

THRIFTY OIL CO.

August 7, 1996

Ms. Madhulla Logan
Department of Environmental Health
1131 Harbor Bay Parkway
Room 250
Alameda, California 94502

RE: **Thrifty Oil Company #052**
20200 Hesperian Boulevard
Hayward, Ca
1st Quarter Report, 1996

Dear Ms. Logan:

Attached is the 1st Quarter Report 1996, for Thrifty Oil Company Station #052, 20200 Hesperian Boulevard, Hayward, Ca.

I certify under the penalty of law that this document and all attachments are prepared under my direction in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

If you have any questions, please contact Raymond C. Friedrichsen or myself at (310) 923-9876.

Respectfully,



PETER D'AMICO
Manager
Environmental Affairs



10,000 Lakewood Boulevard, Downey, CA 90240-4082 • (310) 923-9876

THRIFTY OIL CO.

August 7, 1996

Ms. Madhulla Logan
Department of Environmental Health
1131 Harbor Bay Parkway
Rm 250
Alameda, California 94502

RE: **Thrifty Oil Co. Station #052**
20200 Hesperian Boulevard
Hayward, California
1st QUARTER REPORT, 1996

Dear Ms. Logan,

This letter serves as a progress monitoring report for Thrifty Oil Co. Station #052 located at 20200 Hesperian Boulevard (**Figure 1**). This status report presents site monitoring efforts for the 1st quarter 1996. Thrifty Oil Co. has retained Earth Management Co. (EMC) to conduct quarterly monitoring and sampling activities at the site. The data collected by EMC is reported by Thrifty in-house environmental staff shown in **Table 1**.

GROUNDWATER MONITORING

Groundwater depth measurements were obtained from the on and off-site wells (**Figure 2**) by a representative from Earth Management Co. (EMC). An Oil Recovery Marine Moisture Tape was used to collect depth to groundwater information. The depth to groundwater data was recorded by EMC on a project status sheet. Copies of *the project* status reports for the site visits are presented in **Appendix A**.

GROUNDWATER SAMPLING

On February 14, 1996, each groundwater monitoring well was sounded for depth to groundwater and depth to well bottom by EMC personnel. With this information, the casing volume of each well was established for the purpose of sample collection. Groundwater was purged using a teflon bailer cleaned with a solution of Alconox and water. Purged water was stored in 55-gallon D.O.T. approved drums pending proper disposal.

Groundwater samples were collected after the groundwater recovered to at least 80 percent of its initial level after waiting at least two hours. Each sample was collected using a 350 cc teflon bailer. The collected sample was transferred into laboratory supplied vials, labeled and chilled until delivery to American Analytics for analysis. The water samples were logged on a Chain-of-



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Custody form to be analyzed for total hydrocarbons (TPH) for gasoline and diesel using EPA method 8015, volatile aromatic compounds (BTEX) using EPA method 8020, and Methyl Tert Butyl Ether using EPA method 8020 modified. A copy of the chain-of-custody card and analytical results are presented in **Appendix B**.

FINDINGS

On February 14, 1996, depth to groundwater beneath the site ranged from 6.70 to 12.46 feet below ground surface. Using recent survey data and the depth to water information, the groundwater flow direction was estimated to be westerly and is shown on **Figure 2**. No free product, sheen, or film was noted on the groundwater in any of the wells in the sampling period.

No detectable concentrations of TPH were found in the groundwater samples collected except wells MW-2 and MW-3 which ranged from 99 to 420 ug/L for gasoline and 1500 to 5500 ug/L for diesel. Benzene was also found in these wells ranging from 0.9 to 34 ug/L. MTBE and Benzene were also found in well MW-2 containing concentrations of 18 and 0.75ug/L, respectively. The analytical results are shown in **Table 2**. **Figure 3** presents the TPH isoconcentrations, and **Figure 4** presents the Benzene isoconcentrations established during this reporting period.

CLEAN-UP STATUS

ARCO Products Company was undertaking the remediation process at this site with vapor extraction, air sparging and Groundwater treatment. On August 28, 1995 ARCO removed their remediation equipment from these premises, and Thrifty Oil Co. assumed control of the site remediation. As per our phone conversation, Thrifty and the Alameda County Health Department agreed that Thrifty should do at least two quarterly sampling periods before installing any remediation equipment on the site. This time frame gives Thrifty a chance to review the data and determine the most effective means for remediation of the site. Thrifty did not receive the historical data until the third quarter, therefore, it is not possible at this time to determine a remediation plan.

This is Thrifty's third quarterly report for this site and is now complete with all the historical data from the site.

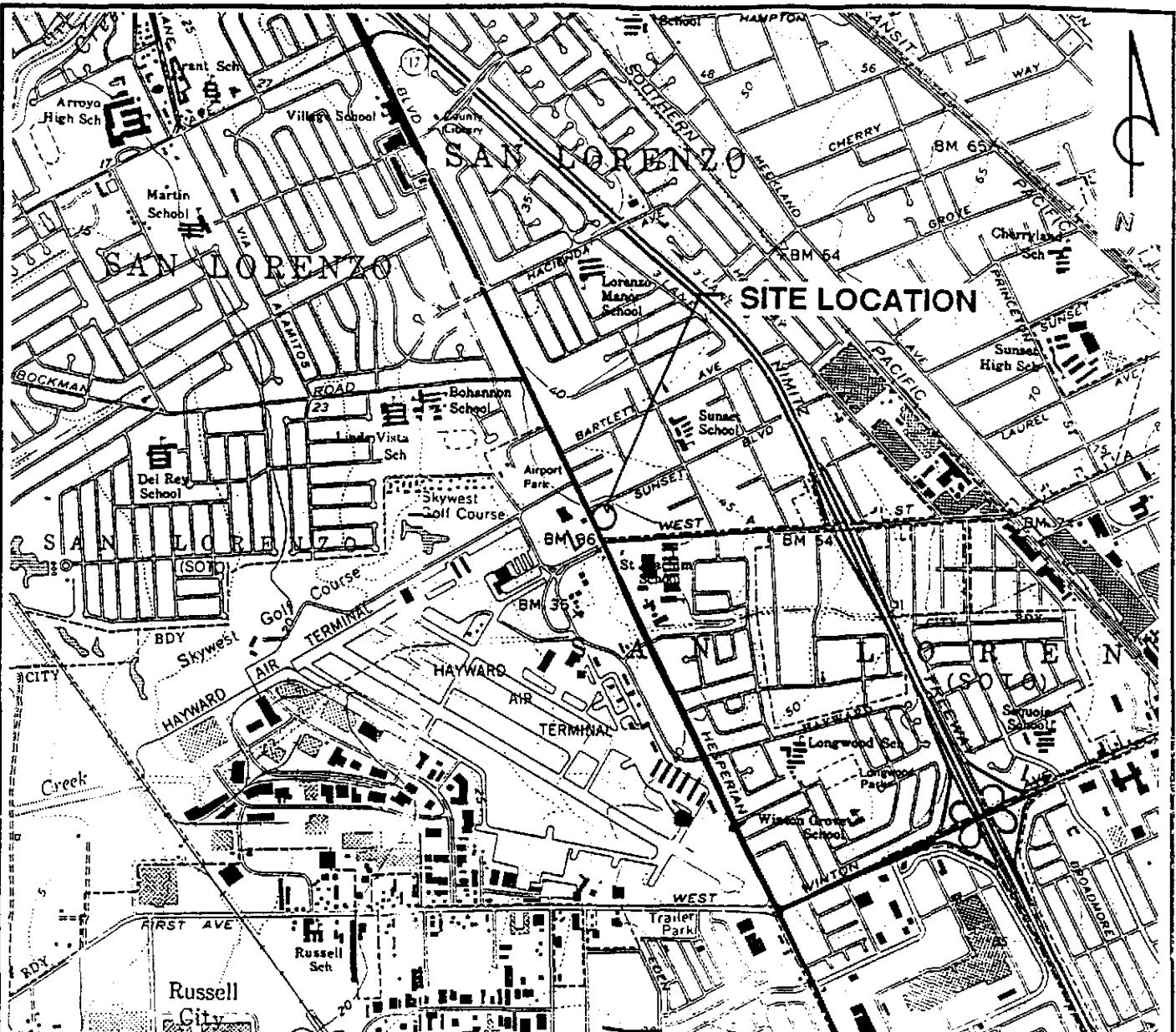
If you have any questions, please contact Ray Friedrichson or myself at (310) 923-9876.

