

# THRIFTY OIL CO.

October 11, 2000

O.07671

ENVIRONMENTAL  
PROTECTION  
00 OCT 16 PM 4:05

Ms. Susan Hugo  
Alameda County Health Care Services  
Department of Environmental Health  
1131 Harbor Bay parkway, 2nd Floor  
Alameda, CA 94502

LOP  
R004

RE: **Thrifty Oil Co. Station #049**  
3400 San Pablo Avenue  
Oakland, CA 94612  
*3rd Quarter 2000, Status Report*

Dear Ms. Hugo:

Presented herewith is the Third Quarter 2000, Status Report for former Thrifty Oil Co. Station #049 located at 3400 San Pablo Avenue, Oakland, California.

If you have any questions or comments, please contact the undersigned in this report or myself at (562) 921-3581.

Sincerely,



Chris Panaitescu  
General Manager  
Environmental Affairs

cc: ARCO Products Company  
File



# THRIFTY OIL CO.

October 11, 2000

Ms. Susan Hugo  
Alameda County Health Care Services  
Department of Environmental Health  
1131 Harbor Bay Parkway, 2nd Floor  
Alameda, CA 94502

RE: **Former Thrifty Oil Co. Station #049**  
3400 San Pablo Avenue  
Oakland, CA 94612  
*3rd Quarter 2000, Status Report*

Dear Ms. Hugo:

Presented herein is the Third Quarter 2000, Status Report prepared for former Thrifty Oil Co. (Thrifty) Station #049 located at 3400 San Pablo Avenue, Oakland, California (**Figure 1**). Presented in this report are the results of the site monitoring and remediation efforts conducted in the Third Quarter 2000. Thrifty has retained the services of Earth Management Company (EMC) to conduct quarterly monitoring and sampling, and remediation system monitoring activities at this site.

## **Groundwater Monitoring**

Depth to groundwater is measured in each monitoring well on a quarterly basis. In general, groundwater occurs under water table conditions beneath the station at depths ranging from 3.07 feet below surface grade (bsg) in monitoring well MW-6 to 13.25 feet bsg in recovery well RW-1 (**Appendix A**). A groundwater elevation contour map based on the July 19, 2000 data is presented in **Figure 2**. The groundwater is generally flowing to the west at a gradient of approximately 0.068 feet/foot.

## **Quarterly Groundwater Sampling**

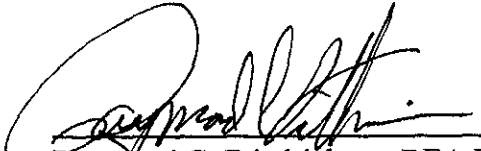
As part of the ongoing groundwater monitoring program, groundwater samples were obtained from monitoring wells MW-1 through MW-7 on July 19, 2000. Groundwater samples were obtained by EMC and delivered in a chilled state following strict Chain-of-Custody procedures to a state-certified



next quarter. All site monitoring/sampling data generated during the next quarter will be reported in the Fourth Quarter 2000 monitoring report.

Interpretations expressed herein are based upon data collected by EMC.

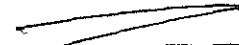
Written by:



Raymond C. Friedrichsen, REA II  
Project Manager, MBA  
Senior Hydrogeologist



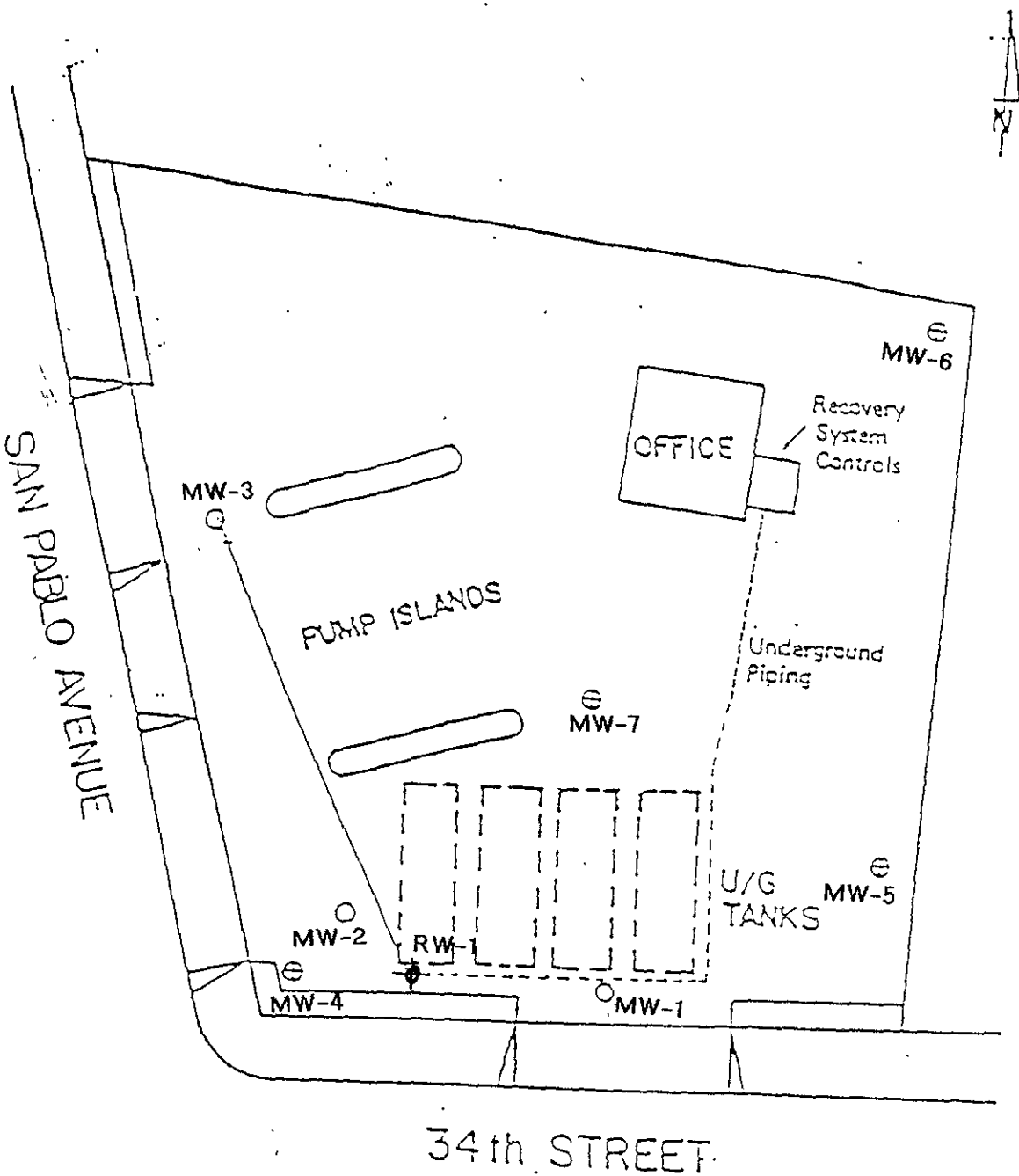
Reviewed by:



Larry Higinbotham  
Registered Geologist #5495



# FIGURES



SITE PLAN AND RECOVERY SYSTEM LOCATION  
 THRIFTY SERVICE STATION NO. 49  
 3400 SAN PABLO AVE.  
 OAKLAND, CA

LEGEND

- MW1 - GT MONITORING WELLS
- ⊕ MW-4 - WCC MONITORING WELLS
- ⊕ RW-1 - PROPOSED RECOVERY WELL

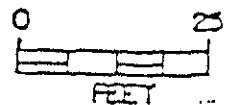
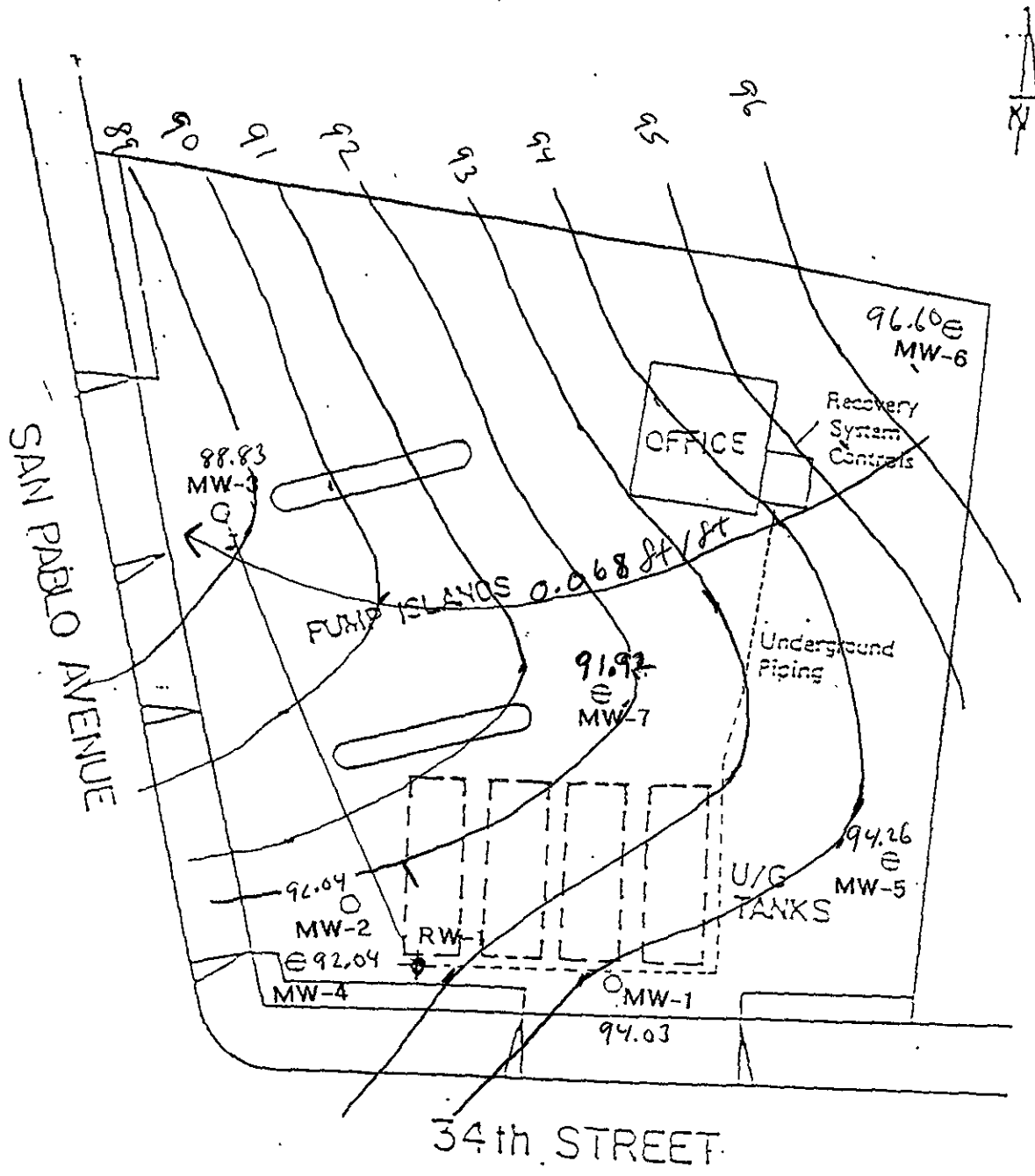


FIGURE 1

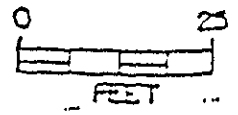


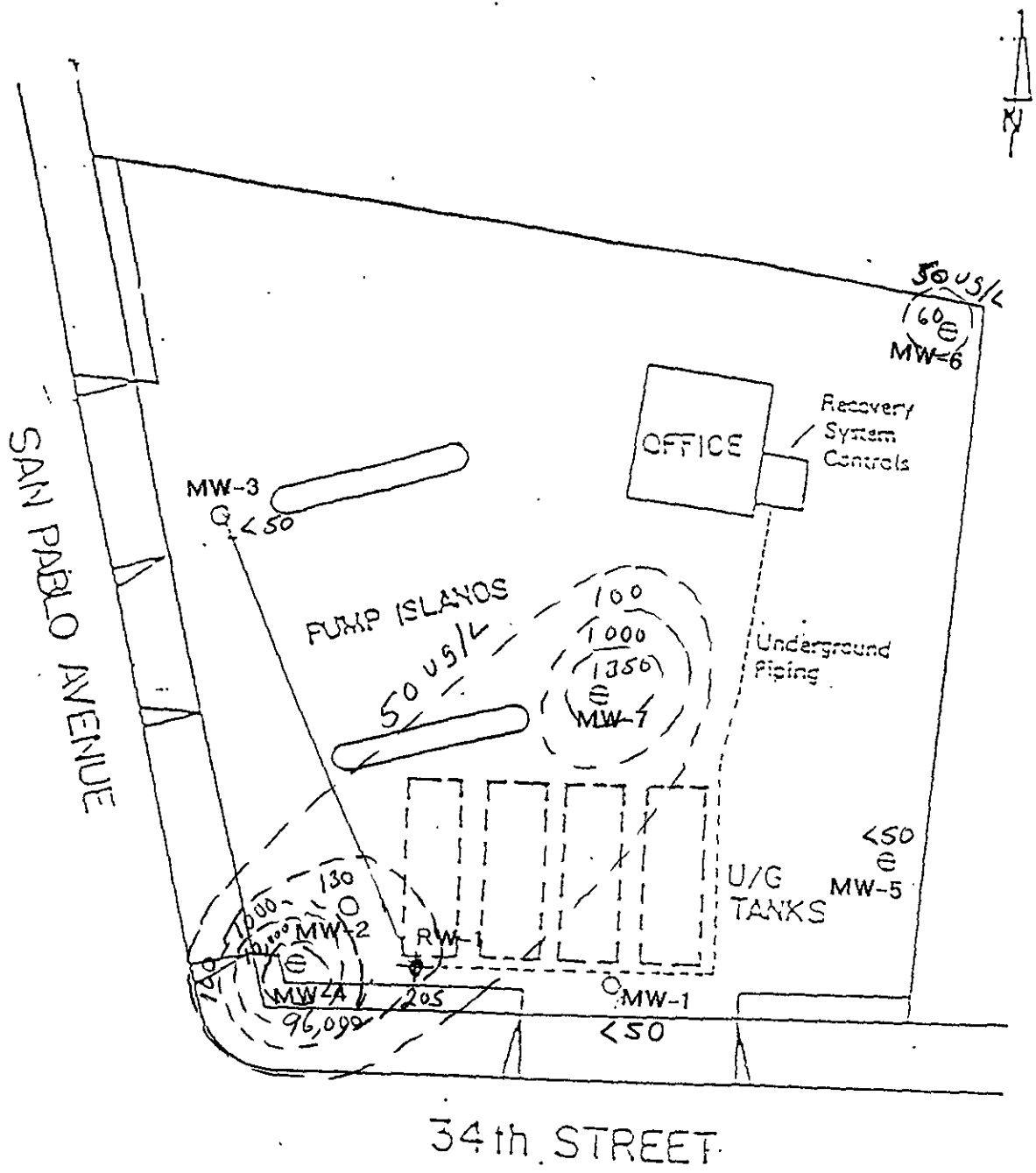
**GROUNDWATER CONTOUR MAP**  
**THRIFTY SERVICE STATION NO. 49**  
**3400 SAN PABLO AVE.**  
**OAKLAND, CA**

