

GW - 55

MONITORING REPORTS

DATE:

1996

BioTECH REMEDIATION INC.

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ANNUAL GROUND WATER MONITORING REPORT THRIFTWAY REFINERY 626 COUNTY ROAD 5500 BLOOMFIELD, NEW MEXICO

RECEIVED

APR 30 1997

Environmental Bureau
Oil Conservation Division

PREPARED FOR
THE NEW MEXICO OIL CONSERVATION DIVISION
MR. WILL OLSEN, PROJECT MANAGER, SANTA FE OFFICE
&
MR. DENNY FOUST, AZTEC OFFICE

APRIL 25, 1997

ANNUAL GROUND WATER MONITORING REPORT
THRIFTWAY REFINERY
626 COUNTY ROAD 5500
BLOOMFIELD, NEW MEXICO



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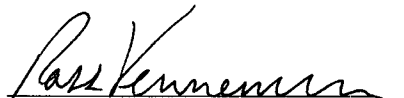
&

MR. DENNY FOUST, AZTEC OFFICE

APRIL 25, 1997

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

PREPARED BY:


ROSS KENEMER
PROJECT MANAGER

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1.0 ANNUAL MONITOR REPORT INTRODUCTION

In compliance with Ground Water Discharge Plan GW-55 and pursuant to the requirements of the New Mexico Oil Conservation Division (NMOCD), BioTech Remediation, Inc., (BioTech) on behalf of Thriftway Company, submits the following Annual Monitoring and Sampling Report for 1996 for the Thriftway Refinery, 626 County Road 5500, Bloomfield, New Mexico.

This report summarizes the monitoring and sampling activities, the compiled laboratory data and the phase-separated product recovery activities for ground water monitoring wells located at the facility. An updated report of the performance of the ground water extraction and treatment system is provided as well.

2.0 ANNUAL MONITORING AND REMEDIAL ACTIVITIES

BioTech personnel have completed the monitoring and sampling requirements for the last three Quarterly Monitoring events in 1996. Ground water monitoring well measurements and sampling procedures strictly followed methods described in previous reports. This report is a summary of activities from March through December 31, 1996, and is the First Annual Report under the most recent Ground Water Discharge Permit.

Summaries of the ground water measurement data, including measurements of phase-separated product and laboratory analysis data are provided in Tables 1 and 2, respectively. Copies of laboratory analyses reports, QA/QC Documentation, and Chain-of-Custody Records are provided in Appendix A. Phase-separated product recovery field logs are in Appendix B.

Special activities outside of the normal sampling and monitoring include: 1) abandonment of the injection wells due to poor performance; 2) replacement of the discharge line from the air stripper; and 3) reworking of the air stripper at the refinery to improve performance.

The poor performance of the injection wells or infiltration galleries is attributed to the high concentrations of dissolved solids present within the treatment stream, which resulted in severe fouling of the injection system. This further resulted in decreasing the rate of water which could be extracted and treated, due to the limited discharge capabilities. Paramount in the decision to abandon the injection system was the observable lack of ground water mounding in specific areas. As noted in many previous reports, the mounding of treated ground water functions as to provide a "hydraulic push" in the up-gradient portion of the facility's contaminant plume. That is, the performance of the ground water interceptor or collection system is a function of the ability to achieve a ground water mound in strategic locations, realizing the described push.

In discontinuing use of the injection system, a new discharge line was installed to the fire water pond, replacing the line which had been installed during initial construction. This replacement was justified by the assurance that the new line was "tight" where as the condition of the replaced line was unknown.

The most significant and important modification to the water treatment system was the complete overhaul and performance upgrading of the air stripper. The stripper was changed from a one tray, thin film, two pass operation to a two tray, thin film, four pass air stripper. This was done to increase the reliability of the stripper with regards to contaminant removal and volume ability and extend the time between manual cleaning and reduce the number of times for startup after manual cleaning.

3.0 SUMMARY OF GROUND WATER LABORATORY ANALYTIC RESULTS

The air stripper, which is used to remove dissolve-phase contamination from ground water during the pump and treat remediation process, has exhibited problems when the water flow to the stripper is increased, to compensate for increased water recovery by the system. Samples collected during most of the operational period showed performance was strapped when the water flow to the stripper was sufficient to depress the water table in the area of the french drain. This data is reported in the cumulative summary in Table 2. The laboratory reports and associated documentation for these analysis are provided in Appendix A.

Due to the excessive dissolved solids contained in the ground water, an acid injection system was set in place and is operational; however, it is not sufficient to keep the stripper tray free of scale buildup. Therefore, a periodic hand cleaning of the tray is required to maintain efficiency. Following this down time, which usually occurs once every other month, several thousand gallons of water must pass through the stripper and adjustments must be made before peak efficiency is again realized. Laboratory analysis of the effluent, during the system startup, indicate benzene levels which slightly exceed regulatory levels.

The slight increase in benzene concentration in MW-04 and MW-05 indicate reduced capture from past sampling events. MW-18 also indicates an increase in benzene concentration over the previous sampling event. Although there has been an increase in benzene concentration in these three wells, it is believed they will return to previous levels as the stripper continues to work at reducing the excess water buildup in the area. If the water continues to overwhelm the stripper capacity for water removal after the initial runoff in May and June, BioTech will review the operation with the OCD and adjustments or changes will be made in the air stripper operation.

4.0 DISCUSSION OF GROUND WATER ISOCONCENTRATION MAPS

Figures 1A thru 1C depict the changes in the elevation of the water table over the past year. Figures 2A thru 2C show the benzene concentration in the ground water at the refinery. Figures 3A thru 3C show the location of free product on the ground water at the refinery. Figure 4A is new to the reporting information base and will be included in future discussions to illustrate the water conductivity of the ground water at the site.

The ground water elevation data shows no capture along the north edge of the refinery for the end of 1996. This is due to the reduced water flow to the air stripper during that period. Although small, there is an increase in the benzene concentration of MW-04, 05, 18 and 19. These wells are all located along the north and west edge of the refinery.

The laboratory analysis for the last three quarters of 1996 are summarized on Table 2 and monitoring well contaminant data is also presented in graphic form, located in the Graphs Section.

The benzene concentration map for each quarter is provided in Figures 2A to 2C. There has been minor spreading of contamination during 1996. BioTech believes this is due to the increased water flow in the ground water beneath the refinery at the end of 1996 and the reduced flow to the air stripper during the same period. The slowing of the recharge to the ground water table should allow the air stripper to catch-up and pull the contamination back on site.

5.0 SUMMARY OF FREE PRODUCT RECOVERY INFORMATION

Table 1 lists the recovery of product from various points throughout the refinery. During the last three quarters of 1996, no appreciable amount of product was removed from the UST at the air stripper. This was due to the inability to operate the air stripper at a flow rate high enough to overcome the recharge to the ground water table and draw oil into the recovery trench. It is fully expected that the reduced product recovery will be fully mitigated by the modifications that have been made to the air stripper, which will allow increased extraction rates. This will result in increased flow to the point of ground water extraction, thereby increasing the volume of product available for recovery.

6.0 DISCUSSION OF REWORK OF GROUND WATER TREATMENT EQUIPMENT

The Thriftway Refinery ground water stripper has been unable to accommodate the volume of water coming into the refinery recovery trench. This results from down time caused by epoxy coating failure inside the stripper, breakdown of the stripper perforated tray, excessive calcification of the tray due to high dissolved solids in the water, bearing failure of the blower motor, failure of the injection pump motor due to the corrosive atmosphere in the air stripper building, and subsequent plugging of the injection pump and ancillary equipment.

The solids lay down (calcification) is caused by precipitation of calcium carbonate and other mineral salts created by the introduction of air into the water. Historically, the observed calcification of the pump impeller causes pump seal failure which acts to plug discharge lines and valves and as previously noted, rendered the injection gallery useless.

In combating the water quality problem, BioTech has replaced or repaired the following during 1996 and the first quarter of 1997:

- > The entire water injection line from the air stripper to the refinery fire water pond.
- > The air stripper was sand blasted and coated inside and out with a special hydrocarbon resistant epoxy material that will stand up under hydrocarbon attack and pH swings.
- > The injection pump.
- > The air stripper motor.
- > An acid injection system has been placed on line to reduce the calcification problem.
- > The original air stripper tray was damaged due to the need to mechanically and chemically clean it on a regular basis. All the original stripper perforated plate material has been removed including the tray seal area and inlet piping. The stripper has been reworked to include two trays. The description of that rework is discussed below.

After the old tray was removed from the stripper, the stripper was measured to insure there would be adequate room for an additional tray. Although the stripper only allows a nine (9) inch spacing between trays, this is sufficient space for foam and entrained water to disengage from the air passing through the new trays. A three inch by one-fourth inch angle iron frame was installed as a tray support. This support is distributed along the entire perimeter of the trays and a 1/4 inch

foam/adhesive backed gasket was installed between the tray and the angle iron, as a seal between the iron and the stripper wall.

The new trays were created from 3/16 inch Lexan Plastic. The tray support materials were bolted in and a seal gasket was placed between all surfaces. The tray support material was epoxy coated to reduce corrosion. The bolts holding the supports are all stainless steel and the trays were pop riveted to the tray supports with stainless steel pop rivets. The tray perforations which are 3/16 inch, are laid out in a triangular pattern.

Currently 3.0 to 4.0 gpm of water is being charged to the air stripper. This reduced rate is necessary because of the reduced capacity of the air stripper to accept higher water flow rates and meet the NMWQCC regulations. The existing air blower has a capacity of approximately 12 inches of water pressure at the rated capacity of 250 cubic feet per minute. The last check of the performance of the air blower revealed it was only operating at five inches of water pressure. This could explain why the stripper is only able to handle a fraction of its original design capacity of five to ten gallons per minute. Under normal conditions this rate would be sufficient to contain the ground water plume on the refinery site. However, there has been an increase in run-off from the north, south, and east of the refinery site which has increased the flow of water under the refinery property. At the writing of this report, BioTech is in the process of replacing the existing blower with one which is much larger.

7.0 DISCUSSION AND RECOMMENDATIONS

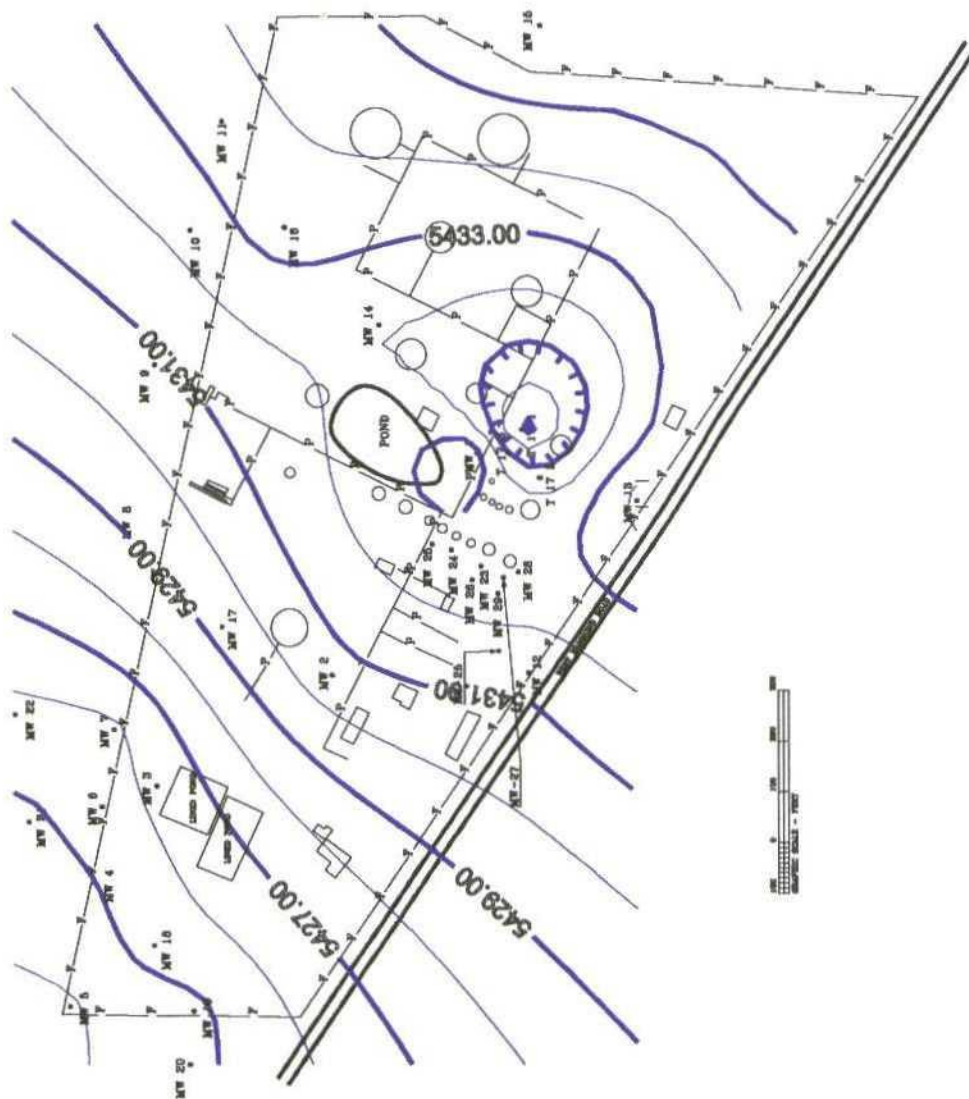
The plots of ground water elevation, contaminant concentration, and free product indicate inadequate capture at the refinery property line to contain the spread of contamination and free product. It is believed that the reason for this is the down time the stripper has experienced during the latter part of 1996. The phase-separated product removal operation is continuing on a bi-monthly schedule. No significant changes in the different plumes have occurred during the past six-months.

The air stripper operation remains adequate after the recent changes; however, a larger air blower is planned to be installed on the stripper to insure an adequate air flow rate and pressure, in the event it becomes necessary to increase water flow to the stripper. A performance test run will be made after the larger blower is installed to provide a baseline for future performance evaluations. The OCD will be notified when the blower is to be changed out and the test run is scheduled.

In reviewing the cumulative data contained within this report and previously submitted data, BioTech concludes that with the modifications and upgrades made to the ground water extraction and treatment system in late 1996 and early 1997, contaminant plume containment will soon be again evident and further, that plume reduction as well as reductions in contaminant concentrations will be realized.

Therefore, BioTech on behalf of Thriftway Company, recommend that the monitoring and sampling schedule continue through 1997, as established in the renewal of GW-55, and that the ground water treatment system be operated as described within this annual report.

FIGURES



THRIFTWAY REFINERY
626 COUNTY ROAD 5500
BLOOMFIELD, NEW MEXICO

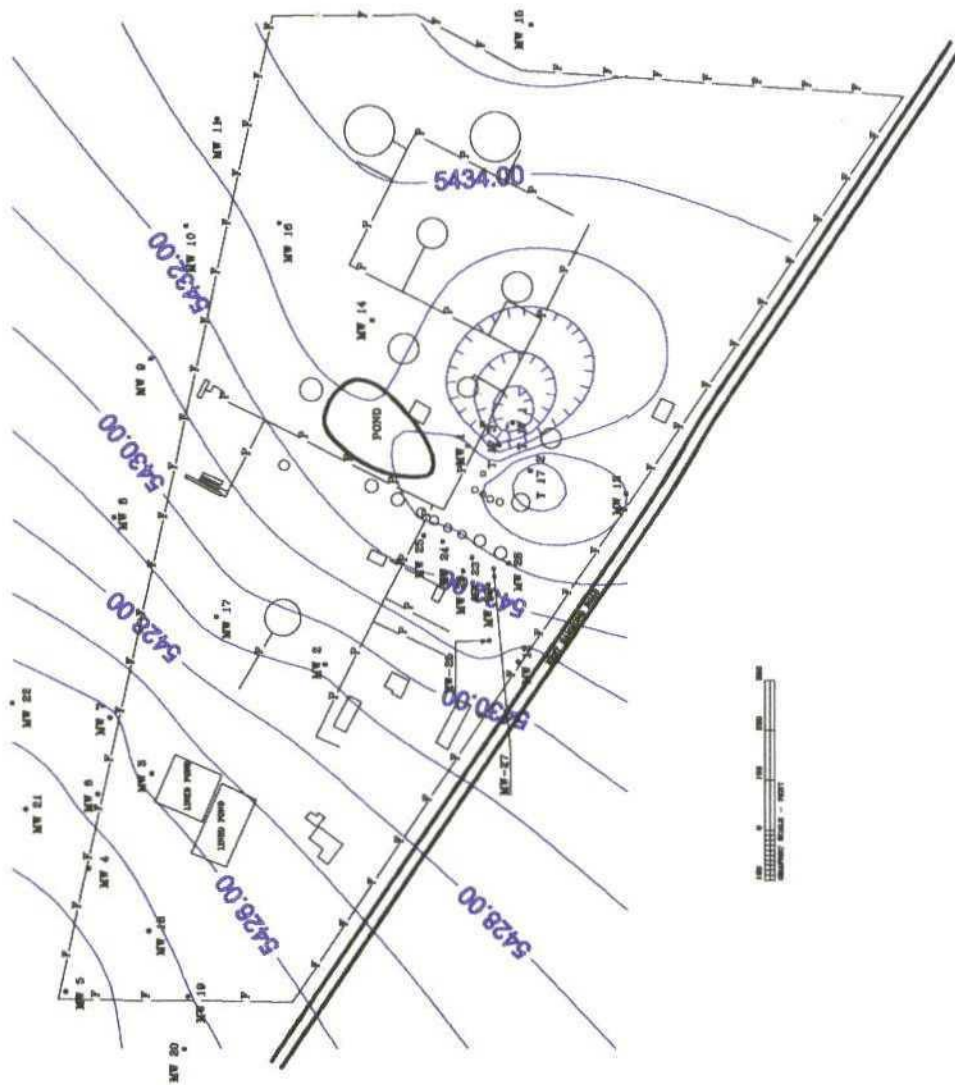
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SCIENTIST: R. KENNEMER
DRAWN BY: K. SINKS
FIGURE 1A WATER LEVEL
CONTOUR MAP

JUNE 4, 1996



710 EAST 20TH STREET, SUITE 400
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KEY

WATER LEVEL
IN FEET

THRIFTWAY REFINERY
626 COUNTY ROAD 5500
BLOOMFIELD, NEW MEXICO

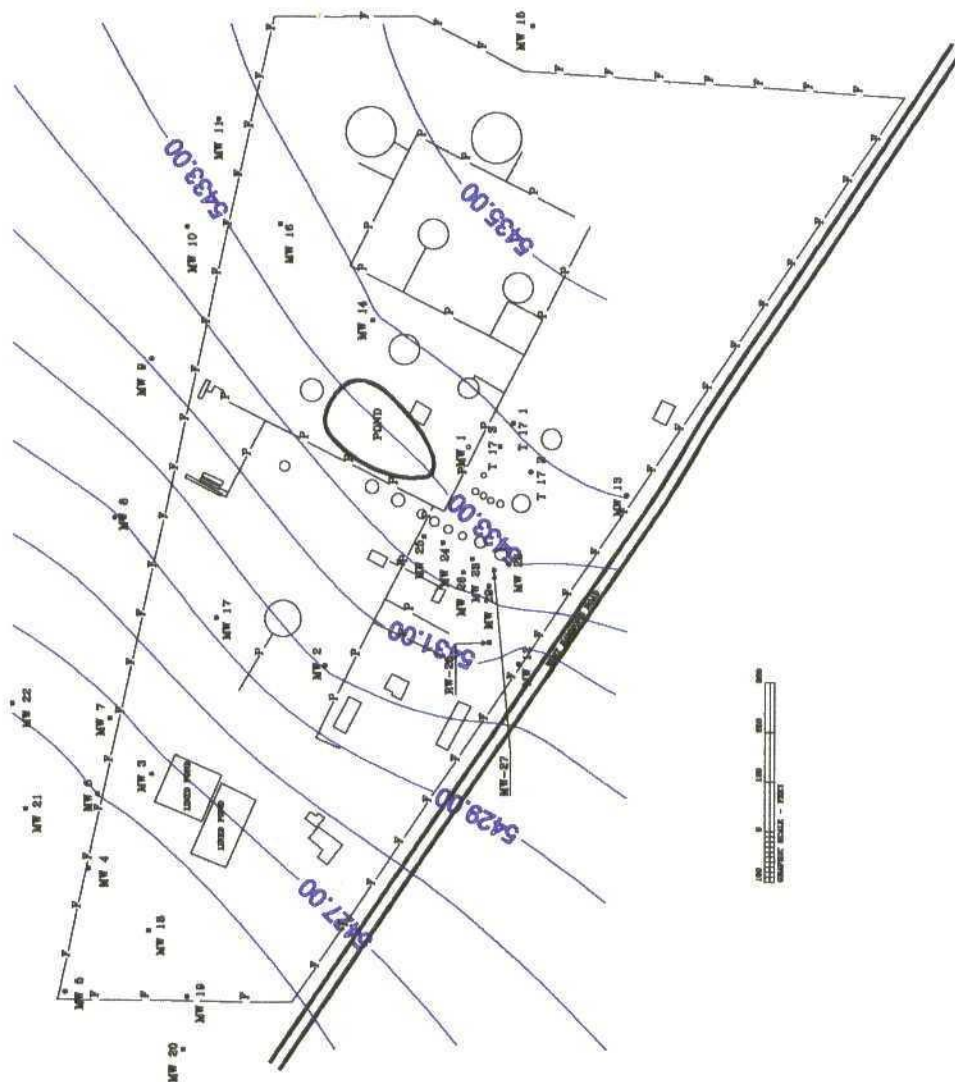
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SCIENTIST: R. KENNEMER
DRAWN BY: K. SINKS
FIGURE 1B WATER LEVEL
CONTOUR MAP

OCTOBER 7, 1996



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KEY

WATER LEVEL
IN FEET

THRIFTWAY REFINERY
626 COUNTY ROAD 5500
BLOOMFIELD, NEW MEXICO

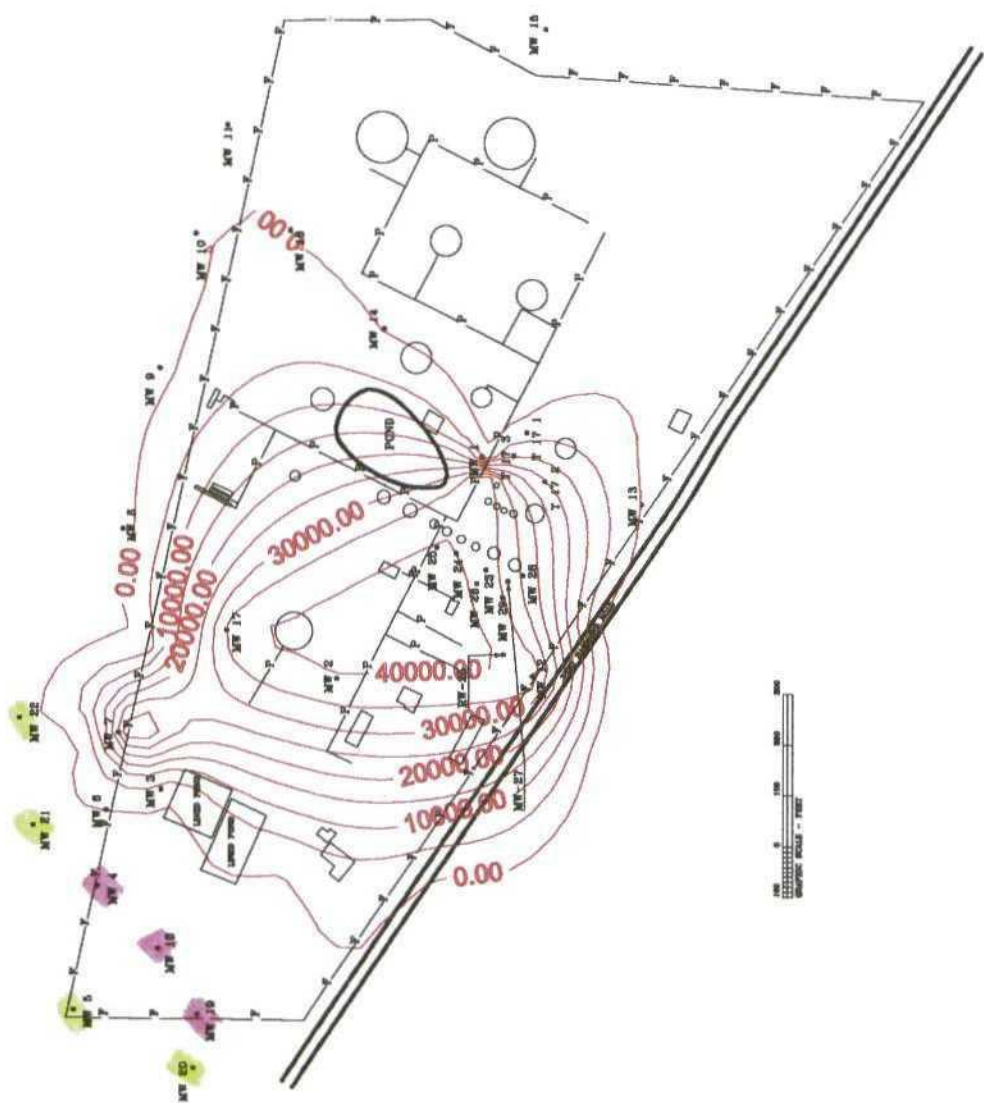
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SCIENTIST: R. KENNEMER
DRAWN BY: K. SINKS
FIGURE 1C WATER LEVEL
CONTOUR MAP

DECEMBER 31, 1996



710 EAST 20TH STREET, SUITE 400
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FAX: (505) 632-9850



KEY
 BENZENE CONC.
 IN ppb

THRIFTWAY REFINERY
 626 COUNTY ROAD 5500
 BLOOMFIELD, NEW MEXICO

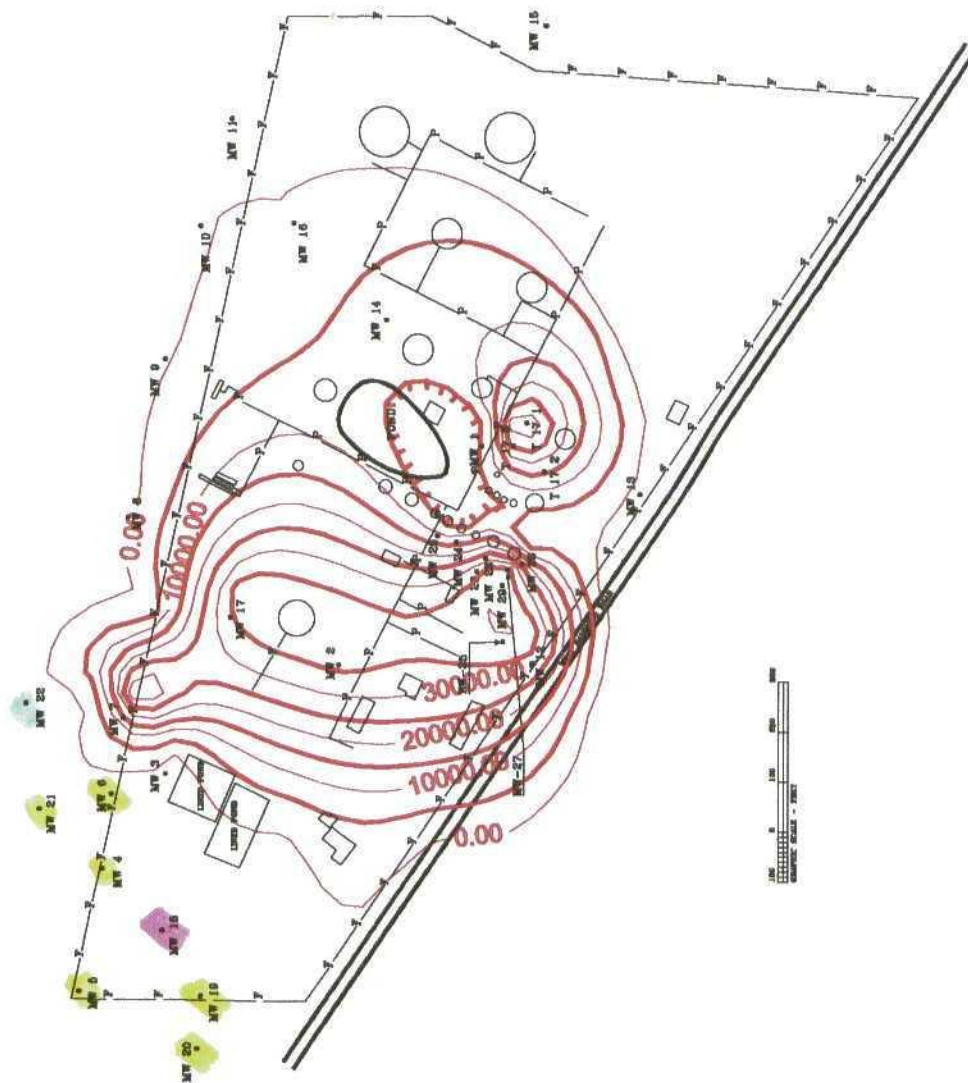
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SCIENTIST: R. KENNEMER
 DRAWN BY: K. SINKS
 FIGURE 2A BENZENE CONC.
 CONTOUR MAP

