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San Jose, CA 95131-1721  
Tel. 408.453.7300  
Fax. 408.437.9526

SOS  
STB 1747

October 19, 1999  
Project 311-038.1A

Mr. John Jang  
Regional Water Quality Control Board  
San Francisco Bay Region  
2101 Webster Street, Suite 500  
Oakland, California 94612

Re: 76 Service Station 5430  
Quarterly Summary Report  
Third Quarter 1999

Dear Mr. Jang:

As directed by Mr. David DeWitt of Tosco Marketing Company, IT Corporation, formerly Pacific Environmental Group, Inc.(PEG), is forwarding the quarterly summary report for the following location:

<u>Service Station</u>	<u>Location</u>
5430	1935 Washington Avenue, San Leandro

If you have questions or comments, please do not hesitate to contact our office at (408) 453-7300.

Sincerely,

**IT Corporation**

Timothy L. Ripp  
Project Geologist

Enclosure

cc: Mr. David DeWitt, Tosco Marketing Company  
Mr. Kevin Tinsley, Alameda County Environmental Health Care Services

## Quarterly Summary Report Third Quarter 1999

76 Service Station 5430  
1935 Washington Avenue at Castro Street  
San Leandro, California

County STID #: 1747  
County: Alameda

### BACKGROUND

Unocal files suggest that a product line leak occurred in June 1976, and that one of the original underground gasoline storage tanks failed a precision test in October 1981. In December 1981, the two original steel gasoline storage tanks were replaced with two fiberglass gasoline storage tanks. There are currently six on-site groundwater monitoring wells and one off-site groundwater monitoring well in use at the site. In July 1997, three off-site exploratory borings were drilled on the property to the south of the 76 station. Based on the findings of that investigation, the lateral extent of hydrocarbon impact to groundwater is considered delineated. The product dispensers and associated underground product piping were replaced in July and August 1998. The underground waste oil storage tank was also removed and replaced with an aboveground waste oil storage tank.

### RECENT QUARTER ACTIVITIES

A report was submitted in August 1999 to document the semi-annual groundwater monitoring and sampling activities performed in June 1999.

### NEXT QUARTER ACTIVITIES

Semi-annual groundwater monitoring and sampling activities will be performed in December 1999.

### CHARACTERIZATION/REMEDIAL STATUS

Soil contamination delineated? Yes.  
Dissolved groundwater delineated? Yes.  
Free product delineated? Not applicable.  
Amount of groundwater contaminant recovered this quarter? None.  
Soil remediation in progress? Not applicable.  
Anticipated start date? Not applicable.  
Anticipated completion date? Not applicable.  
Dissolved/free product remediation in progress? No.  
Anticipated start? Unknown.  
Anticipated completion? Unknown.

**CONSULTANT:** IT Corporation



PACIFIC ENVIRONMENTAL GROUP, INC.

AN  COMPANY

STW 747 SDS  
ENVIRONMENTAL PROTECTION

99 JAN 22 PM 2:58

January 20, 1999  
Project 311-038.1A

Mr. John Jang  
Regional Water Quality Control Board  
San Francisco Bay Region  
2101 Webster Street, Suite 500  
Oakland, California 94612

Re: 76 Service Station 5430  
Quarterly Summary Report  
Fourth Quarter 1998

Dear Mr. Jang:

As directed by Mr. David DeWitt of Tosco Marketing Company, Pacific Environmental Group, Inc. is forwarding the quarterly summary report for the following location:

Service Station

Location

5430

1935 Washington Avenue, San Leandro

If you have questions or comments, please do not hesitate to contact our office at (408) 441-7500.

Sincerely,

**Pacific Environmental Group, Inc.**

Timothy L. Ripp  
Project Geologist

Enclosure

cc: Mr. David DeWitt, Tosco Marketing Company  
Mr. Kevin Tinsley, Alameda County Environmental Health Care Services

## Quarterly Summary Report Fourth Quarter 1998

76 Service Station 5430  
1935 Washington Avenue at Castro Street  
San Leandro, California

County STID #: 1747  
County: Alameda

### BACKGROUND

Unocal files suggest that a product line leak occurred in June 1976, and that one of the original underground gasoline storage tanks failed a precision test in October 1981. In December 1981, the two original steel gasoline storage tanks were replaced with two fiberglass gasoline storage tanks. There are currently six on-site groundwater monitoring wells and one off-site groundwater monitoring well in use at the site. In July 1997, three off-site exploratory borings were drilled on the property to the south of the 76 station. Based on the findings of that investigation, the lateral extent of hydrocarbon impact to groundwater is considered delineated. The product dispensers and associated underground product piping were replaced in July and August 1998. The underground waste oil storage tank was also removed and replaced with an aboveground waste oil storage tank.

### RECENT QUARTER ACTIVITIES

Well U-6, which had been paved over during product piping replacement activities in August 1998, was located and repaired in November 1998. The report documenting the September 1998 semiannual groundwater monitoring and sampling activities was submitted in November 1998.

### NEXT QUARTER ACTIVITIES

Semi-annual groundwater monitoring and sampling activities will be performed in March 1999.

### CHARACTERIZATION/REMEDIAL STATUS

Soil contamination delineated? Yes.  
Dissolved groundwater delineated? Yes.  
Free product delineated? Not applicable.  
Amount of groundwater contaminant recovered this quarter? None.  
Soil remediation in progress? Not applicable.  
Anticipated start date? Not applicable.  
Anticipated completion date? Not applicable.  
Dissolved/free product remediation in progress? No.  
Anticipated start? Unknown.  
Anticipated completion? Unknown.

**CONSULTANT:** PEG/IT



# GETTLER-RYAN INC.

October 7, 1999  
G-R Job #180107

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

RE: Semi-Annual 1999 Groundwater Monitoring & Sampling Report  
Tosco (Unocal) Service Station #5430  
1935 Washington Avenue  
San Leandro, California


Dear Mr. De Witt:

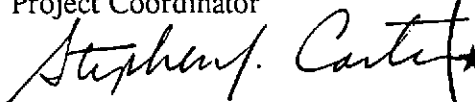
This report documents the semi-annual groundwater monitoring and sampling event performed by Gettler-Ryan Inc. (G-R). On September 7, 1999, field personnel monitored and sampled seven wells (U-1 through U-7) at the above referenced site.

Static groundwater levels were measured and all wells were checked for the presence of separate-phase hydrocarbons. Separate-phase hydrocarbons were 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 as specified by G-R Standard Operating Procedure - Groundwater Sampling (attached). The field data sheets are also attached. The samples were analyzed by Sequoia Analytical. Analytical results are summarized in Table 1, and 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