7/19/2000

LEGEND

- MW1 - GT MONITORING WELLS
- ⊕ MW-4 - WCC MONITORING WELLS
- ⊕ RW-1 - PROPOSED RECOVERY WELL

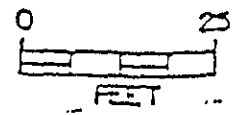


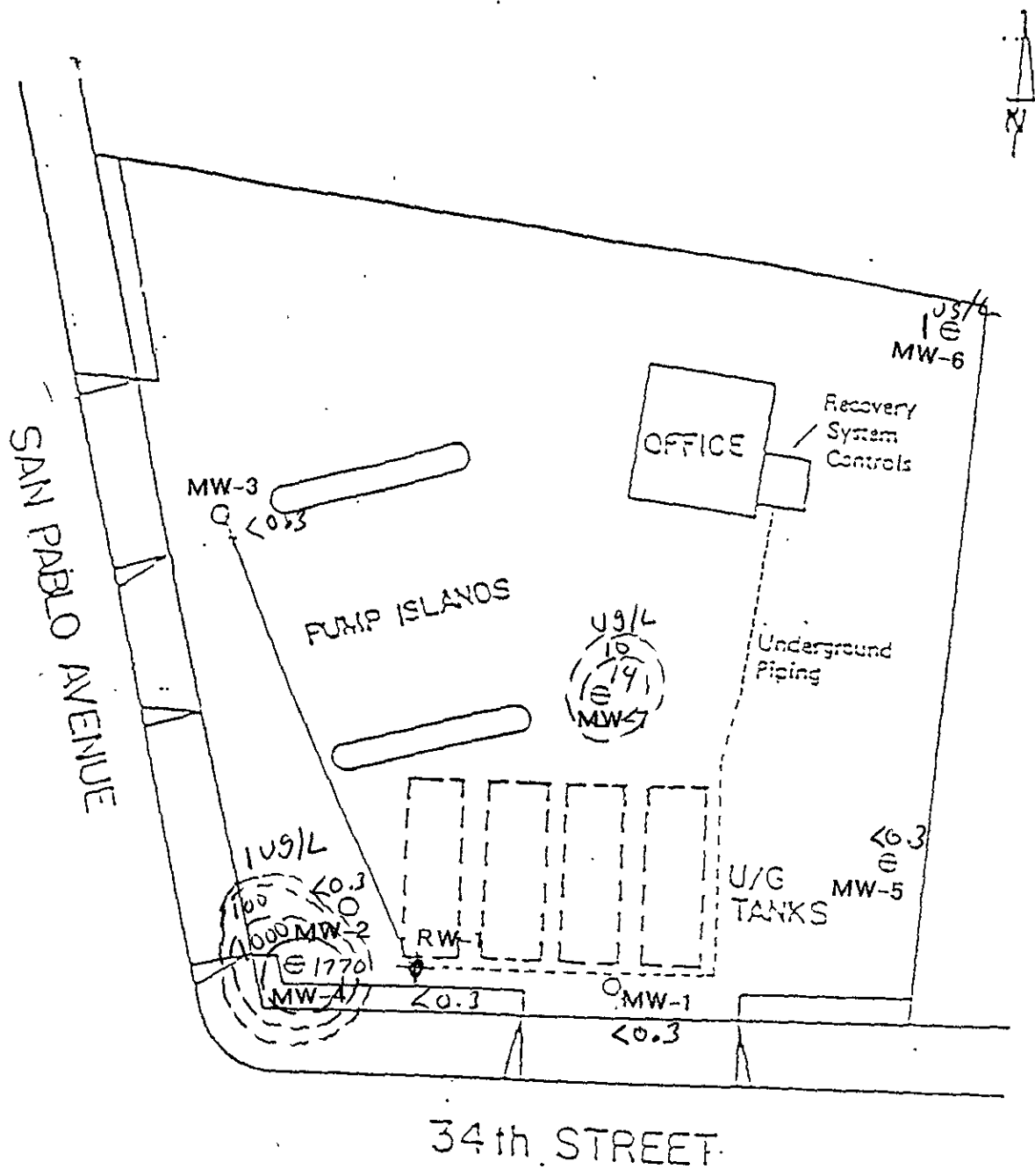


TPH ISOCONCENTRATION MAP ug/L 7/19/2000  
 THRIFTY SERVICE STATION NO. 49  
 3400 SAN PABLO AVE.  
 OAKLAND, CA

LEGEND

- MW1 - GT MONITORING WELLS
- ⊕ MW4 - WCC MONITORING WELLS
- ⊕ RW-1 - PROPOSED RECOVERY WELL





BENZENE ISOCONCENTRATION MAP ug/L 7/19/2000  
 THRIFTY SERVICE STATION NO. 49  
 3400 SAN PABLO AVE.  
 OAKLAND, CA

LEGEND

- MW1 - GT MONITORING WELLS
- ⊕ MW-4 - WCC MONITORING WELLS
- ⊕ RW-1 - PROPOSED RECOVERY WELL

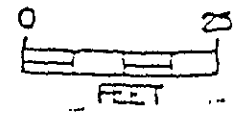
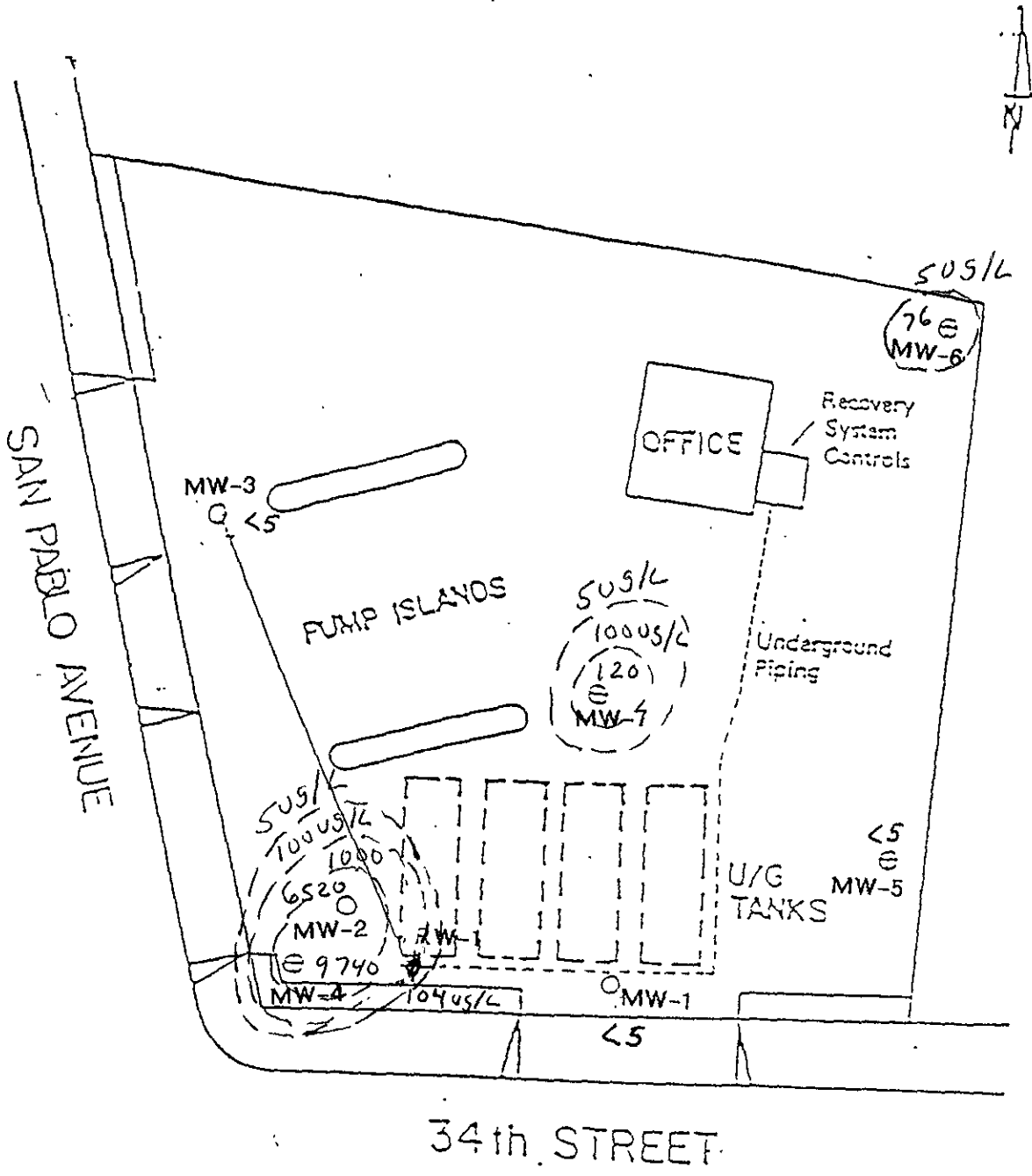


FIGURE 4





MTBE ISOCONCENTRATION MAP ug/L  
 THRIFTY SERVICE STATION NO. 49  
 3400 SAN PABLO AVE.  
 OAKLAND, CA

7/19/2000

LEGEND

- MW1 - GT MONITORING WELLS
- ⊗ MW-4 - WCC MONITORING WELLS
- ⊕ RW-1 - PROPOSED RECOVERY WELL

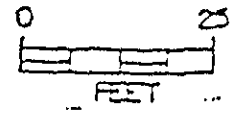


FIGURE 5

# **TABLE(S)**

**TABLE 1**  
**GROUNDWATER DATA**  
**THRIFTY OIL STATION #049, OAKLAND, CA.**

DATE SAMPLED	ANALYTICAL PARAMETERS						DEPTH TO GROUNDWATER (feet)	DEPTH TO PRODUCT (feet)	PRODUCT THICKNESS (feet)	CASING ELEVATION (feet)	GROUNDWATER ELEVATION (feet)
	TPH (ug/L)	BENZENE (ug/L)	TOLUENE (ug/L)	EthylBenzene (ug/L)	XYLENE (ug/L)	MTBE (ug/L)					
<b>MONITORING WELL #MW-1</b>											
01/09/92	-	-	-	-	-	-	5.54	NP	0.00	98.03	92.49
04/13/92	-	-	-	-	-	-	5.86	NP	0.00	98.03	92.17
10/05/92	-	-	-	-	-	-	9.39	NP	0.00	98.03	88.64
01/06/93	-	-	-	-	-	-	4.76	NP	0.00	98.03	93.27
04/26/93	-	-	-	-	-	-	4.96	NP	0.00	98.03	93.07
01/04/94	-	-	-	-	-	-	7.00	NP	0.00	98.03	91.03
04/05/94	-	-	-	-	-	-	6.44	NP	0.00	98.03	91.59
10/09/95	44,000	4,500	4,300	1,700	10,000	-	-	-	-	98.03	-
01/08/96	21,000	1,200	150	34	4,800	-	6.15	NP	0.00	98.03	91.88
04/08/96	4,700	80	110	10	910	-	5.40	NP	0.00	98.03	92.63
07/22/96	7,000	280	130	<3	2,100	440	5.50	NP	0.00	98.03	92.53
10/16/96	120	<0.3	<0.3	<0.3	<0.5	180	6.02	NP	0.00	98.03	92.01
01/22/97	160	<0.3	<0.3	<0.3	<0.5	360	4.40	NP	0.00	98.03	93.63
04/21/97	20,000	420	140	5.8	840	55,000	6.30	NP	0.00	98.03	91.73
07/14/97	13,000	<0.3	<0.3	<0.3	<0.55	30,000	5.92	NP	0.00	98.03	92.11
10/07/97	-	-	-	-	-	-	7.71	7.70	0.01	98.03	90.33
01/15/98	<50	0.3	<0.3	<0.3	<0.5	-	4.40	NP	0.00	98.03	93.63
04/23/98	540	<0.3	<0.3	<0.3	<0.5	<20	8.10	NP	0.00	98.03	89.93
07/20/98	<50	<0.3	<0.3	<0.3	<0.5	<5	5.55	NP	0.00	98.03	92.48
10/14/98	50	1.4	0.56	<0.3	11	22	7.05	NP	0.00	98.03	90.98
01/21/99	<50	0.59	<0.3	<0.3	<0.5	<5	4.10	NP	0.00	98.03	93.93
04/15/99	<50	<0.3	<0.3	<0.3	<0.5	<5	4.30	NP	0.00	98.03	93.73
07/26/99	<50	<0.3	<0.3	<0.3	<0.5	<5	5.54	NP	0.00	98.03	92.49
10/13/99	<50	<0.3	<0.3	<0.3	<0.5	<5	6.13	NP	0.00	98.03	91.90
01/20/00	<50	<0.3	<0.3	<0.3	<0.5	<5	6.04	NP	0.00	98.03	91.99
04/05/00	<50	<0.25	<0.25	<0.25	<0.5	<5	4.03	NP	0.00	98.03	94.00
07/19/00	<50	<0.3	<0.3	<0.3	<0.6	<5	4.00	NP	0.00	98.03	94.03
<b>MONITORING WELL #MW-2</b>											
01/09/92	-	-	-	-	-	-	5.35	NP	0.00	97.44	92.09
04/13/92	-	-	-	-	-	-	7.42	NP	0.00	97.44	90.02
10/05/92	-	-	-	-	-	-	12.15	NP	0.00	97.44	85.29
01/06/93	-	-	-	-	-	-	5.46	NP	0.00	97.44	91.98
04/26/93	-	-	-	-	-	-	5.15	NP	0.00	97.44	92.29

