



2000 Crow Canyon Place  
Suite 400  
San Ramon, CA 94583

Phone: (925) 277-2305  
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Environmental Department

June 10, 2003

**Re: Tosco (Former Unocal) Service Station #1871  
96 Macarthur Boulevard  
Oakland, 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 that reads "David B. DeWitt".

David B. DeWitt  
Site Manager  
ConocoPhillips



# GETTLER-RYAN Inc.

## TRANSMITTAL

May 23, 2003

G-R #180068

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 (Former Unocal)**  
**Service Station #1871**  
**96 MacArthur Boulevard**  
**Oakland, California**

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DATED	DESCRIPTION
1	May 23, 2003	Groundwater Monitoring and Sampling Report Second Quarter - Event of April 16, 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 **June 9, 2003**, this report will be distributed to the following:

cc: Alameda County Health Care Services, 1131 Harbor Bay Parkway, Alameda, California 94502

Enclosure

trans/1871-DBD

6747 Sierra Court, Suite J • Dublin, California 94568 • (925) 551-7555



# GETTLER-RYAN INC.

May 23, 2003  
G-R Job #180068

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

**RE: Second Quarter Event of April 16, 2003**  
Groundwater Monitoring & Sampling Report  
Tosco (Former Unocal) Service Station #1871  
96 MacArthur Boulevard  
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 the wells. Static water level data and groundwater elevations are summarized in Table 1. 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,

- For -

Deanna L. Harding  
Project Coordinator

Robert C. Mallory  
Registered Geologist No. 7285

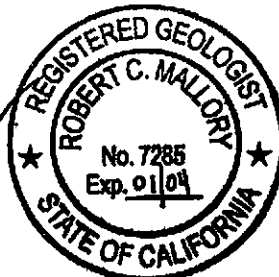
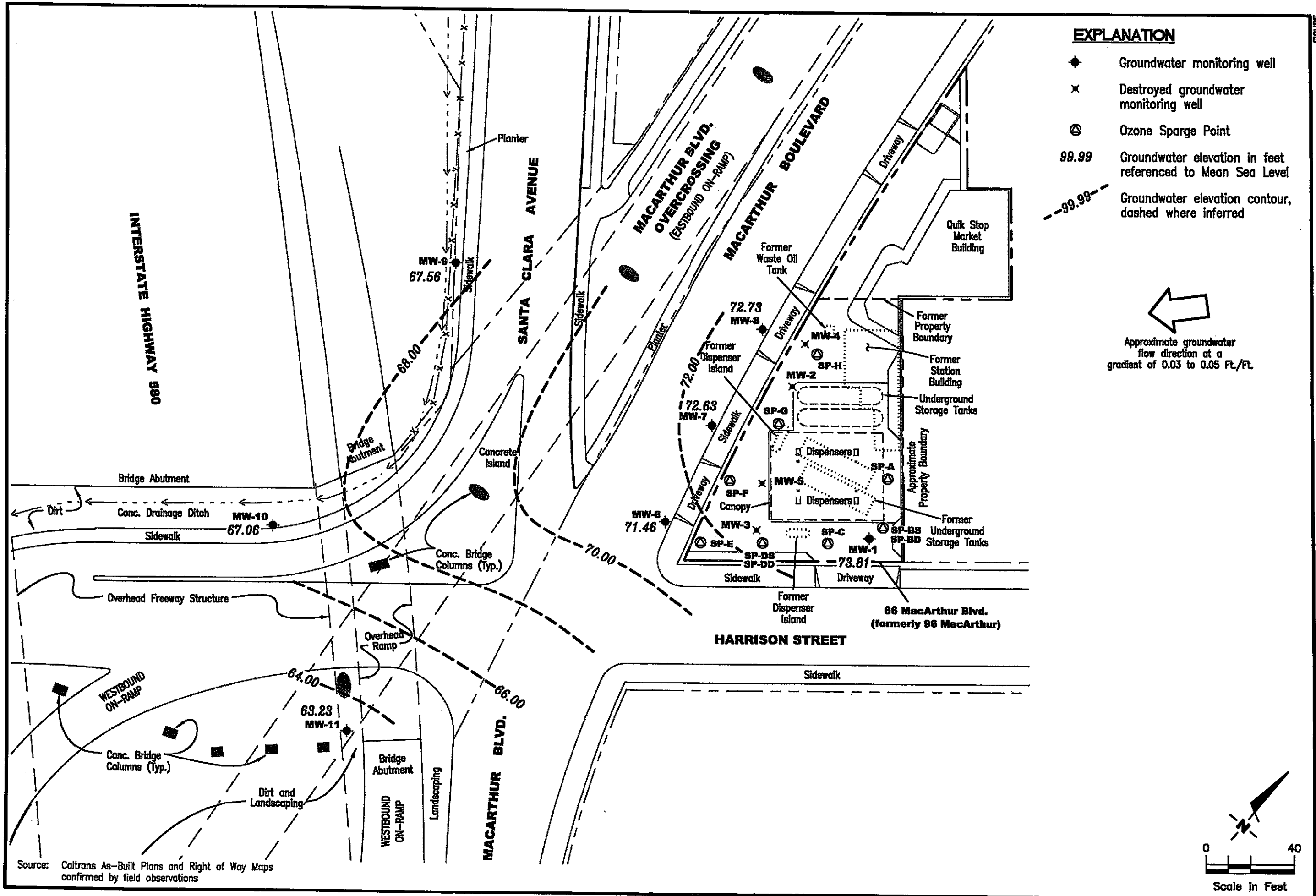


Figure 1: Potentiometric Map  
Figure 2: Concentration Map  
Table 1: Groundwater Monitoring Data and Analytical Results  
Table 2: Field Measurements  
Table 3: Groundwater Analytical Results - Oxygenate Compounds  
Table 4: Groundwater Analytical Results  
Attachments: Standard Operating Procedure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



**EXPLANATION**

- ◆ Groundwater monitoring well
- ✕ Destroyed groundwater monitoring well
- ⊙ Ozone Sparge Point
- 99.99 Groundwater elevation in feet referenced to Mean Sea Level
- - - 99.99 - - - Groundwater elevation contour, dashed where inferred

Approximate groundwater flow direction at a gradient of 0.03 to 0.05 Ft./Ft.

FIGURE

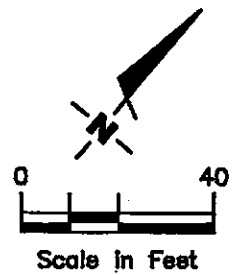
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**POTENTIOMETRIC MAP**  
 Tosco (Former Unocal) Service Station #1871  
 96 MacArthur Boulevard  
 Oakland, California

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

PROJECT NUMBER: 180068  
 DATE: April 16, 2003  
 REVISIONS BY: [blank]  
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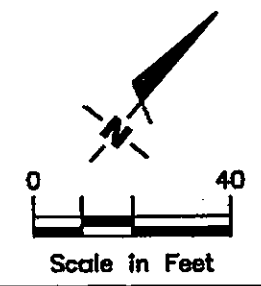
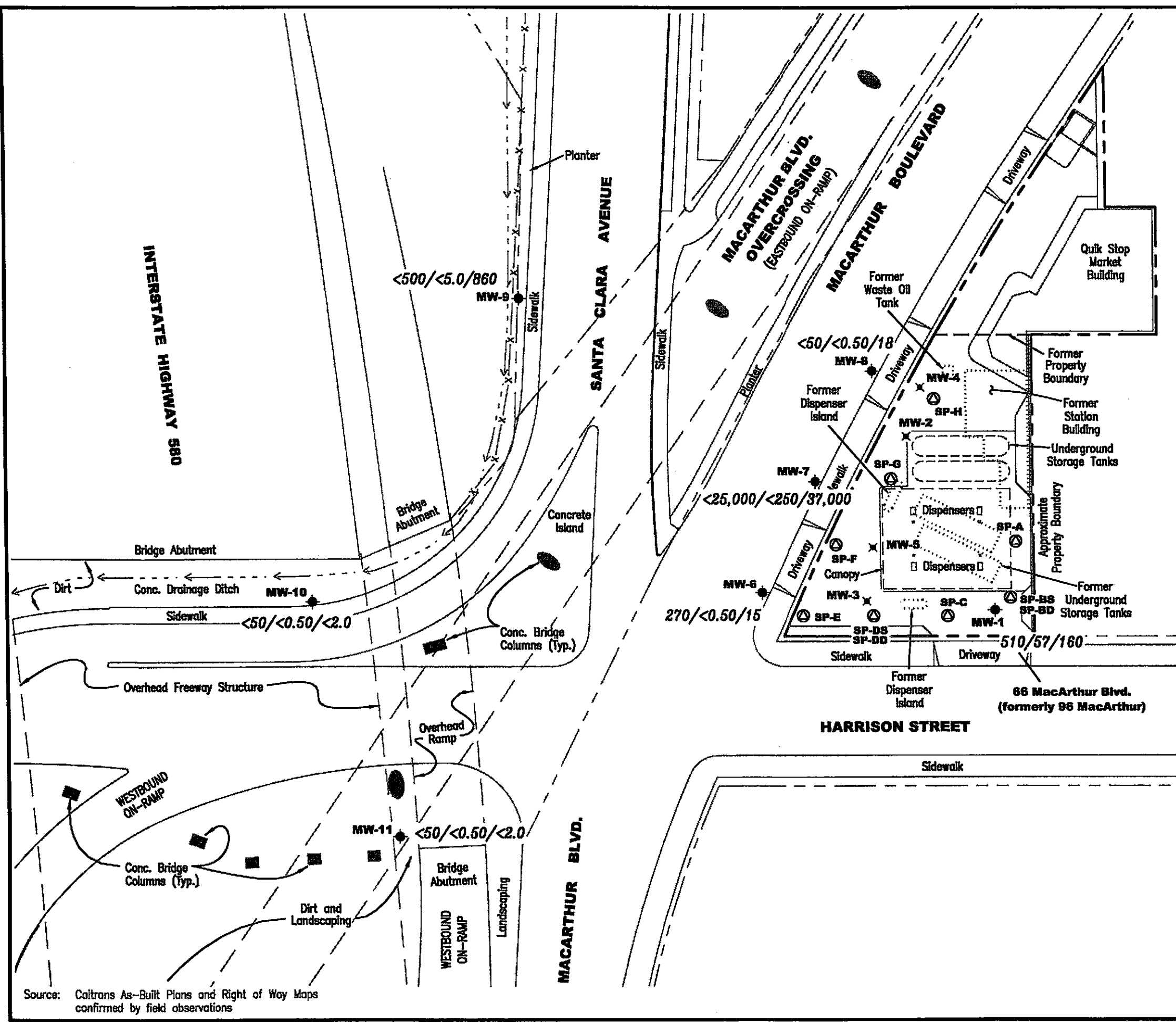
Source: Caltrans As-Built Plans and Right of Way Maps confirmed by field observations