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

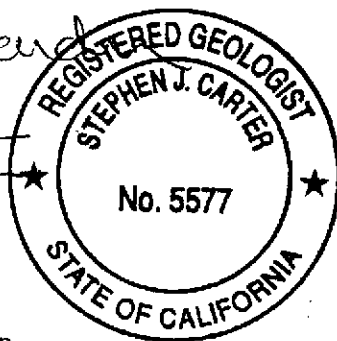
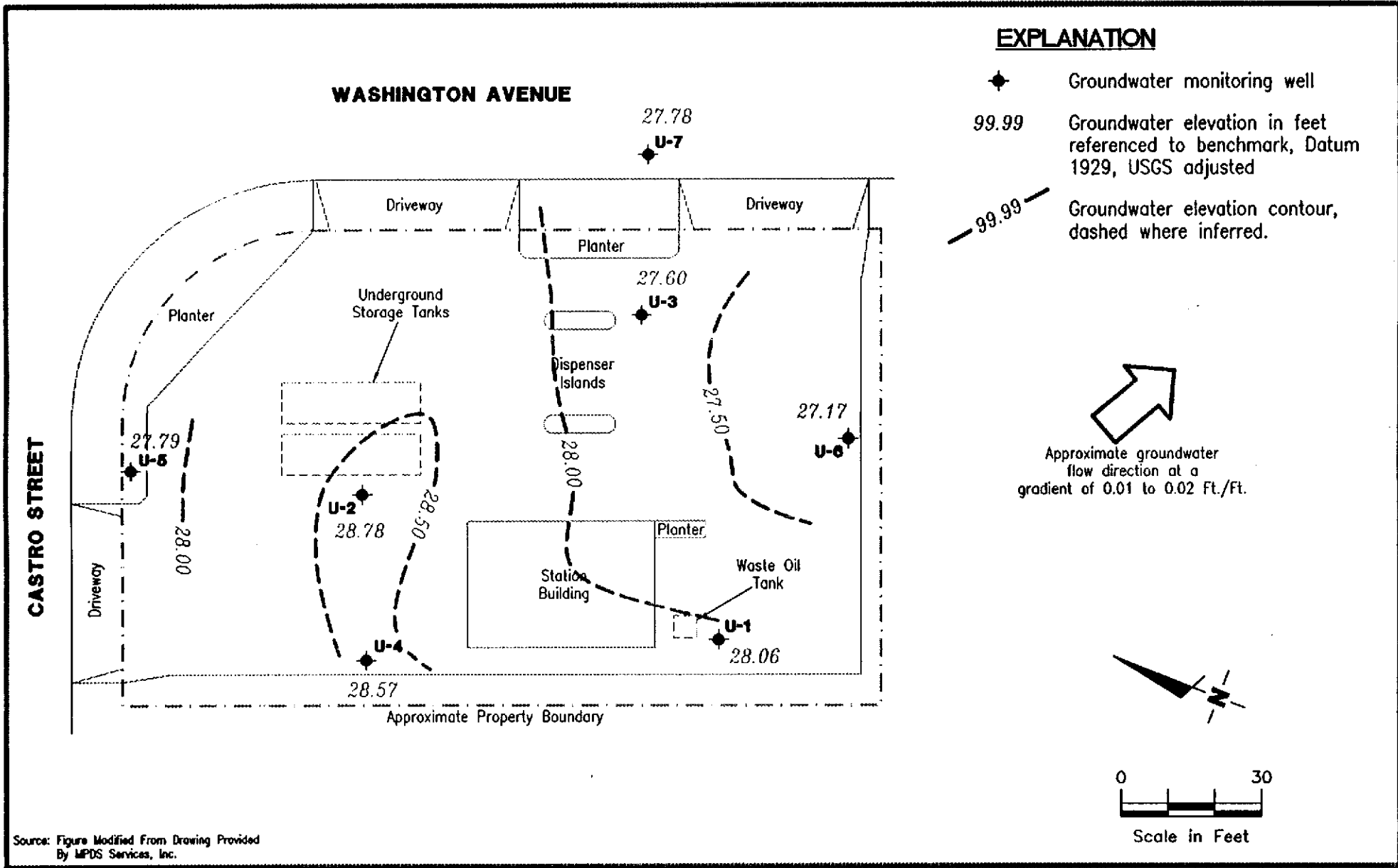


Figure 1: Potentiometric Map  
Figure 2: Concentration Map  
Table 1: Groundwater Monitoring Data and Analytical Results  
Attachments: Standard Operating Procedure - Groundwater Sampling  
Field Data Sheets  
Chain of Custody Document and Laboratory Analytical Reports

5430.qml



**Gettler - Ryan Inc.**

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

**POTENTIOMETRIC MAP**  
Tosco (Unocal) Service Station No. 5430  
1935 Washington Avenue  
San Leandro, California

FIGURE

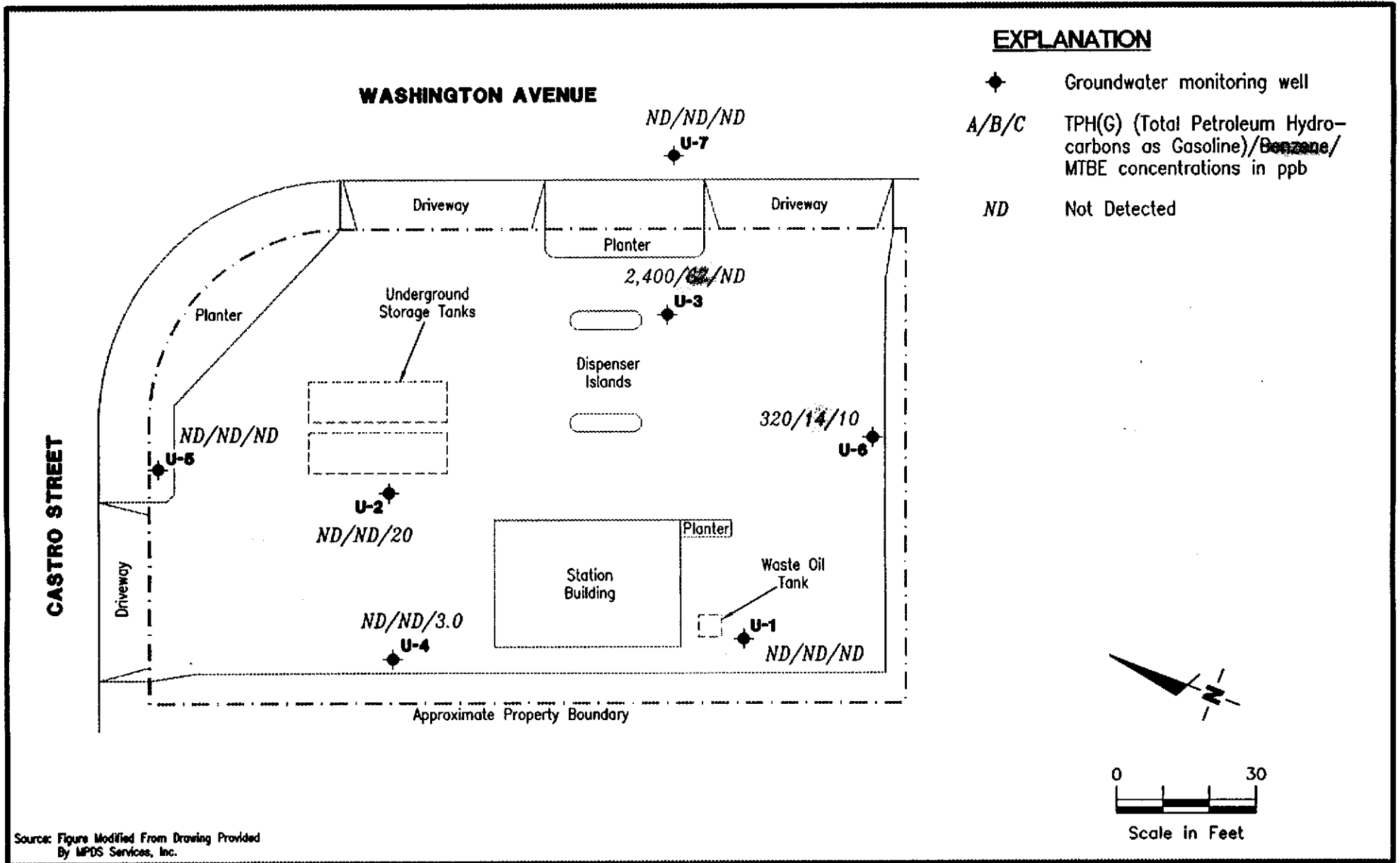
**1**

JOB NUMBER  
180107

REVIEWED BY

DATE  
September 7, 1999

REVISED DATE



Source: Figure Modified From Drawing Provided  
By MPDS Services, Inc.



**Gettler - Ryan Inc.**

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

**CONCENTRATION MAP**  
Tosco (Unocal) Service Station No. 5430  
1935 Washington Avenue  
San Leandro, California

FIGURE

**2**

JOB NUMBER  
180107

REVIEWED BY

DATE  
September 7, 1999

REVISED DATE

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
 Tosco (Unocal) Service Station #5430  
 1935 Washington Avenue  
 San Leandro, California