**TABLE 1  
GROUNDWATER DATA  
THRIFTY OIL STATION #049, OAKLAND, CA.**

DATE SAMPLED	ANALYTICAL PARAMETERS						DEPTH TO GROUNDWATER (feet)	DEPTH TO PRODUCT (feet)	PRODUCT THICKNESS (feet)	CASING ELEVATION (feet)	GROUNDWATER ELEVATION (feet)
	TPH (ug/L)	BENZENE (ug/L)	TOLUENE (ug/L)	EthylBenzene (ug/L)	XYLENE (ug/L)	MTBE (ug/L)					
01/04/94	-	-	-	-	-	-	9.45	NP	0.00	97.44	87.99
04/05/94	-	-	-	-	-	-	8.23	NP	0.00	97.44	89.21
10/09/95	33,000	6,000	390	1,700	4,900	-	-	-	-	97.44	-
01/08/96	<50	0.32	<0.3	0.41	2.1	-	5.60	NP	0.00	97.44	91.84
04/08/96	10,000	490	210	210	830	-	5.43	NP	0.00	97.44	92.01
07/22/96	60,000	6,500	1,000	1,500	10,000	8,500	5.65	NP	0.00	97.44	91.79
10/16/96	6,500	12	0.34	0.72	110	4,700	5.82	NP	0.00	97.44	91.62
01/22/97	3,200	<0.3	0.46	0.37	<0.5	8,000	4.30	NP	0.00	97.44	93.14
04/21/97	66,000	5,300	1,000	2,300	14,000	30,000	5.80	NP	0.00	97.44	91.64
07/14/97	17,000	1.8	4.6	4.6	350	24,000	8.92	NP	0.00	97.44	88.52
10/07/97	220,000	5,200	1,700	3,800	15,000	-	6.80	NP	0.00	97.44	90.64
01/19/98	25,000	5.4	2.2	2.1	240	-	8.50	NP	0.00	97.44	88.94
04/23/98	7,700	<0.3	0.55	0.38	4.9	28,000	7.60	NP	0.00	97.44	89.84
07/20/98	430,000	4,200	10,000	5,400	28,000	77,000	6.94	NP	0.00	97.44	90.50
10/14/98	27,000	<0.3	4.5	4.1	4.6	65,000	8.45	NP	0.00	97.44	88.99
01/21/99	16,000	7.6	9.8	4.2	310	* 49,000 / 42,000	6.95	NP	0.00	97.44	90.49
04/15/99	20,000	<0.3	<0.3	<0.3	<0.5	* 31,000 / 30,000	8.45	NP	0.00	97.44	88.99
07/26/99	6,700	<6	<6	<6	<10	*11,000 / 15,000	6.94	NP	0.00	97.44	90.50
10/13/99	7,600	<3	3.7	<3	11	11,000	5.48	NP	0.00	97.44	91.96
01/20/00	7,500	<6	<6	<6	<10	*14,000 / 16,000	5.84	NP	0.00	97.44	91.60
04/05/00	10,400	<0.25	<0.25	<0.25	<0.5	*10,000 / 14,400	5.41	NP	0.00	97.44	92.03
07/19/00	130	<0.3	<0.3	<0.3	<0.6	*9,620 / 6,520	5.40	NP	0.00	97.44	92.04
<b>MONITORING WELL #MW-3</b>											
01/09/92	-	-	-	-	-	-	17.60	NP	0.00	97.69	80.09
04/13/92	-	-	-	-	-	-	17.40	NP	0.00	97.69	80.29
10/05/92	-	-	-	-	-	-	17.35	NP	0.00	97.69	80.34
01/06/93	-	-	-	-	-	-	17.40	NP	0.00	97.69	80.29
04/26/93	-	-	-	-	-	-	17.90	NP	0.00	97.69	79.79
01/04/94	-	-	-	-	-	-	17.60	NP	0.00	97.69	80.09
04/05/94	-	-	-	-	-	-	16.25	NP	0.00	97.69	81.44
01/08/96	-	-	-	-	-	-	7.11	NP	0.00	97.69	90.58
04/08/96	8,800	610	31	530	900	-	7.20	NP	0.00	97.69	90.49
07/22/96	38,000	4,100	1,500	1,600	5,400	2,600	6.82	NP	0.00	97.69	90.87
10/16/96	2,400	<0.3	<0.3	<0.3	<0.5	3,800	6.84	NP	0.00	97.69	90.85

**TABLE 1**  
**GROUNDWATER DATA**  
**THRIFTY OIL STATION #049, OAKLAND, CA.**

DATE SAMPLED	ANALYTICAL PARAMETERS						DEPTH TO GROUNDWATER (feet)	DEPTH TO PRODUCT (feet)	PRODUCT THICKNESS (feet)	CASING ELEVATION (feet)	GROUNDWATER ELEVATION (feet)
	TPH (ug/L)	BENZENE (ug/L)	TOLUENE (ug/L)	EthylBenzene (ug/L)	XYLENE (ug/L)	MIBE (ug/L)					
01/22/97	2,200	<0.3	<0.3	<0.3	<0.5	5,500	4.80	NP	0.00	97.69	92.89
04/21/97	15,000	1,500	36	260	710	11,000	9.40	NP	0.00	97.69	88.29
07/14/97	5,400	0.45	<0.3	<0.3	<0.5	14,000	10.92	NP	0.00	97.69	86.77
10/07/97	8,800	0.39	<0.3	<0.3	0.88	-	11.95	NP	0.00	97.69	85.74
01/19/98	22,000	1,300	15	20	310	-	7.85	NP	0.00	97.69	89.84
04/23/98	9,200	3.9	3.1	5.7	9.8	16,000	11.20	NP	0.00	97.69	86.49
07/20/98	750	0.41	1.4	0.47	1.8	2,800	7.36	NP	0.00	97.69	90.33
10/14/98	750	<0.3	<0.3	<0.3	<0.5	15,000	11.95	NP	0.00	97.69	85.74
01/21/99	4,700	0.32	<0.3	<0.3	<0.5	* 12,000 / 16,000	10.45	NP	0.00	97.69	87.24
04/15/99	7,900	0.59	0.69	<0.3	0.94	* 11,000 / 14,000	7.86	NP	0.00	97.69	89.83
07/26/99	5,200	<3	<3	<3	<5	*9,600 / 11,000	10.40	NP	0.00	97.69	87.29
10/13/99	<50	<0.3	<0.3	<0.3	<0.5	<5	7.09	NP	0.00	97.69	90.60
01/20/00	<50	<0.3	<0.3	<0.3	<0.5	<5	6.86	NP	0.00	97.69	90.83
04/05/00	<50	0.8	<0.25	<0.25	<0.5	*5.6 / <5	8.85	NP	0.00	97.69	88.84
07/19/00	<50	<0.3	<0.3	<0.3	<0.6	<5	8.86	NP	0.00	97.69	88.83
<b>MONITORING WELL #MW-4</b>											
01/09/92	-	-	-	-	-	-	5.25	NP	0.00	97.33	92.08
04/13/92	-	-	-	-	-	-	6.40	NP	0.00	97.33	90.93
10/05/92	-	-	-	-	-	-	9.95	NP	0.00	97.33	87.38
01/06/93	-	-	-	-	-	-	4.10	NP	0.00	97.33	93.23
04/26/93	-	-	-	-	-	-	4.84	NP	0.00	97.33	92.49
01/04/94	-	-	-	-	-	-	9.05	NP	0.00	97.33	88.28
04/05/94	-	-	-	-	-	-	8.10	NP	0.00	97.33	89.23
10/09/95	63,000	9,000	2,100	2,500	9,600	-	-	-	-	97.33	-
01/08/96	23,000	2,200	830	880	3,600	-	5.57	NP	0.00	97.33	91.76
04/08/96	56,000	5,000	2,500	2,600	11,000	-	5.36	NP	0.00	97.33	91.97
07/22/96	33,000	3,700	1,600	1,400	6,000	2,400	4.80	NP	0.00	97.33	92.53
10/16/96	2,800	7.8	0.60	0.41	52	2,000	5.47	NP	0.00	97.33	91.86
01/22/97	1,400	<0.3	<0.3	<0.3	<0.5	3,100	5.15	NP	0.00	97.33	92.18
04/21/97	-	-	-	-	-	-	6.36	5.30	1.06	97.33	91.77
07/14/97	-	-	-	-	-	-	5.24	5.21	0.03	97.33	92.11
10/07/97	-	-	-	-	-	-	7.82	7.80	0.02	97.33	89.53
01/15/98	-	-	-	-	-	-	6.68	6.60	0.08	97.33	90.71
04/23/98	-	-	-	-	-	-	6.36	5.30	1.06	97.33	91.77

**TABLE 1**  
**GROUNDWATER DATA**  
**THRIFTY OIL STATION #049, OAKLAND, CA.**

DATE SAMPLED	ANALYTICAL PARAMETERS						DEPTH TO GROUNDWATER (feet)	DEPTH TO PRODUCT (feet)	PRODUCT THICKNESS (feet)	CASING ELEVATION (feet)	GROUNDWATER ELEVATION (feet)
	TPH (ug/L)	BENZENE (ug/L)	TOLUENE (ug/L)	EthylBenzene (ug/L)	XYLENE (ug/L)	MTBE (ug/L)					
07/20/98	<50	<0.3	<0.3	<0.3	<0.5	<5	6.05	NP	0.00	97.33	91.28
10/14/98	3,100	86	23	2.0	520	1,100	6.85	NP	0.00	97.33	90.48
01/21/99	9,100	3.2	5.6	1.8	130	* 24,000 / 17,000	6.10	NP	0.00	97.33	91.23
04/15/99	14,000	<0.3	0.71	<0.3	<0.5	* 20,000 / 22,000	6.05	NP	0.00	97.33	91.28
07/26/99	4,500	<6	<6	<6	<10	*8,700 / 9,800	6.07	NP	0.00	97.33	91.26
10/13/99	410	<0.3	0.63	<0.3	<0.5	660	5.54	NP	0.00	97.33	91.79
01/20/00	770	<0.3	<0.3	<0.3	<0.5	*2,400 / 1,900	5.49	NP	0.00	97.33	91.84
04/05/00	61,200	0.9	<0.25	<0.25	<0.5	*18,500 / 21,900	5.30	NP	0.00	97.33	92.03
07/19/00	96,600	1,770	1,760	2,690	8,730	21,900 / 9,740 J	5.29	NP	0.00	97.33	92.04
<b>MONITORING WELL #MW-5</b>											
01/09/92	-	-	-	-	-	-	5.32	NP	0.00	98.85	93.53
04/13/92	-	-	-	-	-	-	4.82	NP	0.00	98.85	94.03
10/0/92	-	-	-	-	-	-	8.78	NP	0.00	98.85	90.07
01/06/93	-	-	-	-	-	-	3.46	NP	0.00	98.85	95.39
04/26/93	-	-	-	-	-	-	4.66	NP	0.00	98.85	94.19
01/04/94	-	-	-	-	-	-	6.36	NP	0.00	98.85	92.49
04/05/94	-	-	-	-	-	-	5.94	NP	0.00	98.85	92.91
07/12/95	<100	<0.5	<0.5	<0.5	<1	-	-	-	-	98.85	-
10/09/95	440	31	11	19	84	-	-	-	-	98.85	-
01/08/96	<50	<0.3	<0.3	<0.3	<0.5	-	6.63	NP	0.00	98.85	92.22
04/08/96	<50	<0.3	<0.3	<0.3	<0.5	-	5.22	NP	0.00	98.85	93.63
07/22/96	<50	<0.3	<0.3	<0.3	<0.5	<20	6.62	NP	0.00	98.85	92.23
10/16/96	<50	<0.3	<0.3	<0.3	<0.5	<20	6.12	NP	0.00	98.85	92.73
01/22/97	<50	<0.3	<0.3	<0.3	<0.5	<20	5.17	NP	0.00	98.85	93.68
04/21/97	73	2.5	0.34	0.74	3.8	21	6.64	NP	0.00	98.85	92.21
07/14/97	<50	<0.3	<0.3	<0.3	<0.5	<20	6.67	NP	0.00	98.85	92.18
10/07/97	130	<0.3	<0.3	<0.3	<0.5	-	8.20	NP	0.00	98.85	90.65
01/19/98	85	<0.3	<0.3	<0.3	<0.5	-	1.55	NP	0.00	98.85	97.30
04/23/98	220	0.39	<0.3	<0.3	<0.5	350	8.10	NP	0.00	98.85	90.75
07/20/98	<50	<0.3	<0.3	<0.3	<0.5	<5	6.30	NP	0.00	98.85	92.55
10/14/98	<50	<0.3	<0.3	<0.3	<0.5	<5	7.65	NP	0.00	98.85	91.20
01/21/99	<50	<0.3	<0.3	<0.3	<0.5	*6.7 / <5	6.15	NP	0.00	98.85	92.70
04/15/99	<50	<0.3	<0.3	<0.3	<0.5	<5	1.60	NP	0.00	98.85	97.25
07/26/99	<50	<0.3	<0.3	<0.3	<0.5	<5	6.13	NP	0.00	98.85	92.72

**TABLE 1  
GROUNDWATER DATA  
THRIFTY OIL STATION #049, OAKLAND, CA.**

DATE SAMPLED	ANALYTICAL PARAMETERS						DEPTH TO GROUNDWATER (feet)	DEPTH TO PRODUCT (feet)	PRODUCT THICKNESS (feet)	CASING ELEVATION (feet)	GROUNDWATER ELEVATION (feet)
	TPH (ug/L)	BENZENE (ug/L)	TOLUENE (ug/L)	EthylBenzene (ug/L)	XYLENE (ug/L)	MTBE (ug/L)					
10/13/99	<50	<0.3	<0.3	<0.3	<0.5	<5	6.61	NP	0.00	98.85	92.24
01/20/00	<50	<0.3	<0.3	<0.3	<0.5	<5	6.14	NP	0.00	98.85	92.71
04/05/00	<50	0.5	<0.25	<0.25	<0.5	*5.4 / <5	4.58	NP	0.00	98.85	94.27
07/19/00	<50	<0.3	<0.3	<0.3	<0.6	<5	4.59	NP	0.00	98.85	94.26
<b>MONITORING WELL #MW-6</b>											
01/09/92	-	-	-	-	-	-	6.30	NP	0.00	99.67	93.37
04/13/92	-	-	-	-	-	-	5.47	NP	0.00	99.67	94.20
10/05/92	-	-	-	-	-	-	9.85	NP	0.00	99.67	89.82
01/06/93	-	-	-	-	-	-	4.16	NP	0.00	99.67	95.51
04/26/93	-	-	-	-	-	-	5.75	NP	0.00	99.67	93.92
01/14/94	-	-	-	-	-	-	7.20	NP	0.00	99.67	92.47
04/05/94	-	-	-	-	-	-	6.76	NP	0.00	99.67	92.91
07/10/95	<100	<0.5	0.9	<0.5	1.1	-	-	-	-	99.67	-
10/09/95	250	4.8	5.6	11	58	-	-	-	-	99.67	-
01/08/96	<50	<0.3	<0.3	<0.3	<0.5	-	6.16	NP	0.00	99.67	93.51
04/08/96	230	4.6	4.7	3.2	33	-	4.60	NP	0.00	99.67	95.07
07/22/96	<50	<0.3	<0.3	<0.3	<0.5	<20	7.30	NP	0.00	99.67	92.37
10/16/96	<50	<0.3	<0.3	<0.3	<0.5	<20	5.82	NP	0.00	99.67	93.85
01/22/97	<50	<0.3	<0.3	<0.3	<0.5	<20	4.40	NP	0.00	99.67	95.27
04/21/97	130	<0.3	<0.3	<0.3	<0.5	<20	7.10	NP	0.00	99.67	92.57
07/14/97	<50	<0.3	<0.3	<0.3	0.70	<20	7.35	NP	0.00	99.67	92.32
10/07/97	<50	0.78	0.3	<0.3	<0.5	-	6.98	NP	0.00	99.67	92.69
01/23/98	<50	<0.3	<0.3	<0.3	<0.5	-	2.35	NP	0.00	99.67	97.32
04/23/98	<50	<0.3	<0.3	<0.3	<0.5	<20	6.90	NP	0.00	99.67	92.77
07/20/98	<50	<0.3	1.1	<0.3	1.4	<5	5.45	NP	0.00	99.67	94.22
10/14/98	<50	<0.3	<0.3	<0.3	<0.5	<5	4.95	NP	0.00	99.67	94.72
01/21/99	<50	0.35	0.62	<0.3	<0.5	<5	3.90	NP	0.00	99.67	95.77
04/15/99	<50	<0.3	<0.3	<0.3	<0.5	<5	2.35	NP	0.00	99.67	97.52
07/26/99	1,000	<0.3	<0.3	<0.3	<0.5	*2,300 / 3,900	3.93	NP	0.00	99.67	95.74
10/13/99	<50	<0.3	<0.3	<0.3	<0.5	<5	6.15	NP	0.00	99.67	93.52
01/20/00	<50	<0.3	<0.3	<0.3	<0.5	*42 / 41	5.84	NP	0.00	99.67	93.83
04/05/00	4,600	338	2.8	1.2	55.2	*282 / 230	3.89	NP	0.00	99.67	95.78
07/19/00	60	1	2	<0.3	<0.6	*87 / 76	3.07	NP	0.00	99.67	96.60