**EXPLANATION**

- Groundwater monitoring well
- ✕ Destroyed groundwater monitoring well
- ⊙ Ozone Sparge Point
- A/B/C Total Petroleum Hydrocarbons (TPH) as Gasoline/Benzene/MTBE concentrations in ppb

**NOTE:** TPH as Gasoline, Benzene, and MTBE analyses by EPA Method 8260



Source: Caltrans As-Built Plans and Right of Way Maps confirmed by field observations

**CONCENTRATION MAP**  
 Tosco (Former Unocal) Service Station #1871  
 96 MacArthur Boulevard  
 Oakland, California

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

PROJECT NUMBER: 180068  
 REVIEWED BY: [Signature]  
 DATE: April 16, 2003  
 REVISION DATE: [Blank]  
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**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
 Tosco (Former Unocal) Service Station #1871  
 96 MacArthur Boulevard  
 Oakland, California

WELL ID/ TOC*(ft.)	DATE	DTW (ft.)	SI. (ft. bgs.)	GWE (msl)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
MW-1	11/03/92	--	9.5-24.5	--	260,000	2,300	4,600	3,700	17,000	--
	01/25/93	--		--	120,000	2,100	4,600	4,900	22,000	--
81.18	04/29/93	13.71		67.47	100,000	850	2,000	4,300	19,000	--
	07/16/93	14.51		66.67	29,000	590	560	980	4,200	--
	10/19/93	15.20		65.98	67,000	1,400	2,600	2,900	5,000	--
	01/20/94	15.17		66.01	92,000	1,200	3,000	3,400	17,000	--
	04/13/94	14.44		66.74	51,000	1,000	2,600	3,200	15,000	--
	07/13/94	14.88		66.30	35,000	550	150	1,400	5,700	--
	10/10/94	15.55		65.63	52,000	1,000	810	3,300	12,000	--
	01/10/95	12.44		68.74	810	16	18	59	250	--
	04/17/95	12.68		68.50	48,000	880	530	2,500	11,000	--
	07/24/95	13.97		67.21	48,000	1,500	420	2,700	9,700	--
86.24	10/23/95	14.85		66.33	47,000	780	210	2,100	11,000	270
	01/18/96	14.21		66.97	30,000	1,500	500	3,500	13,000	2,400
	04/18/96	13.40		72.84	66,000	2,700	2,200	3,100	13,000	57,000
	07/24/96	14.15		72.09	5,600	2,100	ND	160	160	24,000
	10/24/96	14.85		71.39	110,000	7,500	8,000	3,300	14,000	58,000
	01/28/97	11.25		74.99	94,000	7,700	19,000	3,100	15,000	120,000
	07/29/97	14.67		71.57	ND	ND	ND	ND	ND	70,000
	01/14/98	12.27		73.97	85,000	6,100	10,000	3,000	17,000	110,000
	07/01/98	14.32		71.92	110,000	8,700	12,000	2,700	15,000	110,000
	06/18/99	13.93		72.31	49,000	6,900	6,500	380	12,000	72,000/47,000 <sup>4</sup>
	01/21/00	15.05		71.19	63,700 <sup>5</sup>	5,520	2,000	2,640	13,100	57,100
	07/10/00	13.97		72.27	67,800 <sup>5</sup>	9,910	4,120	3,330	16,100	67,400/54,000 <sup>4</sup>
	01/04/01	14.92		71.32	63,900 <sup>5</sup>	6,270	784	2,670	12,900	--/38,100 <sup>4</sup>
	07/16/01	14.32		71.92	66,000 <sup>5</sup>	7,100	330	2,300	9,800	36,000/41,000 <sup>4</sup>
	86.99	01/31/02	13.54		73.45	42,000 <sup>5</sup>	5,800	1,800	2,000	8,200
04/11/02		13.64		73.35	58,000	2,900	1,200	1,800	10,000	19,000
07/11/02 <sup>R</sup>		13.96		73.03	5,900	330	<10	230	600	3,400
10/15/02 <sup>R</sup>		14.71		72.28	470	16	<2.5	14	16	390
01/14/03 <sup>R</sup>		12.77		74.22	<50	<0.50	<0.50	<0.50	<1.0	49
	04/16/03 <sup>R</sup>	13.18		73.81	510	57	0.62	29	61	160

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
 Tosco (Former Unocal) Service Station #1871  
 96 MacArthur Boulevard  
 Oakland, 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	11/03/92	--	--	--	140	2.2	ND	ND	2.0	--	
	01/25/93	--	--	--	2,100	56	1.1	90	140	--	
76.61	04/29/93	9.73		66.88	1,500	290	ND	33	11	--	
	07/16/93	10.17		66.44	510 <sup>1</sup>	17	0.60	3.2	2.5	--	
	10/19/93	11.18		65.43	670	24	1.1	7.7	23	--	
	01/20/94	11.12		65.49	820	97	ND	12	ND	--	
	04/13/94	10.12		66.49	550	71	ND	5.1	1.3	--	
	07/13/94	10.86		65.75	2,000	490	ND	17	13	--	
	10/10/94	11.48		65.13	2,300	340	ND	25	ND	--	
	01/10/95	8.71		67.90	850	3.8	ND	8.5	1.3	--	
	04/17/95	8.90		67.71	1,300	4.7	ND	8.3	1.2	--	
	07/24/95	9.94		66.67	960	20	ND	4.2	6.2	--	
	10/23/95	10.70		65.91	ND	ND	ND	ND	ND	19	
	01/18/96	10.11		66.50	900	300	86	7.6	18	4,300	
	81.66	04/18/96	9.27		72.39	18,000	3,600	680	890	4,100	19,000
		07/24/96	10.02		71.64	100,000	13,000	21,000	2,700	16,000	120,000
10/24/96		10.78		70.88	800	110	17	11	20	20,000	
01/28/97		7.70		73.96	45,000	2,400	2,900	2,000	7,600	29,000	
07/29/97		10.28		71.38	ND	1.2	0.72	0.63	0.62	17,000	
01/14/98		8.63		73.03	14,000	1,000	150	790	3,300	23,000	
07/01/98		9.53		72.13	2,700	100	ND <sup>3</sup>	180	78	7,100	
DESTROYED											
MW-3	11/03/92	--	--	--	2,100	120	15	38	200	--	
	01/25/93	--	--	--	2,300	80	1	55	52	--	
77.48	04/29/93	11.37		66.11	4,500	1,700	ND	200	140	--	
	07/16/93	12.09		65.39	4,000 <sup>1</sup>	1,100	28	52	70	--	
	10/19/93	12.69		64.79	3,800	42	ND	50	56	--	
	01/20/94	12.65		64.83	4,200	11	ND	21	15	--	
	04/13/94	12.02		65.46	4,200	210	ND	36	53	--	
	07/13/94	12.46		65.02	1,800 <sup>2</sup>	16	16	ND	21	--	
	10/10/94	12.98		64.50	4,300	11	ND	12	ND	--	

