GW - 55

MONITORING REPORTS

DATE: 1994

BioTech Remediation Inc.

QUARTERLY MONITORING REPORT
THRIFTWAY REFINERY
626 COUNTY ROAD 5500
BLOOMFIELD, NM 87413

PREPARED FOR
THE NEW MEXICO OIL CONSERVATION DIVISION
WILL OLSEN, PROJECT MANAGER

JUNE 15, 1994

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QUARTERLY MONITORING REPORT
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626 COUNTY ROAD 5500
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PREPARED FOR THE
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MR. WILL OLSEN, PROJECT MANAGER

June 15, 1994

BY
BIOTECH REMEDIATION INC.
710 EAST 20TH ST., SUITE #400
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PREPARED BY

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SENIOR SCIENTIST/ENGINEER

810\QMR061594

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1.0 INTRODUCTION

The purpose of this report is to update the database information for the Thriftway Refinery, through June, 1994. BioTech Remediation, Inc., (BioTech), submits this monitoring and sampling update on behalf of Thriftway Company, pursuant to the requirements of the New Mexico Oil Conservation Division. This report defines the relative ground water elevation, approximate size and location of the free-product plumes and the current activity at the site. It also describes the extent of water contamination based on the NMWQCC specification of .01 mg/L Benzene in water. This work is compiled in compliance with the terms of the Thriftway Refinery Ground Water Discharge Plan GW-55.

2.0 QUARTERLY SUMMARY OF SITE ACTIVITIES

Site monitoring was performed on June 14, and 22, 1994. During this quarterly site visit, the following activities were performed:

- Water level monitoring
- Sample of monitor wells
- Free-product thickness measurements

The artesian well which is located approximately 150 yards west of the north-end of the fire pond was leaking water to the unconfined ground water system. The well was plugged to prevent the high water table, in that area, from overloading the air stripper system. The air stripper system is de-scaled by acidizing on a monthly basis. After each acidification, the operation of the system is restored to an acceptable level.

Freeproduct was bailed once or twice a month, for the quarter, from all recovery and monitor wells that contained free-product. The bailing frequency was slowed to keep the recovery wells in contact with the free product plume. BioTech has found here and at other sites, that if the free product is bailed too frequently the plume separates from the well. In some cases it has taken several months to make the connection again. BioTech feels this is part of the problem with pump and treat systems.

3.0 SUMMARY OF GROUND WATER ELEVATION DATA

Table 1 lists the relative ground water elevation data, to date, for the refinery. The most recent relative ground water elevation data, collected June 14, 1994, is presented on the Ground Water Contour Map (see Figure 1). The field data was gathered using an ORS water interface probe and a 100' well liquid level measuring tape. The difference between the water level and the liquid level is the product thickness.

From the ground water contour map, it appears that the ground water gradient is affected by the following natural and man-made features: 1) Kuntz Arroyo; 2) the small arroyo east of the property; 3) the pond, which is now fed by the effluent from the air stripper due to the artesian well being plugged; and 4) the water recovery and injection system. The plugging of the artesian well has made a significant decrease in the water levels along the north-side of the property.

4.0 SUMMARY OF PHASE-SEPARATED PRODUCT CONDITIONS

Free-product was found in monitor wells MW-12, MW-14, MW-23, MW-26, MW-27, MW-28, MW-29, MW17-1, MW17-4 and MW17-5, as well as in most of the recovery wells. The relative level of free-product in the monitor and recovery wells was measured with the liquid level measuring tape. The difference between this liquid level and the water level measured with the ORS probe, is the thickness of the product in the well. The amount of free-product is recorded in feet and presented in Table 2. The amount of free-product collected from the bailing of these monitor and recovery wells is also shown in Table 2. The material recovered during bailing was properly disposed of in a collection tank provided on the site. The collection tank contents are handled as follows: 1) free-product is pumped off and stored for later processing; and 2) the contaminated water is stripped of dissolved hydrocarbon in the waste water air stripper tank and then evaporated in the refinery waste water system.

From the earlier hydrogeologic investigation and subsequent Quarterly Monitoring Reports, the plume in monitor wells MW-12 and MW-14 is affected by the water mound being created from the water injection system and the pond. The current phase-separated product plumes are presented in Figure 3.

5.0 SUMMARY OF GROUND WATER CHEMISTRY DATA

Table 3 summarizes all ground water quality data collected, to date, for the refinery. Ground water samples for analysis were collected June 14 and 22, 1994, from most of the monitor wells not containing free-product. Ground water from monitor wells MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, MW-7, MW-8, MW-9, MW-10, MW-11, MW-13, MW-15, MW-16, MW-17, MW-18, MW-19, MW-20, MW-21 and MW-22 were analyzed for Benzene, Toluene, Ethylbenzene and total Xylenes (BTEX) and Methyl-T-B-Ether (MTBE). The extent of the dissolved phase ground water plume at this site (based upon the regulated Benzene standard of 0.01 mg/l), is shown in Figure 2.

The samples were gathered using disposable bailers. New cord was used on each bailer to further ensure no cross-contamination of wells occurred. At least three (3) well volumes were removed, whenever possible. If the well recharged slowly, the well was bailed down, then allowed to recover while the sample bottles were prepared. The samples were placed in 40 ml vials, prepared in the field with two (2) or three (3) drops of $HgCl_2$ solution. The samples were all marked with their respective location, monitor well number, date, time of sampling and by whom sampled. The samples were then transported, on ice, to the BioTech Water Quality Laboratories. A Chain of Custody record accompanied the samples and is included with the laboratory analysis reports. Quality Control Sample Analysis Reports are also included and are in the Appendix.

6.0 DISCUSSION / RECOMMENDATIONS

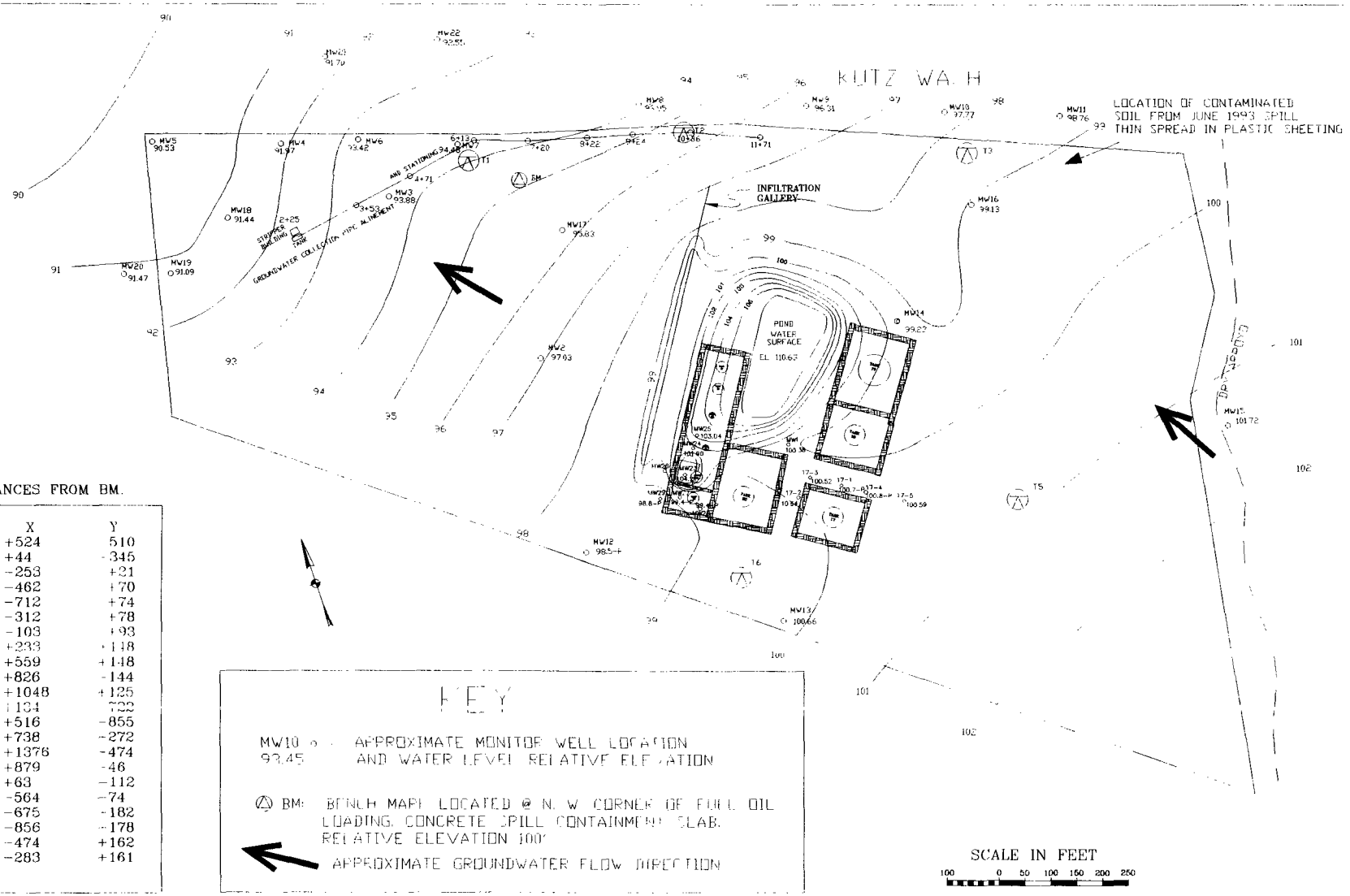
The ground water contour map, provided in Figure 1, is calculated from the most recent data collected on June 14, 1994. The magnitude of the dissolved phase has changed over the period of the last quarter. Right after the last quarterly sampling event about one (1) liter of water with microbes and nutrients was placed in each of the down gradient wells. The contamination in most of these down gradient wells has decreased to below the regulatory limit of 10 ppb.

A review of the Benzene Plume Map (see Figure 2), shows appreciable change in the plume size in the area of the northwest corner of the property. Monitor well MW-17 still appears to be highly contaminated and from the data provided in Table 3, it indicates an appreciable decrease in Benzene since the well was sampled on February 11, 1994. What appears to be evident from a review of past data, is that MW-17 has a separate source and has its own plume which is not migrating appreciably. Part of this may be due to the intercept/recovery system that is operating. The contamination from this plume seems to have extended to MW-7 before the recovery system was installed.

Approximately 173 gallons of free-product has been recovered from the recovery wells and monitor wells in the vicinity of monitor wells MW-12, MW-14 and MW-23. BioTech is keeping a record of the product being recovered from the wells and will continue to report on the recovery progress.

The free-product level in MW-12 has had no significant gain or loss since the level recorded on September 14, 1993. A recent free-product plume investigation has lead BioTech to believe that product in MW-12 is associated with a spill that may have happened many years ago from Tank 19. A separate product plume is represented in the area around MW-14, also many years old, and is probably from Tank 17 (see Figure 3). Investigation into the plume size and the method of remediation for this site will continue to proceed and be reported. BioTech, as directed by Thriftway Company, will continue quarterly sampling and monitoring of the site, as well as routine maintenance of the recovery, treatment and injection systems. This report of the operation and maintenance of the site remediation systems at the Thriftway Refinery is provided to comply with the Oil Conservation Division requirements and the Site Ground Water Discharge Plan GW-55.

FIGURES



XY DISTANCES FROM BM.

MW	X	Y
1	+524	510
2	+44	-345
3	-253	+21
4	-462	+70
5	-712	+74
6	-312	+78
7	-103	+93
8	+233	+118
9	+559	+148
10	+826	-144
11	+1048	+125
12	+134	-522
13	+516	-855
14	+738	-272
15	+1376	-474
16	+879	-46
17	+63	-112
18	-564	-74
19	-675	-182
20	-856	-178
21	-474	+162
22	-283	+161

KEY

MW10 ○ 93.45 — APPROXIMATE MONITOR WELL LOCATION AND WATER LEVEL RELATIVE ELEVATION

BM: BENCH MARK LOCATED @ N. W. CORNER OF FUEL OIL LOADING CONCRETE SPILL CONTAINMENT SLAB. RELATIVE ELEVATION 100'

APPROXIMATE GROUNDWATER FLOW DIRECTION

SCALE IN FEET

100 0 50 100 150 200 250

THRIFTWAY REFINERY
626 COUNTY ROAD 5500
BLOOMFIELD, NEW MEXICO

SEP 94 WL

ENGINEER: A. CHAHARLANG
DRAFTED BY: J. DEWEY

FIG. 1: GROUND WATER CONTOUR MAP

DATE: 1994

BioTech REMEDIATION

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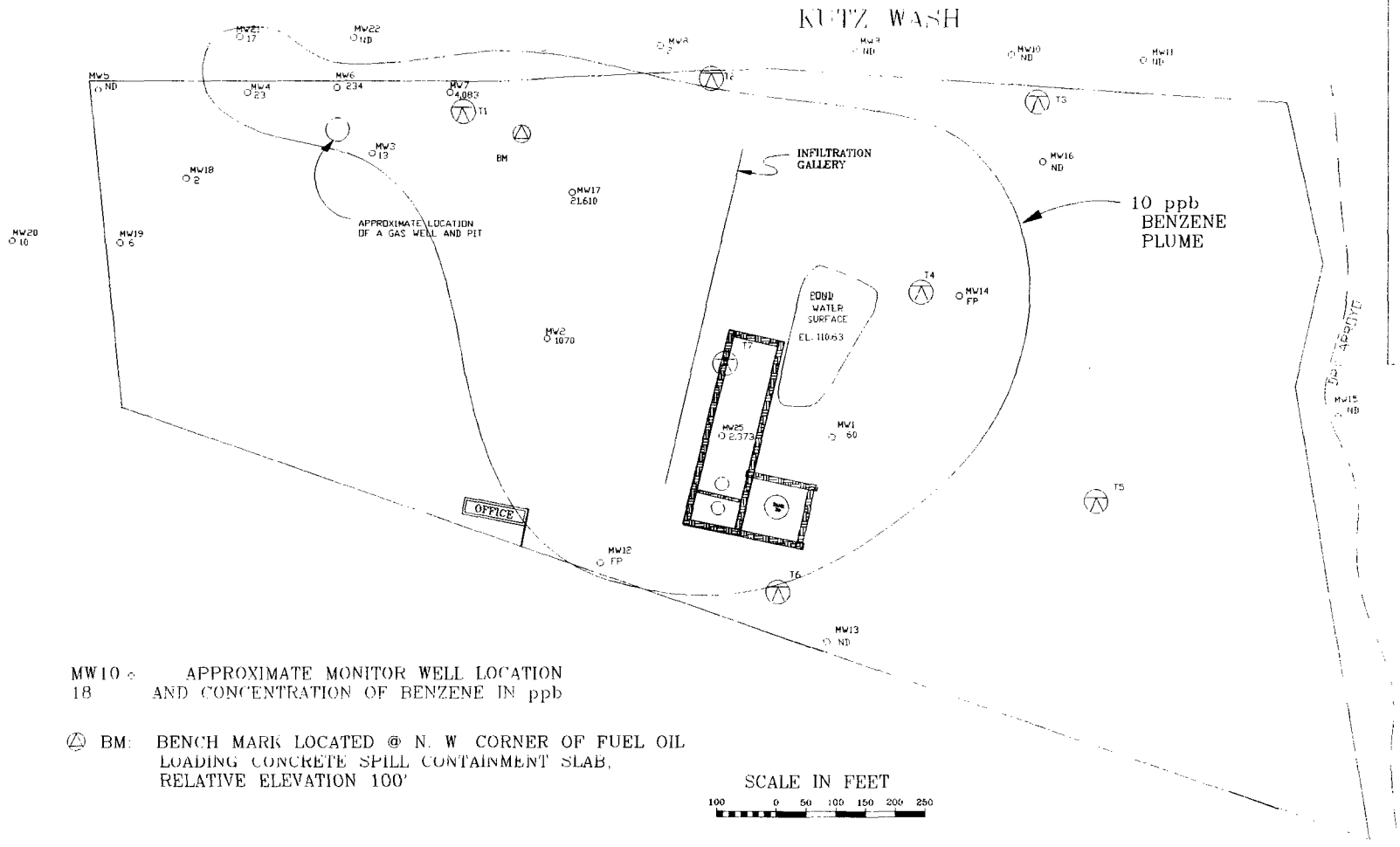

MW	X	Y
1	+524	510
2	+44	-345
3	-253	+21
4	-462	+70
5	-712	+74
6	-312	+78
7	-103	+93
8	+233	+148
9	+559	-144
10	+826	+133
11	+1048	+125
12	+134	-722
13	+516	-855
14	+738	-272
15	+1376	-474
16	+879	-46
17	+63	-112
18	-564	-74
19	-675	-182

MW10 ○ 18 APPROXIMATE MONITOR WELL LOCATION AND CONCENTRATION OF BENZENE IN ppb

△ BM: BENCH MARK LOCATED @ N. W CORNER OF FUEL OIL LOADING CONCRETE SPILL CONTAINMENT SLAB, RELATIVE ELEVATION 100'

SCALE IN FEET

100 0 50 100 150 200 250

THRIFTWAY REFINERY
626 COUNTY ROAD 5500
BLOOMFIELD, NEW MEXICO

810\ 94bp SKD

ENGINEER: J. DEWEY
DRAFTED BY: J DEWEY

FIGURE 2 10 ppb BENZENE PLUME

JULY 22 1994

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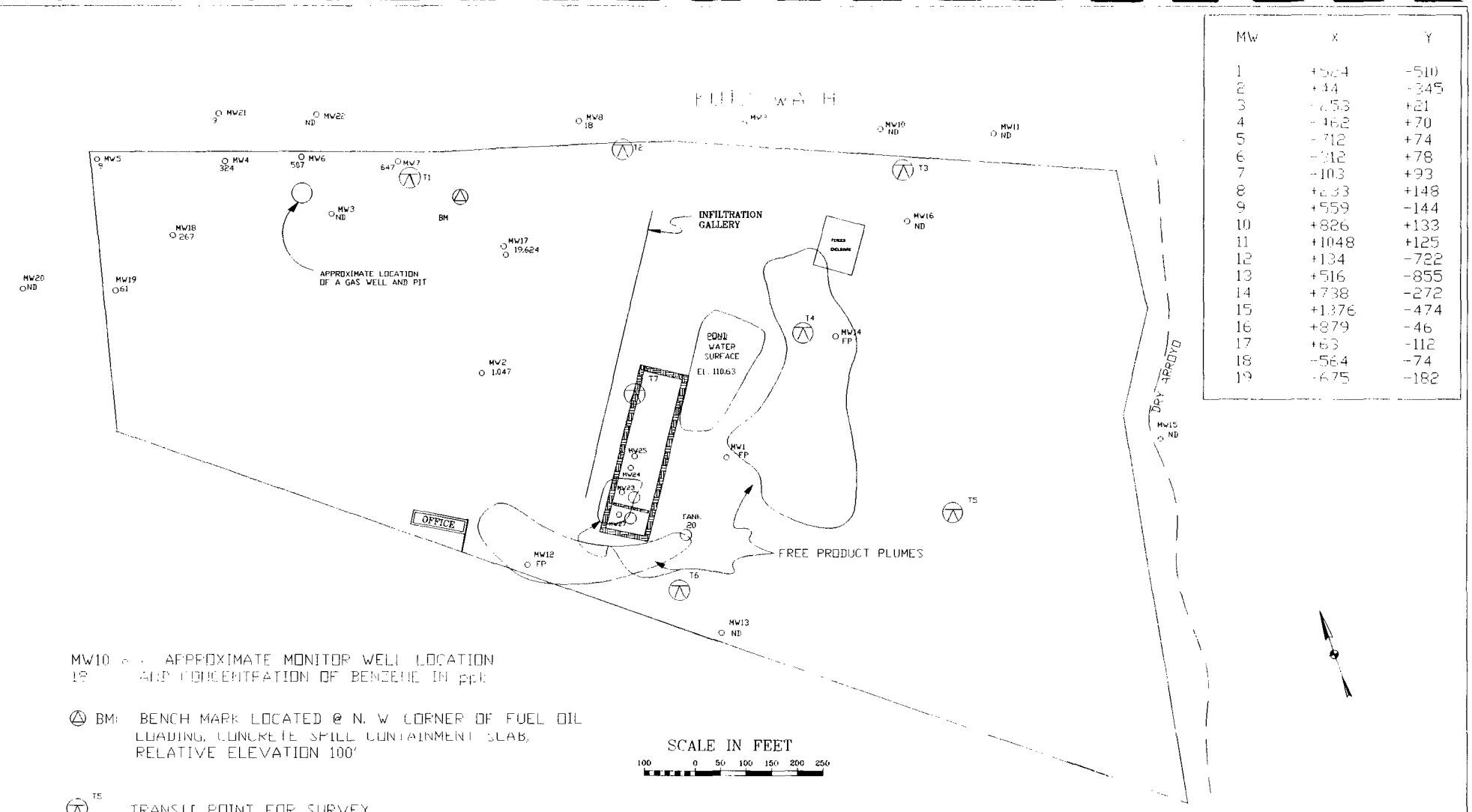

MW	X	Y
1	+564	-510
2	+44	-345
3	-653	+21
4	-462	+70
5	-712	+74
6	-312	+78
7	-103	+93
8	+633	+148
9	+559	-144
10	+826	+133
11	+1048	+125
12	+134	-722
13	+516	-855
14	+738	-272
15	+1376	-474
16	+879	-46
17	+63	-112
18	-564	-74
19	-675	-182

THRIFTWAY REFINERY
626 COUNTY ROAD 5500
BLOOMFIELD, NEW MEXICO

810\94PP SKD

ENGINEER J DEWEY
DRAFTED BY J DEWEY

FIGURE 3 FREE PRODUCT PLUME

JUNE 15, 1994

BioTech REMEDIATION

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TABLES

TABLE 1
THRIFTWAY REFINERY, BLOOMFIELD, NM
GROUNDWATER MONITORING DATA

WELL #	TOP OF PIPE ELEVATION	DATE	TIME	WATER OUTAGE (feet)	WATER LEVEL ELEVATION (feet)
1	114.08	08/28/91		12.67	101.41
		09/02/92	13:15	14.00	100.08
		04/28/93	10:45	12.77	101.31
		09/14/93	-	13.52	100.56
		11/29/93	09:30	13.51	100.57
		02/11/94	16:15	12.97	101.11
		06/14/94	14:50	13.70	100.38
2	107.62	08/28/91		10.31	97.31
		08/31/92	13:07	10.25	97.37
		04/28/93	10:25	9.24	98.18
		09/14/93		10.27	97.35
		11/29/93	03:33	10.23	97.39
		02/11/94	14:10	9.91	97.71
		06/14/94	13:30	10.59	97.03
3	96.28	08/28/91		3.67	92.61
		09/01/92	12:45	2.24	94.04
		04/28/93	10:10	2.01	94.27
		09/14/93		1.95	94.33
		11/30/93	10:10	1.72	94.56
		02/11/94	11:25	1.27	95.01
		06/14/94	14:05	2.40	93.88
4	95.82	08/28/91		4.31	91.51
		09/01/92	12:15	3.78	92.04
		04/28/93	9:50	3.30	92.52
		09/13/93		3.65	92.17
		11/30/93	09:55	3.15	92.67
		02/11/94	10:55	2.93	92.89
		06/14/94	14:00	3.85	91.97
5	94.66	08/28/91		4.43	90.23
		09/01/92	12:00	4.20	90.46
		04/28/93	9:45	3.64	91.02
		09/13/93		4.26	90.40
		11/30/93	09:38	3.73	90.93
		02/11/94	10:20	3.44	91.22
		06/14/94	13:45	4.13	90.53
6	96.31	08/28/91		3.68	92.63
		09/01/92	12:30	2.63	93.68
		04/28/93	10:00	2.44	93.87
		09/13/93		2.15	94.16
		11/29/93	04:25	2.03	94.28
		02/11/94	11:00	1.91	94.40
		06/14/94	15:00	2.89	93.42

