12/99	13.16		506.45	200 <sup>7</sup>	1.4	ND	2.3	3.9	ND	
	04/10/00	13.48		506.13	52.8 <sup>7</sup>	ND	ND	ND	ND	ND	
	10/02/00	13.25		506.36	57 <sup>8</sup>	ND	ND	0.50	0.90	30	
	04/02/01	13.11		506.50	ND	ND	ND	ND	ND	ND	
	10/05/01	14.04		505.57	150 <sup>7</sup>	<0.50	<0.50	<0.50	<0.50	<5.0	

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
 Tosco (Unocal) Service Station #6034  
 4700 First Street  
 Livermore, California

WELL ID/ TOC*(ft.)	DATE	DTW (ft.)	S.I. (ft. bgs)	GWE (msl)	TPH-G (pph)	B (pph)	T (pph)	E (pph)	X (pph)	MTBE (pph)	
MW-4 (cont)	04/01/02	13.76	11.0-25.0	505.85	130 <sup>7</sup>	<0.50	<0.50	<0.50	<0.50	<5.0	
	10/16/02 <sup>14</sup>	14.10		505.51	130	<0.50	<0.50	<0.50	<1.0	3.8	
	04/03/03 <sup>14</sup>	13.69		505.92	<50	<0.50	<0.50	<0.50	<1.0	3.6	
MW-5	04/10/91	--	10.0-24.0	--	630	35	14	47	30	--	
	07/10/91	--		--	220	5.1	8.7	9.1	9.7	--	
	10/14/91	--		--	660	55	4.4	50	66	--	
	01/14/92	--		--	99	1.0	1.2	ND	0.32	1.2	
	04/06/92	--		--	240 <sup>1</sup>	ND	ND	0.35	ND	--	
	07/07/92	--		--	76	0.48	1.1	0.32	1.3	1.5	
	10/16/92	--		--	180	7.8	1.1	17	6.4	2.0	
	01/14/93	--		--	91	ND	0.53	1.2	11	--	
520.58	04/22/93	15.24		505.34	94	1.2	ND	ND	1.3	0.82	
	07/20/93	17.38		503.20	89	1.1	0.51	ND	1.8	2.2	
520.27	10/20/93	15.56		504.71	110	0.8	ND	ND	ND	--	
	01/20/94	15.39		504.88	ND	ND	ND	ND	ND	--	
	04/21/94	15.41		504.86	ND	ND	ND	ND	ND	--	
	07/21/94	15.55		504.72	ND	ND	ND	ND	ND	--	
	10/19/94	15.20		505.07	ND	ND	0.71	ND	0.57	--	
	01/18/95	14.52		505.75	ND	ND	ND	ND	ND	--	
	04/17/95	14.50		505.77	ND	ND	ND	ND	ND	--	
	07/18/95	14.41		505.86	ND	ND	ND	ND	1.1	--	
	10/17/95	14.46		505.81	ND	ND	ND	ND	ND	ND	
	01/17/96	14.48		505.79	SAMPLED ANNUALLY <sup>2</sup>			--	--	--	--
	04/17/96	14.22		506.05	ND	ND	ND	ND	ND	ND	
	07/16/96	14.27		506.00	--	--	--	--	--	--	
	10/16/96	14.15		506.12	--	--	--	--	--	--	
	04/08/97	14.71		505.56	SAMPLING DISCONTINUED			--	--	--	--
10/06/97	14.71		505.56	--	--	--	--	--	--		
04/02/98	14.28		505.99	--	--	--	--	--	--		
10/07/98	14.40		505.87	--	--	--	--	--	--		
04/14/99	14.63		505.64	--	--	--	--	--	--		

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
 Tosco (Unocal) Service Station #6034  
 4700 First Street  
 Livermore, California

WELL ID/ TOC*(ft.)	DATE	DTW (ft.)	S.I. (ft.hgs)	GWE (msl)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
MW-5	10/12/99	14.48	10.0-24.0	505.79	--	--	--	--	--	--
(cont)	04/10/00	14.76		505.51	--	--	--	--	--	--
	10/02/00	14.65		505.62	--	--	--	--	--	--
	04/02/01	14.20		506.07	--	--	--	--	--	--
	10/05/01	15.47		504.80	--	--	--	--	--	--
	04/01/02	15.18		505.09	--	--	--	--	--	--
	10/16/02	15.50		504.77	--	--	--	--	--	--
	04/03/03	15.14		505.13	--	--	--	--	--	--
MW-6	04/10/91	--	10.0-24.0	--	ND	ND	ND	ND	ND	--
	07/10/91	--		--	ND	ND	ND	ND	ND	--
	10/14/91	--		--	ND	ND	ND	ND	ND	--
	01/14/92	--		--	ND	ND	ND	ND	ND	--
	04/06/92	--		--	ND	ND	ND	ND	ND	--
	07/07/92	--		--	ND	ND	ND	ND	ND	--
	10/16/92	OBSTRUCTED		--	--	--	--	--	--	--
	01/14/93	OBSTRUCTED		--	--	--	--	--	--	--
519.34	04/22/93	OBSTRUCTED		--	--	--	--	--	--	--
	07/20/93	OBSTRUCTED		--	--	--	--	--	--	--
518.75	10/20/93	14.20		504.55	ND	ND	ND	ND	ND	--
	01/20/94	14.14		504.61	ND	ND	ND	ND	ND	--
	04/21/94	14.10		504.65	ND	ND	ND	ND	ND	--
	07/21/94	14.12		504.63	ND	ND	ND	ND	ND	--
	10/19/94	OBSTRUCTED BY ROOTS		--	--	--	--	--	--	--
	01/18/95	OBSTRUCTED BY ROOTS		--	--	--	--	--	--	--
	04/17/95	13.82		504.93	ND	ND	ND	ND	ND	--
	07/18/95	13.84		504.91	ND	ND	ND	ND	ND	--
	10/17/95	13.90		504.85	ND	ND	ND	ND	ND	2.2
	01/17/96	OBSTRUCTED BY ROOTS		--	SAMPLED ANNUALLY <sup>2</sup>	--	--	--	--	--
	04/17/96	13.66		505.09	ND	ND	ND	ND	ND	ND
	07/16/96	OBSTRUCTED BY ROOTS		--	--	--	--	--	--	--

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
 Tosco (Unocal) Service Station #6034  
 4700 First Street  
 Livermore, California