JUNE 4, 1996



710 EAST 20TH STREET, SUITE 400
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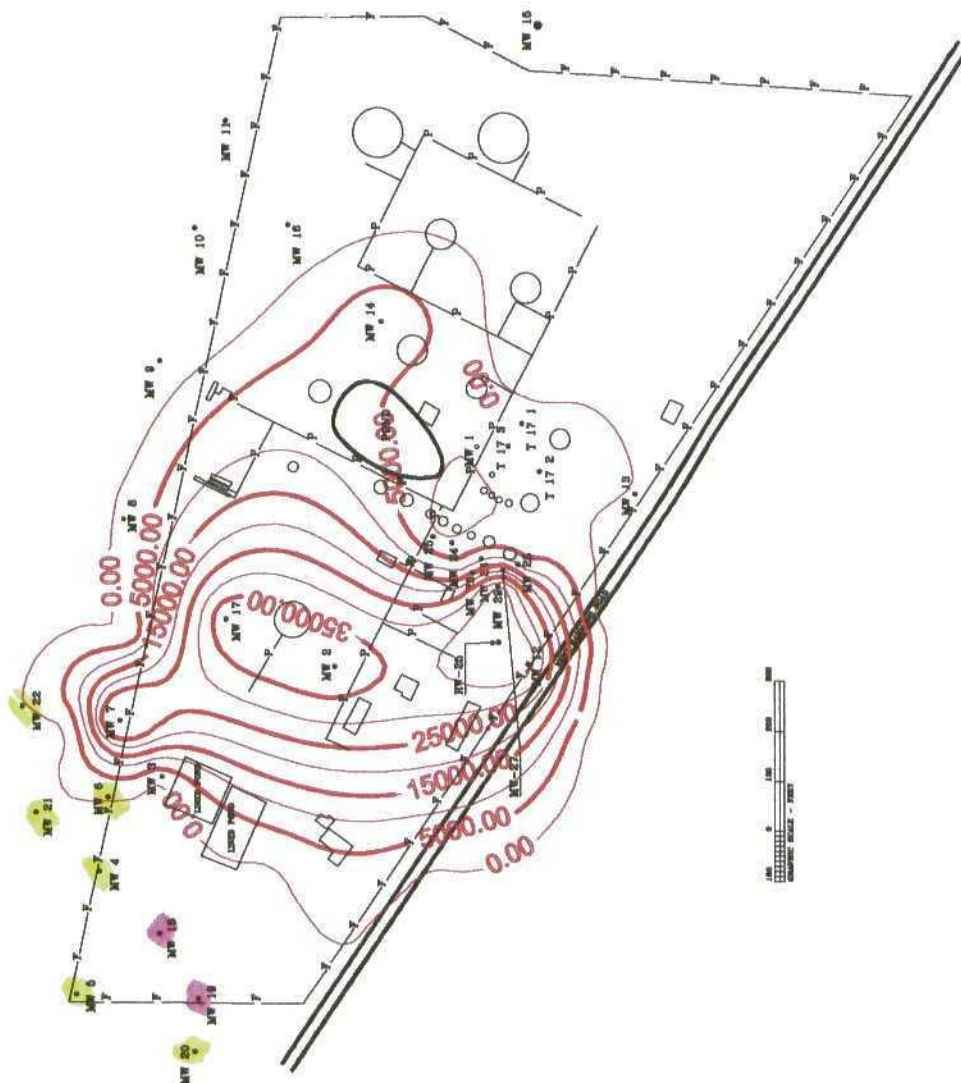
KEY
 BENZENE CONC.
 IN ppb

THRIFTWAY REFINERY
 626 COUNTY ROAD 5500
 BLOOMFIELD, NEW MEXICO
 810\1007988Z.SKD

SCIENTIST: R. KENNEMER
 DRAWN BY: K. SINKS
**FIGURE 2B BENZENE CONC.
 CONTOUR MAP**
 OCTOBER 7, 1996



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KEY
BENZENE CONC.
IN ppb

THRIFTWAY REFINERY
626 COUNTY ROAD 5500
BLOOMFIELD, NEW MEXICO

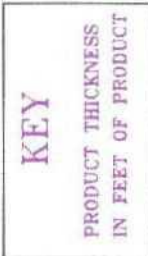
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SCIENTIST: R. KENNEMER
DRAWN BY: K. SINKS
FIGURE 2C BENZENE CONC.
CONTOUR MAP

DECEMBER 31, 1996

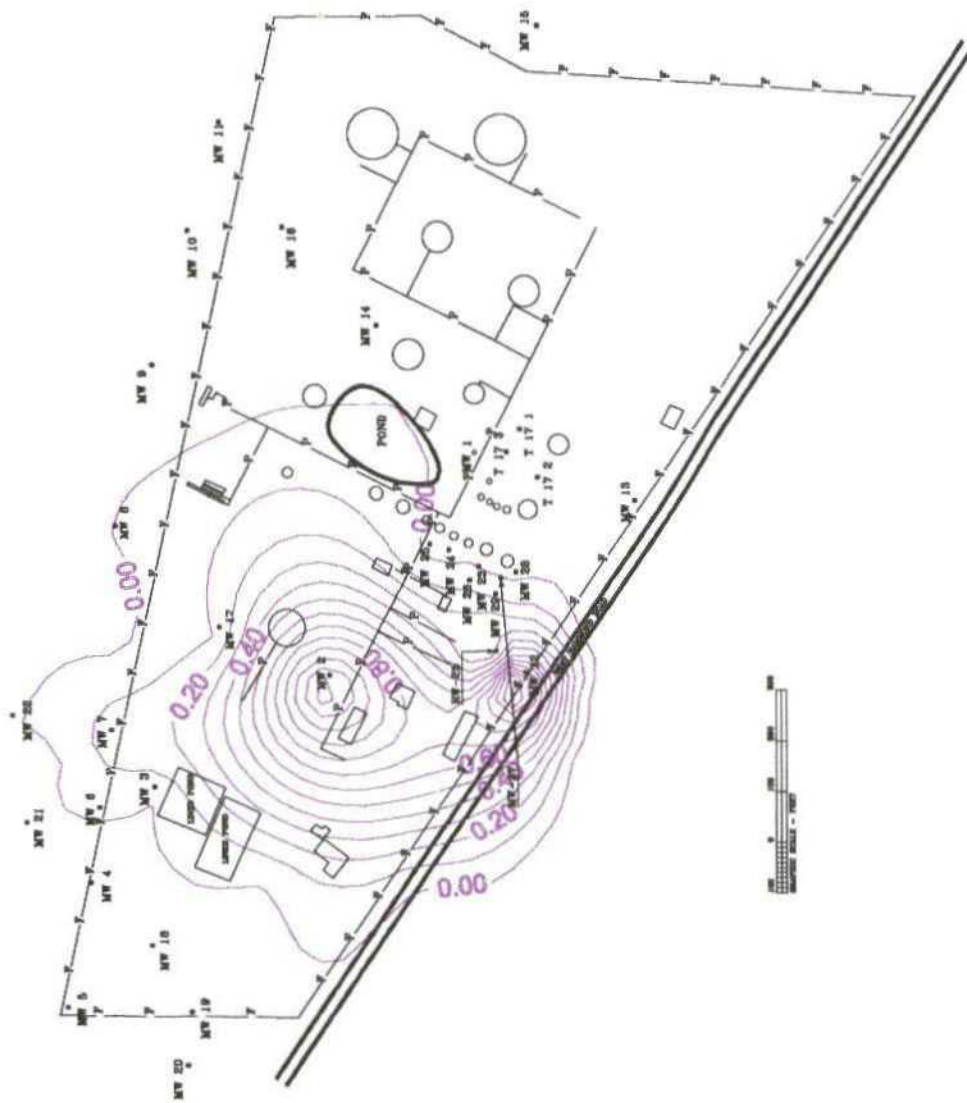


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PRODUCT THICKNESS
IN FEET OF PRODUCT

710 EAST 20TH STREET, SUITE 400
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KEY
PRODUCT THICKNESS
IN FEET OF PRODUCT

THRIFTWAY REFINERY
626 COUNTY ROAD 5500
BLOOMFIELD, NEW MEXICO
810\100760PL.SKD

SCIENTIST: R. KENNEMER
DRAWN BY: K. SINKS
FIGURE 3B PRODUCT
CONTOUR MAP
OCTOBER 7, 1996



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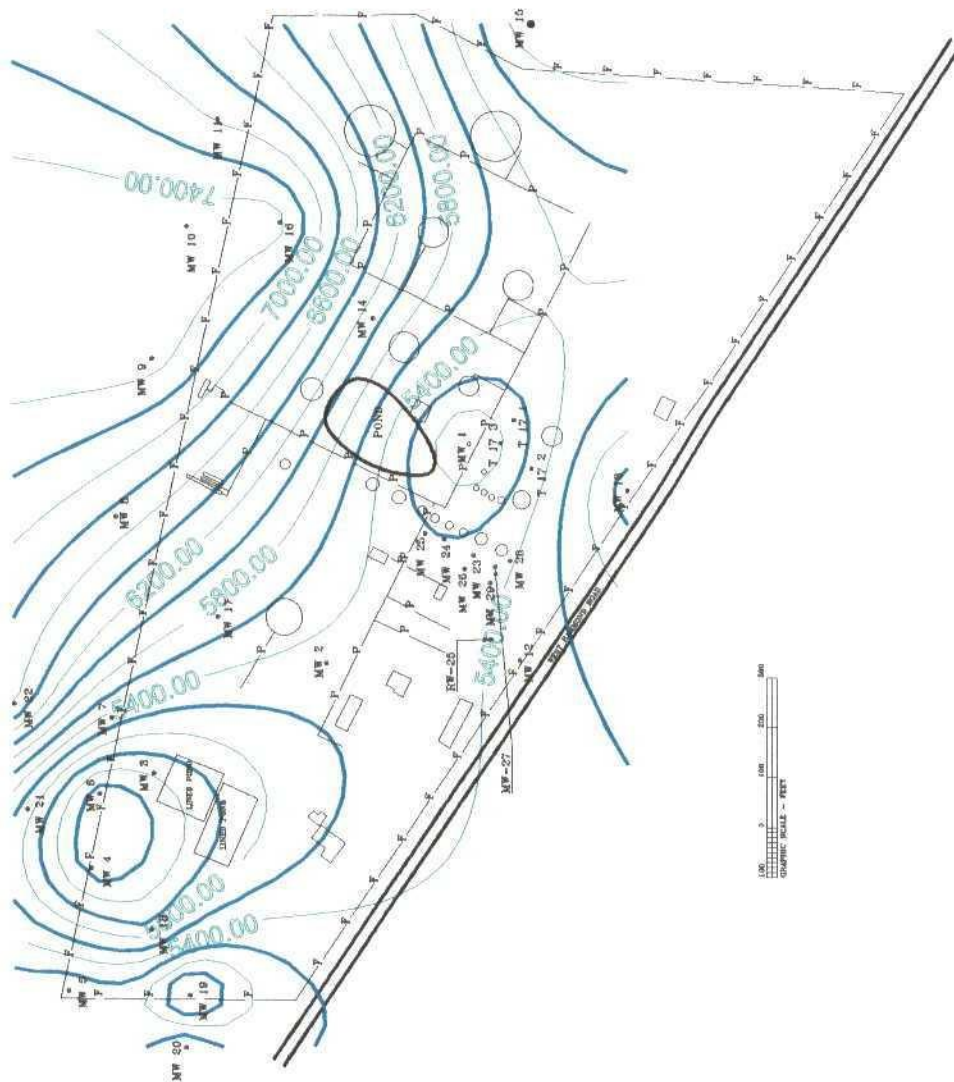


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DECEMBER 31, 1996

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KEY
CONDUCTIVITY
IN uohms/cm

710 EAST 20TH STREET, SUITE 400
FARMINGTON, NEW MEXICO 87401
OFFICE: (505) 632-3365
FAX: (505) 632-9850

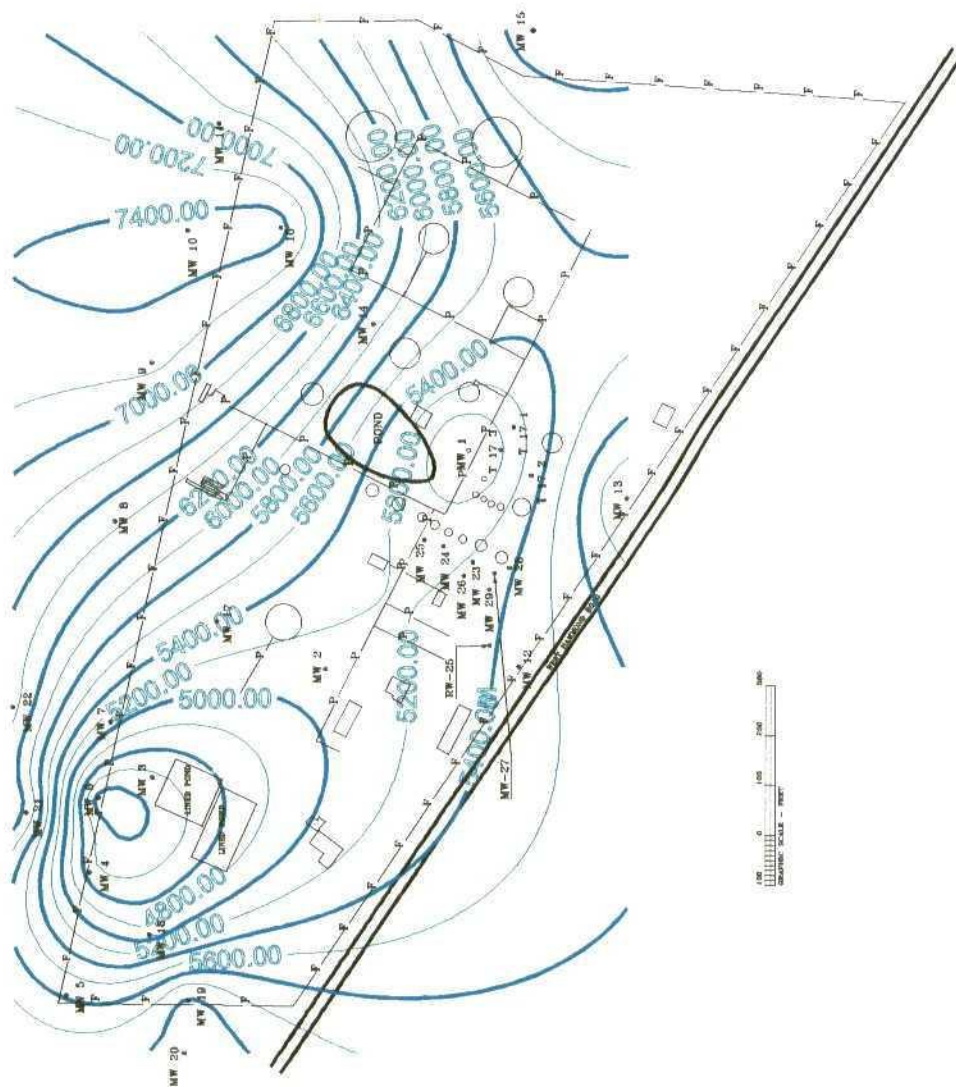


SCIENTIST: R. KENNEMER
DRAWN BY: K. SINKS
FIGURE 4A CONDUCTIVITY
CONTOUR MAP

DECEMBER 31, 1996

THRIFTWAY REFINERY
626 COUNTY ROAD 5500
BLOOMFIELD, NEW MEXICO

810\123196PL SKD



KEY
CONDUCTIVITY
IN uohms/cm

SCIENTIST: R. KENNEMER
DRAWN BY: K. SINKS
FIGURE 4B CONDUCTIVITY
CONTOUR MAP
MARCH 17, 1997

THRIFTWAY REFINERY
626 COUNTY ROAD 5500
BLOOMFIELD, NEW MEXICO
B:\0\031797PL.SKD



710 EAST 20TH STREET, SUITE 400
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TABLES

TABLE 1
THRIFTWAY REFINERY

SUMMARY OF GROUND WATER MONITING DATA											
WELL #	DATE	TIME	TOP OF PIPE ELEVATION	AIR/OIL INTERFACE (feet))	WATER OUTAGE (feet)	PRODUCT THICKNESS (feet))	WATER LEVEL ELEVATION (feet)	ACCUMULATED PRODUCT (gallons)	CONDUCTIVITY uohms/cm	OXYGEN CONTENT ppm	
1	04/19/95	10:10	114.08		15.52	1.83	98.56	0.79			
1	08/24/95	18:30	114.08		16.1	1.47	97.98	1.32			
1	11/12/95	11:55	114.08		15.41	1.08	98.67	1.66			
1	03/05/96	14:10	5449.08	15.10	15.19	0.09	5433.89	1.66			
1	05/31/96		5449.08	15.29	15.31	0.02	5433.77	1.66			
1	10/07/96	13:37	5449.08	15.68	15.68	0.00	5433.40	1.66			
1	12/31/96	16:10	5449.08	15.62	15.62	0.00	5433.46	1.66	4730	1.90	
1	03/19/97	00:00	5449.08	15.65	15.65	0.00	5433.43	1.66	4700	N/A	
2	04/12/95	10:10	107.62		11.57		96.05				
2	08/24/95	17:25	107.62		11.80		95.82				
2	11/12/95	10:00	107.62		11.99		95.63				
2	03/05/96	12:40	5442.65	11.85	11.85	0.00	5430.80				
2	06/04/96		5442.65	12.00	12.00	0.00	5430.65	0.00			
2	10/09/96	15:30	5442.65	12.16	13.50	1.34	5429.15	0.20			
2	12/30/96		5442.65	12.35	12.54	0.19	5430.11	0.35	PRODUCT	PRODUCT	
2	03/17/97		5442.65	12.18	12.37	0.19	5430.28	0.37	PRODUCT	PRODUCT	
3	04/12/95	08:36	96.28		5.21		91.07				
3	08/24/95	17:00	96.28		4.33		91.95				
3	11/12/95	10:20	96.28		4.49		91.79				
3	03/05/96	12:15	5431.43	5.13	5.13	0.00	5426.30				
3	06/04/96		5431.43	5.22	5.22	0.00	5426.21	0.00			
3	10/09/96	15:00	5431.43	5.17	5.17	0.00	5426.26	0.00			
3	12/31/96	15:45	5431.43	4.60	4.72	0.12	5426.71	0.01	PRODUCT	PRODUCT	
3	03/17/97	-	5431.43	3.44	3.44	0.00	5427.99	0.01	N/A	N/A	
4	04/11/95	16:30	95.82		4.62		91.20				
4	08/28/95	16:45	95.82		5.13		90.69				
4	11/12/95	10:40	95.82		4.92		90.90				
4	03/05/96	11:45	5430.12	5.10	5.10	0.00	5425.02				
4	06/04/96		5430.12	5.18	5.18	0.00	5424.94	0.00			
4	10/09/96	10:40	5430.12	5.62	5.62	0.00	5424.50	0.00			
4	12/31/96	12:00	5430.12	5.18	5.18	0.00	5424.94	0.00	4270	2.70	
4	03/19/97	00:00	5430.12	4.28	4.28	0.00	5425.84	0.00	4450	N/A	

TABLE 1
THRIFTWAY REFINERY

WELL #	DATE	TIME	TOP OF PIPE ELEVATION	SUMMARY OF GROUND WATER MONITORING DATA				WATER ELEVATION (feet)	PRODUCT THICKNESS (feet)	ACCUMULATED PRODUCT (gallons)	CONDUCTIVITY uohms/cm	OXYGEN CONTENT ppm
				AIR/OIL INTERFACE (feet)	WATER OUTAGE (feet)	PRODUCT THICKNESS (feet)	WATER LEVEL ELEVATION (feet)					
5	04/11/95	15:40	94.66		4.33		90.33					
5	08/28/95	16:20	94.66		5.25		89.41					
5	11/12/95	09:40	94.66		5.03		89.63					
5	03/05/96	11:20	5428.97	4.91	4.91	0.00	5424.06					
5	06/04/96		5428.97	5.10	5.10	0.00	5423.87	0.00				
5	10/09/96	11:20	5428.97	5.55	5.55	0.00	5423.42	0.00				
5	12/31/96	11:30	5428.97	5.19	5.19	0.00	5423.78	0.00		5800		1.90
5	03/19/97	00:00	5428.97	4.63	4.63	0.00	5424.34	0.00		5770		N/A
6	04/12/95	12:45	96.31		4.72		91.59					
6	08/24/95	16:50	96.31		4.59		91.72					
6	11/12/95	10:50	96.31		5.46		90.85					
6	03/05/96	11:55	5430.7	4.95	4.95	0.00	5425.75					
6	06/04/96		5430.7	5.07	5.07	0.00	5425.63	0.00				
6	10/09/96	10:25	5430.7	5.28	5.28	0.00	5425.42	0.00				
6	12/31/96		5430.7	4.65	4.65	0.00	5426.05	0.00		4230		4.70
6	03/19/97	907	5430.7	3.65	3.65	0.00	5427.05	0.00		4070		N/A
7	04/12/95	09:30	96.79		8.09		88.70					
7	08/24/95	17:10	96.79		7.82		88.97					
7	11/12/95	10:55	96.79		8.11		88.68					
7	03/05/96	14:25	5434.34	7.45	7.89	0.44	5426.45	0.00				
7	05/31/96		5434.34	8.07	8.56	0.49	5425.78	0.06				
7	10/07/96		5434.34	8.29	8.50	0.21	5425.84	0.27				
7	12/30/96		5434.34	7.54	7.54	0.00	5426.80	0.27		PRODUCT	PRODUCT	
7	03/19/97	1527	5434.34	6.55	6.55	0.00	5427.79	0.27		N/A	N/A	
8	04/11/95	13:21	97.04		3.00		94.04					
8	08/24/95		97.04		DRY		DRY					
8	11/12/95	1350	97.04		DRY		DRY					
8	03/05/96		5432.09	DRY	DRY	0.00	DRY					
8	06/03/96		5432.09	Well silted in to 3.80 ft.				0.00				
8	10/08/96		5432.09	Well silted in to 3.80 ft.				0.00				
8	12/31/96	15:30	5432.09	3.14	3.14	0.00	5428.95	0.00		NM		NM
8	03/18/97	1500	5432.09	2.93	2.93	0.00	5429.16	0.00		N/A		N/A

TABLE 1
THRIFTWAY REFINERY
SUMMARY OF GROUND WATER MONITORING DATA

WELL #	DATE	TIME	TOP OF PIPE ELEVATION	AIR/OIL INTERFACE (feet))	WATER OUTAGE (feet)	PRODUCT THICKNESS (feet))	WATER LEVEL ELEVATION (feet)	ACCUMULATED PRODUCT (gallons)	CONDUCTIVITY uohms/cm	OXYGEN CONTENT ppm
9	04/11/95	13:02	100.16		4.20		95.96			
9	08/24/95	10:35	100.16		4.47		95.69			
9	11/12/95	13:40	100.16		4.21		95.95			
9	03/05/96	08:45	5435.19	4.09	4.09	0.00	5431.10			
9	06/03/96		5435.19	4.42	4.42	0.00	5430.77	0.00		
9	10/08/96	15:30	5435.19	4.25	4.25	0.00	5430.94	0.00		
9	12/31/96	15:10	5435.19	4.10	4.10	0.00	5431.09	0.00	7510	6.40
9	03/18/97	14:13	5435.19	4.17	4.17	0.00	5431.02	0.00	7270	N/A
10	04/11/95	11:32	101.55		4.05		97.50			
10	08/24/95	10:30	101.55		4.31		97.24			
10	11/12/95	14:00	101.55		4.04		97.51			
10	03/05/96	08:20	5436.56	3.95	3.95	0.00	5432.61			
10	06/03/96		5436.56	4.25	4.25	0.00	5432.31	0.00		
10	10/08/96	14:31	5436.56	4.21	4.21	0.00	5432.35	0.00		
10	12/31/96	14:45	5436.56	4.01	4.01	0.00	5432.55	0.00	7480	3.90
10	03/18/97	13:39	5436.56	4.09	4.09	0.00	5432.47	0.00	7460	N/A
11	08/24/95	10:15	103.63		5.16		98.47			
11	11/12/95	14:15	103.63		4.94		98.69			
11	03/05/96	08:55	5438.65	4.81	4.81	0.00	5433.84			
11	06/03/96		5438.65	5.15	5.15	0.00	5433.50	0.00		
11	10/08/96	15:00	5438.65	5.27	5.27	0.00	5433.38	0.00		
11	12/31/96	14:20	5438.65	5.02	5.02	0.00	5433.63	0.00	6970	3.70
11	12/31/96	14:20	5438.65	5.02	5.02	0.00	5433.63	0.00	6970	3.70
11	03/18/97	11:45	5438.65	5.01	5.01	0.00	5433.64	0.00	6870	N/A
12	04/19/95	09:15	111.11		13.41	1.81	97.70	18.02		
12	08/24/95	12:00	111.11		15.13	1.69	95.98	21.45		
12	11/12/95	12:45	111.11		15.17	1.54	95.94	22.45		
12	03/05/96	14:40	5446.09	13.45	14.94	1.49	5431.15	26.45		
12	05/31/96		5446.09	13.74	14.94	1.20	5431.15	28.45		
12	10/07/96		5446.09	14.15	15.62	1.47	5430.47	28.74		
12	12/30/96		5446.09	14.20	15.60	1.40	5430.49	29.34	PRODUCT	PRODUCT
12	03/17/97		5446.09	14.14	15.39	1.25	5430.70	29.56	PRODUCT	PRODUCT