TABLE 1
THRIFTWAY REFINERY, BLOOMFIELD, NM
GROUNDWATER MONITORING DATA

WELL #	TOP OF PIPE ELEVATION	DATE	TIME	WATER OUTAGE (feet)	WATER LEVEL ELEVATION (feet)
7	96.79	08/28/91		3.35	93.44
		09/01/92		WELL NOT FOUND	
		04/28/93		WELL NOT FOUND	
		09/14/93		5.15	91.64
		11/29/93	04:10	4.70	92.09
		02/11/94	11:35	4.36	92.43
		06/14/94	14:10	5.63	91.16
8	97.04	08/28/91		2.83	94.21
		09/02/92	14:50	2.75	94.29
		04/28/93	11:15	1.95	95.09
		09/14/93		1.97	95.07
		11/29/93	03:00	1.54	95.50
		02/11/94	09:00	1.17	95.87
		06/14/94	11:30	3.09	93.95
9	100.16	08/28/91		3.42	96.74
		09/02/92	14:45	3.50	96.66
		04/28/93	11:25	2.87	97.29
		09/14/93		2.90	97.26
		11/29/93	03:15	2.83	97.33
		02/10/94	15:57	2.62	97.54
		06/14/94	11:15	3.85	96.31
10	101.55	08/28/91		3.50	98.05
		09/02/92	15:05	3.50	98.05
		04/28/93	11:35	3.02	98.53
		09/14/93		3.23	98.32
		11/29/93	02:40	3.11	98.44
		02/10/94	15:55	2.31	99.24
		06/14/94	11:00	3.78	97.77
11	103.63	08/28/91		4.60	99.03
		09/02/92	15:15	4.65	98.98
		04/28/93	11:45	4.22	99.41
		09/14/93		4.63	99.00
		11/29/93	02:30	4.41	99.22
		02/10/94	15:50	4.16	99.47
		06/14/94	10:30	4.87	98.76
12	111.11	08/28/91		12.51	98.62
		08/31/92	13:30	13.67	97.44
		04/28/93	9:10	11.50	99.61
		09/14/93		15.39	95.72
		11/29/93	08:30	14.12	96.99
		02/14/94	14:30	11.99	99.12
		06/14/94	15:40	14.01	97.10

TABLE 1
THRIFTWAY REFINERY, BLOOMFIELD, NM
GROUNDWATER MONITORING DATA

WELL #	TOP OF PIPE ELEVATION	DATE	TIME	WATER OUTAGE (feet)	WATER LEVEL ELEVATION (feet)
13	117.12	08/28/91		16.24	100.88
		09/02/92	13:50	16.25	100.87
		04/28/93	9:00	15.77	101.35
		09/14/93		16.38	100.74
		11/29/93	09:15	16.41	100.71
		02/10/94	15:15	16.17	100.95
		06/14/94	10:00	16.46	100.66
14	111.94	08/28/91		11.33	100.61
		09/02/92	14:00	13.00	98.94
		04/28/93	10:55	11.34	100.60
		09/14/93		12.83	99.11
		11/29/93	10:15	12.74	99.20
		02/14/94	16:00	11.22	100.72
		06/15/94	09:10	12.71	99.23
15	114.53	08/28/91		12.58	101.95
		09/03/92	8:00	13.05	101.48
		04/28/93	11:55	12.57	101.96
		09/14/93		13.10	101.43
		11/29/93	02:20	13.05	101.48
		02/10/94	15:45	12.89	101.64
		06/14/94	10:45	12.81	101.72
16	107.64	08/28/91		8.28	99.36
		09/02/92	14:25	8.45	99.19
		04/28/93	11:05	7.90	99.74
		09/14/93		LEVEL NOT TAKEN	
		11/29/93	02:00	8.26	99.38
		02/10/94	15:30	8.03	99.61
		06/14/94	10:15	8.51	99.13
17	100.84	08/28/91		5.10	95.74
		08/31/93	12:44	4.65	96.19
		04/28/93	10:35	3.35	97.49
		09/14/93		4.40	96.44
		11/29/93	03:50	4.11	96.73
		02/11/94	14:25	3.90	96.94
		06/14/94	14:12	5.01	95.83
18	94.04	08/28/91		3.21	90.83
		09/01/92	11:51	2.39	91.65
		04/28/93	9:35	2.14	91.90
		09/13/93		2.11	91.93
		11/30/93	10:25	2.20	91.84
		02/11/94	10:10	1.75	92.29
		06/14/94	15:10	2.60	91.44

TABLE 1
THRIFTWAY REFINERY, BLOOMFIELD, NM
GROUNDWATER MONITORING DATA

WELL #	TOP OF PIPE ELEVATION	DATE	TIME	WATER OUTAGE (feet)	WATER LEVEL ELEVATION (feet)
19	93.64	08/28/91		2.90	90.23
		09/02/92	11:30	2.41	91.23
		04/28/93	9:25	2.05	91.59
		09/13/93		1.92	91.72
		11/30/93	09:20	2.25	91.39
		02/11/94	10:00	2.09	91.55
		06/14/94	13:40	2.55	91.09
20	96.01	09/01/92	13:05	3.85	92.16
		04/28/93	8:30	4.18	91.83
		09/13/93		4.56	91.45
	96.11	11/30/93	08:25	4.42	91.69
		02/10/94	16:17	4.30	91.81
		06/14/94	15:30	4.64	91.47
21	94.34	09/01/92	13:20	3.97	90.37
		04/28/93	8:40	2.27	92.07
		09/13/93		2.19	92.15
		11/30/93	08:45	1.90	92.44
		02/10/94	16:25	1.92	92.42
		06/14/94	15:15	2.64	91.70
22	97.51	09/01/92	13:30	3.34	94.17
		04/28/93	8:50	4.44	93.07
		09/13/93		4.50	93.01
		11/30/93	08:35	4.09	93.42
		02/10/94	16:25	3.75	93.76
		06/14/94	15:20	4.96	92.55
23	115.77	06/14/94	16:06	14.27	101.50
24	116.17	06/14/94	16:08	13.97	102.20
25	112.62	11/29/93	10:45	9.56	103.06
		02/14/94	15:00	8.01	104.61
		06/14/94	16:04	9.58	103.04

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TABLE 2
SUMMARY OF PHASE SEPARATED PRODUCT MEASUREMENTS
THRIFTWAY REFINERY
BLOOMFIELD, NEW MEXICO

WELL	DATE	THICKNESS (in feet)	LITERS OF HYDROCARBON RECLAIMED	ACCUM.
MW-12	09/14/93	2.00		
	11/29/93	1.97	6.5	6.5
	02/14/94	0.47	1.8	8.3
	03/23/94	0.06	0	
	04/27/94	0.42	2.4	10.7
	05/17/94	0.83	6.4	17.1
	06/01/94	1.08	4.8	21.9
	06/15/94	1.87	6.4	28.3
MW-14	09/14/93	0.50	--	
	11/29/93	1.49	4.8	4.8
	02/14/94	0.95	2.8	7.6
	03/23/94	--	--	
	04/27/94	--	--	
	05/17/94	--	--	
	06/01/94	--	--	
	06/15/94	1.30	1.6	9.2
MW-23	09/14/93	0	0	
	11/29/93	0	0	
	02/14/94	0	0	
	03/23/94	0	0	
	04/27/94	0	0	
	05/17/94	0	0	
	06/01/94	0	0	
	06/15/94	1.17	1.6	
MW-26	09/14/93			
	11/29/93			
	02/14/94			
	03/23/94	0.5	1.6	1.6
	04/27/94	1	8	9.6
	05/17/94	1	8	17.6
	06/01/94	1.17	9.6	27.2
	06/15/94	0.74	3.2	30.4
MW-27	09/14/93			
	11/29/93			
	02/14/94			
	03/23/94	1.33	5.6	5.6
	04/27/94	1	8	13.6
	05/17/94	1.33	8.8	22.4
	06/01/94	1.67	8	30.4
	06/15/94	1.43	1.6	32

TABLE 2
SUMMARY OF PHASE SEPARATED PRODUCT MEASUREMENTS
THRIFTWAY REFINERY
BLOOMFIELD, NEW MEXICO

WELL	DATE	THICKNESS (in feet)	LITERS OF HYDROCARBON RECLAIMED	ACCUM.
MW-28	09/14/93			
	11/29/93			
	02/14/94			
	03/23/94	1	2.4	2.4
	04/27/94	0.83	4	6.4
	05/17/94	0.33	4.8	11.2
	06/01/94	0.42	3.2	14.4
	06/15/94	0.5	3.2	17.6
MW-29	09/14/93			
	11/29/93			
	02/14/94			
	03/23/94	0.08		
	04/27/94	0.25	3.2	3.2
	05/17/94	0.25	3.2	6.4
	06/01/94	0.5	6.4	12.8
	06/15/94	2.36	4.8	17.6
MW-17-1	06/15/94	1.62	8	8
MW-17-4	06/15/94	1.13	*	
MW-17-5	06/15/94	0.84	3.2	3.2
R-1	03/23/94	0.75	8	8
	04/27/94	1.17	8	16
	05/17/94	0.75	5.6	21.6
	06/01/94	0.83	4.8	26.4
	06/15/94	1.25	6.4	32.8
R-3	03/23/94	1	12.8	12.8
	04/27/94	2.08	14.4	27.2
	05/17/94	1	6.4	33.6
	06/01/94	1.17	6.4	40
	06/15/94	0.42	8	48
R-8	03/23/94	1.5	36.8	36.8
	04/27/94	0.33	3.2	40
	05/17/94	1.33	14.4	54.4
	06/01/94	1.5	19.2	73.6
	06/15/94	1.33	16	89.6

TABLE 2
SUMMARY OF PHASE SEPARATED PRODUCT MEASUREMENTS
THRIFTWAY REFINERY
BLOOMFIELD, NEW MEXICC

WELL	DATE	THICKNESS (in feet)	LITERS OF HYDROCARBON RECLAIMED	ACCUM.
R-9	03/23/94	2.17	20	20
	04/27/94	2.25	20	40
	05/17/94	2.42	20	60
	06/01/94	2.42	20	80
	06/15/94	2.42	20	100
R-12	03/23/94	2.25	20	20
	04/27/94	2.33	20	40
	05/17/94	2.33	20	60
	06/01/94	2.67	20	80
	06/15/94	2.5	20	100
R-13	03/23/94	2.04	20	20
	04/27/94	2.42	20	40
	05/17/94	2.42	20	60
	06/01/94	2.5	20	80
	06/15/94	2.67	20	100
R-14	03/23/94	2.12	20	20
	04/27/94	2.33	20	40
	05/17/94	2.5	20	60
	06/01/94	2.67	20	80
	06/15/94	2.67	20	100

ND - NON-DETECT (no visible product detected in the bailer)
* - Couldn't get the bailer down the well.

NOTE: From 10 monitor wells and 7recovery wells installed in 1993, 870 liters of free product was recovered since the last QMR.

810\QMRTABL2

TABLE 3
SUMMARY OF LABORATORY ANALYSIS DATA
THRIFTWAY REFINERY
BLOOMFIELD , NEW MEXICO
Concentrations in mg/L

WELL #	DATE	BENZENE	TOLUENE	ETHYLBENZEN	XYLENES	MTBE
1	08/28/91	4.3210	2.3520	0.6350	5.1370	
	09/02/92	FREE PRODUCT FOUND IN WELL				
	04/28/93	FREE PRODUCT FOUND IN WELL				
	09/14/93	FREE PRODUCT FOUND IN WELL				
	11/29/93	NO FREE PRODUCT BUT A TRACE				
	02/11/94	7.1210	0.0630	0.2270	0.5970	
	06/22/94	0.0600	0.0240	0.5800	0.1206	1.6280
2	08/28/91	3.3320	ND	0.5360	0.9720	
	08/31/92	FREE PRODUCT FOUND IN WELL				
	04/28/93	0.9740	0.1890	0.2730	0.8430	
	09/14/93	1.0470	0.2450	0.4870	0.7940	
	11/29/93	2.1150	0.1360	0.3950	0.5830	
	02/11/94	3.4780	0.0630	0.5810	0.7860	
	06/22/94	1.0700	0.0239	0.0139	0.4732	0.1380
3	08/28/91	0.0130	0.0040	0.0020	0.0010	
	09/01/92	0.0180	0.0040	0.0100	0.1080	
	04/28/93	ND	ND	ND	ND	
	09/14/93	ND	ND	ND	0.0040	
	11/30/93	ND	ND	0.0011	0.0007	
	02/11/94	ND	ND	ND	ND	
	06/22/94	0.0128	ND	ND	0.0011	0.0236
4	08/28/91	0.0060	ND	ND	ND	
	09/01/92	0.0050	0.0070	0.0170	0.0560	
	04/28/93	0.5880	0.0040	0.0390	0.3290	
	09/13/93	0.3240	0.0210	0.0510	0.2870	
	11/30/93	0.1000	0.0053	0.0013	0.0035	
	02/11/94	1.1270	0.0100	0.0310	0.0990	
	06/22/94	0.0226	0.0040	0.0003	0.0024	0.0283
5	08/28/91	ND	0.0020	ND	0.0010	
	09/01/92	ND	ND	ND	ND	
	04/28/93	0.0140	0.0330	0.0040	0.0260	
	09/13/93	0.0090	0.0210	0.0060	0.0370	
	11/30/93	0.0011	ND	ND	ND	
	02/11/94	0.0060	ND	ND	ND	
	06/22/94	ND	ND	ND	ND	0.0312
6	08/28/91	0.3150	0.0060	0.0820	0.2350	
	09/01/92	FREE PRODUCT FOUND IN WELL				
	04/28/93	0.4270	0.0360	0.0940	0.2300	
	09/13/93	0.5070	0.0780	0.1350	0.3190	
	11/29/93	0.0082	0.0020	0.0022	0.0019	
	02/11/94	0.0230	0.0170	0.0150	0.0720	
	06/22/94	0.2340	0.0016	0.0337	0.0015	0.0338
7	08/28/91	35.0370	6.0130	0.3750	3.3430	
	09/01/92	WELL NOT FOUND				
	04/28/93	WELL NOT FOUND				
	09/14/93	0.6470	0.1970	0.1680	0.6910	
	11/29/93	3.5410	0.9710	0.4190	1.9180	
	02/11/94	14.3990	2.0620	0.6300	4.1270	
	06/22/94	4.0830	0.6950	0.3010	1.7170	0.0670

TABLE 3
SUMMARY OF LABORATORY ANALYSIS DATA
THRIFTWAY REFINERY
BLOOMFIELD , NEW MEXICO
Concentrations in mg/L

WELL #	DATE	BENZENE	TOLUENE	ETHYLBENZEN	XYLENES	MTBE
8	08/28/91	0.0100	0.0170	0.0020	0.0170	
	09/02/92	0.0140	0.0090	0.0190	0.0680	
	04/28/93	ND	ND	ND	ND	
	09/14/93	0.0180	0.0210	0.0340	0.0510	
	11/29/93	0.0034	ND	0.0004	0.0010	
	02/11/94	0.0010	0.0007	0.0003	0.0010	
	06/14/94	0.0018	0.0004	ND	ND	0.0470
9	08/28/91	0.0050	0.0160	0.0020	0.0200	
	09/02/92	0.0100	0.0210	0.0300	0.0180	
	04/28/93	ND	ND	ND	ND	
	09/14/93	0.0070	0.0150	0.0240	0.0060	
	11/29/93	ND	ND	ND	ND	
	02/11/94	ND	ND	ND	ND	
	06/14/94	ND	ND	ND	ND	0.0156
10	08/28/91	0.0030	0.0090	0.0010	0.0130	
	09/02/92	0.0010	0.0050	0.0010	0.0090	
	04/28/93	ND	ND	ND	ND	
	09/14/93	ND	ND	ND	ND	
	11/29/93	ND	ND	ND	ND	
	02/11/94	ND	ND	ND	ND	
	06/14/94	ND	ND	ND	ND	ND
11	08/28/91	ND	ND	<1.0	0.0020	
	09/02/92	ND	ND	ND	ND	
	04/28/93	ND	ND	ND	ND	
	09/14/93	ND	ND	ND	ND	
	11/29/93	ND	ND	ND	ND	
	02/11/94	ND	ND	ND	ND	
	06/14/94	ND	ND	ND	ND	ND
12	08/28/91	ND	ND	ND	ND	
	08/31/92	FREE PRODUCT FOUND IN WELL				
	04/28/93	0.4820	0.0890	0.1800	0.5170	
	09/14/93	FREE PRODUCT FOUND IN WELL				
	11/29/93	FREE PRODUCT FOUND IN WELL				
	02/11/94	FREE PRODUCT FOUND IN WELL				
	06/14/94	FREE PRODUCT FOUND IN WELL				
13	08/28/91	0.0010	0.0040	<1.0	0.0060	
	09/02/92	0.0020	0.0020	ND	0.0030	
	04/28/93	ND	ND	ND	ND	
	09/14/93	ND	ND	ND	ND	
	11/30/93	ND	ND	ND	ND	
	02/11/94	ND	ND	ND	ND	
	06/14/94	ND	ND	ND	ND	ND
14	08/28/91	ND	ND	<1.0	0.0010	
	09/02/92	FREE PRODUCT FOUND IN WELL				
	04/28/93	FREE PRODUCT FOUND IN WELL				
	09/14/93	FREE PRODUCT FOUND IN WELL				
	11/29/93	FREE PRODUCT FOUND IN WELL				
	02/11/94	FREE PRODUCT FOUND IN WELL				
	06/14/94	FREE PRODUCT FOUND IN WELL				

TABLE 3
SUMMARY OF LABORATORY ANALYSIS DATA
THRIFTWAY REFINERY
BLOOMFIELD , NEW MEXICO
Concentrations in mg/L

WELL #	DATE	BENZENE	TOLUENE	ETHYLBENZEN	XYLENES	MTBE
15	08/28/91	0.0050	0.0090	0.0010	0.0130	
	09/03/92	0.0020	0.0020	ND	0.0030	
	04/28/93	ND	0.0280	ND	ND	
	09/14/93	ND	ND	ND	ND	
	11/29/93	ND	ND	ND	ND	
	02/11/94	ND	ND	ND	ND	
	06/14/94	ND	ND	ND	ND	ND
16	08/28/91	0.0060	<1.0	0.0430	0.0030	
	09/02/92	0.0120	0.0060	0.0600	0.0130	
	04/28/93	ND	ND	0.0030	0.0050	
	09/14/93	ND	ND	0.0090	0.0060	
	11/29/93	ND	ND	0.0024	0.0006	
	02/11/94	ND	ND	0.0050	0.0010	
	06/14/94	ND	ND	0.0027	0.0003	ND
17	08/28/91	25.6600	21.4530	1.0740	10.3720	
	08/31/93	28.4530	23.6820	2.1450	13.4610	
	04/28/93	23.4240	22.1730	1.9670	13.1610	
	09/14/93	19.6240	19.3470	2.6870	12.4810	
	11/29/93	21.2720	5.2850	1.0630	8.3570	
	02/11/94	61.5850	25.4200	1.6580	12.7870	
	06/22/94	21.6100	15.5510	0.8480	7.7600	0.0900
18	08/28/91	0.0360	0.0030	0.0050	0.1290	
	09/01/92	0.0470	0.0100	0.0140	0.1710	
	04/28/93	0.2230	0.0190	0.0130	0.5030	
	09/13/93	0.2670	0.1350	0.0670	0.3450	
	11/30/93	0.1400	0.0088	0.0153	0.1330	
	02/11/94	0.3610	0.0090	0.0250	0.2450	
	06/22/94	0.0020	ND	ND	ND	0.0335
19	08/28/91	0.0140	0.0060	0.5780	1.1930	
	09/02/92	0.0220	0.0150	0.3190	0.8940	
	04/28/93	0.0450	0.0050	0.1180	0.6230	
	09/13/93	0.0610	0.0240	0.1650	0.7190	
	11/30/93	0.0245	0.0118	0.2580	0.6582	
	02/11/94	0.0580	0.0200	0.5450	1.4580	
	06/22/94	0.0058	0.0069	0.0112	0.0491	0.0246
20	09/01/92	ND	ND	ND	ND	
	04/28/93	0.0030	0.0030	0.0320	0.3250	
	09/13/93	ND	ND	ND	0.0340	
	11/30/93	0.0277	0.0165	0.1300	0.5551	
	02/11/94	0.0380	0.0220	0.0840	0.3500	
	06/22/94	0.0104	0.0111	0.0122	0.0207	0.1090
21	09/01/92	ND	ND	ND	ND	
	04/28/93	0.0330	ND	ND	ND	
	09/13/93	0.0090	ND	ND	ND	
	11/30/93	0.0171	0.0046	0.0050	0.0023	
	02/11/94	0.0820	0.0090	0.0260	0.0060	
	06/22/94	0.0173	0.0025	0.0019	0.0019	0.0451

TABLE 3
SUMMARY OF LABORATORY ANALYSIS DATA
THRIFTWAY REFINERY
BLOOMFIELD , NEW MEXICO
Concentrations in mg/L

WELL #	DATE	BENZENE	TOLUENE	ETHYLBENZEN	XYLENES	MTBE
22	09/01/92	ND	ND	ND	ND	
	04/28/93	ND	ND	ND	ND	
	09/13/93	ND	ND	ND	ND	
	11/30/93	ND	ND	ND	ND	
	02/11/94	ND	ND	ND	ND	
	06/22/94	ND	ND	ND	ND	0.0392
23	02/11/94	198.5730	190.8910	7.2400	48.8370	
	06/22/94	FREE PRODUCT FOUND IN WELL				
25	11/29/93	2.3730	0.0112	0.1330	0.3454	
	02/11/94	7.3150	0.0700	0.1150	0.5880	
	06/22/94	NOT SAMPLED				
EFFLUENT	04/28/93	ND	ND	ND	ND	
	12/13/93	0.0021	0.0016	0.0013	0.0038	
	02/11/94	BLOWER SHUT DOWN				
	06/22/94	BLOWER SHUT DOWN				
INFLUENT	04/28/93	ND	ND	ND	ND	
	12/13/93	0.0015	0.0009	0.0017	0.0023	
	02/11/94	0.0010	ND	ND	0.0040	
	06/22/94	PUMP SHUT DOWN				
NMWQCC	12/24/87	0.0100	0.7500	0.7500	0.6200	

ND - NON-DETECT

810\QMRTABL3

APPENDIX

BioTech LABORATORIES
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Farmington, New Mexico 87401
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Fax (505) 632-9850

BioTech REMEDIATION

EPA METHOD 8020
PURGEABLE AROMATICS

CLIENT:	Thriftway-Refinery	**SAMPLE MATRIX:**	WATER
CLIENT NUMBER:	810	**PRESERVATIVE:**	HgCl2
PHASE/TASK:	NA	**DATE SAMPLED:**	06-14-94
PROJECT LOCATION:	Bloomfield, NM	**DATE RECEIVED:**	06-14-94
SAMPLE ID:	MW -13	**DATE ANALYZED:**	Jun 24, 1994
SAMPLE NUMBER:	0260		

ANALYTE	CONCENTRATION (ug/L)	DETECTION LIMIT(ug/L)
METHYL-T-B-ETHER	0.2	0.2
BENZENE	ND	0.7
TOLUENE	ND	0.5
ETHYLBENZENE	ND	0.3
P,M-XYLENE	ND	0.3
O-XYLENE	ND	0.3

ND - ANALYTE NOT DETECTED AT STATED DETECTION LIMIT

QUALITY CONTROL:	SURROGATES	PERCENT RECOVERY	ACCEPTANCE LIMIT
	TRIFLUOROTOLUENE	88	80 - 120%
	BROMOFLUOROBENZENE	91	80 - 120%

REFERENCE: METHOD 5030, PURGE AND TRAP
METHOD 8020, PURGEABLE AROMATICS
TEST METHOD FOR EVALUATION SOLID WASTE,
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY,
SW-846, VOLUME IB, NOVEMBER 1990.