WELL ID/ TOC* (ft.)	DATE	DTW (ft.)	S.I. (ft.hgs)	GWE (msl)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
MW-6	10/16/96	13.72	10.0-24.0	505.03	--	--	--	--	--	--
(cont)	04/08/97	OBSTRUCTED BY ROOTS			--	--	--	--	--	--
	10/06/97	OBSTRUCTED BY ROOTS			--	--	--	--	--	--
	04/02/98	OBSTRUCTED BY ROOTS			--	--	--	--	--	--
	10/07/98	OBSTRUCTED BY ROOTS			--	--	--	--	--	--
	04/14/99	13.82		504.93	--	--	--	--	--	--
	10/12/99	13.72		505.03	--	--	--	--	--	--
	04/10/00	13.40		505.35	--	--	--	--	--	--
	10/02/00	13.63		505.12	--	--	--	--	--	--
	04/02/01	13.31		505.44	--	--	--	--	--	--
	10/05/01	OBSTRUCTION IN WELL		--	--	--	--	--	--	--
	04/01/02	OBSTRUCTION IN WELL		--	--	--	--	--	--	--
	10/16/02	DRY		--	--	--	--	--	--	--
	04/03/03	DRY		--	--	--	--	--	--	--
MW-7	04/10/91	--	10.0-24.0	--	ND	ND	ND	ND	ND	--
	07/10/91	--		--	ND	ND	ND	ND	ND	--
	10/14/91	--		--	ND	ND	ND	ND	ND	--
	01/14/92	--		--	ND	ND	ND	ND	ND	--
	4/06/92	--		--	ND	ND	ND	ND	ND	--
	07/07/92	--		--	ND	ND	ND	ND	ND	--
	10/16/92	--		--	ND	ND	ND	ND	ND	--
	01/14/93	--		--	ND	ND	ND	ND	ND	--
519.37	04/22/93	14.25		505.12	ND	ND	ND	ND	ND	--
	07/20/93	16.68		502.69	ND	ND	ND	ND	ND	--
518.83	10/20/93	14.29		504.54	ND	ND	ND	ND	ND	--
	01/20/94	14.22		504.61	ND	ND	ND	ND	ND	--
	04/21/94	14.17		504.66	ND	ND	ND	ND	ND	--
	07/21/94	14.21		504.62	ND	ND	ND	ND	ND	--
	10/19/94	14.05		504.78	ND	ND	0.87	ND	0.61	--
	01/18/95	13.34		505.49	ND	ND	ND	ND	ND	--
	04/17/95	13.38		505.45	ND	ND	ND	ND	ND	--

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
 Tosco (Unocal) Service Station #6034  
 4700 First Street  
 Livermore, California

WELL ID/ TOC*(ft.)	DATE	DTW (ft.)	S.I. (ft.bgs)	GWE (msl)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
MW-7	07/18/95	13.36	10.0-24.0	505.47	ND	ND	ND	ND	ND	--
(cont)	10/17/95	13.41		505.42	ND	ND	ND	ND	ND	3.5
	01/17/96	13.56		505.27	SAMPLED ANNUALLY <sup>2</sup>		--	--	--	--
	04/17/96	13.21		505.62	ND	ND	ND	ND	ND	ND
	07/16/96	13.22		505.61	--	--	--	--	--	--
	10/16/96	13.58		505.25	--	--	--	--	--	--
	04/08/97	13.73		505.10	SAMPLING DISCONTINUED		--	--	--	--
	10/06/97	13.65		505.18	--	--	--	--	--	--
	04/02/98	13.55		505.28	--	--	--	--	--	--
	10/07/98	13.64		505.19	--	--	--	--	--	--
	04/14/99	13.75		505.08	--	--	--	--	--	--
	10/12/99	13.61		505.22	--	--	--	--	--	--
	04/10/00	13.85		504.98	--	--	--	--	--	--
	10/02/00	14.19		504.64	--	--	--	--	--	--
	04/02/01	13.86		504.97	SAMPLING DISCONTINUED		--	--	--	--
	10/05/01	14.30		504.53	--	--	--	--	--	--
	04/01/02	14.23		504.60	--	--	--	--	--	--
	10/16/02	14.30		504.53	--	--	--	--	--	--
	04/03/03	14.27		504.56	--	--	--	--	--	--
<b>Trip Blank</b>										
TB-LB	04/02/98	--	--	--	ND	ND	ND	ND	ND	ND
	10/07/98	--	--	--	ND	ND	ND	ND	ND	ND
	04/14/99	--	--	--	ND	ND	ND	ND	ND	ND
	10/12/99	--	--	--	ND	ND	ND	ND	ND	ND
	04/10/00	--	--	--	ND	ND	ND	ND	ND	ND
	10/02/00	--	--	--	ND	ND	ND	ND	ND	ND
	04/02/01	--	--	--	ND	ND	ND	ND	ND	ND
	10/05/01	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<5.0
	04/01/02	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<5.0
QA	10/16/02 <sup>14</sup>	--	--	--	<50	<0.50	<0.50	<0.50	<1.0	<2.0
	04/03/03 <sup>14</sup>	--	--	--	<50	<0.50	<0.50	<0.50	<1.0	<2.0

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
 Tosco (Unocal) Service Station #6034  
 4700 First Street  
 Livermore, California

**EXPLANATIONS:**

Groundwater monitoring data and laboratory analytical results prior to April 2, 1998, were compiled from reports prepared by MPDS Services, Inc.

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

\* TOC elevations are relative to msl, per the City of Livermore Benchmark No. C-18-5 (Elevation = 551.77 feet msl). Prior to October 20, 1998, DTW measurements were taken from the top of the well covers.

- 1 Laboratory report indicates the hydrocarbons detected did not appear to be gasoline.
- 2 Annual sampling beginning April, 1996.
- 3 Detection limit raised. Refer to analytical reports.
- 4 Laboratory report indicates gasoline and unidentified hydrocarbons <C7.
- 5 Laboratory report indicates weathered gasoline C6-C12.
- 6 MTBE by EPA Method 8260.
- 7 Laboratory report indicates unidentified hydrocarbons C6-C12.
- 8 Laboratory report indicates gasoline C6-C12.
- 9 Laboratory report indicates Total Oil & Grease (TOG) at 3.1 ppm, Trichloroethene (TCE) at 0.55 ppb, and Chloroform was ND.
- 10 Laboratory report indicates TOG at 4.7 ppm, TCE and Chloroform were ND.
- 11 Laboratory report indicates TOG, TCE and Chloroform were ND.
- 12 Laboratory report indicates TPH-Diesel (TPH-D), TOG, and TCE were ND, and Chloroform was 0.69 ppb.
- 13 Laboratory report indicates TPH-D at 100 ppb, and TOG, TCE and Chloroform were ND.
- 14 TPH-G, BTEX and MTBE by EPA Method 8260.

**Table 2**  
**Groundwater Analytical Results - Oxygenate Compounds**  
 Tosco (Unocal) Service Station #6034  
 4700 First Street  
 Livermore, California

WELL ID	DATE	ETHANOL (ppb)	TBA (ppb)	MTBE (ppb)	DIPE (ppb)	ETBE (ppb)	TAME (ppb)	1,2-DCA (ppb)	EDB (ppb)
MW-2	04/14/99	ND	ND	57	ND	ND	ND	ND/ND <sup>1</sup>	ND/ND <sup>1</sup>
	10/12/99	ND	ND	11	ND	ND	ND	--	--
	04/10/00	ND	ND	40.1	ND	ND	ND	ND	ND
	10/02/00	ND	ND	11	ND	ND	ND	ND	ND
	04/02/01	ND	ND	ND	ND	ND	ND	ND	ND
	10/05/01	<1,000	<100	12	<2.0	<2.0	<2.0	<2.0	<2.0
	04/01/02	<500	<100	14	<2.0	<2.0	<2.0	<2.0	<2.0
	10/16/02	<500	<100	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
	04/03/03	<500	<100	6.6	<2.0	<2.0	<2.0	<2.0	<2.0
MW-4	04/14/99	ND	ND	16	ND	ND	ND	ND/ND <sup>1</sup>	ND/ND <sup>1</sup>
	10/16/02	--	--	3.8	--	--	--	--	--
	04/03/03	--	--	3.6	--	--	--	--	--

**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-Dibromethane  
 (ppb) = Parts per billion  
 ND = Not Detected  
 -- = Not Analyzed

<sup>1</sup> Halogenated Volatile Organics Compounds (HVOCs) by EPA Method 8010.