TABLE 1
THRIFTWAY REFINERY
SUMMARY OF GROUND WATER MONITORING DATA

WELL #	DATE	TIME	TOP OF PIPE ELEVATION	AIR/OIL INTERFACE (feet))	WATER OUTAGE (feet)	PRODUCT THICKNESS (feet))	WATER LEVEL ELEVATION (feet)	ACCUMULATED PRODUCT (gallons)	CONDUCTIVITY uohms/cm	OXYGEN CONTENT ppm
13	04/11/95	10:30	117.12		17.15		99.97			
13	08/24/95	15:10	117.12		17.47		99.65			
13	11/12/95	12:35	117.12		17.62		99.50			
13	03/05/96	15:05	5452.12	17.43	17.43	0.00	5434.69			
13	06/04/96		5452.12	17.72	17.72	0.00	5434.40			
13	10/08/96	11:50	5452.12	18.11	18.11	0.00	5434.01	0.00		
13	12/30/96	15:30	5452.12	18.04	18.04	0.00	5434.08	0.00	6140	5.20
13	03/18/97	1055	5452.12	17.98	17.98	0.00	5434.14	0.00	6260	N/A
14	04/19/95	15:01	111.94		12.23	0.42	99.71	2.96		
14	08/24/95	12:15	111.94		12.66	0.2	99.28	2.96		
14	11/12/95	12:05	111.94		12.75	0.04	99.19	2.96		
14	03/05/96	15:25	5446.93	12.20	12.53	0.33	5434.40	3.10		
14	05/31/96		5446.93	13.74	14.94	1.20	5431.99	3.10		
14	10/07/96	11:35	5446.93	13.05	13.05	0.00	5433.88	3.10		
14	12/30/96	1135	5446.93	12.97	12.97	0.00	5433.96	3.10	6070	1.60
14	03/17/97	-	5446.93	12.73	13.50	0.77	5433.43	3.26	PRODUCT	N/A
15	04/11/95	12:35	114.53		12.96		101.57			
15	08/24/95	10:00	114.53		13.35		101.18			
15	11/12/95	14:30	114.53		13.28		101.25			
15	03/05/96	08:40	5449.51	13.29	13.29	0.00	5436.22			
15	06/03/96		5449.51	13.41	13.41	0.00	5436.10			
15	10/08/96	11:08	5449.51	13.86	13.86	0.00	5435.65	0.00		
15	12/30/96	14:45	5449.51	13.72	13.72	0.00	5435.79	0.00	4850	6.80
15	03/18/97	1000	5449.51	13.49	13.49	0.00	5436.02	0.00	4810	N/A
16	04/11/95	10:55	107.64		8.69		98.95			
16	08/24/95	15:35	107.64		9.03		98.61			
16	11/12/95	12:15	107.64		8.96		98.68			
16	03/05/96	09:15	5442.63	8.81	8.81	0.00	5433.82			
16	06/04/96		5442.63	9.02	9.02	0.00	5433.61			
16	10/08/96	12:45	5442.63	9.33	9.33	0.00	5433.30	0.00		
16	12/30/96	1615	5442.63	9.07	9.07	0.00	5433.56	0.00	7510	3.80
16	03/19/97	1515	5442.63	8.98	8.98	0.00	5433.65	0.00	N/A	N/A

TABLE 1

THRIFTWAY REFINERY

SUMMARY OF GROUND WATER MONITORING DATA

WELL #	DATE	TIME	TOP OF PIPE ELEVATION	AIR/OIL INTERFACE (feet))	WATER OUTAGE (feet)	PRODUCT THICKNESS (feet))	WATER LEVEL ELEVATION (feet)	ACCUMULATED PRODUCT (gallons)	CONDUCTIVITY uohms/cm	OXYGEN CONTENT ppm
17	04/19/95	09:45	100.84		5.85	0.23	94.99	3.03		
17	08/24/95	17:00	100.84		6.39	0.39	94.45	4.54		
17	11/12/95	11:05	100.84		6.27	0.22	94.57	4.54		
17	03/05/96	15:40	5435.57	5.84	6.04	0.20	5429.53	4.54		
17	06/04/96		5435.57	5.73	6.22	0.49	5429.35	5.43		
17	10/07/96		5435.57	5.98	6.09	0.11	5429.48	5.44		
17	12/30/96		5435.57	5.91	6.30	0.39	5429.27	5.91	PRODUCT	PRODUCT
17	03/17/97		5435.57	5.63	5.67	0.04	5429.90	5.92	PRODUCT	PRODUCT
18	04/11/95	16:00	94.04		3.54		90.50			
18	08/24/95	16:10	94.04		3.85		90.19			
18	11/12/95	08:50	94.04		3.75		90.29			
18	03/05/96	13:30	5429.1	DRY	DRY	0.00	DRY			
18	06/04/96		5429.1	3.64	3.64	0.00	5425.46			
18	10/09/96	14:40	5429.1	4.24	4.24	0.00	5424.86	0.00		2.50
18	12/30/96	10:45	5429.1	4.06	4.06	0.00	5425.04	0.00	4820	
18	03/19/97	1400	5429.1	3.26	3.26	0.00	5425.84	0.00	4860	N/A
19	04/11/95	15:20	93.64		2.89		90.75			
19	08/24/95	16:05	93.64		3.59		90.05			
19	11/12/95	09:30	93.64		3.45		90.19			
19	03/05/96	10:50	5428.69	3.51	3.51	0.00	5425.18			
19	06/04/96		5428.69	3.99	3.99	0.00	5424.70			
19	10/09/96	14:20	5428.69	3.70	3.70	0.00	5424.99	0.00		
19	12/30/96	17:15	5428.69	3.77	3.77	0.00	5424.92	0.00	6450	3.90
19	03/19/97	1123	5428.69	3.32	3.32	0.00	5425.37	0.00	6300	N/A
20	04/11/95	13:52	96.11		4.81		91.30			
20	08/24/95	11:35	96.11		5.52		90.59			
20	11/12/95	08:40	96.11		5.45		90.66			
20	03/05/96	09:50	5430.36	5.37	5.37	0.00	5424.99			
20	06/03/96		5430.36	5.59	5.59	0.00	5424.77			
20	10/08/96	16:15	5430.36	5.72	5.72	0.00	5424.64	0.00		
20	12/31/96	900	5430.36	5.74	5.74	0.00	5424.62	0.00	5330	0.90
20	03/18/97	1515	5430.36	5.39	5.39	0.00	5424.97	0.00	6260	N/A

TABLE 1
THRIFTWAY REFINERY
SUMMARY OF GROUND WATER MONITORING DATA

WELL #	DATE	TIME	TOP OF PIPE ELEVATION	AIR/OIL INTERFACE (feet))	WATER OUTAGE (feet)	PRODUCT THICKNESS (feet))	WATER LEVEL ELEVATION (feet)	ACCUMULATED PRODUCT (gallons)	CONDUCTIVITY uohms/cm	OXYGEN CONTENT ppm
21	04/11/95	14:31	94.34		3.02		91.32			
21	08/24/95	11:20	94.34		3.83		90.51			
21	11/12/95	08:55	94.34		3.56		90.78			
21	03/05/96	10:15	5428.62	3.55	3.55	0.00	5425.07			
21	06/03/96		5428.62	3.80	3.80	0.00	5424.82			
21	10/09/96	10:00	5428.62	4.15	4.15	0.00	5424.47	0.00		
21	12/31/96	930	5428.62	3.56	3.56	0.00	5425.06	0.00	5070	1.20
21	03/18/97	1600	5428.62	2.76	2.76	0.00	5425.86	0.00	6270	N/A
22	04/11/95	14:17	97.51		5.29		92.22			
22	08/24/95	11:10	97.51		6.24		91.27			
22	11/12/95	09:10	97.51		5.82		91.69			
22	03/05/96	10:25	5430.75	5.64	5.64	0.00	5425.11			
22	06/03/96		5430.75	5.00	5.00	0.00	5425.75			
22	10/08/96	11:45	5430.75	5.35	5.35	0.00	5425.40	0.00		
22	12/31/96	1000	5430.75	4.64	4.64	0.00	5426.11	0.00	6660	1.80
22	03/18/97	1640	5430.75	3.88	3.88	0.00	5426.87	0.00	6490	N/A
23	04/19/95	11:30	115.77		DRY	DRY	DRY	0.89		
23	08/24/95		115.77		DRY	DRY	DRY	0.89		
23	11/12/95	13:10	115.77		DRY	DRY	DRY	0.89		
23	03/05/96	15:55	5448.32	DRY	DRY	DRY	DRY	0.89		
23	06/04/96		5448.32	NOT MEASURED				0.89		
23	10/07/96	14:35	5448.32	DRY	DRY	DRY	DRY	0.89		
23	12/31/96	1638	5448.32	DRY	DRY	DRY	DRY	0.89	NM	NM
23	03/19/97	1620	5448.32	DRY	DRY	DRY	DRY	0.89	N/A	N/A
24	04/12/95	11:50	116.17	17.45	17.45		98.72			
24	08/24/95	17:45	116.17	17.84	17.84		98.33			
24	11/12/95	13:15	116.17	18.31	18.31		97.86			
24	03/05/96	16:10	5447.53	DRY	DRY	0.00	DRY			
24	06/04/96		5447.53	NOT MEASURED						
24	10/07/96	14:39	5447.53	15.01	15.01	0.00	5432.52	0.00		
24	12/31/96	1637	5447.53	15.00	15.00	0.00	5432.53	0.00	NM	NM
24	03/19/97	1621	5447.53	15.01	15.01	0.00	5432.52	0.00	N/A	N/A

TABLE 1
THRIFTWAY REFINERY
SUMMARY OF GROUND WATER MONITORING DATA

WELL #	DATE	TIME	TOP OF PIPE ELEVATION	AIR/OIL INTERFACE (feet))	WATER OUTAGE (feet)	PRODUCT THICKNESS (feet))	WATER LEVEL ELEVATION (feet)	ACCUMULATED PRODUCT (gallons)	CONDUCTIVITY uohms/cm	OXYGEN CONTENT ppm
25	04/12/95	11:40	112.62	12.00	12.00		100.62			
25	08/24/95	18:10	112.62	11.94	11.94		100.68			
25	11/12/95	13:25	112.62	14.46	14.46		98.16			
25	03/05/96	16:15	5447.62	DRY	DRY	0.00	DRY	0.00		
25	06/04/96		5447.62	NOT MEASURED						
25	10/07/96	14:40	5447.62	14.70	14.70	0.00	5432.92	0.00		
25	12/31/96	1635	5447.62	DRY	DRY	DRY	DRY	0.00	NM	NM
25	03/19/97	1622	5447.62	DRY	DRY	DRY	DRY	0.00	N/A	N/A
26	04/19/95	11:45	112.36		14.00	0.06	98.36	8.55		
26	08/24/95	18:30	112.36		14.32	0	98.04	8.55		
26	11/12/95		112.36	NOT MEASURED				8.55		
26	03/05/96		5447.26	NOT MEASURED				8.55		
26	06/04/96		5447.26	NOT MEASURED				8.55		
26	10/07/96		5447.26	DRY	DRY	DRY		8.55		
26	12/31/96		5447.26	WELL COVERED NOT ACCESSABLE				8.55	NM	NM
26	03/19/97	1623	5447.26	WELL COVERED NOT ACCESSABLE				8.55	N/A	N/A
27	01/20/95							8.44		
27	08/24/95							8.44		
27	11/12/95							8.44		
27	03/05/96		5448.04					8.44		
27	06/04/96		5448.04	NOT MEASURED				8.44		
27	10/07/96		5448.04	DRY	DRY	DRY		8.44		
27	12/31/96	1645	5448.04	DRY	DRY	DRY		8.44	NM	NM
27	03/19/97	1619	5448.04	DRY	DRY	DRY		8.44	N/A	N/A
28	04/19/95	11:40			14.46	0.17	98.60	5.96		
28	08/24/95	18:45			14.91	0.23	98.15	6.17		
28	11/12/95	13:05			DRY	0.07	DRY	6.17		
28	03/05/96	16:30			14.79	0.15	5433.39	6.17		
28	06/04/96		5448.06					6.17		
28	10/07/96	14:35	5448.06	NOT MEASURED				6.17		
28	12/31/96	1630	5448.06	14.98	14.98	0.00	5433.08	6.17		
28	03/19/97	1617	5448.06	14.97	14.97	0.00	5433.09	6.17	NM	NM
28				14.96	14.96	0.00	5433.10	6.17	N/A	N/A

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THRIFTWAY REFINERY
SUMMARY OF GROUND WATER MONITORING DATA

WELL #	DATE	TIME	TOP OF PIPE ELEVATION	AIR/OIL INTERFACE (feet))	WATER OUTAGE (feet)	PRODUCT THICKNESS (feet))	WATER LEVEL ELEVATION (feet)	ACCUMULATED PRODUCT (gallons)	CONDUCTIVITY uohms/cm	OXYGEN CONTENT ppm
29	04/12/95		5446.90			1.09		6.04		
29	08/24/95		5446.90			0.72		6.75		
29	11/12/95		5446.90			0.78		7.09		
29	03/05/96		5446.90	NOT MEASURED				7.09		
29	06/04/96		5446.90	NOT MEASURED				7.09		
29	10/07/96	14:42	5446.90	14.59	14.82	0.23	5432.08	7.10		
29	12/31/96	1442	5446.90	14.65	14.78	0.13	5432.12	7.11	PRODUCT	PRODUCT
29	03/17/97	-	5446.90	14.61	14.69	0.08	5432.21	7.11	PRODUCT	PRODUCT
RW-1	REMOVED					DRY		11.16		
RW-3	REMOVED					DRY		15.44		
RW-8	REMOVED					DRY		32.08		
RW-9	REMOVED					DRY		26.91		
RW-12	REMOVED					DRY		34.40		
RW-13	REMOVED					DRY		28.89		
RW-14	REMOVED					DRY		27.18		
RW-24	01/20/95					0.80		94.99		
RW-24	11/12/95					1.19		101.48		
RW-24	03/05/96							101.48		
RW-24	05/31/96				14.56	1.06		103.23		
RW-24	10/07/96	15:12		13.87	15.34	1.47		103.52	PRODUCT	PRODUCT
RW-24	12/30/96			13.94	15.34	1.40		104.07	PRODUCT	PRODUCT
RW-24	03/17/97			13.90	14.94	1.04		104.21	PRODUCT	PRODUCT

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WELL #	DATE	TIME	TOP OF PIPE ELEVATION	AIR/OIL INTERFACE (feet))	WATER OUTAGE (feet)	PRODUCT THICKNESS (feet))	WATER LEVEL ELEVATION (feet)	ACCUMULATED PRODUCT (gallons)	CONDUCTIVITY uohms/cm	OXYGEN CONTENT ppm
RW-25	06/19/95					0.90		40.18		
RW-25	08/25/95					0.00		41.77		
RW-25	11/12/95					0.52		43.75		
RW-25	03/05/96		5446.67	NOT MEASURED				43.75		
RW-25	05/31/96		5446.67	14.27	14.93	0.66	5431.74	49.25		
RW-25	10/07/96	14:58	5446.67	14.84	15.01	0.17	5431.66	49.26		
RW-25	12/30/96		5446.67	14.89	15.02	0.13	5431.65	49.28	PRODUCT	PRODUCT
RW-25	03/17/97		5446.67	14.77	15.02	0.25	5431.65	49.30	PRODUCT	PRODUCT
RW-26	12/30/96			12.97	13.70	0.73		0.70	PRODUCT	PRODUCT
RW-26	03/17/97			12.00	12.56	0.56		0.87	PRODUCT	PRODUCT
RW-26										
RW-26										
RW-26										
T-17-1	04/12/95					1.20		4.22		
T-17-1	08/24/95					0.93		4.75		
T-17-1	11/12/95					0.61		6.33		
T-17-1	03/05/96		5452.41	NOT MEASURED				6.33		
T-17-1	06/04/96		5452.41	17.76	18.28	0.52	5428.39	6.40		
T-17-1	10/10/96		5452.41	18.05	18.11	0.06	5428.56	6.40		
T-17-1	12/30/96		5452.41	DRY	DRY	DRY	DRY	6.40	NM	NM
T-17-1	03/19/97	1628	5452.41	DRY	DRY	DRY	DRY	6.40	N/A	N/A
T-17-2	01/20/95									
T-17-2	03/05/96		5453.51	NOT MEASURED						
T-17-2	06/04/96		5453.51	NOT MEASURED						
T-17-2	10/10/96		5453.51	17.35	17.35	0.00	5436.16	0.00		
T-17-2	12/30/96		5453.51	NOT MEASURED				0.00	NM	NM
T-17-2	03/19/97	1632	5453.51	19.74	19.74	0.00	5433.77	0.00	N/A	N/A
T-17-3	01/20/95									
T-17-3	03/05/96		5450.98	NOT MEASURED						
T-17-3	06/04/96		5450.98	NOT MEASURED						
T-17-3	10/10/96		5450.98	19.85	19.90	0.05	5431.08	0.00		
T-17-3	12/30/96		5450.98	17.16	17.16	0.00	5433.82	0.00	NM	NM
T-17-3	03/19/97	1629	5450.98	17.2	17.20	0.00	5433.78	0.00	N/A	N/A

TABLE 1
THRIFTWAY REFINERY
SUMMARY OF GROUND WATER MONITORING DATA

WELL #	DATE	TIME	TOP OF PIPE ELEVATION	AIR/OIL INTERFACE (feet))	WATER OUTAGE (feet)	PRODUCT THICKNESS (feet))	WATER LEVEL ELEVATION (feet)	ACCUMULATED PRODUCT (gallons)	CONDUCTIVITY uohms/cm	OXYGEN CONTENT ppm
UST	04/21/95							633.25		
UST	06/16/95							1688.65		
UST	08/25/95							1688.65		
UST	11/12/95							1767.81		
UST	03/05/96							1767.81		
UST	06/04/96							2017.81		
UST	10/10/96							4667.81		
UST	12/30/96		NO					4667.81	NM	NM
UST	03/19/97		NO					4667.81	N/A	N/A

TOTAL GALLONS OF PRODUCT RECOVERED TO DATE:

5077.23

NOTE: NM SIGNIFIES NOT MEASURED

810QMRTABL1.WK4

TABLE 2
SUMMARY OF LABORATORY ANALYSIS DATA
THRIFTWAY REFINERY
BLOOMFIELD, NEW MEXICO
CONCENTRATIONS IN mg/L

Well No.	Date	MTBE	Benzene	Toluene	Ethylbenzen	Xylenes
MW-1	01/20/95		FREE PRODUCT FOUND IN WELL			
	04/12/95		FREE PRODUCT FOUND IN WELL			
	08/24/95		FREE PRODUCT FOUND IN WELL			
	11/12/95		FREE PRODUCT FOUND IN WELL			
	03/05/96		FREE PRODUCT FOUND IN WELL			
	05/31/96		FREE PRODUCT FOUND IN WELL			
	10/09/96	0.2446	0.2551	0.0109	0.0365	0.1928
	12/31/96	0.2196	0.1640	0.0053	0.0198	0.1766
MW-2	01/20/95	0.0830	1.5810	0.0159	0.3950	0.5317
	04/12/95	0.2290	3.0500	0.1700	0.6360	0.8731
	08/24/95	0.3190	2.0730	0.0550	0.3910	0.4471
	11/12/95	0.3340	2.2900	0.0980	0.5360	0.5660
	03/05/96	0.6640	3.1200	0.0535	0.4840	0.5198
	06/04/96		FREE PRODUCT FOUND IN WELL			
	10/09/96		FREE PRODUCT FOUND IN WELL			
	12/31/96		FREE PRODUCT FOUND IN WELL			
MW-3	01/20/95	0.1110	0.0262	0.0010	0.0048	0.0042
	04/12/95	0.2010	0.1240	0.0004	0.0082	0.0044
	08/24/95	0.2130	0.0106	0.0024	ND	0.0017
	11/12/95	0.2640	0.0028	0.0018	ND	0.0016
	03/05/96	0.2980	0.1170	0.0059	0.0282	0.0169
	06/04/96		NOT SAMPLED			
	10/09/96	0.2247	0.0417	0.0040	0.0058	0.0043
	12/31/96		NOT SAMPLED			
MW-4	01/17/95	0.0530	0.3910	0.0082	0.0290	0.2040
	04/11/95	0.0468	0.4290	0.0052	0.0112	0.0104
	08/24/95	0.0309	0.0051	0.0049	0.0012	0.0065
	11/12/95	0.0350	0.0030	0.0050	0.0009	0.0068
	03/05/96	0.0315	0.0500	0.0056	ND	0.0083
	06/04/96	0.0350	0.0010	0.0033	0.0033	0.0070
	10/09/96	0.0330	0.0009	0.0021	0.0022	0.0012
	12/31/96	0.0270	0.0035	0.0014	0.0017	0.0016
MW-5	01/17/95	0.0550	0.0028	ND	ND	ND
	04/11/95	0.0657	0.0031	ND	ND	ND
	08/24/95	0.0477	ND	ND	0.0002	0.0010
	11/12/95	0.0458	0.0037	0.0004	0.0008	0.0011
	03/05/96	0.0529	0.0020	0.0004	0.0006	0.0012
	06/04/96	0.0472	0.0003	ND	0.0002	ND
	10/09/96	0.0486	0.0006	ND	ND	ND
	12/31/96	0.0479	0.0048	ND	0.0002	0.0011

TABLE 2
SUMMARY OF LABORATORY ANALYSIS DATA
THRIFTWAY REFINERY
BLOOMFIELD, NEW MEXICO
CONCENTRATIONS IN mg/L

Well No.	Date	MTBE	Benzene	Toluene	Ethylbenzen	Xylenes
MW-6	01/20/95	0.0195	0.0009	0.0050	0.0014	0.0054
	04/12/95	0.0211	0.0270	0.0181	0.0026	0.0102
	08/24/95	0.0266	0.0029	0.0013	0.0002	0.0016
	11/12/95	0.0280	0.0018	0.0021	0.0006	0.0012
	03/05/96	0.0009	0.0002	ND	ND	ND
	06/04/96	0.0083	0.0010	0.0025	0.0002	0.0008
	10/09/96	0.0335	0.0019	0.0037	0.0032	0.0013
	12/31/96	0.0009	0.0003	0.0054	0.0009	0.0011
MW-7	01/20/95	0.0680	0.1760	0.1250	0.0500	0.4330
	04/12/95		FREE PRODUCT FOUND IN WELL			
	08/24/95		FREE PRODUCT FOUND IN WELL			
	11/12/95		FREE PRODUCT FOUND IN WELL			
	03/05/96		FREE PRODUCT FOUND IN WELL			
	05/31/96		FREE PRODUCT FOUND IN WELL			
	10/09/96		FREE PRODUCT FOUND IN WELL			
	12/31/96		FREE PRODUCT FOUND IN WELL			
MW-8	01/17/95	0.0750	0.0022	0.0004	ND	0.0003
	04/11/95	0.0876	0.0013	ND	0.0003	0.0017
	08/24/95		DRY			
	11/12/95		DRY			
	03/05/96		DRY			
	06/03/96		SILTED IN TO 3.80 FEET BELOW GRADE			
	10/09/96		SILTED IN TO 3.80 FEET BELOW GRADE			
	12/31/96	0.0358	ND	ND	ND	ND
MW-9	01/17/95	0.0469	0.0483	ND	ND	ND
	04/11/95	0.0400	0.0558	ND	0.0003	0.0005
	08/24/95	0.0710	0.0710	ND	ND	0.0005
	11/12/95	0.0358	0.0013	0.0082	0.0020	0.0136
	03/05/96	0.0168	0.0008	0.0003	0.0011	0.0013
	06/03/96	0.0158	0.0004	ND	ND	ND
	10/09/96	0.0165	ND	ND	ND	ND
	12/31/96	0.0072	ND	ND	ND	ND
MW-10	01/17/95	0.0003	ND	ND	ND	ND
	04/11/95	ND	0.0015	ND	ND	0.0003
	08/24/95	0.0011	0.0042	0.0020	0.0051	0.0141
	11/12/95	ND	ND	0.0026	0.0006	0.0051
	03/05/96	ND	0.0010	ND	0.0009	0.0004
	06/03/96	ND	ND	ND	ND	ND
	10/09/96	ND	ND	ND	ND	ND
	12/31/96	ND	ND	ND	ND	ND

TABLE 2
SUMMARY OF LABORATORY ANALYSIS DATA
THRIFTWAY REFINERY
BLOOMFIELD, NEW MEXICO
CONCENTRATIONS IN mg/L

Well No.	Date	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes
MW-11	01/17/95	ND	ND	ND	ND	ND
	04/11/95	ND	ND	ND	0.0002	0.0005
	08/24/95	ND	0.0017	ND	0.0008	0.0024
	11/12/95	ND	0.0005	0.0017	0.0005	0.0042
	03/05/96	ND	ND	ND	ND	0.0003
	06/03/96	ND	ND	ND	ND	ND
	10/09/96	ND	ND	ND	ND	ND
	12/31/96	ND	ND	ND	ND	ND
MW-12	01/17/95	FREE PRODUCT FOUND IN WELL				
	04/11/95	FREE PRODUCT FOUND IN WELL				
	08/24/95	FREE PRODUCT FOUND IN WELL				
	11/12/95	FREE PRODUCT FOUND IN WELL				
	03/05/96	FREE PRODUCT FOUND IN WELL				
	05/31/96	FREE PRODUCT FOUND IN WELL				
	10/09/96	FREE PRODUCT FOUND IN WELL				
	12/31/96	FREE PRODUCT FOUND IN WELL				
MW-13	01/20/95	ND	ND	ND	ND	0.0002
	04/11/95	ND	ND	ND	ND	ND
	08/24/95	0.0003	ND	ND	ND	ND
	11/12/95	ND	0.0021	0.0060	0.0024	0.0209
	03/05/96	ND	ND	ND	ND	0.0005
	06/04/96	ND	ND	ND	ND	ND
	10/09/96	ND	ND	ND	ND	ND
	12/30/96	ND	ND	ND	ND	ND
MW-14	01/20/95	FREE PRODUCT FOUND IN WELL				
	04/11/95	FREE PRODUCT FOUND IN WELL				
	08/24/95	FREE PRODUCT FOUND IN WELL				
	11/12/95	FREE PRODUCT FOUND IN WELL				
	03/05/96	FREE PRODUCT FOUND IN WELL				
	05/31/96	FREE PRODUCT FOUND IN WELL				
	10/09/96	0.1037	7.6988	0.3617	2.1077	2.9178
	12/30/96	0.0948	6.6735	0.1794	0.8573	0.9405
MW-15	01/17/95	ND	ND	ND	ND	ND
	04/11/95	ND	ND	ND	ND	ND
	08/24/95	ND	ND	ND	ND	0.0005
	11/12/95	ND	0.0003	0.0027	0.0004	0.0032
	03/05/96	ND	0.0016	0.0004	0.0038	0.0035
	06/03/96	ND	ND	ND	ND	ND
	10/09/96	ND	ND	ND	0.0002	ND
	12/30/96	ND	ND	ND	ND	ND