COMMENTS: Monitor Well MW -13, Thriftway site #810.

ANALYST

REVIEW

BioTech LABORATORIES
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BioTech REMEDIATION

EPA METHOD 8020
PURGEABLE AROMATICS

CLIENT:	Thriftway-Refinery	**SAMPLE MATRIX:**	WATER
CLIENT NUMBER:	810	**PRESERVATIVE:**	HgCl2
PHASE/TASK:	NA	**DATE SAMPLED:**	06-14-94
PROJECT LOCATION:	Bloomfield, NM	**DATE RECEIVED:**	06-14-94
SAMPLE ID:	MW -16	**DATE ANALYZED:**	Jun 24, 1994
SAMPLE NUMBER:	0261		

ANALYTE	CONCENTRATION (ug/L)	DETECTION LIMIT(ug/L)
METHYL-T-B-ETHER	ND	0.2
BENZENE	ND	0.7
TOLUENE	ND	0.5
ETHYLBENZENE	2.7	0.3
P,M-XYLENE	0.3	0.3
O-XYLENE	ND	0.3

ND - ANALYTE NOT DETECTED AT STATED DETECTION LIMIT

QUALITY CONTROL:	SURROGATES	PERCENT RECOVERY	ACCEPTANCE LIMIT
	TRIFLUOROTOLUENE	93	80 - 120%
	BROMOFLUOROBENZENE	92	80 - 120%

REFERENCE: METHOD 5030, PURGE AND TRAP
METHOD 8020, PURGEABLE AROMATICS
TEST METHOD FOR EVALUATION SOLID WASTE,
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY,
SW-846, VOLUME IB, NOVEMBER 1990.

COMMENTS: Monitor Well MW -16, Thriftway site #810.

ANALYST

REVIEW

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BioTech REMEDIATION

EPA METHOD 8020
PURGEABLE AROMATICS

CLIENT:	Thriftway-Refinery	**SAMPLE MATRIX:**	WATER
CLIENT NUMBER:	810	**PRESERVATIVE:**	HgCl2
PHASE/TASK:	NA	**DATE SAMPLED:**	06-14-94
PROJECT LOCATION:	Bloomfield, NM	**DATE RECEIVED:**	06-14-94
SAMPLE ID:	MW -11	**DATE ANALYZED:**	Jun 27, 1994
SAMPLE NUMBER:	0262		

ANALYTE	CONCENTRATION (ug/L)	DETECTION LIMIT(ug/L)
METHYL-T-B-ETHER	ND	0.3
BENZENE	ND	0.3
TOLUENE	ND	0.4
ETHYLBENZENE	ND	0.2
P,M-XYLENE	ND	0.3
O-XYLENE	ND	0.3

ND - ANALYTE NOT DETECTED AT STATED DETECTION LIMIT

	SURROGATES	PERCENT RECOVERY	ACCEPTANCE LIMIT
QUALITY CONTROL:	TRIFLUOROTOLUENE	95	80 - 120%
	BROMOFLUOROBENZENE	100	80 - 120%

REFERENCE: METHOD 5030, PURGE AND TRAP
METHOD 8020, PURGEABLE AROMATICS
TEST METHOD FOR EVALUATION SOLID WASTE,
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY,
SW-846, VOLUME IB, NOVEMBER 1990.

COMMENTS: Monitor Well MW -11, Thriftway site #810.

ANALYST

REVIEW

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BioTech REMEDIATION

EPA METHOD 8020
PURGEABLE AROMATICS

CLIENT:	Thriftway-Refinery	**SAMPLE MATRIX:**	WATER
CLIENT NUMBER:	810	**PRESERVATIVE:**	HgCl2
PHASE/TASK:	NA	**DATE SAMPLED:**	06-14-94
PROJECT LOCATION:	Bloomfield, NM	**DATE RECEIVED:**	06-14-94
SAMPLE ID:	MW -15	**DATE ANALYZED:**	Jun 27, 1994
SAMPLE NUMBER:	0263		

ANALYTE	CONCENTRATION (ug/L)	DETECTION LIMIT(ug/L)
METHYL-T-B-ETHER	ND	0.3
BENZENE	ND	0.3
TOLUENE	ND	0.4
ETHYLBENZENE	ND	0.2
P,M-XYLENE	ND	0.3
O-XYLENE	ND	0.3

ND - ANALYTE NOT DETECTED AT STATED DETECTION LIMIT

	SURROGATES	PERCENT RECOVERY	ACCEPTANCE LIMIT
QUALITY CONTROL:	TRIFLUOROTOLUENE	82	80 - 120%
	BROMOFLUOROBENZENE	95	80 - 120%

REFERENCE: METHOD 5030, PURGE AND TRAP
METHOD 8020, PURGEABLE AROMATICS
TEST METHOD FOR EVALUATION SOLID WASTE,
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY,
SW-846, VOLUME IB, NOVEMBER 1990.

COMMENTS: Monitor Well MW -15, Thriftway site #810.

ANALYST

REVIEW

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BioTech REMEDIATION

EPA METHOD 8020
PURGEABLE AROMATICS

CLIENT:	Thriftway-Refinery	**SAMPLE MATRIX:**	WATER
CLIENT NUMBER:	810	**PRESERVATIVE:**	HgCl2
PHASE/TASK:	NA	**DATE SAMPLED:**	06-14-94
PROJECT LOCATION:	Bloomfield, NM	**DATE RECEIVED:**	06-14-94
SAMPLE ID:	MW -10	**DATE ANALYZED:**	Jun 27, 1994
SAMPLE NUMBER:	0264		

ANALYTE	CONCENTRATION (ug/L)	DETECTION LIMIT(ug/L)
METHYL-T-B-ETHER	ND	0.3
BENZENE	ND	0.3
TOLUENE	ND	0.4
ETHYLBENZENE	ND	0.2
P,M-XYLENE	ND	0.3
O-XYLENE	ND	0.3

ND - ANALYTE NOT DETECTED AT STATED DETECTION LIMIT

	SURROGATES	PERCENT RECOVERY	ACCEPTANCE LIMIT
QUALITY CONTROL:	TRIFLUOROTOLUENE	92	80 - 120%
	BROMOFLUOROBENZENE	94	80 - 120%

REFERENCE: METHOD 5030, PURGE AND TRAP
METHOD 8020, PURGEABLE AROMATICS
TEST METHOD FOR EVALUATION SOLID WASTE,
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY,
SW-846, VOLUME IB, NOVEMBER 1990.

COMMENTS: Monitor Well MW -10, Thriftway site #810.

ANALYST

REVIEW

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BioTech REMEDIATION

EPA METHOD 8020
PURGEABLE AROMATICS

CLIENT:	Thriftway-Refinery	**SAMPLE MATRIX:**	WATER
CLIENT NUMBER:	810	**PRESERVATIVE:**	HgCl2
PHASE/TASK:	NA	**DATE SAMPLED:**	06-14-94
PROJECT LOCATION:	Bloomfield, NM	**DATE RECEIVED:**	06-14-94
SAMPLE ID:	MW -9	**DATE ANALYZED:**	Jun 27, 1994
SAMPLE NUMBER:	0265		

ANALYTE	CONCENTRATION (ug/L)	DETECTION LIMIT(ug/L)
METHYL-T-B-ETHER	15.6	0.3
BENZENE	ND	0.3
TOLUENE	ND	0.4
ETHYLBENZENE	ND	0.2
P,M-XYLENE	ND	0.3
O-XYLENE	ND	0.3

ND - ANALYTE NOT DETECTED AT STATED DETECTION LIMIT

	SURROGATES	PERCENT RECOVERY	ACCEPTANCE LIMIT
QUALITY CONTROL:	TRIFLUOROTOLUENE	82	80 - 120%
	BROMOFLUOROBENZENE	99	80 - 120%

REFERENCE: METHOD 5030, PURGE AND TRAP
METHOD 8020, PURGEABLE AROMATICS
TEST METHOD FOR EVALUATION SOLID WASTE,
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY,
SW-846, VOLUME IB, NOVEMBER 1990.

COMMENTS: Monitor Well MW -9, Thriftway site #810.

ANALYST

REVIEW

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BioTech REMEDIATION

EPA METHOD 8020
PURGEABLE AROMATICS

CLIENT:	Thriftway-Refinery	**SAMPLE MATRIX:**	WATER
CLIENT NUMBER:	810	**PRESERVATIVE:**	HgCl2
PHASE/TASK:	NA	**DATE SAMPLED:**	06-14-94
PROJECT LOCATION:	Bloomfield, NM	**DATE RECEIVED:**	06-14-94
SAMPLE ID:	MW -8	**DATE ANALYZED:**	Jun 27, 1994
SAMPLE NUMBER:	0266		

ANALYTE	CONCENTRATION (ug/L)	DETECTION LIMIT(ug/L)
METHYL-T-B-ETHER	47.0	0.3
BENZENE	1.8	0.3
TOLUENE	0.4	0.4
ETHYLBENZENE	ND	0.2
P,M-XYLENE	ND	0.3
O-XYLENE	ND	0.3

ND - ANALYTE NOT DETECTED AT STATED DETECTION LIMIT

	SURROGATES	PERCENT RECOVERY	ACCEPTANCE LIMIT
QUALITY CONTROL:	TRIFLUOROTOLUENE	91	80 - 120%
	BROMOFLUOROBENZENE	88	80 - 120%

REFERENCE: METHOD 5030, PURGE AND TRAP
METHOD 8020, PURGEABLE AROMATICS
TEST METHOD FOR EVALUATION SOLID WASTE,
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY,
SW-846, VOLUME IB, NOVEMBER 1990.

COMMENTS: Monitor Well MW -8, Thriftway site #810.

ANALYST

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BioTech REMEDIATION

EPA METHOD 8020
PURGEABLE AROMATICS

CLIENT:	NA	**SAMPLE MATRIX:**	WATER
CLIENT NUMBER:	NA	**PRESERVATIVE:**	HgCl2
PHASE/TASK:	NA	**DATE SAMPLED:**	NA
PROJECT LOCATION:	NA	**DATE RECEIVED:**	NA
SAMPLE ID:	Laboratory Blank	**DATE ANALYZED:**	Jun 27, 1994
SAMPLE NUMBER:	0627AM.00		

ANALYTE	CONCENTRATION (ug/L)	DETECTION LIMIT(ug/L)
METHYL-T-B-ETHER	ND	0.3
BENZENE	ND	0.3
TOLUENE	ND	0.4
ETHYLBENZENE	ND	0.2
P,M-XYLENE	ND	0.3
O-XYLENE	ND	0.3

ND - ANALYTE NOT DETECTED AT STATED DETECTION LIMIT

QUALITY CONTROL:	SURROGATES	PERCENT RECOVERY	ACCEPTANCE LIMIT
	TRIFLUOROTOLUENE	93	80 - 120%
	BROMOFLUOROBENZENE	99	80 - 120%

REFERENCE: METHOD 5030, PURGE AND TRAP
METHOD 8020, PURGEABLE AROMATICS
TEST METHOD FOR EVALUATION SOLID WASTE,
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY,
SW-846, VOLUME IB, NOVEMBER 1990.

COMMENTS:

ANALYST

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BioTech REMEDIATION

QUALITY CONTROL
MATRIX SPIKE RECOVERY
EPA METHOD 8020
AROMATIC VOLATILE ORGANICS

CLIENT:	NA	**SAMPLE MATRIX:**	WATER
CLIENT NUMBER:	NA	**PRESERVATIVE:**	HgCl2
PHASE/TASK:	NA	**DATE SAMPLED:**	06-13-94
PROJECT LOCATION:	Farmington, NM	**DATE RECEIVED:**	06-13-94
SAMPLE ID:	MW -10	**DATE ANALYZED:**	Jun 24, 1994
SAMPLE NUMBER:	0259		

SPIKE CONCENTRATION (ug/L) = 20.0

ANALYTE	Sample Result (ug/L)	Spiked Result (ug/L)	Det. Limit (ug/L)	PERCENT RECOVERY
METHYL-T-B-ETHER	2.1	22.0	0.2	100
BENZENE	ND	18.9	0.8	94
TOLUENE	ND	21.0	0.5	105
ETHYLBENZENE	ND	21.1	0.3	105
P,M-XYLENE	ND	42.1	0.3	105
O-XYLENE	ND	21.1	0.3	105

ND - ANALYTE NOT DETECTED AT STATED DETECTION LIMIT

REFERENCE: METHOD 5030, PURGE AND TRAP
METHOD 8020, PURGEABLE AROMATICS
TEST METHOD FOR EVALUATION SOLID WASTE,
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY,
SW-846, VOLUME IB, NOVEMBER 1990.

COMMENTS:

ANALYST

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BioTech REMEDIATION

EPA METHOD 8020
PURGEABLE AROMATICS

CLIENT:	NA	**SAMPLE MATRIX:**	WATER
CLIENT NUMBER:	NA	**PRESERVATIVE:**	HgCl2
PHASE/TASK:	NA	**DATE SAMPLED:**	NA
PROJECT LOCATION:	NA	**DATE RECEIVED:**	NA
SAMPLE ID:	Laboratory Blank	**DATE ANALYZED:**	Jun 24, 1994
SAMPLE NUMBER:	0624AM.00	**DATE REPORTED:**	Jun 24, 1994

ANALYTE	CONCENTRATION (ug/L)	DETECTION LIMIT(ug/L)
METHYL-T-B-ETHER	ND	0.2
BENZENE	ND	0.8
TOLUENE	ND	0.5
ETHYLBENZENE	ND	0.3
P,M-XYLENE	ND	0.3
O-XYLENE	ND	0.3

ND - ANALYTE NOT DETECTED AT STATED DETECTION LIMIT

QUALITY CONTROL:	SURROGATES	PERCENT RECOVERY	ACCEPTANCE LIMIT
	TRIFLUOROTOLUENE	96	80 - 120%
	BROMOFLUOROBENZENE	110	80 - 120%

REFERENCE: METHOD 5030, PURGE AND TRAP
METHOD 8020, PURGEABLE AROMATICS
TEST METHOD FOR EVALUATION SOLID WASTE,
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY,
SW-846, VOLUME IB, NOVEMBER 1990.

COMMENTS:

ANALYST

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CHAIN OF CUSTODY RECORD

Client/Project Name			Project Location		ANALYSIS/PARAMETERS							
Thriftway Refinery 810			Bloomfield									
Sampler: (Signature)			Tape No.		No. Cont.	BTEX	MTBE					Remarks
Jack D. Dewey												
Sample No./ID	Date	Time	Lab No.	Matrix								
MW-13	6/14/94	0950	0260	Water	2	✓	✓					
MW-16	6/14/94	1005	0261	Water	2	✓	✓					
MW-11	6/14/94	1020	0262	Water	2	✓	✓					
MW-15	6/14/94	1030	0263	Water	2	✓	✓					
MW-10	6/14/94	1100	0264	Water	2	✓	✓					
MW-9	6/14/94	1115	0265	Water	2	✓	✓					
MW-8	6/14/94	1130	0266	Water	2	✓	✓					

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Jack D. Dewey	6/14/94	1255	[signature]	6/14/94	1300
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

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BioTech REMEDIATION

EPA METHOD 8020
PURGEABLE AROMATICS

CLIENT:	Thriftway-Refinery	**SAMPLE MATRIX:**	WATER
CLIENT NUMBER:	810	**PRESERVATIVE:**	HgCl2
PHASE/TASK:	NA	**DATE SAMPLED:**	06-22-94
PROJECT LOCATION:	Bloomfield, NM	**DATE RECEIVED:**	06-22-94
SAMPLE ID:	MW -5	**DATE ANALYZED:**	Jun 28, 1994
SAMPLE NUMBER:	0277		

ANALYTE	CONCENTRATION (ug/L)	DETECTION LIMIT(ug/L)
METHYL-T-B-ETHER	31.2	0.2
BENZENE	ND	0.3
TOLUENE	ND	0.5
ETHYLBENZENE	ND	0.2
P,M-XYLENE	ND	0.3
O-XYLENE	ND	0.3

ND - ANALYTE NOT DETECTED AT STATED DETECTION LIMIT

QUALITY CONTROL:	SURROGATES	PERCENT RECOVERY	ACCEPTANCE LIMIT
	TRIFLUOROTOLUENE	110	80 - 120%
	BROMOFLUOROBENZENE	105	80 - 120%

REFERENCE: METHOD 5030, PURGE AND TRAP
METHOD 8020, PURGEABLE AROMATICS
TEST METHOD FOR EVALUATION SOLID WASTE,
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY,
SW-846, VOLUME IB, NOVEMBER 1990.

COMMENTS: Monitor Well MW -5, Thriftway site #810.

ANALYST

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BioTech REMEDIATION

EPA METHOD 8020
PURGEABLE AROMATICS

CLIENT:	Thriftway-Refinery	**SAMPLE MATRIX:**	WATER
CLIENT NUMBER:	810	**PRESERVATIVE:**	HgCl2
PHASE/TASK:	NA	**DATE SAMPLED:**	06-22-94
PROJECT LOCATION:	Bloomfield, NM	**DATE RECEIVED:**	06-22-94
SAMPLE ID:	MW -3	**DATE ANALYZED:**	Jun 28, 1994
SAMPLE NUMBER:	0278		

ANALYTE	CONCENTRATION (ug/L)	DETECTION LIMIT(ug/L)
METHYL-T-B-ETHER	23.6	0.2
BENZENE	12.8	0.3
TOLUENE	ND	0.5
ETHYLBENZENE	ND	0.2
P,M-XYLENE	1.1	0.3
O-XYLENE	ND	0.3

ND - ANALYTE NOT DETECTED AT STATED DETECTION LIMIT

QUALITY CONTROL:	SURROGATES	PERCENT RECOVERY	ACCEPTANCE LIMIT
	TRIFLUOROTOLUENE	95	80 - 120%
	BROMOFLUOROBENZENE	107	80 - 120%

REFERENCE: METHOD 5030, PURGE AND TRAP
METHOD 8020, PURGEABLE AROMATICS
TEST METHOD FOR EVALUATION SOLID WASTE,
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY,
SW-846, VOLUME IB, NOVEMBER 1990.

COMMENTS: Monitor Well MW -3, Thriftway site #810.

ANALYST

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BioTech REMEDIATION

EPA METHOD 8020
PURGEABLE AROMATICS

CLIENT:	Thriftway-Refinery	**SAMPLE MATRIX:**	WATER
CLIENT NUMBER:	810	**PRESERVATIVE:**	HgCl2
PHASE/TASK:	NA	**DATE SAMPLED:**	06-22-94
PROJECT LOCATION:	Bloomfield, NM	**DATE RECEIVED:**	06-22-94
SAMPLE ID:	MW -4	**DATE ANALYZED:**	Jun 28, 1994
SAMPLE NUMBER:	0279		

ANALYTE	CONCENTRATION (ug/L)	DETECTION LIMIT(ug/L)
METHYL-T-B-ETHER	28.3	0.2
BENZENE	22.6	0.3
TOLUENE	4.0	0.5
ETHYLBENZENE	0.3	0.2
P,M-XYLENE	2.4	0.3
O-XYLENE	ND	0.3

ND - ANALYTE NOT DETECTED AT STATED DETECTION LIMIT

QUALITY CONTROL:	SURROGATES	PERCENT RECOVERY	ACCEPTANCE LIMIT
	TRIFLUOROTOLUENE	98	80 - 120%
	BROMOFLUOROBENZENE	101	80 - 120%

REFERENCE: METHOD 5030, PURGE AND TRAP
METHOD 8020, PURGEABLE AROMATICS
TEST METHOD FOR EVALUATION SOLID WASTE,
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY,
SW-846, VOLUME IB, NOVEMBER 1990.

COMMENTS: Monitor Well MW -4, Thriftway site #810.

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BioTech REMEDIATION

EPA METHOD 8020
PURGEABLE AROMATICS

CLIENT:	Thriftway-Refinery	**SAMPLE MATRIX:**	WATER
CLIENT NUMBER:	810	**PRESERVATIVE:**	HgCl2
PHASE/TASK:	NA	**DATE SAMPLED:**	06-22-94
PROJECT LOCATION:	Bloomfield, NM	**DATE RECEIVED:**	06-22-94
SAMPLE ID:	MW -7	**DATE ANALYZED:**	Jun 28, 1994
SAMPLE NUMBER:	0280		

ANALYTE	CONCENTRATION (ug/L)	DETECTION LIMIT(ug/L)
METHYL-T-B-ETHER	67	10.0
BENZENE	4083	15.0
TOLUENE	695	25.0
ETHYLBENZENE	301	10.0
P,M-XYLENE	1581	15.0
O-XYLENE	136	15.0

ND - ANALYTE NOT DETECTED AT STATED DETECTION LIMIT

QUALITY CONTROL:	SURROGATES	PERCENT RECOVERY	ACCEPTANCE LIMIT
	TRIFLUOROTOLUENE	110	80 - 120%
	BROMOFLUOROBENZENE	110	80 - 120%

REFERENCE: METHOD 5030, PURGE AND TRAP
METHOD 8020, PURGEABLE AROMATICS
TEST METHOD FOR EVALUATION SOLID WASTE,
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY,
SW-846, VOLUME IB, NOVEMBER 1990.

COMMENTS: Monitor Well MW -7, Thriftway site #810.

ANALYST

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BioTech REMEDIATION

EPA METHOD 8020
PURGEABLE AROMATICS

CLIENT:	Thriftway-Refinery	**SAMPLE MATRIX:**	WATER
CLIENT NUMBER:	810	**PRESERVATIVE:**	HgCl2
PHASE/TASK:	NA	**DATE SAMPLED:**	06-22-94
PROJECT LOCATION:	Bloomfield, NM	**DATE RECEIVED:**	06-22-94
SAMPLE ID:	MW -19	**DATE ANALYZED:**	Jun 28, 1994
SAMPLE NUMBER:	0281		

ANALYTE	CONCENTRATION (ug/L)	DETECTION LIMIT(ug/L)
METHYL-T-B-ETHER	24.6	2.0
BENZENE	5.8	3.0
TOLUENE	6.9	5.0
ETHYLBENZENE	11.2	2.0
P,M-XYLENE	46.9	3.0
O-XYLENE	2.2	3.0

ND - ANALYTE NOT DETECTED AT STATED DETECTION LIMIT

QUALITY CONTROL:	SURROGATES	PERCENT RECOVERY	ACCEPTANCE LIMIT
	TRIFLUOROTOLUENE	118	80 - 120%
	BROMOFLUOROBENZENE	110	80 - 120%

REFERENCE: METHOD 5030, PURGE AND TRAP
METHOD 8020, PURGEABLE AROMATICS
TEST METHOD FOR EVALUATION SOLID WASTE,
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY,
SW-846, VOLUME IB, NOVEMBER 1990.