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MW-3	01/10/95	10.42	--	67.06	310	4.6	ND	3.5	2.1	--
(cont)	04/17/95	10.42		67.06	7,800	ND	4.6	300	450	--
	07/24/95	11.76		65.72	3,200	170	ND	22	16	--
	10/23/95	12.50		64.98	3,900	55	ND	19	11	4,500
	01/18/96	11.79		65.69	2,200	270	33	26	18	5,500
82.55	04/18/96	11.30		71.25	6,000	1,800	ND	100	230	48,000
	07/24/96	12.17		70.38	ND	2,500	ND	ND	ND	71,000
	10/24/96	12.65		69.90	3,800	660	ND	15	ND	65,000
	01/28/97	9.50		73.05	4,400	250	13	87	47	54,000
	07/29/97	11.99		70.56	ND	3,500	ND	220	ND	75,000
	01/14/98	10.30		72.25	ND <sup>3</sup>	430	ND <sup>3</sup>	100	380	37,000
	07/01/98	11.70		70.85	ND <sup>3</sup>	430	ND <sup>3</sup>	ND <sup>3</sup>	ND <sup>3</sup>	45,000
	DESTROYED									
MW-4										
82.04	04/18/96	9.83	--	72.21	ND	630	ND	ND	ND	18,000
	07/24/96	10.47		71.57	ND	ND	ND	ND	5.2	3,900
	10/24/96	11.14		70.90	ND	ND	ND	ND	ND	6,300
	01/28/97	7.94		74.10	1,200	490	ND	17	6.8	16,000
	07/29/97	10.86		71.18	50	1.5	0.61	0.73	0.78	15,000
	01/14/98	8.73		73.31	ND <sup>3</sup>	ND <sup>3</sup>	ND <sup>3</sup>	ND <sup>3</sup>	ND <sup>3</sup>	5,200
	07/01/98	10.51		71.53	ND	ND	ND	ND	ND	640
	DESTROYED									
MW-5										
81.80	04/18/96	9.65	--	72.15	31,000	5,500	1,400	1,700	8,100	66,000
	07/24/96	10.80		71.00	32,000	6,400	ND	1,600	6,100	120,000
	10/24/96	11.40		70.40	17,000	6,900	ND	970	130	84,000
	01/28/97	7.76		74.04	19,000	6,100	62	82	310	160,000
	07/29/97	11.58		70.22	ND	ND	ND	ND	ND	71,000



**Table 1**  
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 96 MacArthur Boulevard  
 Oakland, 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-5	01/14/98	9.08	--	72.72	ND <sup>3</sup>	3,600	ND <sup>3</sup>	ND <sup>3</sup>	ND <sup>3</sup>	80,000	
(cont)	07/01/98	11.25		70.55	6,400	2,100	21	120	330	61,000	
	DESTROYED										
<b>MW-6</b>											
78.91	06/18/99	9.30	5.0-25.0	69.61	2,100	21	29	ND <sup>3</sup>	47	97,000/71,000 <sup>4</sup>	
	01/21/00	9.37		69.54	1,880 <sup>5</sup>	143	31.2	106	196	41,200/48,800 <sup>4</sup>	
	07/10/00	8.94		69.97	5,710 <sup>5</sup>	869	209	301	1,430	22,200/19,500 <sup>4</sup>	
	01/04/01	9.21		69.70	ND	ND	ND	ND	ND	--/9,510 <sup>4</sup>	
	07/16/01	9.42		69.49	4,800 <sup>5</sup>	200	21	150	440	29,000/34,000 <sup>4</sup>	
	01/31/02	8.50		70.41	12,000 <sup>7</sup>	250	92	500	1,500	26,000/31,000 <sup>4</sup>	
79.67	04/11/02	9.08		70.59	3,600	42	32	39	280	120,000	
	07/11/02 <sup>R</sup>	9.70		69.97	12,000 <sup>9</sup>	<100	<100	<100	<200	15,000	
	10/15/02 <sup>R</sup>	9.96		69.71	1,300 <sup>9</sup>	<10	<10	<10	<20	3,200	
	01/14/03 <sup>R</sup>	8.31		71.36	<50	<0.50	<0.50	<0.50	<1.0	120	
	04/16/03 <sup>R</sup>	8.21		71.46	270	<0.50	<0.50	<0.50	1.3	15	
<b>MW-7</b>											
79.92	06/18/99	8.70	5.0-25.0	71.22	ND	ND	ND	ND	ND	16,000/13,000 <sup>4</sup>	
	01/21/00	9.30		70.62	ND <sup>3</sup>	ND <sup>3</sup>	ND <sup>3</sup>	ND <sup>3</sup>	ND <sup>3</sup>	12,300/18,200 <sup>4</sup>	
	07/10/00	8.72		71.20	ND <sup>3</sup>	ND <sup>3</sup>	ND <sup>3</sup>	ND <sup>3</sup>	ND <sup>3</sup>	16,900/13,800 <sup>4</sup>	
	01/04/01	9.17		70.75	ND	ND	ND	ND	0.719	--/37.3 <sup>4</sup>	
	07/16/01	9.02		70.90	ND	ND	ND	ND	ND	7,200/4,700 <sup>4</sup>	
	01/31/02	7.91		72.01	<50	<0.50	<0.50	<0.50	<0.50	8,900/9,900 <sup>4</sup>	
80.67	04/11/02	INACCESSIBLE - CAR PARKED OVER WELL				--	--	--	--	--	--
	07/11/02	INACCESSIBLE - TRUCK PARKED OVER WELL				--	--	--	--	--	--
	10/15/02 <sup>R</sup>	9.81		70.86	<5,000 <sup>9</sup>	<50	<50	<50	<100	12,000	
	01/14/03 <sup>R</sup>	7.89		72.78	<25,000	<250	<250	<250	<500	33,000	
	04/16/03 <sup>R</sup>	8.04		72.63	<25,000	<250	<250	<250	<500	37,000	

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
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 96 MacArthur Boulevard  
 Oakland, 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)
<b>MW-8</b>										
80.96	06/18/99	9.10	5.0-25.0	71.86	ND	ND	ND	ND	ND	290/160 <sup>4</sup>
	01/21/00	10.00		70.96	ND	ND	ND	ND	1.09	224/221 <sup>4</sup>
	07/10/00	7.94		73.02	ND	ND	ND	ND	ND	234/223 <sup>4</sup>
	01/04/01	9.76		71.20	3,790 <sup>5</sup>	141	8.92	128	375	--/34,200 <sup>4</sup>
	07/16/01	9.15		71.81	ND	ND	ND	ND	ND	66/70 <sup>4</sup>
	01/31/02	7.99		72.97	5,900 <sup>7</sup>	86	<10	630	390	670/700 <sup>4</sup>
81.71	04/11/02	9.00		72.71	250	2.0	<0.50	38	2.2	410
	07/11/02 <sup>R</sup>	9.60		72.11	110 <sup>9</sup>	<0.50	<0.50	<0.50	<1.0	120
	10/15/02 <sup>R</sup>	10.60		71.11	<50	<0.50	<0.50	<0.50	<1.0	21
	01/14/03 <sup>R</sup>	8.63		73.08	<250	2.6	<2.5	18	<5.0	430
	04/16/03 <sup>R</sup>	8.98		72.73	<50	<0.50	<0.50	<0.50	<1.0	18
<b>MW-9</b>										
82.07	01/31/02 <sup>6</sup>	14.72	--	67.35	<50	<0.50	<0.50	<0.50	<0.50	680/910 <sup>4</sup>
	04/11/02	14.85		67.22	<50	<0.50	<0.50	<0.50	<0.50	620
	07/11/02 <sup>R</sup>	15.39		66.68	580 <sup>9</sup>	<5.0	<5.0	<5.0	<10	580
	10/15/02 <sup>R</sup>	16.16		65.91	570 <sup>9</sup>	<5.0	<5.0	<5.0	<10	1,400
	01/14/03 <sup>R</sup>	14.75		67.32	<200	<2.0	<2.0	<2.0	<4.0	220
	04/16/03 <sup>R</sup>	14.51		67.56	<500	<5.0	<5.0	<5.0	<10	860
<b>MW-10</b>										
74.98	01/31/02 <sup>6</sup>	8.02	--	66.96	<50	<0.50	<0.50	<0.50	<0.50	<5.0/1.2 <sup>4</sup>
	04/11/02	7.60		67.38	<50	<0.50	<0.50	<0.50	<0.50	<2.5
	07/11/02 <sup>R</sup>	8.91		66.07	<50	<0.50	<0.50	<0.50	<1.0	1.1
	10/15/02 <sup>R</sup>	11.49		63.49	<50	<0.50	<0.50	<0.50	<1.0	<2.0
	01/14/03 <sup>R</sup>	8.47		66.51	<50	<0.50	<0.50	<0.50	<1.0	<2.0
	04/16/03 <sup>R</sup>	7.92		67.06	<50	<0.50	<0.50	<0.50	<1.0	<2.0