**TABLE 1  
GROUNDWATER DATA  
THRIFTY OIL STATION #049, OAKLAND, CA.**

DATE SAMPLED	ANALYTICAL PARAMETERS						DEPTH TO GROUNDWATER (feet)	DEPTH TO PRODUCT (feet)	PRODUCT THICKNESS (feet)	CASING ELEVATION (feet)	GROUNDWATER ELEVATION (feet)
	TPH (ug/L)	BENZENE (ug/L)	TOLUENE (ug/L)	EthylBenzene (ug/L)	XYLENE (ug/L)	MTBE (ug/L)					
<b>MONITORING WELL #MW-7</b>											
01/09/92	-	-	-	-	-	-	6.30	NP	0.00	99.02	92.72
04/13/92	-	-	-	-	-	-	6.68	NP	0.00	99.02	92.34
10/05/92	-	-	-	-	-	-	9.60	NP	0.00	99.02	89.42
01/06/93	-	-	-	-	-	-	13.90	NP	0.00	99.02	85.12
04/26/93	-	-	-	-	-	-	5.55	NP	0.00	99.02	93.47
01/04/94	-	-	-	-	-	-	7.58	NP	0.00	99.02	91.44
04/05/94	-	-	-	-	-	-	6.66	NP	0.00	99.02	92.36
10/09/95	27,000	2,400	140	1,700	2,700	-	-	-	-	99.02	-
01/08/96	13,000	800	42	540	860	-	6.94	NP	0.00	99.02	92.08
04/08/94	9,100	840	31	690	1,200	-	5.48	NP	0.00	99.02	93.54
07/22/96	11,000	1,700	22	660	700	840	6.60	NP	0.00	99.02	92.42
10/16/96	180	<0.3	<0.3	<0.3	<0.5	270	6.42	NP	0.00	99.02	92.60
01/22/97	130	<0.3	<0.3	<0.3	<0.5	470	5.70	NP	0.00	99.02	93.32
04/21/97	10,000	1,400	27	820	490	1,100	5.30	NP	0.00	99.02	93.72
07/14/97	8,200	660	15	230	270	560	7.90	NP	0.00	99.02	91.12
10/07/97	7,700	480	15	8.4	350	-	7.70	NP	0.00	99.02	91.32
01/19/98	1,400	20	0.74	0.46	4.4	-	6.05	NP	0.00	99.02	92.97
04/23/98	590	<0.3	<0.3	<0.3	<0.5	1,700	7.60	NP	0.00	99.02	91.42
07/20/98	4,900	570	150	300	500	1,500	5.30	NP	0.00	99.02	93.72
10/14/98	1,100	1.0	<0.3	<0.3	5.3	2,000	8.60	NP	0.00	99.02	90.42
01/21/99	570	0.32	<0.3	<0.3	<0.5	* 1,500 / 1,700	6.70	NP	0.00	99.02	92.32
04/15/99	770	<0.3	<0.3	<0.3	<0.5	* 1,400 / 1,200	6.07	NP	0.00	99.02	92.95
07/26/99	500	<0.3	<0.3	<0.3	<0.5	*710 / 950	7.86	NP	0.00	99.02	91.16
10/13/99	<50	<0.3	0.44	<0.3	0.62	<5	6.93	NP	0.00	99.02	92.09
01/20/00	<50	<0.3	<0.3	<0.3	<0.5	*5 / <5	6.44	NP	0.00	99.02	92.58
04/05/00	5,670	415	19	1.7	60.1	*329 / 194	7.86	NP	0.00	99.02	91.16
07/19/00	1,350	14	<3	<3	10	*237 / 120	7.10	NP	0.00	99.02	91.92
<b>MONITORING WELL #RW-1</b>											
01/09/92	-	-	-	-	-	-	14.00	NP	0.00	-	-
04/13/92	-	-	-	-	-	-	14.00	NP	0.00	-	-
10/05/92	-	-	-	-	-	-	15.05	NP	0.00	-	-
01/06/93	-	-	-	-	-	-	5.43	NP	0.00	-	-
04/26/93	-	-	-	-	-	-	13.20	NP	0.00	-	-



**TABLE 1  
GROUNDWATER DATA  
THRIFTY OIL STATION #049, OAKLAND, CA.**

DATE SAMPLED	ANALYTICAL PARAMETERS						DEPTH TO GROUNDWATER (feet)	DEPTH TO PRODUCT (feet)	PRODUCT THICKNESS (feet)	CASING ELEVATION (feet)	GROUNDWATER ELEVATION (feet)
	TPH (ug/L)	BENZENE (ug/L)	TOLUENE (ug/L)	EthylBenzene (ug/L)	XYLENE (ug/L)	MTBE (ug/L)					
01/04/94	-	-	-	-	-	-	14.30	NP	0.00	-	-
04/05/94	-	-	-	-	-	-	14.13	NP	0.00	-	-
01/08/96	-	-	-	-	-	-	14.22	NP	0.00	-	-
04/08/96	-	-	-	-	-	-	14.33	NP	0.00	-	-
07/22/96	8,100	530	84	120	860	-	14.27	NP	0.00	-	-
10/16/96	-	-	-	-	-	-	13.10	NP	0.00	-	-
01/22/97	-	-	-	-	-	-	16.97	NP	0.00	-	-
10/07/97	-	-	-	-	-	-	14.20	NP	0.00	-	-
01/15/98	-	-	-	-	-	-	15.60	NP	0.00	-	-
04/23/98	81,000	0.72	1.4	3.2	5.7	270,000	14.20	NP	0.00	-	-
07/20/98	-	-	-	-	-	-	14.30	NP	0.00	-	-
10/14/98	-	-	-	-	-	-	11.20	NP	0.00	-	-
01/21/99	-	-	-	-	-	-	-	-	-	-	-
04/15/99	-	-	-	-	-	-	13.10	NP	0.00	-	-
07/26/99	4,400	<3	<3	<3	<5	*6,800 / 9,000	13.83	NP	0.00	-	-
10/13/99	-	-	-	-	-	-	-	-	-	-	-
01/20/00	-	-	-	-	-	-	13.22	NP	0.00	-	-
04/05/00	-	-	-	-	-	-	-	-	-	-	-
07/19/00	-	-	-	-	-	-	13.25	NP	0.00	-	-

**NOTE:** \* MTBE 8020 / 8260  
 ND = Nondetectable  
 NP = No free hydrocarbon product  
 " - " = Not analyzed / Not available

Benzene, toluene, ethylbenzene, and xylene analyzed by EPA method 8020.  
 Total petroleum hydrocarbons (TPH) analyzed by EPA method 8015 modified for gasoline  
 Methyl-tert Butyl Ether (MTBE) analyzed by EPA method 8020 or 8260

**TABLE 2**  
**GROUNDWATER REMEDIATION SYSTEM MONITORING PROGRAM**  
 Thrifty Oil Co. Station No 049, OAKLAND, CA

Date	Totalizer (gallons)	Total/Cum. Discharge (gallons)	Flow (gal/day)	EFFLUENT (ug/L)						INFLUENT (ug/L)					
				TPH-g	B	T	E	X	MTBE	TPH-g	B	T	E	X	MTBE
4/8/91	1,310	0	-	-	<0.3	<0.3	<0.3	<0.9	-	-	910	2000	160	2000	-
4/15/91	1,434	124	18	-	<0.3	<0.3	<0.3	<0.3	-	-	2800	4600	310	5000	-
4/22/91	1,510	200	11	-	<15	<15	<15	<45	-	-	3100	3300	<15	2800	-
4/29/91	1,660	350	21	-	<0.3	<0.3	<0.3	<0.9	-	-	3600	4500	300	5000	-
5/6/91	1,740	430	11	-	<0.3	<0.3	<0.3	<0.9	-	-	3600	3500	300	3800	-
5/13/91	1,880	570	20	-	<0.3	<0.3	<0.3	<0.9	-	-	3300	3200	230	3900	-
5/20/91	2,010	700	19	-	<0.3	<0.3	<0.3	<0.9	-	-	3300	3400	260	5100	-
5/28/91	2,050	740	5	-	<0.3	<0.3	<0.3	<0.9	-	-	2900	3000	230	4200	-
6/3/91	2,110	800	10	-	<0.3	<0.3	<0.3	<0.9	-	-	2500	2100	110	2800	-
6/10/91	2,160	850	7	-	<0.3	<0.3	<0.3	<0.9	-	-	1800	1700	120	2100	-
6/17/91	2,219	909	8	-	<0.3	<0.3	<0.3	<0.9	-	-	2100	1900	170	2700	-
6/24/91	2,263	953	6	-	<0.3	<0.3	<0.3	<0.9	-	-	2100	1800	150	2700	-
07/01/91	2,313	1,003	7	-	<0.5	<0.5	<1	<1	-	-	2,700	2,000	150	2,900	-
07/08/91	2,700	1,390	55	-	<0.5	<0.5	<1	<1	-	-	4,000	2,500	130	4,400	-
07/15/91	2,872	1,562	25	-	<0.5	<0.5	<1	<1	-	-	3,100	1,900	140	3,200	-
07/22/91	3,144	1,834	39	-	<0.5	<0.5	<1	<1	-	-	3,400	2,100	110	2,800	-
07/29/91	3,220	1,910	11	-	<0.5	<0.5	<1	<1	-	-	5,100	2,200	180	2,700	-
08/05/91	3,348	2,038	18	-	<0.5	<0.5	<1	<1	-	-	5,100	3,900	400	4,200	-
08/12/91	3,472	2,162	18	-	<0.5	<0.5	<1	<1	-	-	11,000	6,200	440	8,400	-
08/19/91	3,548	2,238	11	-	<0.5	<0.5	<1	<1	-	-	4,500	2,400	130	2,600	-
08/26/91	3,655	2,345	15	-	<0.5	<0.5	<1	<1	-	-	4,400	2,500	260	3,600	-
09/09/91	3,822	2,512	12	-	<0.5	<0.5	<1	<1	-	-	5,200	3,000	390	3,700	-
09/16/91	3,884	2,574	9	-	<0.5	<0.5	<1	<1	-	-	4,100	2,000	460	4,900	-
09/23/91	4,013	2,703	18	-	<0.5	<0.5	<1	<1	-	-	4,600	1,600	710	6,400	-
09/30/91	4,092	2,782	11	-	<0.5	<0.5	<1	<1	-	-	5,700	2,000	380	6,200	-
10/07/91	4,131	2,821	6	System shut down											
10/14/91	4,195	2,885	9	-	<0.5	<0.5	<1	<1	-	-	4,400	2,000	370	8,100	-
10/21/91	4,406	3,096	30	-	<0.5	<0.5	<1	<1	-	-	2,300	1,100	190	4,200	-
10/28/91	4,474	3,164	10	-	<0.5	<0.5	<1	<1	-	-	6,400	4,100	620	6,100	-
11/03/91	4,613	3,303	23	-	<0.5	<0.5	<1	<1	-	-	6,100	2,800	200	5,600	-
11/11/91	4,700	3,390	11	-	<0.5	<0.5	<1	<1	-	-	6,500	2,300	<30	4,900	-
11/18/91	4,887	3,577	27	-	<0.5	<0.5	<1	<1	-	-	5,600	2,500	300	4,600	-
11/25/91	5,042	3,732	22	-	<0.5	<0.5	<1	<1	-	-	5,400	2,800	230	5,700	-
12/03/91	5,263	3,953	28	-	<0.5	<0.5	<1	<1	-	-	7,200	3,300	490	5,500	-
12/09/91	5,362	4,052	17	-	<0.5	<0.5	<1	<1	-	-	4,400	1,700	140	3,900	-
12/16/91	5,486	4,176	18	-	<0.5	<0.5	<0.5	<0.5	-	-	4,700	2,300	310	4,600	-
12/23/91	5,516	4,206	4	-	<0.5	<0.5	<0.5	<0.5	-	-	4,000	2,200	290	5,900	-
12/30/91	5,575	4,265	8	-	<0.5	<0.5	<0.5	<0.5	-	-	5,200	2,500	350	5,800	-