COMMENTS: Monitor Well MW -19, Thriftway site #810.

ANALYST

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BioTech REMEDIATION

QUALITY CONTROL
MATRIX SPIKE RECOVERY
EPA METHOD 8020
AROMATIC VOLATILE ORGANICS

CLIENT:	NA	**SAMPLE MATRIX:**	WATER
CLIENT NUMBER:	NA	**PRESERVATIVE:**	HgCl2
PHASE/TASK:	NA	**DATE SAMPLED:**	06-22-94
PROJECT LOCATION:	Bloomfield, NM	**DATE RECEIVED:**	06-22-94
SAMPLE ID:	MW -5	**DATE ANALYZED:**	Jun 28, 1994
SAMPLE NUMBER:	0277		

SPIKE CONCENTRATION (ug/L) = 20.0

ANALYTE	Sample Result (ug/L)	Spiked Result (ug/L)	Det. Limit (ug/L)	PERCENT RECOVERY
METHYL-T-B-ETHER	31.2	49.2	0.2	96
BENZENE	ND	20.0	0.3	100
TOLUENE	ND	20.6	0.5	102
ETHYLBENZENE	ND	20.9	0.2	104
P,M-XYLENE	ND	41.4	0.3	103
O-XYLENE	ND	20.8	0.3	104

ND - ANALYTE NOT DETECTED AT STATED DETECTION LIMIT

REFERENCE: METHOD 5030, PURGE AND TRAP
METHOD 8020, PURGEABLE AROMATICS
TEST METHOD FOR EVALUATION SOLID WASTE,
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY,
SW-846, VOLUME IB, NOVEMBER 1990.

COMMENTS:

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BioTech REMEDIATION

EPA METHOD 8020
PURGEABLE AROMATICS

CLIENT:	NA	**SAMPLE MATRIX:**	WATER
CLIENT NUMBER:	NA	**PRESERVATIVE:**	HgCl2
PHASE/TASK:	NA	**DATE SAMPLED:**	NA
PROJECT LOCATION:	NA	**DATE RECEIVED:**	NA
SAMPLE ID:	Laboratory Blank	**DATE ANALYZED:**	Jun 28, 1994
SAMPLE NUMBER:	0628AM.00	**DATE REPORTED:**	Jun 28, 1994

ANALYTE	CONCENTRATION (ug/L)	DETECTION LIMIT(ug/L)
METHYL-T-B-ETHER	ND	0.2
BENZENE	ND	0.3
TOLUENE	ND	0.5
ETHYLBENZENE	ND	0.2
P,M-XYLENE	ND	0.3
O-XYLENE	ND	0.3

ND - ANALYTE NOT DETECTED AT STATED DETECTION LIMIT

QUALITY CONTROL:	SURROGATES	PERCENT RECOVERY	ACCEPTANCE LIMIT
	TRIFLUOROTOLUENE	101	80 - 120%
	BROMOFLUOROBENZENE	105	80 - 120%

REFERENCE: METHOD 5030, PURGE AND TRAP
METHOD 8020, PURGEABLE AROMATICS
TEST METHOD FOR EVALUATION SOLID WASTE,
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY,
SW-846, VOLUME IB, NOVEMBER 1990.

COMMENTS:

ANALYST

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BioTech REMEDIATION

EPA METHOD 8020
PURGEABLE AROMATICS

CLIENT:	Thriftway-Refinery	**SAMPLE MATRIX:**	WATER
CLIENT NUMBER:	810	**PRESERVATIVE:**	HgCl2
PHASE/TASK:	NA	**DATE SAMPLED:**	06-22-94
PROJECT LOCATION:	Bloomfield, NM	**DATE RECEIVED:**	06-22-94
SAMPLE ID:	MW -18	**DATE ANALYZED:**	Jul 13, 1994
SAMPLE NUMBER:	0282		

ANALYTE	CONCENTRATION (ug/L)	DETECTION LIMIT(ug/L)
METHYL-T-B-ETHER	33.5	0.2
BENZENE	2.0	0.3
TOLUENE	ND	0.4
ETHYLBENZENE	ND	0.2
P,M-XYLENE	ND	0.3
O-XYLENE	ND	0.2

ND - ANALYTE NOT DETECTED AT STATED DETECTION LIMIT

QUALITY CONTROL:	SURROGATES	PERCENT RECOVERY	ACCEPTANCE LIMIT
	TRIFLUOROTOLUENE	90	80 - 120%
	BROMOFLUOROBENZENE	110	80 - 120%

REFERENCE: METHOD 5030, PURGE AND TRAP
METHOD 8020, PURGEABLE AROMATICS
TEST METHOD FOR EVALUATION SOLID WASTE,
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY,
SW-846, VOLUME IB, NOVEMBER 1990.

COMMENTS: Monitor Well MW -18, Thriftway site #810.

ANALYST

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BioTech REMEDIATION

EPA METHOD 8020
PURGEABLE AROMATICS

CLIENT:	Thriftway-Refinery	**SAMPLE MATRIX:**	WATER
CLIENT NUMBER:	810	**PRESERVATIVE:**	HgCl2
PHASE/TASK:	NA	**DATE SAMPLED:**	06-22-94
PROJECT LOCATION:	Bloomfield, NM	**DATE RECEIVED:**	06-22-94
SAMPLE ID:	MW -6	**DATE ANALYZED:**	Jul 13, 1994
SAMPLE NUMBER:	0283		

ANALYTE	CONCENTRATION (ug/L)	DETECTION LIMIT(ug/L)
METHYL-T-B-ETHER	33.8	0.2
BENZENE	234	0.3
TOLUENE	1.6	0.4
ETHYLBENZENE	33.7	0.2
P,M-XYLENE	1.3	0.3
O-XYLENE	0.2	0.2

ND - ANALYTE NOT DETECTED AT STATED DETECTION LIMIT

QUALITY CONTROL:	SURROGATES	PERCENT RECOVERY	ACCEPTANCE LIMIT
	TRIFLUOROTOLUENE	90	80 - 120%
	BROMOFLUOROBENZENE	110	80 - 120%

REFERENCE: METHOD 5030, PURGE AND TRAP
METHOD 8020, PURGEABLE AROMATICS
TEST METHOD FOR EVALUATION SOLID WASTE,
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY,
SW-846, VOLUME IB, NOVEMBER 1990.

COMMENTS: Monitor Well MW -6, Thriftway site #810.

ANALYST

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BioTech REMEDIATION

EPA METHOD 8020
PURGEABLE AROMATICS

CLIENT:	Thriftway-Refinery	**SAMPLE MATRIX:**	WATER
CLIENT NUMBER:	810	**PRESERVATIVE:**	HgCl2
PHASE/TASK:	NA	**DATE SAMPLED:**	06-22-94
PROJECT LOCATION:	Bloomfield, NM	**DATE RECEIVED:**	06-22-94
SAMPLE ID:	MW -21	**DATE ANALYZED:**	Jul 13, 1994
SAMPLE NUMBER:	0284		

ANALYTE	CONCENTRATION (ug/L)	DETECTION LIMIT(ug/L)
METHYL-T-B-ETHER	45.1	0.2
BENZENE	17.3	0.3
TOLUENE	2.5	0.4
ETHYLBENZENE	1.9	0.2
P,M-XYLENE	0.4	0.3
O-XYLENE	1.5	0.2

ND - ANALYTE NOT DETECTED AT STATED DETECTION LIMIT

QUALITY CONTROL:

SURROGATES	PERCENT RECOVERY	ACCEPTANCE LIMIT
TRIFLUOROTOLUENE	95	80 - 120%
BROMOFLUOROBENZENE	107	80 - 120%

REFERENCE: METHOD 5030, PURGE AND TRAP
METHOD 8020, PURGEABLE AROMATICS
TEST METHOD FOR EVALUATION SOLID WASTE,
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY,
SW-846, VOLUME IB, NOVEMBER 1990.

COMMENTS: Monitor Well MW -21, Thriftway site #810.

ANALYST

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BioTech REMEDIATION

EPA METHOD 8020
PURGEABLE AROMATICS

CLIENT:	Thriftway-Refinery	**SAMPLE MATRIX:**	WATER
CLIENT NUMBER:	810	**PRESERVATIVE:**	HgCl2
PHASE/TASK:	NA	**DATE SAMPLED:**	06-22-94
PROJECT LOCATION:	Bloomfield, NM	**DATE RECEIVED:**	06-22-94
SAMPLE ID:	MW -17	**DATE ANALYZED:**	Jul 13, 1994
SAMPLE NUMBER:	0285		

ANALYTE	CONCENTRATION (ug/L)	DETECTION LIMIT(ug/L)
METHYL-T-B-ETHER	90	10.0
BENZENE	21610	15.0
TOLUENE	15551	20.0
ETHYLBENZENE	848	10.0
P,M-XYLENE	6205	15.0
O-XYLENE	1555	10.0

ND - ANALYTE NOT DETECTED AT STATED DETECTION LIMIT

QUALITY CONTROL:	SURROGATES	PERCENT RECOVERY	ACCEPTANCE LIMIT
	TRIFLUOROTOLUENE	105	80 - 120%
	BROMOFLUOROBENZENE	109	80 - 120%

REFERENCE: METHOD 5030, PURGE AND TRAP
METHOD 8020, PURGEABLE AROMATICS
TEST METHOD FOR EVALUATION SOLID WASTE,
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY,
SW-846, VOLUME IB, NOVEMBER 1990.

COMMENTS: Monitor Well MW -17, Thriftway site #810.

ANALYST

REVIEW

BioTech LABORATORIES
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Farmington, New Mexico 87401
Office (505) 632-3365
Fax (505) 632-9850

BioTech REMEDIATION

EPA METHOD 8020
PURGEABLE AROMATICS

CLIENT:	Thriftway-Refinery	**SAMPLE MATRIX:**	WATER
CLIENT NUMBER:	810	**PRESERVATIVE:**	HgCl2
PHASE/TASK:	NA	**DATE SAMPLED:**	06-22-94
PROJECT LOCATION:	Bloomfield, NM	**DATE RECEIVED:**	06-22-94
SAMPLE ID:	MW -2	**DATE ANALYZED:**	Jul 13, 1994
SAMPLE NUMBER:	0286		

ANALYTE	CONCENTRATION (ug/L)	DETECTION LIMIT(ug/L)
METHYL-T-B-ETHER	138	2.0
BENZENE	1070	3.0
TOLUENE	23.9	4.0
ETHYLBENZENE	13.9	2.0
P,M-XYLENE	459	3.0
O-XYLENE	14.2	2.0

ND - ANALYTE NOT DETECTED AT STATED DETECTION LIMIT

QUALITY CONTROL:	SURROGATES	PERCENT RECOVERY	ACCEPTANCE LIMIT
	TRIFLUOROTOLUENE	101	80 - 120%
	BROMOFLUOROBENZENE	103	80 - 120%

REFERENCE: METHOD 5030, PURGE AND TRAP
METHOD 8020, PURGEABLE AROMATICS
TEST METHOD FOR EVALUATION SOLID WASTE,
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY,
SW-846, VOLUME IB, NOVEMBER 1990.

COMMENTS: Monitor Well MW -2, Thriftway site #810.

ANALYST

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BioTech REMEDIATION

EPA METHOD 8020
PURGEABLE AROMATICS

CLIENT:	Thriftway-Refinery	**SAMPLE MATRIX:**	WATER
CLIENT NUMBER:	810	**PRESERVATIVE:**	HgCl2
PHASE/TASK:	NA	**DATE SAMPLED:**	06-22-94
PROJECT LOCATION:	Bloomfield, NM	**DATE RECEIVED:**	06-22-94
SAMPLE ID:	MW -22	**DATE ANALYZED:**	Jul 13, 1994
SAMPLE NUMBER:	0287		

ANALYTE	CONCENTRATION (ug/L)	DETECTION LIMIT(ug/L)
METHYL-T-B-ETHER	39.2	0.2
BENZENE	ND	0.3
TOLUENE	ND	0.4
ETHYLBENZENE	ND	0.2
P,M-XYLENE	ND	0.3
O-XYLENE	ND	0.2

ND - ANALYTE NOT DETECTED AT STATED DETECTION LIMIT

QUALITY CONTROL:	SURROGATES	PERCENT RECOVERY	ACCEPTANCE LIMIT
	TRIFLUOROTOLUENE	90	80 - 120%
	BROMOFLUOROBENZENE	103	80 - 120%

REFERENCE: METHOD 5030, PURGE AND TRAP
METHOD 8020, PURGEABLE AROMATICS
TEST METHOD FOR EVALUATION SOLID WASTE,
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY,
SW-846, VOLUME IB, NOVEMBER 1990.

COMMENTS: Monitor Well MW -22, Thriftway site #810.

ANALYST

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BioTech REMEDIATION

EPA METHOD 8020
PURGEABLE AROMATICS

CLIENT:	Thriftway-Refinery	**SAMPLE MATRIX:**	WATER
CLIENT NUMBER:	810	**PRESERVATIVE:**	HgCl2
PHASE/TASK:	NA	**DATE SAMPLED:**	06-22-94
PROJECT LOCATION:	Bloomfield, NM	**DATE RECEIVED:**	06-22-94
SAMPLE ID:	MW -1	**DATE ANALYZED:**	Jul 15, 1994
SAMPLE NUMBER:	0288		

ANALYTE	CONCENTRATION (ug/L)	DETECTION LIMIT(ug/L)
METHYL-T-B-ETHER	1628	20.0
BENZENE	60	15.0
TOLUENE	23.9	20.0
ETHYLBENZENE	580	10.0
P,M-XYLENE	101	15.0
O-XYLENE	19.6	10.0

ND - ANALYTE NOT DETECTED AT STATED DETECTION LIMIT

QUALITY CONTROL:	SURROGATES	PERCENT RECOVERY	ACCEPTANCE LIMIT
	TRIFLUOROTOLUENE	97	80 - 120%
	BROMOFLUOROBENZENE	101	80 - 120%

REFERENCE: METHOD 5030, PURGE AND TRAP
METHOD 8020, PURGEABLE AROMATICS
TEST METHOD FOR EVALUATION SOLID WASTE,
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY,
SW-846, VOLUME IB, NOVEMBER 1990.

COMMENTS: Monitor Well MW -1, Thriftway site #810.

ANALYST

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BioTech REMEDIATION

EPA METHOD 8020
PURGEABLE AROMATICS

CLIENT:	Thriftway-Refinery	**SAMPLE MATRIX:**	WATER
CLIENT NUMBER:	810	**PRESERVATIVE:**	HgCl2
PHASE/TASK:	NA	**DATE SAMPLED:**	06-22-94
PROJECT LOCATION:	Bloomfield, NM	**DATE RECEIVED:**	06-22-94
SAMPLE ID:	MW -20	**DATE ANALYZED:**	Jul 15, 1994
SAMPLE NUMBER:	0289		

ANALYTE	CONCENTRATION (ug/L)	DETECTION LIMIT(ug/L)
METHYL-T-B-ETHER	109	0.4
BENZENE	10.4	0.3
TOLUENE	11.1	0.4
ETHYLBENZENE	12.2	0.2
P,M-XYLENE	19.7	0.3
O-XYLENE	1.0	0.2

ND - ANALYTE NOT DETECTED AT STATED DETECTION LIMIT

QUALITY CONTROL:

SURROGATES	PERCENT RECOVERY	ACCEPTANCE LIMIT
TRIFLUOROTOLUENE	104	80 - 120%
BROMOFLUOROBENZENE	108	80 - 120%

REFERENCE: METHOD 5030, PURGE AND TRAP
METHOD 8020, PURGEABLE AROMATICS
TEST METHOD FOR EVALUATION SOLID WASTE,
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY,
SW-846, VOLUME IB, NOVEMBER 1990.

COMMENTS: Monitor Well MW -20, Thriftway site #810.

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BioTech REMEDIATION

QUALITY CONTROL
MATRIX SPIKE RECOVERY
EPA METHOD 8020
AROMATIC VOLATILE ORGANICS

CLIENT:	NA	**SAMPLE MATRIX:**	WATER
CLIENT NUMBER:	NA	**PRESERVATIVE:**	HgCl2
PHASE/TASK:	NA	**DATE SAMPLED:**	06-22-94
PROJECT LOCATION:	Bloomfield, NM	**DATE RECEIVED:**	06-22-94
SAMPLE ID:	MW -18	**DATE ANALYZED:**	Jul 13, 1994
SAMPLE NUMBER:	0282		

SPIKE CONCENTRATION (ug/L) = 20.0

ANALYTE	Sample Result (ug/L)	Spiked Result (ug/L)	Det. Limit (ug/L)	PERCENT RECOVERY
METHYL-T-B-ETHER	33.5	50.3	0.2	94
BENZENE	2.0	20.0	0.3	91
TOLUENE	ND	20.3	0.4	101
ETHYLBENZENE	ND	20.5	0.2	102
P,M-XYLENE	ND	40.6	0.3	101
O-XYLENE	ND	20.4	0.2	101

ND - ANALYTE NOT DETECTED AT STATED DETECTION LIMIT

REFERENCE: METHOD 5030, PURGE AND TRAP
METHOD 8020, PURGEABLE AROMATICS
TEST METHOD FOR EVALUATION SOLID WASTE,
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY,
SW-846, VOLUME IB, NOVEMBER 1990.

COMMENTS:

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BioTech REMEDIATION

EPA METHOD 8020
PURGEABLE AROMATICS

CLIENT:	NA	**SAMPLE MATRIX:**	WATER
CLIENT NUMBER:	NA	**PRESERVATIVE:**	HgCl2
PHASE/TASK:	NA	**DATE SAMPLED:**	NA
PROJECT LOCATION:	NA	**DATE RECEIVED:**	NA
SAMPLE ID:	Laboratory Blank	**DATE ANALYZED:**	Jul 13, 1994
SAMPLE NUMBER:	0713AM.00	**DATE REPORTED:**	Jul 13, 1994

ANALYTE	CONCENTRATION (ug/L)	DETECTION LIMIT(ug/L)
METHYL-T-B-ETHER	ND	0.2
BENZENE	ND	0.3
TOLUENE	ND	0.4
ETHYLBENZENE	ND	0.2
P,M-XYLENE	ND	0.3
O-XYLENE	ND	0.2

ND - ANALYTE NOT DETECTED AT STATED DETECTION LIMIT

QUALITY CONTROL:	SURROGATES	PERCENT RECOVERY	ACCEPTANCE LIMIT
	TRIFLUOROTOLUENE	92	80 - 120%
	BROMOFLUOROBENZENE	99	80 - 120%

REFERENCE: METHOD 5030, PURGE AND TRAP
METHOD 8020, PURGEABLE AROMATICS
TEST METHOD FOR EVALUATION SOLID WASTE,
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY,
SW-846, VOLUME IB, NOVEMBER 1990.

COMMENTS:

ANALYST

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BioTech REMEDIATION

EPA METHOD 8020
PURGEABLE AROMATICS

CLIENT:	NA	**SAMPLE MATRIX:**	WATER
CLIENT NUMBER:	NA	**PRESERVATIVE:**	HgCl2
PHASE/TASK:	NA	**DATE SAMPLED:**	NA
PROJECT LOCATION:	NA	**DATE RECEIVED:**	NA
SAMPLE ID:	Laboratory Blank	**DATE ANALYZED:**	Jul 15, 1994
SAMPLE NUMBER:	0715AM.00	**DATE REPORTED:**	Jul 15, 1994

ANALYTE	CONCENTRATION (ug/L)	DETECTION LIMIT(ug/L)
METHYL-T-B-ETHER	ND	0.4
BENZENE	ND	0.3
TOLUENE	ND	0.4
ETHYLBENZENE	ND	0.2
P,M-XYLENE	ND	0.3
O-XYLENE	ND	0.2

ND - ANALYTE NOT DETECTED AT STATED DETECTION LIMIT

QUALITY CONTROL:	SURROGATES	PERCENT RECOVERY	ACCEPTANCE LIMIT
	TRIFLUOROTOLUENE	85	80 - 120%
	BROMOFLUOROBENZENE	107	80 - 120%

REFERENCE: METHOD 5030, PURGE AND TRAP
METHOD 8020, PURGEABLE AROMATICS
TEST METHOD FOR EVALUATION SOLID WASTE,
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY,
SW-846, VOLUME IB, NOVEMBER 1990.

COMMENTS:

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11087

CHAIN OF CUSTODY RECORD

Client/Project Name			Project Location		ANALYSIS/PARAMETERS							
T-WAY 815			810 Refinery									
Sampler: (Signature)			Tape No.		No. Cont.	BTEX	MTBE					Remarks
Sample No./ID	Date	Time	Lab No.	Matrix								
MW5	6/22	2:25pm	0277	WATER	2	✓	✓					
MW3	6/22	1:40pm	0278	"	2	✓	✓					
MW4	6/22	1:50pm	0279	"	2	✓	✓					
MW7	6/22	1:20pm	0280	"	2	✓	✓					
MW19	6/22	2:05p	0281	"	2	✓	✓					
MW18	6/22	2:10p	0282	"	2	✓	✓					
MW 6	6/22	1:30pm	0283	"	2	✓	✓					
MW 21	6/22	10:15am	0284	"	2	✓	✓					
MW 17	6/22	1:00pm	0285	"	2	✓	✓					
MW 2	6/22	12:05pm	0286	"	2	✓	✓					
Relinquished by: (Signature)			Date	Time	Received by: (Signature)						Date	Time
			6/22/94	2:45pm							6/22/94	1455
Relinquished by: (Signature)					Received by: (Signature)							
Relinquished by: (Signature)					Received by: (Signature)							

san juan repro Form 578-97

BioTech REMEDIATION
WATER QUALITY LABORATORIES
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Farmington, New Mexico 87401
Office: (505) 632-3365
Fax: (505) 632-0030

11088

CHAIN OF CUSTODY RECORD

Client/Project Name			Project Location		ANALYSIS/PARAMETERS							
Thriftway 815			810 Refinery									
Sampler: (Signature)			Tape No.		No. Cont.	BTEX	MTBE					Remarks
Sample No./ID	Date	Time	Lab No.	Matrix								
MW 22	6/22	10:30 AM	0287	Water	2	✓	✓					
MW 1	6/22	10:50 AM	0288	Water	2	✓	✓					
MW 20	"	9:45 AM	0289	"	2	✓	✓					
Relinquished by: (Signature)			Date	Time	Received by: (Signature)						Date	Time
			6/22/94	2:45 pm							6/22/94	1455
Relinquished by: (Signature)					Received by: (Signature)							
Relinquished by: (Signature)					Received by: (Signature)							

BIOTECH REMEDIATION INC.