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
 Tosco (Former Unocal) Service Station #1871  
 96 MacArthur Boulevard  
 Oakland, 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-11										
77.31	01/31/02 <sup>b</sup>	11.71	--	65.60	<50	<0.50	<0.50	<0.50	<0.50	<5.0/<1.0 <sup>4</sup>
	04/11/02	11.95		65.36	<50	<0.50	<0.50	<0.50	<0.50	<2.5
	07/11/02 <sup>R</sup>	12.79		64.52	<50	<0.50	<0.50	<0.50	<1.0	<0.50
	10/15/02 <sup>R</sup>	13.67		63.64	<50	<0.50	<0.50	<0.50	<1.0	<2.0
	01/14/03 <sup>R</sup>	13.31		64.00	<50	<0.50	<0.50	<0.50	<1.0	<2.0
	04/16/03 <sup>B</sup>	14.08		63.23	<50	<0.50	<0.50	<0.50	<1.0	<2.0
<b>Trip Blank</b>										
TB-LB	01/14/98	--	--	--	ND	ND	ND	ND	ND	ND
	07/01/98	--		--	ND	ND	ND	ND	ND	ND
	06/18/99	--		--	ND	ND	ND	ND	ND	ND
	01/21/00	--		--	ND	ND	ND	ND	ND	14.6
	07/10/00	--		--	ND	ND	ND	ND	ND	ND
	01/04/01	--		--	ND	ND	ND	ND	ND	ND
	07/16/01	--		--	ND	ND	ND	ND	ND	ND
	01/31/02	--		--	<50	<0.50	<0.50	<0.50	<0.50	<5.0
	04/11/02	--		--	<50	<0.50	<0.50	<0.50	<0.50	<2.5
QA	07/11/02 <sup>R</sup>	--		--	<50	<0.50	<0.50	<0.50	<1.0	<0.50
	10/15/02 <sup>R</sup>	--		--	<50	<0.50	<0.50	<0.50	<1.0	<2.0
	01/14/03 <sup>R</sup>	--		--	<50	<0.50	2.1 <sup>10</sup>	<0.50	1.1 <sup>10</sup>	<2.0
	04/16/03 <sup>B</sup>	--		--	<50	<0.50	<0.50	<0.50	<1.0	<2.0

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
 Tosco (Former Unocal) Service Station #1871  
 96 MacArthur Boulevard  
 Oakland, California

**EXPLANATIONS:**

Groundwater monitoring data and laboratory analytical results prior to January 14, 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 elevation were surveyed by Virgil Chaves Land Surveying on January 15, 2002. Elevations were based on a USGS bronze disc located near the north end of the curb return at the northwest corner of 38th Street and Broadway, Oakland, California, (Benchmark = 85.41 feet NGVD 29). TOC elevations were re-surveyed by Kier & Wright in May, 1996, per City of Oakland Benchmark No. 2310, a cut square in concrete curb at mid point of return at the northeast corner of El Dorado and Fairmont Street. (Elevation = 77.53 feet msl).

◆ Well elevation has been adjusted up 0.75 feet based on Virgil Chavez Land Survey dated March 5, 2002.

- 1 Laboratory report indicates the presence of discrete peaks not indicative of gasoline.
- 2 Laboratory report indicates the hydrocarbons detected appeared to be a gasoline and non-gasoline mixture.
- 3 Detection limit raised. Refer to analytical reports.
- 4 MTBE by EPA Method 8260.
- 5 Laboratory report indicates gasoline C6-C12.
- 6 Well development performed.
- 7 Laboratory report indicates weathered gasoline C6-C12.
- 8 TPH-G, BTEX and MTBE by EPA Method 8260.
- 9 Laboratory report indicates hydrocarbon pattern is present in the requested fuel quantitation range but does not resemble the pattern of the requested fuel.
- 10 Laboratory report indicates the trip blank for this set of samples contained detectable levels of Toluene and Xylene. These results were confirmed by the laboratory. Since many of the samples in this set were Not Detect for these compounds, it is not likely that this contamination was introduced in the field.

**Table 2**  
**Field Measurements**  
 Tosco (Former Unocal) Service Station #1871  
 96 MacArthur Boulevard  
 Oakland, California

WELL ID	DATE	POST FIRST CASING VOLUME PURGE		POST SECOND CASING VOLUME PURGE		POST THIRD CASING VOLUME PURGE	
		D.O. (mg/L)	ORP (mV)	D.O. (mg/L)	ORP (mV)	D.O. (mg/L)	ORP (mV)
MW-1	07/11/02	5.0	122	3.1	118	2.9	116
	10/15/02	6.65	132	5.76	147	5.35	152
	01/14/03	4.64	125	4.66	112	4.71	138
	04/16/03	3.48	1.67	3.64	180	3.70	177
MW-6	07/11/02	0.7	-17	3.4	13	2.4	12
	10/15/02	7.92	114	6.38	111	5.94	129
	01/14/03	5.51	95	5.50	107	5.11	116
	04/16/03	3.95	133	4.05	147	4.11	142
MW-7	10/15/02	3.88	121	3.90	156	4.04	152
	01/14/03	2.95	137	2.92	130	3.16	124
	04/16/03	2.65	174	2.80	190	2.78	197
MW-8	07/11/02	1.1	26	1.6	10	2.4	13
	10/15/02	4.65	218	4.53	241	4.57	231
	01/14/03	5.19	210	4.85	187	4.96	184
	04/16/03	3.12	265	3.23	260	3.30	285
MW-9	07/11/02	1.1	10	1.0	11	1.2	15
	10/15/02	2.95	154	2.89	161	3.08	166
	01/14/03	3.81	144	3.47	136	3.53	128
	04/16/03	2.48	97	2.37	104	2.54	101

**Table 2**  
**Field Measurements**  
 Tosco (Former Unocal) Service Station #1871  
 96 MacArthur Boulevard  
 Oakland, California

WELL ID	DATE	POST FIRST CASING VOLUME PURGE		POST SECOND CASING VOLUME PURGE		POST THIRD CASING VOLUME PURGE	
		D.O. (mg/L)	ORP (mV)	D.O. (mg/L)	ORP (mV)	D.O. (mg/L)	ORP (mV)
MW-10	07/11/02	1.1	36	1.0	31	1.2	24
	10/15/02	6.80	158	6.70	161	6.73	148
	01/14/03	5.54	178	5.18	171	5.21	163
	04/16/03	2.74	123	2.83	116	2.79	130
MW-11	07/11/02	1.8	419	1.4	400	1.1	391
	10/15/02	4.39	98	4.20	110	4.27	96
	01/14/03	5.42	120	5.31	147	5.36	138
	04/16/03	3.37	184	3.50	191	3.48	190

**EXPLANATIONS:**

D.O. = Dissolved Oxygen  
 (mg/L) = Milligrams per liter  
 ORP = Oxidation Reduction Potential  
 (mV) = Millivolts

**Table 2**  
**Field Measurements**  
Tosco (Former Unocal) Service Station #1871  
96 MacArthur Boulevard  
Oakland, California

WELL ID	DATE	POST FIRST CASING VOLUME PURGE		POST SECOND CASING VOLUME PURGE		POST THIRD CASING VOLUME PURGE	
		D.O. (mg/L)	ORP (mV)	D.O. (mg/L)	ORP (mV)	D.O. (mg/L)	ORP (mV)
MW-1	07/11/02	5.0	122	3.1	118	2.9	116
	10/15/02	6.65	132	5.76	147	5.35	152
	01/14/03	4.64	125	4.66	112	4.71	138
	04/16/03	3.48	1.67	3.64	180	3.70	177
MW-6	07/11/02	0.7	-17	3.4	13	2.4	12
	10/15/02	7.92	114	6.38	111	5.94	129
	01/14/03	5.51	95	5.50	107	5.11	116
	04/16/03	3.95	133	4.05	147	4.11	142
MW-7	10/15/02	3.88	121	3.90	156	4.04	152
	01/14/03	2.95	137	2.92	130	3.16	124
	04/16/03	2.65	174	2.80	190	2.78	197
MW-8	07/11/02	1.1	26	1.6	10	2.4	13
	10/15/02	4.65	218	4.53	241	4.57	231
	01/14/03	5.19	210	4.85	187	4.96	184
	04/16/03	3.12	265	3.23	260	3.30	285
MW-9	07/11/02	1.1	10	1.0	11	1.2	15
	10/15/02	2.95	154	2.89	161	3.08	166
	01/14/03	3.81	144	3.47	136	3.53	128
	04/16/03	2.48	97	2.37	104	2.54	101

**Table 2**  
**Field Measurements**  
 Tosco (Former Unocal) Service Station #1871  
 96 MacArthur Boulevard  
 Oakland, California

WELL ID	DATE	POST FIRST CASING VOLUME PURGE		POST SECOND CASING VOLUME PURGE		POST THIRD CASING VOLUME PURGE	
		D.O. (mg/L)	ORP (mV)	D.O. (mg/L)	ORP (mV)	D.O. (mg/L)	ORP (mV)
MW-10	07/11/02	1.1	36	1.0	31	1.2	24
	10/15/02	6.80	158	6.70	161	6.73	148
	01/14/03	5.54	178	5.18	171	5.21	163
	04/16/03	2.74	123	2.83	116	2.79	130
MW-11	07/11/02	1.8	419	1.4	400	1.1	391
	10/15/02	4.39	98	4.20	110	4.27	96
	01/14/03	5.42	120	5.31	147	5.36	138
	04/16/03	3.37	184	3.50	191	3.48	190

**EXPLANATIONS:**

D.O. = Dissolved Oxygen  
 (mg/L) = Milligrams per liter  
 ORP = Oxidation Reduction Potential  
 (mV) = Millivolts



**Table 3**  
**Groundwater Analytical Results - Oxygenate Compounds**  
 Tosco (Former Unocal) Service Station #1871  
 96 MacArthur Boulevard  
 Oakland, California