TABLE 2
SUMMARY OF LABORATORY ANALYSIS DATA
THRIFTWAY REFINERY
BLOOMFIELD, NEW MEXICO
CONCENTRATIONS IN mg/L

Well No.	Date	MTBE	Benzene	Toluene	Ethylbenzen	Xylenes
MW-16	01/20/95	0.0003	ND	ND	0.0005	0.0005
	04/11/95	ND	ND	ND	0.0003	0.0008
	08/24/95	ND	ND	ND	0.0007	0.0016
	11/12/95	ND	ND	0.0005	0.0019	0.0127
	03/05/96	ND	ND	ND	0.0006	0.0016
	06/04/96	NOT SAMPLED				
	10/09/96	ND	ND	ND	0.0003	ND
	12/30/96	ND	ND	ND	ND	ND
MW-17	01/20/95	FREE PRODUCT FOUND IN WELL				
	04/11/95	FREE PRODUCT FOUND IN WELL				
	08/24/95	FREE PRODUCT FOUND IN WELL				
	11/12/95	FREE PRODUCT FOUND IN WELL				
	03/05/96	FREE PRODUCT FOUND IN WELL				
	06/04/96	FREE PRODUCT FOUND IN WELL				
	10/09/96	FREE PRODUCT FOUND IN WELL				
	12/30/96	FREE PRODUCT FOUND IN WELL				
MW-18	01/17/95	0.0433	0.0920	0.0032	0.0131	0.0957
	04/11/95	0.0300	0.0766	0.0014	0.0041	0.0122
	08/24/95	0.0357	0.1780	0.0030	0.0155	0.0098
	11/12/95	0.0337	0.3140	0.0062	0.0326	0.1667
	03/05/96	0.0530	0.0068	0.0024	0.0018	0.0141
	06/04/96	0.0368	0.1364	0.0025	0.0066	0.0047
	10/09/96	0.0319	0.0601	0.0011	0.0015	0.0007
	12/31/96	0.0431	0.1760	0.0019	0.0013	0.0007
MW-19	01/17/95	0.0159	0.0083	0.0037	0.1460	0.3364
	04/11/95	0.0079	0.0055	0.0016	0.1390	0.3020
	08/24/95	0.0320	0.0074	0.0027	0.0680	0.1251
	11/12/95	0.0630	0.0177	0.0060	0.2010	0.3520
	03/05/96	0.0806	0.0061	0.0028	0.0249	0.0553
	06/04/96	0.0805	0.0153	0.0028	0.0929	0.1505
	10/09/96	0.0111	0.0014	0.0030	0.0395	0.0580
	12/30/96	0.0657	0.0179	0.0035	0.0430	0.0625
MW-20	01/17/95	0.1090	0.0065	0.0173	0.0211	0.0600
	04/11/95	0.1370	0.0016	0.0058	0.0021	0.0120
	08/24/95	0.1040	0.0003	0.0067	0.0023	0.0106
	11/12/95	0.1390	0.0043	0.0152	0.0059	0.0089
	03/05/96	0.1334	0.0036	0.0168	0.0033	0.0218
	06/03/96	0.1063	0.0014	0.0038	0.0008	0.0014
	10/09/96	0.0733	0.0025	0.0115	0.0075	0.0044
	12/31/96	0.0533	0.0027	0.0143	0.0095	0.0057

TABLE 2
SUMMARY OF LABORATORY ANALYSIS DATA
THRIFTWAY REFINERY
BLOOMFIELD, NEW MEXICO
CONCENTRATIONS IN mg/L

Well No.	Date	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes
MW-21	01/17/95	0.0392	0.0510	0.0080	0.0410	0.0663
	04/11/95	0.0626	0.0034	0.0012	0.0005	0.0016
	08/24/95	0.0700	0.0050	0.0006	0.0004	0.0010
	11/12/95	0.0610	0.0006	0.0007	ND	0.0007
	03/05/96	0.0820	0.0060	0.0020	0.0293	0.0061
	06/03/96	0.0821	0.0004	0.0003	0.0011	0.0009
	10/09/96	0.0460	0.0007	ND	0.0005	0.0003
	12/31/96	0.0513	ND	ND	0.0005	0.0002
MW-22	01/17/95	0.0408	ND	ND	ND	ND
	04/11/95	0.0353	ND	ND	ND	ND
	08/24/95	0.0256	ND	ND	ND	0.0004
	11/12/95	0.0250	0.0007	0.0008	0.0002	0.0008
	03/05/96	0.0367	ND	ND	0.0002	0.0004
	06/03/96	0.0253	ND	ND	ND	0.0004
	10/09/96	0.0229	ND	ND	ND	ND
	12/31/96	0.0221	ND	ND	ND	ND
MW-23	01/20/95		DRY			
	04/12/95		DRY			
	08/24/95		DRY			
	11/12/95		DRY			
	03/05/96		DRY			
	06/04/96		NOT SAMPLED			
	10/09/96		NOT SAMPLED			
	12/31/96		NOT SAMPLED			
MW-24	10/09/96	0.0256	0.2317	0.1441	0.1225	0.9888
	12/31/96		NOT SAMPLED			
MW-25	01/20/95		NOT SAMPLED			
	04/12/95	0.0753	0.2450	0.0015	0.0036	0.0233
	08/24/95	0.1000	1.6410	0.0153	0.1080	0.1610
	11/12/95	0.0660	1.2070	1.9790	0.3980	2.4700
	03/05/96		DRY			
	06/04/96		NOT SAMPLED			
	10/09/96	0.0010	0.0399	0.0113	0.0074	0.0143
	12/31/96		NOT SAMPLED			
INFLUENT	06/22/94		PUMP SHUT DOWN			
	09/20/94	0.0500	9.6700	0.7540	0.1580	0.6330
	01/20/95		NOT SAMPLED			
	04/12/95	0.0245	2.0600	0.9870	0.2460	1.6890
	03/05/96	0.1550	6.9900	3.5700	1.3000	6.6800
	06/04/96	0.0950	4.6077	1.7947	0.5238	2.5540
	10/09/96	0.0132	3.1160	1.3322	0.5042	1.5880
	12/31/96		SYSTEM SHUT DOWN			
	03/24/97	NM	2.1100	1.0110	0.0470	1.2790
	04/02/97	NM	1.4360	0.6500	0.3610	1.2790

TABLE 2
SUMMARY OF LABORATORY ANALYSIS DATA
THRIFTWAY REFINERY
BLOOMFIELD, NEW MEXICO
CONCENTRATIONS IN mg/L

Well No.	Date	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes
EFFLUENT	06/22/94		BLOWER SHUT DOWN			
NOTE	09/20/94	ND	0.0093	0.0009	ND	0.0007
SAVE	01/20/95		NOT SAMPLED			
ALL	04/12/95	0.0075	0.0975	0.3630	0.2780	2.6390
RESULTS	11/12/95	0.0032	0.0339	0.0123	0.0089	0.0481
FROM	03/05/95	0.0070	0.0500	0.0212	0.0071	0.0434
LAB	06/04/96	0.0035	0.0024	0.0007	0.0009	0.0038
FOR THE	07/18/96	0.0074	0.0626	0.0437	0.0131	0.0889
STRIPPER	10/09/96	0.0012	0.0037	ND	0.0014	0.0044
OUTLET	12/31/96		SYSTEM SHUT DOWN			
	03/24/97	NM	0.0034	0.0019	0.0009	0.0027
	04/02/97	NM	0.0054	0.0026	0.0014	0.0048
	04/03/97	NM	0.0000	0.0000	ND	ND
	04/04/97	NM	ND	0.0000	ND	0.0001
	04/10/97	NM	0.0001	0.0000	0.0000	0.0001
	04/18/97	0.0005	0.0004	0.0000	0.0000	0.0001
POND	10/09/96	ND	ND	ND	0.0005	0.0004
	12/31/96		NOT SAMPLED			
NMWQCC	12/24/87	0.0020	0.0010	0.0750	0.0750	0.0620

ND - NON-DETECT

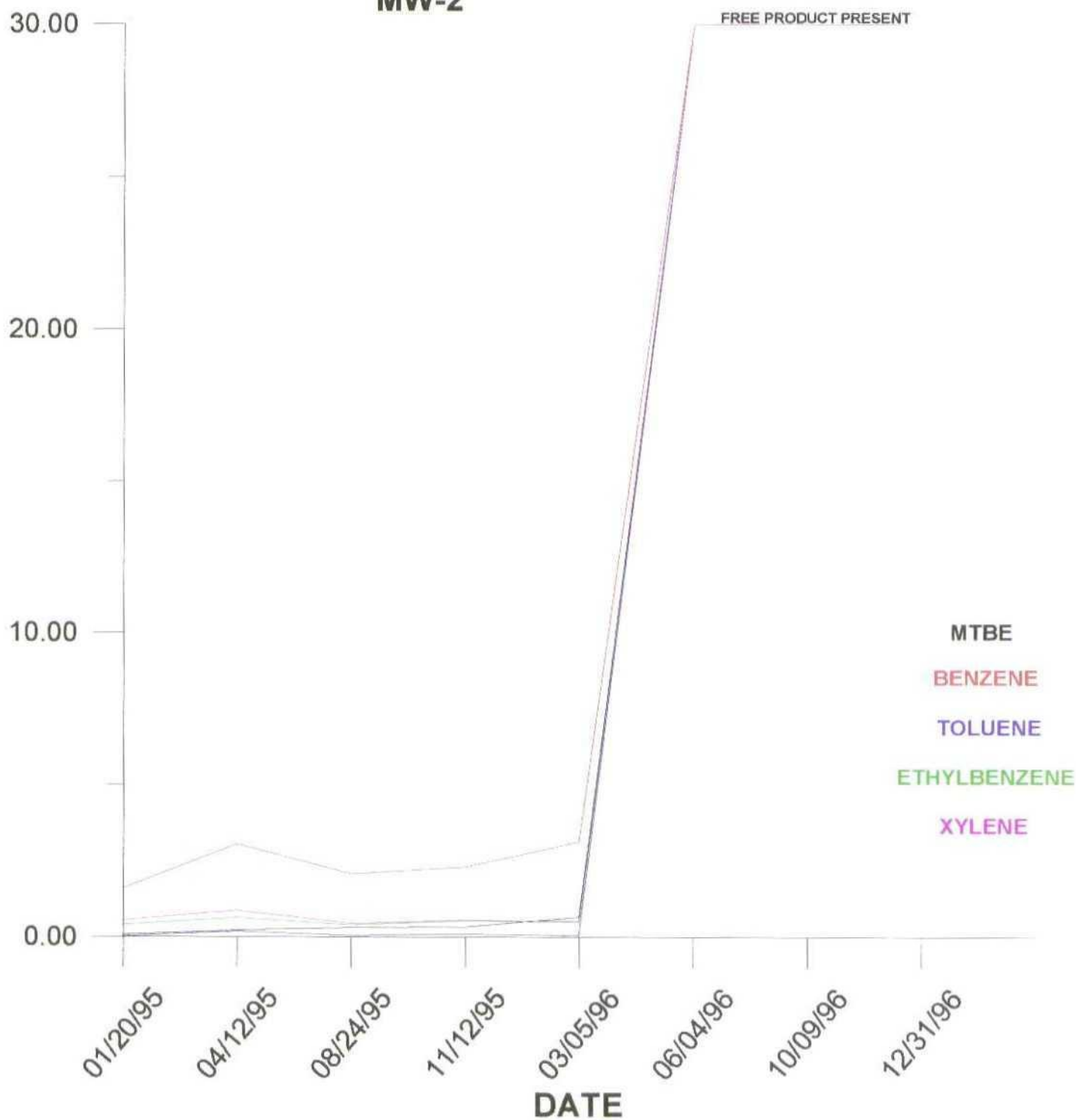
810\QMRTABL2.WK4

GRAPHS

THRIFTWAY REFINERY

MW-2

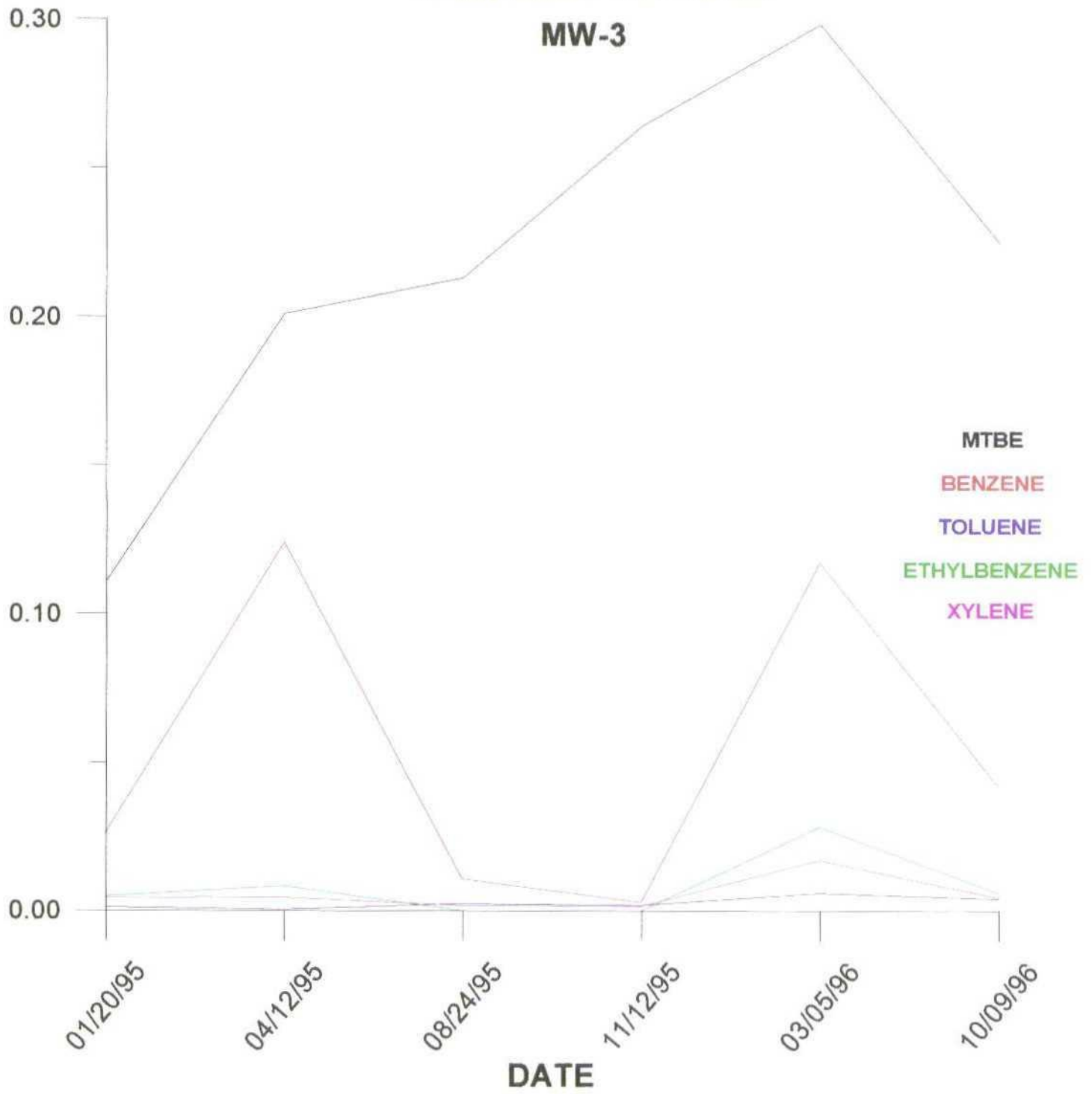
CONCENTRATION (mg/L)



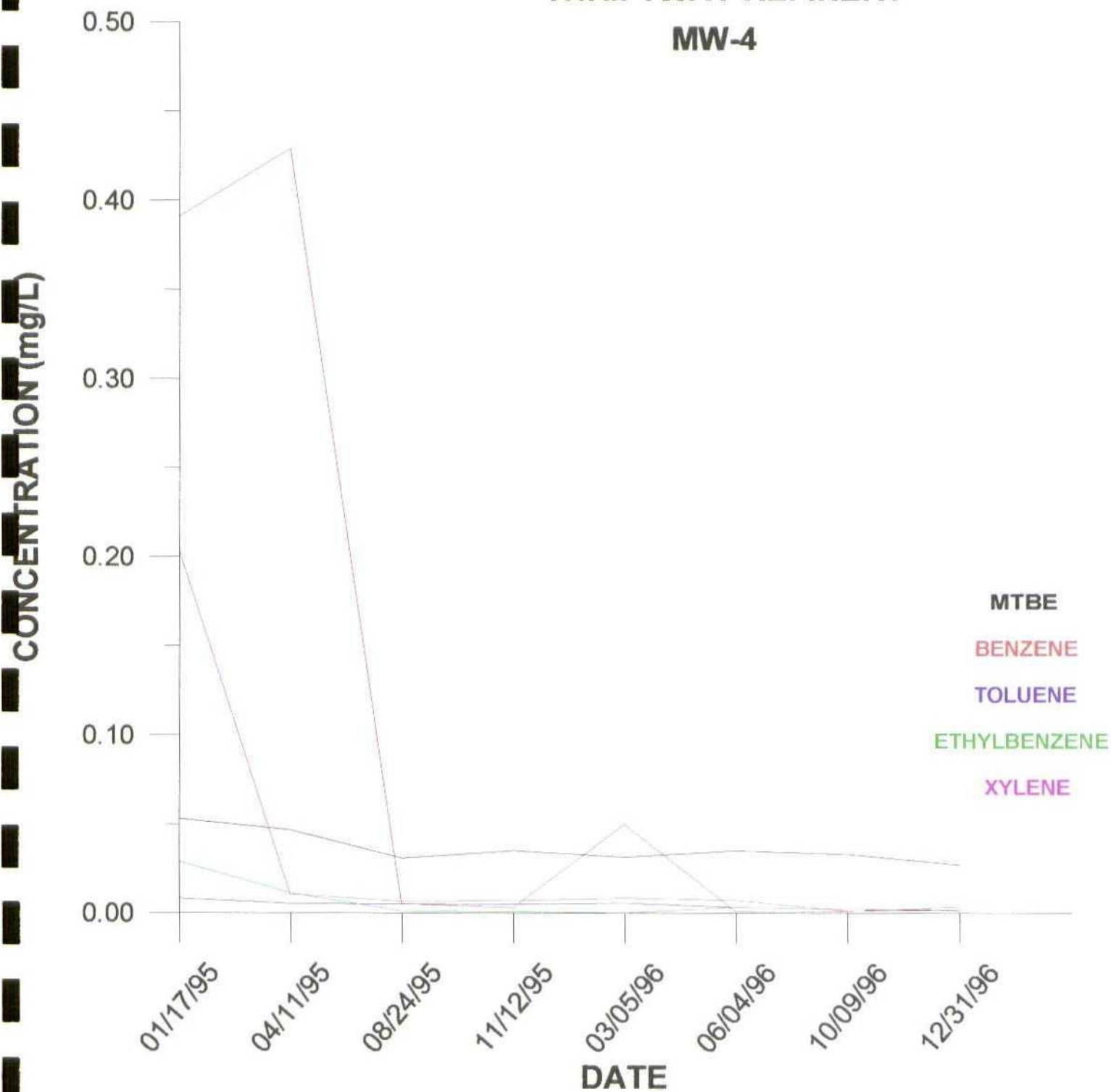
THRIFTWAY REFINERY

MW-3

CONCENTRATION (mg/L)



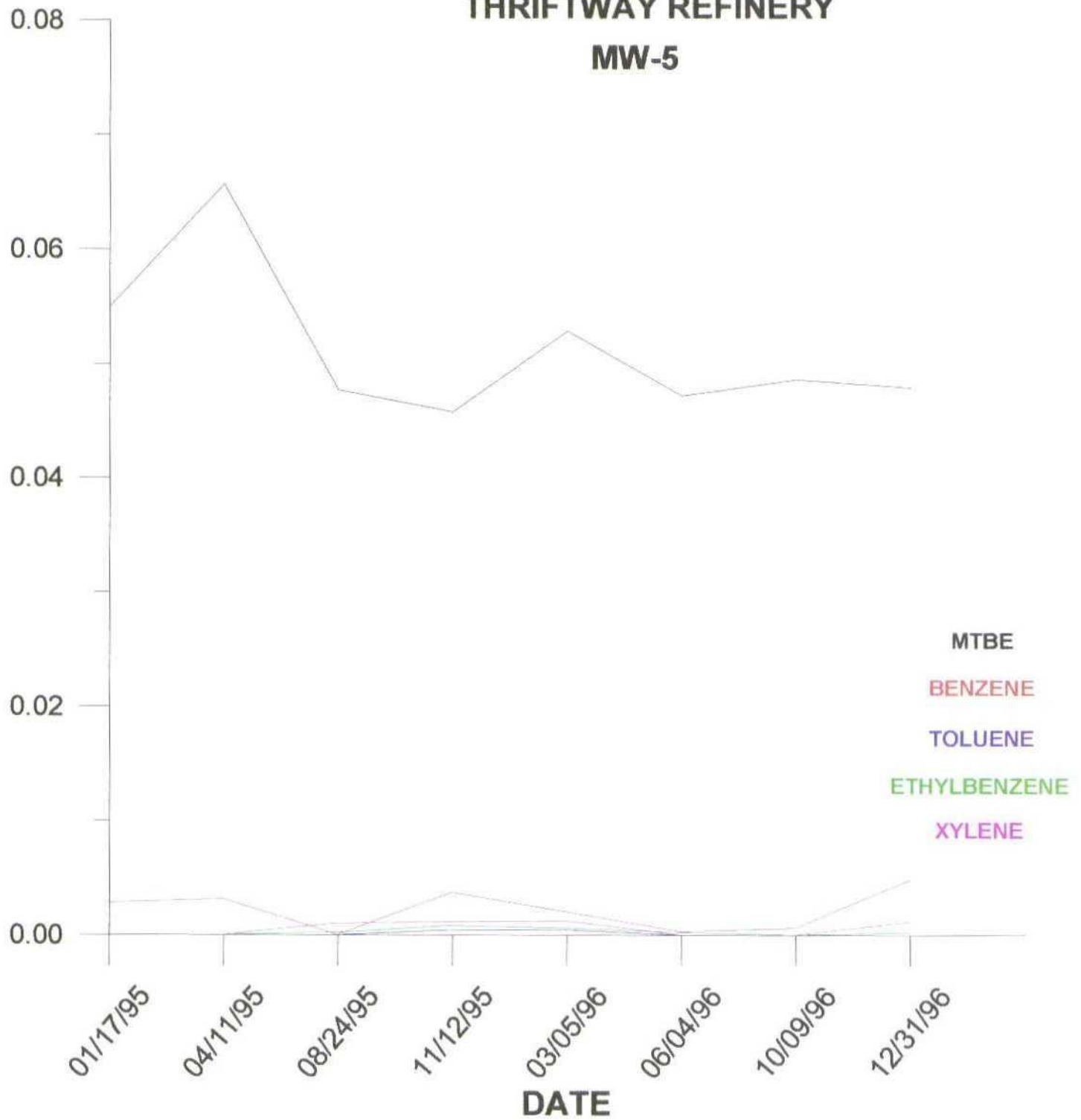
THRIFTWAY REFINERY
MW-4



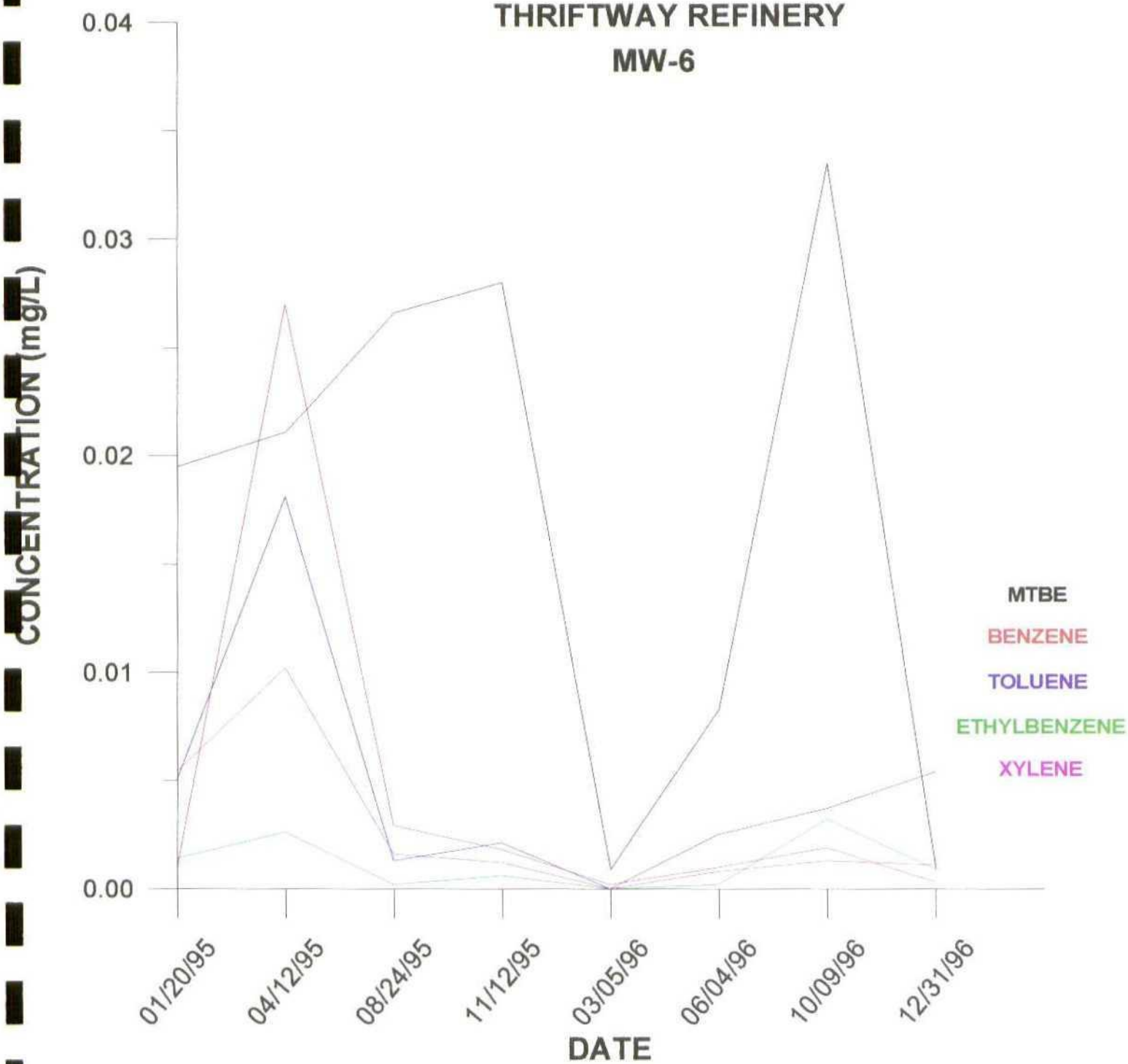
THRIFTWAY REFINERY

MW-5

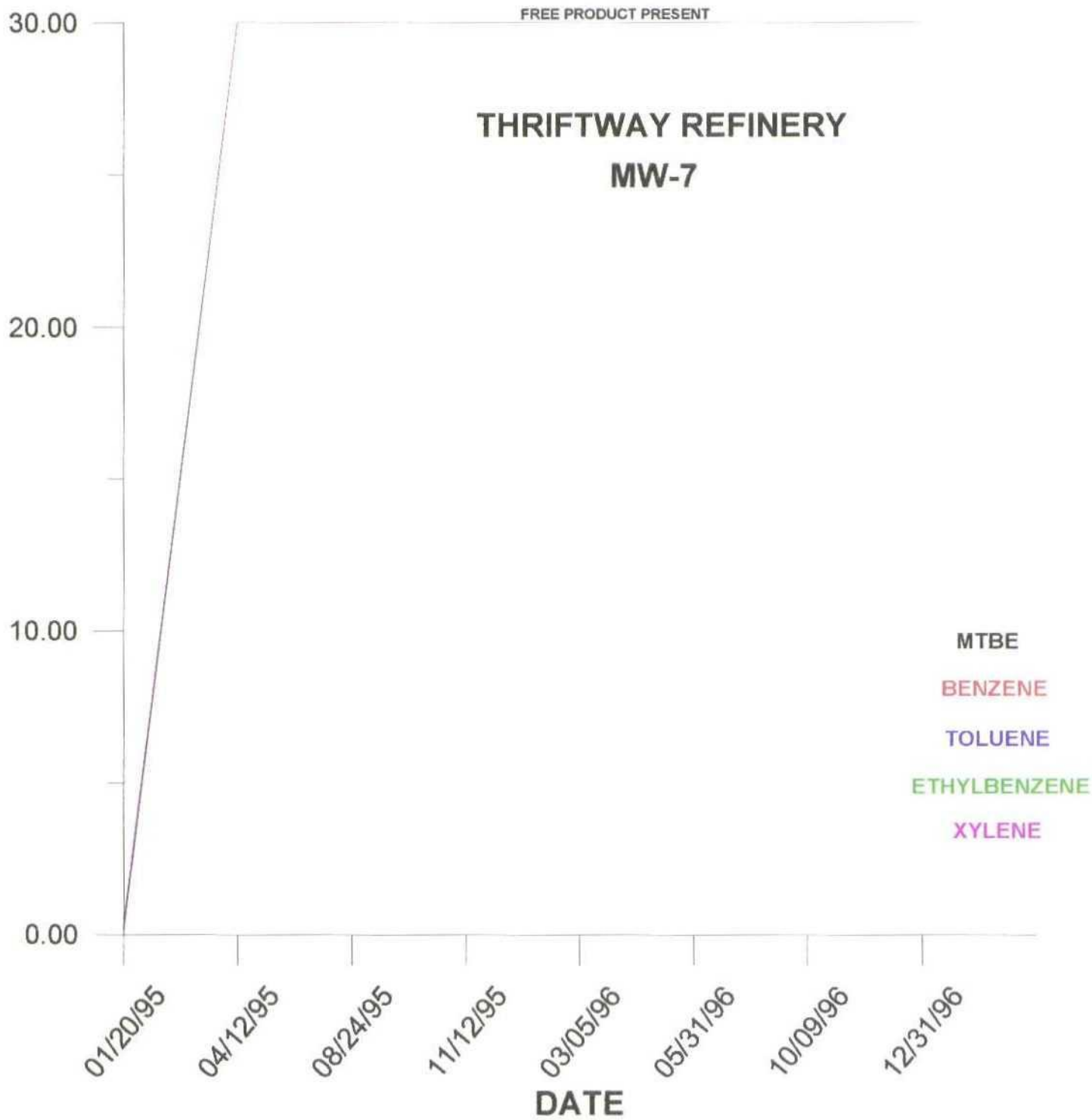
CONCENTRATION (mg/L)