**ANALYTICAL METHOD:**

EPA Method 8260 for Oxygenate Compounds

**Table 3**  
**Dissolved Oxygen Concentrations**  
**Tosco (Unocal) Service Station #6034**  
**4700 First Street**  
**Livermore, California**

<b>WELL ID</b>	<b>DATE</b>	<b>Before Purging (mg/L)</b>	<b>After Purging (mg/L)</b>
MW-1	07/16/96	4.24	4.28
MW-2	07/18/95	--	4.22
	10/17/95	--	3.96
	01/17/96	--	5.25
	04/17/96	--	2.59
	07/16/96	4.46	4.35
	10/16/96	3.87	2.92
	01/13/97	4.76	--
	04/08/97	3.76	3.42
	10/06/97	4.13	3.59
	04/02/98	6.32	3.16
	10/07/98 <sup>1</sup>	3.85	--
	04/14/99	3.14	--
	10/12/99	2.96	--
	04/10/00	3.47	--
	10/02/00	3.77	--
	04/02/01	3.95	--
	10/05/01	2.89	--
	04/01/02	3.15	--
	10/16/02	3.08	--
04/03/03	2.60	--	
MW-3	07/16/96	4.19	4.20
MW-4	07/16/96	4.25	4.30
	01/13/97	4.97	--
MW-5	07/16/96	4.18	4.21
MW-6	07/16/96	OBSTRUCTED BY ROOTS	--
MW-7	07/16/96	4.20	4.19

**EXPLANATIONS:**

Dissolved oxygen concentrations prior to April 2, 1998, were compiled from reports prepared by MPDS Services, Inc.

(mg/L) = Milligrams per liter

-- = Not Measured

<sup>1</sup> ORC removed from well.



**Table 4**  
**Joint Groundwater Monitoring Data**  
**Chevron Service Station #9-1924**  
**4904 South Front Road**  
**Livermore, California**

<b>WELL ID/ TOC*(ft)</b>	<b>DATE</b>	<b>DTW (ft.)</b>	<b>GWE (msl)</b>
<b>C-1</b>			
520.39	04/17/95	11.81	508.58
	07/18/95	12.12	508.27
	10/17/95	12.58	507.81
	04/17/96	10.87	509.52
	07/16/96	11.38	509.01
	10/16/96	11.81	508.58
	<b>C-2</b>		
520.76	04/17/95	12.04	508.72
	07/18/95	12.42	508.34
	10/17/95	12.79	507.97
	04/17/96	11.27	509.49
	07/16/96	11.95	508.81
	10/16/96	12.40	508.36
	10/07/98	11.54	509.22
	04/14/99	11.41	509.35
<b>C-3</b>			
521.31	07/18/95	12.89	508.42
	10/17/95	13.26	508.05
<b>C-5</b>			
520.82	04/17/95	12.17	508.65
	07/18/95	12.31	508.51
	10/17/95	12.46	508.36
	04/17/96	11.11	509.71
	07/16/96	11.42	509.40
	10/16/96	12.00	508.82
	10/07/98	11.04	509.78
	04/14/99	11.29	509.53
<b>C-6</b>			
519.62	04/17/95	11.27	508.35
	07/18/95	11.46	508.16
	10/17/95	11.98	507.64
	04/17/96	10.47	509.15
	07/16/96	10.97	508.65
	10/16/96	11.50	508.12
	10/07/98	10.91	508.71
	04/14/99	10.85	508.77

**Table 4**  
**Joint Groundwater Monitoring Data**  
Chevron Service Station #9-1924  
4904 South Front Road  
Livermore, California

WELL ID/ TOC*(f)	DATE	DTW (ft)	GWE (msl)
<b>C-7</b> 520.30	04/17/95	11.74	508.56
	07/18/95	11.98	508.32
	10/17/95	12.48	507.82
	04/17/96	10.96	509.34
	07/16/96	11.51	508.79
	10/16/96	12.00	508.30
<b>C-8</b> 519.74	04/17/95	DRY	--
	07/18/95	DRY	--
	10/17/95	12.20	507.54
	04/17/96	10.87	508.87
	07/16/96	11.48	508.26
	10/16/96	11.96	507.78
<b>C-9</b> 519.72	04/17/95	11.31	508.41
	07/18/95	11.66	508.06
	10/17/95	11.73	507.99
	04/17/96	10.05	509.67
	07/16/96	10.92	508.80
	10/16/96	11.30	508.42
	10/07/98	10.85	508.87
	04/14/99	10.83	508.89
<b>C-10</b> 520.41	04/17/95	13.54	506.87
	07/18/95	13.44	506.97
	10/17/95	13.78	506.63
	04/17/96	13.18	507.23
	07/16/96	13.11	507.30
	10/16/96	13.50	506.91
<b>C-11</b> 520.04	04/17/95	13.01	507.03
	07/18/95	13.00	507.04
	10/17/95	13.32	506.72
	04/17/96	12.48	507.56

**Table 4**  
**Joint Groundwater Monitoring Data**  
**Chevron Service Station #9-1924**  
**4904 South Front Road**  
**Livermore, California**

<b>WELL ID/ TOC*(ft)</b>	<b>DATE</b>	<b>DTW (ft.)</b>	<b>GWE (msl)</b>
C-11 (cont)	07/16/96	12.67	507.37
	10/16/96	13.05	506.99
	10/07/98	12.68	507.36
	04/14/99	13.11	506.84
C-12 519.82	07/18/95	13.12	506.70
	10/17/95	13.52	506.30
C-13 522.24	07/18/95	13.33	508.91
	10/17/95	13.78	508.46
C-14 520.08	04/17/95	DRY	--
	07/18/95	DRY	--
	10/17/95	12.44	507.64
	04/17/96	12.17	507.91
	07/16/96	11.53	508.55
	10/16/96	12.10	507.98
	10/07/98	11.81	508.27
	04/14/99	11.93	508.15
C-15 522.41	07/18/95	13.80	508.61
	10/17/95	14.26	508.15
C-16	04/17/95	INACCESSIBLE - PAVED OVER	
	07/18/95	INACCESSIBLE - PAVED OVER	
	10/17/95	--	
	04/17/96	INACCESSIBLE - PAVED OVER	
	07/16/96	INACCESSIBLE - PAVED OVER	
	10/16/96	INACCESSIBLE - UNABLE TO LOCATE	
C-17 520.82	04/17/95	13.25	507.57
	07/18/95	13.44	507.38
	10/17/95	13.50	507.32
	04/17/96	12.70	508.12

**Table 4**  
**Joint Groundwater Monitoring Data**  
Chevron Service Station #9-1924  
4904 South Front Road  
Livermore, California

WELL ID/ TOC* (ft)	DATE	DTW (ft.)	GWE (msl)
C-17 (cont)	07/16/96	12.67	508.15
	10/16/96	13.70	507.12
	10/07/98	12.93	507.89
	04/14/99	13.05	507.48
C-18	04/17/95	ABANDONED	--
C-19 518.96	04/17/95	13.80	505.16
	07/18/95	13.72	505.24
	10/17/95	14.10	504.86
	04/17/96	13.40	505.56
	07/16/96	13.47	505.49
	10/16/96	13.83	505.13
	10/07/98	13.09	505.87
	04/14/99	INACCESSIBLE	--
C-20 520.67	07/16/96	12.93	507.74
	10/16/96	13.24	507.43
	10/07/98	12.68	507.99
	04/14/99	13.30	507.37
C-21 519.64	07/16/96	11.40	508.24
	10/16/96	11.47	508.17

**EXPLANATIONS:**

Groundwater monitoring data provided by Blaine Tech Services, Inc.

TOC = Top of Casing

DTW = Depth to Water

(ft.) = Feet

GWE = Groundwater Elevation

(msl) = Mean sea level

-- = Not Measured

\* TOC elevations were surveyed relative to msl.