Respectfully,



Peter D'Amico
Manager
Environmental Affairs

FIGURES



QUADRANGLE
LOCATION

REFERENCES:

USGS 7.5 MIN. TOPOGRAPHIC MAP
TITLED: HAYWARD, CALIFORNIA
DATED: 1959 REVISED: 1980
TITLED: SAN LEANDRO, CALIFORNIA
DATED: 1959 REVISED: 1980

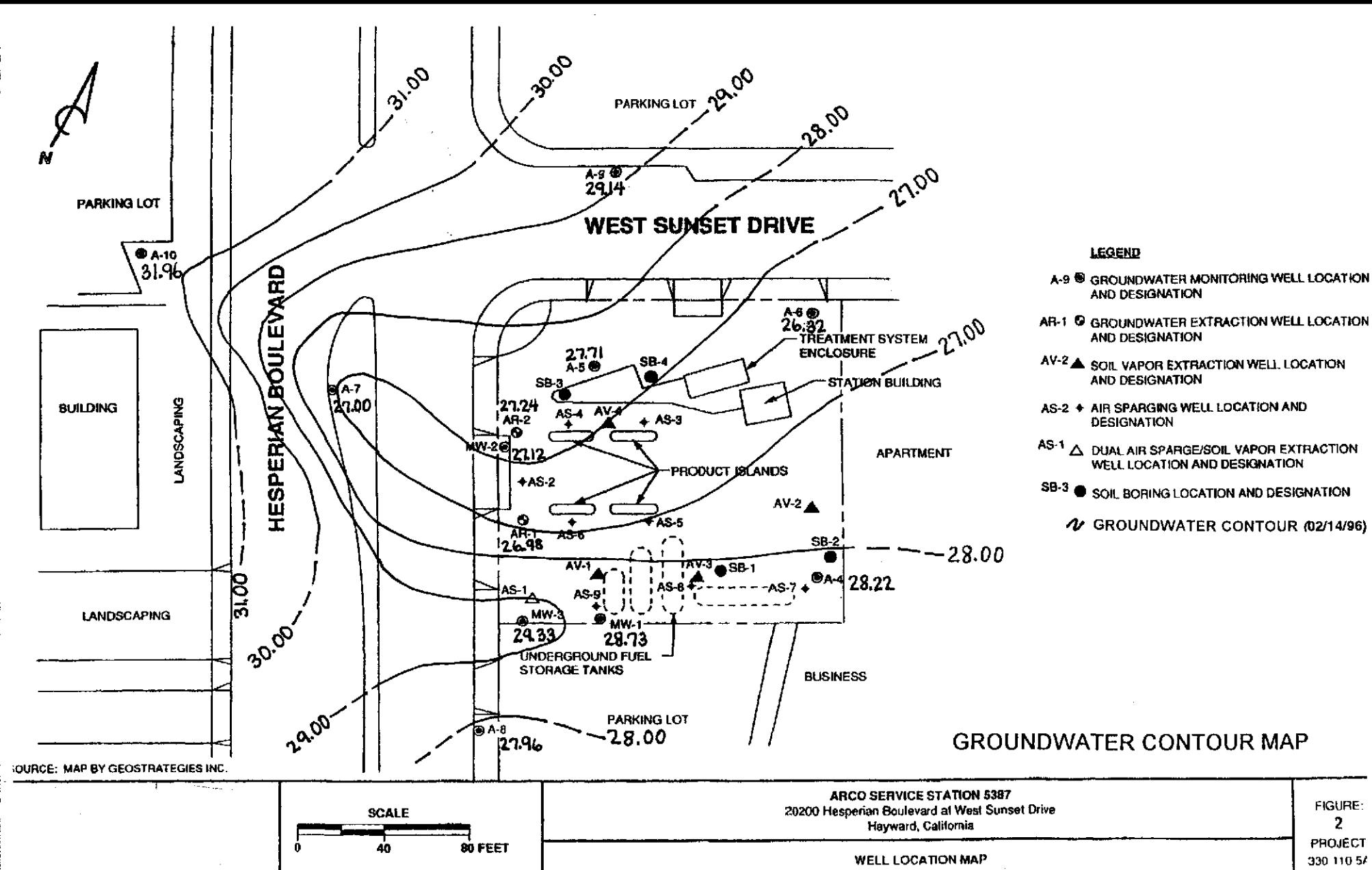
SCALE IN FEET

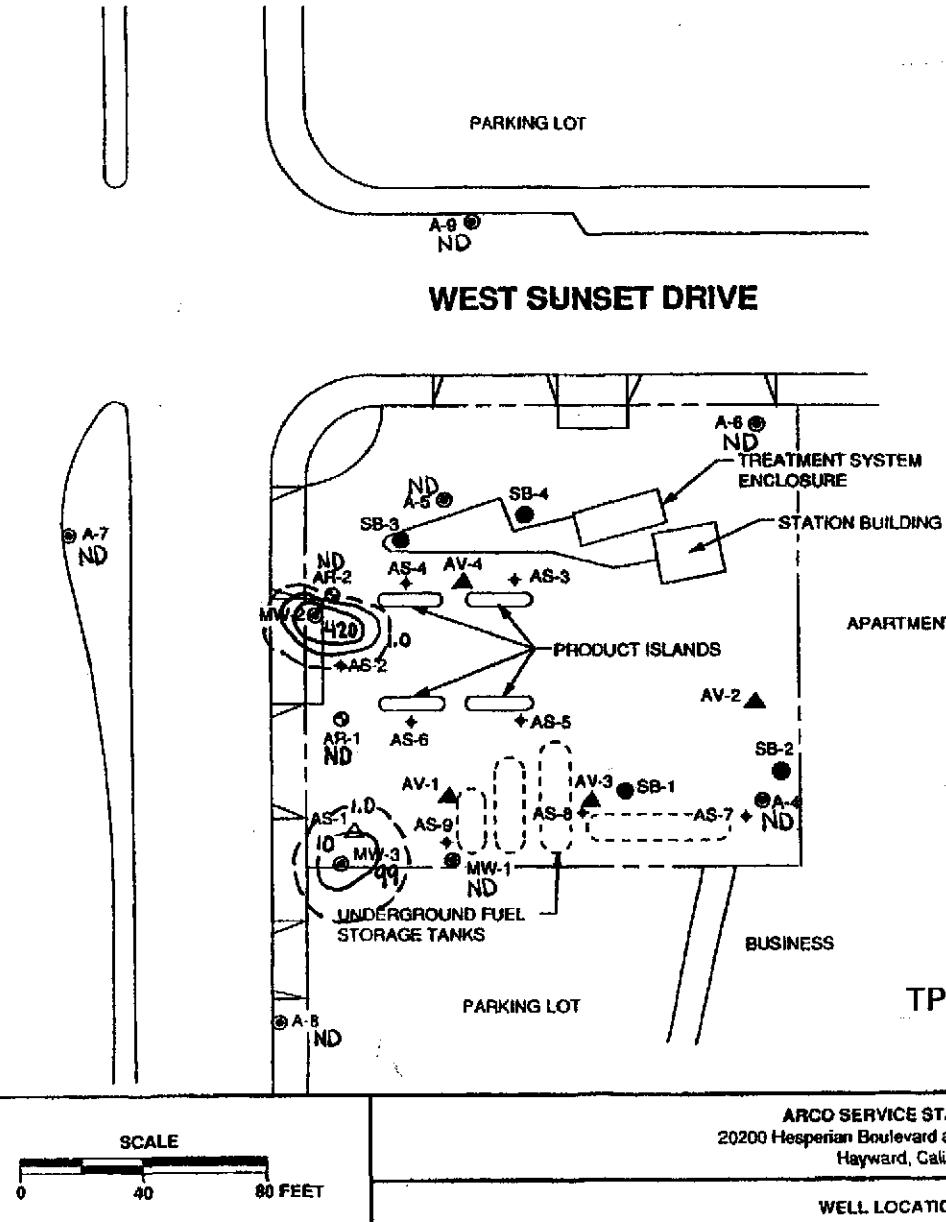
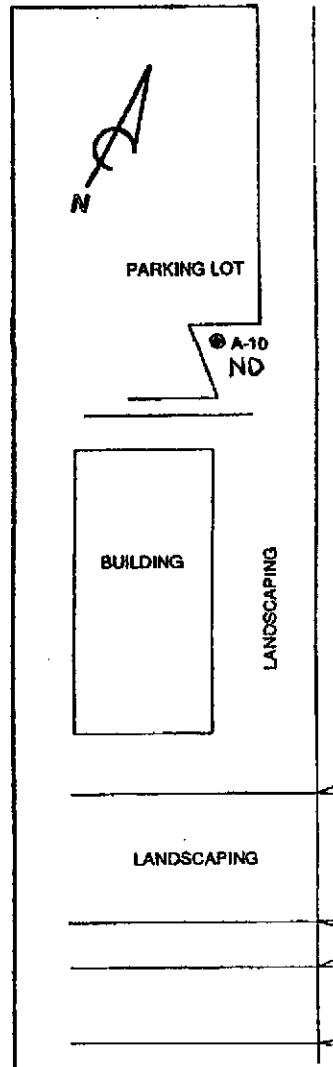
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ARCO SERVICE STATION 5387
20200 Hesperian Boulevard at West Sunset Drive