Well ID/ TOC*	Date	DTW (ft.)	GWE (ft.)	TPH(D) (ppb)	TPH(G) (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)	1,2-DCB (ppb)	1,2-DCA (ppb)
U-1												
56.58	08/13/93 <sup>1</sup>	31.60	24.98	50 <sup>2</sup>	310	0.84	ND	2.6	1.0	--	--	--
	09/07/93	31.60	24.98	--	--	--	--	--	--	--	--	--
56.10	12/16/93 <sup>1</sup>	33.19	22.91	130 <sup>3</sup>	ND	ND	ND	ND	ND	--	--	--
	01/13/94	33.06	23.04	--	--	--	--	--	--	--	--	--
	02/09/94	32.70	23.40	--	--	--	--	--	--	--	--	--
	03/25/94 <sup>1</sup>	31.07	25.03	57 <sup>3</sup>	58	0.63	0.79	ND	0.65	--	--	--
	05/18/94	31.76	24.34	--	--	--	--	--	--	--	--	--
	06/19/94 <sup>1</sup>	32.26	23.84	61 <sup>3</sup>	51	ND	1.4	ND	2.7	--	ND	7.4
	07/27/94	33.07	23.03	--	--	--	--	--	--	--	--	--
	08/18/94	33.50	22.60	--	--	--	--	--	--	--	--	--
	09/15/94 <sup>1</sup>	33.93	22.17	83 <sup>3</sup>	ND	0.50	0.85	ND	0.77	--	ND	9.5
	10/11/94	33.25	22.85	--	--	--	--	--	--	--	--	--
	11/08/94	34.05	22.05	--	--	--	--	--	--	--	--	--
	12/06/94 <sup>1</sup>	32.37	23.73	ND	ND	ND	ND	ND	ND	--	ND	5.8
	01/10/95	31.29	24.81	--	--	--	--	--	--	--	--	--
56.09	03/14/95	27.86	28.23	71 <sup>3</sup>	380	20	ND	ND	10	--	--	--
	06/20/95	28.20	27.89	170 <sup>3</sup>	500	50	ND	ND	4.4	--	--	--
	09/18/95	30.65	25.44	72.00	57	1.2	0.75	0.57	2.2	-- <sup>6</sup>	--	--
	12/14/95	32.20	23.89	ND	ND	0.72	1.4	1.2	3.6	--	ND	3.8
	03/06/96	26.53	29.56	ND	96	4.5	ND	ND	3.7	ND	--	--
	06/04/96	27.43	28.66	170 <sup>3</sup>	410	48	ND	3.4	7.9	ND	--	--
	09/06/96	30.25	25.84	ND	ND	ND	ND	ND	ND	ND	--	--
	03/08/97	26.03	30.06	--	ND	ND	ND	ND	ND	ND	ND	43
	09/04/97	31.56	24.53	--	ND	ND	ND	ND	ND	ND	ND	4.5
	03/09/98	20.63	35.46	--	ND	ND	ND	ND	ND	ND	ND	ND
	09/01/98	27.82	28.27	--	ND	0.59	ND	ND	ND	3.1	ND	8.9
	03/02/99	26.83	29.26	--	ND	ND	ND	ND	ND	ND	ND	4.5
	09/07/99	28.03	28.06	--	ND	ND	ND	ND	ND	ND	ND	ND



**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Tosco (Unocal) Service Station #5430  
1935 Washington Avenue  
San Leandro, California

Well ID/ TOC*	Date	DTW (ft.)	GWE (ft.)	TPH(D) (ppb)	TPH(G) (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)	1,2-DCB (ppb)	1,2-DCA (ppb)
U-2												
55.77	08/13/93	30.87	24.90	--	1,400	ND	ND	ND	ND	--	--	--
	09/07/93	30.87	24.90	--	--	--	--	--	--	--	--	--
55.27	12/16/93	32.19	23.08	--	330	1.7	ND	11	8.5	--	--	--
	01/13/94	32.13	23.14	--	--	--	--	--	--	--	--	--
	02/09/94	33.50	21.77	--	--	--	--	--	--	--	--	--
	03/25/94	30.09	25.18	--	130	0.70	0.78	0.65	0.64	--	ND	11
(D)	03/25/94	--	--	--	--	--	--	--	--	--	ND	ND
	05/18/94	30.73	24.54	--	--	--	--	--	--	--	--	--
	06/19/94	31.31	23.96	--	180 <sup>4</sup>	ND	ND	ND	0.86	--	ND	0.54
	07/27/94	32.12	23.15	--	--	--	--	--	--	--	--	--
	08/18/94	32.50	22.77	--	--	--	--	--	--	--	--	--
	09/15/94	33.00	22.27	--	1,000 <sup>5</sup>	44	ND	ND	ND	--	ND	0.66
	10/11/94	32.35	22.92	--	--	--	--	--	--	--	--	--
	11/08/94	33.09	22.18	--	--	--	--	--	--	--	--	--
	12/06/94	31.44	23.83	--	250	19	ND	ND	ND	--	ND	ND
	01/10/95	30.25	25.02	--	--	--	--	--	--	--	--	--
55.29	03/14/95	26.36	28.93	--	89	ND	ND	ND	1.2	--	--	--
	06/20/95	26.74	28.55	--	ND	ND	0.58	ND	1.7	--	--	--
	09/18/95	29.65	25.64	--	ND	ND	ND	ND	0.85	-- <sup>6</sup>	--	--
	12/14/95	31.10	24.19	--	ND	ND	0.89	ND	2.0	-- <sup>7</sup>	ND	ND
	03/06/96	25.17	30.12	--	ND	ND	ND	ND	ND	80	--	--
	06/04/96	26.03	29.26	--	ND	ND	ND	ND	ND	110	--	--
	09/06/96	29.18	26.11	--	ND	ND	ND	ND	ND	ND	--	--
	03/08/97	24.64	30.65	--	ND	ND	ND	ND	ND	42	--	--
	09/04/97	30.59	24.70	--	ND	ND	ND	ND	ND	46	--	--
	03/09/98	19.22	36.07	--	ND	ND	ND	ND	ND	4.4	--	--
	09/01/98	26.40	28.89	--	ND	ND	ND	ND	ND	25	--	--
	03/02/99	25.48	29.81	--	ND	ND	ND	ND	ND	16	--	--
	09/07/99	26.51	28.78	--	ND	ND	ND	ND	ND	20	--	--

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
 Tosco (Unocal) Service Station #5430  
 1935 Washington Avenue  
 San Leandro, California

Well ID/ TOC*	Date	DTW (ft.)	GWE (ft.)	TPH(D) (ppb)	TPH(G) (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)	1,2-DCB (ppb)	1,2-DCA (ppb)
<b>U-3</b>												
55.66	08/13/93	30.70	24.96	--	23,000	1,000	ND	1,700	1,600	--	--	--
	09/07/93	30.70	24.96	--	--	--	--	--	--	--	--	--
55.24	12/16/93	32.08	23.16	--	15,000	570	ND	940	670	--	--	--
	01/13/94	31.98	23.26	--	--	--	--	--	--	--	--	--
	02/09/94	33.82	21.42	--	--	--	--	--	--	--	--	--
	03/25/94	30.03	25.21	--	18,000	560	40	1,000	770	--	ND	480
	05/18/94	30.66	24.58	--	--	--	--	--	--	--	--	--
	06/19/94	31.19	24.05	--	17,000	580	ND	1,300	90	--	ND	410
	07/27/94	31.98	23.26	--	--	--	--	--	--	--	--	--
	08/18/94	32.39	22.85	--	--	--	--	--	--	--	--	--
	09/15/94	32.84	22.40	--	12,000	370	ND	970	610	--	ND	420
	10/11/94	32.20	23.04	--	--	--	--	--	--	--	--	--
	11/08/94	33.01	22.23	--	--	--	--	--	--	--	--	--
	12/06/94	31.34	23.90	--	17,000	390	ND	990	560	--	ND	430
	01/10/95	30.23	25.01	--	--	--	--	--	--	--	--	--
55.23	03/14/95	25.44	29.79	--	13,000	860	120	1,300	1,700	--	--	--
	06/20/95	26.70	28.53	--	9,800	590	ND	800	1,000	--	--	--
	09/18/95	29.55	25.68	--	9,800	600	ND	1,000	760	-- <sup>6</sup>	--	--
	12/14/95	31.02	24.21	--	10,000	520	ND	920	630	-- <sup>7</sup>	ND	240
	03/06/96	25.25	29.98	--	19,000	1,400	ND	1,800	3,000	73	--	--
	06/04/96	26.00	29.23	--	8,800	510	ND	600	830	ND	--	--
	09/06/96	29.06	26.17	--	15,000	360	20	540	450	ND	--	--
	03/08/97	24.65	30.58	--	3,500	310	ND	230	630	ND	ND	100
	09/04/97	30.44	24.79	--	700	27	ND	48	34	ND	ND	160
	03/09/98	19.20	36.03	--	410	22	1.2	ND <sup>9</sup>	6.1	24	ND	4.4
	09/01/98	26.33	28.90	--	ND	ND	ND	ND	ND	6.1	ND	ND
	03/02/99	25.50	29.73	--	2,100	110	2.6	ND <sup>9</sup>	240	39	ND	6.7
	09/07/99 <sup>13</sup>	27.63	27.60	--	2,400 <sup>12</sup>	69	ND <sup>9</sup>	150	150	ND <sup>9</sup>	ND	1.1
<b>U-4</b>												
55.39	03/14/95	26.52	28.87	--	490	3.2	2.1	0.79	1.2	--	ND	ND
	06/20/95	26.90	28.49	--	ND	ND	ND	ND	1.5	--	--	--
	09/18/95	29.79	25.60	--	ND	ND	ND	ND	ND	-- <sup>6</sup>	--	--
	12/14/95	31.23	24.16	--	ND	ND	0.59	ND	0.79	-- <sup>7</sup>	ND	ND