## 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, all depth to water level measurements are collected with a static water level indicator and are also recorded in the field notes, prior to purging and sampling any wells.

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 disposable 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 and is labeled as QA. 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 Phillips 66 Company, the purge water and decontamination water generated during sampling activities is transported to Phillips 66 - San Francisco Refinery, located in Rodeo, California.



# GETTLER - RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility #: ConocoPhillips #6034 Job Number: 180047  
 Site Address: 4700 First Street Event Date: 4/3/03 (inclusive)  
 City: Livermore, CA Sampler: Kantles

Well ID: MW-1 Date Monitored: 4/3/03 Well Condition: OK  
 Well Diameter: 2 in.  
 Total Depth: 27.85 ft.  
 Depth to Water: 15.41 ft.

Volume	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
Factor (VF)	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

xVF \_\_\_\_\_ = \_\_\_\_\_ x3 (case volume) = Estimated Purge Volume: \_\_\_\_\_ gal.

### Purge Equipment:

Disposable Bailer \_\_\_\_\_  
 Stainless Steel Bailer \_\_\_\_\_  
 Stack Pump \_\_\_\_\_  
 Suction Pump \_\_\_\_\_  
 Grundfos \_\_\_\_\_  
 Other: \_\_\_\_\_

### Sampling Equipment:

Disposable Bailer \_\_\_\_\_  
 Pressure Bailer \_\_\_\_\_  
 Discrete Bailer \_\_\_\_\_  
 Other: \_\_\_\_\_

Time Started:	_____ (2400 hrs)
Time Bailed:	_____ (2400 hrs)
Depth to Product:	_____ ft
Depth to Water:	_____ ft
Hydrocarbon Thickness:	<u>0</u> ft
Visual Confirmation/Description:	_____
Skimmer / Absorbant Sock (circle one)	_____
Amt Removed from Skimmer:	_____ gal
Amt Removed from Well:	_____ gal
Product Transferred to:	_____

Start Time (purge): \_\_\_\_\_ Weather Conditions: \_\_\_\_\_  
 Sample Time/Date: 1 Water Color: \_\_\_\_\_ Odor: \_\_\_\_\_  
 Purging Flow Rate: \_\_\_\_\_ gpm. Sediment Description: \_\_\_\_\_  
 Did well de-water? \_\_\_\_\_ If yes, Time: \_\_\_\_\_ Volume: \_\_\_\_\_ gal.

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (umhos/cm)	Temperature (C/F)	D.O. (mg/L)	ORP (mV)

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-	x voa vial	YES	HCL	STL Pleasanton	TPH-G(8015)/BTEX/MTBE(8021)

COMMENTS: Monitor only

Add/Replaced Lock: \_\_\_\_\_ Add/Replaced Plug: \_\_\_\_\_ Size: \_\_\_\_\_



# GETTLER - RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility #: ConocoPhillips #6034 Job Number: 180047  
 Site Address: 4700 First Street Event Date: 4/3/03 (inclusive)  
 City: Livermore, CA Sampler: Ventkos

Well ID: MW-2 Date Monitored: 4/3/03 Well Condition: OK

Well Diameter: 2 in.

Total Depth: 25.60 ft.

Depth to Water: 14.96 ft.

Volume	3/4" = 0.02	1" = 0.04	2" = 0.17	3" = 0.38
Factor (VF)	4" = 0.66	5" = 1.02	6" = 1.50	12" = 5.80

10.64 x VF 0.17 = 1.80 x3 (case volume) = Estimated Purge Volume: 5.5 gal.

### Purge Equipment:

Disposable Bailer ✓  
 Stainless Steel Bailer \_\_\_\_\_  
 Stack Pump \_\_\_\_\_  
 Suction Pump \_\_\_\_\_  
 Grundfos \_\_\_\_\_  
 Other: \_\_\_\_\_

### Sampling Equipment:

Disposable Bailer ✓  
 Pressure Bailer \_\_\_\_\_  
 Discrete Bailer \_\_\_\_\_  
 Other: \_\_\_\_\_

Time Started: \_\_\_\_\_ (2400 hrs)  
 Time Bailed: \_\_\_\_\_ (2400 hrs)  
 Depth to Product: \_\_\_\_\_ ft  
 Depth to Water: \_\_\_\_\_ ft  
 Hydrocarbon Thickness: 0 ft  
 Visual Confirmation/Description: \_\_\_\_\_  
 Skimmer / Absorbant Sock (circle one)  
 Amt Removed from Skimmer: \_\_\_\_\_ gal  
 Amt Removed from Well: \_\_\_\_\_ gal  
 Product Transferred to: \_\_\_\_\_

Start Time (purge): 1057 Weather Conditions: cloud  
 Sample Time/Date: 1115 4/3/03 Water Color: light brown Odor: \_\_\_\_\_  
 Purging Flow Rate: \_\_\_\_\_ gpm. Sediment Description: slit (little)  
 Did well de-water? \_\_\_\_\_ If yes, Time: \_\_\_\_\_ Volume: \_\_\_\_\_ gal.

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (umhos/cm)	Temperature (°F)	D.O. (mg/L)	ORP (mV)
<u>1107</u>	<u>2</u>	<u>7.32</u>	<u>983</u>	<u>64.6</u>	<u>2.60</u>	
<u>1107</u>	<u>4</u>	<u>7.20</u>	<u>968</u>	<u>64.9</u>		
<u>1110</u>	<u>5.5</u>	<u>7.13</u>	<u>959</u>	<u>65.3</u>		

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-2</u>	<u>3 x vov vial</u>	<u>YES</u>	<u>HCL</u>	<u>STL Pleasanton</u>	<u>TPH-G(<del>0.05</del>)/BTEX/MTBE(<del>0.01</del>)/<u>8262</u> <u>+ 8044's (8362)</u></u>

### COMMENTS:

Add/Replaced Lock: 1

Add/Replaced Plug: \_\_\_\_\_ Size: \_\_\_\_\_



# GETTLER-RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility #: ConocoPhillips #6034 Job Number: 180047  
 Site Address: 4700 First Street Event Date: 4/3/03 (inclusive)  
 City: Livermore, CA Sampler: Nantkes

Well ID: MW-3 Date Monitored: 4/3/03 Well Condition: OK  
 Well Diameter: 2 in.  
 Total Depth: 25.40 ft.  
 Depth to Water: 13.98 ft.

Volume	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
Factor (VF)	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

xVF = \_\_\_\_\_ x3 (case volume) = Estimated Purge Volume: \_\_\_\_\_ gal.

### Purge Equipment:

Disposable Bailer \_\_\_\_\_  
 Stainless Steel Bailer \_\_\_\_\_  
 Stack Pump \_\_\_\_\_  
 Suction Pump \_\_\_\_\_  
 Grundfos \_\_\_\_\_  
 Other: \_\_\_\_\_

### Sampling Equipment:

Disposable Bailer \_\_\_\_\_  
 Pressure Bailer \_\_\_\_\_  
 Discrete Bailer \_\_\_\_\_  
 Other: \_\_\_\_\_

Time Started: \_\_\_\_\_ (2400 hrs)  
 Time Bailed: \_\_\_\_\_ (2400 hrs)  
 Depth to Product: \_\_\_\_\_ ft  
 Depth to Water: \_\_\_\_\_ ft  
 Hydrocarbon Thickness: 0 ft  
 Visual Confirmation/Description: \_\_\_\_\_  
 Skimmer / Absorbant Sock (circle one)  
 Amt Removed from Skimmer: \_\_\_\_\_ gal  
 Amt Removed from Well: \_\_\_\_\_ gal  
 Product Transferred to: \_\_\_\_\_

Start Time (purge): \_\_\_\_\_ Weather Conditions: \_\_\_\_\_  
 Sample Time/Date: 1 Water Color: \_\_\_\_\_ Odor: \_\_\_\_\_  
 Purging Flow Rate: \_\_\_\_\_ gpm. Sediment Description: \_\_\_\_\_  
 Did well de-water? \_\_\_\_\_ If yes, Time: \_\_\_\_\_ Volume: \_\_\_\_\_ gal.