**TABLE 2**  
**GROUNDWATER REMEDIATION SYSTEM MONITORING PROGRAM**  
 Thrifty Oil Co. Station No 049, OAKLAND, CA

Date	Totalizer (gallons)	Total/Cum. Discharge (gallons)	Flow (gal/day)	EFFLUENT (ug/L)						INFLUENT (ug/L)					
				TPH-g	B	T	E	X	MTBE	TPH-g	B	T	E	X	MTBE
01/15/92	5,720	4,410	9	-	<0.5	<0.5	<0.5	<0.5	-	-	3,400	1,900	300	6,300	-
02/10/92	6,264	4,954	21	-	<0.5	<0.5	<0.5	<0.5	-	-	5,800	2,800	320	7,200	-
03/09/92	8,520	7,210	81	<200	<0.5	1.6	<0.5	<0.5	-	47,000	7,100	4,800	630	10,300	-
04/13/92	22,888	21,578	411	<200	<0.5	<0.5	<0.5	<0.5	-	29,000	4,500	2,200	160	4,800	-
05/11/92	24,920	23,610	73	<200	<0.5	<0.5	<0.5	<0.5	-	22,000	4,300	1,500	130	3,800	-
06/01/92	28,330	27,020	162	<200	<0.5	<0.5	<0.5	<0.5	-	18,000	3,400	1,500	660	4,200	-
07/13/92	72,675	-	-	-	<0.5	<0.5	<0.5	<0.5	-	-	1,800	750	150	5,600	-
07/13/92	72,675	-	-	The system pumped air and flowmeter jumped from 30,000 gallons to 70,000 gallons											
08/17/92	75,046	29,391	68	-	<0.5	<0.5	<0.5	<0.5	-	-	1,100	350	200	1,100	-
09/14/92	75,582	29,927	19	-	<0.5	<0.5	<0.5	<1	-	-	2,100	520	<25	3,500	-
10/05/92	75,680	30,025	5	<200	<0.5	<0.5	<0.5	<1	-	19,000	1,700	270	<25	4,000	-
11/09/92	77,280	31,625	46	-	<0.5	<0.5	<0.5	<0.5	-	-	4,000	1,400	120	5,900	-
12/14/92	79,420	33,765	61	-	<0.5	<0.5	<0.5	<1	-	-	7,300	4,900	1,800	16,000	-
01/04/93	84,720	39,065	252	-	<0.5	<0.5	<0.5	<1	-	-	5,400	2,100	450	7,800	-
02/15/93	102,689	57,034	428	<200	<0.5	<0.5	<0.5	<1	-	41,000	6,600	3,200	260	9,600	-
02/22/93	146,430	-	-	The system pumped air and flowmeter jumped from 102,689 gallons to 146,430 gallons											
03/08/93	147,500	58,104	76	-	<0.5	<0.5	<0.5	<1	-	-	7,400	3,400	56	11,000	-
04/26/93	151,200	61,804	76	<100	<0.5	<0.5	<0.5	<1	-	36,000	4,300	2,200	420	8,300	-
04/26/93	151,200	61,804	-	Shut down system for repair											
07/21/93	151,240	61,844	0	Restart the system											
08/11/93	151,650	62,254	20	-	<0.5	<0.5	<0.5	<1	-	-	6,500	2,300	390	6,200	-
09/16/93	154,005	64,809	65	<60	<0.3	<0.3	<0.3	<0.6	-	43,000	2,300	320	<4.4	2,900	-
10/04/93	154,896	65,500	50	<60	<0.3	<0.3	<0.3	<0.6	-	33,000	2,900	470	6.9	3,500	-
11/05/93	157,431	68,035	79	<50	<0.3	<0.3	<0.3	<0.5	-	15,000	1,100	27	<0.3	920	-
12/03/93	159,324	69,928	68	<50	<0.3	<0.3	<0.3	<0.5	-	16,000	1,100	88	<6.6	2,300	-
01/06/94	166,440	77,044	209	-	<0.3	<0.3	<0.3	<0.5	-	-	3,800	730	<13	1,200	-
02/03/94	170,720	81,324	153	-	<0.3	<0.3	<0.3	<0.5	-	-	3,600	610	<4.4	4,800	-
03/03/94	178,168	88,772	266	-	<0.3	<0.3	<0.3	<0.5	-	-	2,800	2,000	270	3,400	-
04/07/94	185,670	96,274	214	<50	<0.3	<0.3	<0.3	<0.5	-	26,000	2,200	550	<6.6	1,900	-
05/12/94	188,840	99,444	91	<50	<0.3	<0.3	<0.3	<0.5	-	4,600	100	10	8.4	280	-
06/16/94	194,680	105,284	167	<50	<0.3	<0.3	<0.3	<0.5	-	<50	<0.3	<0.3	<0.3	<0.5	-
07/11/94	199,135	109,739	178	<50	<0.3	<0.3	<0.3	<0.5	-	4,000	220	<2.6	<2.6	320	-
08/04/94	200,910	111,514	74	<50	<0.3	<0.3	<0.3	<0.5	-	7,800	480	6.2	<0.3	630	-
09/15/94	203,450	114,054	60	<50	<0.3	<0.3	<0.3	<0.5	-	3,200	150	2.4	2.6	170	-
10/10/94	205,210	115,814	70	<50	<0.3	<0.3	<0.5	<0.5	-	1,300	8.6	1.5	1.1	15	-
11/07/94	206,060	116,664	30	<50	<0.3	<0.3	<0.5	<0.5	-	170	1.5	<0.3	<0.5	0.5	-
12/05/94	207,093	117,697	37	<50	<0.3	<0.3	<0.5	<0.5	-	75	1.3	<0.3	<0.5	<0.5	-
01/09/95	207,293	117,897	6	<50	<0.3	<0.3	<0.5	<0.5	-	<50	<0.3	<0.3	<0.5	<0.5	-
02/01/95	207,650	118,254	16	<50	<0.3	<0.3	<0.5	<0.5	-	<50	<0.3	<0.3	<0.5	<0.5	-

**TABLE 2**  
**GROUNDWATER REMEDIATION SYSTEM MONITORING PROGRAM**  
 Thrifty Oil Co. Station No 049, OAKLAND, CA

Date	Totalizer (gallons)	Total/Cum. Discharge (gallons)	Flow (gal/day)	EFFLUENT (ug/L)						INFLUENT (ug/L)						
				TPH-g	B	T	E	X	MTBE	TPH-g	B	T	E	X	MTBE	
02/06/95	207,810	118,414	32	<50	<0.3	<0.3	<0.5	<0.5	-	<50	2.7	<0.3	<0.5	<0.5	-	
03/10/95	208,430	119,034	19	<100	<0.5	<0.5	<0.5	<1	-	<100	<0.5	<0.5	<0.5	<1	-	
04/10/95	208,564	119,168	4	<100	<0.5	<0.5	<0.5	<1	-	3,300	180	7.6	2.1	150	-	
05/08/95	208,608	119,212	2	<100	<0.5	<0.5	<0.5	<1	-	11,000	640	9.2	<5	1,100	-	
06/05/95	208,926	119,530	11	<100	<0.5	<0.5	<0.5	<1	-	5,100	270	2.2	<0.5	49	-	
07/10/95	214,182	124,786	150	<100	<0.5	<0.5	<0.5	<1	-	13,000	1,600	120	24	1,300	-	
08/07/95	221,876	132,480	275	Shut down system for repair						-	-	-	-	-	-	-
08/28/95	221,997	132,601	6	Restart the system						-	-	-	-	-	-	-
09/06/95	222,003	132,607	1	<100	<0.5	<0.5	<0.5	<1	-	2,300	<0.5	<0.5	<0.5	<1	-	
10/09/95	222,343	132,947	10	<100	<0.5	<0.5	<0.5	<1	-	2,000	5.6	0.77	0.66	3.8	-	
11/06/95	222,704	133,308	13	<50	0.3	0.31	<0.3	0.68	-	3,000	27	1.7	3.7	48	-	
12/11/95	223,792	134,396	31	<50	<0.3	<0.3	<0.3	<0.5	-	<50	<0.3	<0.3	<0.3	0.96	-	
01/08/96	224,661	135,265	31	970	<0.3	<0.3	<0.3	0.67	-	1,800	39	<0.3	<0.3	<0.5	-	
02/12/96	227,812	138,416	90	<50	10	0.37	<0.3	0.53	-	3,300	190	<7.5	<7.5	20	-	
03/12/96	229,301	139,905	51	<50	<0.3	<0.3	<0.3	<0.5	-	2,700	250	2.3	<1.5	<2.5	-	
04/08/96	242,320	152,924	482	<50	<0.3	<0.3	<0.3	<0.5	-	1,000	90	5	<0.3	67	-	
05/06/96	247,840	158,444	197	100	<0.3	<0.3	<0.3	<0.5	-	15,000	2,200	600	32	2,400	-	
06/03/96	248,423	159,027	21	Shut down system for carbon change						-	-	-	-	-	-	
08/08/96	248,423	159,027	-	Start-up system						-	-	-	-	-	-	
08/20/96	248,630	159,234	17	<50	<0.3	<0.3	<0.3	<0.5	-	2,100	24	<0.3	<0.3	49	-	
09/23/96	259,030	169,634	306	<50	<0.3	<0.3	<0.3	<0.5	-	4,100	260	<3	<3	34	-	
10/16/96	263,610	174,214	199	<50	<0.3	<0.3	<0.3	<0.5	-	2,700	220	3.8	<0.6	44	-	
11/19/96	263,986	174,590	11	<50	<0.3	<0.3	<0.3	<0.5	-	1,200	<0.3	<0.3	<0.3	<0.5	-	
12/16/96	264,210	174,814	8	<50	<0.3	<0.3	<0.3	1.5	-	29,000	410	2,300	120	1,100	-	
01/22/97	266,220	176,824	54	<50	<0.3	<0.3	<0.3	<0.5	-	68,000	<0.3	<0.3	<0.3	<0.5	-	
02/24/97	267,030	177,634	25	<50	<0.3	<0.3	<0.3	<0.5	-	51,000	3,500	3,200	390	2,200	-	
03/17/97	267,230	177,834	10	<50	<0.3	<0.3	<0.3	<0.5	-	89,000	<6	11	<6	14	-	
04/21/97	267,415	178,019	5	<50	<0.3	<0.3	<0.3	<0.5	-	61,000	730	18	130	360	-	
05/22/97	276,535	187,139	294	<50	<0.3	<0.3	<0.3	<0.5	-	850	1.3	<0.3	0.4	4.6	-	
06/23/97	281,214	191,818	146	-	-	-	-	-	-	-	-	-	-	-	-	
07/14/97	284,210	194,814	143	<50	<0.3	<0.3	<0.3	<0.5	-	6,600	<0.3	0.59	<0.3	9	-	
08/18/97	298,610	209,214	411	-	-	-	-	-	-	-	-	-	-	-	-	
09/15/97	301,043	211,647	87	-	-	-	-	-	-	-	-	-	-	-	-	
10/07/97	333,480	244,084	1,474	<50	<0.3	<0.3	<0.3	<0.5	-	94,000	<0.3	<0.3	<0.3	<0.5	-	
11/17/97	334,286	244,890	20	-	-	-	-	-	-	-	-	-	-	-	-	
12/08/97	334,382	244,986	5	-	-	-	-	-	-	-	-	-	-	-	-	
12/12/97	-	-	-	Shut down system due to stolen equipment						-	-	-	-	-	-	-
04/08/98	-	-	-	<50	<0.3	<0.3	<0.3	<0.5	<20	3,100	12	1	<0.3	490	2,600	
05/11/98	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

**TABLE 2**  
**GROUNDWATER REMEDIATION SYSTEM MONITORING PROGRAM**  
 Thrifty Oil Co Station No 049, OAKLAND, CA

Date	Totalizer (gallons)	Total/Cum Discharge (gallons)	Flow (gal/day)	EFFLUENT (ug/L)						INFLUENT (ug/L)						
				TPH-g	B	T	E	X	MTBE	TPH-g	B	T	E	X	MTBE	
06/22/98	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
07/20/98	334,382	244,986	-	<50	<0.3	<0.3	<0.3	<0.5	-	52,000	8	0.52	0.83	1.5	-	
08/03/98	346,521	257,125	867	Shut down system for carbon canisters replacement						-	-	-	-	-	-	-
09/17/98	354,985	265,589	188	-	-	-	-	-	-	-	-	-	-	-	-	
10/14/98	358,015	268,619	112	<50	<0.3	<0.3	<0.3	1.6	-	3,100	45	13	3.5	350	-	
11/05/98	359,600	270,204	72	System shut down due to vandalism and stolen equipment						-	-	-	-	-	-	-
11/20/98	359,600	270,204	-	Restart						-	-	-	-	-	-	-
12/11/98	369,452	280,056	469	-	-	-	-	-	-	-	-	-	-	-	-	
12/24/98	-	-	-	No reading, meter broken						-	-	-	-	-	-	-
01/15/99	0	280,056	-	Replaced Flowmeter started at 0						-	-	-	-	-	-	-
01/21/99	985.5	281,042	164	57	<0.3	<0.3	<0.3	0.76	-	380	6.2	1	<0.3	9.1	-	
02/12/99	1,971.0	282,027	45	-	-	-	-	-	-	-	-	-	-	-	-	
03/12/99	4,390.0	284,446	86	-	-	-	-	-	-	-	-	-	-	-	-	
04/15/99	8,595.0	288,651	124	<50	<0.3	<0.3	<0.3	<0.5	<5	410	1.6	0.78	<0.3	5	*580 / 330	
05/04/99	9,410.0	289,466	43	-	-	-	-	-	-	-	-	-	-	-	-	
05/18/99	9,410.0	289,466	-	Shut down system for pump controller repair by manufacturer						-	-	-	-	-	-	-
09/20/99	9,411.0	289,467	0	Restart the system						-	-	-	-	-	-	-
09/24/99	9,412.4	289,468	0	-	-	-	-	-	-	-	-	-	-	-	-	
10/13/99	9,509.8	289,566	5	<50	<0.3	<0.3	<0.3	<0.5	<5	6,000	<0.3	<0.3	<0.3	<0.5	13,000	
11/12/99	9,701.9	289,758	6	-	-	-	-	-	-	-	-	-	-	-	-	
12/17/99	9,893.7	289,950	5	-	-	-	-	-	-	-	-	-	-	-	-	
01/20/00	10,052.1	290,108	5	<50	<0.3	<0.3	<0.3	<0.5	-	<50	<0.3	<0.3	<0.3	<0.5	-	
02/17/00	10,156.6	290,213	4	-	-	-	-	-	-	-	-	-	-	-	-	
03/13/00	10,354.7	290,411	8	-	-	-	-	-	-	-	-	-	-	-	-	
04/05/00	10,545.7	290,602	8	72.7	1.8	4.1	0.7	6.7	-	119,000	2,360	6,440	6,240	25,200	*30,800 / 21,800	
05/19/00	11,071.7	291,128	12	Shut down system for carbon drum replacement						-	-	-	-	-	-	-
06/05/00	11,075.4	291,131	0	Restart the system						-	-	-	-	-	-	-
06/14/00	11,131.6	291,188	6	<50	<0.3	<0.3	<0.3	<0.6	<5	<1,000	<6	<6	<6	14	24,500	
07/06/00	11,362.0	291,418	10	Shut down system for carbon replacement						-	-	-	-	-	-	-
07/17/00	0.0	291,418	-	Restart the system and changed flowmeter starting at 0.0						-	-	-	-	-	-	-
07/24/00	411.0	291,829	59	<50	<0.3	<0.3	<0.3	<0.6	<5	205	<0.3	1	<0.3	<0.6	*99 / 104	
08/21/00	819.3	292,237	15	-	-	-	-	-	-	-	-	-	-	-	-	
09/18/00	2,725.1	294,143	68	-	-	-	-	-	-	-	-	-	-	-	-	
10/02/00	4,465.3	295,883	124	-	-	-	-	-	-	-	-	-	-	-	-	

**Note:** TPH is analyzed by EPA Method 8015 M  
 BTEX is analyzed by EPA Method 602 or 8020  
 < = less than laboratory detection level indicated  
 - = no sample / not analyzed  
 \*MTBE 8020/8260

In February 2000 the total cumulative discharge amount was corrected to reflect all system maintenance and flowmeter changeouts since the startup of the system. The total number may be different from previous versions of this table.

# **APPENDIX A**

# EARTH MANAGEMENT CO.

Environmental Remediation

## OBSERVATION WELLS

THRIFTY OIL CO. S.S. #049

3400 SAN PABLO AVENUE

BELL, CA

DATE: 07-19-00

NO.	DTW	DTP	PT	DTB	DIA.	ODORS			F/P			
						YES	NO	S	YES	NO		
MONTHLY												
MW-1	4.00			17.80	2"		X			X	-	-
MW-2	5.40			23.80	2"		X			X	-	-
MW-3	8.86			24.20	2"		X			X	-	-
MW-4	5.29			13.70	4"		X			X	-	-
MW-5	4.54			13.78	2"		X			X	-	-
MW-6	3.07			13.09	2"		X			X	-	-
MW-7	7.10			13.60	4"		X			X	-	-
RW-1	13.25			24.42	6"		X			X	-	-

### EXPLANATION

DTW - DEPTH TO WATER FROM SURFACE	DTP - DEPTH TO PRODUCT FROM SURFACE
PT - PRODUCT THICKNESS	S - SLIGHT
MEASUREMENTS IN FEET	
REMARKS: <u>Q. W. S.</u>	
FREE PRODUCT REMOVED: APPROX. <u>      </u> GALLONS	WATER REMOVED: APPROX. <u>80</u> GALLONS
DATA RECORDED BY: <u>[Signature]</u>	INPUT BY: C.D.