WELL ID	DATE	ETHANOL (ppb)	TBA (ppb)	MTBE (ppb)	DIPE (ppb)	ETBE (ppb)	TAME (ppb)	EDB (ppb)	1,2-DCA (ppb)
MW-1	06/18/99	ND <sup>1</sup>	ND <sup>1</sup>	47,000	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>
	07/10/00	--	--	54,000	--	--	--	--	--
	01/04/01	--	--	38,100	--	--	--	--	--
	07/16/01	ND <sup>1</sup>	ND <sup>1</sup>	41,000	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>
	01/31/02	--	--	26,000	--	--	--	--	--
	07/11/02	--	--	3,400	--	--	--	--	--
	10/15/02	--	--	390	--	--	--	--	--
	01/14/03	<500	<100	49	<2.0	<2.0	<2.0	<2.0	<2.0
	04/16/03	--	--	160	--	--	--	--	--
MW-6	06/18/99	ND <sup>1</sup>	ND <sup>1</sup>	71,000	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>
	01/21/00	--	--	48,800	--	--	--	--	--
	07/10/00	--	--	19,500	--	--	--	--	--
	01/04/01	--	--	9,510	--	--	--	--	--
	07/16/01	ND <sup>1</sup>	ND <sup>1</sup>	34,000	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>
	01/31/02	--	--	31,000	--	--	--	--	--
	07/11/02	<5,000	<1,000	15,000	<200	<100	<100	<100	<100
	10/15/02	--	--	3,200	--	--	--	--	--
	01/14/03	<500	<100	120	<2.0	<2.0	<2.0	<2.0	<2.0
04/16/03	--	--	15	--	--	--	--	--	
MW-7	06/18/99	ND <sup>1</sup>	ND <sup>1</sup>	13,000	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>
	01/21/00	--	--	18,200	--	--	--	--	--
	07/10/00	--	--	13,800	--	--	--	--	--
	01/04/01	--	--	37.3	--	--	--	--	--
	07/16/01	ND <sup>1</sup>	ND <sup>1</sup>	4,700	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>
	01/31/02	--	--	9,900	--	--	--	--	--
	07/11/02	INACCESSIBLE - TRUCK PARKED OVER WELL			--	--	--	--	--
	10/15/02	--	--	12,000	--	--	--	--	--
	01/14/03	<250,000	<50,000	33,000	<1,000	<1,000	<1,000	<1,000	<1,000
04/16/03	--	--	37,000	--	--	--	--	--	

**Table 3**  
**Groundwater Analytical Results - Oxygenate Compounds**  
 Tosco (Former Unocal) Service Station #1871  
 96 MacArthur Boulevard  
 Oakland, California

WELL ID	DATE	ETHANOL (ppb)	TBA (ppb)	MTBE (ppb)	DIPE (ppb)	ETBE (ppb)	TAME (ppb)	EDB (ppb)	1,2-DCA (ppb)
MW-8	06/18/99	ND <sup>1</sup>	ND <sup>1</sup>	160	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>	ND <sup>1</sup>
	01/21/00	--	--	221	--	--	--	--	--
	07/10/00	--	--	223	--	--	--	--	--
	01/04/01	--	--	34,200	--	--	--	--	--
	07/16/01	ND	ND	70	ND	ND	ND	ND	ND
	01/31/02	--	--	700	--	--	--	--	--
	07/11/02	--	--	120	--	--	--	--	--
	10/15/02	--	--	21	--	--	--	--	--
	01/14/03	<2,500	<500	430	<10	<10	<10	<10	<10
	04/16/03	--	--	18	--	--	--	--	--
MW-9	01/31/02	<3,600	<140	910	<7.1	<7.1	<7.1	<7.1	<7.1
	07/11/02	--	--	580	--	--	--	--	--
	10/15/02	--	--	1,400	--	--	--	--	--
	01/14/03	<2,000	<400	220	<8.0	<8.0	<8.0	<8.0	<8.0
	04/16/03	--	--	860	--	--	--	--	--
MW-10	01/31/02	<500	<20	1.2	<1.0	<1.0	<1.0	<1.0	<1.0
	07/11/02	--	--	1.1	--	--	--	--	--
	10/15/02	--	--	<2.0	--	--	--	--	--
	01/14/03	<500	<100	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
	04/16/03	--	--	<2.0	--	--	--	--	--
MW-11	01/31/02	<500	<20	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	07/11/02	--	--	<0.50	--	--	--	--	--
	10/15/02	--	--	<2.0	--	--	--	--	--
	01/14/03	<500	<100	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
	04/16/03	--	--	<2.0	--	--	--	--	--

**Table 3**  
**Groundwater Analytical Results - Oxygenate Compounds**  
Tosco (Former Unocal) Service Station #1871  
96 MacArthur Boulevard  
Oakland, California

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**EXPLANATIONS:**

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

<sup>1</sup> Detection limit raised. Refer to analytical reports.

**ANALYTICAL METHOD:**

EPA Method 8260 for Oxygenate Compounds

**Table 4**  
**Groundwater Analytical Results**  
 Tosco (Former Unocal) Service Station #1871  
 96 MacArthur Boulevard  
 Oakland, California

WELL ID	DATE	TPH-D (ppb)	TOG (ppb)	HVOC (ppb)	SVOC (ppb)
MW-1	06/18/99	--	--	ND	--
MW-4	04/18/96	110 <sup>1</sup>	ND	ND	--
	07/24/96	ND	ND	ND	ND
	10/24/96	ND	ND	ND	ND <sup>2</sup>
	01/28/97	210 <sup>3</sup>	ND	ND	ND <sup>4</sup>
	07/29/97	ND	ND	ND	ND
	01/14/98	ND	ND	ND	ND
	07/01/98	ND	ND	ND	ND
	DESTROYED				
MW-6	06/18/99	--	--	ND	--
MW-7	06/18/99	--	--	ND	--
MW-8	06/18/99	--	--	ND	ND <sup>5</sup>

**EXPLANATIONS:**

Groundwater analytical results prior to January 14, 1998, were compiled from reports prepared by MPDS Services, Inc.

TPH-D = Total Petroleum Hydrocarbons as Diesel

TOG = Total Oil and Grease

HVOC = Halogenated Volatile Organic Compounds by EPA Method 8010

SVOC = Semi-Volatile Organic Compounds by EPA Method 8270

(ppb) = Parts per billion

-- = Not Analyzed

ND = Not Detected

<sup>1</sup> Laboratory report indicates the hydrocarbons detected did not appear to contain diesel.

<sup>2</sup> Bis (2-ethylhexyl) phthalate was detected at a concentration of 14 ppb.

<sup>3</sup> Laboratory report indicates the hydrocarbons detected appeared to be a diesel and non-diesel mixture.

<sup>4</sup> Naphthalene was detected at a concentration of 17 ppb.

<sup>5</sup> All SVOCs were ND except for Bis(2-ethylhexy)phthalate at 11 ppb.

All EPA Method 8010 and 8270 constituents were ND, unless noted.

## 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 #1871  
 Site Address: 96 Macarthur  
 City: Oakland, CA

Job Number: 180068  
 Event Date: 4/16/03 (inclusive)  
 Sampler: Vasthes

Well ID: MW-1 Date Monitored: 4/16/03 Well Condition: OK

Well Diameter: 4 in.

Total Depth: 24.08 ft.

Depth to Water: 13.18 ft.

10.90

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 0.66 = 7.19 x3 (case volume) = Estimated Purge Volume: 21.5 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:	<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): 1050 Weather Conditions: cloud  
 Sample Time/Date: 1130 14/16/03 Water Color: clear Odor: \_\_\_\_\_  
 Purging Flow Rate: 1.5 gpm. Sediment Description: \_\_\_\_\_  
 Did well de-water? ✓ If yes, Time: 1103 & 1115 Volume: 14 & 17 gal.

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (umhos/cm)	Temperature (°F)	D.O. (mg/L)	ORP (mV)
<u>1055</u>	<u>7</u>	<u>7.43</u>	<u>649</u>	<u>66.8</u>	<u>3.48</u>	<u>167</u>
<u>1103</u>	<u>14</u>	<u>7.36</u>	<u>630</u>	<u>67.7</u>	<u>3.64</u>	<u>180</u>
<u>1115</u>	<u>17</u>	<u>7.30</u>	<u>637</u>	<u>67.3</u>	<u>3.70</u>	<u>177</u>
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-1</u>	<u>3 x vov vial</u>	<u>YES</u>	<u>HCL</u>	<u>STL Pleasanton</u>	<u>TPH-G/BTEX/MTBE(8260)</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

### COMMENTS:

\_\_\_\_\_

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

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



# GETTLER-RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility #: ConocoPhillips #1871 Job Number: 180068  
 Site Address: 96 Macarthur Event Date: 4/16/03 (inclusive)  
 City: Oakland, CA Sampler: Narkes

Well ID: MW-6 Date Monitored: 4/16/03 Well Condition: OK  
 Well Diameter: 21.4 in.  
 Total Depth: 24.73 ft.  
 Depth to Water: 8.21 ft.  
16.52 xVF 0.17 = 2.80 x3 (case volume) = Estimated Purge Volume: 8.5 gal.

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

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 / Absorbent Sock (circle one)  
 Amt Removed from Skimmer: \_\_\_\_\_ gal  
 Amt Removed from Well: \_\_\_\_\_ gal  
 Product Transferred to: \_\_\_\_\_

Start Time (purge): 1010 Weather Conditions: cloudy  
 Sample Time/Date: 1030 4/16/03 Water Color: brn. Odor: \_\_\_\_\_  
 Purging Flow Rate: 1 gpm. Sediment Description: SDT  
 Did well de-water? no If yes, Time: \_\_\_\_\_ Volume: \_\_\_\_\_ gal.