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm)	Temperature (C/F)	D.O. (mg/L)	ORP (mV)

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-	x voc vial	YES	HCL	STL Pleasanton	TPH-G(8015)/BTEX/MTBE(8021)

COMMENTS: Monitor only

Add/Replaced Lock: \_\_\_\_\_ Add/Replaced Plug: \_\_\_\_\_ Size: \_\_\_\_\_





# GETTLER-RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility #: ConocoPhillips #6034  
 Site Address: 4700 First Street  
 City: Livermore, CA

Job Number: 180047  
 Event Date: 4/3/03 (inclusive)  
 Sampler: Ventris

Well ID: MW-4 Date Monitored: 4/3/03 Well Condition: OK

Well Diameter: 2 in.

Total Depth: 25.43 ft.

Depth to Water: 13.69 ft.

Volume	3/4" = 0.02	1" = 0.04	2" = 0.17	3" = 0.38
Factor (VF)	4" = 0.66	5" = 1.02	6" = 1.50	12" = 5.80

11.74 x VF 0.17 = 1.99 x3 (case volume) = Estimated Purge Volume: 6 gal.

### Purge Equipment:

Disposable Bailer   
 Stainless Steel Bailer \_\_\_\_\_  
 Stack Pump \_\_\_\_\_  
 Suction Pump \_\_\_\_\_  
 Grundfos \_\_\_\_\_  
 Other: \_\_\_\_\_

### Sampling Equipment:

Disposable Bailer   
 Pressure Bailer \_\_\_\_\_  
 Discrete Bailer \_\_\_\_\_  
 Other: \_\_\_\_\_

Time Started:	_____ (2400 hrs)
Time Bailed:	_____ (2400 hrs)
Depth to Product:	_____ ft
Depth to Water:	_____ ft
Hydrocarbon Thickness:	<u>Ø</u> ft
Visual Confirmation/Description:	_____
Skimmer / Absorbant Sock (circle one)	
Amnt Removed from Skimmer:	_____ gal
Amnt Removed from Well:	_____ gal
Product Transferred to:	_____

Start Time (purge): 1020 Weather Conditions: cldy

Sample Time/Date: 1040 4/3/03 Water Color: milky Odor: \_\_\_\_\_

Purging Flow Rate: \_\_\_\_\_ gpm. Sediment Description: \_\_\_\_\_

Did well de-water? \_\_\_\_\_ If yes, Time: \_\_\_\_\_ Volume: \_\_\_\_\_ gal.

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm)	Temperature (°F)	D.O. (mg/L)	ORP (mV)
<u>1025</u>	<u>2</u>	<u>7.43</u>	<u>1051</u>	<u>65.7</u>	_____	_____
<u>1030</u>	<u>4</u>	<u>7.30</u>	<u>1037</u>	<u>66.2</u>	_____	_____
<u>1035</u>	<u>6</u>	<u>7.23</u>	<u>1030</u>	<u>66.1</u>	_____	_____
_____	_____	_____	_____	_____	_____	_____

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-4</u>	<u>3</u> x vov vial	<u>YES</u>	<u>HCL</u>	<u>STL Pleasanton</u>	<u>TPH-G(<del>2000</del>)/BTEX/MTBE(<del>2000</del>)(<u>18260</u>)</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

### COMMENTS:

\_\_\_\_\_  
 \_\_\_\_\_

Add/Replaced Lock: \_\_\_\_\_

Add/Replaced Plug: \_\_\_\_\_ Size: \_\_\_\_\_



# GETTLER-RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility #: ConocoPhillips #6034  
 Site Address: 4700 First Street  
 City: Livermore, CA

Job Number: 180047  
 Event Date: 4/3/03 (inclusive)  
 Sampler: Vasthes

Well ID: MW-5  
 Well Diameter: 2 in.  
 Total Depth: 23.57 ft.  
 Depth to Water: 15.14 ft.

Date Monitored: 4/3/03 Well Condition: OK

Volume	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
Factor (VF)	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

xVF \_\_\_\_\_ = \_\_\_\_\_ x3 (case volume) = Estimated Purge Volume: \_\_\_\_\_ gal.

### Purge Equipment:

Disposable Bailer \_\_\_\_\_  
 Stainless Steel Bailer \_\_\_\_\_  
 Stack Pump \_\_\_\_\_  
 Suction Pump \_\_\_\_\_  
 Grundfos \_\_\_\_\_  
 Other: \_\_\_\_\_

### Sampling Equipment:

Disposable Bailer \_\_\_\_\_  
 Pressure Bailer \_\_\_\_\_  
 Discrete Bailer \_\_\_\_\_  
 Other: \_\_\_\_\_

Time Started:	_____ (2400 hrs)
Time Bailed:	_____ (2400 hrs)
Depth to Product:	_____ ft
Depth to Water:	_____ ft
Hydrocarbon Thickness:	<u>0</u> ft
Visual Confirmation/Description:	_____
Skimmer / Absorbant Sock (circle one)	_____
Amt Removed from Skimmer:	_____ gal
Amt Removed from Well:	_____ gal
Product Transferred to:	_____

Start Time (purge): \_\_\_\_\_ Weather Conditions: \_\_\_\_\_  
 Sample Time/Date: 4/3/03 Water Color: \_\_\_\_\_ Odor: \_\_\_\_\_  
 Purging Flow Rate: \_\_\_\_\_ gpm. Sediment Description: \_\_\_\_\_  
 Did well de-water? \_\_\_\_\_ If yes, Time: \_\_\_\_\_ Volume: \_\_\_\_\_ gal.

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (umhos/cm)	Temperature (C/F)	D.O (mg/L)	ORP (mV)

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-	x voa vial	YES	HCL	STL Pleasanton	TPH-G(8015)/BTEX/MTBE(8021)

COMMENTS: Monitor only

Add/Replaced Lock: \_\_\_\_\_

Add/Replaced Plug: \_\_\_\_\_ Size: \_\_\_\_\_



# GETTLER - RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility #: ConocoPhillips #6034 Job Number: 180047  
 Site Address: 4700 First Street Event Date: 4/3/03 (inclusive)  
 City: Livermore, CA Sampler: vaethas

Well ID: MW-6 Date Monitored: 4/3/03 Well Condition: OK

Well Diameter: 2 in.

Total Depth: 13.20 ft.

Depth to Water: \* 22 ft.

Volume	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
Factor (VF)	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

xVF \_\_\_\_\_ = \_\_\_\_\_ x3 (case volume) = Estimated Purge Volume: \_\_\_\_\_ gal.