QUARTERLY MONITORING REPORT
THRIFTWAY REFINERY
626 COUNTY ROAD 5500
BLOOMFIELD, NEW MEXICO 87413

RECEIVED
APR 12 1994
OIL CONSERVATION DIV.
SANTA FE

PREPARED FOR THE
NEW MEXICO ENVIRONMENT DEPARTMENT
MR. WILL OLSEN, PROJECT MANAGER

BY
BIOTECH REMEDIATION, INC.
710 EAST 20TH ST., SUITE #400
FARMINGTON, NEW MEXICO 87401

FEBRUARY 14, 1994

QUARTERLY MONITORING REPORT
THRIFTWAY REFINERY
626 COUNTY ROAD 5500
BLOOMFIELD, NEW MEXICO 87413

PREPARED FOR THE
NEW MEXICO OIL CONSERVATION DIVISION
MR. WILL OLSEN, PROJECT MANAGER

February 14, 1994

BY
BIOTECH REMEDIATION INC.
710 EAST 20TH ST., SUITE #400
FARMINGTON, NEW MEXICO 87401

PREPARED BY

JACK DEWEY
HYDROLOGIST

REVIEWED BY

KEN SINKS, CHEM. E. P.E.
SENIOR SCIENTIST/ENGINEER

810\QMR022094

TABLE OF CONTENTS

1.0 INTRODUCTION

The purpose of this report is to update the database information for the Thriftway Refinery, through February, 1994. BioTech Remediation, Inc. (BioTech), submits this monitoring and sampling update on behalf of the Thriftway Company, pursuant to the requirements of the New Mexico Oil Conservation Division. This report defines the relative ground water elevation, approximate size and location of the free-product plumes and the current activity at the site. It also describes the extent of water contamination based on the NMWQCC specification of .01 mg/L Benzene in water. This work is compiled in compliance with the terms of the Thriftway Refinery Ground Water Discharge Plan GW-55.

2.0 QUARTERLY SUMMARY OF SITE ACTIVITIES

Site monitoring was performed on February 10, 11, and 14, 1994. During this quarterly site visit, the following activities were performed:

- Water level monitoring
- Sample of monitor wells
- Free-product thickness measurements

The de-scaling of the air stripper system, as instituted by Thriftway, has been on-going. The system was acidized on a monthly basis and after each acidation, the operation of the system was restored to an acceptable level. The injection pump has continued to operate with minimal interruption. The inflow to the air stripper building was sampled and submitted to the laboratory for BTEX analysis, per EPA method 8020. Free-product was bailed once or twice a week for most of the quarter from all recovery and monitor wells that contain free-product.

3.0 SUMMARY OF GROUND WATER ELEVATION DATA

Table 1 lists the relative ground water elevation data to date, for the refinery. The most recent relative ground water elevation data, collected February 10 and 11, 1994, is presented on the Ground Water Contour Map (see Figure 1). The field data was gathered using an ORS water interface probe and a 100' well liquid level measuring tape. The difference between the water level and the liquid level is the product thickness.

From the ground water contour map, it appears that the ground water gradient is affected by the following natural and man-made features: 1) Kuntz Arroyo; 2) the small arroyo east of the property; 3) the pond fed by an artesian well; 4) the leakage from around the artesian well; and 5) the water recovery and injection system.

4.0 SUMMARY OF PHASE-SEPARATED PRODUCT CONDITIONS

Free-product was found in monitor wells MW-12, MW-14, MW-23, MW-26, MW-27, MW-28, MW-29, MW17-1, MW17-4 and MW17-5, as well as in most of the recovery wells. The relative level of free-product in the monitor and recovery wells was measured with the liquid level measuring tape. The difference between this liquid level and the water level measured with the ORS probe, is the thickness of the product in the well. The phase-separated product was also measured in a disposable transparent bailer. The amount of free-product is recorded in feet and presented in Table 2. The amount of free-product collected from the bailing of these monitor and recovery wells is also shown in Table 2. The material recovered during bailing was properly disposed of in a collection tank provided on the site. The collection tank contents are handled as follows: 1) free-product is pumped off and stored for later processing; and 2) the contaminated water is stripped of dissolved hydrocarbon in the waste water air stripper tank and then evaporated in the refinery waste water system.

From the earlier hydrogeological investigation and subsequent Quarterly Monitoring Reports, the plume in monitor wells MW-12 and MW-14 is affected by the water mound being created from the water injection system. The current phase-separated product plumes are presented in Figure 3.

5.0 SUMMARY OF GROUND WATER CHEMISTRY DATA

Table 3 summarizes all ground water quality data collected to date for the refinery. The Appendices contains the laboratory reports and the quality control data for the current survey. Ground water samples for analysis were collected February 10 and 11, 1994, from all monitor wells not containing free-product.

Ground water from each of the above wells was analyzed for Benzene, Toluene, Ethylbenzene and total Xylenes (BTEX). The extent of the dissolved phase ground water plume at this site (based upon the regulated benzene standard of 0.01 mg/l), is shown in Figure 2.

The samples were gathered using disposable bailers. New cord was used on each bailer to further ensure no cross-contamination of wells occurred. At least five (5) well volumes were removed, whenever possible. If the well recharged slowly, then the water from the last bail was used for analysis. The samples were placed in 40 ml vials, previously prepared at the lab with two (2) or three (3) drops of $HgCl_2$ solution. The samples were all marked with their respective location, monitor well number, date, time of sampling and by whom sampled. The samples were then transported, on ice, to the BioTech Water Quality Laboratories. A Chain of Custody record accompanied the samples and is included with the laboratory analysis reports.

6.0 DISCUSSION / RECOMMENDATIONS

The ground water contour map, provided in Figure 1, is calculated from the most recent data collected on February 10 and 11, 1994. The magnitude of the dissolved phase has changed slightly over the period of the last quarter. The contamination has migrated slightly downgradient, as noted in monitor well MW-20.

A review of the Benzene Plume Map (see Figure 2), shows no appreciable increase in the plume size. Monitor well MW-17 still appears to be highly contaminated and from the data provided in Table 3, it indicates no appreciable change in Benzene since the well was sampled on August 28, 1991. What appears to be evident from this recent survey, is that MW-17 has a separate source and has its own plume which is not migrating appreciably. Part of this may be due to the intercept/recovery system that is operating. The contamination from this plume seems to extend to MW-7.

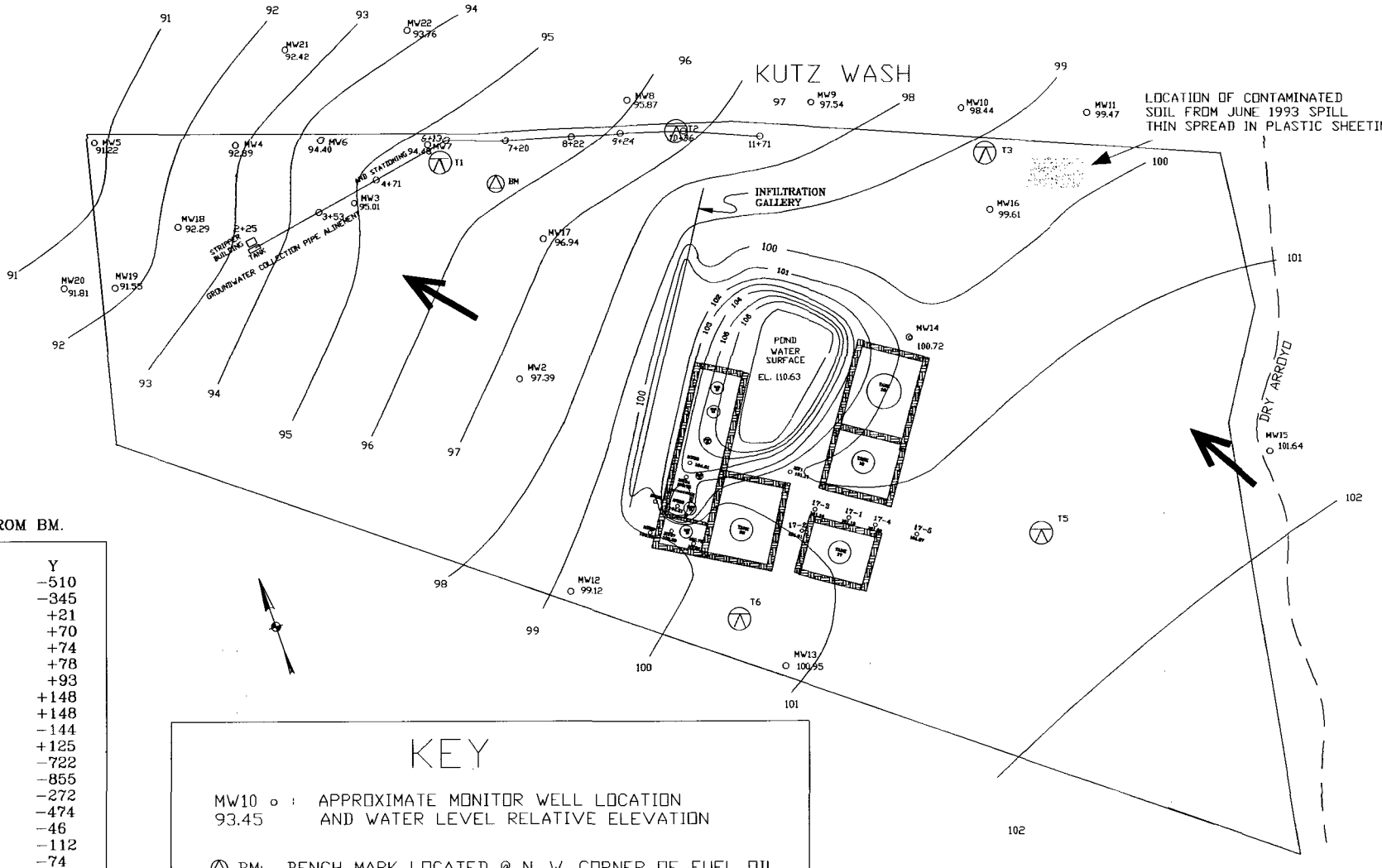
Approximately 75 gallons of free-product has been recovered from the recovery wells in the vicinity of monitor wells MW-12, MW-14, and MW-23. BioTech is keeping a record of the product being recovered from the wells and will continue to report on the recovery progress.

The free-product level in MW-12 has had no significant gain or loss since the level recorded on September 14, 1993. A recent free-product plume investigation has lead BioTech to believe that product in MW-12 is associated with a spill that may have happened

many years ago from tank 19. A separate product plume is represented in the area around MW-14, also many years old (see Figure 3). Investigation into the plume size and the method of remediation for this site will continue to proceed and be reported.

BioTech, as directed by Thriftway Company, will continue quarterly sampling and monitoring of the site, as well as routine maintenance of the pump and recovery systems. This report of the operation and maintenance of the site remediation systems at the Thriftway Refinery is provided to comply with the Oil Conservation Division requirements and the Site Ground Water Discharge Plan GW-55.

FIGURES



XY DISTANCES FROM BM.

MW	X	Y
1	+524	−510
2	+44	−345
3	−253	+21
4	−462	+70
5	−712	+74
6	−312	+78
7	−103	+93
8	+233	+148
9	+559	+148
10	+826	−144
11	+1048	+125
12	+134	−722
13	+516	−855
14	+738	−272
15	+1376	−474
16	+879	−46
17	+63	−112
18	−564	−74
19	−675	−182
20	−856	−178
21	−474	+162
22	−283	+161

KEY

MW10 o 93.45 : APPROXIMATE MONITOR WELL LOCATION AND WATER LEVEL RELATIVE ELEVATION

BM: BENCH MARK LOCATED @ N. W. CORNER OF FUEL OIL LOADING, CONCRETE SPILL CONTAINMENT SLAB, RELATIVE ELEVATION 100'

APPROXIMATE GROUNDWATER FLOW DIRECTION

SCALE IN FEET

100 0 50 100 150 200 250

THRIFTWAY REFINERY
626 COUNTY ROAD 5500
BLOOMFIELD, NEW MEXICO

810\93WL

ENGINEER: A. CHAHARLANG
DRAFTED BY: J. DEWEY

FIG. 1: GROUND WATER CONTOUR MAP

FEBRUARY 11, 1994

BioTech REMEDIATION

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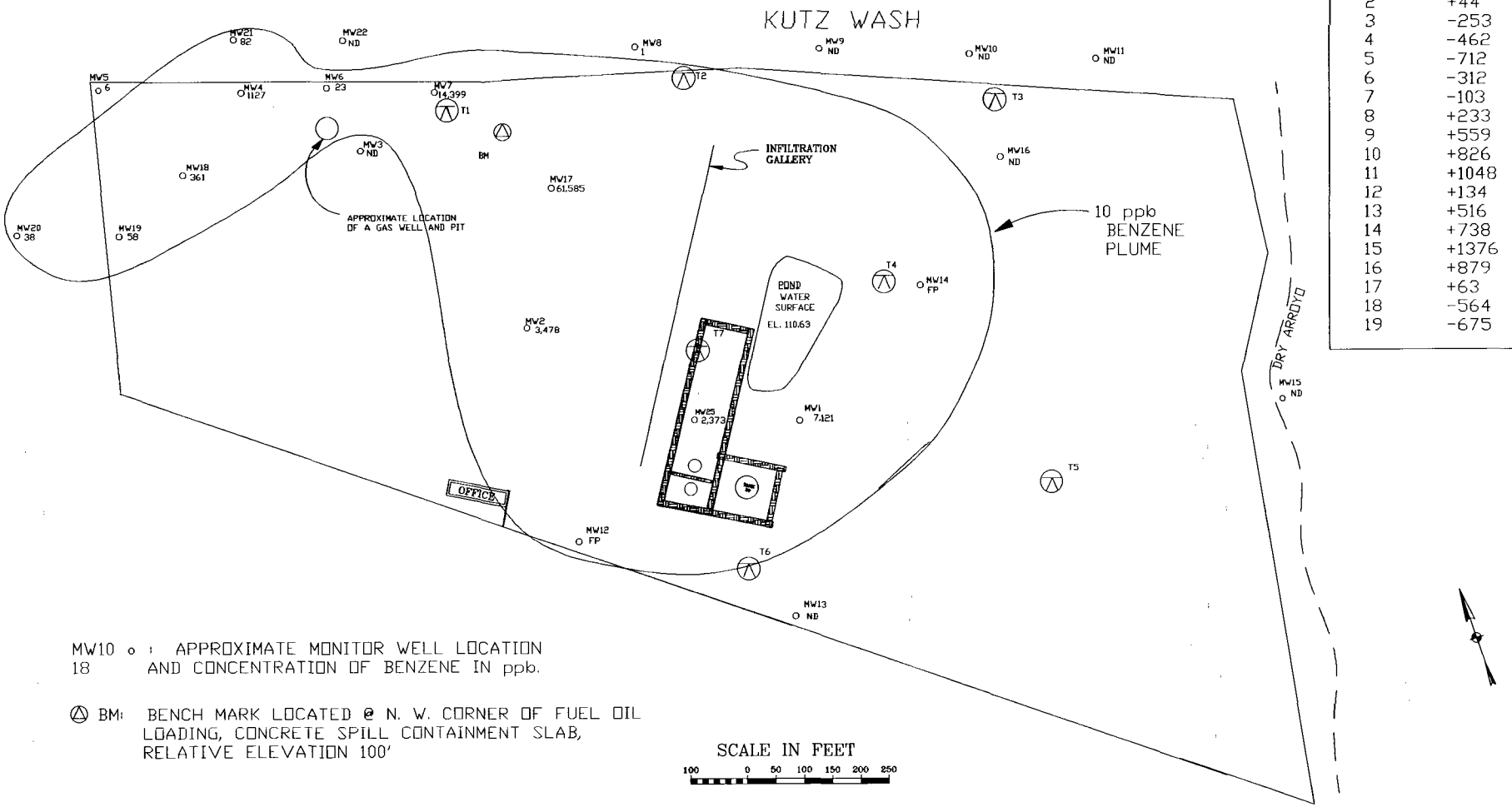
MW	X	Y
1	+524	-510
2	+44	-345
3	-253	+21
4	-462	+70
5	-712	+74
6	-312	+78
7	-103	+93
8	+233	+148
9	+559	-144
10	+826	+133
11	+1048	+125
12	+134	-722
13	+516	-855
14	+738	-272
15	+1376	-474
16	+879	-46
17	+63	-112
18	-564	-74
19	-675	-182



MW10 o 18 : APPROXIMATE MONITOR WELL LOCATION AND CONCENTRATION OF BENZENE IN ppb.

△ BM: BENCH MARK LOCATED @ N. W. CORNER OF FUEL OIL LOADING, CONCRETE SPILL CONTAINMENT SLAB, RELATIVE ELEVATION 100'

SCALE IN FEET

100 0 50 100 150 200 250

THRIFTWAY REFINERY
626 COUNTY ROAD 5500
BLOOMFIELD, NEW MEXICO

ENGINEER: A. CHAHARLANG
DRAFTED BY: J. DEWEY

FIGURE 2 10 ppb BENZENE PLUME

FEBRUARY 21, 1994

BioTech REMEDIATION

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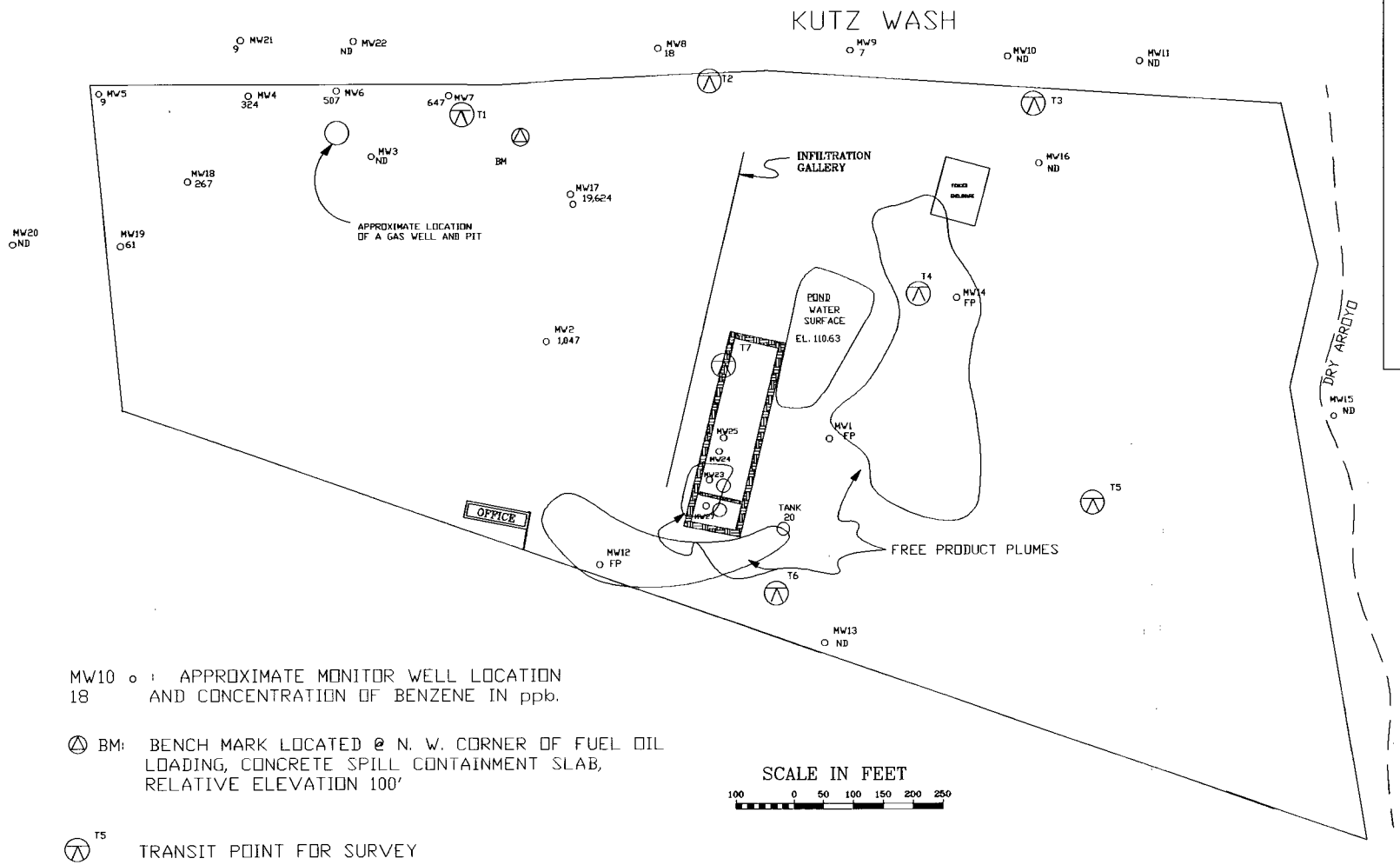

MW	X	Y
1	+524	-510
2	+44	-345
3	-253	+21
4	-462	+70
5	-712	+74
6	-312	+78
7	-103	+93
8	+233	+148
9	+559	-144
10	+826	+133
11	+1048	+125
12	+134	-722
13	+516	-855
14	+738	-272
15	+1376	-474
16	+879	-46
17	+63	-112
18	-564	-74
19	-675	-182

MW10 o 18 : APPROXIMATE MONITOR WELL LOCATION AND CONCENTRATION OF BENZENE IN ppb.