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (umhos/cm)	Temperature (°F)	D.O. (mg/L)	ORP (mV)
<u>1013</u>	<u>3</u>	<u>7.54</u>	<u>625</u>	<u>67.9</u>	<u>3.95</u>	<u>133</u>
<u>1016</u>	<u>6</u>	<u>7.40</u>	<u>611</u>	<u>68.2</u>	<u>4.05</u>	<u>147</u>
<u>1018</u>	<u>8.5</u>	<u>7.36</u>	<u>608</u>	<u>68.1</u>	<u>4.11</u>	<u>142</u>
_____	_____	_____	_____	_____	_____	_____

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-6</u>	<u>3</u> x vov vial	<u>YES</u>	<u>HCL</u>	<u>STL Pleasanton</u>	<u>TPH-G/BTEX/MTBE(8260)</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

COMMENTS: \_\_\_\_\_  
 \_\_\_\_\_

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



# GETTLER-RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility #: ConocoPhillips #1871 Job Number: 180068  
 Site Address: 96 Macarthur Event Date: 4/16/03 (inclusive)  
 City: Oakland, CA Sampler: Watkes

Well ID: MW-7 Date Monitored: 4/16/03 Well Condition: OK

Well Diameter: 21.4 in.

Total Depth: 24.50 ft.

Depth to Water: 8.04 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

16.46 xVF 0.17 = 2.79 x3 (case volume) = Estimated Purge Volume: 8.5 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): 0935 Weather Conditions: cloudy  
 Sample Time/Date: 0955 4/16/03 Water Color: clear Odor: \_\_\_\_\_  
 Purging Flow Rate: 1 gpm. Sediment Description: \_\_\_\_\_  
 Did well de-water? no If yes, Time: \_\_\_\_\_ Volume: \_\_\_\_\_ gal.

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (umhos/cm)	Temperature (°F)	D.O. (mg/L)	ORP (mV)
<u>0938</u>	<u>3</u>	<u>7.44</u>	<u>664</u>	<u>66.9</u>	<u>2.65</u>	<u>174</u>
<u>0941</u>	<u>6</u>	<u>7.28</u>	<u>647</u>	<u>67.4</u>	<u>2.80</u>	<u>190</u>
<u>0944</u>	<u>8.5</u>	<u>7.30</u>	<u>650</u>	<u>67.8</u>	<u>2.78</u>	<u>197</u>
_____	_____	_____	_____	_____	_____	_____

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-7</u>	<u>3</u> x voa vial	<u>YES</u>	<u>HCL</u>	<u>STL Pleasanton</u>	<u>TPH-G/BTEX/MTBE(8260)</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

COMMENTS: \_\_\_\_\_  
 \_\_\_\_\_

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





# GETTLER - RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility #: ConocoPhillips #1871 Job Number: 180068  
 Site Address: 96 Macarthur Event Date: 4/16/03 (inclusive)  
 City: Oakland, CA Sampler: Vastkas

Well ID: MW-8 Date Monitored: 4/16/03 Well Condition: OK  
 Well Diameter: 21.4 in.  
 Total Depth: 24.81 ft.  
 Depth to Water: 8.98 ft.  
15.83 xVF 0.17 = 2.69 x3 (case volume) = Estimated Purge Volume: 8 gal.

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

**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): 0900 Weather Conditions: cloudy  
 Sample Time/Date: 0920 4/16/03 Water Color: clear Odor: \_\_\_\_\_  
 Purging Flow Rate: 1 gpm. Sediment Description: \_\_\_\_\_  
 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>0903</u>	<u>2.5</u>	<u>7.70</u>	<u>480</u>	<u>66.3</u>	<u>3.12</u>	<u>265</u>
<u>0905</u>	<u>5</u>	<u>7.54</u>	<u>475</u>	<u>66.9</u>	<u>3.23</u>	<u>260</u>
<u>0908</u>	<u>8</u>	<u>7.50</u>	<u>468</u>	<u>67.4</u>	<u>3.30</u>	<u>285</u>
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-8</u>	<u>3</u> x vva vial	<u>YES</u>	<u>HCL</u>	<u>STL Pleasanton</u>	<u>TPH-G/BTEX/MTBE(8260)</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

COMMENTS: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

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



# GETTLER-RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility #: ConocoPhillips #1871 Job Number: 180068  
 Site Address: 96 Macarthur Event Date: 4/16/03 (inclusive)  
 City: Oakland, CA Sampler: Southco

Well ID: MW-9 Date Monitored: 4/16/03 Well Condition: OK  
 Well Diameter: 21.4 in.  
 Total Depth: 19.91 ft.  
 Depth to Water: 14.51 ft.  
5.40 xVF 0.17 = 0.91 x3 (case volume) = Estimated Purge Volume: 3 gal.

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

**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): 1155 Weather Conditions: clde  
 Sample Time/Date: 1206/4/16/03 Water Color: clear Odor: \_\_\_\_\_  
 Purging Flow Rate: \_\_\_\_\_ gpm. Sediment Description: \_\_\_\_\_  
 Did well de-water? \_\_\_\_\_ If yes, Time: \_\_\_\_\_ Volume: \_\_\_\_\_ gal.

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (u mhos/cm)	Temperature (°F)	D.O. (mg/L)	ORP (mV)
<u>1159</u>	<u>1</u>	<u>7.57</u>	<u>667</u>	<u>63.7</u>	<u>2.48</u>	<u>97</u>
<u>1204</u>	<u>2</u>	<u>7.43</u>	<u>651</u>	<u>64.4</u>	<u>2.37</u>	<u>104</u>
<u>1209</u>	<u>3</u>	<u>7.40</u>	<u>652</u>	<u>64.6</u>	<u>2.54</u>	<u>101</u>
_____	_____	_____	_____	_____	_____	_____

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-9</u>	<u>3</u> x voa vial	<u>YES</u>	<u>HCL</u>	<u>STL Pleasanton</u>	<u>TPH-G/BTEX/MTBE(8260)</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

COMMENTS: \_\_\_\_\_

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



# GETTLER-RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility #: ConocoPhillips #1871  
 Site Address: 96 Macarthur  
 City: Oakland, CA

Job Number: 180068  
 Event Date: 4/16/03 (inclusive)  
 Sampler: Nantkes

Well ID: MW-10  
 Well Diameter: 2 1/4 in.  
 Total Depth: 19.98 ft.  
 Depth to Water: 7.92 ft.

Date Monitored: 4/16/03 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

12.06 x VF 0.17 = 2.05 (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: 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): 1235 Weather Conditions: cloudy  
 Sample Time/Date: 1300 4/16/03 Water Color: clear 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 (6/F)	D.O. (mg/L)	ORP (mV)
<u>1239</u>	<u>2</u>	<u>7.61</u>	<u>627</u>	<u>64.3</u>	<u>2.74</u>	<u>123</u>
<u>1245</u>	<u>4</u>	<u>7.47</u>	<u>613</u>	<u>64.8</u>	<u>2.83</u>	<u>116</u>
<u>1251</u>	<u>6</u>	<u>7.43</u>	<u>610</u>	<u>65.0</u>	<u>2.79</u>	<u>130</u>
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-</u>	<u>x vva vial</u>	<u>YES</u>	<u>HCL</u>	<u>STL Pleasanton</u>	<u>TPH-G/BTEX/MTBE(8260)</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

### COMMENTS:

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

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

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



# GETTLER - RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility #: ConocoPhillips #1871  
 Site Address: 96 Macarthur  
 City: Oakland, CA

Job Number: 180068  
 Event Date: 4/16/03 (inclusive)  
 Sampler: baubles

Well ID: MW-11  
 Well Diameter: 21.4 in.  
 Total Depth: 30.08 ft.  
 Depth to Water: 14.08 ft.

Date Monitored: 4/16/03 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

16.00 xVF 0.17 = 2.72 x3 (case volume) = Estimated Purge Volume: 8.5 gal.

### Purge Equipment:

Disposable Bailer TP  
 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 / Absorbent Sock (circle one)  
 Amt Removed from Skimmer: \_\_\_\_\_ gal  
 Amt Removed from Well: \_\_\_\_\_ gal  
 Product Transferred to: \_\_\_\_\_

Start Time (purge): 1320 Weather Conditions: cbd  
 Sample Time/Date: 1340 14/16/03 Water Color: clear Odor: \_\_\_\_\_  
 Purging Flow Rate: 1 gpm. Sediment Description: \_\_\_\_\_  
 Did well de-water? no If yes, Time: \_\_\_\_\_ Volume: \_\_\_\_\_ gal.