### Purge Equipment:

Disposable Bailer \_\_\_\_\_  
 Stainless Steel Bailer \_\_\_\_\_  
 Stack Pump \_\_\_\_\_  
 Suction Pump \_\_\_\_\_  
 Grundfos \_\_\_\_\_  
 Other: \_\_\_\_\_

### Sampling Equipment:

Disposable Bailer \_\_\_\_\_  
 Pressure Bailer \_\_\_\_\_  
 Discrete Bailer \_\_\_\_\_  
 Other: \_\_\_\_\_

Time Started:	_____ (2400 hrs)
Time Bailed:	_____ (2400 hrs)
Depth to Product:	_____ ft
Depth to Water:	_____ ft
Hydrocarbon Thickness:	<u>22</u> ft
Visual Confirmation/Description:	_____
Skimmer / Absorbant Sock (circle one)	_____
Amt Removed from Skimmer:	_____ gal
Amt Removed from Well:	_____ gal
Product Transferred to:	_____

Start Time (purge): \_\_\_\_\_ Weather Conditions: \_\_\_\_\_  
 Sample Time/Date: 1 Water Color: \_\_\_\_\_ Odor: \_\_\_\_\_  
 Purging Flow Rate: \_\_\_\_\_ gpm. Sediment Description: \_\_\_\_\_  
 Did well de-water? \_\_\_\_\_ If yes, Time: \_\_\_\_\_ Volume: \_\_\_\_\_ gal.

Time (2400 hr.)	Volume (gal.)	pH	Conductivity ( $\mu$ mhos/cm)	Temperature (C/F)	D.O. (mg/L)	ORP (mV)
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-	x voa vial	YES	HCL	STL Pleasanton	TPH-G(8015)/BTEX/MTBE(8021)

COMMENTS: \* Obstructed at 13.20' by roots.

Monitor only

Add/Replaced Lock: \_\_\_\_\_ Add/Replaced Plug: \_\_\_\_\_ Size: \_\_\_\_\_



# GETTLER-RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility #: ConocoPhillips #6034 Job Number: 180047  
 Site Address: 4700 First Street Event Date: 4/3/03 (inclusive)  
 City: Livermore, CA Sampler: Vantres

Well ID: MW-7 Date Monitored: 4/3/03 Well Condition: OK  
 Well Diameter: 2 in.  
 Total Depth: 23.66 ft.  
 Depth to Water: 14.27 ft.

Volume	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
Factor (VF)	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

xVF \_\_\_\_\_ = \_\_\_\_\_ x3 (case volume) = Estimated Purge Volume: \_\_\_\_\_ gal.

**Purge Equipment:**  
 Disposable Bailer \_\_\_\_\_  
 Stainless Steel Bailer \_\_\_\_\_  
 Stack Pump \_\_\_\_\_  
 Suction Pump \_\_\_\_\_  
 Grundfos \_\_\_\_\_  
 Other: \_\_\_\_\_

**Sampling Equipment:**  
 Disposable Bailer \_\_\_\_\_  
 Pressure Bailer \_\_\_\_\_  
 Discrete Bailer \_\_\_\_\_  
 Other: \_\_\_\_\_

Time Started: \_\_\_\_\_ (2400 hrs)  
 Time Bailed: \_\_\_\_\_ (2400 hrs)  
 Depth to Product: \_\_\_\_\_ ft.  
 Depth to Water: \_\_\_\_\_ ft.  
 Hydrocarbon Thickness: 0 ft.  
 Visual Confirmation/Description:  
 Skimmer / Absorbant Sock (circle one)  
 Amt Removed from Skimmer: \_\_\_\_\_ gal  
 Amt Removed from Well: \_\_\_\_\_ gal  
 Product Transferred to: \_\_\_\_\_

Start Time (purge): \_\_\_\_\_ Weather Conditions: \_\_\_\_\_  
 Sample Time/Date: / Water Color: \_\_\_\_\_ Odor: \_\_\_\_\_  
 Purging Flow Rate: \_\_\_\_\_ gpm. Sediment Description: \_\_\_\_\_  
 Did well de-water? \_\_\_\_\_ If yes, Time: \_\_\_\_\_ Volume: \_\_\_\_\_ gal.

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (umhos/cm)	Temperature (C/F)	D.O. (mg/L)	ORP (mV)

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-	x voa vial	YES	HCL	STL Pleasanton	TPH-G(8015)/BTX/MTBE(8021)

COMMENTS: Monitor only

Add/Replaced Lock: \_\_\_\_\_ Add/Replaced Plug: \_\_\_\_\_ Size: \_\_\_\_\_

2003.04-019

Gettler-Ryan Inc., Chain-of-Custody

T > J > J

Tosco Corp./  
Phillips 66 Co.  
2000 Crow Canyon Place  
Suite 400  
San Ramon, CA 94583

Facility Number 16034

Facility Address 4700 FIRST STREET, LIVERMORE, CA

Global ID T0600101477 Project 180047.80

Client Contact MR. DAVID B. DEWITT

Phone (925) 277-2384

Laboratory Name STL - PLEASANTON, CA

Consultant GETTLER-RYAN, INC. DEANNA L. HARDING

Address 6747 SIERRA CT., SUITE J, DUBLIN CA 94568

Phone (925) 551-7555 Fax (925) 551-7899

Samples Collected by Valtkes Kashjian

SAMPLE ID	Number of Containers Matrix	Matrix S = Soil A = Air W = Water C = Charcoal	Sample Preservation	Date/Time (2400 Hrs)	TPH-GAS/BTEX/MTBE EPA 8015/8021B	TPH-DIESEL EPA 8015	TPH-DIESEL w/Silico gel EPA 8015	TPH-GAS EPA 8015	TPH-GAS/BTEX/MTBE EPA 8260	OXYGENATES EPA 8260	METHANOL EPA 8015	TOTAL OIL & GREASE EPA 5520	METALS Cd, Cr, Pb, Zn, Ni	NITRATE/SULFATE/AMMONIUM EPA 300 SERIES	HMOC'S (8010) EPA 8071B	VOC'S (8240) EPA 8260	SVOC'S EPA 8270						Remarks		
																								CPA	1
PW-2	3	W		1115				X	X																
PW-4	3	W		1040				X																	

4.2e

Relinquished By (Signature) <i>David Dewitt</i>	Organization G.R.	Date/Time 4/3/03 1250	Received By (Signature) <i>Deanna Harding</i>	Organization G.R.	Date/Time 4/3/03 1550	iced Y/N Y	Turn Around Time (Circle Choice) 24 Hrs. 48 Hrs. 72 Hrs. 5 Days 10 Days As Contracted
Relinquished By (Signature) <i>Deanna Harding</i>	Organization G.R.	Date/Time 4/10/03 1015	Received By (Signature) <i>Deanna Harding</i>	Organization STL-SF	Date/Time 4/10/03 1015	iced Y/N N	
Relinquished By (Signature) <i>Deanna Harding</i>	Organization STL-SF	Date/Time 4/7/03 1735	Received For Laboratory By (Signature) <i>Valtkes Kashjian</i>	Organization STL-SF	Date/Time 4/7/03 1735	iced Y/N N	

- OXYGENATES 8260
- 1 - MTBE
  - 2 - TBA
  - 3 - TAME
  - 4 - DIPE
  - 5 - ETBE
  - 6 - 1,2-DCA
  - 7 - EDB
  - 8 - ETHANOL

FILE NAME: P:\LEWIS-CHAINCUSTODY\STP-COC.DWG | Layout File: Model

**Gettler Ryan**

April 21, 2003

6747 Sierra Court Suite J  
Dublin, CA 94568

Attn.: Deanna Harding

Project#: 180047.80

Project: Tosco #6034

Site: 4700 First Street  
Livermore, CA

Dear Ms. Harding,

Attached is our report for your samples received on 04/07/2003 17:35

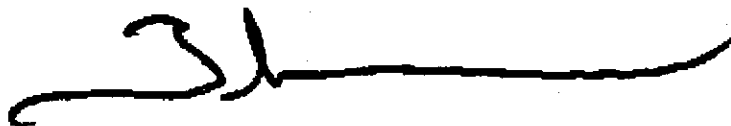
This report has been reviewed and approved for release. Reproduction of this report is permitted only in its entirety.