THRIFTWAY REFINERY
MW-6

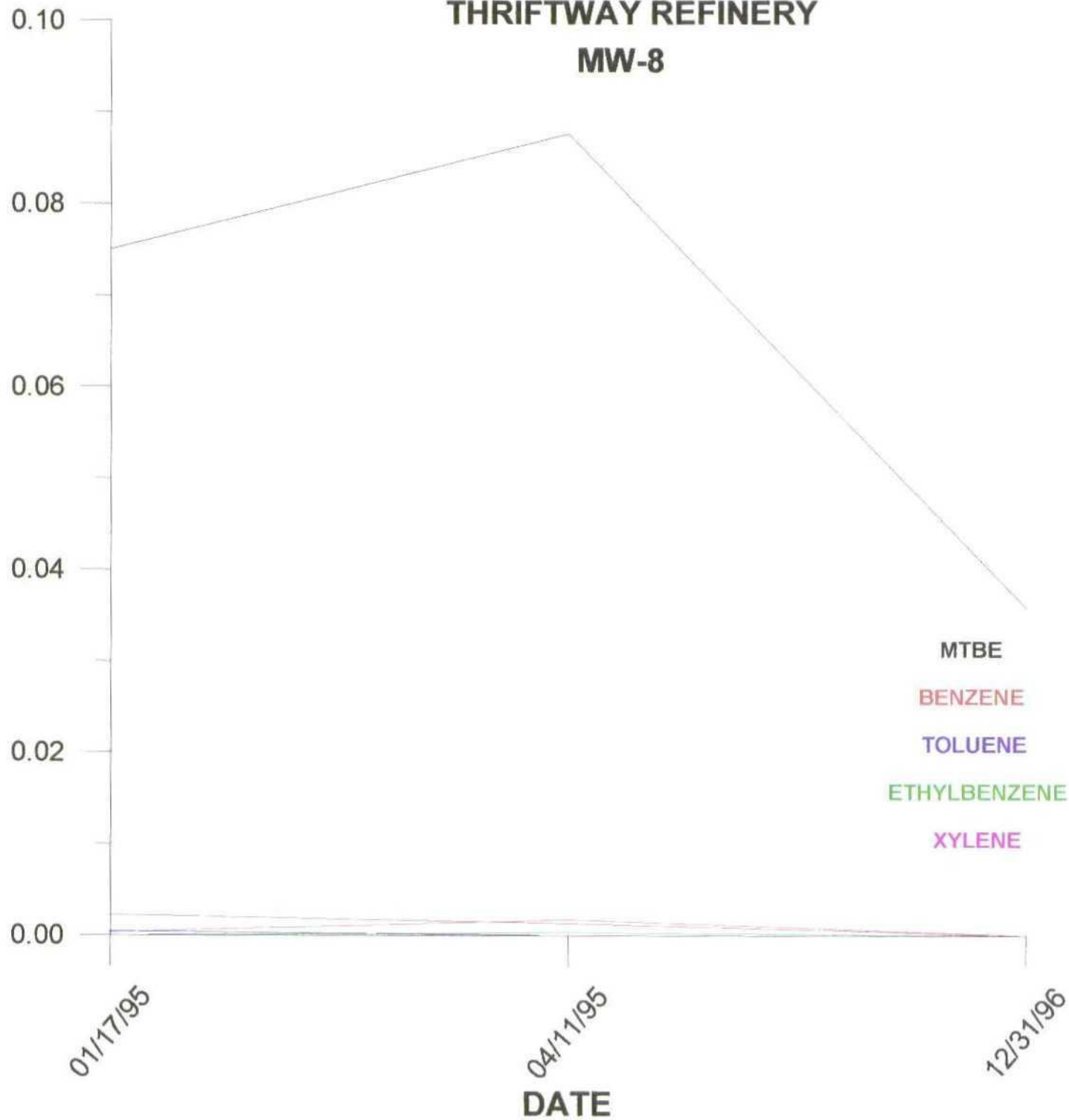


CONCENTRATION (mg/L)

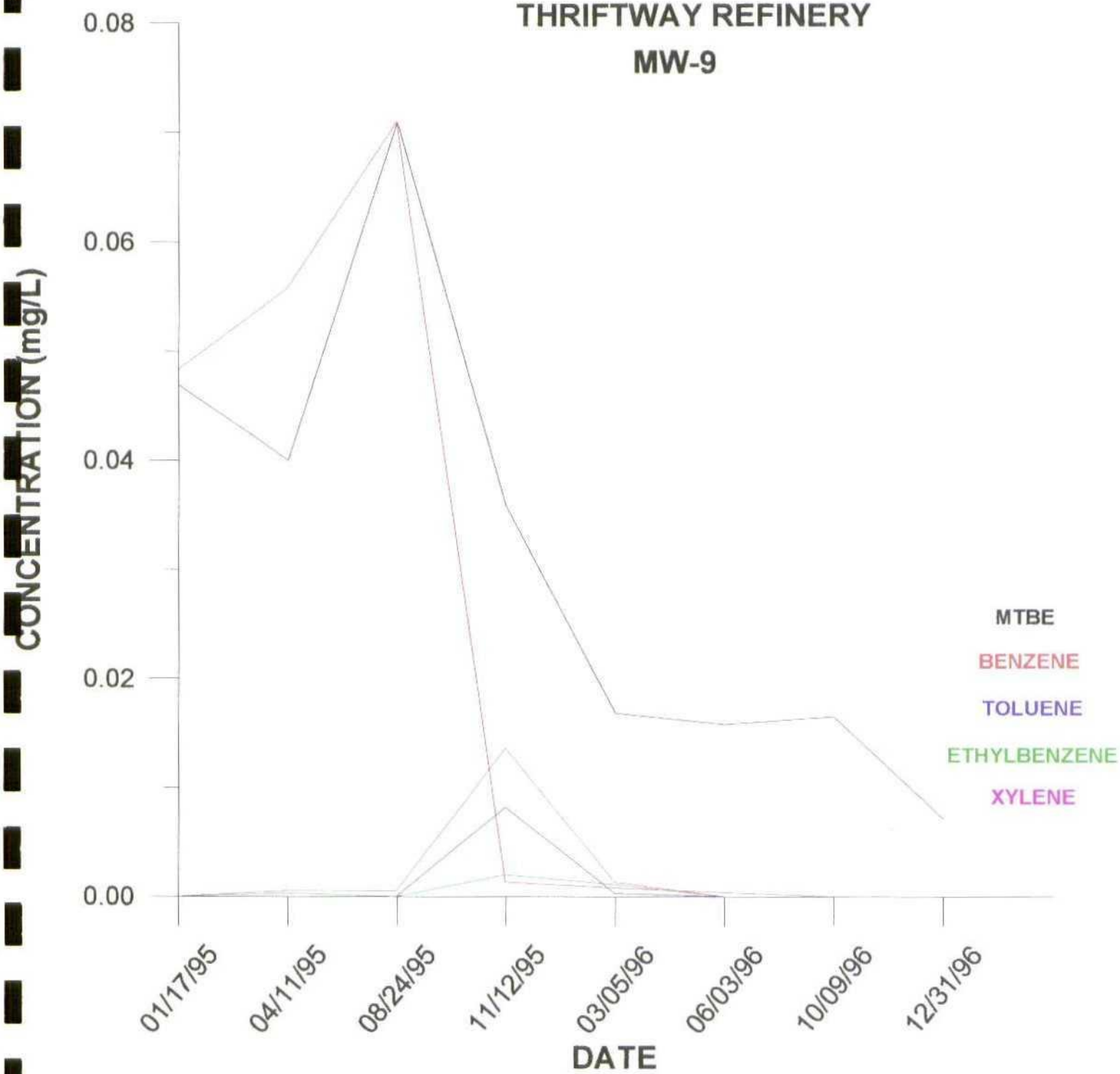


THRIFTWAY REFINERY
MW-8

CONCENTRATION (mg/L)



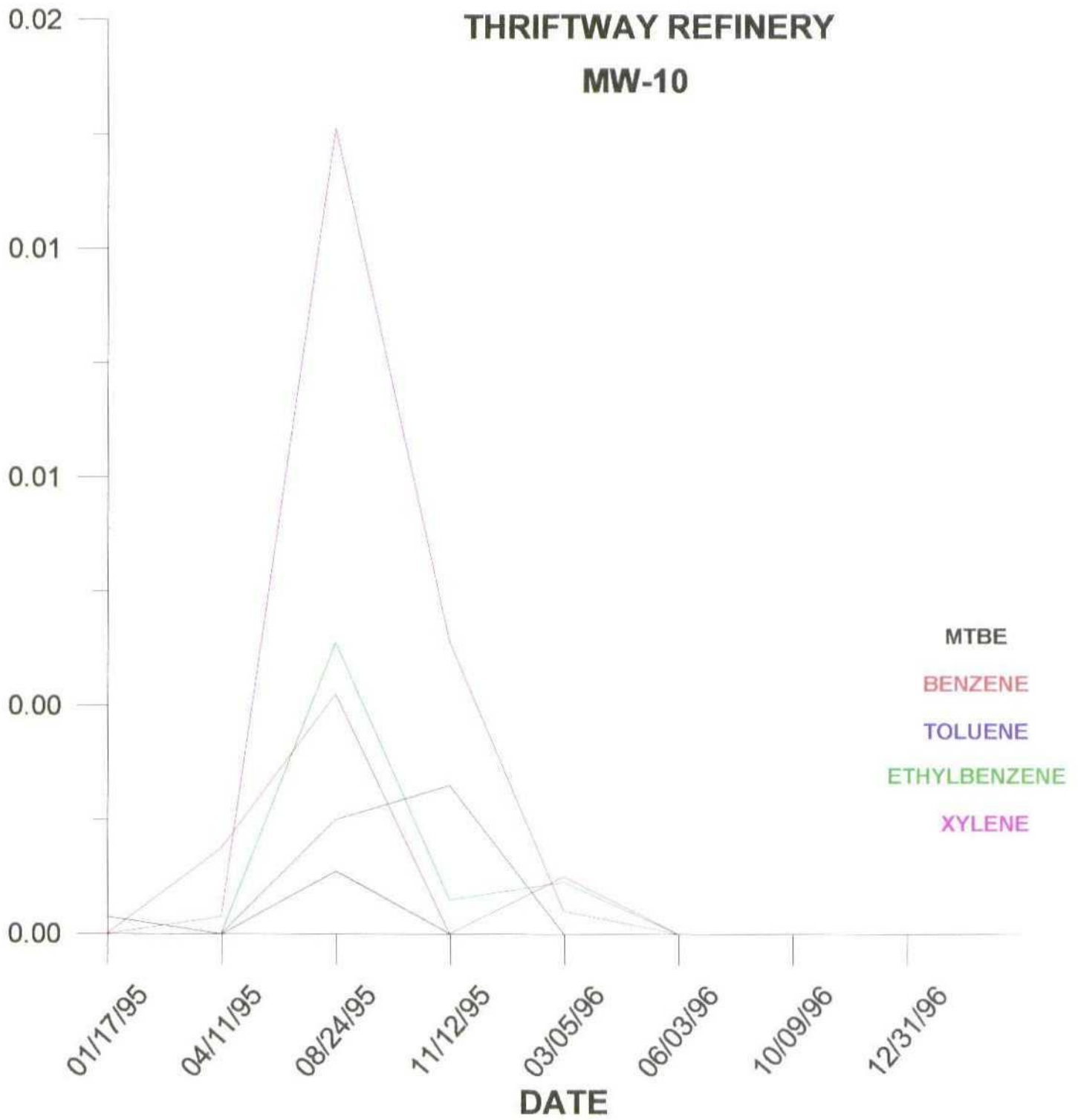
THRIFTWAY REFINERY
MW-9



THRIFTWAY REFINERY

MW-10

CONCENTRATION (mg/L)



THRIFTWAY REFINERY

MW-11

CONCENTRATION (mg/L)

MTBE

BENZENE

TOLUENE

ETHYLBENZENE

XYLENE

0.01

0.00

0.00

0.00

0.00

0.00

01/17/95

04/11/95

08/24/95

11/12/95

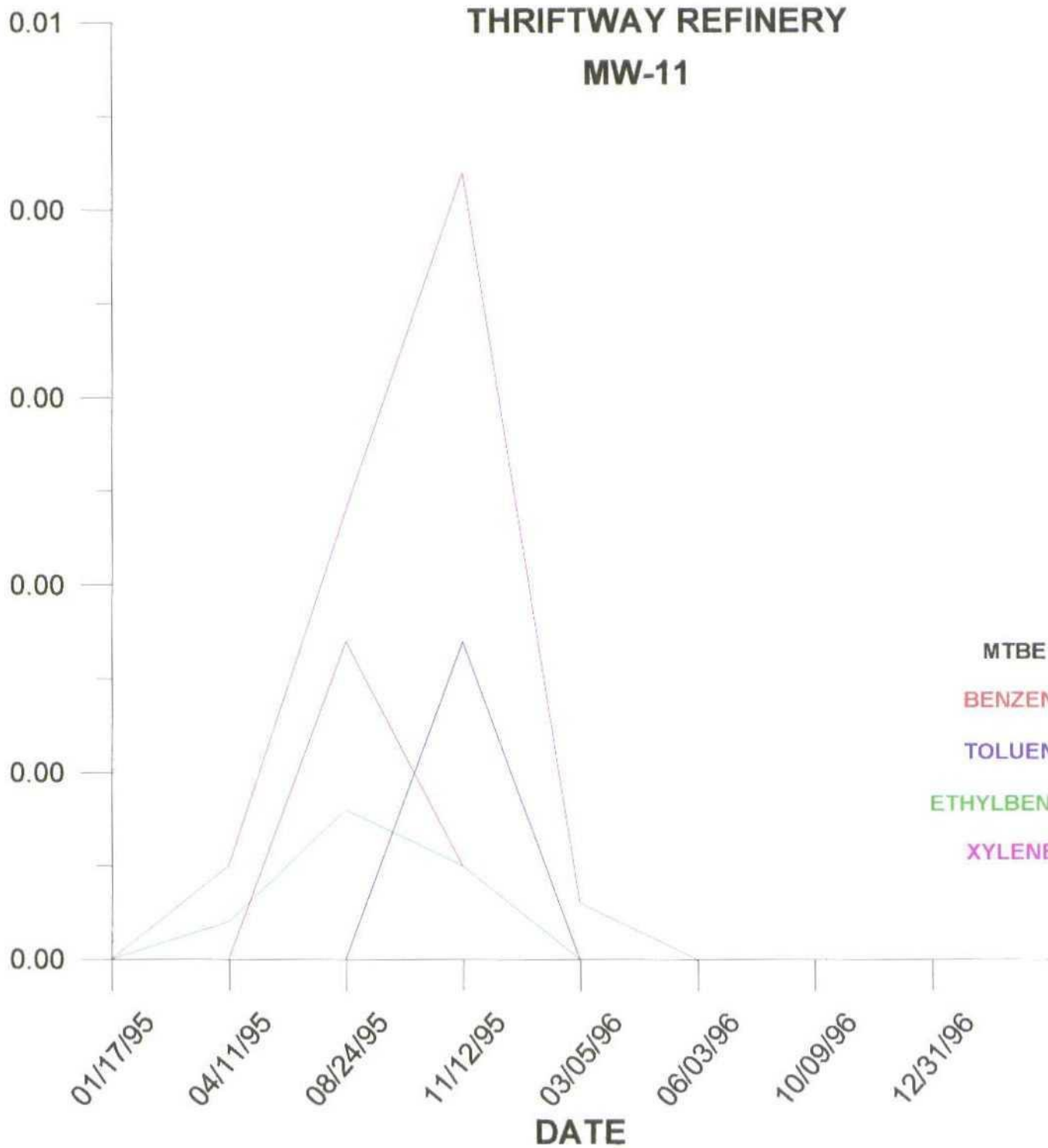
03/05/96

06/03/96

10/09/96

12/31/96

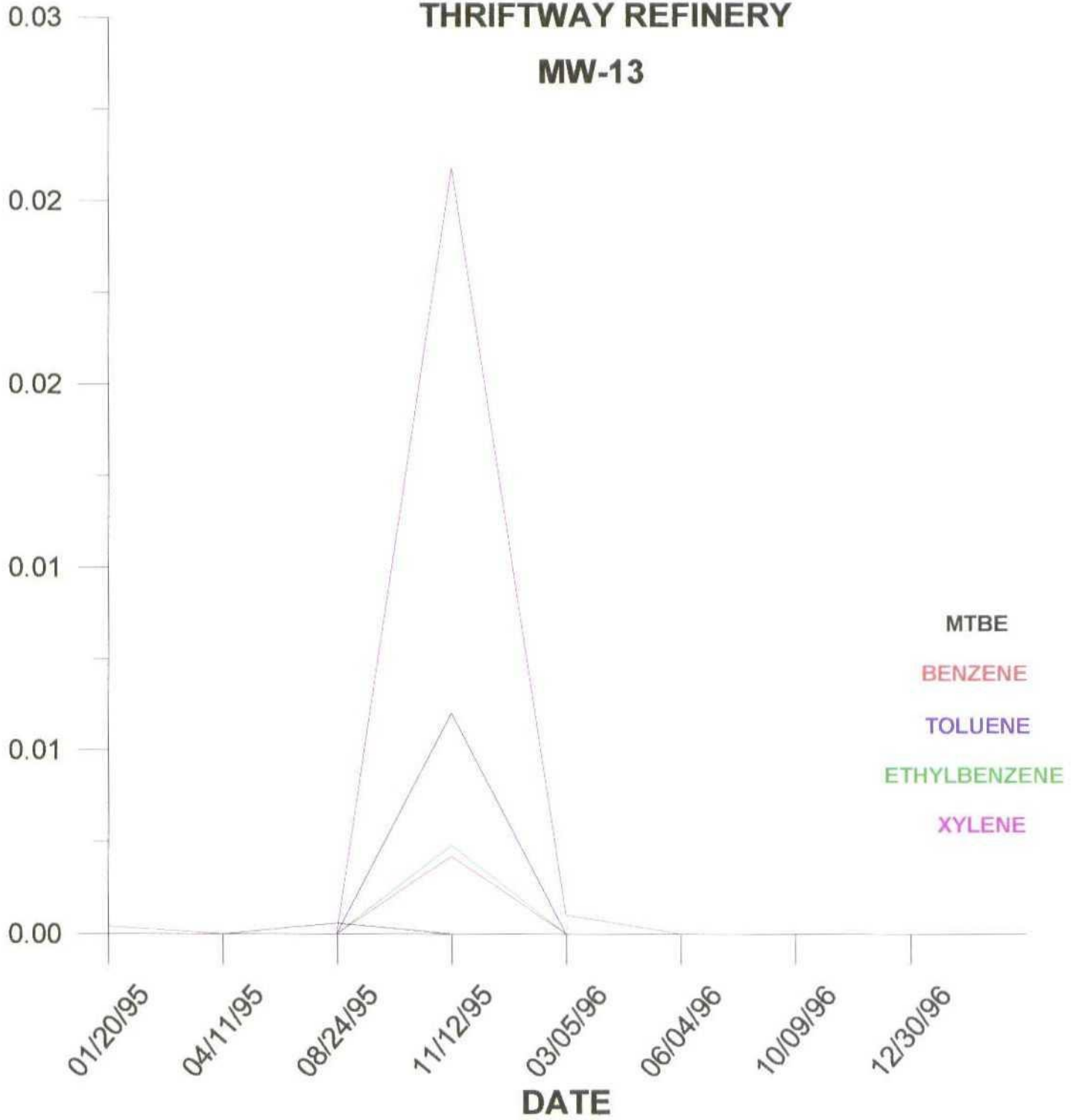
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THRIFTWAY REFINERY

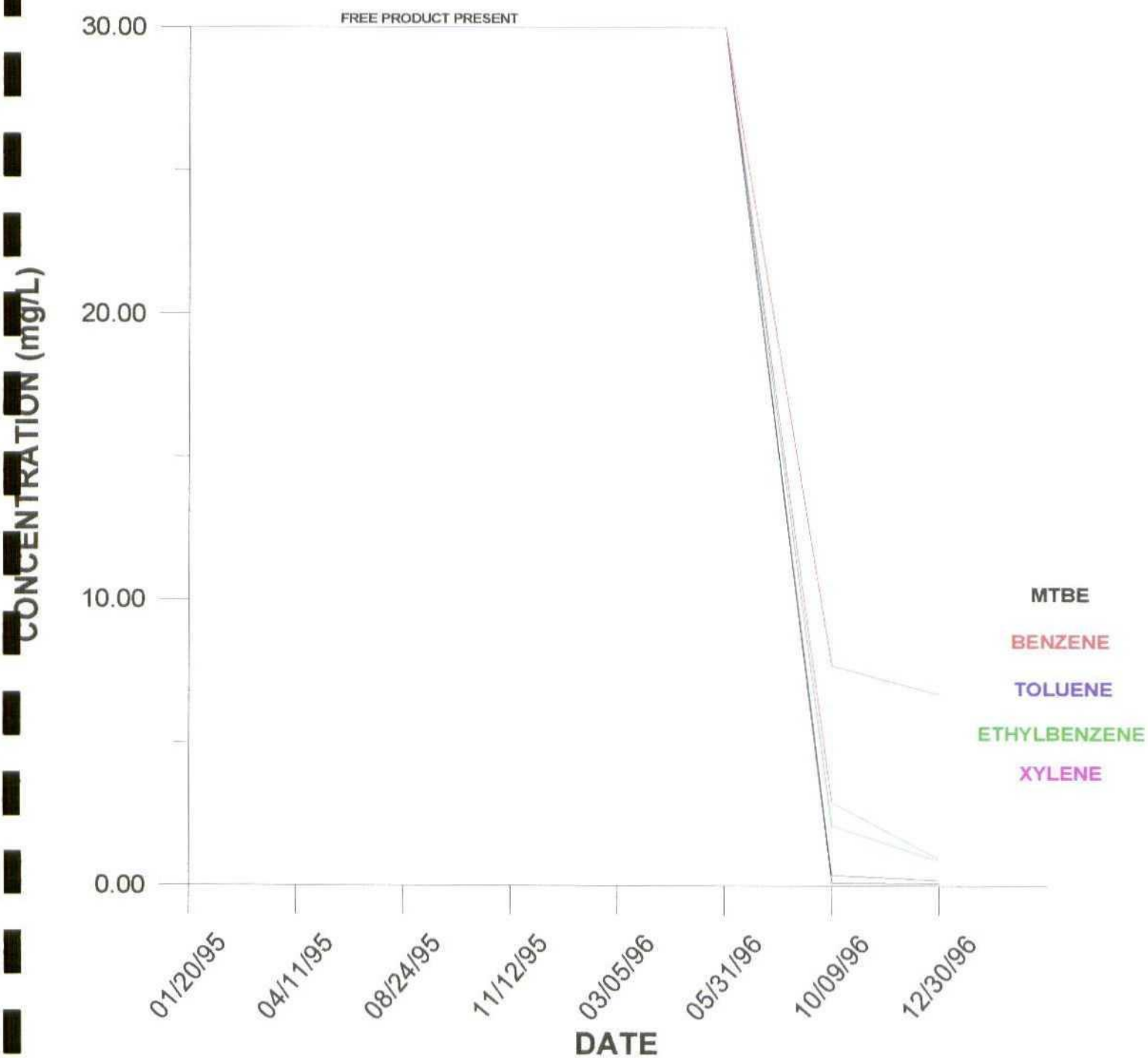
MW-13

CONCENTRATION (mg/L)

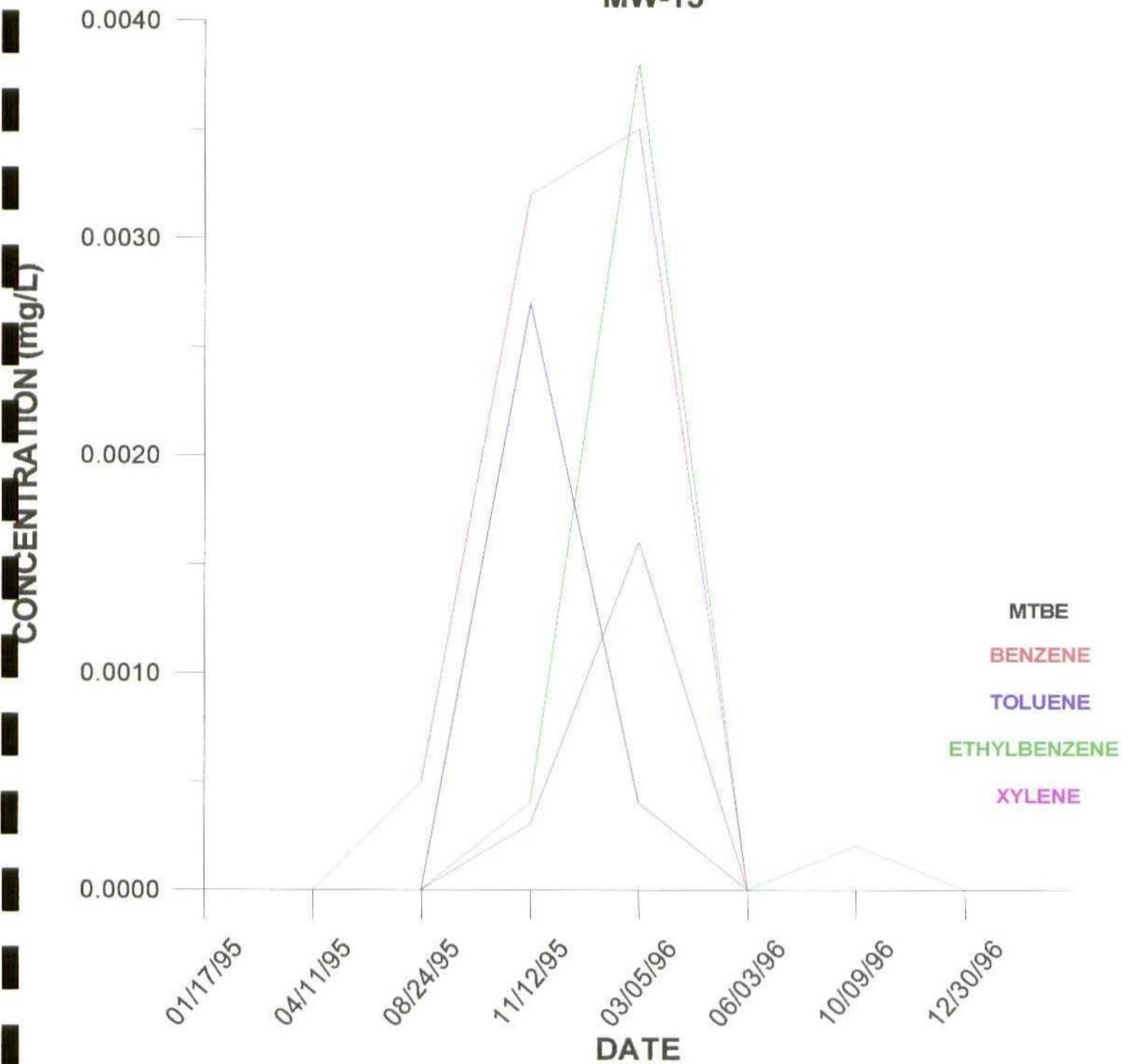


THRIFTWAY REFINERY

MW-14



THRIFTWAY REFINERY
MW-15



THRIFTWAY REFINERY

MW-16

CONCENTRATION (mg/L)