BM: BENCH MARK LOCATED @ N. W. CORNER OF FUEL OIL LOADING, CONCRETE SPILL CONTAINMENT SLAB, RELATIVE ELEVATION 100'

T5 TRANSIT POINT FOR SURVEY

SCALE IN FEET

100 0 50 100 150 200 250

THRIFTWAY REFINERY
626 COUNTY ROAD 5500
BLOOMFIELD, NEW MEXICO

ENGINEER: A. CHAHARLANG
DRAFTED BY: J. DEWEY

FIGURE 3: FREE PRODUCT PLUME

FEBRUARY 11, 1994

BioTech REMEDIATION

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TABLES

TABLE 1
THRIFTWAY REFINERY, BLOOMFIELD, NM
GROUNDWATER MONITORING DATA

WELL #	TOP OF PIPE ELEVATION	DATE	TIME	WATER LEVEL (feet)	WATER LEVE ELEVATION (feet)
1	114.08	08/28/91		12.67	101.41
		09/02/92	13:15	14.00	100.08
		04/28/93	10:45	12.77	101.31
		09/14/93	-	13.52	100.56
		11/29/93	09:30	13.51	100.57
		02/11/94	16:15	12.97	101.11
2	107.62	08/28/91		10.31	97.31
		08/31/92	13:07	10.25	97.37
		04/28/93	10:25	9.24	98.18
		09/14/93		10.27	97.35
		11/29/93	03:33	10.23	97.39
		02/11/94	14:10	9.91	97.71
3	96.28	08/28/91		3.67	92.61
		09/01/92	12:45	2.24	94.04
		04/28/93	10:10	2.01	94.27
		09/14/93		1.95	94.33
		11/30/93	10:10	1.72	94.56
		02/11/94	11:25	1.27	95.01
4	95.82	08/28/91		4.31	91.51
		09/01/92	12:15	3.78	92.04
		04/28/93	9:50	3.30	92.52
		09/13/93		3.65	92.17
		11/30/93	09:55	3.15	92.67
		02/11/94	10:55	2.93	
5	94.66	08/28/91		4.43	90.23
		09/01/92	12:00	4.20	90.46
		04/28/93	9:45	3.64	91.02
		09/13/93		4.26	90.40
		11/30/93	09:38	3.73	90.93
		02/11/94	10:20	3.44	91.22
6	96.31	08/28/91		3.68	92.63
		09/01/92	12:30	2.63	93.68
		04/28/93	10:00	2.44	93.87
		09/13/93		2.15	94.16
		11/29/93	04:25	2.03	94.28
		02/11/94	11:00	1.91	94.40

TABLE 1
THRIFTWAY REFINERY, BLOOMFIELD, NM
GROUNDWATER MONITORING DATA

WELL #	TOP OF PIPE ELEVATION	DATE	TIME	WATER LEVEL (feet)	WATER LEVE ELEVATION (feet)
7	96.79	08/28/91		3.35	93.44
		09/01/92		WELL NOT FOUND	
		04/28/93		WELL NOT FOUND	
		09/14/93		5.15	91.64
		11/29/93	04:10	4.70	92.09
		02/11/94	11:35	4.36	92.43
8	97.04	08/28/91		2.83	94.21
		09/02/92	14:50	2.75	94.29
		04/28/93	11:15	1.95	95.09
		09/14/93		1.97	95.07
		11/29/93	03:00	1.54	95.50
		02/11/94	09:00	1.17	95.87
9	100.16	08/28/91		3.42	96.74
		09/02/92	14:45	3.50	96.66
		04/28/93	11:25	2.87	97.29
		09/14/93		2.90	97.26
		11/29/93	03:15	2.83	97.33
		02/10/94	15:57	2.62	97.54
10	101.55	08/28/91		3.50	98.05
		09/02/92	15:05	3.50	98.05
		04/28/93	11:35	3.02	98.53
		09/14/93		3.23	98.32
		11/29/93	02:40	3.11	98.44
		02/10/94	15:55	2.31	99.24
11	103.63	08/28/91		4.60	99.03
		09/02/92	15:15	4.65	98.98
		04/28/93	11:45	4.22	99.41
		09/14/93		4.63	99.00
		11/29/93	02:30	4.41	99.22
		02/10/94	15:50	4.16	99.47
12	111.11	08/28/91		12.51	98.62
		08/31/92	13:30	13.67	97.44
		04/28/93	9:10	11.50	99.61
		09/14/93		15.39	95.72
		11/29/93	08:30	14.12	96.99
		02/14/94	14:30	11.99	99.12

TABLE 1
THRIFTWAY REFINERY, BLOOMFIELD, NM
GROUNDWATER MONITORING DATA

WELL #	TOP OF PIPE ELEVATION	DATE	TIME	WATER LEVEL (feet)	WATER LEVE ELEVATION (feet)
13	117.12	08/28/91		16.24	100.88
		09/02/92	13:50	16.25	100.87
		04/28/93	9:00	15.77	101.35
		09/14/93		16.38	100.74
		11/29/93	09:15	16.41	100.71
		02/10/94	15:15	16.17	100.95
14	111.94	08/28/91		11.33	100.61
		09/02/92	14:00	13.00	98.94
		04/28/93	10:55	11.34	100.60
		09/14/93		12.83	99.11
		11/29/93	10:15	12.74	99.20
		02/14/94	16:00	11.22	100.72
15	114.53	08/28/91		12.58	101.95
		09/03/92	8:00	13.05	101.48
		04/28/93	11:55	12.57	101.96
		09/14/93		13.10	101.43
		11/29/93	02:20	13.05	101.48
		02/10/94	15:45	12.89	101.64
16	107.64	08/28/91		8.28	99.36
		09/02/92	14:25	8.45	99.19
		04/28/93	11:05	7.90	99.74
		09/14/93		LEVEL NOT TAKEN	
		11/29/93	02:00	8.26	99.38
		02/10/94	15:30	8.03	99.61
17	100.84	08/28/91		5.10	95.74
		08/31/93	12:44	4.65	96.19
		04/28/93	10:35	3.35	97.49
		09/14/93		4.40	96.44
		11/29/93	03:50	4.11	96.73
		02/11/94	14:25	3.90	96.94
18	94.04	08/28/91		3.21	90.83
		09/01/92	11:51	2.39	91.65
		04/28/93	9:35	2.14	91.90
		09/13/93		2.11	91.93
		11/30/93	10:25	2.20	91.84
		02/11/94	10:10	1.75	92.29

TABLE 1
THRIFTWAY REFINERY, BLOOMFIELD, NM
GROUNDWATER MONITORING DATA

WELL #	TOP OF PIPE ELEVATION	DATE	TIME	WATER LEVEL (feet)	WATER LEVE ELEVATION (feet)
19	93.64	08/28/91		2.90	90.23
		09/02/92	11:30	2.41	91.23
		04/28/93	9:25	2.05	91.59
		09/13/93		1.92	91.72
		11/30/93	09:20	2.25	91.39
		02/11/94	10:00	2.09	91.55
20	96.01	09/01/92	13:05	3.85	92.16
		04/28/93	8:30	4.18	91.83
		09/13/93		4.56	91.45
	96.11	11/30/93	08:25	4.42	91.69
		02/10/94	16:17	4.30	91.81
21	94.34	09/01/92	13:20	3.97	90.37
		04/28/93	8:40	2.27	92.07
		09/13/93		2.19	92.15
		11/30/93	08:45	1.90	92.44
		02/10/94	16:25	1.92	92.42
22	97.51	09/01/92	13:30	3.34	94.17
		04/28/93	8:50	4.44	93.07
		09/13/93		4.50	93.01
		11/30/93	08:35	4.09	93.42
		02/10/94	16:25	3.75	93.76
25	112.62	11/29/93	10:45	9.56	103.06
		02/14/94	15:00	8.01	104.61

810\QMRTABL1

TABLE 2
SUMMARY OF PHASE SEPARATED PRODUCT MEASUREMENTS
THRIFTWAY REFINERY
BLOOMFIELD, NEW MEXICO

WELL	DATE	THICKNESS (in feet)	LITERS OF HYDROCARBON RECLAIMED
1	10/14/92	TRACE	
	04/28/93	0.02	
	09/14/93	0.01	
	11/29/93	ND	
	02/14/94	TRACE	
2	10/14/92	TRACE	
	04/28/93	ND	
	09/14/93	ND	
	11/29/93	ND	
	02/14/94	ND	
6	10/14/92	TRACE	
	04/28/93	TRACE	
	09/13/93	ND	
	11/29/93	ND	
	02/14/94	ND	
12	10/14/92	TRACE	
	04/28/93	TRACE	
	09/14/93	2.00	
	11/29/93	1.97	*6.5
	02/14/94	0.47	*1.8
14	10/14/92	1.58	
	04/28/93	0.12	
	09/14/93	0.50	
	11/29/93	1.49	*4.8
	02/14/94	0.95	*2.8
17	10/14/92	TRACE	
	04/28/93	TRACE	
	09/14/93	ND	
	11/29/93	ND	
	02/14/94	ND	

ND - NON-DETECT (no visible product detected in the bailer)
* - Total volume of product bailed after 15 times bailing of well volume to reach a non-detect status.

NOTE: From 10 recovery wells installed in 1993, 75 gallons of free product was recovered since the last QMR.

810\QMRTABL2

THRIFTWAY REFINERY

TABLE 3
SUMMARY OF LABORATORY ANALYSIS DATA
THRIFTWAY REFINERY
BLOOMFIELD , NEW MEXICO
Concentrations in mg/L

WELL #	DATE	BENZENE	TOLUENE	ETHYLBENZENE	XYLENES
1	08/28/91	4.321	2.352	0.635	5.137
	09/02/92	FREE PRODUCT FOUND IN WELL			
	04/28/93	FREE PRODUCT FOUND IN WELL			
	09/14/93	FREE PRODUCT FOUND IN WELL			
	11/29/93	NO FREE PRODUCT BUT A TRACE			
	02/11/94	7.121	0.063	0.227	0.597
2	08/28/91	3.332	ND	0.536	0.972
	08/31/92	FREE PRODUCT FOUND IN WELL			
	04/28/93	0.974	0.189	0.273	0.843
	09/14/93	1.047	0.245	0.487	0.794
	11/29/93	2.115	0.136	0.395	0.583
	02/11/94	3.478	0.063	0.581	0.786
3	08/28/91	0.013	0.004	0.002	0.001
	09/01/92	0.018	0.004	0.010	0.108
	04/28/93	ND	ND	ND	ND
	09/14/93	ND	ND	ND	0.004
	11/30/93	ND	ND	0.001	0.001
	02/11/94	ND	ND	ND	ND
4	08/28/91	0.006	ND	ND	ND
	09/01/92	0.005	0.007	0.017	0.056
	04/28/93	0.588	0.004	0.039	0.329
	09/13/93	0.324	0.021	0.051	0.287
	11/30/93	0.100	0.005	0.001	0.004
	02/11/94	1.127	0.010	0.031	0.099
5	08/28/91	ND	0.002	ND	0.001
	09/01/92	ND	ND	ND	ND
	04/28/93	0.014	0.033	0.004	0.026
	09/13/93	0.009	0.021	0.006	0.037
	11/30/93	0.001	ND	ND	ND
	02/11/94	0.006	ND	ND	ND
6	08/28/91	0.315	0.006	0.082	0.235
	09/01/92	FREE PRODUCT FOUND IN WELL			
	04/28/93	0.427	0.036	0.094	0.230
	09/13/93	0.507	0.078	0.135	0.319
	11/29/93	0.008	0.002	0.002	0.002
	02/11/94	0.023	0.017	0.015	0.072

THRIFTWAY REFINERY

TABLE 3
SUMMARY OF LABORATORY ANALYSIS DATA
THRIFTWAY REFINERY
BLOOMFIELD , NEW MEXICO
Concentrations in mg/L

WELL #	DATE	BENZENE	TOLUENE	ETHYLBENZENE	XYLENES
7	08/28/91	35.037	6.013	0.375	3.343
	09/01/92		WELL NOT FOUND		
	04/28/93		WELL NOT FOUND		
	09/14/93	0.647	0.197	0.168	0.691
	11/29/93	3.541	0.971	0.419	1.918
	02/11/94	14.399	2.062	0.630	4.127
8	08/28/91	0.010	0.017	0.002	0.017
	09/02/92	0.014	0.009	0.019	0.068
	04/28/93	ND	ND	ND	ND
	09/14/93	0.018	0.021	0.034	0.051
	11/29/93	0.003	ND	0.0004	0.001
	02/11/94	0.001	0.001	0.0003	0.001
9	08/28/91	0.005	0.016	0.002	0.020
	09/02/92	0.010	0.021	0.030	0.018
	04/28/93	ND	ND	ND	ND
	09/14/93	0.007	0.015	0.024	0.006
	11/29/93	ND	ND	ND	ND
	02/11/94	ND	ND	ND	ND
10	08/28/91	0.003	0.009	0.001	0.013
	09/02/92	0.001	0.005	0.001	0.009
	04/28/93	ND	ND	ND	ND
	09/14/93	ND	ND	ND	ND
	11/29/93	ND	ND	ND	ND
	02/11/94	ND	ND	ND	ND
11	08/28/91	ND	ND	<1.0	0.002
	09/02/92	ND	ND	ND	ND
	04/28/93	ND	ND	ND	ND
	09/14/93	ND	ND	ND	ND
	11/29/93	ND	ND	ND	ND
	02/11/94	ND	ND	ND	ND
12	08/28/91	ND	ND	ND	ND
	08/31/92	FREE PRODUCT FOUND IN WELL			
	04/28/93	0.482	0.089	0.180	0.517
	09/14/93	FREE PRODUCT FOUND IN WELL			
	11/29/93	FREE PRODUCT FOUND IN WELL			
	02/11/94	FREE PRODUCT FOUND IN WELL			

TABLE 3
SUMMARY OF LABORATORY ANALYSIS DATA
THRIFTWAY REFINERY
BLOOMFIELD , NEW MEXICO
Concentrations in mg/L

WELL #	DATE	BENZENE	TOLUENE	ETHYLBENZENE	XYLENES
13	08/28/91	0.001	0.004	<1.0	0.006
	09/02/92	0.002	0.002	ND	0.003
	04/28/93	ND	ND	ND	ND
	09/14/93	ND	ND	ND	ND
	11/30/93	ND	ND	ND	ND
	02/11/94	ND	ND	ND	ND
14	08/28/91	ND	ND	<1.0	0.001
	09/02/92	FREE PRODUCT FOUND IN WELL			
	04/28/93	FREE PRODUCT FOUND IN WELL			
	09/14/93	FREE PRODUCT FOUND IN WELL			
	11/29/93	FREE PRODUCT FOUND IN WELL			
	02/11/94	FREE PRODUCT FOUND IN WELL			
15	08/28/91	0.005	0.009	0.001	0.013
	09/03/92	0.002	0.002	ND	0.003
	04/28/93	ND	0.028	ND	ND
	09/14/93	ND	ND	ND	ND
	11/29/93	ND	ND	ND	ND
	02/11/94	ND	ND	ND	ND
16	08/28/91	0.006	<1.0	0.043	0.003
	09/02/92	0.012	0.006	0.060	0.013
	04/28/93	ND	ND	0.003	0.005
	09/14/93	ND	ND	0.009	0.006
	11/29/93	ND	ND	0.002	0.0006
	02/11/94	ND	ND	0.005	0.0010
17	08/28/91	25.660	21.453	1.074	10.372
	08/31/93	28.453	23.682	2.145	13.461
	04/28/93	23.424	22.173	1.967	13.161
	09/14/93	19.624	19.347	2.687	12.481
	11/29/93	21.272	5.285	1.063	8.357
	02/11/94	61.585	25.420	1.658	12.787
18	08/28/91	0.036	0.003	0.005	0.129
	09/01/92	0.047	0.010	0.014	0.171
	04/28/93	0.223	0.019	0.013	0.503
	09/13/93	0.267	0.135	0.067	0.345
	11/30/93	0.140	0.009	0.015	0.133
	02/11/94	0.361	0.009	0.025	0.245

THRIFTWAY REFINERY

TABLE 3
SUMMARY OF LABORATORY ANALYSIS DATA
THRIFTWAY REFINERY
BLOOMFIELD , NEW MEXICO
Concentrations in mg/L

WELL #	DATE	BENZENE	TOLUENE	ETHYLBENZENE	XYLENES
19	08/28/91	0.014	0.006	0.578	1.193
	09/02/92	0.022	0.015	0.319	0.894
	04/28/93	0.045	0.005	0.118	0.623
	09/13/93	0.061	0.024	0.165	0.719
	11/30/93	0.025	0.012	0.258	0.658
	02/11/94	0.058	0.020	0.545	1.458
20	09/01/92	ND	ND	ND	ND
	04/28/93	0.003	0.003	0.032	0.325
	09/13/93	ND	ND	ND	0.034
	11/30/93	0.028	0.017	0.130	0.555
	02/11/94	0.038	0.022	0.084	0.350
21	09/01/92	ND	ND	ND	ND
	04/28/93	0.033	ND	ND	ND
	09/13/93	0.009	ND	ND	ND
	11/30/93	0.017	0.005	0.005	0.002
	02/11/94	0.082	0.009	0.026	0.006
22	09/01/92	ND	ND	ND	ND
	04/28/93	ND	ND	ND	ND
	09/13/93	ND	ND	ND	ND
	11/30/93	ND	ND	ND	ND
	02/11/94	ND	ND	ND	ND
23	02/11/94	198.573	190.891	7.240	48.837
25	11/29/93	2.373	0.011	0.133	0.345
	02/11/94	7.315	0.070	0.115	0.588
EFFLUENT	04/28/93	ND	ND	ND	ND
	12/13/93	0.002	0.002	0.001	0.004
	02/11/94		BLOWER SHUT DOWN		
INFLUENT	04/28/93	ND	ND	ND	ND
	12/13/93	0.002	0.001	0.002	0.002
	02/11/94	0.001	ND	ND	0.004
NMWQCC	12/24/87	0.010	0.750	0.750	0.620

ND - NON-DETECT

810\QMRTABL3

810 BAILING RECORD

	MW14	R1	R3	R7	R8	R9	R13	R14	R19	R15
11/30/93		0	1.42	0.71						
			2.5	2.67	6	5	5			
12/01/93										
						0.8	2.8	1.4		
12/07/93	1.33	1.33	0.03	0.33					0.29	
12/10/94	1.33	1.33	0.17							
	0.75	2.5	0.12		14.5	0.25	6	2.5		
12/21/94		1.5	0.12	1.67						
		2	0.06	2.2		5	7	5		
12/29/93		1.08	0.67							
		1.2	1.2		1.2	5	5	5		
01/06/94		1.92	1.75	1.17						
		4	4	1	15	3.75	12			
01/12/94		1.33	2.33	1.58						
		1.1	2.8	1.3	17	5	5	5		
01/19/94		1.5	2.33	1.58						
		3.6	4	2.4	4	5	5	5		
01/24/94		1.5	2.33	1.58						
		1.6	3.2	2.2	14	5	5	5		
01/27/94		1.42	1.83	1.42						
		2.4	4	2.4	14	5	5	5		
01/28/94										
		2	4	0.6		10	5	5		2.8
01/31/94		1.42	2.42	0.17						
		1.6	4		6	5	5	5		
02/21/94		1.25	2.46	1	1					
		2	4	2.5	1.2	5	5	5		
03/16/94	0.84									
	0.75	2.2	3.2	1.6	3.6	5	5	5		

NOTES: Row with the date is thickness of product, in feet, row below the date and shaded is the volume of product removed in gallons.
ND - No product detected.

810 BAILING RECORD continued

	MW12	MW23	MW26	MW27	MW28	MW29	R20	R21
09/07/93		2.1	1.66	T				
		0.3	0.3					
09/15/93	2	1.75	0.19	1.38				
	4	0.3	0.1	1.5				
09/16/93		1.31	0.15	0.56				
		0.2	0.05	0.7				
10/11/93	2.8	3.4	0.5	1.4				
	2	0.5	0.1	1.5				
11/30/93	0.63	0.92		0.92			0.5	1.17
	0.5	0.5		0.5			1.2	4
12/21/93	1.5	1.5	0.25	1	1.17	0	1.67	0.5
	1	1	0.25	1	0.5		5	0.75
12/29/93	1	1.33	0.33	0.96	1.08	0	0.83	0.58
	0.5	0.5	0.25	0.5	0.5		0.5	0.5
01/07/94	0.94	0.77	0.04	1.33	1	0	1.04	1
	0.5	0.5	0.1	1.5	0.5		2	2
01/12/94	0.79	0.33	0.42	1.33	1.5	0	0.83	0.92
	1	0.6	0.7	0.8	1.2		0.8	1.2
01/19/94	0.79		0.42	1.33	1.42	0	1	1
	1.1		0.8	1.2	1.2		1.1	1.6
01/24/94		0	0	1	0.67	0	0.67	1.25
				0.4	0.6		0.4	0.8
01/27/94	0.25	0	0	1	1	0	1	0.5
	0.4			0.8	0.6		0.8	0.4
01/28/94	0.34	0	0.1	0.5	0.34	0	0.42	0.3
	0.2			0.4	0.3		0.2	0.6
01/31/94	0.38	0	0	0.54	0.92	0	0.38	0.5
	0.4			0.4	0.6		0.4	0.6
03/16/94	0.33	0	0.93	2.06	1.5	0.94		
			0.5	1.7	0.5	0.5		

NOTES: Row with the date is thickness of product, in feet, row below the date and shaded is the volume of product removed in gallons.
ND - No product detected.

810 BAILING RECORD continued

		17-1	17-3	17-4	17-5	MW-1
12/07/93		1.58				ND
		1.5				
01/07/94		1.92		1.19	1.1	ND
		2		1.2	1.2	
03/16/94		1.1		0.8	0.47	ND
		1		0.75	0.5	

NOTES: Row with the date is thickness of product, in feet, row below the date and shaded is the volume of product removed in gallons.
ND - No product detected.

APPENDIX

BIOTECH LABORATORIES

EPA METHOD 8020
PURGEABLE AROMATICS

CLIENT:	Thriftway	**SAMPLE MATRIX:**	WATER
CLIENT NUMBER:	810	**PRESERVATIVE:**	HgCl2
PHASE/TASK:	NA	**DATE SAMPLED:**	02-11-94
PROJECT LOCATION:	Bloomfield, New Mexico	**DATE RECEIVED:**	02-11-94
SAMPLE ID:	MW -3	**DATE ANALYZED:**	Feb 15, 1994
SAMPLE NUMBER:	0093		

ANALYTE	CONCENTRATION (ug/L)	DETECTION LIMIT(ug/L)
BENZENE	**ND**	**0.2**
TOLUENE	**ND**	**0.7**
ETHYLBENZENE	**ND**	**0.3**
P,M-XYLENE	**ND**	**0.4**
O-XYLENE	**ND**	**0.3**

ND - ANALYTE NOT DETECTED AT STATED DETECTION LIMIT

QUALITY CONTROL:

SURROGATES	PERCENT RECOVERY	ACCEPTANCE LIMIT
TRIFLUOROTOLUENE	94	80 - 120%
BROMOFLUOROBENZENE	91	80 - 120%

REFERENCE: METHOD 5030, PURGE AND TRAP
METHOD 8020, PURGEABLE AROMATICS
TEST METHOD FOR EVALUATION SOLID WASTE,
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY,
SW-846, VOLUME IB, NOVEMBER 1990.

COMMENTS: Monitor Well MW -3, Thriftway site #810.

ANALYST

REVIEW

BIOTECH LABORATORIES

EPA METHOD 8020
PURGEABLE AROMATICS

CLIENT:	Thriftway	**SAMPLE MATRIX:**	WATER
CLIENT NUMBER:	810	**PRESERVATIVE:**	HgCl2
PHASE/TASK:	NA	**DATE SAMPLED:**	02-11-94
PROJECT LOCATION:	Bloomfield, New Mexico	**DATE RECEIVED:**	02-11-94
SAMPLE ID:	MW -4	**DATE ANALYZED:**	Feb 15, 1994
SAMPLE NUMBER:	0094		

ANALYTE	CONCENTRATION (ug/L)	DETECTION LIMIT(ug/L)
BENZENE	**1127**	**0.2**
TOLUENE	**10.3**	**0.7**
ETHYLBENZENE	**30.8**	**0.3**
P,M-XYLENE	**98**	**0.4**
O-XYLENE	**0.8**	**0.3**

ND - ANALYTE NOT DETECTED AT STATED DETECTION LIMIT

QUALITY CONTROL:	SURROGATES	PERCENT RECOVERY	ACCEPTANCE LIMIT
	TRIFLUOROTOLUENE	105	80 - 120%
	BROMOFLUOROBENZENE	99	80 - 120%

REFERENCE: METHOD 5030, PURGE AND TRAP
METHOD 8020, PURGEABLE AROMATICS
TEST METHOD FOR EVALUATION SOLID WASTE,
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY,
SW-846, VOLUME IB, NOVEMBER 1990.

COMMENTS: Monitor Well MW -4, Thriftway site #810.

ANALYST

REVIEW

BIOTECH LABORATORIES

EPA METHOD 8020
PURGEABLE AROMATICS

CLIENT:	Thriftway	**SAMPLE MATRIX:**	WATER
CLIENT NUMBER:	810	**PRESERVATIVE:**	HgCl2
PHASE/TASK:	NA	**DATE SAMPLED:**	02-11-94
PROJECT LOCATION:	Bloomfield, New Mexico	**DATE RECEIVED:**	02-11-94
SAMPLE ID:	MW -5	**DATE ANALYZED:**	Feb 15, 1994
SAMPLE NUMBER:	0095		

ANALYTE	CONCENTRATION (ug/L)	DETECTION LIMIT(ug/L)
BENZENE	**6.1**	**0.2**
TOLUENE	**ND**	**0.7**
ETHYLBENZENE	**ND**	**0.3**
P,M-XYLENE	**ND**	**0.4**
O-XYLENE	**ND**	**0.3**

ND - ANALYTE NOT DETECTED AT STATED DETECTION LIMIT

QUALITY CONTROL:	SURROGATES	PERCENT RECOVERY	ACCEPTANCE LIMIT
	TRIFLUOROTOLUENE	98	80 - 120%
	BROMOFLUOROBENZENE	85	80 - 120%

REFERENCE: METHOD 5030, PURGE AND TRAP
METHOD 8020, PURGEABLE AROMATICS
TEST METHOD FOR EVALUATION SOLID WASTE,
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY,
SW-846, VOLUME IB, NOVEMBER 1990.