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Tosco (Unocal) Service Station #5430  
1935 Washington Avenue  
San Leandro, California

Well ID/ TOC*	Date	DTW (ft.)	GWE (ft.)	TPH(D) (ppb)	TPH(G) (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)	1,2-DCB (ppb)	1,2-DCA (ppb)
U-4	03/06/96	25.30	30.09	--	ND	ND	ND	ND	0.62	50	--	--
(cont)	06/04/96	26.19	29.20	--	ND	ND	ND	ND	ND	290	--	--
	09/06/96	29.32	26.07	--	ND	ND	ND	ND	ND	ND	--	--
	03/08/97	24.79	30.60	--	ND	ND	ND	ND	ND	ND	--	--
	09/04/97	30.71	24.68	--	ND	ND	ND	ND	ND	18	--	--
	03/09/98	19.37	36.02	--	ND	ND	ND	ND	ND	ND	--	--
	09/01/98	26.56	28.83	--	ND	ND	ND	ND	ND	ND	--	--
	03/02/99	25.62	29.77	--	110	0.89	0.53	ND	0.79	4.9	--	--
	<b>09/07/99</b>	<b>26.82</b>	<b>28.57</b>	--	<b>ND</b>	<b>ND</b>	<b>ND</b>	<b>ND</b>	<b>ND</b>	<b>3.0</b>	--	--
<b>U-5</b>												
54.18	03/14/95	25.20	28.98	--	ND	ND	ND	ND	1.2	--	ND	ND
	06/20/95	25.60	28.58	--	ND	ND	ND	ND	1.6	--	--	--
	09/18/95	28.55	25.63	--	ND	ND	ND	ND	0.66	--	--	--
	12/14/95	29.94	24.24	--	ND	ND	ND	ND	ND	--	ND	ND
	03/06/96	24.03	30.15	--	ND	ND	ND	ND	ND	ND	--	--
	06/04/96	24.91	29.27	--	ND	ND	ND	ND	ND	ND	--	--
	09/06/96	28.06	26.12	--	ND	ND	ND	ND	ND	ND	--	--
	03/08/97	23.49	30.69	--	ND	ND	ND	ND	ND	ND	--	--
	09/04/97	29.46	24.72	--	ND	ND	ND	ND	ND	ND	--	--
	03/09/98	18.10	36.08	--	ND	ND	ND	ND	ND	ND	--	--
	09/01/98	25.27	28.91	--	ND	ND	ND	ND	ND	ND	--	--
	03/02/99	24.35	29.83	--	ND	ND	ND	ND	ND	ND	--	--
	<b>09/07/99</b>	<b>26.39</b>	<b>27.79</b>	--	<b>ND</b>	<b>ND</b>	<b>ND</b>	<b>ND</b>	<b>ND</b>	<b>ND</b>	--	--
<b>U-6</b>												
55.36	03/14/95	26.94	28.42	--	14,000	170	36	790	1,500	--	ND	210
	06/20/95	27.15	28.21	--	8,500	170	11	950	1,300	--	--	--
	09/18/95	29.95	25.41	--	9,500	260	ND	1,400	1,800	-- <sup>6</sup>	--	--
	12/14/95	31.32	24.04	--	15,000	240	ND	1,400	1,700	-- <sup>7</sup>	ND	370
	03/06/96	25.71	29.65	--	2,400	54	ND	170	250	ND	--	--
	06/04/96	26.52	28.84	--	4,600	83	ND	400	520	46	--	--
	09/06/96	29.41	25.95	--	12,000	180	6.4	690	600	95	--	--
	03/08/97	25.25	30.11	--	2,000	180	ND	96	290	ND	--	--

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Tosco (Unocal) Service Station #5430  
1935 Washington Avenue  
San Leandro, California

Well ID/ TOC*	Date	DTW (ft.)	GWE (ft.)	TPH(D) (ppb)	TPH(G) (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)	1,2-DCB (ppb)	1,2-DCA (ppb)
U-6 (cont)	09/04/97	30.75	24.61	--	680	17	ND	52	39	ND	--	--
	03/09/98	19.84	35.52	--	690	41	8.5	3.2	140	16	--	--
	09/01/98	INACCESSIBLE (PAVED OVER)		--	--	--	--	--	--	--	--	--
	03/02/99	25.95	29.41	--	3,900	240	ND <sup>9</sup>	650	430	45	--	--
	09/07/99	28.19	27.17	--	320 <sup>12</sup>	14	ND <sup>9</sup>	5.2	ND <sup>9</sup>	10	--	--
U-7 55.05	03/14/95	26.13	28.92	--	ND	ND	ND	ND	ND	--	ND	ND
	06/20/95	26.38	28.67	--	ND	ND	ND	ND	ND	--	--	--
	09/18/95	29.21	25.84	--	ND	ND	ND	ND	ND	--	--	--
	12/14/95	30.75	24.30	--	ND	ND	ND	ND	0.88	--	ND	ND
	03/06/96	25.10	29.95	--	ND	ND	ND	ND	ND	ND	--	--
	06/04/96	25.67	29.38	--	ND	ND	ND	ND	ND	ND	--	--
	09/06/96	28.75	26.30	--	ND	ND	ND	ND	ND	ND	--	--
	03/08/97	24.33	30.72	--	ND	ND	ND	ND	ND	ND	ND	ND
	09/04/97 <sup>8</sup>	30.16	24.89	--	ND	ND	ND	ND	ND	ND	ND	ND
	03/09/98	18.91	36.14	--	ND	ND	ND	ND	ND	ND	ND	ND
	09/01/98 <sup>10</sup>	26.04	29.01	--	88	ND	ND	ND	ND	2.9	ND	ND
	03/02/99 <sup>11</sup>	25.30	29.75	--	ND	ND	ND	ND	ND	ND	ND	ND
	09/07/99	27.27	27.78	--	ND	ND	ND	ND	ND	ND	ND	ND
<b>Trip Blank</b>												
TB-LB	03/09/98	--	--	--	ND	ND	0.53	ND	ND	ND	--	--
	09/01/98	--	--	--	ND	ND	ND	ND	ND	5.0	--	--
	03/02/99	--	--	--	ND	ND	ND	ND	ND	ND	--	--
	09/07/99	--	--	--	ND	ND	ND	ND	ND	ND	--	--

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
 Tosco (Unocal) Service Station #5430  
 1935 Washington Avenue  
 San Leandro, California

**EXPLANATIONS:**

Groundwater monitoring data and analytical results prior to March 9, 1998, were compiled from reports prepared by MPDS Services, Inc.

TOC = Top of Casing	B = Benzene	1,2-DCA = 1,2-Dichloroethane
DTW = Depth to Water	T = Toluene	ppb = Parts per billion
(ft.) = Feet	E = Ethylbenzene	ND = Not Detected
GWE = Groundwater Elevation	X = Xylenes	-- = Not Measured/Not Analyzed
TPH(D) = Total Petroleum Hydrocarbons as Diesel	MTBE = Methyl tertiary butyl ether	(D) = Duplicate
TPH(G) = Total Petroleum Hydrocarbons as Gasoline	1,2-DCB = 1,2-Dichlorobenzene	

\* TOC elevations were surveyed March 1995, based on Benchmark provided by City of San Leandro, City Engineers Office, Datum 1929, USGS adjusted. Prior to December 16, 1993, the DTW measurements were taken from the top of well covers.

<sup>1</sup> Total Oil and Grease (TOG) was ND.

<sup>2</sup> Not a typical diesel pattern; lower boiling hydrocarbons in the boiling range of stoddard calculated as diesel.

<sup>3</sup> Laboratory report indicates the hydrocarbons detected did not appear to be diesel.

<sup>4</sup> Laboratory report indicates the hydrocarbons detected appeared to be a gasoline and non-gasoline mixture.

<sup>5</sup> Laboratory report indicates the hydrocarbons detected did not appear to be gasoline.

<sup>6</sup> Laboratory has potentially identified the presence of MTBE at reportable levels in the groundwater sample collected from this well.

<sup>7</sup> Laboratory has identified the presence of MTBE at a level above or equal to the taste and odor threshold of 40 ppb in the sample collected from this well.