13415 Carmenita Road/P.O. Box 2128, Santa Fe Springs, CA 90670

## FIELD DATA - GROUNDWATER SAMPLING PROGRAM

Site:	# 049	Date:	07-19-00
Address:			
Personnel:	SERBOW	Weather:	SUNNY Day
Well No:	MW-1	Equip:	Bailer

<b>Before Purging:</b>			
Total Well Depth: (ft.)	17.80	Well Diameter	2"
Depth to Water (ft)	4.00	Est. Purge Volume:	9

Initial Turbidity:		Final Turbidity:						
Time		9:52	9:53	9:54	9:56	9:57	9:58	10:00
EC		1700	1800	1800	1820	1810	1790	1770
pH		6.06	6.06	6.03	6.05	6.01	5.98	5.94
Temp		70.3	70.1	70.2	70.6	70.3	70.3	70.1
Gal.		1	2	3	5	6	7	9
Time								
EC								
pH								
Temp								
Gal.								

<b>After Purging/Before Sample Collection</b>	
Depth to Water (ft.)	3.42
Total Well Depth(ft.)	17.80



**FIELD DATA -GROUNDWATER SAMPLING PROGRAM**

Site:	#049	Date:	07-19-00
Address:			
Personnel:	SERBOM,	Weather:	JUNNY DAY
Well No:	MW-2	Equip:	BAILER

<b>Before Purging:</b>			
Total Well Depth: (ft.)	23.80	Well Diameter	2 <sup>4</sup>
Depth to Water (ft)	5.40	Est. Purge Volume:	12

<b>Sampling Data:</b>							
<b>Initial Turbidity:</b>				<b>Final Turbidity:</b>			
Time	9:04	9:06	9:08	9:09	9:11	9:13	9:15
EC	1710	1800	1830	1810	1810	1790	1770
pH	6.14	6.09	6.1	6.09	6.07	6.08	6.03
Temp	71.2	71.1	70.9	70.7	70.5	70.5	70.1
Gal.	1	3	5	6	8	10	12
Time							
EC							
pH							
Temp							
Gal.							

<b>After Purging/Before Sample Collection</b>			
Depth to Water (ft.)	3.20	Total Well Depth(ft.)	23.80

**FIELD DATA -GROUNDWATER SAMPLING PROGRAM**

Site:	# 049	Date:	07-19-00
Address:			
Personnel:	JEREMY	Weather:	SUNNY DAY
Well No:	MW-3	Equip:	BAIFER

<b>Before Purging:</b>			
Total Well Depth: (ft.)	24.20	Well Diameter	2"
Depth to Water (ft)	8.86	Est. Purge Volume:	10

<b>Sampling Data:</b>							
<b>Initial Turbidity:</b>				<b>Final Turbidity:</b>			
Time	8:51	8:52	8:54	8:55	8:57	8:58	9:00
EC	1530	1520	1570	1560	1530	1540	1550
pH	6.21	6.09	6.11	6.14	6.09	6.06	6.06
Temp	21.6	21.4	21.4	21.2	21.3	21.1	20.9
Gal.	1	2	4	5	7	8	10
Time							
EC							
pH							
Temp							
Gal.							

<b>After Purging/Before Sample Collection</b>			
Depth to Water (ft.)	6.32	Total Well Depth(ft.)	24.20

**FIELD DATA - GROUNDWATER SAMPLING PROGRAM**

Site:	# 049	Date:	07-19-00
Address:			
Personnel:	SERBON,	Weather:	JUNNY AMY
Well No:	MW-4	Equip:	BAIFAR

<b>Before Purging:</b>			
Total Well Depth: (ft.)	13.70	Well Diameter	4"
Depth to Water (ft)	5.24	Est. Purge Volume:	22

<b>Sampling Data:</b>							
<b>Initial Turbidity:</b>				<b>Final Turbidity:</b>			
Time	9:26	9:29	9:32	9:35	9:38	9:41	9:45
EC	1730	1740	1760	1760	1730	1760	1720
pH	6.14	6.01	6.07	6.10	6.07	6.07	6.01
Temp	21.4	21.2	21.2	20.9	20.7	20.5	20.3
Gal.	3	6	9	12	15	18	22
Time							
EC							
pH							
Temp							
Gal.							

<b>After Purging/Before Sample Collection</b>	
Depth to Water (ft)	3.42
Total Well Depth (ft)	13.70

**FIELD DATA - GROUNDWATER SAMPLING PROGRAM**

Site:	# 049	Date:	07-19-00
Address:			
Personnel:	SERBATH	Weather:	SUNNY DAY
Well No:	MW-5	Equip:	BAUER

<b>Before Purging:</b>			
Total Well Depth (ft.)	13.78	Well Diameter	2"
Depth to Water (ft)	4.59	Est. Purge Volume:	6

<b>Sampling Data:</b>							
<b>Initial Turbidity:</b>				<b>Final Turbidity:</b>			
Time	10:04	10:05	10:06	10:07	10:08	10:09	10:10
EC	1680	1620	1670	1630	1620	1620	1610
pH	6.20	6.18	6.19	6.14	6.11	6.09	6.09
Temp	21.4	21.2	21.1	20.9	20.8	20.7	20.3
Gal.	0	1	2	3	4	5	6
Time							
EC							
pH							
Temp							
Gal.							

<b>After Purging/Before Sample Collection</b>	
Depth to Water (ft.)	2.54
Total Well Depth(ft.)	13.78

**FIELD DATA - GROUNDWATER SAMPLING PROGRAM**

Site:	# 049	Date:	07-19-00
Address:			
Personnel:	SERBACH	Weather:	SUNNY Day
Well No:	MW-6	Equip:	BAUER

<b>Before Purging:</b>			
Total Well Depth: (ft.)	13.09	Well Diameter	2 <sup>4</sup>
Depth to Water (ft)	3.07	Est. Purge Volume:	7

<b>Sampling Data:</b>							
Initial Turbidity:				Final Turbidity:			
Time	10:34	10:35	10:36	10:37	10:38	10:39	10:40
EC	970	940	930	910	910	920	920
pH	6.23	6.21	6.23	6.18	6.21	6.21	6.18
Temp	71.4	71.2	71.0	71.0	70.4	70.7	70.7
Gal.	1	2	3	4	5	6	7
Time							
EC							
pH							
Temp							
Gal.							

<b>After Purging/Before Sample Collection</b>	
Depth to Water (ft.)	2.82
Total Well Depth(ft.)	13.09

**FIELD DATA -GROUNDWATER SAMPLING PROGRAM**

Site:	<u>H049</u>	Date:	<u>07-19-00</u>
Address:			
Personnel:	<u>SERBAN</u>	Weather:	<u>SUNNY DAY</u>
Well No:	<u>MU-7</u>	Equip:	<u>BAUER</u>

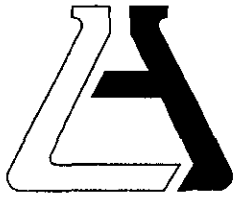
<b>Before Purging:</b>			
Total Well Depth: (ft.)	<u>13.60</u>	Well Diameter	<u>4"</u>
Depth to Water (ft)	<u>7.10</u>	Est. Purge Volume:	<u>17</u>

<b>Sampling Data:</b>							
<b>Initial Turbidity:</b>				<b>Final Turbidity:</b>			
Time	<u>10:14</u>	<u>10:17</u>	<u>10:20</u>	<u>10:22</u>	<u>10:28</u>	<u>10:33</u>	<u>10:30</u>
EC	<u>170</u>	<u>170</u>	<u>170</u>	<u>170</u>	<u>170</u>	<u>170</u>	<u>170</u>
pH	<u>6.21</u>	<u>6.18</u>	<u>6.18</u>	<u>6.13</u>	<u>6.11</u>	<u>6.13</u>	<u>6.11</u>
Temp	<u>21.3</u>	<u>21.1</u>	<u>20.8</u>	<u>20.4</u>	<u>20.6</u>	<u>20.4</u>	<u>20.4</u>
Gal.	<u>2</u>	<u>4</u>	<u>7</u>	<u>9</u>	<u>12</u>	<u>14</u>	<u>17</u>
Time							
EC							
pH							
Temp							
Gal.							

<b>After Purging/Before Sample Collection</b>			
Depth to Water (ft)	<u>3.82</u>	Total Well Depth(ft)	<u>13.60</u>

# **APPENDIX B**

1.06259  
**RECEIVED**  
AUG 28 2000  
ENVIRONMENTAL



**ASSOCIATED LABORATORIES**

806 North Batavia - Orange, California 92868 - 714/771-6900

FAX 714/538-1209

CLIENT Thrifty Oil (8871)  
ATTN: Jeff Suryakusuma  
13539 E. Foster Rd.  
Santa Fe Springs, CA 90670

LAB REQUEST 56701  
REPORTED 08/09/2000  
RECEIVED 07/22/2000

PROJECT Station #049  
3400 San Pablo Ave., Oakland

SUBMITTER Client

COMMENTS "J" Denotes between mdl & dlr

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods as indicated on the report. This cover letter is an integral part of the final report.

<u>Order No.</u>	<u>Client Sample Identification</u>
200563	TOC #049, MW-3
200564	TOC #049, MW-2
200565	TOC #049, MW-4
200566	TOC #049, MW-1
200567	TOC #049, MW-5
200568	TOC #049, MW-7
200569	TOC #049, MW-6
200570	TOC #049, TB

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

ASSOCIATED LABORATORIES by,

Edward S. Behare, Ph.D.  
Vice President

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

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TESTING & CONSULTING  
Chemical  
Microbiological  
Environmental



Order #: 200563

Client Sample ID: TOC #049, MW-3

Log Date: 07/24/20

Matrix: WATER

Date Sampled: 07/19/2000

Time Sampled: 13:00

Analyte	Result	DLR	Units	Date/Analyst
<b>8021B BTEX + MTBE</b>				
Benzene	ND	0.3	ug/L	07/28/00 HP
Ethyl benzene	ND	0.3	ug/L	07/28/00 HP
Methyl t - butyl ether	ND	5	ug/L	07/28/00 HP
Toluene	ND	0.3	ug/L	07/28/00 HP
Xylene (total)	ND	0.6	ug/L	07/28/00 HP

**8015M - Total Petroleum Hydrocarbons**

Gasoline	ND	50	ug/L	07/28/00 HP
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Order #: 200564

Client Sample ID: TOC #049, MW-2

Log Date: 07/24/20

Matrix: WATER

Date Sampled: 07/19/2000

Time Sampled: 13:05

Analyte	Result	DLR	Units	Date/Analyst
<b>8021B BTEX + MTBE</b>				
Benzene	ND	0.3	ug/L	07/28/00 HP
Ethyl benzene	ND	0.3	ug/L	07/28/00 HP
Methyl t - butyl ether	9,620	1250.0	ug/L	07/28/00 HP
Toluene	ND	0.3	ug/L	07/28/00 HP
Xylene (total)	ND	0.6	ug/L	07/28/00 HP

**8260B Volatile Organic Compounds**

Methyl-tert-butylether (MTBE)	6,520	5	ug/L	08/11/00 DP
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**8015M - Total Petroleum Hydrocarbons**

Gasoline	130	50	ug/L	07/28/00 HP
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Order #: 200565

Client Sample ID: TOC #049, MW-4

Log Date: 07/24/20

Matrix: WATER

Date Sampled: 07/19/2000

Time Sampled: 13:10

Analyte	Result	DLR	Units	Date/Analyst
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DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit



**8021B BTEX + MTBE**

Benzene	1,770	15.0	ug/L	07/28/00	HP
Ethyl benzene	2,690	15.0	ug/L	07/28/00	HP
Methyl t - butyl ether	21,900	10000.0	ug/L	07/28/00	HP
Toluene	1,760	600.0	ug/L	07/28/00	HP
Xylene (total)	8,730	1200.0	ug/L	07/28/00	HP

**8260B Volatile Organic Compounds**

Methyl-tert-butylether (MTBE)	9,740 J	10000.0	ug/L	08/11/00	DP
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**8015M - Total Petroleum Hydrocarbons**

Gasoline	96,600	2500	ug/L	07/28/00	HP
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Order #:

Client Sample ID: TOC #049, MW-1

Log Date: 07/24/20

Matrix: WATER

Date Sampled: 07/19/2000

Time Sampled: 13:15

Analyte	Result	DLR	Units	Date/Analyst
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**8021B BTEX + MTBE**

Benzene	ND	0.3	ug/L	07/28/00	HP
Ethyl benzene	ND	0.3	ug/L	07/28/00	HP
Methyl t - butyl ether	ND	5	ug/L	07/28/00	HP
Toluene	ND	0.3	ug/L	07/28/00	HP
Xylene (total)	ND	0.6	ug/L	07/28/00	HP

**8015M - Total Petroleum Hydrocarbons**

Gasoline	ND	50	ug/L	07/28/00	HP
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Order #:

Client Sample ID: TOC #049, MW-5

Log Date: 07/24/20

Matrix: WATER

Date Sampled: 07/19/2000

Time Sampled: 13:20

Analyte	Result	DLR	Units	Date/Analyst
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**8021B BTEX + MTBE**

Benzene	ND	0.3	ug/L	07/28/00	HP
Ethyl benzene	ND	0.3	ug/L	07/28/00	HP
Methyl t - butyl ether	ND	5	ug/L	07/28/00	HP
Toluene	ND	0.3	ug/L	07/28/00	HP
Xylene (total)	ND	0.6	ug/L	07/28/00	HP

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit



**8015M - Total Petroleum Hydrocarbons**

Gasoline	ND	50	ug/L	07/28/00	HP
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Order #:

Client Sample ID: TOC #049, MW-7

Log Date: 07/24/20

Matrix: WATER

Date Sampled: 07/19/2000

Time Sampled: 13:30

Analyte	Result	DLR	Units	Date/Analyst	
<b>8021B BTEX + MTBE</b>					
Benzene	14	3.0	ug/L	07/28/00 HP	
Ethyl benzene	ND	3.0	ug/L	07/28/00 HP	
Methyl t - butyl ether	237	50.0	ug/L	07/28/00 HP	
Toluene	ND	3.0	ug/L	07/28/00 HP	
Xylene (total)	10	6.0	ug/L	07/28/00 HP	

**8260B BTEX/MTBE Only**

Methyl-tert-butylether (MTBE)	120	5	ug/L	08/01/00	DP
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**8015M - Total Petroleum Hydrocarbons**

Gasoline	1,350	500	ug/L	07/28/00	HP
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Order #:

Client Sample ID: TOC #049, MW-6

Log Date: 07/24/20

Matrix: WATER

Date Sampled: 07/19/2000

Time Sampled: 13:40

Analyte	Result	DLR	Units	Date/Analyst	
<b>8021B BTEX + MTBE</b>					
Benzene	1.0	0.3	ug/L	07/28/00 HP	
Ethyl benzene	ND	0.3	ug/L	07/28/00 HP	
Methyl t - butyl ether	87	25.0	ug/L	07/28/00 HP	
Toluene	2.0	0.3	ug/L	07/28/00 HP	
Xylene (total)	ND	0.6	ug/L	07/28/00 HP	

**8260B BTEX/MTBE Only**

Methyl-tert-butylether (MTBE)	76	5	ug/L	08/01/00	DP
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**8015M - Total Petroleum Hydrocarbons**

Gasoline	60	50	ug/L	07/28/00	HP
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DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit



Order #: 200570

Client Sample ID: TOC #049, TB

Log Date: 07/24/20

Matrix: WATER

Date Sampled: 07/19/2000

Time Sampled: 13:000

Analyte	Result	DLR	Units	Date/Analyst
<b>8021B BTEX + MTBE</b>				
Benzene	ND	0.3	ug/L	07/28/00 HP
Ethyl benzene	ND	0.3	ug/L	07/28/00 HP
Methyl t - butyl ether	ND	5	ug/L	07/28/00 HP
Toluene	ND	0.3	ug/L	07/28/00 HP
Xylene (total)	ND	0.6	ug/L	07/28/00 HP

**8015M - Total Petroleum Hydrocarbons**

Gasoline	ND	50	ug/L	07/28/00 HP
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DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit



**ASSOCIATED LABORATORIES**  
LCS REPORT FORM

Matrix: WATER

Method : 8260

Analysis Date: 08/01/00

Applies to: LR 56217, 56701, 56743, 56773, 56776, 56784, 56645, 55668, 56802, 57006

REPORTING UNITS = ug/L

Test	Sample Result	Spike Added	LCS Spike	LCS Spk. Dup	%Rec LCS	%Rec LCS D	RPD	QC Limits	
								RPD	%REC
1,1-Dichloroethene	ND	25.0	25.2	26.9	100.8	107.6	6.5	30	61-145
MTBE	ND	25.0	22.0	23.2	88.0	92.8	5.3	30	70-130
Benzene	ND	25.0	22.3	23.9	89.2	95.6	6.9	11	76-127
Trichloroethene	ND	25.0	23.0	25.2	92.0	100.8	9.1	14	71-120
Toluene	ND	25.0	23.9	25.7	95.6	102.8	7.3	13	76-125
Chlorobenzene	ND	25.0	21.9	23.9	87.6	95.6	8.7	13	75-130

ND = Not Detected

RPD = Relative Percent Difference of LCS and LCS Dup.