Hayward, California

SITE LOCATION MAP

FIGURE:
1
PROJECT:
330-110.5A

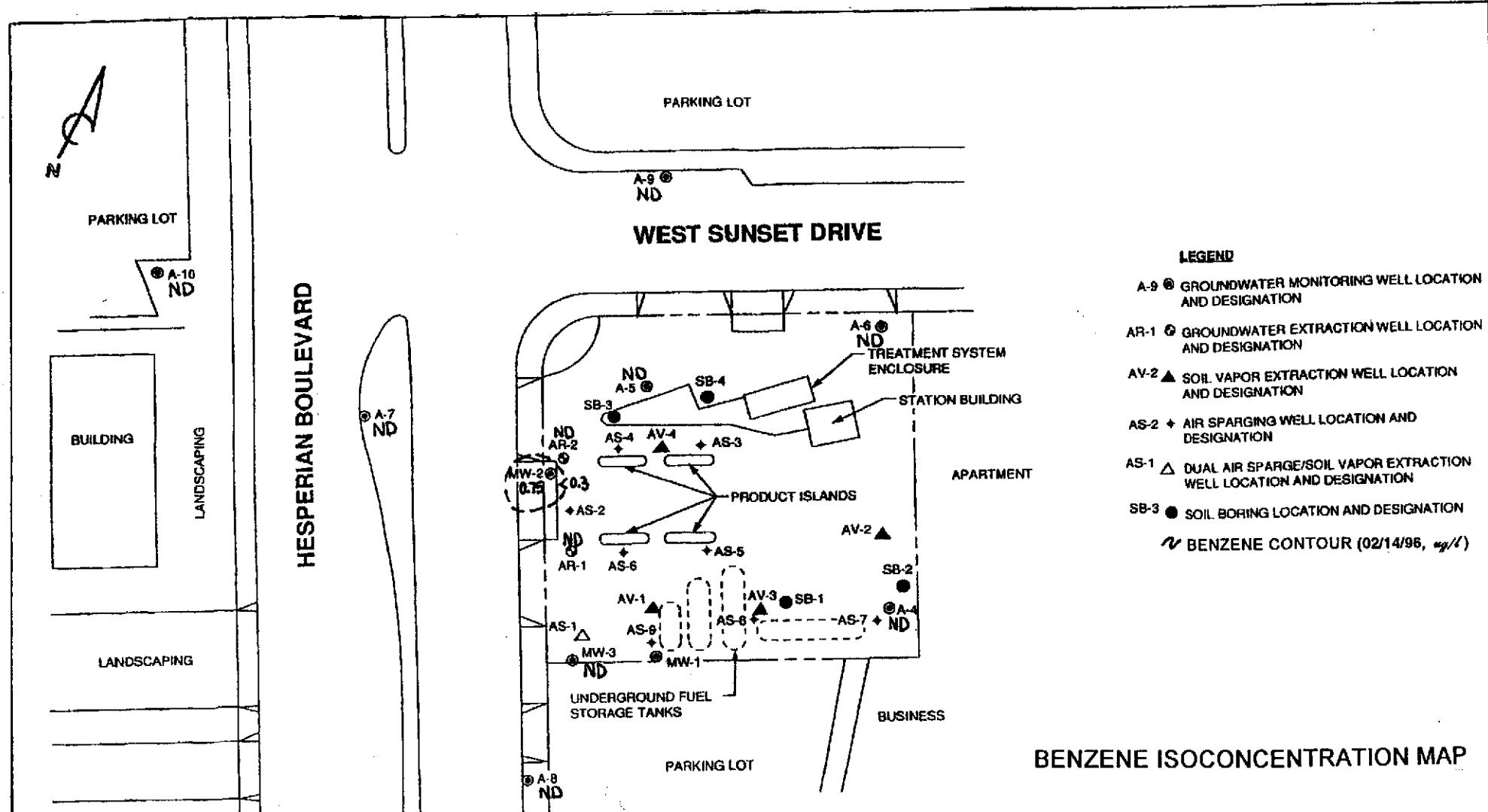




LEGEND

- A-9 ● GROUNDWATER MONITORING WELL LOCATION AND DESIGNATION
- AR-1 ● GROUNDWATER EXTRACTION WELL LOCATION AND DESIGNATION
- AV-2 ▲ SOIL VAPOR EXTRACTION WELL LOCATION AND DESIGNATION
- AS-2 + AIR SPARGING WELL LOCATION AND DESIGNATION
- AS-1 △ DUAL AIR SPARGE/SOIL VAPOR EXTRACTION WELL LOCATION AND DESIGNATION
- SB-3 ● SOIL BORING LOCATION AND DESIGNATION
- TPH-g CONTOUR (12/14/96, ppB)