<sup>8</sup> Carbon tetrachloride was detected at a concentration of 1.3 ppb.

<sup>9</sup> Detection limit raised. Refer to analytical reports.

<sup>10</sup> Carbon tetrachloride was detected at a concentration of 2.0 ppb, and Chloroform was detected at a concentration of 0.60 ppb.

<sup>11</sup> Carbon tetrachloride was detected at a concentration of 1.2 ppb.

<sup>12</sup> Laboratory report indicates gasoline C6-C12.

<sup>13</sup> Bromodichloromethane was detected at 1.4 ppb and Chloroform was detected at 31 ppb. All EPA Method 8010 reanalyzed by an alternate column or method to confirm the identification and/or concentration of these results.

Note: All EPA Method 8010 constituents were ND, except as indicated above.

## 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 a MMC flexi-dip interface probe. Product thickness, if present, is measured to the nearest 0.01 foot and is noted in the field notes. In addition, static water level measurements are collected with the interface probe and are also recorded in the field notes.

After water levels are collected and prior to sampling, temperature, pH and electrical conductivity are measured. If purging is to occur, each well is purged a minimum of three well casing volumes of water using pre-cleaned pumps (stack, suction, Grundfos), or polyvinyl chloride bailers. The measurements are taken a minimum of three times during the purging. Purging continues until these parameters stabilize.

Groundwater samples are collected using disposable bailers. The water samples are transferred from the bailer into appropriate containers. Pre-preserved containers, supplied by analytical laboratories, are used when possible. When pre-preserved containers are not available, the laboratory is instructed to preserve the sample as appropriate. Duplicate samples are collected for the laboratory to use in maintaining quality assurance/quality control standards. The samples are labeled to include the job number, sample identification, collection date and time, analysis, preservation (if any), and the sample collector's initials. The water samples are placed in a cooler, maintained at 4°C for transport to the laboratory. Once collected in the field, all samples are maintained under chain of custody until delivered to the laboratory.

The chain of custody document includes the job number, type of preservation, if any, analysis requested, sample identification, date and time collected, and the sample collector's name. The chain of custody is signed and dated (including time of transfer) by each person who receives or surrenders the samples, beginning with the field personnel and ending with the laboratory personnel.

A laboratory supplied trip blank accompanies each sampling set. For sampling sets greater than 20 samples, 5% trip blanks are included. The trip blank is analyzed for some or all of the same compounds as the groundwater samples.

As requested by Tosco Marketing Company, the purge water and decontamination water generated during sampling activities is transported to Tosco - San Francisco Area Refinery, located in Rodeo, California.

**WELL MONITORING/SAMPLING  
FIELD DATA SHEET**

Client/Facility: 5430 Job#: 180107  
 Address: 1935 Washington Ave. Date: 9-7-99  
 City: San Leandro Sampler: Joe

Well ID: U-1 Well Condition: O.K.  
 Well Diameter: 2 in. Hydrocarbon Thickness: 0 Amount Bailed (Gallons): 0  
 Total Depth: 39.60 ft.  
 Depth to Water: 28.03 ft.

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

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

Purge Equipment: Disposable Bailer  
 Bailer  
 Stack  
~~Suction~~  
 Grundfos  
 Other: \_\_\_\_\_

Sampling Equipment: Disposable Bailer  
 Bailer  
 Pressure Bailer  
 Grab Sample  
 Other: \_\_\_\_\_

Starting Time: 11:00 Weather Conditions: clear  
 Sampling Time: 11:20 AM Water Color: clear Odor: none  
 Purging Flow Rate: 1 gpm. Sediment Description: none  
 Did well de-water? \_\_\_\_\_ If yes; Time: \_\_\_\_\_ Volume: \_\_\_\_\_ (gal.)

Time	Volume (gal.)	pH	Conductivity $\mu\text{mhos/cm} \times 10^3$	Temperature °F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>11:07</u>	<u>2</u>	<u>7.57</u>	<u>8.11</u>	<u>71.2</u>			
<u>11:09</u>	<u>4</u>	<u>7.52</u>	<u>8.19</u>	<u>71.5</u>			
<u>11:10</u>	<u>6</u>	<u>7.45</u>	<u>8.33</u>	<u>71.7</u>			

**LABORATORY INFORMATION**

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE /	LABORATORY	ANALYSES
<u>U-1</u>	<u>3x0A</u>	<u>Y</u>	<u>HCL</u>	<u>SEQUOIA</u>	<u>TPH(GI)/btex/mtbe</u>
	<u>2x0A</u>	<u>Y</u>	<u>HCL</u>	<u>"</u>	<u>8010</u>

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

**WELL MONITORING/SAMPLING  
FIELD DATA SHEET**

Client/  
Facility: 5430 Job#: 180107  
Address: 1935 Washington Ave. Date: 9-7-99  
City: San Leandro Sampler: Joc

Well ID: U-2 Well Condition: O.K.  
Well Diameter: 2 in. Hydrocarbon Thickness: 0 Amount Bailed (Gallons): 0  
Total Depth: 39.27 ft.  
Depth to Water: 26.51 ft.

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

12.76 x VF 0.17 = 2.17 x 3 (case volume) = Estimated Purge Volume: 6.5 (gal.)

Purge Equipment: Disposable Bailer, Bailer, Stack, Section, Grundfos, Other: \_\_\_\_\_  
Sampling Equipment: Disposable Bailer, Bailer, Pressure Bailer, Grab Sample, Other: \_\_\_\_\_

Starting Time: 11:30 Weather Conditions: clear  
Sampling Time: 11:50 A.M. Water Color: clear Odor: none  
Purging Flow Rate: 1 gpm. Sediment Description: none  
Did well de-water? \_\_\_\_\_ If yes; Time: \_\_\_\_\_ Volume: \_\_\_\_\_ (gal.)

Time	Volume (gal.)	pH	Conductivity $\mu\text{mhos/cm} \times 10^2$	Temperature $^{\circ}\text{F}$	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>11:37</u>	<u>2.5</u>	<u>7.63</u>	<u>9.07</u>	<u>71.5</u>			
<u>11:39</u>	<u>4</u>	<u>7.31</u>	<u>9.02</u>	<u>72.2</u>			
<u>11:41</u>	<u>6.5</u>	<u>7.38</u>	<u>9.11</u>	<u>72.5</u>			

**LABORATORY INFORMATION**

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>U-2</u>	<u>300A</u>	<u>Y</u>	<u>HCL</u>	<u>SEQUOIA</u>	<u>TPH(GI)/bTEX/mtbe</u>

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



**WELL MONITORING/SAMPLING  
FIELD DATA SHEET**

Client/  
Facility 5430 Job#: 180107  
Address: 1935 Washington Ave. Date: 9-7-99  
City: San Leandro Sampler: Joc

Well ID U-3 Well Condition: o.k.  
Well Diameter 2 in. Hydrocarbon Thickness: 0 (feet) Amount Bailed (product/water): 0 (Gallons)  
Total Depth 38.53 ft. Volume 2" = 0.17 3" = 0.38 4" = 0.66  
Depth to Water 27.63 ft. Factor (VF) 6" = 1.50 12" = 5.80

10.9 x VF 0.17 = 1.85 x 3 (case volume) = Estimated Purge Volume: 5.5 (gal.)

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

Starting Time: 12:40 Weather Conditions: clear  
Sampling Time: 12:55pm Water Color: clear Odor: none  
Purging Flow Rate: 1 gpm. Sediment Description: none  
Did well de-water? \_\_\_\_\_ If yes; Time: \_\_\_\_\_ Volume: \_\_\_\_\_ (gal.)

Time	Volume (gal.)	pH	Conductivity $\mu\text{mhos/cm} \times 10^2$	Temperature °F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>12:45</u>	<u>2.5</u>	<u>7.19</u>	<u>6.35</u>	<u>71.8</u>			
<u>12:47</u>	<u>4.5</u>	<u>7.22</u>	<u>6.36</u>	<u>72.3</u>			
<u>12:48</u>	<u>5.5</u>	<u>7.27</u>	<u>6.31</u>	<u>73.0</u>			

**LABORATORY INFORMATION**

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>U-3</u>	<u>3 YOA</u>	<u>Y</u>	<u>HCL</u>	<u>SEQUOIA</u>	<u>TPH(G)/btex/mtbe</u>
	<u>2 YOA</u>	<u>"</u>	<u>"</u>	<u>"</u>	<u>8010</u>

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

**WELL MONITORING/SAMPLING  
FIELD DATA SHEET**

Client/  
Facility 5430 Job#: 180107  
Address: 1935 Washington Ave. Date: 9-7-99  
City: San Leandro Sampler: Joc

Well ID U-4 Well Condition: o.k.