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (umhos/cm)	Temperature (°F)	D.O. (mg/L)	ORP (mV)
<u>1323</u>	<u>3</u>	<u>7.55</u>	<u>863</u>	<u>64.5</u>	<u>2.37</u>	<u>184</u>
<u>1326</u>	<u>6</u>	<u>7.43</u>	<u>849</u>	<u>64.8</u>	<u>3.50</u>	<u>191</u>
<u>1329</u>	<u>8.5</u>	<u>7.40</u>	<u>841</u>	<u>65.1</u>	<u>3.48</u>	<u>190</u>
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-11</u>	<u>3</u> x voa vial	<u>YES</u>	<u>HCL</u>	<u>STL Pleasanton</u>	<u>TPH-G/BTEX/MTBE(8260)</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

### COMMENTS:

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

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

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

Facility Number #1871  
Facility Address 96 MACARTHUR, OAKLAND, CA  
Global ID T0600101493 Project 180068.80  
Client Contact MR. DAVID B. DEWITT  
Phone (925) 277-2384

Laboratory Name STL Pleasanton  
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 *Varthas Tashjian*

SAMPLE ID	Number of Containers Metric	S = Soil A = Air W = Water C = Chertool	Sample Preservation	Date/Time (2400 Hrs)	TPH-GAS/BTEX/MTBE EPA 8015/8021B	TPH-DIESEL EPA 8015	TPH-DIESEL w/Silica gel EPA 8015	TPH-GAS EPA 8015	TPH-GAS/BTEX/MTBE EPA 8260	OXYGENATES EPA 8260	METHANOL EPA 8015	TOTAL OIL & GREASE EPA 8020	METALS Cd, Cr, Pb, Zn, Ni	NITRATE/SULFATE/ALKALINITY EPA 300 SERIES	HYD'S (8010) EPA 8021B	VOC'S (8240) EPA 8260	SVOC'S EPA 8270	Remarks
MW-1	3	W	HCL	4/16/03 1130				X										
MW-6	3	W	-	1030				X										
MW-7	3	W	-	0955				X										
MW-8	3	W	-	0920				X										
MW-9	3	W	-	1216				X										
MW-10	3	W	-	1300				X										
MW-11	3	W	-	1340				X										
QA	7	W	-					X										

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

Relinquished By (Signature) <i>Matt [Signature]</i>	Organization G.R.	Date/Time 4/16/03 144	Received By (Signature) <i>[Signature]</i>	Organization G.R.	Date/Time 4/16/03 145	Ised Y/N Y	Turn Around Time (Circle Choice) 24 Hrs. 48 Hrs. 72 Hrs. 5 Days 10 Days As Contracted  2.0°C
Relinquished By (Signature) <i>[Signature]</i>	Organization G.R.	Date/Time 4/17/03 153	Received By (Signature) <i>[Signature]</i>	Organization STL S.F.	Date/Time 4/17/03 153	Ised Y/N N	
Relinquished By (Signature) <i>[Signature]</i>	Organization STL S.F.	Date/Time 4/17/03 1550	Received For Laboratory By (Signature) <i>Deanna Harding</i>		Date/Time 4/17/03 @ 1550	Ised Y/N Y	

FILE NAME: P:\ENVIRO\Y-C\CHAINCUSTODY\STB-COC.DWG | Layout for: Model

Gettler Ryan

May 03, 2003

6747 Sierra Court Suite J  
Dublin, CA 94568

Attn.: Deanna Harding

Project#: 180068.80

Project: Tosco # 1871

Site: 96 Macarthur, Oakland, CA

RECEIVED

MAY 1 2003

GETTLER RYAN INC.  
GENERAL CONTRACTORS

Dear Ms. Harding,

Attached is our report for your samples received on 04/18/2003 15:50

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  
06/02/2003 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: 180068.80

Tosco # 1871

Received: 04/18/2003 15:50

Site: 96 Macarthur, Oakland, CA

**Samples Reported**

Sample Name	Date Sampled	Matrix	Lab #
MW-1	04/16/2003 11:30	Water	1
MW-6	04/16/2003 10:30	Water	2
MW-7	04/16/2003 09:55	Water	3
MW-8	04/16/2003 09:20	Water	4
MW-9	04/16/2003 12:16	Water	5
MW-10	04/16/2003 13:00	Water	6
MW-11	04/16/2003 13:40	Water	7
QA	04/16/2003	Water	8

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Tosco # 1871

Received: 04/18/2003 15:50

Site: 96 Macarthur, Oakland, CA

Prep(s): 5030B	Test(s): 8260FAB
Sample ID: MW-1	Lab ID: 2003-04-0472 - 1
Sampled: 04/16/2003 11:30	Extracted: 4/29/2003 17:57
Matrix: Water	QC Batch#: 2003/04/29-1b.64

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	510	50	ug/L	1.00	04/29/2003 17:57	
Benzene	57	0.50	ug/L	1.00	04/29/2003 17:57	
Toluene	0.62	0.50	ug/L	1.00	04/29/2003 17:57	
Ethylbenzene	29	0.50	ug/L	1.00	04/29/2003 17:57	
Total xylenes	61	1.0	ug/L	1.00	04/29/2003 17:57	
Methyl tert-butyl ether (MTBE)	160	2.0	ug/L	1.00	04/29/2003 17:57	
<b>Surrogates(s)</b>						
1,2-Dichloroethane-d4	102.4	76-114	%	1.00	04/29/2003 17:57	
Toluene-d8	97.8	88-110	%	1.00	04/29/2003 17:57	



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Tosco # 1871

Received: 04/18/2003 15:50

Site: 96 Macarthur, Oakland, CA

Prep(s):	5030B	Test(s):	8260FAB
Sample ID:	MW-6	Lab ID:	2003-04-0472 - 2
Sampled:	04/16/2003 10:30	Extracted:	4/29/2003 18:19
Matrix:	Water	QC Batch#:	2003/04/29-1b.64

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	270	50	ug/L	1.00	04/29/2003 18:19	
Benzene	ND	0.50	ug/L	1.00	04/29/2003 18:19	
Toluene	ND	0.50	ug/L	1.00	04/29/2003 18:19	
Ethylbenzene	ND	0.50	ug/L	1.00	04/29/2003 18:19	
Total xylenes	1.3	1.0	ug/L	1.00	04/29/2003 18:19	
Methyl tert-butyl ether (MTBE)	15	2.0	ug/L	1.00	04/29/2003 18:19	
<b>Surrogates(s)</b>						
1,2-Dichloroethane-d4	102.7	76-114	%	1.00	04/29/2003 18:19	
Toluene-d8	94.3	88-110	%	1.00	04/29/2003 18:19	

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Tosco # 1871

Received: 04/18/2003 15:50

Site: 96 Macarthur, Oakland, CA

Prep(s): 5030B	Test(s): 8260FAB
Sample ID: MW-7	Lab ID: 2003-04-0472 - 3
Sampled: 04/16/2003 09:55	Extracted: 4/30/2003 15:45
Matrix: Water	QC Batch#: 2003/04/30-1c.65
Analysis Flag: o ( See Legend and Note Section )	

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	25000	ug/L	500.00	04/30/2003 15:45	
Benzene	ND	250	ug/L	500.00	04/30/2003 15:45	
Toluene	ND	250	ug/L	500.00	04/30/2003 15:45	
Ethylbenzene	ND	250	ug/L	500.00	04/30/2003 15:45	
Total xylenes	ND	500	ug/L	500.00	04/30/2003 15:45	
Methyl tert-butyl ether (MTBE)	37000	1000	ug/L	500.00	04/30/2003 15:45	
<b>Surrogates(s)</b>						
1,2-Dichloroethane-d4	92.2	76-114	%	500.00	04/30/2003 15:45	
Toluene-d8	95.3	88-110	%	500.00	04/30/2003 15:45	

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Project: 180068.80

Tosco # 1871

Received: 04/18/2003 15:50

Site: 96 Macarthur, Oakland, CA

Prep(s):	5030B	Test(s):	8260FAB
Sample ID:	MW-8	Lab ID:	2003-04-0472 - 4
Sampled:	04/16/2003 09:20	Extracted:	4/29/2003 19:47
Matrix:	Water	QC Batch#:	2003/04/29-1b.64

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	04/29/2003 19:47	
Benzene	ND	0.50	ug/L	1.00	04/29/2003 19:47	
Toluene	ND	0.50	ug/L	1.00	04/29/2003 19:47	
Ethylbenzene	ND	0.50	ug/L	1.00	04/29/2003 19:47	
Total xylenes	ND	1.0	ug/L	1.00	04/29/2003 19:47	
Methyl tert-butyl ether (MTBE)	18	2.0	ug/L	1.00	04/29/2003 19:47	
<b>Surrogates(s)</b>						
1,2-Dichloroethane-d4	105.6	76-114	%	1.00	04/29/2003 19:47	
Toluene-d8	98.4	88-110	%	1.00	04/29/2003 19:47	

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Tosco # 1871

Received: 04/18/2003 15:50

Site: 96 Macarthur, Oakland, CA

Prep(s): 5030B	Test(s): 8260FAB
Sample ID: MW-9	Lab ID: 2003-04-0472 - 5
Sampled: 04/16/2003 12:16	Extracted: 4/30/2003 14:38
Matrix: Water	QC Batch#: 2003/04/30-1c:65
Analysis Flag: o ( See Legend and Note Section )	

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	500	ug/L	10.00	04/30/2003 14:38	
Benzene	ND	5.0	ug/L	10.00	04/30/2003 14:38	
Toluene	ND	5.0	ug/L	10.00	04/30/2003 14:38	
Ethylbenzene	ND	5.0	ug/L	10.00	04/30/2003 14:38	
Total xylenes	ND	10	ug/L	10.00	04/30/2003 14:38	
Methyl tert-butyl ether (MTBE)	860	20	ug/L	10.00	04/30/2003 14:38	
<b>Surrogates(s)</b>						
1,2-Dichloroethane-d4	92.7	76-114	%	10.00	04/30/2003 14:38	
Toluene-d8	92.9	88-110	%	10.00	04/30/2003 14:38	