FIGURE
3
PROJECT
330-1105



	SCALE 0 40 80 FEET	FIGURE: 4 PROJECT 330-110 SA
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TABLES

TABLE I
GROUNDWATER DATA
THRIFTY OIL STATION #052

DATE SAMPLED	TPH _B	TPH _A	ANALYTICAL PARAMETERS				TOP OF CASING ELEVATION (feet)	DEPTH TO GROUNDWATER (feet)	DEPTH TO PRODUCT (feet)	PRODUCT THICKNESS (feet)	CORRECTED GROUNDWATER ELEVATION (feet)
<i>Monitoring Well A-4</i>											
Mar 06, 1991	34000	NA	11000	870	2500	2100	NA	39.46	13.22	NP	0.00
Dec 24, 1991	1900	NA	29	1.9	25	29	NA	39.86*	17.60	NP	0.00
Mar 10, 1992	7400	NA	37	<0.60	11	73	NA	*	14.76	NP	0.00
Jun 9, 1992	4500	NA	3.2	1.5	37	16	NA	*	15.63	NP	0.00
Sep 14, 1992	1300	NA	<2.5	2.5	61	6.8	NA	*	16.83	NP	0.00
Nov 12, 1992	610	NA	7.2	0.98	34	0.97	NA	*	16.97	NP	0.00
Feb 11, 1993	740	NA	2.4	<0.5	5	3.5	NA	*	13.43	NP	0.00
Apr 14, 1993	380	NA	<0.5	<0.5	10	1.6	NA	*	13.06	NP	0.00
Aug 12, 1993	1200	NA	0.93	<0.5	0.91	<0.5	NA	*	14.94	NP	0.00
Oct 26, 1993	160	NA	<0.5	<0.5	1.0	<0.5	NA	*	15.52	NP	0.00
Feb 17, 1994	320	NA	,0.5	<0.5	28	0.8	NA	39.46	14.03	NP	0.00
May 03, 1994	130	NA	<0.5	<0.5	1.1	<0.5	NA	*	13.85	NP	0.00
Aug 17, 1994	62	NA	<0.5	<0.5	<0.5	<0.5	NA	39.53	14.95	NP	0.00
Nov 18, 1994	98	NA	1.3	0.6	<0.5	<0.5	NA	*	14.46	NP	0.00
Dec 6, 1995	ND	NA	0.6	ND	ND	ND	NA	*	13.82	NP	0.00
Feb 14, 1996	ND	ND	ND	2.3	ND	0.71	ND	*	11.24	NP	0.00
<i>Monitoring Well A-5</i>											
Dec 24, 1991	1600	NA	21	<0.30	32	52	NA	<38.94*	16.85	NP	0.00
Mar 10, 1992	1000	NA	1.6	<0.30	43	100	NA	*	13.83	NP	0.00
Jun 9, 1992	680	NA	34	<1.5	14	16	NA	*	14.91	NP	0.00
Sep 14, 1992	770	NA	12	<0.3	51	63	NA	*	16.14	NP	0.00
Nov 12, 1992	520	NA	3	<2.5	29	36	NA	*	16.35	NP	0.00
Feb 11, 1993	150	NA	1.6	0.96	5.1	1.5	NA	*	13.21	NP	0.00
Apr 14, 1993	190	NA	5.4	<0.5	1.5	0.97	NA	*	12.97	NP	0.00
Aug 12, 1993	230	NA	1.7	<0.5	5.3	0.94	NA	*	14.12	NP	0.00
Oct 26, 1993	190	NA	2.8	<0.5	5.5	2.0	NA	*	14.72	NP	0.00
Feb 17, 1994	340	NA	<0.5	<0.5	13	2.9	NA	38.47	13.20	NP	0.00
May 03, 1994	170	NA	1.4	<0.5	4.0	1.9	NA	*	13.08	NP	0.00
Aug 17, 1994	270	NA	0.6	<0.5	7.3	1.1	NA	38.54	14.18	NP	0.00
Nov 18, 1994	338	NA	<0.5	4.6	<0.5	NA	*	13.73	NP	0.00	24.81
Sep 26, 1995	ND	NA	0.63	1.1	ND	1.2	NA	38.47	12.44	NP	0.00
Dec 6, 1995	ND	NA	ND	ND	ND	ND	NA	*	12.92	NP	0.00
Feb 14, 1996	ND	ND	ND	2.0	ND	1.1	ND	*	10.76	NP	0.00
<i>Monitoring Well A-6</i>											
Dec 24, 1991	<30	NA	<0.3	<0.3	<0.3	<0.3	NA	39.07*	16.88	NP	0.00
Mar 10, 1992	<30	NA	<0.3	<0.3	<0.3	<0.3	NA	*	13.73	NP	0.00
Jun 9, 1992	<30	NA	<0.3	<0.3	<0.3	<0.3	NA	*	14.95	NP	0.00
Sep 14, 1992	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	*	16.2	NP	0.00
Nov 12, 1992	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	*	16.35	NP	0.00
Feb 11, 1993	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	*	13.04	NP	0.00
Apr 14, 1993	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	*	12.33	NP	0.00
Aug 12, 1993	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	*	14.18	NP	0.00
Oct 26, 1993	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	*	14.85	NP	0.00
Feb 17, 1994	NS	NA					NA	*	NM	NP	0.00
May 03, 1994	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	*	13.66	NP	0.00
Aug 17, 1994	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	38.78	14.34	NP	0.00
Nov 18, 1994	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	*	13.76	NP	0.00
Sep 26, 1995	ND	NA	ND	ND	ND	ND	NA	38.78	12.56	NP	0.00
Dec 6, 1995	ND	NA	ND	ND	ND	ND	NA	*	13.18	NP	0.00
Feb 14, 1996	ND	ND	ND	2.0	ND	ND	ND	*	12.46	NP	0.00