Well Diameter 2 in. Hydrocarbon Thickness: 0 (feet) Amount Bailed (product/water): 0 (Gallons)  
Total Depth 39.03 ft.  
Depth to Water 26.82 ft.

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

12.21 x VF 0.17 = 2.08 x 3 (case volume) = Estimated Purge Volume: 6.5 (gal.)

Purge Equipment: Disposable Bailer  
Bailer  
Stack  
Suction  
Grundfos  
Other: \_\_\_\_\_

Sampling Equipment: Disposable Bailer  
Bailer  
Pressure Bailer  
Grab Sample  
Other: \_\_\_\_\_

Starting Time: 12:00 Weather Conditions: clear  
Sampling Time: 12:20 P.M. Water Color: clear Odor: none  
Purging Flow Rate: 1 gpm. Sediment Description: none  
Did well de-water? \_\_\_\_\_ If yes: Time: \_\_\_\_\_ Volume: \_\_\_\_\_ (gal.)

Time	Volume (gal.)	pH	Conductivity $\mu\text{mhos/cm}^2$	Temperature °F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>12:00</u>	<u>2</u>	<u>7.70</u>	<u>5.38</u>	<u>73.1</u>			
<u>12:12</u>	<u>4</u>	<u>7.55</u>	<u>5.61</u>	<u>73.0</u>			
<u>12:15</u>	<u>6.5</u>	<u>7.49</u>	<u>5.64</u>	<u>72.4</u>			

**LABORATORY INFORMATION**

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>U-4</u>	<u>300A</u>	<u>Y</u>	<u>NCL</u>	<u>SEQUOIA</u>	<u>TPH(GI)/btex/mtba</u>

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

**WELL MONITORING/SAMPLING  
FIELD DATA SHEET**

Client/  
Facility 5430 Job#: 180107  
Address: 1935 Washington Ave. Date: 9-7-99  
City: San Leandro Sampler: Joc

Well ID U-5 Well Condition: O.K.

Well Diameter 2 in.

Hydrocarbon Thickness: 0 Amount Bailed (product/water): 0 (Gallons)

Total Depth 38.51 ft.

Depth to Water 26.39 ft.

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

12.12 x VF 0.17 = 2.06 x 3 (case volume) = Estimated Purge Volume: 6.5 (gal.)

Purge Equipment: Disposable Bailer  
Bailer  
Stack  
Suction  
Grundfos  
Other: \_\_\_\_\_

Sampling Equipment: Disposable Bailer  
Bailer  
Pressure Bailer  
Grab Sample  
Other: \_\_\_\_\_

Starting Time: 10:12 Weather Conditions: clear  
Sampling Time: 10:43 AM Water Color: clear Odor: none  
Purging Flow Rate: 1 gpm. Sediment Description: none  
Did well de-water? \_\_\_\_\_ If yes; Time: \_\_\_\_\_ Volume: \_\_\_\_\_ (gal.)

Time	Volume (gal.)	pH	Conductivity $\mu\text{mhos/cm}^2$	Temperature $^{\circ}\text{F}$	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>10:32</u>	<u>2</u>	<u>7.38</u>	<u>7.39</u>	<u>72.3</u>			
<u>10:32</u>	<u>4</u>	<u>7.45</u>	<u>8.06</u>	<u>73.1</u>			
<u>10:33</u>	<u>6.5</u>	<u>7.51</u>	<u>8.05</u>	<u>73.1</u>			

**LABORATORY INFORMATION**

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE /	LABORATORY	ANALYSES
<u>U-5</u>	<u>300A</u>	<u>Y</u>	<u>HCL</u>	<u>SEQUOIA</u>	<u>TPH(GI)/brx/mtbe</u>

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

**WELL MONITORING/SAMPLING  
FIELD DATA SHEET**

Client/Facility: 5430 Job#: 180107  
 Address: 1935 Washington Ave. Date: 9-7-99  
 City: San Leandro Sampler: Joc

Well ID: U-6 Well Condition: o.k.

Well Diameter: 2 in. Hydrocarbon Thickness: 0 (feet) Amount Bailed (product/water): 0 (Gallons)

Total Depth: 40.00 ft.

Depth to Water: 28.19 ft.

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

11.81 x VF 0.17 = 2.03 x 3 (case volume) = Estimated Purge Volume: 6 (gal.)

Purge Equipment: Disposable Bailer, Bailer, Stack, Suction, Grundfos, Other: \_\_\_\_\_

Sampling Equipment: Disposable Bailer, Bailer, Pressure Bailer, Grab Sample, Other: \_\_\_\_\_

Starting Time: 1:05 Weather Conditions: clear  
 Sampling Time: 1:30 P.M. Water Color: clear Odor: none  
 Purging Flow Rate: 1 gpm. Sediment Description: none  
 Did well de-water? \_\_\_\_\_ If yes; Time: \_\_\_\_\_ Volume: \_\_\_\_\_ (gal.)

Time	Volume (gal.)	pH	Conductivity $\mu\text{mhos/cm}^2 \times 10^2$	Temperature °F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>1:15</u>	<u>2</u>	<u>7.10</u>	<u>5.55</u>	<u>73.1</u>			
<u>1:17</u>	<u>4</u>	<u>7.12</u>	<u>5.50</u>	<u>73.2</u>			
<u>1:19</u>	<u>6</u>	<u>7.14</u>	<u>5.47</u>	<u>72.9</u>			

**LABORATORY INFORMATION**

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>U-6</u>	<u>300A</u>	<u>Y</u>	<u>HCL</u>	<u>SEQUOIA</u>	<u>TPH(GI)/bTEX/mtbe</u>

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

**WELL MONITORING/SAMPLING  
FIELD DATA SHEET**

Client/Facility 5430 Job#: 180107  
 Address: 1935 Washington Ave. Date: 9-7-99  
 City: San Leandro Sampler: Joc

Well ID U-7 Well Condition: o.k.  
 Well Diameter 2 in. Hydrocarbon Thickness: 0 Amount Bailed (Gallons)  
 Total Depth 37.78 ft. Volume 2" = 0.17 3" = 0.38 4" = 0.66  
 Depth to Water 27.27 ft. Factor (VF) 6" = 1.50 12" = 5.80

10.51 x VF 0.17 = 1.79 x 3 (case volume) = Estimated Purge Volume: 5.5 (gal.)

Purge Equipment: Disposable Bailer  
 Bailer  
 Stack  
~~Suction~~  
 Grundfos  
 Other: \_\_\_\_\_

Sampling Equipment: Disposable Bailer  
 Bailer  
 Pressure Bailer  
 Grab Sample  
 Other: \_\_\_\_\_

Starting Time: 9:18 Weather Conditions: clear  
 Sampling Time: 9:45 A.M. Water Color: clear Odor: none  
 Purging Flow Rate: 1 gpm. Sediment Description: none  
 Did well de-water? \_\_\_\_\_ If yes; Time: \_\_\_\_\_ Volume: \_\_\_\_\_ (gal.)

Time	Volume (gal.)	pH	Conductivity $\mu\text{mhos/cm}^2$	Temperature °F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>9:30</u>	<u>1.5</u>	<u>7.80</u>	<u>6.73</u>	<u>73.2</u>			
<u>9:31</u>	<u>4</u>	<u>7.60</u>	<u>6.99</u>	<u>73.1</u>			
<u>9:34</u>	<u>5.5</u>	<u>7.61</u>	<u>6.52</u>	<u>73.1</u>			

**LABORATORY INFORMATION**

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>U-7</u>	<u>3VOA</u>	<u>Y</u>	<u>HCL</u>	<u>SEQUOIA</u>	<u>TPH(GI)/bTEX/mtbe</u>
	<u>2VOA</u>	<u>"</u>	<u>"</u>	<u>"</u>	<u>8010</u>

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



Tosco Marketing Company  
3320 East Canyon Pl., Ste. 408  
San Ramon, California 94583

Facility Number UNOCAL SS#5430  
Facility Address 1935 WASHINGTON AVE. SAN LEANDRO, CA  
Consultant Project Number 180107.85  
Consultant Name Gettler-Ryan Inc. (G-R Inc.)  
Address 6747 Sierra Court, Suite J, Dublin, CA 94568  
Project Contact (Name) Deanna L. Harding  
(Phone) 510-551-7555 (Fax Number) 510-551-7888