MTBE

BENZENE

TOLUENE

ETHYLBENZENE

XYLENE

0.0160

0.0120

0.0080

0.0040

0.0000

01/20/95

04/11/95

08/24/95

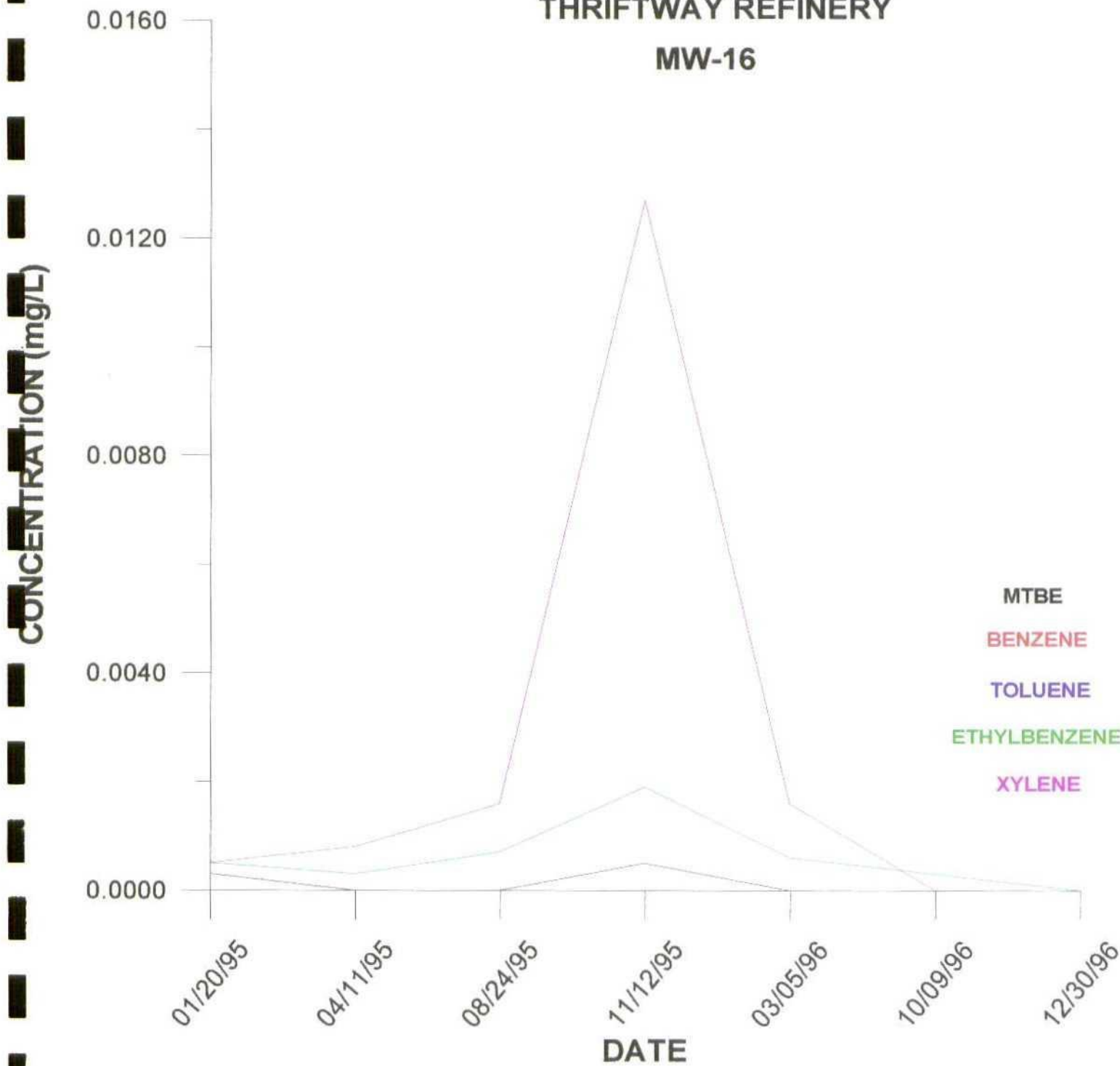
11/12/95

03/05/96

10/09/96

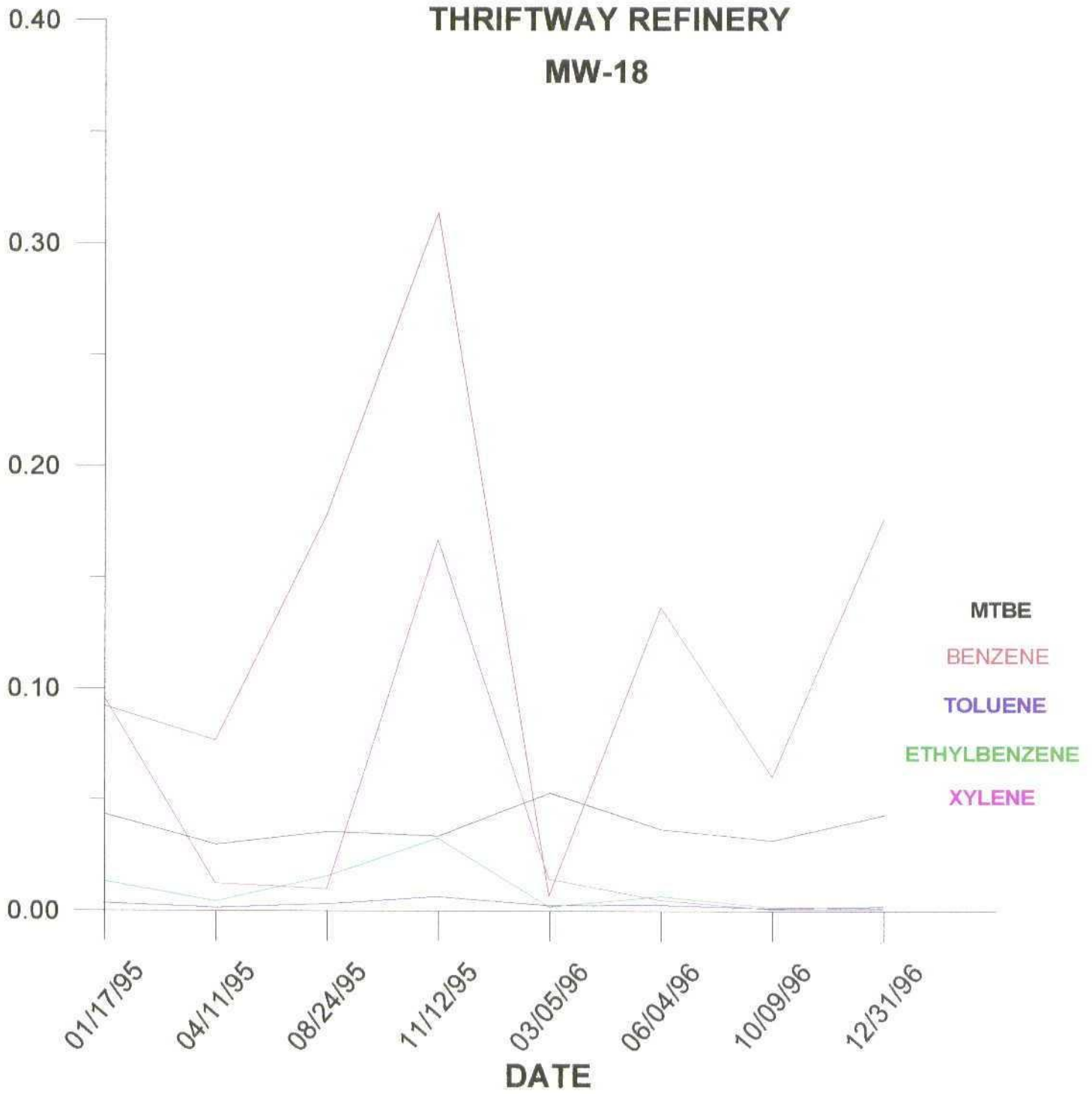
12/30/96

DATE



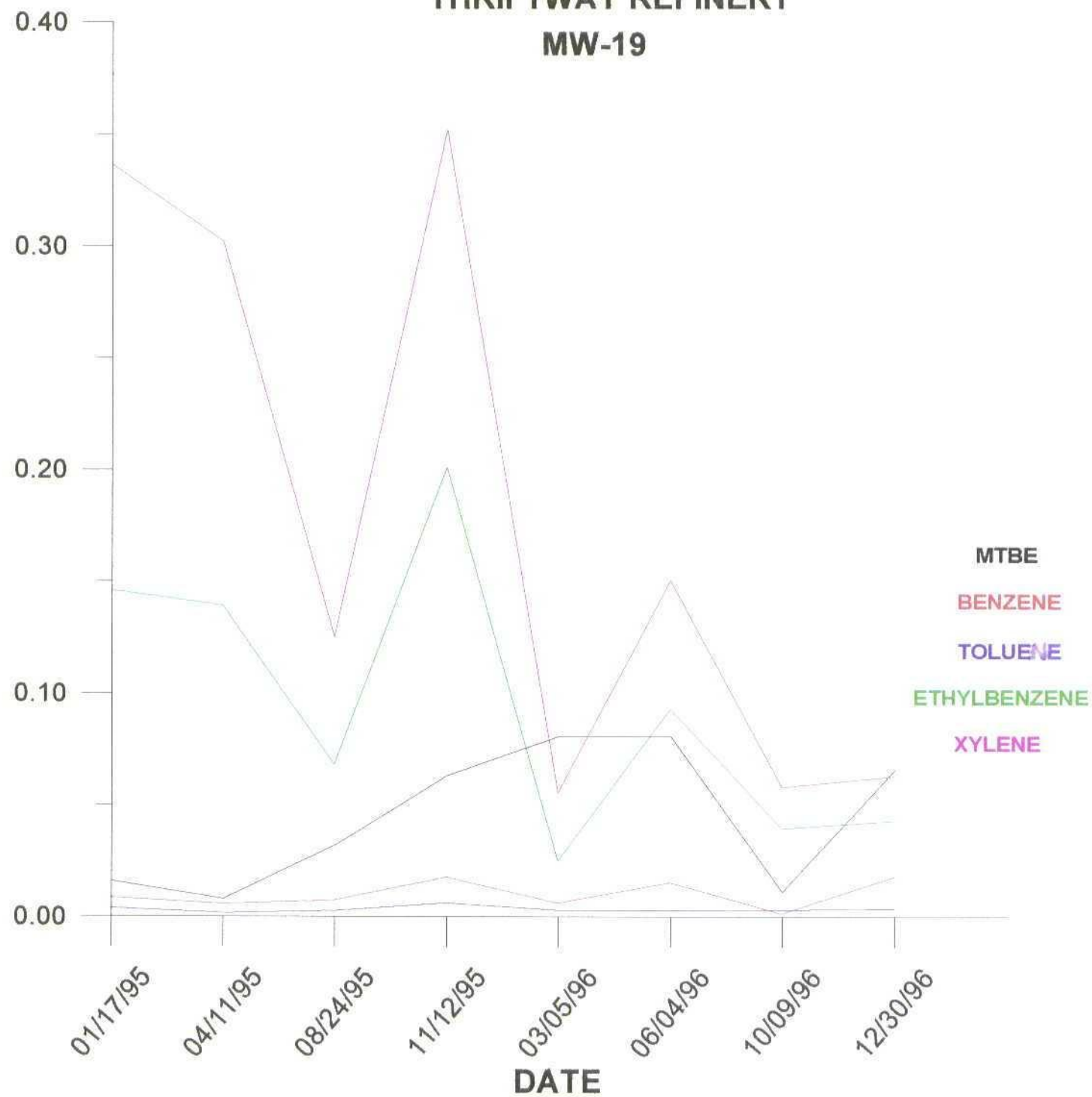
THRIFTWAY REFINERY
MW-18

CONCENTRATION (mg/L)

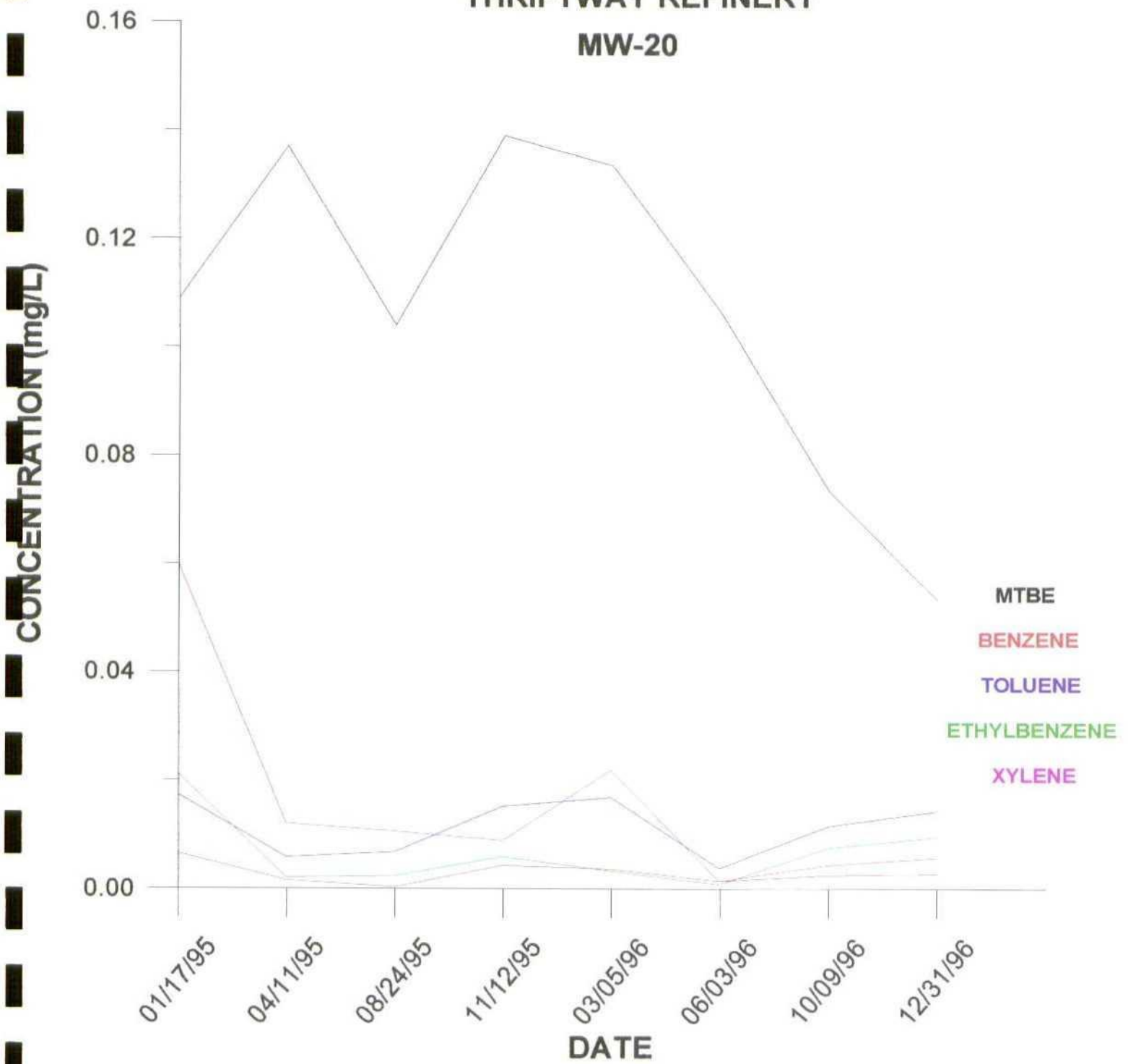


THRIFTWAY REFINERY
MW-19

CONCENTRATION (mg/L)



THRIFTWAY REFINERY
MW-20



APPENDIX A

OFF: (505) 325-8786



LAB: (505) 325-5667

JUL 15 1996

A small, handwritten signature or initials in the top right corner of the page.

AROMATIC VOLATILE ORGANICS

Attn: *Terry Griffin*
Company: *BioTech Remediation*
Address: *710 E 20th Street, Suite 400*
City, State: *Farmington, NM 87401*

Date: *7-Jun-96*
COC No.: *4136*
Sample No. *11089*
Job No. *B2921*

Project Name: *626 Road 5500 Bloomfield, NM*
Project Location: *Travel Blank*
Sampled by: *KS*
Analyzed by: *DC*
Sample Matrix: *Liquid*

Date: *3-Jun-96* Time: *10:00*
Date: *6-Jun-96*

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
Methyl-t-Butyl Ether	<0.2	ug/L	0.2	ug/L
Benzene	0.2	ug/L	0.2	ug/L
Toluene	<0.2	ug/L	0.2	ug/L
Ethylbenzene	0.3	ug/L	0.2	ug/L
m,p-Xylene	0.6	ug/L	0.2	ug/L
o-Xylene	<0.2	ug/L	0.2	ug/L
TOTAL		1.2		ug/L

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by:

Date: *6/7/96*

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LAB: (505) 325-5667

AROMATIC VOLATILE ORGANICS

Attn: *Terry Griffin*
Company: *BioTech Remediation*
Address: *710 E 20th Street, Suite 400*
City, State: *Farmington, NM 87401*

Date: *7-Jun-96*
COC No.: *4136*
Sample No. *11090*
Job No. *B2921*

Project Name: *626 Road 5500 Bloomfield, NM*
Project Location: *MW-04*
Sampled by: *KS*
Analyzed by: *DC*
Sample Matrix: *Liquid*

Date: *4-Jun-96* Time: *14:25*
Date: *6-Jun-96*

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
Methyl-t-Butyl Ether	35.0	ug/L	0.2	ug/L
Benzene	1.0	ug/L	0.2	ug/L
Toluene	3.3	ug/L	0.2	ug/L
Ethylbenzene	3.3	ug/L	0.2	ug/L
m,p-Xylene	5.0	ug/L	0.2	ug/L
o-Xylene	2.0	ug/L	0.2	ug/L
TOTAL		49.6	ug/L	

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: *Joel*
Date: *6/7/96*

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AROMATIC VOLATILE ORGANICS

Attn: *Terry Griffin*
Company: *BioTech Remediation*
Address: *710 E 20th Street, Suite 400*
City, State: *Farmington, NM 87401*

Date: *7-Jun-96*
COC No.: *4136*
Sample No. *11091*
Job No. *B2921*

Project Name: *626 Road 5500 Bloomfield, NM*
Project Location: *MW-05*
Sampled by: *KS*
Analyzed by: *DC*
Sample Matrix: *Liquid*

Date: *4-Jun-96* Time: *14:15*
Date: *6-Jun-96*

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
Methyl-t-Butyl Ether	47.2	ug/L	0.2	ug/L
Benzene	0.3	ug/L	0.2	ug/L
Toluene	<0.2	ug/L	0.2	ug/L
Ethylbenzene	0.2	ug/L	0.2	ug/L
m,p-Xylene	<0.2	ug/L	0.2	ug/L
o-Xylene	<0.2	ug/L	0.2	ug/L
TOTAL		47.7	ug/L	

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: *Jc4*
Date: *6/7/96*

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AROMATIC VOLATILE ORGANICS

Attn: *Terry Griffin*
Company: *BioTech Remediation*
Address: *710 E 20th Street, Suite 400*
City, State: *Farmington, NM 87401*

Date: *7-Jun-96*
COC No.: *4136*
Sample No. *11092*
Job No. *B2921*

Project Name: *626 Road 5500 Bloomfield, NM*
Project Location: *MW-06*
Sampled by: *KS*
Analyzed by: *DC*
Sample Matrix: *Liquid*

Date: *4-Jun-96* Time: *14:55*
Date: *6-Jun-96*

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
<i>Methyl-t-Butyl Ether</i>	8.3	ug/L	0.2	ug/L
<i>Benzene</i>	1.0	ug/L	0.2	ug/L
<i>Toluene</i>	2.5	ug/L	0.2	ug/L
<i>Ethylbenzene</i>	0.2	ug/L	0.2	ug/L
<i>m,p-Xylene</i>	0.2	ug/L	0.2	ug/L
<i>o-Xylene</i>	0.6	ug/L	0.2	ug/L
	<i>TOTAL</i>	12.9		ug/L

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: *Jack*
Date: *6/7/96*

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OFF: (505) 325-8786

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TECHNOLOGIES, LTD.

LAB: (505) 325-5667

AROMATIC VOLATILE ORGANICS

Attn: *Terry Griffin*
Company: *BioTech Remediation*
Address: *710 E 20th Street, Suite 400*
City, State: *Farmington, NM 87401*

Date: *7-Jun-96*
COC No.: *4136*
Sample No. *11093*
Job No. *B2921*

Project Name: *626 Road 5500 Bloomfield, NM*
Project Location: *MW-09*
Sampled by: *KS*
Analyzed by: *DC*
Sample Matrix: *Liquid*

Date: *3-Jun-96* Time: *15:45*
Date: *6-Jun-96*

Laboratory Analysis

<i>Parameter</i>	<i>Result</i>	<i>Unit of Measure</i>	<i>Detection Limit</i>	<i>Unit of Measure</i>
<i>Methyl-t-Butyl Ether</i>	<i>15.8</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>Benzene</i>	<i>0.4</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>Toluene</i>	<i><0.2</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>Ethylbenzene</i>	<i><0.2</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>m,p-Xylene</i>	<i><0.2</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>o-Xylene</i>	<i><0.2</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
	<i>TOTAL</i>	<i>16.2</i>		<i>ug/L</i>

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: *DC*
Date: *6/7/96*

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Attn: **Terry Griffin**
Company: **BioTech Remediation**
Address: **710 E 20th Street, Suite 400**
City, State: **Farmington, NM 87401**

Date: **7-Jun-96**
COC No.: **4136**
Sample No. **11094**
Job No. **B2921**

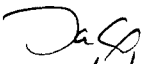
Project Name: **626 Road 5500 Bloomfield, NM**
Project Location: **MW-10**
Sampled by: **KS**
Analyzed by: **DC**
Sample Matrix: **Liquid**

Date: **3-Jun-96** Time: **15:55**
Date: **6-Jun-96**

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
Methyl-t-Butyl Ether	<0.2	ug/L	0.2	ug/L
Benzene	<0.2	ug/L	0.2	ug/L
Toluene	<0.2	ug/L	0.2	ug/L
Ethylbenzene	<0.2	ug/L	0.2	ug/L
m,p-Xylene	<0.2	ug/L	0.2	ug/L
o-Xylene	<0.2	ug/L	0.2	ug/L
TOTAL		<0.2		ug/L

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: 

Date: **6/7/96**

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AROMATIC VOLATILE ORGANICS

Attn: *Terry Griffin*
Company: *BioTech Remediation*
Address: *710 E 20th Street, Suite 400*
City, State: *Farmington, NM 87401*

Date: *7-Jun-96*
COC No.: *4136*
Sample No. *11095*
Job No. *B2921*

Project Name: *626 Road 5500 Bloomfield, NM*
Project Location: *MW-11*
Sampled by: *KS*
Analyzed by: *DC*
Sample Matrix: *Liquid*

Date: *3-Jun-96* Time: *16:20*
Date: *6-Jun-96*

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
Methyl-t-Butyl Ether	<0.2	ug/L	0.2	ug/L
Benzene	<0.2	ug/L	0.2	ug/L
Toluene	<0.2	ug/L	0.2	ug/L
Ethylbenzene	<0.2	ug/L	0.2	ug/L
m,p-Xylene	<0.2	ug/L	0.2	ug/L
o-Xylene	<0.2	ug/L	0.2	ug/L
TOTAL		<0.2		ug/L

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: *DC*
Date: *6/7/96*

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AROMATIC VOLATILE ORGANICS

Attn: **Terry Griffin**
Company: **BioTech Remediation**
Address: **710 E 20th Street, Suite 400**
City, State: **Farmington, NM 87401**

Date: **7-Jun-96**
COC No.: **4136**
Sample No. **11096**
Job No. **B2921**

Project Name: **626 Road 5500 Bloomfield, NM**
Project Location: **Travel Blank**
Sampled by: **KS**
Analyzed by: **DC**
Sample Matrix: **Liquid**

Date: **4-Jun-96** Time: **9:00**
Date: **6-Jun-96**

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
Methyl-t-Butyl Ether	<0.2	ug/L	0.2	ug/L
Benzene	<0.2	ug/L	0.2	ug/L
Toluene	<0.2	ug/L	0.2	ug/L
Ethylbenzene	<0.2	ug/L	0.2	ug/L
m,p-Xylene	<0.2	ug/L	0.2	ug/L
o-Xylene	<0.2	ug/L	0.2	ug/L
TOTAL		<0.2		ug/L

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: *Ja G*
Date: *6/7/96*

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AROMATIC VOLATILE ORGANICS

Attn: *Terry Griffin*
Company: *BioTech Remediation*
Address: *710 E 20th Street, Suite 400*
City, State: *Farmington, NM 87401*

Date: *7-Jun-96*
COC No.: *4136*
Sample No. *11097*
Job No. *B2921*

Project Name: *626 Road 5500 Bloomfield, NM*
Project Location: *MW-13*
Sampled by: *KS*
Analyzed by: *DC*
Sample Matrix: *Liquid*

Date: *4-Jun-96* Time: *9:30*
Date: *6-Jun-96*

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
Methyl-t-Butyl Ether	<0.2	ug/L	0.2	ug/L
Benzene	<0.2	ug/L	0.2	ug/L
Toluene	<0.2	ug/L	0.2	ug/L
Ethylbenzene	<0.2	ug/L	0.2	ug/L
m,p-Xylene	<0.2	ug/L	0.2	ug/L
o-Xylene	<0.2	ug/L	0.2	ug/L
TOTAL		<0.2		ug/L

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: *[Signature]*
Date: *6/7/96*

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AROMATIC VOLATILE ORGANICS

Attn: **Terry Griffin**
Company: **BioTech Remediation**
Address: **710 E 20th Street, Suite 400**
City, State: **Farmington, NM 87401**

Date: **7-Jun-96**
COC No.: **4136**
Sample No. **11098**
Job No. **B2921**

Project Name: **626 Road 5500 Bloomfield, NM**
Project Location: **MW-15**
Sampled by: **KS**
Analyzed by: **DC**
Sample Matrix: **Liquid**