TABLE 1
GROUNDWATER DATA
THRIFTY OIL STATION #052

DATE SAMPLED	TPH _g	TPH _d	ANALYTICAL PARAMETERS				MTHL	TOP OF CASING (feet)	DEPTH TO GROUNDWATER (feet)	DEPTH TO PRODUCT (feet)	PRODUCT THICKNESS (feet)	CORRECTED GROUNDWATER ELEVATION (feet)
<i>Monitoring Well A-7</i>												
Dec 24, 1991	10000	NA	88	16	170	610	NA	39.95*	18.11	NP	0.00	21.84
Mar 10, 1992	320	NA	9.3	0.54	8.8	34	NA	*	15.30	NP	0.00	24.65
Jun 9, 1992	340	NA	11	1.1	8.9	26	NA	*	16.12	NP	0.00	23.83
Sep 14, 1992	510	NA	12	<2.0	30	51	NA	*	17.35	NP	0.00	22.60
Nov 12, 1992	760	NA	17	0.83	50	73	NA	*	17.47	NP	0.00	22.48
Feb 11, 1993	260	NA	20	1	11	21	NA	*	13.80	NP	0.00	26.15
Apr 14, 1993	1300	NA	89	2.1	48	87	NA	*	13.60	NP	0.00	26.35
Aug 12, 1993	360	NA	9	<0.50	13	9.0	NA	*	15.54	NP	0.00	24.41
Oct 26, 1993	99	NA	1.7	<0.50	4.0	3.0	NA	*	16.28	NP	0.00	23.67
Feb 17, 1994	1300	NA	38	<1	35	25	NA	39.38	14.44	NP	0.00	24.94
May 03, 1994	330	NA	8.1	<0.5	7.8	3.7	NA		14.34	NP	0.00	25.04
Aug 17, 1994	350	NA	2.2	<0.5	9.6	3.6	NA	39.45	15.40	NP	0.00	24.05
Nov 18, 1994	412	NA	1.3	<0.5	6.2	2.0	NA		14.95	NP	0.00	24.50
Sep 26, 1995	ND	NA	ND	ND	ND	ND	NA	39.38	13.92	NP	0.00	25.46
Dec 6, 1995	ND	NA	ND	ND	ND	ND	NA		14.42	NP	0.00	24.96
Feb 14, 1996	ND	ND	ND	1.1	ND	0.59	ND		12.38	NP	0.00	27.00
<i>Monitoring Well A-8</i>												
Sep 14, 1992	<50	NA	<0.5	<0.5	<0.5	<0.5	ND	37.23*	14.19	NP	0.00	23.04
Nov 12, 1992	<50	NA	<0.5	<0.5	<0.5	<0.5	ND	*	14.35	NP	0.00	22.88
Feb 11, 1993	<50	NA	<0.5	<0.5	<0.5	<0.5	ND	*	11.25	NP	0.00	25.98
Apr 14, 1993	<50	NA	<0.5	<0.5	<0.5	<0.5	ND	*	12.33	NP	0.00	24.90
Aug 12, 1993	<50	NA	<0.5	<0.5	<0.5	<0.5	ND	*	12.41	NP	0.00	24.82
Oct 26, 1993	<50	NA	<0.5	<0.5	<0.5	<0.5	ND	*	13.02	NP	0.00	24.21
Feb 17, 1994	<50	NA	<0.5	<0.5	<0.5	<0.5	ND	36.76	11.47	NP	0.00	25.29
May 03, 1994	<50	NA	<0.5	<0.5	<0.5	<0.5	ND		11.35	NP	0.00	25.41
Aug 17, 1994	<50	NA	<0.5	1.7	<0.5	1.4	ND	36.84	12.34	NP	0.00	24.50
Nov 18, 1994	<50	NA	1.0	<0.5	<0.5	<0.5	ND		11.9	NP	0.00	24.94
Sep 26, 1995	ND	NA	ND	ND	ND	ND	NA	36.76	10.94	NP	0.00	25.82
Dec 6, 1995	ND	NA	ND	ND	ND	ND	NA		11.42	NP	0.00	25.34
Feb 14, 1996	ND	ND	ND	0.48	ND	ND	ND		8.80	NP	0.00	27.96
<i>Monitoring Well A-9</i>												
Sep 14, 1992	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	38.71*	16.12	NP	0.00	22.59
Nov 12, 1992	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	*	16.39	NP	0.00	22.42
Feb 11, 1993	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	*	12.31	NP	0.00	26.40
Apr 14, 1993	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	*	12.01	NP	0.00	26.70
Aug 12, 1993	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	*	13.90	NP	0.00	24.81
Oct 26, 1993	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	*	14.86	NP	0.00	23.85
Feb 17, 1994	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	38.19	12.99	NP	0.00	25.20
May 03, 1994	NS	NA							NM			NM
Aug 17, 1994	<50	NA	<0.5	<0.5	<0.5	<0.5	NA	38.24	14.03	NP	0.00	24.21
Nov 18, 1994	<50	NA	<0.5	<0.5	<0.5	<0.5	NA		13.44	NP	0.00	24.80
Sep 26, 1995	ND	NA	<0.5	ND	ND	ND	NA	38.19	12.43	NP	0.00	25.76
Dec 6, 1995	ND	NA	<0.5	ND	ND	ND	NA		13.14	NP	0.00	25.05
Feb 14, 1996	ND	ND	ND	1.8	0.49	0.82	ND		9.05	NP	0.00	29.14
<i>Monitoring Well A-10</i>												
Dec 07, 1992	660	NA	30	<2.5	<2.5	<2.5	NA	38.94*	16.81	NP	0.00	22.13
Feb 11, 1993	210	NA	<0.5	0.97	<0.5	<0.5	NA	*	13.15	NP	0.00	25.79
Apr 14, 1993	770	NA	<0.5	3.0	0.76	1.9	NA	*	12.93	NP	0.00	26.01
Aug 12, 1993	390	NA	<0.5	<0.5	<0.5	0.84	NA	*	14.87	NP	0.00	24.07
Oct 26, 1993	290	NA	<0.5	<0.5	<0.5	<0.5	NA	*	15.65	NP	0.00	23.29
Feb 17, 1994	52	NA	<0.5	<0.5	<0.5	<0.5	NA	38.66	14.16	NP	0.00	24.50
May 03, 1994	<50	NA	<0.5	<0.5	<0.5	<0.5	NA		14.00	NP	0.00	24.66
Aug 17, 1994	<30	NA	<0.5	<0.5	<0.5	<0.5	NA	38.72	15.08	NP	0.00	23.64
Nov 18, 1994	<50	NA	<0.5	<0.5	<0.5	<0.5	NA		14.68	NP	0.00	24.04
Sep 26, 1995	ND	NA	ND	ND	ND	ND	NA	38.66	13.58	NP	0.00	25.08
Dec 6, 1995	ND	NA	ND	ND	ND	ND	NA		14.24	NP	0.00	24.42
Feb 14, 1996	ND	ND	ND	ND	ND	ND	ND		6.70	NP	0.00	31.96