Contact (Name) Mr. DAVID DEWITT  
(Phone) (925) 277-2384  
Laboratory Name Sequoia Analytical  
Laboratory Release Number W909179  
Samples Collected by (Name) JOE ATEMIAN  
Collection Date 9-7-99  
Signature [Signature]

Sample Number	Lab Sample Number	Number of Containers	Matrix S = Soil W = Water A = Air C = Charcoal	Type G = Grab C = Composite D = Discrete	Time	Sample Preservation	Iced (Yes or No)	Analyses To Be Performed												Remarks
								TPH Gas + STEK w/MTBE (8016)	TPH Diesel (8015)	Oil and Grease (5520)	Purgeable Halocarbons (8010)	Purgeable Aromatics (8020)	Purgeable Organics (8240)	Extractable Organics (8270)	Metals Cd, Cr, Pb, Zn, Ni (ICAP or AA)					
TB-LB	01A	1 VOA	W	G	-	HCC	Y	✓												
U-1	02A-E	5 VOA	/	/	11:30 A.M.	/	/	✓				✓								
U-2	03A-C	3 VOA	/	/	11:50 A.M.	/	/	✓												
U-3	04A-E	5 VOA	/	/	12:55 P.M.	/	/	✓				✓								
U-4	05A-C	3 VOA	/	/	12:30 P.M.	/	✓	✓												
U-5	06A-C	3 VOA	/	/	10:45 A.M.	/	/	✓												
U-6	07A-C	3 VOA	/	/	1:30 P.M.	/	/	✓												
U-7	08A-E	5 VOA	✓	/	9:45 A.M.	/	/	✓				✓								

Relinquished By (Signature) <u>[Signature]</u>	Organization <u>G-R Inc.</u>	Date/Time <u>9-7-99 2:30</u>	Received By (Signature) <u>[Signature]</u>	Organization <u>SEQUOIA</u>	Date/Time <u>9/7/99 1930</u>
Relinquished By (Signature) <u>[Signature]</u>	Organization <u></u>	Date/Time <u>9-8-99 1230</u>	Received By (Signature) <u>[Signature]</u>	Organization <u>ABC</u>	Date/Time <u>9-8-16</u>
Relinquished By (Signature) <u>[Signature]</u>	Organization <u>ABC</u>	Date/Time <u>9/8</u>	Received For Laboratory By (Signature) <u>[Signature]</u>		Date/Time <u>9/8 17:45</u>

Turn Around Time (Circle Choice)

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



# Sequoia Analytical

680 Chesapeake Drive  
404 N. Wiget Lane  
819 Striker Avenue, Suite 8  
1455 McDowell Blvd. North, Ste. D  
1551 Industrial Road

Redwood City, CA 94063  
Walnut Creek, CA 94598  
Sacramento, CA 95834  
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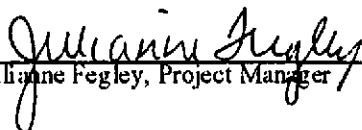
Gettler Ryan, Inc. - Dublin  
6747 Sierra Court Suite J  
Dublin CA, 94568

Project: Unocal  
Project Number: Unocal SS# 5430  
Project Manager: Deanna L. Harding

Reported:  
24-Sep-99 18:35

## ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
TB-LB	W909179-01	Water	07-Sep-99 00:00	07-Sep-99 14:30
U-2	W909179-03	Water	07-Sep-99 11:50	07-Sep-99 14:30
U-4	W909179-05	Water	07-Sep-99 12:20	07-Sep-99 14:30
U-1	W909179-02	Water	07-Sep-99 11:20	07-Sep-99 14:30
U-7	W909179-08	Water	07-Sep-99 09:45	07-Sep-99 14:30
U-3	W909179-04	Water	07-Sep-99 12:55	07-Sep-99 14:30
U-5	W909179-06	Water	07-Sep-99 10:43	07-Sep-99 14:30
U-6	W909179-07	Water	07-Sep-99 13:30	07-Sep-99 14:30

  
Julianne Fegley, Project Manager





# Sequoia Analytical

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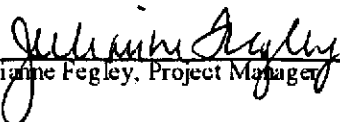
Gettler Ryan, Inc. - Dublin 6747 Sierra Court Suite J Dublin CA, 94568	Project: Unocal Project Number: Unocal SS# 5430 Project Manager: Deanna L. Harding	Reported: 24-Sep-99 18:35
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## Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>TB-LB (W909179-01) Water</b> Sampled: 07-Sep-99 00:00 Received: 07-Sep-99 14:30									
Purgeable Hydrocarbons	ND	50	ug/l	1	9I14019	11-Sep-99	11-Sep-99	DHS LUFT	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.5	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		96.7 %	70-130		"	"	"	"	
<b>U-1 (W909179-02) Water</b> Sampled: 07-Sep-99 11:20 Received: 07-Sep-99 14:30									
Purgeable Hydrocarbons	ND	50	ug/l	1	9I14019	11-Sep-99	11-Sep-99	DHS LUFT	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.5	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		96.7 %	70-130		"	"	"	"	
<b>U-2 (W909179-03) Water</b> Sampled: 07-Sep-99 11:50 Received: 07-Sep-99 14:30									
Purgeable Hydrocarbons	ND	50	ug/l	1	9I14019	11-Sep-99	11-Sep-99	DHS LUFT	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	20	2.5	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		90.0 %	70-130		"	"	"	"	

Sequoia Analytical - Walnut Creek

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Project: Unocal  
Project Number: Unocal SS# 5430  
Project Manager: Deanna L. Harding

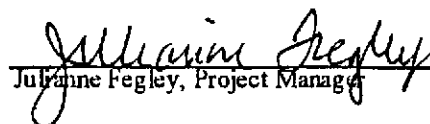
Reported:  
24-Sep-99 18:35

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
U-3 (W909179-04) Water Sampled: 07-Sep-99 12:55 Received: 07-Sep-99 14:30 <span style="float: right;">P-01</span>									
Purgeable Hydrocarbons	2400	1000	ug/l	20	9I14019	11-Sep-99	11-Sep-99	DHS LUFT	
Benzene	67	10	"	"	"	"	"	"	
Toluene	ND	10	"	"	"	"	"	"	
Ethylbenzene	150	10	"	"	"	"	"	"	
Xylenes (total)	150	10	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	50	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		103 %	70-130		"	"	"	"	
U-4 (W909179-05) Water Sampled: 07-Sep-99 12:20 Received: 07-Sep-99 14:30									
Purgeable Hydrocarbons	ND	50	ug/l	1	9I14019	11-Sep-99	11-Sep-99	DHS LUFT	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	3.0	2.5	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		96.7 %	70-130		"	"	"	"	
U-5 (W909179-06) Water Sampled: 07-Sep-99 10:43 Received: 07-Sep-99 14:30									
Purgeable Hydrocarbons	ND	50	ug/l	1	9I14019	11-Sep-99	11-Sep-99	DHS LUFT	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.5	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		93.3 %	70-130		"	"	"	"	

Sequoia Analytical - Walnut Creek

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

Project: Unocal  
Project Number: Unocal SS# 5430  
Project Manager: Deanna L. Harding

Reported:  
24-Sep-99 18:35

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>U-6 (W909179-07) Water</b> Sampled: 07-Sep-99 13:30    Received: 07-Sep-99 14:30 <span style="float:right">P-01</span>									
Purgeable Hydrocarbons	320	100	ug/l	2	9I14023	13-Sep-99	13-Sep-99	DHS LUFT	
Benzene	14	1.0	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	5.2	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	
Methyl tert-butyl ether	10	5.0	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		73.3 %	70-130	"	"	"	"	"	
<b>U-7 (W909179-08) Water</b> Sampled: 07-Sep-99 09:45    Received: 07-Sep-99 14:30									
Purgeable Hydrocarbons	ND	50	ug/l	1	9I14019	11-Sep-99	11-Sep-99	DHS LUFT	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.5	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		96.7 %	70-130	"	"	"	"	"	

Sequoia Analytical - Walnut Creek

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Project: Unocal  
Project Number: Unocal SS# 5430  
Project Manager: Deanna L. Harding