Date: **3-Jun-96** Time: **11:15**
Date: **6-Jun-96**

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
Methyl-t-Butyl Ether	<0.2	ug/L	0.2	ug/L
Benzene	<0.2	ug/L	0.2	ug/L
Toluene	<0.2	ug/L	0.2	ug/L
Ethylbenzene	<0.2	ug/L	0.2	ug/L
m,p-Xylene	<0.2	ug/L	0.2	ug/L
o-Xylene	<0.2	ug/L	0.2	ug/L
TOTAL		<0.2		ug/L

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: 
Date: **6/7/96**

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QUALITY ASSURANCE REPORT
for EPA Method 8020

Date Analyzed: 6-Jun-96

Internal QC No.: 0444-STD

Surrogate QC No.: 0445-STD

Reference Standard QC No.: 0355-STD

Method Blank

Parameter	Result	Unit of Measure
Average Amount of All Analytes In Blank	<0.2	ppb

Calibration Check

Parameter	Unit of Measure	True Value	Analyzed Value	% Diff	Limit
Methyl-t-Butyl Ether	ppb	20.0	21.1	6	15%
Benzene	ppb	20.0	19.6	2	15%
Toluene	ppb	20.0	19.9	1	15%
Ethylbenzene	ppb	20.0	19.9	0	15%
m,p-Xylene	ppb	40.0	39.1	2	15%
o-Xylene	ppb	20.0	19.8	1	15%

Matrix Spike

Parameter	1 - Percent Recovered	2 - Percent Recovered	Limit	%RSD	Limit
Methyl-t-Butyl Ether	94	90	(39-150)	3	20%
Benzene	103	96	(39-150)	5	20%
Toluene	104	98	(46-148)	4	20%
Ethylbenzene	104	97	(32-160)	5	20%
m,p-Xylene	102	95	(35-145)	5	20%
o-Xylene	99	93	(35-145)	5	20%

Surrogate Recoveries

Laboratory Identification	S1 Percent Recovered	S2 Percent Recovered	Laboratory Identification	S1 Percent Recovered	S2 Percent Recovered
Limit Percent Recovery	(70-130)		Limit Percent Recovery	(70-130)	
11089-4136	100		11097-4136	99	
11090-4136	99		11098-4136	99	
11091-4136	98				
11092-4136	98				
11093-4136	99				
11094-4136	99				
11095-4136	100				
11096-4136	102				

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AROMATIC VOLATILE ORGANICS

Attn: *Terry Griffin*
Company: *BioTech Remediation*
Address: *710 E 20th Street, Suite 400*
City, State: *Farmington, NM 87401*

Date: *7-Jun-96*
COC No.: *4136*
Sample No.: *11099*
Job No.: *B2921*

Project Name: *626 Road 5500 Bloomfield, NM*
Project Location: *MW-18*
Sampled by: *KS*
Analyzed by: *DC*
Sample Matrix: *Liquid*

Date: *4-Jun-96* Time: *15:45*
Date: *6-Jun-96*

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
Methyl-t-Butyl Ether	36.8	ug/L	0.2	ug/L
Benzene	136.4	ug/L	0.2	ug/L
Toluene	2.5	ug/L	0.2	ug/L
Ethylbenzene	6.6	ug/L	0.2	ug/L
m,p-Xylene	4.0	ug/L	0.2	ug/L
o-Xylene	0.7	ug/L	0.2	ug/L
TOTAL		187.0	ug/L	

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: *Jac*
Date: *6/7/96*

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AROMATIC VOLATILE ORGANICS

Attn: **Terry Griffin**
Company: **BioTech Remediation**
Address: **710 E 20th Street, Suite 400**
City, State: **Farmington, NM 87401**

Date: **7-Jun-96**
COC No.: **4137**
Sample No. **11100**
Job No. **B2921**

Project Name: **626 Road 5500 Bloomfield, NM**
Project Location: **MW-19**
Sampled by: **KS**
Analyzed by: **DC**
Sample Matrix: **Liquid**

Date: **4-Jun-96** Time: **15:30**
Date: **6-Jun-96**

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
Methyl-t-Butyl Ether	80.5	ug/L	0.2	ug/L
Benzene	15.3	ug/L	0.2	ug/L
Toluene	2.8	ug/L	0.2	ug/L
Ethylbenzene	92.9	ug/L	0.2	ug/L
m,p-Xylene	150.0	ug/L	0.2	ug/L
o-Xylene	0.5	ug/L	0.2	ug/L
TOTAL		342.1	ug/L	

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: *Ja G*
Date: *6/7/96*

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AROMATIC VOLATILE ORGANICS

Attn: Terry Griffin
Company: BioTech Remediation
Address: 710 E 20th Street, Suite 400
City, State: Farmington, NM 87401

Date: 7-Jun-96
COC No.: 4137
Sample No. 11101
Job No. B2921

Project Name: 626 Road 5500 Bloomfield, NM
Project Location: MW-20
Sampled by: KS
Analyzed by: DC
Sample Matrix: Liquid

Date: 3-Jun-96 Time: 11:30
Date: 6-Jun-96

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
Methyl-t-Butyl Ether	106.3	ug/L	0.2	ug/L
Benzene	1.4	ug/L	0.2	ug/L
Toluene	3.8	ug/L	0.2	ug/L
Ethylbenzene	0.8	ug/L	0.2	ug/L
m,p-Xylene	0.8	ug/L	0.2	ug/L
o-Xylene	0.6	ug/L	0.2	ug/L
TOTAL		113.7	ug/L	

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: 
Date: 6/7/96

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— TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT —

OFF: (505) 325-8786



LAB: (505) 325-5667

AROMATIC VOLATILE ORGANICS

Attn: **Terry Griffin**
Company: **BioTech Remediation**
Address: **710 E 20th Street, Suite 400**
City, State: **Farmington, NM 87401**

Date: **7-Jun-96**
COC No.: **4137**
Sample No. **11102**
Job No. **B2921**

Project Name: **626 Road 5500 Bloomfield, NM**
Project Location: **MW-21**
Sampled by: **KS**
Analyzed by: **DC**
Sample Matrix: **Liquid**

Date: **3-Jun-96** Time: **14:25**
Date: **6-Jun-96**

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
Methyl-t-Butyl Ether	82.1	ug/L	0.2	ug/L
Benzene	0.4	ug/L	0.2	ug/L
Toluene	0.3	ug/L	0.2	ug/L
Ethylbenzene	1.1	ug/L	0.2	ug/L
m,p-Xylene	0.9	ug/L	0.2	ug/L
o-Xylene	<0.2	ug/L	0.2	ug/L
TOTAL		84.8	ug/L	

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: 
Date: **6/7/96**

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— TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT —

OFF: (505) 325-8786



LAB: (505) 325-5667

AROMATIC VOLATILE ORGANICS

Attn: **Terry Griffin**
Company: **BioTech Remediation**
Address: **710 E 20th Street, Suite 400**
City, State: **Farmington, NM 87401**

Date: **7-Jun-96**
COC No.: **4137**
Sample No. **11103**
Job No. **B2921**

Project Name: **626 Road 5500 Bloomfield, NM**
Project Location: **MW-22**
Sampled by: **KS**
Analyzed by: **DC**
Sample Matrix: **Liquid**

Date: **3-Jun-96** Time: **14:50**
Date: **6-Jun-96**

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
Methyl-t-Butyl Ether	25.3	ug/L	0.2	ug/L
Benzene	<0.2	ug/L	0.2	ug/L
Toluene	<0.2	ug/L	0.2	ug/L
Ethylbenzene	<0.2	ug/L	0.2	ug/L
m,p-Xylene	0.4	ug/L	0.2	ug/L
o-Xylene	<0.2	ug/L	0.2	ug/L
TOTAL		25.7		ug/L

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: *[Signature]*
Date: **6/7/96**

P. O. BOX 2606 • FARMINGTON, NM 87499

— TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT —

OFF: (505) 325-8786



LAB: (505) 325-5667

AROMATIC VOLATILE ORGANICS

Attn: **Terry Griffin**
Company: **BioTech Remediation**
Address: **710 E 20th Street, Suite 400**
City, State: **Farmington, NM 87401**

Date: **7-Jun-96**
COC No.: **4137**
Sample No. **11104**
Job No. **B2921**

Project Name: **626 Road 5500 Bloomfield, NM**
Project Location: **Stripper Inlet**
Sampled by: **KS**
Analyzed by: **DC**
Sample Matrix: **Liquid**

Date: **4-Jun-96** Time: **16:00**
Date: **7-Jun-96**

Laboratory Analysis

<i>Parameter</i>	<i>Result</i>	<i>Unit of Measure</i>	<i>Detection Limit</i>	<i>Unit of Measure</i>
<i>Methyl-t-Butyl Ether</i>	95.0	ug/L	0.2	ug/L
<i>Benzene</i>	4607.7	ug/L	0.2	ug/L
<i>Toluene</i>	1794.7	ug/L	0.2	ug/L
<i>Ethylbenzene</i>	523.8	ug/L	0.2	ug/L
<i>m,p-Xylene</i>	2034.9	ug/L	0.2	ug/L
<i>o-Xylene</i>	519.1	ug/L	0.2	ug/L
	TOTAL	9575.2	ug/L	

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: *Jack*
Date: *6/7/96*

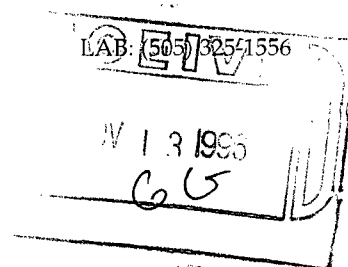
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AROMATIC VOLATILE ORGANICS



Attn: **Terry Griffin**
Company: **BioTech Remediation**
Address: **710 E 20th Street, Suite 400**
City, State: **Farmington, NM 87401**

Date: **16-Oct-96**
COC No.: **4157**
Sample No. **12536**
Job No. **2-1000**

Project Name: **Thriftway Refinery 626 CR 5500 Bloomfield, NM**
Project Location: **Travel Blank**
Sampled by: **KS** Date: **10-Oct-96** Time: **8:00**
Analyzed by: **DC** Date: **16-Oct-96**
Sample Matrix: **Liquid**

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
Methyl-t-Butyl Ether	<0.2	ug/L	0.2	ug/L
Benzene	<0.2	ug/L	0.2	ug/L
Toluene	<0.2	ug/L	0.2	ug/L
Ethylbenzene	<0.2	ug/L	0.2	ug/L
m,p-Xylene	<0.2	ug/L	0.2	ug/L
o-Xylene	<0.2	ug/L	0.2	ug/L
	TOTAL	<0.2	ug/L	

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: 
Date: **10/16/96**

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- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

OFF: (505) 325-5667



LAB: (505) 325-1556

AROMATIC VOLATILE ORGANICS

Attn: Terry Griffin
Company: BioTech Remediation
Address: 710 E 20th Street, Suite 400
City, State: Farmington, NM 87401

Date: 16-Oct-96
COC No.: 4157
Sample No. 12537
Job No. 2-1000

Project Name: Thriftway Refinery 626 CR 5500 Bloomfield, NM
Project Location: MW-14
Sampled by: KS
Analyzed by: DC
Sample Matrix: Liquid

Date: 10-Oct-96 Time: 9:15
Date: 16-Oct-96

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
Methyl-t-Butyl Ether	103.7	ug/L	0.2	ug/L
Benzene	7698.8	ug/L	0.2	ug/L
Toluene	361.7	ug/L	0.2	ug/L
Ethylbenzene	2107.7	ug/L	0.2	ug/L
m,p-Xylene	2686.7	ug/L	0.2	ug/L
o-Xylene	231.1	ug/L	0.2	ug/L
TOTAL		13189.6	ug/L	

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: 
Date: 10/16/96

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- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

OFF: (505) 325-5667



LAB: (505) 325-1556

AROMATIC VOLATILE ORGANICS

Attn: *Terry Griffin*
Company: *BioTech Remediation*
Address: *710 E 20th Street, Suite 400*
City, State: *Farmington, NM 87401*

Date: *16-Oct-96*
COC No.: *4157*
Sample No. *12538*
Job No. *2-1000*

Project Name: *Thriftway Refinery 626 CR 5500 Bloomfield, NM*
Project Location: *MW-24*
Sampled by: *KS* Date: *10-Oct-96* Time: *9:40*
Analyzed by: *DC* Date: *16-Oct-96*
Sample Matrix: *Liquid*

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
Methyl-t-Butyl Ether	25.6	ug/L	0.2	ug/L
Benzene	231.7	ug/L	0.2	ug/L
Toluene	114.1	ug/L	0.2	ug/L
Ethylbenzene	122.5	ug/L	0.2	ug/L
m,p-Xylene	761.9	ug/L	0.2	ug/L
o-Xylene	226.9	ug/L	0.2	ug/L
TOTAL		1482.8	ug/L	

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: *[Signature]*
Date: *10/16/96*

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LAB: (505) 325-1556

AROMATIC VOLATILE ORGANICS

Attn: *Terry Griffin*
Company: *BioTech Remediation*
Address: *710 E 20th Street, Suite 400*
City, State: *Farmington, NM 87401*

Date: *16-Oct-96*
COC No.: *4157*
Sample No. *12539*
Job No. *2-1000*

Project Name: *Thriftway Refinery 626 CR 5500 Bloomfield, NM*
Project Location: *MW-25*
Sampled by: *KS* Date: *10-Oct-96* Time: *9:50*
Analyzed by: *DC* Date: *16-Oct-96*
Sample Matrix: *Liquid*

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
Methyl-t-Butyl Ether	1.0	ug/L	0.2	ug/L
Benzene	39.9	ug/L	0.2	ug/L
Toluene	11.3	ug/L	0.2	ug/L
Ethylbenzene	7.4	ug/L	0.2	ug/L
m,p-Xylene	8.5	ug/L	0.2	ug/L
o-Xylene	3.8	ug/L	0.2	ug/L
TOTAL		71.8	ug/L	

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: *[Signature]*
Date: *10/16/96*

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LAB: (505) 325-1556

AROMATIC VOLATILE ORGANICS

Attn: **Terry Griffin**
Company: **BioTech Remediation**
Address: **710 E 20th Street, Suite 400**
City, State: **Farmington, NM 87401**

Date: **16-Oct-96**
COC No.: **4157**
Sample No. **12540**
Job No. **2-1000**

Project Name: **Thriftway Refinery 626 CR 5500 Bloomfield, NM**
Project Location: **Stripper Inlet**
Sampled by: **KS** Date: **10-Oct-96** Time: **10:30**
Analyzed by: **DC** Date: **16-Oct-96**
Sample Matrix: **Liquid**

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
Methyl-t-Butyl Ether	13.2	ug/L	0.2	ug/L
Benzene	3116.0	ug/L	0.2	ug/L
Toluene	1332.2	ug/L	0.2	ug/L
Ethylbenzene	504.2	ug/L	0.2	ug/L
m,p-Xylene	1207.1	ug/L	0.2	ug/L
o-Xylene	380.9	ug/L	0.2	ug/L
	TOTAL	6553.7		ug/L

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: *Daq*
Date: *10/16/96*

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LAB: (505) 325-1556

AROMATIC VOLATILE ORGANICS

Attn: *Terry Griffin*
Company: *BioTech Remediation*
Address: *710 E 20th Street, Suite 400*
City, State: *Farmington, NM 87401*

Date: *16-Oct-96*
COC No.: *4157*
Sample No. *12541*
Job No. *2-1000*

Project Name: *Thriftway Refinery 626 CR 5500 Bloomfield, NM*
Project Location: *Stripper Effluent*
Sampled by: *KS* Date: *10-Oct-96* Time: *10:40*
Analyzed by: *DC* Date: *16-Oct-96*
Sample Matrix: *Liquid*

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
Methyl-t-Butyl Ether	1.2	ug/L	0.2	ug/L
Benzene	3.7	ug/L	0.2	ug/L
Toluene	<0.2	ug/L	0.2	ug/L
Ethylbenzene	1.4	ug/L	0.2	ug/L
m,p-Xylene	3.4	ug/L	0.2	ug/L
o-Xylene	1.0	ug/L	0.2	ug/L
TOTAL		10.6		ug/L

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: *[Signature]*
Date: *10/16/96*

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LAB: (505) 325-1556

AROMATIC VOLATILE ORGANICS

Attn: *Terry Griffin*
Company: *BioTech Remediation*
Address: *710 E 20th Street, Suite 400*
City, State: *Farmington, NM 87401*

Date: *16-Oct-96*
COC No.: *4157*
Sample No. *12542*
Job No. *2-1000*

Project Name: *Thriftway Refinery 626 CR 5500 Bloomfield, NM*
Project Location: *Pond*
Sampled by: *KS* Date: *10-Oct-96* Time: *10:15*
Analyzed by: *DC* Date: *16-Oct-96*
Sample Matrix: *Liquid*

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
Methyl-t-Butyl Ether	<0.2	ug/L	0.2	ug/L
Benzene	<0.2	ug/L	0.2	ug/L
Toluene	<0.2	ug/L	0.2	ug/L
Ethylbenzene	0.5	ug/L	0.2	ug/L
m,p-Xylene	0.4	ug/L	0.2	ug/L
o-Xylene	<0.2	ug/L	0.2	ug/L
TOTAL		0.8		ug/L

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: *[Signature]*
Date: *10/16/96*

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- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

OFF: (505) 325-5667



LAB: (505) 325-1556

QUALITY ASSURANCE REPORT
for EPA Method 8020

Date Analyzed: 16-Oct-96

Internal QC No.: 0486-QC

Surrogate QC No.: 0488-QC

Reference Standard QC No.: 0417-QC

Method Blank

Parameter	Result	Unit of Measure
Average Amount of All Analytes In Blank	<0.2	ppb

Calibration Check

Parameter	Unit of Measure	True Value	Analyzed Value	% Diff	Limit
Methyl-t-Butyl Ether	ppb	20.0	18.1	9	15%
Benzene	ppb	20.0	19.4	3	15%
Toluene	ppb	20.0	20.0	0	15%
Ethylbenzene	ppb	20.0	20.2	1	15%
m,p-Xylene	ppb	40.0	39.9	0	15%
o-Xylene	ppb	20.0	20.0	0	15%

Matrix Spike

Parameter	1 - Percent Recovered	2 - Percent Recovered	Limit	%RSD	Limit
Methyl-t-Butyl Ether	61	68	(39-150)	8	20%
Benzene	99	101	(39-150)	1	20%
Toluene	102	109	(46-148)	4	20%
Ethylbenzene	105	110	(32-160)	3	20%
m,p-Xylene	102	108	(35-145)	4	20%
o-Xylene	99	105	(35-145)	3	20%

Surrogate Recoveries

Laboratory Identification	S1 Percent Recovered	S2 Percent Recovered	Laboratory Identification	S1 Percent Recovered	S2 Percent Recovered
Limit Percent Recovery	(70-130)		Limit Percent Recovery	(70-130)	
12536-4157	96				

pe

OFF: (505) 325-5667



LAB: (505) 325-1556

QUALITY ASSURANCE REPORT

for EPA Method 8020

Date Analyzed: 16-Oct-96

Internal QC No.: 0486-QC

Surrogate QC No.: 0488-QC

Reference Standard QC No.: 0417-QC

Method Blank

Parameter	Result	Unit of Measure
Average Amount of All Analytes In Blank	<0.2	ppb

Calibration Check

Parameter	Unit of Measure	True Value	Analyzed Value	% Diff	Limit
Methyl-t-Butyl Ether	ppb	20.0	18.4	8	15%
Benzene	ppb	20.0	19.6	2	15%
Toluene	ppb	20.0	20.3	2	15%
Ethylbenzene	ppb	20.0	20.8	4	15%
m,p-Xylene	ppb	40.0	41.0	2	15%
o-Xylene	ppb	20.0	20.6	3	15%

Matrix Spike

Parameter	1- Percent Recovered	2- Percent Recovered	Limit	%RSD	Limit
Methyl-t-Butyl Ether	61	68	(39-150)	8	20%
Benzene	99	101	(39-150)	1	20%
Toluene	102	109	(46-148)	4	20%
Ethylbenzene	105	110	(32-160)	3	20%
m,p-Xylene	102	108	(35-145)	4	20%
o-Xylene	99	105	(35-145)	3	20%

Surrogate Recoveries

Laboratory Identification	S1 Percent Recovered	S2 Percent Recovered	Laboratory Identification	S1 Percent Recovered	S2 Percent Recovered
Limit Percent Recovery	(70-130)		Limit Percent Recovery	(70-130)	
12538-4157	96				
12539-4157	95				
12540-4157	98				
12541-4157	96				
12542-4152	96				

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- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

OFF: (505) 325-5667



LAB: (505) 325-1556

QUALITY ASSURANCE REPORT

for EPA Method 8020

Date Analyzed: 16-Oct-96

Internal QC No.: 0486-QC

Surrogate QC No.: 0488-QC

Reference Standard QC No.: 0417-QC

Method Blank

Parameter	Result	Unit of Measure
Average Amount of All Analytes In Blank	<0.2	ppb

Calibration Check

Parameter	Unit of Measure	True Value	Analyzed Value	% Diff	Limit
Methyl-t-Butyl Ether	ppb	20.0	19.4	3	15%
Benzene	ppb	20.0	19.4	3	15%
Toluene	ppb	20.0	19.9	0	15%
Ethylbenzene	ppb	20.0	20.2	1	15%
m,p-Xylene	ppb	40.0	39.9	0	15%
o-Xylene	ppb	20.0	20.1	1	15%

Matrix Spike

Parameter	1 - Percent Recovered	2 - Percent Recovered	Limit	%RSD	Limit
Methyl-t-Butyl Ether	61	68	(39-150)	8	20%
Benzene	99	101	(39-150)	1	20%
Toluene	102	109	(46-148)	4	20%
Ethylbenzene	105	110	(32-160)	3	20%
m,p-Xylene	102	108	(35-145)	4	20%
o-Xylene	99	105	(35-145)	3	20%

Surrogate Recoveries

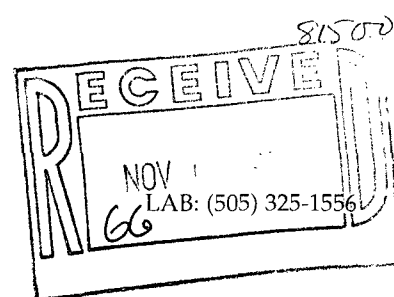
Laboratory Identification	S1 Percent Recovered	S2 Percent Recovered	Laboratory Identification	S1 Percent Recovered	S2 Percent Recovered
Limit Percent Recovery	(70-130)		Limit Percent Recovery	(70-130)	
12537-4157	100				

[illegible]

Distribution:	White – On Site	Yellow – LAB	Pink – Sampler	Goldenrod – Client
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ON SITE
TECHNOLOGIES, LTD.



Attn: *Terry Griffin*
Company: *BioTech Remediation*
Address: *710 E 20th Street, Suite 400*
City, State: *Farmington, NM 87401*

Date: 15-Oct-96
COC No.: 4156
Sample No. 12527
Job No. 2-1000

Project Name:	<i>Thriftyway Refinery 626 CR 5500 Bloomfield, NM</i>		
Project Location:	<i>Travel Blank</i>		
Sampled by:	KS	Date:	9-Oct-96 T
Analyzed by:	DC	Date:	15-Oct-96
Sample Matrix:	<i>Liquid</i>		

Date: 9-Oct-96 Time: 8:00
Date: 15-Oct-96

Parameter		Result	Unit of Measure	Detection Limit	Unit of Measure
Methyl-t-Butyl Ether		<0.2	ug/L	0.2	ug/L
Benzene		<0.2	ug/L	0.2	ug/L
Toluene		<0.2	ug/L	0.2	ug/L
Ethylbenzene		<0.2	ug/L	0.2	ug/L
m,p-Xylene		<0.2	ug/L	0.2	ug/L
o-Xylene		<0.2	ug/L	0.2	ug/L
	TOTAL	<0.2	ug/L		

Approved by: 
Date: 10/16/86

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

OFF: (505) 325-5667



LAB: (505) 325-1556

AROMATIC VOLATILE ORGANICS

Attn: *Terry Griffin*
Company: *BioTech Remediation*
Address: *710 E 20th Street, Suite 400*
City, State: *Farmington, NM 87401*

Date: *15-Oct-96*
COC No.: *4156*
Sample No. *12528*
Job No. *2-1000*

Project Name: *Thriftway Refinery 626 CR 5500 Bloomfield, NM*
Project Location: *MW-1*
Sampled by: *KS* Date: *9-Oct-96* Time: *15:15*
Analyzed by: *DC* Date: *15-Oct-96*
Sample Matrix: *Liquid*

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
Methyl-t-Butyl Ether	244.6	ug/L	0.2	ug/L
Benzene	255.1	ug/L	0.2	ug/L
Toluene	10.9	ug/L	0.2	ug/L
Ethylbenzene	36.5	ug/L	0.2	ug/L
m,p-Xylene	180.8	ug/L	0.2	ug/L
o-Xylene	12.0	ug/L	0.2	ug/L
TOTAL		739.9	ug/L	

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: *[Signature]*
Date: *10/16/96*

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- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

OFF: (505) 325-5667



LAB: (505) 325-1556

AROMATIC VOLATILE ORGANICS

Attn: Terry Griffin
Company: BioTech Remediation
Address: 710 E 20th Street, Suite 400
City, State: Farmington, NM 87401

Date: 15-Oct-96
COC No.: 4156
Sample No. 12529
Job No. 2-1000

Project Name: Thriftway Refinery 626 CR 5500 Bloomfield, NM
Project Location: MW-3
Sampled by: KS
Analyzed by: DC
Sample Matrix: Liquid

Date: 9-Oct-96 Time: 15:00
Date: 15-Oct-96

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
Methyl-t-Butyl Ether	224.7	ug/L	0.2	ug/L
Benzene	41.7	ug/L	0.2	ug/L
Toluene	4.0	ug/L	0.2	ug/L
Ethylbenzene	5.8	ug/L	0.2	ug/L
m,p-Xylene	2.6	ug/L	0.2	ug/L
o-Xylene	1.7	ug/L	0.2	ug/L
	TOTAL	280.5	ug/L	

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: 

Date: 10/16/96

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LAB: (505) 325-1556

AROMATIC VOLATILE ORGANICS

Attn: **Terry Griffin**
Company: **BioTech Remediation**
Address: **710 E 20th Street, Suite 400**
City, State: **Farmington, NM 87401**

Date: **15-Oct-96**
COC No.: **4156**
Sample No. **12530**
Job No. **2-1000**

Project Name: **Thriftway Refinery 626 CR 5500 Bloomfield, NM**
Project Location: **MW-4**
Sampled by: **KS** Date: **9-Oct-96** Time: **10:46**
Analyzed by: **DC** Date: **15-Oct-96**
Sample Matrix: **Liquid**

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
Methyl-t-Butyl Ether	33.0	ug/L	0.2	ug/L
Benzene	0.9	ug/L	0.2	ug/L
Toluene	2.1	ug/L	0.2	ug/L
Ethylbenzene	2.2	ug/L	0.2	ug/L
m,p-Xylene	0.7	ug/L	0.2	ug/L
o-Xylene	0.5	ug/L	0.2	ug/L
	TOTAL	39.5		ug/L

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: 
Date: **10/16/96**

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LAB: (505) 325-1556

AROMATIC VOLATILE ORGANICS

Attn: Terry Griffin
Company: BioTech Remediation
Address: 710 E 20th Street, Suite 400
City, State: Farmington, NM 87401

Date: 15-Oct-96
COC No.: 4156
Sample No. 12531
Job No. 2-1000

Project Name: Thriftway Refinery 626 CR 5500 Bloomfield, NM
Project Location: MW-5
Sampled by: KS
Analyzed by: DC
Sample Matrix: Liquid