TABLE 1
GROUNDWATER DATA
THRIFTY OIL STATION #052

DATE SAMPLED	TERP. IPHA	ANALYTICAL PARAMETERS				MTBE	TOP OF CASING (feet)	DEPTH TO GROUNDWATER (feet)	DEPTH TO PRODUCT (feet)	PRODUCT THICKNESS (feet)	CORRECTED GROUNDWATER ELEVATION (feet)	
<i>Monitoring Well AR-1</i>												
Sep 14, 1992	820	NA	67	<1.0	8.8	6.7	NA	38.11*	15.21	NP	0.00	22.90
Nov 12, 1992	140	NA	66	<0.50	4.3	3.7	NA	*	13.36	NP	0.00	22.75
Feb 11, 1993	360	NA	190	<2.5	8.6	<2.5	NA	*	12.81	NP	0.00	25.30
Apr 14, 1993	420	NA	240	5.2	30	8.7	NA	*	11.77	NP	0.00	26.34
Aug 12, 1993	370	NA	150	<2	11	<2	NA	*	13.55	NP	0.00	24.56
Oct 26, 1993	240	NA	98	<2	11	<2	NA	*	13.98	NP	0.00	24.13
Feb 17, 1994	4700	NA	1100	<10	140	26	NA	37.46	12.13	NP	0.00	23.31
May 03, 1994	620	NA	130	1.3	48	4.3	NA		12.03	NP	0.00	25.43
Aug 17, 1994	3600	NA	630	<5**	200	12	NA	37.33	12.92	NP	0.00	24.41
Nov 18, 1994	12100	NA	720	6.1	337	15	NA		12.41	NP	0.00	24.92
Sep 26, 1995	ND	NA	8.3	ND	ND	ND	NA	37.46	11.34	NP	0.00	26.12
Dec 6, 1995	120	NA	20	ND	20	0.6	NA		11.87	NP	0.00	25.59
Feb 14, 1996	ND	ND	0.99	ND	0.52	ND			10.48	NP	0.00	26.98
<i>Monitoring Well AR-2</i>												
Mar 30, 1993	390	NA	4.1	1.6	<0.5	47	NA	38.39*	11.53	NP	0.00	26.86
Apr 14, 1993	310	NA	18	<0.5	0.67	36	NA	*	11.87	NP	0.00	26.52
Aug 12, 1993	130	NA	16	<0.5	1.7	0.57	NA	*	13.59	NP	0.00	24.80
Oct 26, 1993	110	NA	15	<0.5	1.8	<0.5	NA	*	14.25	NP	0.00	24.14
Feb 17, 1994	130	NA	2.9	<0.5	15	0.8	NA	37.98	12.76	NP	0.00	25.22
May 03, 1994	<50	NA	<0.5	<0.5	<0.5	<0.5	NA		12.60	NP	0.00	25.38
Aug 17, 1994	3000	NA	140	<5**	220	91	NA	38.18	13.86	NP	0.00	24.32
Nov 18, 1994	623	NA	10.5	<0.5	27.9	8.0	NA		13.33	NP	0.00	24.85
Sep 26, 1995	ND	NA	ND	ND	ND	ND	NA	37.98	11.67	NP	0.00	26.31
Dec 6, 1995	320	NA	12	ND	23	2.1	NA		12.32	NP	0.00	25.66
Feb 14, 1996	ND	ND	ND	0.53	ND	0.76	ND		10.74	NP	0.00	27.24
<i>Monitoring Well MW-1</i>												
Aug 08, 1986	7040	NA	132	8.7	439	230	NA	38.36*	11.25	NP	0.00	27.11
Dec 24, 1991	2200	NA	190	8.5	6.9	2.6	NA	*	16.12	NP	0.00	22.24
Mar 10, 1992	2800	NA	270	29	56	39	NA	*	13.34	NP	0.00	25.02
Jun 9, 1992	2900	NA	960	27	99	63	NA	*	14.12	NP	0.00	24.24
Sep 14, 1992	2600	NA	450	<5.0	45	21	NA	*	15.34	NP	0.00	23.02
Nov 12, 1992	1600	NA	310	7.2	22	8.9	NA	*	15.46	NP	0.00	22.90
Feb 11, 1993	4000	NA	510	47	200	91	NA	*	11.95	NP	0.00	26.41
Apr 14, 1993	1700	NA	260	20	100	70	NA	*	11.65	NP	0.00	26.71
Aug 12, 1993	830	NA	60	3.8	39	3.6	NA	*	12.93	NP	0.00	25.43
Oct 26, 1993	8800	NA	140	<10	43	<10	NA	*	14.13	NP	0.00	24.23
Feb 17, 1994	1200	NA	130	12	54	58	NA	37.26	11.86	NP	0.00	25.40
May 03, 1994	NA	NA	NA	NA	NA	NA	NA		11.58	NP	0.00	25.68
Aug 17, 1994	3900	NA	86	5.1	78	9.4	NA	37.33	12.78	NP	0.00	24.55
Nov 18, 1994	6350	NA	112	8.4	107	35	NA		12.31	NP	0.00	25.02
Sep 26, 1995	ND	NA	ND	ND	ND	ND	NA	37.26	11.26	NP	0.00	26.00
Dec 6, 1995	4100	NA	0.86	0.46	0.38	0.92	NA		12.16	NP	0.00	25.10
Feb 14, 1996	ND	ND	ND	0.56	ND	0.82	ND		8.53	NP	0.00	28.73

TABLE 1
GROUNDWATER DATA
THRIFTY OIL STATION #052

DATE SAMPLED	TPH _G TPH _D	TPH _D	ANALYTICAL PARAMETERS				MTBE	TOP OF CASING (feet)	DEPTH TO GROUNDWATER (feet)	DEPTH TO PRODUCT (feet)	PRODUCT THICKNESS (feet)	CORRECTED GROUNDWATER ELEVATION (feet)
<i>Monitoring Well MW-2</i>												
Aug 08, 1986	1910	NA	20.1	2.8	1.8	NA	NA	38.58*	11.62	NP	0.00	26.96
Dec 24, 1991	23000	NA	1500	1100	480	1400	NA	*	16.50	NP	0.00	22.08
Mar 10, 1992	210000	NA	44000	3900	1700	3800	NA	*	13.50	NP	0.00	23.08
Jun 09, 1992	33000	NA	2300	370	780	2600	NA	*	14.52	NP	0.00	24.06
Sep 14, 1992	16000	NA	3700	100	470	1000	NA	*	15.78	NP	0.00	22.80
Nov 12, 1992	16000	NA	3800	86	470	910	NA	*	15.98	NP	0.00	22.60
Feb 11, 1993	27000	NA	3500	720	1600	3800	NA	*	12.27	NP	0.00	26.31
Apr 14, 1993	27000	NA	3500	220	2200	5100	NA	*	12.01	NP	0.00	26.57
Aug 12, 1993	16000	NA	1600	27	1300	1200	NA	*	13.81	NP	0.00	24.77
Oct 26, 1993	12000	NA	1200	<25	510	330	NA	*	14.53	NP	0.00	24.03
Feb 17, 1994	15000	NA	1800	21	850	540	NA	*	12.81	NP	0.00	25.18
May 03, 1994	NA	NA	NA	NA	NA	NA	NA	*	12.63	NP	0.00	25.36
Aug 17, 1994	14000	NA	850	13	640	270	NA	37.99	13.69	NP	0.00	24.37
Aug 17, 1994 (14000	NA	860	14	650	280	NA	*		NP	0.00	
Nov 18, 1994	14900	NA	640	3.4	532	156	NA	38.06	13.18	NP	0.00	27.88
Nov 18, 1994 (14500	NA	680	6.1	528	155	NA	*		NP	0.00	
Sep 26, 1995	5100	NA	40	25	2.5	18	NA	37.99	12.23	NP	0.00	25.76
Dec 6, 1995	810	NA	34	23	11	11	NA		12.82	NP	0.00	25.17
Feb 14, 1996	420	5500	0.75	.54	0.64	.53	ND		10.87	NP	0.00	27.12
<i>Monitoring Well MW-3</i>												
Aug 08, 1986	7450	NA	510	549	409	1380	NA	37.77*	10.61	NP	0.00	27.16
Dec 24, 1991	6800	NA	450	10	610	45	NA	*	15.60	NP	0.00	22.17
Mar 10, 1992	11000	NA	2500	75	400	560	NA	*	12.90	NP	0.00	24.87
Jun 9, 1992	16000	NA	2000	69	1300	2600	NA	*	13.60	NP	0.00	24.17
Sep 14, 1992	14000	NA	630	<50	1500	2400	NA	*	14.78	NP	0.00	22.99
Nov 12, 1992	7400	NA	400	<25	860	330	NA	*	14.92	NP	0.00	22.85
Feb 11, 1993	8600	NA	580	<10	710	300	NA	*	11.65	NP	0.00	26.12
Apr 14, 1993	6900	NA	300	8.8	580	99	NA	*	11.16	NP	0.00	26.61
Aug 12, 1993	3400	NA	56	<5	190	<5	NA	*	12.82	NP	0.00	24.95
Oct 26, 1993	2900	NA	42	<10	76	<10	NA	*	13.60	NP	0.00	24.17
Feb 17, 1994	3100	NA	160	<10	36	8.6	NA	36.80	11.53	NP	0.00	25.27
May 03, 1994	2300	NA	44	<2.5	8.0	<2.5	NA		11.36	NP	0.00	25.44
Aug 17, 1994	1900	NA	7.0	<9.5*	4.4	<5**	NA	36.87	12.38	NP	0.00	24.49
Nov 18, 1994	909	NA	1.1	<0.5	0.9	4.0	NA		11.93	NP	0.00	24.94
Sep 26, 1995	410	NA	1.3	1.9	2.3	3.3	NA	36.80	10.96	NP	0.00	25.84
Dec 6, 1995	ND	NA	0.9	4.6	3.0	4.3	NA		11.56	NP	0.00	25.24
Feb 14, 1996	99	1500	ND	0.49	0.46	ND	ND		7.47	NP	0.00	29.33