COMMENTS: Monitor Well MW -5, Thriftway site #810.

ANALYST

REVIEW

BIOTECH LABORATORIES

EPA METHOD 8020
PURGEABLE AROMATICS

CLIENT:	Thriftway	**SAMPLE MATRIX:**	WATER
CLIENT NUMBER:	810	**PRESERVATIVE:**	HgCl2
PHASE/TASK:	NA	**DATE SAMPLED:**	02-11-94
PROJECT LOCATION:	Bloomfield, New Mexico	**DATE RECEIVED:**	02-11-94
SAMPLE ID:	MW -6	**DATE ANALYZED:**	Feb 16, 1994
SAMPLE NUMBER:	0096		

ANALYTE	CONCENTRATION (ug/L)	DETECTION LIMIT(ug/L)
BENZENE	**22.7**	**0.3**
TOLUENE	**16.5**	**0.6**
ETHYLBENZENE	**14.7**	**0.2**
P,M-XYLENE	**37.9**	**0.4**
O-XYLENE	**34.5**	**0.3**

ND - ANALYTE NOT DETECTED AT STATED DETECTION LIMIT

QUALITY CONTROL:	SURROGATES	PERCENT RECOVERY	ACCEPTANCE LIMIT
	TRIFLUOROTOLUENE	117	80 - 120%
	BROMOFLUOROBENZENE	119	80 - 120%

REFERENCE: METHOD 5030, PURGE AND TRAP
METHOD 8020, PURGEABLE AROMATICS
TEST METHOD FOR EVALUATION SOLID WASTE,
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY,
SW-846, VOLUME IB, NOVEMBER 1990.

COMMENTS: Monitor Well MW -6, Thriftway, site #810.

ANALYST

REVIEW

BIOTECH LABORATORIES

EPA METHOD 8020
PURGEABLE AROMATICS

CLIENT:	Thriftway	**SAMPLE MATRIX:**	WATER
CLIENT NUMBER:	810	**PRESERVATIVE:**	HgCl2
PHASE/TASK:	NA	**DATE SAMPLED:**	02-11-94
PROJECT LOCATION:	Bloomfield, New Mexico	**DATE RECEIVED:**	02-11-94
SAMPLE ID:	MW -7	**DATE ANALYZED:**	Feb 16, 1994
SAMPLE NUMBER:	0097		

ANALYTE	CONCENTRATION (ug/L)	DETECTION LIMIT(ug/L)
BENZENE	**14399**	**3.0**
TOLUENE	**2062**	**6.0**
ETHYLBENZENE	**630**	**2.0**
P,M-XYLENE	**3683**	**4.0**
O-XYLENE	**444**	**3.0**

ND - ANALYTE NOT DETECTED AT STATED DETECTION LIMIT

QUALITY CONTROL:	SURROGATES	PERCENT RECOVERY	ACCEPTANCE LIMIT
	TRIFLUOROTOLUENE	103	80 - 120%
	BROMOFLUOROBENZENE	115	80 - 120%

REFERENCE: METHOD 5030, PURGE AND TRAP
METHOD 8020, PURGEABLE AROMATICS
TEST METHOD FOR EVALUATION SOLID WASTE,
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY,
SW-846, VOLUME IB, NOVEMBER 1990.

COMMENTS: Monitor Well MW -7, Thriftway, site #810.

ANALYST

REVIEW

BIOTECH LABORATORIES

EPA METHOD 8020
PURGEABLE AROMATICS

CLIENT:	Thriftway	**SAMPLE MATRIX:**	WATER
CLIENT NUMBER:	810	**PRESERVATIVE:**	HgCl2
PHASE/TASK:	NA	**DATE SAMPLED:**	02-11-94
PROJECT LOCATION:	Bloomfield, New Mexico	**DATE RECEIVED:**	02-11-94
SAMPLE ID:	MW -8	**DATE ANALYZED:**	Feb 16, 1994
SAMPLE NUMBER:	0098		

ANALYTE	CONCENTRATION (ug/L)	DETECTION LIMIT(ug/L)
BENZENE	**1.1**	**0.3**
TOLUENE	**0.7**	**0.6**
ETHYLBENZENE	**0.3**	**0.2**
P,M-XYLENE	**1.0**	**0.4**
O-XYLENE	**ND**	**0.3**

ND - ANALYTE NOT DETECTED AT STATED DETECTION LIMIT

QUALITY CONTROL:	SURROGATES	PERCENT RECOVERY	ACCEPTANCE LIMIT
	TRIFLUOROTOLUENE	98	80 - 120%
	BROMOFLUOROBENZENE	96	80 - 120%

REFERENCE: METHOD 5030, PURGE AND TRAP
METHOD 8020, PURGEABLE AROMATICS
TEST METHOD FOR EVALUATION SOLID WASTE,
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY,
SW-846, VOLUME IB, NOVEMBER 1990.

COMMENTS: Monitor Well MW -8, Thriftway, site #810.

ANALYST

REVIEW

BIOTECH LABORATORIES

EPA METHOD 8020
PURGEABLE AROMATICS

CLIENT:	Thriftway	**SAMPLE MATRIX:**	WATER
CLIENT NUMBER:	810	**PRESERVATIVE:**	HgCl2
PHASE/TASK:	NA	**DATE SAMPLED:**	02-11-94
PROJECT LOCATION:	Bloomfield, New Mexico	**DATE RECEIVED:**	02-11-94
SAMPLE ID:	MW -18	**DATE ANALYZED:**	Feb 16, 1994
SAMPLE NUMBER:	0099		

ANALYTE	CONCENTRATION (ug/L)	DETECTION LIMIT(ug/L)
BENZENE	**361**	**3.0**
TOLUENE	**9.2**	**6.0**
ETHYLBENZENE	**25.2**	**2.0**
P,M-XYLENE	**240**	**4.0**
O-XYLENE	**4.9**	**3.0**

ND - ANALYTE NOT DETECTED AT STATED DETECTION LIMIT

QUALITY CONTROL:	SURROGATES	PERCENT RECOVERY	ACCEPTANCE LIMIT
	TRIFLUOROTOLUENE	94	80 - 120%
	BROMOFLUOROBENZENE	95	80 - 120%

REFERENCE: METHOD 5030, PURGE AND TRAP
METHOD 8020, PURGEABLE AROMATICS
TEST METHOD FOR EVALUATION SOLID WASTE,
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY,
SW-846, VOLUME IB, NOVEMBER 1990.

COMMENTS: Monitor Well MW -18, Thriftway, site #810.

ANALYST

REVIEW

BIOTECH LABORATORIES

EPA METHOD 8020
PURGEABLE AROMATICS

CLIENT:	Thriftway	**SAMPLE MATRIX:**	WATER
CLIENT NUMBER:	810	**PRESERVATIVE:**	HgCl2
PHASE/TASK:	NA	**DATE SAMPLED:**	02-11-94
PROJECT LOCATION:	Bloomfield, New Mexico	**DATE RECEIVED:**	02-11-94
SAMPLE ID:	MW -19	**DATE ANALYZED:**	Feb 16, 1994
SAMPLE NUMBER:	0100		

ANALYTE	CONCENTRATION (ug/L)	DETECTION LIMIT(ug/L)
BENZENE	**58**	**1.5**
TOLUENE	**20.4**	**3.0**
ETHYLBENZENE	**545**	**1.0**
P,M-XYLENE	**1432**	**2.0**
O-XYLENE	**26.5**	**1.5**

ND - ANALYTE NOT DETECTED AT STATED DETECTION LIMIT

QUALITY CONTROL:	SURROGATES	PERCENT RECOVERY	ACCEPTANCE LIMIT
	TRIFLUOROTOLUENE	97	80 - 120%
	BROMOFLUOROBENZENE	102	80 - 120%

REFERENCE: METHOD 5030, PURGE AND TRAP
METHOD 8020, PURGEABLE AROMATICS
TEST METHOD FOR EVALUATION SOLID WASTE,
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY,
SW-846, VOLUME IB, NOVEMBER 1990.

COMMENTS: Monitor Well MW -19, Thriftway, site #810.

ANALYST

REVIEW

BIOTECH LABORATORIES

EPA METHOD 8020
PURGEABLE AROMATICS

CLIENT:	Thriftway	**SAMPLE MATRIX:**	WATER
CLIENT NUMBER:	810	**PRESERVATIVE:**	HgCl2
PHASE/TASK:	NA	**DATE SAMPLED:**	02-11-94
PROJECT LOCATION:	Bloomfield, New Mexico	**DATE RECEIVED:**	02-11-94
SAMPLE ID:	MW -20	**DATE ANALYZED:**	Feb 16, 1994
SAMPLE NUMBER:	0101		

ANALYTE	CONCENTRATION (ug/L)	DETECTION LIMIT(ug/L)
BENZENE	**38.0**	**0.3**
TOLUENE	**21.8**	**0.6**
ETHYLBENZENE	**84**	**0.2**
P,M-XYLENE	**347**	**0.4**
O-XYLENE	**3.1**	**0.3**

ND - ANALYTE NOT DETECTED AT STATED DETECTION LIMIT

QUALITY CONTROL:	SURROGATES	PERCENT RECOVERY	ACCEPTANCE LIMIT
	TRIFLUOROTOLUENE	100	80 - 120%
	BROMOFLUOROBENZENE	91	80 - 120%

REFERENCE: METHOD 5030, PURGE AND TRAP
METHOD 8020, PURGEABLE AROMATICS
TEST METHOD FOR EVALUATION SOLID WASTE,
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY,
SW-846, VOLUME IB, NOVEMBER 1990.

COMMENTS: Monitor Well MW -20, Thriftway, site #810.

ANALYST

REVIEW

BIOTECH LABORATORIES

EPA METHOD 8020
PURGEABLE AROMATICS

CLIENT:	Thriftway	**SAMPLE MATRIX:**	WATER
CLIENT NUMBER:	810	**PRESERVATIVE:**	HgCl2
PHASE/TASK:	NA	**DATE SAMPLED:**	02-11-94
PROJECT LOCATION:	Bloomfield, New Mexico	**DATE RECEIVED:**	02-11-94
SAMPLE ID:	MW -21	**DATE ANALYZED:**	Feb 16, 1994
SAMPLE NUMBER:	0102		

ANALYTE	CONCENTRATION (ug/L)	DETECTION LIMIT(ug/L)
BENZENE	**82**	**0.3**
TOLUENE	**8.6**	**0.6**
ETHYLBENZENE	**25.7**	**0.2**
P,M-XYLENE	**6.2**	**0.4**
O-XYLENE	**ND**	**0.3**

ND - ANALYTE NOT DETECTED AT STATED DETECTION LIMIT

QUALITY CONTROL:	SURROGATES	PERCENT RECOVERY	ACCEPTANCE LIMIT
	TRIFLUOROTOLUENE	96	80 - 120%
	BROMOFLUOROBENZENE	100	80 - 120%

REFERENCE: METHOD 5030, PURGE AND TRAP
METHOD 8020, PURGEABLE AROMATICS
TEST METHOD FOR EVALUATION SOLID WASTE,
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY,
SW-846, VOLUME IB, NOVEMBER 1990.

COMMENTS: Monitor Well MW -21, Thriftway, site #810.

ANALYST

REVIEW

BIOTECH LABORATORIES

EPA METHOD 8020
PURGEABLE AROMATICS

CLIENT:	Thriftway	**SAMPLE MATRIX:**	WATER
CLIENT NUMBER:	810	**PRESERVATIVE:**	HgCl2
PHASE/TASK:	NA	**DATE SAMPLED:**	02-11-94
PROJECT LOCATION:	Bloomfield, New Mexico	**DATE RECEIVED:**	02-11-94
SAMPLE ID:	MW -22	**DATE ANALYZED:**	Feb 16, 1994
SAMPLE NUMBER:	0103		

ANALYTE	CONCENTRATION (ug/L)	DETECTION LIMIT(ug/L)
BENZENE	**ND**	**0.3**
TOLUENE	**ND**	**0.6**
ETHYLBENZENE	**ND**	**0.2**
P,M-XYLENE	**ND**	**0.4**
O-XYLENE	**ND**	**0.3**

ND - ANALYTE NOT DETECTED AT STATED DETECTION LIMIT

QUALITY CONTROL:	SURROGATES	PERCENT RECOVERY	ACCEPTANCE LIMIT
	TRIFLUOROTOLUENE	95	80 - 120%
	BROMOFLUOROBENZENE	98	80 - 120%

REFERENCE: METHOD 5030, PURGE AND TRAP
METHOD 8020, PURGEABLE AROMATICS
TEST METHOD FOR EVALUATION SOLID WASTE,
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY,
SW-846, VOLUME IB, NOVEMBER 1990.

COMMENTS: Monitor Well MW -22, Thriftway, site #810.

ANALYST

REVIEW

BIOTECH LABORATORIES

EPA METHOD 8020
PURGEABLE AROMATICS

CLIENT:	Thriftway	**SAMPLE MATRIX:**	WATER
CLIENT NUMBER:	810	**PRESERVATIVE:**	HgCl2
PHASE/TASK:	NA	**DATE SAMPLED:**	02-11-94
PROJECT LOCATION:	Bloomfield, New Mexico	**DATE RECEIVED:**	02-11-94
SAMPLE ID:	MW -1	**DATE ANALYZED:**	Feb 17, 1994
SAMPLE NUMBER:	0104		

ANALYTE	CONCENTRATION (ug/L)	DETECTION LIMIT(ug/L)
BENZENE	**7121**	**15.0**
TOLUENE	**63**	**30.0**
ETHYLBENZENE	**227**	**15.0**
P,M-XYLENE	**554**	**20.0**
O-XYLENE	**42.8**	**15.0**

ND - ANALYTE NOT DETECTED AT STATED DETECTION LIMIT

QUALITY CONTROL:	SURROGATES	PERCENT RECOVERY	ACCEPTANCE LIMIT
	TRIFLUOROTOLUENE	98	80 - 120%
	BROMOFLUOROBENZENE	93	80 - 120%

REFERENCE: METHOD 5030, PURGE AND TRAP
METHOD 8020, PURGEABLE AROMATICS
TEST METHOD FOR EVALUATION SOLID WASTE,
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY,
SW-846, VOLUME IB, NOVEMBER 1990.

COMMENTS: Monitor Well MW -1, Thriftway, site #810.

ANALYST

REVIEW

BIOTECH LABORATORIES

EPA METHOD 8020
PURGEABLE AROMATICS

CLIENT:	Thriftway	**SAMPLE MATRIX:**	WATER
CLIENT NUMBER:	810	**PRESERVATIVE:**	HgCl2
PHASE/TASK:	NA	**DATE SAMPLED:**	02-11-94
PROJECT LOCATION:	Bloomfield, New Mexico	**DATE RECEIVED:**	02-11-94
SAMPLE ID:	MW -2	**DATE ANALYZED:**	Feb 17, 1994
SAMPLE NUMBER:	0105		

ANALYTE	CONCENTRATION (ug/L)	DETECTION LIMIT(ug/L)
BENZENE	**3478**	**15.0**
TOLUENE	**63**	**30.0**
ETHYLBENZENE	**581**	**15.0**
P,M-XYLENE	**758**	**20.0**
O-XYLENE	**28.3**	**15.0**

ND - ANALYTE NOT DETECTED AT STATED DETECTION LIMIT

QUALITY CONTROL:	SURROGATES	PERCENT RECOVERY	ACCEPTANCE LIMIT
	TRIFLUOROTOLUENE	104	80 - 120%
	BROMOFLUOROBENZENE	92	80 - 120%

REFERENCE: METHOD 5030, PURGE AND TRAP
METHOD 8020, PURGEABLE AROMATICS
TEST METHOD FOR EVALUATION SOLID WASTE,
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY,
SW-846, VOLUME IB, NOVEMBER 1990.

COMMENTS: Monitor Well MW -2, Thriftway, site #810.

ANALYST

REVIEW

BIOTECH LABORATORIES

EPA METHOD 8020
PURGEABLE AROMATICS

CLIENT:	Thriftway	**SAMPLE MATRIX:**	WATER
CLIENT NUMBER:	810	**PRESERVATIVE:**	HgCl2
PHASE/TASK:	NA	**DATE SAMPLED:**	02-11-94
PROJECT LOCATION:	Bloomfield, New Mexico	**DATE RECEIVED:**	02-11-94
SAMPLE ID:	MW -9	**DATE ANALYZED:**	Feb 17, 1994
SAMPLE NUMBER:	0106		

ANALYTE	CONCENTRATION (ug/L)	DETECTION LIMIT(ug/L)
BENZENE	**ND**	**0.3**
TOLUENE	**ND**	**0.6**
ETHYLBENZENE	**ND**	**0.3**
P,M-XYLENE	**ND**	**0.4**
O-XYLENE	**ND**	**0.3**

ND - ANALYTE NOT DETECTED AT STATED DETECTION LIMIT

QUALITY CONTROL:	SURROGATES	PERCENT RECOVERY	ACCEPTANCE LIMIT
	TRIFLUOROTOLUENE	100	80 - 120%
	BROMOFLUOROBENZENE	92	80 - 120%

REFERENCE: METHOD 5030, PURGE AND TRAP
METHOD 8020, PURGEABLE AROMATICS
TEST METHOD FOR EVALUATION SOLID WASTE,
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY,
SW-846, VOLUME IB, NOVEMBER 1990.

COMMENTS: Monitor Well MW -9, Thriftway, site #810.

ANALYST

REVIEW

BIOTECH LABORATORIES

EPA METHOD 8020
PURGEABLE AROMATICS

CLIENT:	Thriftway	**SAMPLE MATRIX:**	WATER
CLIENT NUMBER:	810	**PRESERVATIVE:**	HgCl2
PHASE/TASK:	NA	**DATE SAMPLED:**	02-11-94
PROJECT LOCATION:	Bloomfield, New Mexico	**DATE RECEIVED:**	02-11-94
SAMPLE ID:	MW -10	**DATE ANALYZED:**	Feb 17, 1994
SAMPLE NUMBER:	0107		

ANALYTE	CONCENTRATION (ug/L)	DETECTION LIMIT(ug/L)
BENZENE	**ND**	**0.3**
TOLUENE	**ND**	**0.6**
ETHYLBENZENE	**ND**	**0.3**
P,M-XYLENE	**ND**	**0.4**
O-XYLENE	**ND**	**0.3**

ND - ANALYTE NOT DETECTED AT STATED DETECTION LIMIT

QUALITY CONTROL:	SURROGATES	PERCENT RECOVERY	ACCEPTANCE LIMIT
	TRIFLUOROTOLUENE	95	80 - 120%
	BROMOFLUOROBENZENE	93	80 - 120%

REFERENCE: METHOD 5030, PURGE AND TRAP
METHOD 8020, PURGEABLE AROMATICS
TEST METHOD FOR EVALUATION SOLID WASTE,
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY,
SW-846, VOLUME IB, NOVEMBER 1990.

COMMENTS: Monitor Well MW -10, Thriftway, site #810.

ANALYST

REVIEW

BIOTECH LABORATORIES

EPA METHOD 8020
PURGEABLE AROMATICS

CLIENT:	Thriftway	**SAMPLE MATRIX:**	WATER
CLIENT NUMBER:	810	**PRESERVATIVE:**	HgCl2
PHASE/TASK:	NA	**DATE SAMPLED:**	02-11-94
PROJECT LOCATION:	Bloomfield, New Mexico	**DATE RECEIVED:**	02-11-94
SAMPLE ID:	MW -11	**DATE ANALYZED:**	Feb 18, 1994
SAMPLE NUMBER:	0108		

ANALYTE	CONCENTRATION (ug/L)	DETECTION LIMIT(ug/L)
BENZENE	**ND**	**0.3**
TOLUENE	**ND**	**0.7**
ETHYLBENZENE	**ND**	**0.3**
P,M-XYLENE	**ND**	**0.4**
O-XYLENE	**ND**	**0.3**

ND - ANALYTE NOT DETECTED AT STATED DETECTION LIMIT

QUALITY CONTROL:	SURROGATES	PERCENT RECOVERY	ACCEPTANCE LIMIT
	TRIFLUOROTOLUENE	100	80 - 120%
	BROMOFLUOROBENZENE	86	80 - 120%

REFERENCE: METHOD 5030, PURGE AND TRAP
METHOD 8020, PURGEABLE AROMATICS
TEST METHOD FOR EVALUATION SOLID WASTE,
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY,
SW-846, VOLUME IB, NOVEMBER 1990.

COMMENTS: Monitor Well MW -11, Thriftway, site #810.

ANALYST

REVIEW

BIOTECH LABORATORIES

EPA METHOD 8020
PURGEABLE AROMATICS

CLIENT:	Thriftway	**SAMPLE MATRIX:**	WATER
CLIENT NUMBER:	810	**PRESERVATIVE:**	HgCl2
PHASE/TASK:	NA	**DATE SAMPLED:**	02-11-94
PROJECT LOCATION:	Bloomfield, New Mexico	**DATE RECEIVED:**	02-11-94
SAMPLE ID:	MW -13	**DATE ANALYZED:**	Feb 18, 1994
SAMPLE NUMBER:	0109		

ANALYTE	CONCENTRATION (ug/L)	DETECTION LIMIT(ug/L)
BENZENE	**ND**	**0.3**
TOLUENE	**ND**	**0.7**
ETHYLBENZENE	**ND**	**0.3**
P,M-XYLENE	**ND**	**0.4**
O-XYLENE	**ND**	**0.3**

ND - ANALYTE NOT DETECTED AT STATED DETECTION LIMIT

QUALITY CONTROL:	SURROGATES	PERCENT RECOVERY	ACCEPTANCE LIMIT
	TRIFLUOROTOLUENE	98	80 - 120%
	BROMOFLUOROBENZENE	96	80 - 120%

REFERENCE: METHOD 5030, PURGE AND TRAP
METHOD 8020, PURGEABLE AROMATICS
TEST METHOD FOR EVALUATION SOLID WASTE,
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY,
SW-846, VOLUME IB, NOVEMBER 1990.

COMMENTS: Monitor Well MW -13, Thriftway, site #810.