Please note that any unused portion of the samples will be discarded after 05/22/2003 unless you have requested otherwise.

We appreciate the opportunity to be of service to you. If you have any questions, please call me at (925) 484-1919.

You can also contact me via email. My email address is: [tgranicher@stl-inc.com](mailto:tgranicher@stl-inc.com)

Sincerely,



Tod Granicher  
Project Manager

**Gas/BTEX Fuel Oxygenates by 8260B**

Gettler Ryan

Attn.: Deanna Harding

6747 Sierra Court Suite J

Dublin, CA 94568

Phone: (925) 551-7444 Fax: (925) 551-7899

Project: 180047.80

Tosco #6034

Received: 04/07/2003 17:35

Site: 4700 First Street  
Livermore, CA**Samples Reported**

Sample Name	Date Sampled	Matrix	Lab #
QA	04/03/2003	Water	1
MW-2	04/03/2003 11:15	Water	2
MW-4	04/03/2003 10:40	Water	3

**Gas/BTEX Fuel Oxygenates by 8260B**

Gettler Ryan

Attn.: Deanna Harding

6747 Sierra Court Suite J

Dublin, CA 94568

Phone: (925) 551-7444 Fax: (925) 551-7899

Project: 180047.80

Tosco #6034

Received: 04/07/2003 17:35

Site: 4700 First Street  
Livermore, CA

Prep(s):	5030B	Test(s):	8260FAB
Sample ID:	QA	Lab ID:	2003-04-0190 - 1
Sampled:	04/03/2003	Extracted:	4/15/2003 15:59
Matrix:	Water	QC Batch#:	2003/04/15-01.27

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	04/15/2003 15:59	
Benzene	ND	0.50	ug/L	1.00	04/15/2003 15:59	
Toluene	ND	0.50	ug/L	1.00	04/15/2003 15:59	
Ethylbenzene	ND	0.50	ug/L	1.00	04/15/2003 15:59	
Total xylenes	ND	1.0	ug/L	1.00	04/15/2003 15:59	
Methyl tert-butyl ether (MTBE)	ND	2.0	ug/L	1.00	04/15/2003 15:59	
<b>Surrogates(s)</b>						
1,2-Dichloroethane-d4	107.7	76-114	%	1.00	04/15/2003 15:59	
Toluene-d8	93.1	88-110	%	1.00	04/15/2003 15:59	



**Gas/BTEX Fuel Oxygenates by 8260B**

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Project: 180047.80

Tosco #6034

Received: 04/07/2003 17:35

 Site: 4700 First Street  
Livermore, CA

Prep(s):	5030B	Test(s):	8260FAB
Sample ID:	MW-2	Lab ID:	2003-04-0190 - 2
Sampled:	04/03/2003 11:15	Extracted:	4/17/2003 19:01
Matrix:	Water	QC Batch#:	2003/04/17-V3.62

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	1300	50	ug/L	1.00	04/17/2003 19:01	
Benzene	1.5	0.50	ug/L	1.00	04/17/2003 19:01	
Toluene	1.8	0.50	ug/L	1.00	04/17/2003 19:01	
Ethylbenzene	23	0.50	ug/L	1.00	04/17/2003 19:01	
Total xylenes	160	1.0	ug/L	1.00	04/17/2003 19:01	
tert-Butyl alcohol (TBA)	ND	100	ug/L	1.00	04/17/2003 19:01	
Methyl tert-butyl ether (MTBE)	6.6	2.0	ug/L	1.00	04/17/2003 19:01	
Di-isopropyl Ether (DIPE)	ND	2.0	ug/L	1.00	04/17/2003 19:01	
Ethyl tert-butyl ether (ETBE)	ND	2.0	ug/L	1.00	04/17/2003 19:01	
tert-Amyl methyl ether (TAME)	ND	2.0	ug/L	1.00	04/17/2003 19:01	
1,2-DCA	ND	2.0	ug/L	1.00	04/17/2003 19:01	
EDB	ND	2.0	ug/L	1.00	04/17/2003 19:01	
Ethanol	ND	500	ug/L	1.00	04/17/2003 19:01	
<b>Surrogates(s)</b>						
1,2-Dichloroethane-d4	97.2	76-114	%	1.00	04/17/2003 19:01	
Toluene-d8	98.9	88-110	%	1.00	04/17/2003 19:01	

Severn Trent Laboratories, Inc.

STL San Francisco \* 1220 Quarry Lane, Pleasanton, CA 94566

Tel 925 484 1919 Fax 925 484 1096 \* www.stl-inc.com \* CA DHS ELAP# 2496

04/18/2003 14:55

**Gas/BTEX Fuel Oxygenates by 8260B**

Gettler Ryan

Attn.: Deanna Harding

6747 Sierra Court Suite J

Dublin, CA 94568

Phone: (925) 551-7444 Fax: (925) 551-7899

Project: 180047.80

Tosco #6034

Received: 04/07/2003 17:35

Site: 4700 First Street  
Livermore, CA

Prep(s): 5030B

Sample ID: MW-4

Sampled: 04/03/2003 10:40

Matrix: Water

Test(s): 8260FAB

Lab ID: 2003-04-0190 - 3

Extracted: 4/15/2003 16:20

QC Batch#: 2003/04/15-01.27

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	04/15/2003 16:20	
Benzene	ND	0.50	ug/L	1.00	04/15/2003 16:20	
Toluene	ND	0.50	ug/L	1.00	04/15/2003 16:20	
Ethylbenzene	ND	0.50	ug/L	1.00	04/15/2003 16:20	
Total xylenes	ND	1.0	ug/L	1.00	04/15/2003 16:20	
Methyl tert-butyl ether (MTBE)	3.6	2.0	ug/L	1.00	04/15/2003 16:20	
<b>Surrogates(s)</b>						
1,2-Dichloroethane-d4	108.2	76-114	%	1.00	04/15/2003 16:20	
Toluene-d8	92.5	88-110	%	1.00	04/15/2003 16:20	

**Gas/BTEX Fuel Oxygenates by 8260B**

Gettler Ryan

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Dublin, CA 94568

Phone: (925) 551-7444 Fax: (925) 551-7899

Project: 180047.80

Tosco #6034

Received: 04/07/2003 17:35

Site: 4700 First Street  
Livermore, CA

**Batch QC Report**

Prep(s): 5030B

Method Blank

MB: 2003/04/15-01.27-023

Water

Test(s): 8260FAB

QC Batch # 2003/04/15-01.27

Date Extracted: 04/15/2003 12:15

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	50	ug/L	04/15/2003 12:15	
Benzene	ND	0.5	ug/L	04/15/2003 12:15	
Toluene	ND	0.5	ug/L	04/15/2003 12:15	
Ethylbenzene	ND	0.5	ug/L	04/15/2003 12:15	
Total xylenes	ND	1.0	ug/L	04/15/2003 12:15	
tert-Butyl alcohol (TBA)	ND	100	ug/L	04/15/2003 12:15	
Methyl tert-butyl ether (MTBE)	ND	2.0	ug/L	04/15/2003 12:15	
Di-isopropyl Ether (DIPE)	ND	2.0	ug/L	04/15/2003 12:15	
Ethyl tert-butyl ether (ETBE)	ND	2.0	ug/L	04/15/2003 12:15	
tert-Amyl methyl ether (TAME)	ND	2.0	ug/L	04/15/2003 12:15	
1,2-DCA	ND	2.0	ug/L	04/15/2003 12:15	
EDB	ND	2.0	ug/L	04/15/2003 12:15	
Ethanol	ND	500	ug/L	04/15/2003 12:15	
<b>Surrogates(s)</b>					
1,2-Dichloroethane-d4	107.0	76-114	%	04/15/2003 12:15	
Toluene-d8	93.4	88-110	%	04/15/2003 12:15	