Benzene, toluene, ethylbenzene, and xylenes analyzed by EPA method 8020 and concentrations reported in ug/l.

Total petroleum hydrocarbons analyzed by EPA method 8015 for Gasoline (TPH_G) and Diesel (TPH_D) and concentrations reported in ug/l.

Methyl-Tert-Butyl-Ether (MTBE) analyzed by EPA method 8020 modified and concentrations reported in ug/L.

*= Measurement taken from top of well box

**= Minimum reporting limit raised due to high analyte concentration requiring sample dilution.

(D)= Duplicate sample

NA= not analyzed

ND= not detected

—= No data

ND= not monitored

NP= No Petroleum hydrocarbon product detected.

APPENDIX A



EARTH MANAGEMENT CO.

Environmental Remediation

O B S E R V A T I O N W E L L S

PROJECT STATUS REPORT

THRIFTY OIL CO. S.S. #052

20200 HESPERIAN BLVD

HAYWARD, CALIF. 94541

DATE: 02/14/1996

EXPLANATION

DTW - DEPTH TO WATER FROM SURFACE S - SLIGHT DTP - DEPTH TO PRODUCT FROM SURFACE

PT - PRODUCT THICKNESS DTB - DEPTH TO BOTTOM DIA. - DIAMETER

MEASUREMENTS IN FEET

REMARKS :

FREE PRODUCT REMOVED: APPROX. — GALLONS

WATER REMOVED: APPROX. 492 GALLONS

DATA RECORDED BY:

INPUT BY:

13415 Carmenita Road/P.O. Box 2129, Santa Fe Springs, CA 90670

TOTAL P.04

APPENDIX B



LABORATORY ANALYSIS RESULTS

Page 1

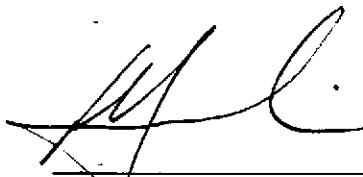
Client: Thrifty Oil Company
Project No.: N/A
Project Name: SS# 052
Sample Matrix: Water
Method: EPA 8015M (Gasoline)

AA Project No.: A135052-3
Date Received: 02/16/96
Date Reported: 02/27/96
Units: ug/L

AA I.D. No.	Client I.D. No.	Date Sampled	Date Analyzed	Results	MRL
43251	A-4	02/14/96	02/20/96	<50	50
43252	A-5	02/14/96	02/20/96	<50	50
43253	A-6	02/14/96	02/20/96	<50	50
43254	A-7	02/14/96	02/20/96	<50	50
43255	A-8	02/14/96	02/20/96	<50	50
43256	A-9	02/14/96	02/20/96	<50	50
43257	A-10	02/14/96	02/20/96	<50	50
43258	AR-1	02/14/96	02/20/96	<50	50
43259	AR-2	02/14/96	02/20/96	<50	50
43260	MW-1	02/15/96	02/20/96	<50	50
43261	MW-2	02/15/96	02/20/96	420	50
43262	MW-3	02/15/96	02/20/96	99	50
43263	Trip Blank	02/15/96	02/20/96	<50	50

MRL: Method Reporting Limit

<: Not detected at or above the value of the concentration indicated.



George Havalias
Laboratory Director



LABORATORY ANALYSIS RESULTS

Page 1

Client: Thrifty Oil Company
Project No.: N/A
Project Name: SS# 052
Sample Matrix: Water
Method: EPA 8015M (Diesel)

AA Project No.: A135052-3
Date Received: 02/16/96
Date Reported: 03/22/96
Units: mg/L

AA I.D. No.	Client I.D. No.	Date Sampled	Date Extracted	Date Analyzed	Results	MRL
43251	A-4	02/14/96	02/20/96	02/20/96	<1	1
43252	A-5	02/14/96	02/20/96	02/20/96	<1	1
43253	A-6	02/14/96	02/20/96	02/20/96	<1	1
43254	A-7	02/14/96	02/20/96	02/20/96	<1	1
43255	A-8	02/14/96	02/20/96	02/20/96	<1	1
43256	A-9	02/14/96	02/20/96	02/20/96	<1	1
43257	A-10	02/14/96	02/20/96	02/20/96	<1	1
43258	AR-1	02/14/96	02/20/96	02/20/96	<1	1
43259	AR-2	02/14/96	02/20/96	02/20/96	<1	1
43260	MW-1	02/15/96	02/20/96	02/20/96	<1	1
43261	MW-2	02/15/96	02/20/96	02/20/96	5.5	1
43262	MW-3	02/15/96	02/20/96	02/20/96	1.5	1
43263	Trip Blank	02/15/96	02/20/96	02/20/96	<1	1

MRL: Method Reporting Limit

<1: Not detected at or above the value of the concentration indicated.

NOTES:

The above samples were analyzed by EPA 5090 (purge and trap)/GC-FID. The results were obtained by quantitation against a diesel standard that was analyzed using the same procedure.


George Havalas
Laboratory Director



LABORATORY ANALYSIS RESULTS

Page 1

Client: Thrifty Oil Company
Project No.: N/A
Project Name: SS# 052
Sample Matrix: Water
Method: MTBE

AA Project No.: A135052-3
Date Received: 02/18/96
Date Reported: 03/22/96
Units: ug/L

AA I.D. No.	Client I.D. No.	Date Sampled	Date Analyzed	Results	MRL
43251	A-4	02/14/96	02/20/96	<5	5
43252	A-5	02/14/96	02/20/96	<5	5
43253	A-6	02/14/96	02/20/96	<5	5
43254	A-7	02/14/96	02/20/96	<5	5
43255	A-8	02/14/96	02/20/96	<5	5
43256	A-9	02/14/96	02/20/96	<5	5
43257	A-10	02/14/96	02/20/96	<5	5
43258	AR-1	02/14/96	02/20/96	<5	5
43259	AR-2	02/14/96	02/20/96	<5	5
43260	MW-1	02/15/96	02/20/96	<5	5
43261	MW-2	02/15/96	02/20/96	18	5
43262	MW-3	02/15/96	02/20/96	<5	5
43263	Trip Blank	02/15/96	02/20/96	<5	5

MRL: Method Reporting Limit

<: Not detected at or above the value of the concentration indicated.