%REC-MS & MSD = Percent Recovery of LCS & LCS Dup.

Method Blank = All ND

**ASSOCIATED LABORATORIES**  
LCS REPORT FORM

QC Sample: LCS/LCSD Water Samples

Method : 8260

Analysis Date: 08/10/00

Applies to: LR 57101, 56646, 56701, 57165, 56767, 56967, 56361

REPORTING UNITS = ug/L

Test	Sample Result	Spike Added	LCS Spike	LCS Spk. Dup	%Rec LCS	%Rec LCS D	RPD	QC Limits	
								RPD	%REC
1,1-Dichloroethene	ND	50.0	56.30	59.80	112.6	119.6	6.0	30	61-145
MTBE	ND	50.0	58.80	63.60	117.6	127.2	7.8	30	61-145
Benzene	ND	50.0	55.80	54.40	111.6	108.8	2.5	11	76-127
Trichloroethene	ND	50.0	52.40	57.80	104.8	115.6	9.8	14	71-120
Toluene	ND	50.0	54.70	60.80	109.4	121.6	10.6	13	76-125
Chlorobenzene	ND	50.0	49.50	47.70	99.0	95.4	3.7	13	75-130

ND = Not Detected

RPD = Relative Percent Difference of LCS and LCS Dup

%REC-MS & MSD = Percent Recovery of LCS & LCS Dup.

Method Blank = All ND

**ASSOCIATED LABORATORIES**  
QA REPORT FORM

QC Sample: LR 56522 - 763

Matrix: WATER

Prep. Date: 07/29/00

Analysis Date: 07/29/00 - 07/30/00

ID#'s in Batch: LR 56713, 56522, 56701, 56773

**MATRIX SPIKE / MATRIX SPIKE DUPLICATE RESULT**

Reporting Units = ug/L

Test	Method	Sample Result	Spike Added	Matrix Spike	Matrix Spike Dup	%Rec MS	%Rec MSD	RPD
TPH	8015M-G	ND	500	470	453	94.0	90.6	3.7

*ND = Not Detected*

*RPD = Relative Percent Difference of Matrix Spike and Matrix Spike Duplicate*

*%REC-MS & MSD = Percent Recovery of Matrix Spike & Matrix Spike Duplicate*

<i>%REC LIMITS = 70 - 130</i>
<i>RPD LIMITS = 30</i>

**PREPARATION BLANK / LAB CONTROL SAMPLE RESULTS**

PREP BLK	LCS				
Value	Result	True	%Rec	L.Limit	H.Limit
ND	1022	1000	102.2	80%	120%

*LCS Result = Lab Control Sample Result*

*True = True Value of LCS*

*L.Limit / H.Limit = LCS Control Limits*

**ASSOCIATED LABORATORIES**  
QA REPORT FORM

QC Sample: LR 56522 - 763

Matrix: WATER

Prep. Date: 07/29/00

Analysis Date: 07/29/00 - 07/30/00

LAB ID#'s in Batch: LR 56713, 56522, 56701, 56773

**MATRIX SPIKE / MATRIX SPIKE DUPLICATE RESULT**

REPORTING UNITS = ug/L

Test	Method	Sample Result	Spike Added	Matrix Spike	Matrix Spk. Dup	%Rec MS	%Rec MSD	RPD
Benzene	8021	ND	10.0	9.1	10.2	91.0	102.0	11.4
Toluene	8021	ND	10.0	9.3	10.3	93.0	103.0	10.2
Ethylbenzene	8021	ND	10.0	9.0	10.1	90.0	101.0	11.5
Xylenes	8021	ND	30.0	29.0	32.3	96.7	107.7	10.8

\* = Matrix Interference. LCS OK Data Reported.

ND = Not Detected

RPD = Relative Percent Difference of Matrix Spike and Matrix Spike Dup

%REC-MS & MSD = Percent Recovery of Matrix Spike & Matrix Spike Duplicate

%REC LIMITS = 70 - 130
RPD LIMITS = 30

**PREPARATION BLANK / LAB CONTROL SAMPLE RESULTS**

Test	Method	PREP. BLK	LCS				
		Value	Result	True	%Rec	L.Limit	H.Limit
Benzene	8021	ND	7.6	8.0	95.0	80%	120%
Toluene	8021	ND	7.6	8.0	95.0	80%	120%
Ethylbenzene	8021	ND	7.2	8.0	90.0	80%	120%
Xylenes	8021	ND	23.9	24.0	99.6	80%	120%

LCS = Lab Control Sample Result

TRUE = True Value of LCS

L.LIMIT / H.LIMIT = LCS Control Limits



# Chain of Custody Record

56701 ✓

## ASSOCIATED LABORATORIES

806 North Batavia • Orange, CA 92868  
Phone: (714) 771-6900 • Fax: (714) 538-1209



Company: <b>THRIFTY OIL CO.</b>		Phone: <b>(562) 421-3581</b>		A.L. Job No.		Page _____ of _____			
Project Manager: <b>JEFF SURYARUZUMA</b>		Fax		Analysis Requested				Test Instructions & Comments	
Project Name: <b>Q. U.S.</b>		Project #: <b>049</b>							
Site Name and Address: <b>3400 50th PABLO AVE OAKLAND, CA 94612</b>									
Sample ID	Lab ID	Date	Time	Matrix	Container Number/Size	Pres.	T H	B X	* M T B E
1 MW-3		07-19-00	13:00	WATER	3 VIALS	HCL	X	X	X
2 MW-2		↑	13:05	↑	↑	↑	X	X	X
3 MW-4		↑	13:10	↑	↑	↑	X	X	X
4 MW-1		↑	13:15	↑	↑	↑	X	X	X
5 MW-5		↑	13:20	↑	↑	↑	X	X	X
6 MW-7		↑	13:30	↑	↑	↑	X	X	X
7 MW-6		↓	13:40	↓	↓	↓	X	X	X
8 TRIP BATH		↓	13:00	↓	2 VIALS	↓	X	X	
9									
10									
11									
12									
13									
14									
15									

\*CONFIRM MTBE BY 8260 IF DETECTABLE

Sample Receipt - To Be Filled By Laboratory				Relinquished by Sampler:	1.	Relinquished by	2.	Relinquished by	3.
Total Number of Containers	23	Properly Cooled	Y/N/NA	Signature:		Signature:		Signature:	
Custody Seals Y/N/NA	NA	Samples Intact	Y/N/NA	Printed Name:		Printed Name:		Printed Name:	
Received in Good Condition	Y/N	Samples Accepted	Y/N	Date:		Date:		Date:	
Turn Around Time				Received By:	1.	Received By:	2.	Received By:	3.
<input checked="" type="checkbox"/> Normal	<input type="checkbox"/> Rush	<input type="checkbox"/> Same Day	<input type="checkbox"/> 48 hrs.	Signature:		Signature:		Signature:	
		<input type="checkbox"/> 24 hrs.	<input type="checkbox"/> 72 hrs.	Printed Name:		Printed Name:		Printed Name:	
				Date:		Date:		Date:	

# **APPENDIX C**

THRIFTY CIL CO. SERVICE STATION # 49  
6125 TELEGRAPH AVENUE, OAKLAND, CALIFORNIA  
GROUNDWATER EXTRACTION/TREATMENT SYSTEM INSPECTION FORM

NAME OF INSPECTOR: SERBAY P.

DATE OF INSPECTION: 10-02-00

OBSERVATIONS AND COMMENTS: Add oil, clean water filter bag,  
replace cartridge water filter, check hoses co-  
nections

FLOW METER READING: 004465.3

SAMPLES OBTAINED: N/A

PRESSURE GAUGE READING UP STREAM OF THE BAG FILTER: 14

PRESSURE GAUGE READING DOWN STREAM OF THE CARTRIDGE FILTER: 11

PRESSURE GAUGE READING DOWN STREAM OF THE PRIMARY GAC UNIT: 1.1

PRESSURE GAUGE READING DOWN STREAM OF THE SECONDARY GAC UNIT: 1.0

PRESSURE GAUGE READING DOWN STREAM OF THE THIRD GAC UNIT: 0.9

INSPECTOR'S SIGNATURE: 

049

THRIFTY OIL CO. SERVICE STATION # 49  
6125 TELEGRAPH AVENUE, OAKLAND, CALIFORNIA  
GROUNDWATER EXTRACTION/TREATMENT SYSTEM INSPECTION FORM

NAME OF INSPECTOR: SERBIA P

DATE OF INSPECTION: 09-18-00

OBSERVATIONS AND COMMENTS: check oil, belt, connector hoses  
clean water filter bag, replace cartridge  
water filter

FLOW METER READING: 002725.1

SAMPLES OBTAINED: H110

PRESSURE GAUGE READING UP STREAM OF THE BAG FILTER: 1.4

PRESSURE GAUGE READING DOWN STREAM OF THE CARTRIDGE FILTER: 1.1

PRESSURE GAUGE READING DOWN STREAM OF THE PRIMARY GAC UNIT: 1.1

PRESSURE GAUGE READING DOWN STREAM OF THE SECONDARY GAC UNIT: 1.0

PRESSURE GAUGE READING DOWN STREAM OF THE THIRD GAC UNIT: 0.7

INSPECTOR'S SIGNATURE: [Signature]

THRIFTY OIL CO. SERVICE STATION # 49  
6125 TELEGRAPH AVENUE, OAKLAND, CALIFORNIA  
GROUNDWATER EXTRACTION/TREATMENT SYSTEM INSPECTION FORM

NAME OF INSPECTOR: SERBAN P.

DATE OF INSPECTION: 09-11-00

OBSERVATIONS AND  
COMMENTS: Add oil, clean water bag filter,  
replace cartridge water filter, check hoses  
connections

FLOW METER READING: 0025240

SAMPLES OBTAINED: N/A

PRESSURE GAUGE READING UP STREAM OF THE BAG FILTER: 14

PRESSURE GAUGE READING DOWN STREAM OF THE CARTRIDGE FILTER: 11

PRESSURE GAUGE READING DOWN STREAM OF THE PRIMARY GAC UNIT: 1.2

PRESSURE GAUGE READING DOWN STREAM OF THE SECONDARY GAC UNIT: 1.1

PRESSURE GAUGE READING DOWN STREAM OF THE THIRD GAC UNIT: 0.9

INSPECTOR'S SIGNATURE: [Signature]

THRIFTY OIL CO. SERVICE STATION # 49  
6125 TELEGRAPH AVENUE, OAKLAND, CALIFORNIA  
GROUNDWATER EXTRACTION/TREATMENT SYSTEM INSPECTION FORM

NAME OF INSPECTOR: 3ERBAN P.

DATE OF INSPECTION: 09-05-00

OBSERVATIONS AND COMMENTS: check oil, belt, replace cartridge water

filter, clean water bag filter

FLOW METER READING: 0024361

SAMPLES OBTAINED: N/A

PRESSURE GAUGE READING UP STREAM OF THE BAG FILTER: 13

PRESSURE GAUGE READING DOWN STREAM OF THE CARTRIDGE FILTER: 11

PRESSURE GAUGE READING DOWN STREAM OF THE PRIMARY GAC UNIT: 1.1

PRESSURE GAUGE READING DOWN STREAM OF THE SECONDARY GAC UNIT: 1.0

PRESSURE GAUGE READING DOWN STREAM OF THE THIRD GAC UNIT: 0.9

INSPECTOR'S SIGNATURE: [Signature]

049

THRIFTY OIL CO. SERVICE STATION # 49  
6125 TELEGRAPH AVENUE, OAKLAND, CALIFORNIA  
GROUNDWATER EXTRACTION/TREATMENT SYSTEM INSPECTION FORM

NAME OF INSPECTOR: SERBAN R.

DATE OF INSPECTION: 08-28-00

OBSERVATIONS AND COMMENTS: check belt, hoses, replace cartridge  
water filter, clean water log

FLOW METER READING: 0012310

SAMPLES OBTAINED: N/A

PRESSURE GAUGE READING UP STREAM OF THE BAG FILTER: 13

PRESSURE GAUGE READING DOWN STREAM OF THE CARTRIDGE FILTER: 11

PRESSURE GAUGE READING DOWN STREAM OF THE PRIMARY GAC UNIT: 1.1

PRESSURE GAUGE READING DOWN STREAM OF THE SECONDARY GAC UNIT: 1.0

PRESSURE GAUGE READING DOWN STREAM OF THE THIRD GAC UNIT: 0.9

INSPECTOR'S SIGNATURE: [Signature]

049

THRIFTY OIL CO. SERVICE STATION # 49  
6125 TELEGRAPH AVENUE, OAKLAND, CALIFORNIA  
GROUNDWATER EXTRACTION/TREATMENT SYSTEM INSPECTION FORM

NAME OF INSPECTOR: SERBATA P.

DATE OF INSPECTION: 08.21.00

OBSERVATIONS AND COMMENTS: Add oil, check belt, hoses connection  
clean water filter bag,

FLOW METER READING: 0008193

SAMPLES OBTAINED: N/A

PRESSURE GAUGE READING UP STREAM OF THE BAG FILTER: 13

PRESSURE GAUGE READING DOWN STREAM OF THE CARTRIDGE FILTER: 11

PRESSURE GAUGE READING DOWN STREAM OF THE PRIMARY GAC UNIT: 1.1

PRESSURE GAUGE READING DOWN STREAM OF THE SECONDARY GAC UNIT: 1.0

PRESSURE GAUGE READING DOWN STREAM OF THE THIRD GAC UNIT: 0.8

INSPECTOR'S SIGNATURE: [Signature]



THRIFTY OIL CO. SERVICE STATION # 49  
6125 TELEGRAPH AVENUE, OAKLAND, CALIFORNIA  
GROUNDWATER EXTRACTION/TREATMENT SYSTEM INSPECTION FORM

NAME OF INSPECTOR: SERBA P.