ANALYST

REVIEW

BIOTECH LABORATORIES

EPA METHOD 8020
PURGEABLE AROMATICS

CLIENT:	Thriftway	**SAMPLE MATRIX:**	WATER
CLIENT NUMBER:	810	**PRESERVATIVE:**	HgCl2
PHASE/TASK:	NA	**DATE SAMPLED:**	02-11-94
PROJECT LOCATION:	Bloomfield, New Mexico	**DATE RECEIVED:**	02-11-94
SAMPLE ID:	MW -15	**DATE ANALYZED:**	Feb 18, 1994
SAMPLE NUMBER:	0110		

ANALYTE	CONCENTRATION (ug/L)	DETECTION LIMIT(ug/L)
BENZENE	**ND**	**0.3**
TOLUENE	**ND**	**0.7**
ETHYLBENZENE	**ND**	**0.3**
P,M-XYLENE	**ND**	**0.4**
O-XYLENE	**ND**	**0.3**

ND - ANALYTE NOT DETECTED AT STATED DETECTION LIMIT

QUALITY CONTROL:	SURROGATES	PERCENT RECOVERY	ACCEPTANCE LIMIT
	TRIFLUOROTOLUENE	101	80 - 120%
	BROMOFLUOROBENZENE	95	80 - 120%

REFERENCE: METHOD 5030, PURGE AND TRAP
METHOD 8020, PURGEABLE AROMATICS
TEST METHOD FOR EVALUATION SOLID WASTE,
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY,
SW-846, VOLUME IB, NOVEMBER 1990.

COMMENTS: Monitor Well MW -15, Thriftway, site #810.

ANALYST

REVIEW

BIOTECH LABORATORIES

EPA METHOD 8020
PURGEABLE AROMATICS

CLIENT:	Thriftway	**SAMPLE MATRIX:**	WATER
CLIENT NUMBER:	810	**PRESERVATIVE:**	HgCl2
PHASE/TASK:	NA	**DATE SAMPLED:**	02-11-94
PROJECT LOCATION:	Bloomfield, New Mexico	**DATE RECEIVED:**	02-11-94
SAMPLE ID:	MW -16	**DATE ANALYZED:**	Feb 18, 1994
SAMPLE NUMBER:	0111		

ANALYTE	CONCENTRATION (ug/L)	DETECTION LIMIT(ug/L)
BENZENE	**ND**	**0.3**
TOLUENE	**ND**	**0.7**
ETHYLBENZENE	**4.9**	**0.3**
P,M-XYLENE	**0.9**	**0.4**
O-XYLENE	**ND**	**0.3**

ND - ANALYTE NOT DETECTED AT STATED DETECTION LIMIT

QUALITY CONTROL:	SURROGATES	PERCENT RECOVERY	ACCEPTANCE LIMIT
	TRIFLUOROTOLUENE	100	80 - 120%
	BROMOFLUOROBENZENE	91	80 - 120%

REFERENCE: METHOD 5030, PURGE AND TRAP
METHOD 8020, PURGEABLE AROMATICS
TEST METHOD FOR EVALUATION SOLID WASTE,
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY,
SW-846, VOLUME IB, NOVEMBER 1990.

COMMENTS: Monitor Well MW -16, Thriftway, site #810.

ANALYST

REVIEW

BIOTECH LABORATORIES

EPA METHOD 8020
PURGEABLE AROMATICS

CLIENT:	Thriftway	**SAMPLE MATRIX:**	WATER
CLIENT NUMBER:	810	**PRESERVATIVE:**	HgCl2
PHASE/TASK:	NA	**DATE SAMPLED:**	02-11-94
PROJECT LOCATION:	Bloomfield, New Mexico	**DATE RECEIVED:**	02-11-94
SAMPLE ID:	MW -17	**DATE ANALYZED:**	Feb 18, 1994
SAMPLE NUMBER:	0112		

ANALYTE	CONCENTRATION (ug/L)	DETECTION LIMIT(ug/L)
BENZENE	**61585**	**15.0**
TOLUENE	**25420**	**35.0**
ETHYLBENZENE	**1658**	**15.0**
P,M-XYLENE	**10349**	**20.0**
O-XYLENE	**2438**	**15.0**

ND - ANALYTE NOT DETECTED AT STATED DETECTION LIMIT

QUALITY CONTROL:	SURROGATES	PERCENT RECOVERY	ACCEPTANCE LIMIT
	TRIFLUOROTOLUENE	117	80 - 120%
	BROMOFLUOROBENZENE	109	80 - 120%

REFERENCE: METHOD 5030, PURGE AND TRAP
METHOD 8020, PURGEABLE AROMATICS
TEST METHOD FOR EVALUATION SOLID WASTE,
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY,
SW-846, VOLUME IB, NOVEMBER 1990.

COMMENTS: Monitor Well MW -17, Thriftway, site #810.

ANALYST

REVIEW

BIOTECH LABORATORIES

EPA METHOD 8020
PURGEABLE AROMATICS

CLIENT:	NA	**SAMPLE MATRIX:**	WATER
CLIENT NUMBER:	NA	**PRESERVATIVE:**	HgCl2
PHASE/TASK:	NA	**DATE SAMPLED:**	NA
PROJECT LOCATION:	Bloomfield, New Mexico	**DATE RECEIVED:**	NA
SAMPLE ID:	Laboratory Blank	**DATE ANALYZED:**	Feb 15, 1994
SAMPLE NUMBER:	0215am.00		

ANALYTE	CONCENTRATION (ug/L)	DETECTION LIMIT(ug/L)
BENZENE	**ND**	**0.2**
TOLUENE	**ND**	**0.7**
ETHYLBENZENE	**ND**	**0.3**
P,M-XYLENE	**ND**	**0.4**
O-XYLENE	**ND**	**0.3**

ND - ANALYTE NOT DETECTED AT STATED DETECTION LIMIT

QUALITY CONTROL:	SURROGATES	PERCENT RECOVERY	ACCEPTANCE LIMIT
	TRIFLUOROTOLUENE	97	80 - 120%
	BROMOFLUOROBENZENE	95	80 - 120%

REFERENCE: METHOD 5030, PURGE AND TRAP
METHOD 8020, PURGEABLE AROMATICS
TEST METHOD FOR EVALUATION SOLID WASTE,
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY,
SW-846, VOLUME IB, NOVEMBER 1990.

COMMENTS:

ANALYST

REVIEW

BIOTECH LABORATORIES

EPA METHOD 8020
PURGEABLE AROMATICS

CLIENT:	NA	**SAMPLE MATRIX:**	WATER
CLIENT NUMBER:	NA	**PRESERVATIVE:**	HgCl2
PHASE/TASK:	NA	**DATE SAMPLED:**	NA
PROJECT LOCATION:	Bloomfield, New Mexico	**DATE RECEIVED:**	NA
SAMPLE ID:	Laboratory Blank	**DATE ANALYZED:**	Feb 16, 1994
SAMPLE NUMBER:	0216am.00		

ANALYTE	CONCENTRATION (ug/L)	DETECTION LIMIT(ug/L)
BENZENE	**ND**	0.3
TOLUENE	**ND**	0.6
ETHYLBENZENE	**ND**	0.2
P,M-XYLENE	**ND**	0.4
O-XYLENE	**ND**	0.3

ND - ANALYTE NOT DETECTED AT STATED DETECTION LIMIT

QUALITY CONTROL:	SURROGATES	PERCENT RECOVERY	ACCEPTANCE LIMIT
	TRIFLUOROTOLUENE	93	80 - 120%
	BROMOFLUOROBENZENE	97	80 - 120%

REFERENCE: METHOD 5030, PURGE AND TRAP
METHOD 8020, PURGEABLE AROMATICS
TEST METHOD FOR EVALUATION SOLID WASTE,
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY,
SW-846, VOLUME IB, NOVEMBER 1990.

COMMENTS:

ANALYST

REVIEW

BIOTECH LABORATORIES

QUALITY CONTROL
MATRIX SPIKE RECOVERY
EPA METHOD 8020
AROMATIC VOLATILE ORGANICS

CLIENT:	NA	**SAMPLE MATRIX:**	WATER
CLIENT NUMBER:	NA	**PRESERVATIVE:**	HgCl2
PHASE/TASK:	NA	**DATE SAMPLED:**	02-11-94
PROJECT LOCATION:	Bloomfield, New Mexico	**DATE RECEIVED:**	02-11-94
SAMPLE ID:	MW -21	**DATE ANALYZED:**	Feb 16, 1994
SAMPLE NUMBER:	0102		

SPIKE CONCENTRATION (ug/l) = 20.0

ANALYTE	Sample Result (ug/L)	Spiked Result (ug/L)	Det. Limit (ug/L)	PERCENT RECOVERY
BENZENE	81.7	108.1	0.3	106
TOLUENE	8.6	29.9	0.6	104
ETHYLBENZENE	25.7	45.4	0.2	99
P,M-XYLENE	6.2	26.1	0.4	100
O-XYLENE	ND	20.3	0.3	101

ND - ANALYTE NOT DETECTED AT STATED DETECTION LIMIT

REFERENCE: METHOD 5030, PURGE AND TRAP
METHOD 8020, PURGEABLE AROMATICS
TEST METHOD FOR EVALUATION SOLID WASTE,
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY,
SW-846, VOLUME IB, NOVEMBER 1990.

COMMENTS:

ANALYST

REVIEW

BIOTECH LABORATORIES

EPA METHOD 8020
PURGEABLE AROMATICS

CLIENT:	NA	**SAMPLE MATRIX:**	WATER
CLIENT NUMBER:	NA	**PRESERVATIVE:**	HgCl2
PHASE/TASK:	NA	**DATE SAMPLED:**	NA
PROJECT LOCATION:	Bloomfield, New Mexico	**DATE RECEIVED:**	NA
SAMPLE ID:	Laboratory Blank	**DATE ANALYZED:**	Feb 17, 1994
SAMPLE NUMBER:	0217am.00		

ANALYTE	CONCENTRATION (ug/L)	DETECTION LIMIT(ug/L)
BENZENE	**ND**	**0.3**
TOLUENE	**ND**	**0.6**
ETHYLBENZENE	**ND**	**0.3**
P,M-XYLENE	**ND**	**0.4**
O-XYLENE	**ND**	**0.3**

ND - ANALYTE NOT DETECTED AT STATED DETECTION LIMIT

QUALITY CONTROL:	SURROGATES	PERCENT RECOVERY	ACCEPTANCE LIMIT
	TRIFLUOROTOLUENE	96	80 - 120%
	BROMOFLUOROBENZENE	90	80 - 120%

REFERENCE: METHOD 5030, PURGE AND TRAP
METHOD 8020, PURGEABLE AROMATICS
TEST METHOD FOR EVALUATION SOLID WASTE,
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY,
SW-846, VOLUME IB, NOVEMBER 1990.

COMMENTS:

ANALYST

REVIEW

BIOTECH LABORATORIES

EPA METHOD 8020
PURGEABLE AROMATICS

CLIENT:	NA	**SAMPLE MATRIX:**	WATER
CLIENT NUMBER:	NA	**PRESERVATIVE:**	HgCl2
PHASE/TASK:	NA	**DATE SAMPLED:**	NA
PROJECT LOCATION:	Bloomfield, New Mexico	**DATE RECEIVED:**	NA
SAMPLE ID:	Laboratory Blank	**DATE ANALYZED:**	Feb 18, 1994
SAMPLE NUMBER:	0218am.00		

ANALYTE	CONCENTRATION (ug/L)	DETECTION LIMIT(ug/L)
BENZENE	**ND**	**0.3**
TOLUENE	**ND**	**0.7**
ETHYLBENZENE	**ND**	**0.3**
P,M-XYLENE	**ND**	**0.4**
O-XYLENE	**ND**	**0.3**

ND - ANALYTE NOT DETECTED AT STATED DETECTION LIMIT

QUALITY CONTROL:	SURROGATES	PERCENT RECOVERY	ACCEPTANCE LIMIT
	TRIFLUOROTOLUENE	98	80 - 120%
	BROMOFLUOROBENZENE	94	80 - 120%

REFERENCE: METHOD 5030, PURGE AND TRAP
METHOD 8020, PURGEABLE AROMATICS
TEST METHOD FOR EVALUATION SOLID WASTE,
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY,
SW-846, VOLUME IB, NOVEMBER 1990.

COMMENTS:

ANALYST

REVIEW

BIOTECH LABORATORIES

QUALITY CONTROL
MATRIX SPIKE RECOVERY
EPA METHOD 8020
AROMATIC VOLATILE ORGANICS

CLIENT:	NA	**SAMPLE MATRIX:**	WATER
CLIENT NUMBER:	NA	**PRESERVATIVE:**	HgCl2
PHASE/TASK:	NA	**DATE SAMPLED:**	02-11-94
PROJECT LOCATION:	Bloomfield, New Mexico	**DATE RECEIVED:**	02-11-94
SAMPLE ID:	MW -16	**DATE ANALYZED:**	Feb 18, 1994
SAMPLE NUMBER:	0111		

SPIKE CONCENTRATION (ug/L) = 20.0

ANALYTE	Sample Result (ug/L)	Spiked Result (ug/L)	Det. Limit (ug/L)	PERCENT RECOVERY
BENZENE	ND	21.1	0.3	105
TOLUENE	ND	21.1	0.7	104
ETHYLBENZENE	4.9	26.3	0.3	106
P,M-XYLENE	0.9	22.2	0.4	106
O-XYLENE	ND	21.3	0.3	105

ND - ANALYTE NOT DETECTED AT STATED DETECTION LIMIT

REFERENCE: METHOD 5030, PURGE AND TRAP
METHOD 8020, PURGEABLE AROMATICS
TEST METHOD FOR EVALUATION SOLID WASTE,
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY,
SW-846, VOLUME IB, NOVEMBER 1990.

COMMENTS:

ANALYST

REVIEW

BioTech REMEDIATION
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Office: (505) 632-3365
Fax: (505) 632-0030

11047

CHAIN OF CUSTODY RECORD

Client/Project Name			Project Location		ANALYSIS/PARAMETERS							
Thriftway #810			Refinery Bloomfield, NM									
Sampler: (Signature)			Tape No.		No. Cont.	BTEX						Remarks
AL CHAMARLANG/JACK DEWEY												
Sample No./ID	Date	Time	Lab No.	Matrix								
MW-3	2/11/94	1115	0093	WATER	2	✓						
MW-4	"	1100	0094	"	2	✓						
MW-5	"	1035	0095	"	2	✓						
MW-6	"	1115	0096	"	2	✓						
MW-7	"	1145	0097	"	2	✓						
MW-8	"	0900	0098	"	2	✓						
MW-18	"	1020	0099	"	2	✓						
MW-19	"	1010	0100	"	2	✓						
MW-20	"	0930	0101	"	2	✓						
MW-21	"	0850	0102	"	2	✓						

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
			Al Chamarlang	2/11/94	1500
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

san juan repro Form 578-97

BioTech REMEDIATION
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11048

CHAIN OF CUSTODY RECORD

Client/Project Name			Project Location		ANALYSIS/PARAMETERS							
Thriftway #810			Refinery, Bloomfield, NM									
Sampler: (Signature)			Tape No.		No. Cont.	BTEX						Remarks
AL CHAHARLANG / JACK DEWEY												
Sample No./ID	Date	Time	Lab No.	Matrix								
MW-22	2/11/94	0905	0103	WATER	2	✓						
MW-1	2/11/94	1620	0104	"	2	✓						
MW-2	"	1420	0105	"	2	✓						
MW-9	"	1545	0106	"	2	✓						
MW-10	"	1530	0107	"	2	✓						
MW-11	"	1520	0108	"	2	✓						
MW-13	"	1610	0109	"	2	✓						
MW-15	"	1510	0110	"	2	✓						
MW-16	"	1550	0111	"	2	✓						
MW-17	"	1430	0112	"	2	✓						

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
			Al Chaharlang	2/11/94	1300
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

san juan repro Form 578-97

BIOTECH LABORATORIES

EPA METHOD 8020
PURGEABLE AROMATICS

CLIENT:	Thriftway	**SAMPLE MATRIX:**	WATER
CLIENT NUMBER:	810	**PRESERVATIVE:**	HgCl2
PHASE/TASK:	NA	**DATE SAMPLED:**	02-14-94
PROJECT LOCATION:	Bloomfield, New Mexico	**DATE RECEIVED:**	02-22-94
SAMPLE ID:	MW -23	**DATE ANALYZED:**	Feb 22, 1994
SAMPLE NUMBER:	0113		

ANALYTE	CONCENTRATION (ug/L)	DETECTION LIMIT(ug/L)
BENZENE	**198573**	**200.0**
TOLUENE	**190891**	**450.0**
ETHYLBENZENE	**7240**	**150.0**
P,M-XYLENE	**35301**	**250.0**
O-XYLENE	**13536**	**200.0**

ND - ANALYTE NOT DETECTED AT STATED DETECTION LIMIT

QUALITY CONTROL:	SURROGATES	PERCENT RECOVERY	ACCEPTANCE LIMIT
	TRIFLUOROTOLUENE	95	80 - 120%
	BROMOFLUOROBENZENE	92	80 - 120%

REFERENCE: METHOD 5030, PURGE AND TRAP
METHOD 8020, PURGEABLE AROMATICS
TEST METHOD FOR EVALUATION SOLID WASTE,
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY,
SW-846, VOLUME IB, NOVEMBER 1990.

COMMENTS: Monitor Well MW -23, Thriftway site #810.

ANALYST

REVIEW

BIOTECH LABORATORIES

EPA METHOD 8020
PURGEABLE AROMATICS

CLIENT:	Thriftway	**SAMPLE MATRIX:**	WATER
CLIENT NUMBER:	810	**PRESERVATIVE:**	HgCl2
PHASE/TASK:	NA	**DATE SAMPLED:**	02-21-94
PROJECT LOCATION:	Bloomfield, New Mexico	**DATE RECEIVED:**	02-22-94
SAMPLE ID:	MW -25	**DATE ANALYZED:**	Feb 22, 1994
SAMPLE NUMBER:	0114		

ANALYTE	CONCENTRATION (ug/L)	DETECTION LIMIT(ug/L)
BENZENE	**7315**	**20.0**
TOLUENE	**70**	**45.0**
ETHYLBENZENE	**115**	**15.0**
P,M-XYLENE	**424**	**25.0**
O-XYLENE	**164**	**20.0**

ND - ANALYTE NOT DETECTED AT STATED DETECTION LIMIT

QUALITY CONTROL:	SURROGATES	PERCENT RECOVERY	ACCEPTANCE LIMIT
	TRIFLUOROTOLUENE	104	80 - 120%
	BROMOFLUOROBENZENE	89	80 - 120%

REFERENCE: METHOD 5030, PURGE AND TRAP
METHOD 8020, PURGEABLE AROMATICS
TEST METHOD FOR EVALUATION SOLID WASTE,
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY,
SW-846, VOLUME IB, NOVEMBER 1990.

COMMENTS: Monitor Well MW -25, Thriftway site #810.

ANALYST

REVIEW

BIOTECH LABORATORIES

EPA METHOD 8020
PURGEABLE AROMATICS

CLIENT:	Thriftway	**SAMPLE MATRIX:**	WATER
CLIENT NUMBER:	810	**PRESERVATIVE:**	HgCl2
PHASE/TASK:	NA	**DATE SAMPLED:**	02-21-94
PROJECT LOCATION:	Bloomfield, New Mexico	**DATE RECEIVED:**	02-22-94
SAMPLE ID:	Influent	**DATE ANALYZED:**	Feb 22, 1994
SAMPLE NUMBER:	0115		

ANALYTE	CONCENTRATION (ug/L)	DETECTION LIMIT(ug/L)
BENZENE	**1.2**	**0.4**
TOLUENE	**ND**	**0.9**
ETHYLBENZENE	**ND**	**0.3**
P,M-XYLENE	**3.4**	**0.5**
O-XYLENE	**0.8**	**0.4**

ND - ANALYTE NOT DETECTED AT STATED DETECTION LIMIT

QUALITY CONTROL:	SURROGATES	PERCENT RECOVERY	ACCEPTANCE LIMIT
	TRIFLUOROTOLUENE	84	80 - 120%
	BROMOFLUOROBENZENE	90	80 - 120%

REFERENCE: METHOD 5030, PURGE AND TRAP
METHOD 8020, PURGEABLE AROMATICS
TEST METHOD FOR EVALUATION SOLID WASTE,
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY,
SW-846, VOLUME IB, NOVEMBER 1990.

COMMENTS: Influent from the stripper unit, Thriftway site #810.

ANALYST

REVIEW

BIOTECH LABORATORIES

QUALITY CONTROL
MATRIX SPIKE RECOVERY
EPA METHOD 8020
AROMATIC VOLATILE ORGANICS

CLIENT:	NA	**SAMPLE MATRIX:**	WATER
CLIENT NUMBER:	NA	**PRESERVATIVE:**	HgCl2
PHASE/TASK:	NA	**DATE SAMPLED:**	02-21-94
PROJECT LOCATION:	Bloomfield, New Mexico	**DATE RECEIVED:**	02-22-94
SAMPLE ID:	Influent	**DATE ANALYZED:**	Feb 22, 1994
SAMPLE NUMBER:	0115		

SPIKE CONCENTRATION (ug/l) = 20.0

ANALYTE	Sample Result (ug/L)	Spiked Result (ug/L)	Det. Limit (ug/L)	PERCENT RECOVERY
BENZENE	1.2	19.7	0.4	94
TOLUENE	ND	19.5	0.9	96
ETHYLBENZENE	ND	19.2	0.3	99
P,M-XYLENE	3.4	22.4	0.5	87
O-XYLENE	0.8	19.8	0.4	96

ND - ANALYTE NOT DETECTED AT STATED DETECTION LIMIT

REFERENCE: METHOD 5030, PURGE AND TRAP
METHOD 8020, PURGEABLE AROMATICS
TEST METHOD FOR EVALUATION SOLID WASTE,
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY,
SW-846, VOLUME IB, NOVEMBER 1990.

COMMENTS:

ANALYST

REVIEW

BIOTECH LABORATORIES

EPA METHOD 8020
PURGEABLE AROMATICS

CLIENT:	NA	**SAMPLE MATRIX:**	WATER
CLIENT NUMBER:	NA	**PRESERVATIVE:**	HgCl2
PHASE/TASK:	NA	**DATE SAMPLED:**	NA
PROJECT LOCATION:	NA	**DATE RECEIVED:**	NA
SAMPLE ID:	Laboratory Blank	**DATE ANALYZED:**	Feb 22, 1994
SAMPLE NUMBER:	0222am.00		

ANALYTE	CONCENTRATION (ug/L)	DETECTION LIMIT(ug/L)
BENZENE	**ND**	**0.4**
TOLUENE	**ND**	**0.9**
ETHYLBENZENE	**ND**	**0.3**
P,M-XYLENE	**ND**	**0.5**
O-XYLENE	**ND**	**0.4**

ND - ANALYTE NOT DETECTED AT STATED DETECTION LIMIT

QUALITY CONTROL:	SURROGATES	PERCENT RECOVERY	ACCEPTANCE LIMIT
	TRIFLUOROTOLUENE	88	80 - 120%
	BROMOFLUOROBENZENE	91	80 - 120%

REFERENCE: METHOD 5030, PURGE AND TRAP
METHOD 8020, PURGEABLE AROMATICS
TEST METHOD FOR EVALUATION SOLID WASTE,
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY,
SW-846, VOLUME IB, NOVEMBER 1990.

COMMENTS:

ANALYST

REVIEW

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11049

CHAIN OF CUSTODY RECORD

Client/Project Name			Project Location		ANALYSIS/PARAMETERS							
Thriftway #810			Refining Bloomfield, NM									
Sampler: (Signature)			Tape No.		No. Cont.	BTEX						Remarks
Sample No./ID	Date	Time	Lab No.	Matrix								
MW-23	2/14/94	1620	0113	WATER	2	✓						
MW-25	2/22/94	1600	0114	WATER	2	✓						
INFLUENT	2/22/94	1615	0115	WATER	2	✓						

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
			Received by: (Signature)	2/22/94	1630
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		