Reported:  
24-Sep-99 18:35

## Volatile Organic Compounds by EPA Method 8010B Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
U-1 (W909179-02) Water Sampled: 07-Sep-99 11:20 Received: 07-Sep-99 14:30									
Bromodichloromethane	ND	0.50	ug/l	1	9115009	15-Sep-99	15-Sep-99	EPA 8010B	
Bromoform	ND	0.50	"	"	"	"	"	"	
Bromomethane	ND	1.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.50	"	"	"	"	"	"	
Chlorobenzene	ND	0.50	"	"	"	"	"	"	
Chloroethane	ND	1.0	"	"	"	"	"	"	
Chloroform	ND	0.50	"	"	"	"	"	"	
Chloromethane	ND	1.0	"	"	"	"	"	"	
Dibromochloromethane	ND	0.50	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.50	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.50	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.50	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.50	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.50	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.50	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.50	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.50	"	"	"	"	"	"	
Tetrachloroethene	ND	0.50	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.50	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.50	"	"	"	"	"	"	
Trichloroethene	ND	0.50	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.50	"	"	"	"	"	"	
Vinyl chloride	ND	1.0	"	"	"	"	"	"	
Surrogate: Dibromodifluoromethane		84.0 %		50-150	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		68.0 %		50-150	"	"	"	"	

Sequoia Analytical - Walnut Creek

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Project: Unocal  
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Project Manager: Deanna L. Harding

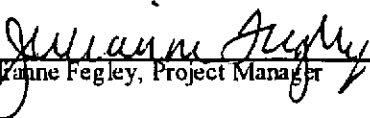
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24-Sep-99 18:35

## Volatile Organic Compounds by EPA Method 8010B Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
U-3 (W909179-04) Water Sampled: 07-Sep-99 12:55 Received: 07-Sep-99 14:30									
Bromodichloromethane	1.4	0.50	ug/l	1	9I15009	15-Sep-99	15-Sep-99	EPA 8010B	
Bromoform	ND	0.50	"	"	"	"	"	"	
Bromomethane	ND	1.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.50	"	"	"	"	"	"	
Chlorobenzene	ND	0.50	"	"	"	"	"	"	
Chloroethane	ND	1.0	"	"	"	"	"	"	
Chloroform	31	0.50	"	"	"	"	"	"	
Chloromethane	ND	1.0	"	"	"	"	"	"	
Dibromochloromethane	ND	0.50	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.50	"	"	"	"	"	"	
1,2-Dichloroethane	1.1	0.50	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.50	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.50	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.50	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.50	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.50	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.50	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.50	"	"	"	"	"	"	
Tetrachloroethene	ND	0.50	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.50	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.50	"	"	"	"	"	"	
Trichloroethene	ND	0.50	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.50	"	"	"	"	"	"	
Vinyl chloride	ND	1.0	"	"	"	"	"	"	
Surrogate: Dibromodifluoromethane		85.0 %		50-150	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		71.0 %		50-150	"	"	"	"	

Sequoia Analytical - Walnut Creek

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Gettler Ryan, Inc. - Dublin 6747 Sierra Court Suite J Dublin CA, 94568	Project: Unocal Project Number: Unocal SS# 5430 Project Manager: Deanna L. Harding	Reported: 24-Sep-99 18:35
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## Volatile Organic Compounds by EPA Method 8010B Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
U-7 (W909179-08) Water Sampled: 07-Sep-99 09:45 Received: 07-Sep-99 14:30									
Bromodichloromethane	ND	0.50	ug/l	1	9I15009	15-Sep-99	15-Sep-99	EPA 8010B	
Bromoform	ND	0.50	"	"	"	"	"	"	
Bromomethane	ND	1.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.50	"	"	"	"	"	"	
Chlorobenzene	ND	0.50	"	"	"	"	"	"	
Chloroethane	ND	1.0	"	"	"	"	"	"	
Chloroform	ND	0.50	"	"	"	"	"	"	
Chloromethane	ND	1.0	"	"	"	"	"	"	
Dibromochloromethane	ND	0.50	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.50	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.50	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.50	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.50	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.50	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.50	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.50	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.50	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.50	"	"	"	"	"	"	
Tetrachloroethene	ND	0.50	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.50	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.50	"	"	"	"	"	"	
Trichloroethene	ND	0.50	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.50	"	"	"	"	"	"	
Vinyl chloride	ND	1.0	"	"	"	"	"	"	
Surrogate: Dibromodifluoromethane		87.0 %		50-150	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		74.0 %		50-150	"	"	"	"	

Sequoia Analytical - Walnut Creek

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

Project: Unocal  
Project Number: Unocal SS# 5430  
Project Manager: Deanna L. Harding

Reported:  
24-Sep-99 18:35

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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### Batch 9I14019: Prepared 10-Sep-99 Using EPA 5030B [P/T]

#### Matrix Spike (9I14019-MS1)

Source: W909179-02

Benzene	18.5	0.50	ug/l	20.0	ND	92.5	70-130			
Toluene	16.8	0.50	"	20.0	ND	84.0	70-130			
Ethylbenzene	17.7	0.50	"	20.0	ND	88.5	70-130			
Xylenes (total)	57.7	0.50	"	60.0	ND	96.2	70-130			
Surrogate: a,a,a-Trifluorotoluene	27.9		"	30.0		93.0	70-130			

#### Matrix Spike Dup (9I14019-MSD1)

Source: W909179-02

Benzene	16.9	0.50	ug/l	20.0	ND	84.5	70-130	9.04	20	
Toluene	14.5	0.50	"	20.0	ND	72.5	70-130	14.7	20	
Ethylbenzene	16.2	0.50	"	20.0	ND	81.0	70-130	8.85	20	
Xylenes (total)	52.7	0.50	"	60.0	ND	87.8	70-130	9.06	20	
Surrogate: a,a,a-Trifluorotoluene	23.4		"	30.0		78.0	70-130			

### Batch 9I14023: Prepared 13-Sep-99 Using EPA 5030B [P/T]

#### Matrix Spike (9I14023-MS1)

Source: W909170-10

Benzene	21.3	0.50	ug/l	20.0	ND	106	70-130			
Toluene	21.9	0.50	"	20.0	ND	109	70-130			
Ethylbenzene	22.1	0.50	"	20.0	ND	111	70-130			
Xylenes (total)	67.4	0.50	"	60.0	ND	112	70-130			
Surrogate: a,a,a-Trifluorotoluene	27.8		"	30.0		92.7	70-130			

#### Matrix Spike Dup (9I14023-MSD1)

Source: W909170-10

Benzene	19.1	0.50	ug/l	20.0	ND	95.5	70-130	10.9	20	
Toluene	19.5	0.50	"	20.0	ND	97.5	70-130	11.6	20	
Ethylbenzene	19.5	0.50	"	20.0	ND	97.5	70-130	12.5	20	
Xylenes (total)	60.7	0.50	"	60.0	ND	101	70-130	10.5	20	
Surrogate: a,a,a-Trifluorotoluene	24.9		"	30.0		83.0	70-130			

Sequoia Analytical - Walnut Creek

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

Julianne Fegley, Project Manager





# Sequoia Analytical

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24-Sep-99 18:35

## Volatile Organic Compounds by EPA Method 8010B - Quality Control Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 9I15009: Prepared 15-Sep-99 Using EPA 5030B [P/T]

### Matrix Spike (9I15009-MS1)

Source: W909179-08

Chlorobenzene	21.0	0.50	ug/l	20.0	ND	105	60-140			
1,1-Dichloroethene	17.0	0.50	"	20.0	ND	85.0	60-140			
Trichloroethene	21.0	0.50	"	20.0	ND	105	60-140			
Surrogate: Dibromodifluoromethane	8.60		"	10.0		86.0	50-150			
Surrogate: 4-Bromofluorobenzene	7.60		"	10.0		76.0	50-150			


### Matrix Spike Dup (9I15009-MSD1)

Source: W909179-08

Chlorobenzene	22.0	0.50	ug/l	20.0	ND	110	60-140	4.65	25	
1,1-Dichloroethene	17.0	0.50	"	20.0	ND	85.0	60-140	0	25	
Trichloroethene	21.0	0.50	"	20.0	ND	105	60-140	0	25	
Surrogate: Dibromodifluoromethane	8.60		"	10.0		86.0	50-150			
Surrogate: 4-Bromofluorobenzene	7.70		"	10.0		77.0	50-150			

Sequoia Analytical - Walnut Creek

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Julianne Pegley, Project Manager





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Reported:  
24-Sep-99 18:35

## Notes and Definitions

- O-05 Reanalysis by an alternate column or method has confirmed the identification and/or concentration of this result.
- P-01 Chromatogram Pattern: Gasoline C6-C12
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference

Julianne Fegley, Project Manager