DATE OF INSPECTION: 08.14-00

OBSERVATIONS AND COMMENTS: Add oil, check belt, hoses connection, clean water bag filter, replace cartridge water filter

FLOW METER READING: 0006742

SAMPLES OBTAINED: N/A

PRESSURE GAUGE READING UP STREAM OF THE BAG FILTER: 13

PRESSURE GAUGE READING DOWN STREAM OF THE CARTRIDGE FILTER: 11

PRESSURE GAUGE READING DOWN STREAM OF THE PRIMARY GAC UNIT: 1.1

PRESSURE GAUGE READING DOWN STREAM OF THE SECONDARY GAC UNIT: 1.0

PRESSURE GAUGE READING DOWN STREAM OF THE THIRD GAC UNIT: 0.8

INSPECTOR'S SIGNATURE: [Signature]

49

THRIFTY OIL CO. SERVICE STATION # 49  
6125 TELEGRAPH AVENUE, OAKLAND, CALIFORNIA  
GROUNDWATER EXTRACTION/TREATMENT SYSTEM INSPECTION FORM

NAME OF INSPECTOR: SERBAN P.

DATE OF INSPECTION: 08.07.00

OBSERVATIONS AND COMMENTS: Check oil, belt, replace cartridge  
water filter

FLOW METER READING: 0000923

SAMPLES OBTAINED: N/A

PRESSURE GAUGE READING UP STREAM OF THE BAG FILTER: 13

PRESSURE GAUGE READING DOWN STREAM OF THE CARTRIDGE FILTER: N

PRESSURE GAUGE READING DOWN STREAM OF THE PRIMARY GAC UNIT: 1.1

PRESSURE GAUGE READING DOWN STREAM OF THE SECONDARY GAC UNIT: 1.0

PRESSURE GAUGE READING DOWN STREAM OF THE THIRD GAC UNIT: 0.8

INSPECTOR'S SIGNATURE: [Signature]

THRIFTY OIL CO. SERVICE STATION <sup>49</sup>  
6125 TELEGRAPH AVENUE, OAKLAND, CALIFORNIA  
GROUNDWATER EXTRACTION/TREATMENT SYSTEM INSPECTION FORM

NAME OF INSPECTOR: SEBBAN P.

DATE OF INSPECTION: 08-31-00

OBSERVATIONS AND COMMENTS: check oil, clean bag water filter,  
replace cartridge water filter

FLOW METER READING: 0000630

SAMPLES OBTAINED: N/A

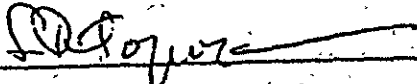
PRESSURE GAUGE READING UP STREAM OF THE BAG FILTER: 13

PRESSURE GAUGE READING DOWN STREAM OF THE CARTRIDGE FILTER: 11

PRESSURE GAUGE READING DOWN STREAM OF THE PRIMARY GAC UNIT: 1.1

PRESSURE GAUGE READING DOWN STREAM OF THE SECONDARY GAC UNIT: 1.0

PRESSURE GAUGE READING DOWN STREAM OF THE THIRD GAC UNIT: 0.9

INSPECTOR'S SIGNATURE: 

THRIFTY OIL CO. SERVICE STATION # 49  
6125 TELEGRAPH AVENUE, OAKLAND, CALIFORNIA  
GROUNDWATER EXTRACTION/TREATMENT SYSTEM INSPECTION FORM

NAME OF INSPECTOR: SERBA P.

DATE OF INSPECTION: 07-24-00

OBSERVATIONS AND COMMENTS: check oil, belt, clean water filter

FLOW METER READING: 0000411

SAMPLES OBTAINED: yes (system)

PRESSURE GAUGE READING UP STREAM OF THE BAG FILTER: 13

PRESSURE GAUGE READING DOWN STREAM OF THE CARTRIDGE FILTER: 11

PRESSURE GAUGE READING DOWN STREAM OF THE PRIMARY GAC UNIT: 1.1

PRESSURE GAUGE READING DOWN STREAM OF THE SECONDARY GAC UNIT: 1.0

PRESSURE GAUGE READING DOWN STREAM OF THE THIRD GAC UNIT: 0.9

INSPECTOR'S SIGNATURE: [Signature]



DATE: 07-17-00

START UP / SHUT DOWN REPORT  
STATION # 049  
SYSTEM TYPE : G.M.

START UP REPORT:

Restart system after replace 2 carbon drums and  
change the flow meter #99171308 and begin from  
Serial number

-0-

SHUT DOWN REPORT:

SIGNATURE: *[Signature]*



049

DATE: 07.06.00

START UP / SHUT DOWN REPORT  
STATION # 049  
SYSTEM TYPE : GM.

START UP REPORT:

SHUT DOWN REPORT:

System shut down for replace the carbon  
FLOW METER 113620

---

SIGNATURE: \_\_\_\_\_

*[Handwritten Signature]*

# **APPENDIX D**



**ASSOCIATED LABORATORIES**

806 North Batavia - Orange, California 92868 - 714/771-6900

FAX 714/538-1209

CLIENT Thrifty Oil (8871)  
ATTN: Jeff Suryakusuma  
13539 E. Foster Rd.  
Santa Fe Springs, CA 90670

LAB REQUEST 57006

REPORTED 08/08/2000

RECEIVED 07/28/2000

PROJECT Station #049  
3400 San Pablo Ave., Oakland

SUBMITTER Client

COMMENTS

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods as indicated on the report. This cover letter is an integral part of the final report.

Order No.

201741

201742

201743

Client Sample Identification

TOC #049, Effluent

TOC #049, Intermed

TOC #049, Inlet

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

ASSOCIATED LABORATORIES by,

Edward S. Behare, Ph.D.  
Vice President

*NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.*

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TESTING & CONSULTING  
Chemical  
Microbiological  
Environmental



Order #: 201741

Client Sample ID: TOC #049, Effluent

Log Date: 07/28/20

Matrix: WATER

Date Sampled: 07/24/2000

Time Sampled: 10:00

Analyte	Result	DLR	Units	Date/Analyst
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**8021B BTEX + MTBE**

Benzene	ND	0.3	ug/L	08/02/00 HP
Ethyl benzene	ND	0.3	ug/L	08/02/00 HP
Methyl t - butyl ether	ND	5	ug/L	08/02/00 HP
Toluene	ND	0.3	ug/L	08/02/00 HP
Xylene (total)	ND	0.6	ug/L	08/02/00 HP

**8015M - Total Petroleum Hydrocarbons**

Gasoline	ND	50	ug/L	08/02/00 HP
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Order #: 201742

Client Sample ID: TOC #049, Intermed

Log Date: 07/28/20

Matrix: WATER

Date Sampled: 07/24/2000

Time Sampled: 10:10

Analyte	Result	DLR	Units	Date/Analyst
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**8021B BTEX + MTBE**

Benzene	ND	0.3	ug/L	08/02/00 HP
Ethyl benzene	2.0	0.3	ug/L	08/02/00 HP
Methyl t - butyl ether	78	15.0	ug/L	08/02/00 HP
Toluene	1.0	0.3	ug/L	08/02/00 HP
Xylene (total)	24	0.6	ug/L	08/02/00 HP

**8260B Other Compounds**

Methyl-tertbutylether (MTBE)	73	10	ug/L	08/02/00 RB
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**8015M - Total Petroleum Hydrocarbons**

Gasoline	300	50	ug/L	08/02/00 HP
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Order #: 201743

Client Sample ID: TOC #049, Inlet

Log Date: 07/28/20

Matrix: WATER

Date Sampled: 07/24/2000

Time Sampled: 10:20

Analyte	Result	DLR	Units	Date/Analyst
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DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit



**8021B BTEX + MTBE**

Benzene	ND	0.3	ug/L	08/02/00	HP
Ethyl benzene	ND	0.3	ug/L	08/02/00	HP
Methyl t - butyl ether	99	25.0	ug/L	08/02/00	HP
Toluene	1.0	0.3	ug/L	08/02/00	HP
Xylene (total)	ND	0.6	ug/L	08/02/00	HP

**8260B Other Compounds**

Methyl-tertbutylether (MTBE)	104	10	ug/L	08/02/00	RB
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**8015M - Total Petroleum Hydrocarbons**

Gasoline	205	50	ug/L	08/02/00	HP
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DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit



**ASSOCIATED LABORATORIES**  
LCS REPORT FORM

Matrix: WATER

Method : 8260

Analysis Date: 08/02/00

Applies to: LR 57006, 56646, 56664, 56736, 57025, 56949, 56768, 57150

REPORTING UNITS = ug/L

Test	Sample Result	Spike Added	LCS Spike	LCS Spk. Dup	%Rec LCS	%Rec LCS D	RPD	QC Limits	
								RPD	%REC
1,1-Dichloroethene	ND	25.0	26.30	26.10	105.2	104.4	0.8	30	61-145
MTBE	ND	25.0	25.80	25.30	103.2	101.2	2.0	30	70-130
Benzene	ND	25.0	24.70	24.30	98.8	97.2	1.6	11	76-127
Trichloroethene	ND	25.0	23.80	23.90	95.2	95.6	0.4	14	71-120
Toluene	ND	25.0	25.90	25.30	103.6	101.2	2.3	13	76-125
Chlorobenzene	ND	25.0	23.70	23.50	94.8	94.0	0.8	13	75-130

ND = Not Detected

RPD = Relative Percent Difference of LCS and LCS Dup.

%REC-MS & MSD = Percent Recovery of LCS & LCS Dup

Method Blank = All ND

**ASSOCIATED LABORATORIES**  
QA REPORT FORM

QC Sample: LR 57007 - 745

Matrix: WATER

Prep. Date: 08/02/00

Analysis Date: 08/02/00 - 08/03/00

ID#'s in Batch: LR 57006, 57007, 57008, 56873

**MATRIX SPIKE / MATRIX SPIKE DUPLICATE RESULT**

Reporting Units = ug/L

Test	Method	Sample Result	Spike Added	Matrix Spike	Matrix Spike Dup	%Rec MS	%Rec MSD	RPD
TPH	8015M-G	ND	500	494	449	98.8	89.8	9.5

VD = Not Detected

RPD = Relative Percent Difference of Matrix Spike and Matrix Spike Duplicate

%REC-MS & MSD = Percent Recovery of Matrix Spike & Matrix Spike Duplicate

%REC LIMITS = 70 - 130

RPD LIMITS = 30

**PREPARATION BLANK / LAB CONTROL SAMPLE RESULTS**

PREP BLK	LCS				
Value	Result	True	%Rec	L.Limit	H.Limit
ND	575	600	95.8	80%	120%

LCS Result = Lab Control Sample Result

True = True Value of LCS

L.Limit H.Limit = LCS Control Limits

# ASSOCIATED LABORATORIES

## QA REPORT FORM

QC Sample: LR 57007 - 745

Matrix: WATER

Prep. Date: 08/02/00

Analysis Date: 08/02/00 - 08/03/00

LAB ID#'s in Batch: LR 57006, 57007, 57008, 56873

### MATRIX SPIKE / MATRIX SPIKE DUPLICATE RESULT

REPORTING UNITS = ug/L

Test	Method	Sample Result	Spike Added	Matrix Spike	Matrix Spk. Dup	%Rec MS	%Rec MSD	RPD
Benzene	8021	ND	10.0	9.9	8.1	99.0	81.0	20.0
Toluene	8021	ND	10.0	10.1	8.2	101.0	82.0	20.8
Ethylbenzene	8021	ND	10.0	9.9	8.0	99.0	80.0	21.2
Xylenes	8021	ND	30.0	31.8	26.0	106.0	86.7	20.1

\* = Matrix Interference. LCS OK. Data Reported.

ND = Not Detected

RPD = Relative Percent Difference of Matrix Spike and Matrix Spike Dup

%REC-MS & MSD = Percent Recovery of Matrix Spike & Matrix Spike Duplicate

%REC LIMITS = 70 - 130
------------------------

RPD LIMITS = 30
-----------------

### PREPARATION BLANK / LAB CONTROL SAMPLE RESULTS

Test	Method	PREP. BLK	LCS				
		Value	Result	True	%Rec	L.Limit	H.Limit
Benzene	8021	ND	5.3	5.0	106.0	80%	120%
Toluene	8021	ND	5.2	5.0	104.0	80%	120%
Ethylbenzene	8021	ND	5.0	5.0	100.0	80%	120%
Xylenes	8021	ND	17.1	15.0	114.0	80%	120%

LCS = Lab Control Sample Result

TRUE = True Value of LCS

L LIMIT / H.LIMIT = LCS Control Limits

# Chain of Custody Record

57006 ✓

## ASSOCIATED LABORATORIES

806 North Batavia • Orange, CA 92868

Phone: (714) 771-6900 • Fax: (714) 538-1209



Company <b>THRIFTY OIL CO.</b>		Phone <b>(562) 421-3521</b>		A.L. Job No		Page _____ of _____			
Contact Manager <b>JEFF SURYARUSUMA</b>		Fax		<b>Analysis Requested</b>				<b>Test Instructions &amp; Comments</b>	
Contact Name <b>SYSTEM SAMPLING</b>		Project # <b># 049</b>							
Name <b>3400 SAN PABLO AVE.</b>				T P H	B I X	M B M			
Address <b>OAKLAND, CA, 94612</b>									
Sample ID	Lab ID	Date	Time	Matrix	Container Number/Size	Pres.			
EFFLUENT		07.24.00	10:00	WATER	3 VIALS	HCL	X	X	X
INTERMED		07.24.00	10:10	WATER	3 VIALS	HCL	X	X	X
WILET		07.24.00	10:20	WATER	3 VIALS	HCL	X	X	X
<del> </del>									

IF DETECTABLE, CONFIRM BY 8260

Sample Receipt - To Be Filled By Laboratory				1.		2.		3.	
Number of Containers		Properly Cooled Y / N / NA		Relinquished by Sampler: Signature: <i>[Signature]</i>		Relinquished by Signature: <i>[Signature]</i>		Relinquished by Signature:	
Chain Seals Y / N / NA		Samples Intact Y / N / NA		Printed Name: <b>JEFF SURYARUSUMA</b>		Printed Name: <b>REG SMITH</b>		Printed Name:	
Seals in Good Condition Y / N		Samples Accepted Y / N		Date: _____ Time: _____		Date: <b>7/29/00</b> Time: <b>1000</b>		Date: _____ Time: _____	
Turn Around Time				1.		2.		3.	
Normal <input type="checkbox"/> Rush <input type="checkbox"/> Same Day <input type="checkbox"/> 48 hrs. <input type="checkbox"/> 24 hrs. <input type="checkbox"/> 72 hrs. <input type="checkbox"/>				Received By:		Received By:		Received By:	
				Signature:		Signature:		Signature:	
				Printed Name:		Printed Name:		Printed Name:	
Date:		Date:		Date:		Date:		Date:	

Color: White - Laboratory Canary - Laboratory Pink - Project/Account Manager Goldenrod - Sampler/Originator