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Tosco # 1871

Received: 04/18/2003 15:50

Site: 96 Macarthur, Oakland, CA

Prep(s):	5030B	Test(s):	8260FAB
Sample ID:	MW-10	Lab ID:	2003-04-0472 - 6
Sampled:	04/16/2003 13:00	Extracted:	4/30/2003 14:16
Matrix:	Water	QC Batch#:	2003/04/30-1c.65

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	04/30/2003 14:16	
Benzene	ND	0.50	ug/L	1.00	04/30/2003 14:16	
Toluene	ND	0.50	ug/L	1.00	04/30/2003 14:16	
Ethylbenzene	ND	0.50	ug/L	1.00	04/30/2003 14:16	
Total xylenes	ND	1.0	ug/L	1.00	04/30/2003 14:16	
Methyl tert-butyl ether (MTBE)	ND	2.0	ug/L	1.00	04/30/2003 14:16	
<b>Surrogates(s)</b>						
1,2-Dichloroethane-d4	95.5	76-114	%	1.00	04/30/2003 14:16	
Toluene-d8	94.8	88-110	%	1.00	04/30/2003 14:16	

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Project: 180068.80

Tosco # 1871

Received: 04/18/2003 15:50

Site: 96 Macarthur, Oakland, CA

Prep(s): 5030B	Test(s): 8260FAB
Sample ID: MW-11	Lab ID: 2003-04-0472 - 7
Sampled: 04/16/2003 13:40	Extracted: 4/29/2003 20:53
Matrix: Water	QC Batch#: 2003/04/29-1b.64

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	04/29/2003 20:53	
Benzene	ND	0.50	ug/L	1.00	04/29/2003 20:53	
Toluene	ND	0.50	ug/L	1.00	04/29/2003 20:53	
Ethylbenzene	ND	0.50	ug/L	1.00	04/29/2003 20:53	
Total xylenes	ND	1.0	ug/L	1.00	04/29/2003 20:53	
Methyl tert-butyl ether (MTBE)	ND	2.0	ug/L	1.00	04/29/2003 20:53	
<b>Surrogates(s)</b>						
1,2-Dichloroethane-d4	105.6	76-114	%	1.00	04/29/2003 20:53	
Toluene-d8	98.5	88-110	%	1.00	04/29/2003 20:53	

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

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Project: 180068.80  
Tosco # 1871

Received: 04/18/2003 15:50

Site: 96 Macarthur, Oakland, CA

Prep(s): 5030B	Test(s): 8260FAB
Sample ID: QA	Lab ID: 2003-04-0472 - 8
Sampled: 04/16/2003	Extracted: 4/29/2003 21:15
Matrix: Water	QC Batch#: 2003/04/29-1b.64

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	04/29/2003 21:15	
Benzene	ND	0.50	ug/L	1.00	04/29/2003 21:15	
Toluene	ND	0.50	ug/L	1.00	04/29/2003 21:15	
Ethylbenzene	ND	0.50	ug/L	1.00	04/29/2003 21:15	
Total xylenes	ND	1.0	ug/L	1.00	04/29/2003 21:15	
Methyl tert-butyl ether (MTBE)	ND	2.0	ug/L	1.00	04/29/2003 21:15	
<b>Surrogates(s)</b>						
1,2-Dichloroethane-d4	104.3	76-114	%	1.00	04/29/2003 21:15	
Toluene-d8	100.7	88-110	%	1.00	04/29/2003 21:15	

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Project: 180068.80

Tosco # 1871

Received: 04/18/2003 15:50

Site: 96 Macarthur, Oakland, CA

**Batch QC Report**

Prep(s): 5030B

Method Blank

MB: 2003/04/29-1b.64-003

Water

Test(s): 8260FAB

QC Batch # 2003/04/29-1b.64

Date Extracted: 04/29/2003 12:41

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	50	ug/L	04/29/2003 12:41	
Benzene	ND	0.5	ug/L	04/29/2003 12:41	
Toluene	ND	0.5	ug/L	04/29/2003 12:41	
Ethylbenzene	ND	0.5	ug/L	04/29/2003 12:41	
Total xylenes	ND	1.0	ug/L	04/29/2003 12:41	
Methyl tert-butyl ether (MTBE)	ND	2.0	ug/L	04/29/2003 12:41	
<b>Surrogates(s)</b>					
1,2-Dichloroethane-d4	101.6	76-114	%	04/29/2003 12:41	
Toluene-d8	94.2	88-110	%	04/29/2003 12:41	



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

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Tosco # 1871

Received: 04/18/2003 15:50

Site: 96 Macarthur, Oakland, CA

**Batch QC Report**

Prep(s): 5030B

Method Blank

MB: 2003/04/30-1c.65-003

Water

Test(s): 8260FAB

QC Batch # 2003/04/30-1c.65

Date Extracted: 04/30/2003 11:41

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	50	ug/L	04/30/2003 11:41	
Benzene	ND	0.5	ug/L	04/30/2003 11:41	
Toluene	ND	0.5	ug/L	04/30/2003 11:41	
Ethylbenzene	ND	0.5	ug/L	04/30/2003 11:41	
Total xylenes	ND	1.0	ug/L	04/30/2003 11:41	
Methyl tert-butyl ether (MTBE)	ND	2.0	ug/L	04/30/2003 11:41	
<b>Surrogates(s)</b>					
1,2-Dichloroethane-d4	100.4	76-114	%	04/30/2003 11:41	
Toluene-d8	95.6	88-110	%	04/30/2003 11:41	

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

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Tosco # 1871

Received: 04/18/2003 15:50

Site: 96 Macarthur, Oakland, CA

**Batch QC Report**

Prep(s): 5030B

Test(s): 8260FAB

**Laboratory Control Spike**

**Water**

**QC Batch # 2003/04/29-1b.64**

LCS 2003/04/29-1b.64-002

Extracted: 04/29/2003

Analyzed: 04/29/2003 11:58

LCSD 2003/04/29-1b.64-001

Extracted: 04/29/2003

Analyzed: 04/29/2003 12:19

Compound	Conc. ug/L		Exp.Conc.	Recovery		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Benzene	24.8	25.0	25	99.2	100.0	0.8	69-129	20		
Toluene	25.4	26.2	25	101.6	104.8	3.1	70-130	20		
Methyl tert-butyl ether (MTBE)	26.7	29.0	25	106.8	116.0	8.3	65-165	20		
<b>Surrogates(s)</b>										
1,2-Dichloroethane-d4	481	509	500	96.2	101.8		76-114			
Toluene-d8	488	495	500	97.6	99.0		88-110			

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

05/01/2003 15:25

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

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Attn.: Deanna Harding

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Dublin, CA 94568  
Phone: (925) 551-7444 Fax: (925) 551-7899

Project: 180068.80  
Tosco # 1871

Received: 04/18/2003 15:50

Site: 96 Macarthur, Oakland, CA

**Batch QC Report**

Prep(s): 5030B

Test(s): 8260FAB

**Laboratory Control Spike**

**Water**

**QC Batch # 2003/04/30-1c.65**

LCS 2003/04/30-1c.65-002

Extracted: 04/30/2003

Analyzed: 04/30/2003 11:19

LCSD 2003/04/30-1c.65-001

Extracted: 04/30/2003

Analyzed: 04/30/2003 10:57

Compound	Conc. ug/L		Exp. Conc.	Recovery		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Benzene	24.4	24.4	25	97.6	97.6	0.0	69-129	20		
Toluene	23.6	23.6	25	94.4	94.4	0.0	70-130	20		
Methyl tert-butyl ether (MTBE)	33.2	31.6	25	132.8	126.4	4.9	65-165	20		
<b>Surrogates(s)</b>										
1,2-Dichloroethane-d4	463	474	500	92.6	94.8		76-114			
Toluene-d8	475	486	500	95.0	97.2		88-110			

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

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Tosco # 1871

Received: 04/18/2003 15:50

Site: 96 Macarthur, Oakland, CA

**Batch QC Report**

Prep(s): 5030B

Test(s): 8260FAB

**Matrix Spike ( MS / MSD )**

**Water**

**QC Batch # 2003/04/29-1b.64**

MW-6 >> MS

Lab ID: 2003-04-0472 - 002

MS: 2003/04/29-1b.64-021

Extracted: 04/29/2003

Analyzed: 04/29/2003 18:41

Dilution: 1.00

MSD: 2003/04/29-1b.64-021

Extracted: 04/29/2003

Analyzed: 04/29/2003 18:41

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	24.3		ND	25	97.2			69-129	20		
Toluene	25.2		ND	25	100.8			70-130	20		
Methyl tert-butyl ether	44.7		14.9	25	119.2			65-165	20		
<b>Surrogate(s)</b>											
1,2-Dichloroethane-d4	525			500	105.0			76-114			
Toluene-d8	496			500	99.3			88-110			

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Tosco # 1871

Received: 04/18/2003 05:50

Site: 96 Macarthur, Oakland, CA

Alameda County  
JUN 13 2003  
Environmental Services

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**Legend and Notes**

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**Analysis Flag**

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Reporting limits were raised due to high level of analyte present in the sample.