George Havalias
Laboratory Director



LABORATORY QA/QC REPORT

Page 1

Client: Thrifty Oil Company
Project Name: SS# 052
Method: EPA 8015M (Gasoline)
Sample ID: Matrix Spike
Concentration: 500 ug/L

AA ID No.: 43174
Project No.: N/A
AA Project No.: A135052-3
Date Analyzed: 02/20/96
Date Reported: 02/27/96

Compounds	Result (ug/L)	Spike Recovery (%)	Dup. Result (ug/L)	Spike/Dup. Recovery (%)	RPD (%)	Accept.Rec. Range (%)
Gasoline Range Organics	470	94	460	92	2	59 - 149

George Havalas
Laboratory Director



LABORATORY ANALYSIS RESULTS

Page 1

Client: Thrifty Oil Company
Project No.: N/A
Project Name: SS# 052
Sample Matrix: Water
Method: EPA 8020 (BTEX)

AA Project No.: A135052-3
Date Received: 02/16/96
Date Reported: 02/27/96
Units: ug/L

Date Sampled:	02/14/96	02/14/96	02/14/96	02/14/96	
Date Analyzed:	02/20/96	02/20/96	02/20/96	02/20/96	
AA ID No.:	43251	43252	43253	43254	
Client ID No.:	A-4	A-5	A-6	A-7	MRL

Compounds:

Benzene	<0.3	<0.3	<0.3	<0.3	0.3
Ethylbenzene	<0.3	<0.3	<0.3	<0.3	0.3
Toluene	2.3	2.0	2.0	1.1	0.3
Xylenes	0.71	1.1	<0.5	0.59	0.5



George Havalas
Laboratory Director



LABORATORY ANALYSIS RESULTS

Page 2

Client: Thrifty Oil Company
Project No.: N/A
Project Name: SS# 052
Sample Matrix: Water
Method: EPA 8020 (BTEX)

AA Project No.: A135052-3
Date Received: 02/16/96
Date Reported: 02/27/96
Units: ug/L

Date Sampled:	02/14/96	02/14/96	02/14/96	02/14/96	
Date Analyzed:	02/20/96	02/20/96	02/20/96	02/20/96	
AA ID No.:	43255	43256	43257	43258	
Client ID No.:	A-8	A-9	A-10	AR-1	MRL

Compounds:

Benzene	<0.3	<0.3	<0.3	<0.3	0.3
Ethylbenzene	<0.3	0.49	<0.3	<0.3	0.3
Toluene	0.48	1.8	<0.3	0.99	0.3
Xylenes	<0.5	0.82	<0.5	0.52	0.5

George Havalas
Laboratory Director



LABORATORY ANALYSIS RESULTS

Page 3

Client: Thrifty Oil Company
Project No.: N/A
Project Name: SS# 052
Sample Matrix: Water
Method: EPA 8020 (BTEX)

AA Project No.: A135052-3
Date Received: 02/16/96
Date Reported: 02/27/96
Units: ug/L

Date Sampled:	02/14/96	02/15/96	02/15/96	02/15/96	
Date Analyzed:	02/20/96	02/20/96	02/20/96	02/20/96	
AA ID No.:	43259	43260	43261	43262	
Client ID No.:	AR-2	MW-1	MW-2	MW-3	MRL
Compounds:					
Benzene	<0.3	<0.3	0.75	<0.3	0.3
Ethylbenzene	<0.3	<0.3	0.64	0.46	0.3
Toluene	0.53	0.56	0.54	0.49	0.3
Xylenes	0.76	0.82	0.53	<0.5	0.5

George Havalas
Laboratory Director



LABORATORY ANALYSIS RESULTS

Page 4

Client: Thrifty Oil Company
Project No.: N/A
Project Name: SS# 052
Sample Matrix: Water
Method: EPA 8020 (BTEX)

AA Project No.: A135052-3
Date Received: 02/16/96
Date Reported: 02/27/96
Units: ug/L

Date Sampled:	02/15/96	
Date Analyzed:	02/20/96	
AA ID No.:	43263	
Client ID No.:	Trip Blank	MRL

Compounds:

Benzene	<0.3	0.3
Ethylbenzene	0.34	0.3
Toluene	<0.3	0.3
Xylenes	1.1	0.5

MRL: Method Reporting Limit

<: Not detected at or above the value of the concentration indicated.

George Havalias
Laboratory Director



LABORATORY QA/QC REPORT

Page 1

Client: Thrifty Oil Company
Project Name: SS# 052
Method: EPA 8020 (BTEX)
Sample ID: Matrix Spike
Concentration: 20 ug/L

AA ID No.: 43174
Project No.: N/A
AA Project No.: A135052-3
Date Analyzed: 02/20/96
Date Reported: 02/27/96

Compounds	Result (ug/L)	Spike Recovery (%)	Dup. Result (ug/L)	Spike/Dup. Recovery (%)	RPD (%)	Accept.Rec. Range (%)
Benzene	17.432	87	18.034	90	3	65 - 135
Ethylbenzene	19.977	100	30.779	154	43	77 - 123
Toluene	20.646	103	21.472	107	4	66 - 134
Xylenes	20.604	103	21.516	108	5	73 - 127

George Havalas
Laboratory Director



AMERICAN ANALYTICS CHAIN-OF-CUSTODY RECORD

9765 ETON AVE., CHATSWORTH, CA 91311

(818) 998-5547

(818) 998-5548

1-800-533-TEST

1-800-533-8378

FAX (818) 998-7258

DATE: 02-15-1996

PAGE 1 OF 4

AA Client	THRIFTY OIL COMPANY		Phone	(360) 923-9876 / 360	Sampler's Name	SERBAN P.				
Project Manager	CHRIS PANAITESCU		P.O. No.		Sampler's Signature	<i>DulPrntor</i>				
Project Name	Quarterly water sampling		Project No.		Project Manager's Signature					
Job Name and Address	SS # 052 20200 HESPERIAN Blvd. HAYWARD, 95541.		ANALYSIS REQUIRED							
A.A. ID.#	Client's ID.	Date	Time	Sample Type	Number of Containers	Test Requirements				
413251	A-4	02.14.96	8:20	WATER	2	X	X	X	X	
413252	A-5	02.14.96	8:26	WATER	2	X	X	X	X	
413253	A-6	02.14.96	8:30	WATER	2	X	X	X	X	
413254	A-7	02.14.96	8:40	WATER	2	X	X	X	X	
413255	A-8	02.14.96	8:47	WATER	2	X	X	X	X	
413256	A-9	02.14.96	8:54	WATER	2	X	X	X	X	
413257	A-10	02.14.96	9:00	WATER	2	X	X	X	X	
413258	AR-1	02.14.96	9:10	WATER	2	X	X	X	X	
413259	AR-2	02.14.96	9:15	WATER	2	X	X	X	X	
413260	MW-1	02.15.96	9:23	WATER	2	X	X	X	X	
413261	MW-2	02.15.96	9:28	WATER	2	X	X	X	X	
413262	MW-3	02.15.96	9:35	WATER	2	X	X	X	X	
413263	TRIP BLANK	02.15.96	6:30	WATER	2	X	X	X	X	
						26				
SAMPLE INTEGRITY-TO BE FILLED IN BY RECEIVING LAB						Relinquished by:		Date	Time	Received by:
						<i>DulPrntor</i>		02.15.	17:00	CALIFORNIA OVERNIGHT
						Relinquished by:		2/16	12:00	<i>Mike Rye</i>
						Relinquished by:				Received by:
						Relinquished by:				
AA Project No.						Relinquished by:				
A135052-3										