**Gas/BTEX Fuel Oxygenates by 8260B**

Gettler Ryan

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6747 Sierra Court Suite J

Dublin, CA 94568

Phone: (925) 551-7444 Fax: (925) 551-7899

Project: 180047.80

Tosco #6034

Received: 04/07/2003 17:35

Site: 4700 First Street  
Livermore, CA

**Batch QC Report**

Prep(s): 5030B

Method Blank

MB: 2003/04/17-V3.62-024

Water

Test(s): 8260FAB

QC Batch # 2003/04/17-V3.62

Date Extracted: 04/17/2003 14:24

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	50	ug/L	04/17/2003 14:24	
Benzene	ND	0.5	ug/L	04/17/2003 14:24	
Toluene	ND	0.5	ug/L	04/17/2003 14:24	
Ethylbenzene	ND	0.5	ug/L	04/17/2003 14:24	
Total xylenes	ND	1.0	ug/L	04/17/2003 14:24	
tert-Butyl alcohol (TBA)	ND	100	ug/L	04/17/2003 14:24	
Methyl tert-butyl ether (MTBE)	ND	2.0	ug/L	04/17/2003 14:24	
Di-isopropyl Ether (DIPE)	ND	2.0	ug/L	04/17/2003 14:24	
Ethyl tert-butyl ether (ETBE)	ND	2.0	ug/L	04/17/2003 14:24	
tert-Amyl methyl ether (TAME)	ND	2.0	ug/L	04/17/2003 14:24	
1,2-DCA	ND	2.0	ug/L	04/17/2003 14:24	
EDB	ND	2.0	ug/L	04/17/2003 14:24	
Ethanol	ND	500	ug/L	04/17/2003 14:24	
<b>Surrogates(s)</b>					
1,2-Dichloroethane-d4	104.8	76-114	%	04/17/2003 14:24	
Toluene-d8	97.2	88-110	%	04/17/2003 14:24	

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04/18/2003 14:55

**Gas/BTEX Fuel Oxygenates by 8260B**

Gettler Ryan  
Attn.: Deanna Harding

6747 Sierra Court Suite J  
Dublin, CA 94568  
Phone: (925) 551-7444 Fax: (925) 551-7899  
Project: 180047.80  
Tosco #6034

Received: 04/07/2003 17:35

Site: 4700 First Street  
Livermore, CA

**Batch QC Report**

Prep(s): 5030B

Test(s): 8260FAB

**Laboratory Control Spike**

**Water**

**QC Batch # 2003/04/15-01.27**

LCS 2003/04/15-01.27-004

Extracted: 04/15/2003

Analyzed: 04/15/2003 11:24

LCSD 2003/04/15-01.27-005

Extracted: 04/15/2003

Analyzed: 04/15/2003 11:53

Compound	Conc. ug/L		Exp.Conc.	Recovery		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Benzene	22.2	23.3	25.0	88.8	93.2	4.8	69-129	20		
Toluene	23.6	23.9	25.0	94.4	95.6	1.3	70-130	20		
Methyl tert-butyl ether (MTBE)	29.1	28.5	25.0	116.4	114.0	2.1	65-165	20		
<b>Surrogates(s)</b>										
1,2-Dichloroethane-d4	536	531	500	107.2	106.2		76-114			
Toluene-d8	456	461	500	91.2	92.2		88-110			

**Gas/BTEX Fuel Oxygenates by 8260B**

Gettler Ryan

Attn.: Deanna Harding

6747 Sierra Court Suite J  
Dublin, CA 94568  
Phone: (925) 551-7444 Fax: (925) 551-7899

Project: 180047.80  
Tosco #6034

Received: 04/07/2003 17:35

Site: 4700 First Street  
Livermore, CA

**Batch QC Report**

Prep(s): 5030B

Test(s): 8260FAB

**Laboratory Control Spike**

**Water**

**QC Batch # 2003/04/17-V3.62**

LCS 2003/04/17-V3.62-040

Extracted: 04/17/2003

Analyzed: 04/17/2003 13:40

LCSD 2003/04/17-V3.62-002

Extracted: 04/17/2003

Analyzed: 04/17/2003 14:02

Compound	Conc. ug/L		Exp.Conc.	Recovery		RPD %	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		Rec.	RPD	LCS	LCSD
Benzene	23.5	23.3	25	94.0	93.2	0.9	69-129	20		
Toluene	25.4	24.1	25	101.6	96.4	5.3	70-130	20		
Methyl tert-butyl ether (MTBE)	28.4	26.9	25	113.6	107.6	5.4	65-165	20		
<b>Surrogates(s)</b>										
1,2-Dichloroethane-d4	530	499	500	106.0	99.8		76-114			
Toluene-d8	533	494	500	106.6	98.8		88-110			

**Gas/BTEX Fuel Oxygenates by 8260B**

Gettler Ryan  
Attn.: Deanna Harding

6747 Sierra Court Suite J  
Dublin, CA 94568  
Phone: (925) 551-7444 Fax: (925) 551-7899  
Project: 180047.80  
Tosco #6034

Alameda County

MAY 30 2003

Environmental Health

Received: 04/07/2003 17:35

Site: 4700 First Street  
Livermore, CA

**Batch QC Report**

Prep(s): 5030B

Test(s): 8260FAB

**Matrix Spike ( MS / MSD )**

**Water**

**QC Batch # 2003/04/15-01.27**

MW-7 >> MS

Lab ID: 2003-04-0072 - 004

MS: 2003/04/15-01.27-021

Extracted: 04/15/2003

Analyzed: 04/15/2003 17:47

Dilution: 1.00

MSD: 2003/04/15-01.27-022

Extracted: 04/15/2003

Analyzed: 04/15/2003 18:09

Dilution: 1.00

Compound	Conc. ug/L			Spk. Level ug/L	Recovery			Limits %		Flags	
	MS	MSD	Sample		MS	MSD	RPD	Rec.	RPD	MS	MSD
Benzene	22.3	22.8	ND	25.0	89.2	91.2	2.2	69-129	20		
Toluene	23.2	23.5	ND	25.0	92.8	94.0	1.3	70-130	20		
Methyl tert-butyl ether	32.1	32.9	3.39	25.0	114.8	118.0	2.7	65-165	20		
<b>Surrogate(s)</b>											
1,2-Dichloroethane-d4	548	553		500	109.5	110.6		76-114			
Toluene-d8	458	459		500	91.6	91.9		88-110			



2000 Crow Canyon Place  
Suite 400  
San Ramon, CA 94583

Phone: (925) 277-2305  
Fax: (925) 277-2361

Environmental Department

May 28, 2003

**Re: Tosco (Unocal) Service Station #6034  
4700 First Street  
Livermore, California**

" I declare under penalty of perjury, that to the best of my knowledge at the present time, the information and/or recommendations contained in the attached proposal or report is true and correct."

A handwritten signature in cursive script, appearing to read "David B. DeWitt".

David B. DeWitt  
Site Manager  
ConocoPhillips