Date: 9-Oct-96 Time: 11:15
Date: 15-Oct-96

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
Methyl-t-Butyl Ether	48.6	ug/L	0.2	ug/L
Benzene	0.6	ug/L	0.2	ug/L
Toluene	<0.2	ug/L	0.2	ug/L
Ethylbenzene	<0.2	ug/L	0.2	ug/L
m,p-Xylene	<0.2	ug/L	0.2	ug/L
o-Xylene	<0.2	ug/L	0.2	ug/L
TOTAL		49.3	ug/L	

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: 
Date: 10/16/96

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- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

OFF: (505) 325-5667



LAB: (505) 325-1556

AROMATIC VOLATILE ORGANICS

Attn: **Terry Griffin**
Company: **BioTech Remediation**
Address: **710 E 20th Street, Suite 400**
City, State: **Farmington, NM 87401**

Date: **15-Oct-96**
COC No.: **4156**
Sample No. **12532**
Job No. **2-1000**

Project Name: **Thriftway Refinery 626 CR 5500 Bloomfield, NM**
Project Location: **MW-6**
Sampled by: **KS** Date: **9-Oct-96** Time: **10:25**
Analyzed by: **DC** Date: **15-Oct-96**
Sample Matrix: **Liquid**

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
Methyl-t-Butyl Ether	33.5	ug/L	0.2	ug/L
Benzene	1.9	ug/L	0.2	ug/L
Toluene	3.7	ug/L	0.2	ug/L
Ethylbenzene	3.2	ug/L	0.2	ug/L
m,p-Xylene	1.0	ug/L	0.2	ug/L
o-Xylene	0.3	ug/L	0.2	ug/L
	TOTAL	43.6		ug/L

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: 
Date: **10/16/96**

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AROMATIC VOLATILE ORGANICS

Attn: *Terry Griffin*
Company: *BioTech Remediation*
Address: *710 E 20th Street, Suite 400*
City, State: *Farmington, NM 87401*

Date: *15-Oct-96*
COC No.: *4156*
Sample No. *12533*
Job No. *2-1000*

Project Name: *Thriftway Refinery 626 CR 5500 Bloomfield, NM*
Project Location: *MW-18*
Sampled by: *KS* Date: *9-Oct-96* Time: *14:40*
Analyzed by: *DC* Date: *15-Oct-96*
Sample Matrix: *Liquid*

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
Methyl-t-Butyl Ether	31.9	ug/L	0.2	ug/L
Benzene	60.1	ug/L	0.2	ug/L
Toluene	1.1	ug/L	0.2	ug/L
Ethylbenzene	1.5	ug/L	0.2	ug/L
m,p-Xylene	0.7	ug/L	0.2	ug/L
o-Xylene	<0.2	ug/L	0.2	ug/L
TOTAL		95.3	ug/L	

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: *[Signature]*
Date: *10/16/96*

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AROMATIC VOLATILE ORGANICS

Attn: **Terry Griffin**
Company: **BioTech Remediation**
Address: **710 E 20th Street, Suite 400**
City, State: **Farmington, NM 87401**

Date: **15-Oct-96**
COC No.: **4156**
Sample No. **12534**
Job No. **2-1000**

Project Name: **Thriftway Refinery 626 CR 5500 Bloomfield, NM**
Project Location: **MW-19**
Sampled by: **KS** Date: **9-Oct-96** Time: **10:10**
Analyzed by: **DC** Date: **15-Oct-96**
Sample Matrix: **Liquid**

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
Methyl-t-Butyl Ether	11.1	ug/L	0.2	ug/L
Benzene	1.4	ug/L	0.2	ug/L
Toluene	3.0	ug/L	0.2	ug/L
Ethylbenzene	39.5	ug/L	0.2	ug/L
m,p-Xylene	57.6	ug/L	0.2	ug/L
o-Xylene	0.4	ug/L	0.2	ug/L
	TOTAL	113.0	ug/L	

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: 
Date: **10/16/96**

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AROMATIC VOLATILE ORGANICS

Attn: **Terry Griffin**
Company: **BioTech Remediation**
Address: **710 E 20th Street, Suite 400**
City, State: **Farmington, NM 87401**

Date: **15-Oct-96**
COC No.: **4156**
Sample No. **12535**
Job No. **2-1000**

Project Name: **Thriftway Refinery 626 CR 5500 Bloomfield, NM**
Project Location: **MW-21**
Sampled by: **KS** Date: **9-Oct-96** Time: **10:00**
Analyzed by: **DC** Date: **15-Oct-96**
Sample Matrix: **Liquid**

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
Methyl-t-Butyl Ether	46.0	ug/L	0.2	ug/L
Benzene	0.7	ug/L	0.2	ug/L
Toluene	<0.2	ug/L	0.2	ug/L
Ethylbenzene	0.5	ug/L	0.2	ug/L
m,p-Xylene	0.3	ug/L	0.2	ug/L
o-Xylene	<0.2	ug/L	0.2	ug/L
TOTAL		47.6		ug/L

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: 
Date: **10/16/96**

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LAB: (505) 325-1556

QUALITY ASSURANCE REPORT

for EPA Method 8020

Date Analyzed: 15-Oct-96

Internal QC No.: 0486-QC

Surrogate QC No.: 0488-QC

Reference Standard QC No.: 0417-QC

Method Blank

Parameter	Result	Unit of Measure
Average Amount of All Analytes In Blank	<0.2	ppb

Calibration Check

Parameter	Unit of Measure	True Value	Analyzed Value	% Diff	Limit
Methyl-t-Butyl Ether	ppb	20.0	17.9	10	15%
Benzene	ppb	20.0	18.6	7	15%
Toluene	ppb	20.0	19.1	4	15%
Ethylbenzene	ppb	20.0	19.4	3	15%
m,p-Xylene	ppb	40.0	38.4	4	15%
o-Xylene	ppb	20.0	19.2	4	15%

Matrix Spike

Parameter	1 - Percent Recovered	2 - Percent Recovered	Limit	%RSD	Limit
Methyl-t-Butyl Ether	61	68	(39-150)	8	20%
Benzene	99	101	(39-150)	1	20%
Toluene	102	109	(46-148)	4	20%
Ethylbenzene	105	110	(32-160)	3	20%
m,p-Xylene	102	108	(35-145)	4	20%
o-Xylene	99	105	(35-145)	3	20%

Surrogate Recoveries

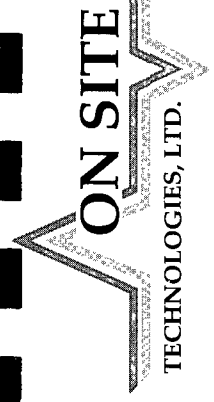
Laboratory Identification	S1 Percent Recovered	S2 Percent Recovered	Laboratory Identification	S1 Percent Recovered	S2 Percent Recovered
Limit Percent Recovery	(70-130)		Limit Percent Recovery	(70-130)	
12527-4156	97		12534-4156	95	
12528-4156	96		12535-4156	96	
12529-4156	96				
12530-4156	95				
12531-4156	96				
12532-4156	95				
12533-4156	96				

A handwritten signature, possibly "PC", is written in the bottom right corner of the page.

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CHAIN OF CUSTODY RECORD

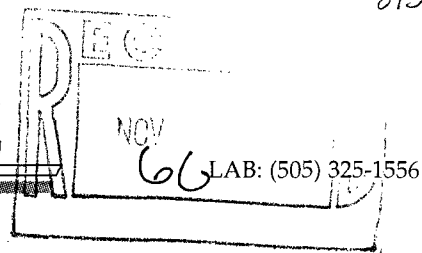


657 W. Maple • P. O. Box 2606 • Farmington NM 87499
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Date: 10/10/96 Page 2 of 5

Purchase Order No.:		Job No.		Name: <u>Samuel</u>		Title:	
SEND INVOICE TO		Name: <u>Terry Gaffin</u>		Company: <u>Biotech Remediation, Inc</u>		Mailing Address:	
		Address: <u>210 E. 20th Street, Suite 400</u>		City, State, Zip:		Telephone No.:	
		City, State, Zip: <u>Farmington, NM 87401</u>		Telephone No.:		Telefax No.:	
Sampling Location: <u>Thriftway Refinery</u> <u>626 Rd 5500</u> <u>Bloomfield, NM</u>		ANALYSIS REQUESTED					
Sampler: <u>Ken Sinks</u> <u>Ken Sinks</u>		Containers					
SAMPLE IDENTIFICATION		SAMPLE DATE		TIME		MATRIX	
Travel Blank		10/19/96		8 AM		WATER	
MW-1		15:15		15:15		12547-4156	
MW-3		15:00		15:00		12547	
MW-4		10:45		10:45		12547	
MW-5		11:15		11:15		12547	
MW-6		10:25		10:25		12547	
MW-18		14:40		14:40		12547	
MW-19		10:40		10:40		12547	
MW-21		10:00		10:00		12547	
Relinquished by: <u>Ken Sinks</u>		Date/Time: <u>10/10/96</u>		13.3		Received by: <u>Heather Rose</u>	
Relinquished by:		Date/Time:				Date/Time:	
Relinquished by:		Date/Time:				Date/Time:	
Method of Shipment:		Rush		24-48 Hours		10 Working Days	
Authorized by:		(Client Signature Must Accompany Request)		Date:		Special Instructions:	

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**AROMATIC VOLATILE ORGANICS**

Attn: *Terry Griffin*
 Company: *BioTech Remediation*
 Address: *710 E 20th Street, Suite 400*
 City, State: *Farmington, NM 87401*

Date: 15-Oct-96
 COC No.: 4155
 Sample No. 12518
 Job No. 2-1000

Project Name: *Thriftway Refinery 626 CR 5500 Bloomfield, NM*
 Project Location: *Travel Blank*
 Sampled by: KS Date: 8-Oct-96 Time: 8:00
 Analyzed by: DC Date: 14-Oct-96
 Sample Matrix: *Liquid*

Laboratory Analysis

<i>Parameter</i>	<i>Result</i>	<i>Unit of Measure</i>	<i>Detection Limit</i>	<i>Unit of Measure</i>
<i>Methyl-t-Butyl Ether</i>	<0.2	ug/L	0.2	ug/L
<i>Benzene</i>	<0.2	ug/L	0.2	ug/L
<i>Toluene</i>	<0.2	ug/L	0.2	ug/L
<i>Ethylbenzene</i>	<0.2	ug/L	0.2	ug/L
<i>m,p-Xylene</i>	<0.2	ug/L	0.2	ug/L
<i>o-Xylene</i>	<0.2	ug/L	0.2	ug/L
<i>TOTAL</i>	<0.2	ug/L		

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: *[Signature]*
 Date: *10/15/96*

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AROMATIC VOLATILE ORGANICS

Attn: *Terry Griffin*
Company: *BioTech Remediation*
Address: *710 E 20th Street, Suite 400*
City, State: *Farmington, NM 87401*

Date: *15-Oct-96*
COC No.: *4155*
Sample No. *12519*
Job No. *2-1000*

Project Name: *Thriftway Refinery 626 CR 5500 Bloomfield, NM*
Project Location: *MW-9*
Sampled by: *KS* Date: *8-Oct-96* Time: *15:30*
Analyzed by: *DC* Date: *14-Oct-96*
Sample Matrix: *Liquid*

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
Methyl-t-Butyl Ether	16.5	ug/L	0.2	ug/L
Benzene	<0.2	ug/L	0.2	ug/L
Toluene	<0.2	ug/L	0.2	ug/L
Ethylbenzene	<0.2	ug/L	0.2	ug/L
m,p-Xylene	<0.2	ug/L	0.2	ug/L
o-Xylene	<0.2	ug/L	0.2	ug/L
TOTAL		16.5	ug/L	

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: *[Signature]*
Date: *10/15/96*

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AROMATIC VOLATILE ORGANICS

Attn: **Terry Griffin**
Company: **BioTech Remediation**
Address: **710 E 20th Street, Suite 400**
City, State: **Farmington, NM 87401**

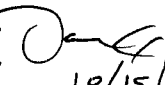
Date: **15-Oct-96**
COC No.: **4155**
Sample No. **12520**
Job No. **2-1000**

Project Name: **Thriftway Refinery 626 CR 5500 Bloomfield, NM**
Project Location: **MW-10**
Sampled by: **KS** Date: **8-Oct-96** Time: **14:40**
Analyzed by: **DC** Date: **14-Oct-96**
Sample Matrix: **Liquid**

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
Methyl-t-Butyl Ether	<0.2	ug/L	0.2	ug/L
Benzene	<0.2	ug/L	0.2	ug/L
Toluene	<0.2	ug/L	0.2	ug/L
Ethylbenzene	<0.2	ug/L	0.2	ug/L
m,p-Xylene	<0.2	ug/L	0.2	ug/L
o-Xylene	<0.2	ug/L	0.2	ug/L
	TOTAL	<0.2		ug/L

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: 
Date: **10/15/96**

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LAB: (505) 325-1556

AROMATIC VOLATILE ORGANICS

Attn: **Terry Griffin**
Company: **BioTech Remediation**
Address: **710 E 20th Street, Suite 400**
City, State: **Farmington, NM 87401**

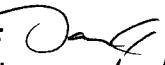
Date: **15-Oct-96**
COC No.: **4155**
Sample No. **12521**
Job No. **2-1000**

Project Name: **Thriftway Refinery 626 CR 5500 Bloomfield, NM**
Project Location: **MW-11**
Sampled by: **KS** Date: **8-Oct-96** Time: **15:00**
Analyzed by: **DC** Date: **14-Oct-96**
Sample Matrix: **Liquid**

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
Methyl-t-Butyl Ether	<0.2	ug/L	0.2	ug/L
Benzene	<0.2	ug/L	0.2	ug/L
Toluene	<0.2	ug/L	0.2	ug/L
Ethylbenzene	<0.2	ug/L	0.2	ug/L
m,p-Xylene	<0.2	ug/L	0.2	ug/L
o-Xylene	<0.2	ug/L	0.2	ug/L
	TOTAL	<0.2	ug/L	

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: 
Date: **10/15/96**

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AROMATIC VOLATILE ORGANICS

Attn: **Terry Griffin**
Company: **BioTech Remediation**
Address: **710 E 20th Street, Suite 400**
City, State: **Farmington, NM 87401**

Date: **15-Oct-96**
COC No.: **4155**
Sample No. **12522**
Job No. **2-1000**

Project Name: **Thriftway Refinery 626 CR 5500 Bloomfield, NM**
Project Location: **MW-13**
Sampled by: **KS** Date: **8-Oct-96** Time: **12:00**
Analyzed by: **DC** Date: **14-Oct-96**
Sample Matrix: **Liquid**

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
Methyl-t-Butyl Ether	<0.2	ug/L	0.2	ug/L
Benzene	<0.2	ug/L	0.2	ug/L
Toluene	<0.2	ug/L	0.2	ug/L
Ethylbenzene	<0.2	ug/L	0.2	ug/L
m,p-Xylene	<0.2	ug/L	0.2	ug/L
o-Xylene	<0.2	ug/L	0.2	ug/L
TOTAL		<0.2	ug/L	

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: 
Date: **10/15/96**

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QUALITY ASSURANCE REPORT
for EPA Method 8020

Date Analyzed: 14-Oct-96

Internal QC No.: 0486-QC

Surrogate QC No.: 0488-QC

Reference Standard QC No.: 0417-QC

Method Blank

Parameter	Result	Unit of Measure
Average Amount of All Analytes In Blank	<0.2	ppb

Calibration Check

Parameter	Unit of Measure	True Value	Analyzed Value	% Diff	Limit
Methyl-t-Butyl Ether	ppb	20.0	18.6	7	15%
Benzene	ppb	20.0	19.3	4	15%
Toluene	ppb	20.0	19.9	0	15%
Ethylbenzene	ppb	20.0	20.1	1	15%
m,p-Xylene	ppb	40.0	39.8	0	15%
o-Xylene	ppb	20.0	20.0	0	15%

Matrix Spike

Parameter	1 - Percent Recovered	2 - Percent Recovered	Limit	%RSD	Limit
Methyl-t-Butyl Ether	82	83	(39-150)	1	20%
Benzene	93	91	(39-150)	1	20%
Toluene	96	94	(46-148)	1	20%
Ethylbenzene	97	95	(32-160)	1	20%
m,p-Xylene	96	94	(35-145)	1	20%
o-Xylene	96	95	(35-145)	1	20%

Surrogate Recoveries

Laboratory Identification	S1 Percent Recovered	S2 Percent Recovered	Laboratory Identification	S1 Percent Recovered	S2 Percent Recovered
Limit Percent Recovery	(70-130)		Limit Percent Recovery	(70-130)	
12518-4155	96				
12519-4155	96				
12520-4155	96				
12521-4155	96				
12522-4155	97				

De

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AROMATIC VOLATILE ORGANICS

Attn: **Terry Griffin**
Company: **BioTech Remediation**
Address: **710 E 20th Street, Suite 400**
City, State: **Farmington, NM 87401**

Date: **15-Oct-96**
COC No.: **4155**
Sample No. **12523**
Job No. **2-1000**

Project Name: **Thriftway Refinery 626 CR 5500 Bloomfield, NM**
Project Location: **MW-15**
Sampled by: **KS** Date: **8-Oct-96** Time: **11:15**
Analyzed by: **DC** Date: **15-Oct-96**
Sample Matrix: **Liquid**

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
Methyl-t-Butyl Ether	<0.2	ug/L	0.2	ug/L
Benzene	<0.2	ug/L	0.2	ug/L
Toluene	<0.2	ug/L	0.2	ug/L
Ethylbenzene	<0.2	ug/L	0.2	ug/L
m,p-Xylene	0.2	ug/L	0.2	ug/L
o-Xylene	<0.2	ug/L	0.2	ug/L
TOTAL		0.2		ug/L

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: _____
Date: _____

10/16/96

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AROMATIC VOLATILE ORGANICS

Attn: *Terry Griffin*
Company: *BioTech Remediation*
Address: *710 E 20th Street, Suite 400*
City, State: *Farmington, NM 87401*

Date: 15-Oct-96
COC No.: 4155
Sample No. 12524
Job No. 2-1000

Project Name: *Thriftway Refinery 626 CR 5500 Bloomfield, NM*
Project Location: *MW-16*
Sampled by: *KS* Date: 8-Oct-96 Time: 12:45
Analyzed by: *DC* Date: 15-Oct-96
Sample Matrix: *Liquid*

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
Methyl-t-Butyl Ether	<0.2	ug/L	0.2	ug/L
Benzene	<0.2	ug/L	0.2	ug/L
Toluene	<0.2	ug/L	0.2	ug/L
Ethylbenzene	0.3	ug/L	0.2	ug/L
m,p-Xylene	<0.2	ug/L	0.2	ug/L
o-Xylene	<0.2	ug/L	0.2	ug/L
	TOTAL	0.3	ug/L	

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: *[Signature]*
Date: 10/16/96

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AROMATIC VOLATILE ORGANICS

Attn: Terry Griffin
Company: BioTech Remediation
Address: 710 E 20th Street, Suite 400
City, State: Farmington, NM 87401

Date: 15-Oct-96
COC No.: 4155
Sample No. 12525
Job No. 2-1000

Project Name: Thriftway Refinery 626 CR 5500 Bloomfield, NM
Project Location: MW-20
Sampled by: KS Date: 8-Oct-96 Time: 16:20
Analyzed by: DC Date: 15-Oct-96
Sample Matrix: Liquid

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
Methyl-t-Butyl Ether	73.3	ug/L	0.2	ug/L
Benzene	2.5	ug/L	0.2	ug/L
Toluene	11.5	ug/L	0.2	ug/L
Ethylbenzene	7.5	ug/L	0.2	ug/L
m,p-Xylene	3.4	ug/L	0.2	ug/L
o-Xylene	1.0	ug/L	0.2	ug/L
TOTAL		99.2		ug/L

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: 
Date: 10/16/96

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AROMATIC VOLATILE ORGANICS

Attn: Terry Griffin
Company: BioTech Remediation
Address: 710 E 20th Street, Suite 400
City, State: Farmington, NM 87401

Date: 15-Oct-96
COC No.: 4155
Sample No. 12526
Job No. 2-1000

Project Name: Thriftway Refinery 626 CR 5500 Bloomfield, NM
Project Location: MW-22
Sampled by: KS Date: 8-Oct-96 Time: 16:50
Analyzed by: DC Date: 15-Oct-96
Sample Matrix: Liquid

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
Methyl-t-Butyl Ether	22.9	ug/L	0.2	ug/L
Benzene	<0.2	ug/L	0.2	ug/L
Toluene	<0.2	ug/L	0.2	ug/L
Ethylbenzene	<0.2	ug/L	0.2	ug/L
m,p-Xylene	<0.2	ug/L	0.2	ug/L
o-Xylene	<0.2	ug/L	0.2	ug/L
TOTAL		22.9		ug/L

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: 
Date: 10/16/96

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

OFF: (505) 325-5667



LAB: (505) 325-1556

QUALITY ASSURANCE REPORT

for EPA Method 8020

Date Analyzed: 15-Oct-96

Internal QC No.: 0486-QC

Surrogate QC No.: 0488-QC

Reference Standard QC No.: 0417-QC

Method Blank

Parameter	Result	Unit of Measure
Average Amount of All Analytes In Blank	<0.2	ppb

Calibration Check

Parameter	Unit of Measure	True Value	Analyzed Value	% Diff	Limit
Methyl-t-Butyl Ether	ppb	20.0	17.6	12	15%
Benzene	ppb	20.0	18.9	6	15%
Toluene	ppb	20.0	19.3	4	15%
Ethylbenzene	ppb	20.0	19.5	3	15%
m,p-Xylene	ppb	40.0	38.5	4	15%
o-Xylene	ppb	20.0	19.2	4	15%

Matrix Spike

Parameter	1 - Percent Recovered	2 - Percent Recovered	Limit	%RSD	Limit
Methyl-t-Butyl Ether	61	68	(39-150)	8	20%
Benzene	99	101	(39-150)	1	20%
Toluene	102	109	(46-148)	4	20%
Ethylbenzene	105	110	(32-160)	3	20%
m,p-Xylene	102	108	(35-145)	4	20%
o-Xylene	99	105	(35-145)	3	20%

Surrogate Recoveries

Laboratory Identification	S1 Percent Recovered	S2 Percent Recovered	Laboratory Identification	S1 Percent Recovered	S2 Percent Recovered
Limit Percent Recovery	(70-130)		Limit Percent Recovery	(70-130)	
12523-4155	96				
12524-4155	96				
12525-4155	94				
12526-4155	96				

pc

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

CHAIN OF CUSTODY RECORD

ON SITE

TECHNOLOGIES, LTD.
657 W. Maple • P. O. Box 2606 • Farmington NM 87499
LAB: (505) 325-5667 • FAX: (505) 325-6256

Date: 10/10/96

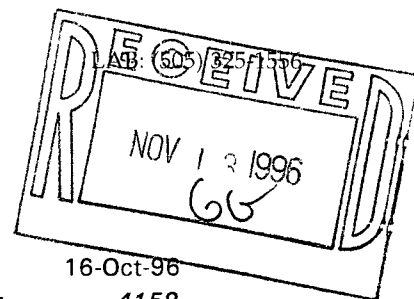
Page 1 of 5

Purchase Order No.:		Job No.		Name: SAME		Title:	
SEND INVOICE TO		Name: Terry Griffin		Company: BioTech Remediation, Inc.		Mailing Address:	
		Address: 710 E. 20th Street, Suite 400		City, State, Zip:		Telephone No.:	
		City, State, Zip: Farmington NM 87401		Telephone No.:		Telefax No.:	
Sampling Location: Theifway Refinery 626 Rd 5500 Blountfield, NM		ANALYSIS REQUESTED					
Sampler: Ken Smith De Smith		Number of Containers					
SAMPLE IDENTIFICATION		SAMPLE DATE		TIME		MATRIX	
Target Blank		10/13/96		8AM		WATER	
MW-9		15:30		15:30		12510	
MW-10		19:40		19:40		12510	
MW-11		15:30		15:30		12510	
MW-13		12:00		12:00		12510	
MW-15		11:15		11:15		12510	
MW-16		12:45		12:45		12510	
MW-20		16:20		16:20		12510	
MW-22		16:50		16:50		12510	
Relinquished by: Ken Smith		Date/Time: 10/10/96 13:30		Received by: Heide Rees		Date/Time: 10/10/96 13:30	
Relinquished by:		Date/Time:		Received by:		Date/Time:	
Relinquished by:		Date/Time:		Received by:		Date/Time:	
Method of Shipment:		Rush		24-48 Hours		10 Working Days	
Authorized by:		(Client Signature Must Accompany Request)		Special Instructions:			

OFF: (505) 325-5667



ANALYTICAL REPORT



Attn: **Terry Griffin**
 Company: **BioTech Remediation**
 Address: **710 E 20th Street, Suite 400**
 City, State: **Farmington, NM 87401**

Date: **16-Oct-96**
 COC No.: **4158**
 Sample ID: **12543**
 Job No.: **2-1000**

Project Name: **Thriftway Refinery 626 CR 5500 Bloomfield, NM**
 Project Location: **Stripper Inlet**
 Sampled by: **KS** Date: **10-Oct-96** Time: **10:30**
 Analyzed by: **HR** Date: **14-Oct-96**

Laboratory Analysis

Parameter	Result	Unit of Measure	Result	Unit of Measure
Cations				
Sodium Na	863	mg/L	37.52	me/L
Calcium Ca	335	mg/L	16.72	me/L
Magnesium Mg	33.5	mg/L	2.76	me/L
Potassium K	9.2	mg/L	0.23	me/L
Anions				
Chloride Cl	1212	mg/L	34.19	me/L
Sulfate SO4	1374	mg/L	28.61	me/L
Carbonate CO3 as CaCO3	<1	mg/L	<0.01	me/L
Bicarbonate HCO3 as CaCO3	<1	mg/L	<0.01	me/L
Hydroxide OH as CaCO3	<1	mg/L	<0.01	me/L
Total Dissolved Solids				
Calculated, Sum of Cation/Anion	3826	mg/L	Cation-Anion Balance 5.57 Difference Cation-Anion, me/L 120.02 Total Cation-Anion, me/L 4.6 % Difference Cation-Anion	
Total Dissolved Solids				
Dried @ 180 C	3430	mg/L		
pH	2.06			
Conductivity @ 25 C	7620	uS/cm	Comments	
Total Hardness as CaCO3	974	mg/L		

Approved by: 
 Date: **10/16/96**

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Attn: **Terry Griffin**
 Company: **BioTech Remediation**
 Address: **710 E 20th Street, Suite 400**
 City, State: **Farmington, NM 87401**

Date: **16-Oct-96**
 COC No.: **4158**
 Sample ID: **12544**
 Job No.: **2-1000**

Project Name: **Thriftway Refinery 626 CR 5500 Bloomfield, NM**
 Project Location: **Stripper Effluent**

Sampled by: **KS** Date: **10-Oct-96** Time: **10:40**
 Analyzed by: **HR** Date: **14-Oct-96**

Laboratory Analysis

Parameter	Result	Unit of Measure		Result	Unit of Measure	
Cations						
Sodium Na	878	mg/L		38.17	me/L	
Calcium Ca	345	mg/L		17.22	me/L	
Magnesium Mg	34.8	mg/L		2.86	me/L	
Potassium K	9.3	mg/L		0.24	me/L	
Anions						
Chloride Cl	1047	mg/L		29.53	me/L	
Sulfate SO ₄	1419	mg/L		29.54	me/L	
Carbonate CO ₃ as CaCO ₃	<1	mg/L		<0.01	me/L	
Bicarbonate HCO ₃ as CaCO ₃	<1	mg/L		<0.01	me/L	
Hydroxide OH as CaCO ₃	<1	mg/L		<0.01	me/L	
Total Dissolved Solids			Cation-Anion Balance 0.59 Difference Cation-Anion, me/L 117.56 Total Cation-Anion, me/L 0.5 % Difference Cation-Anion Comments			
Calculated, Sum of Cation/Anion	3733	mg/L				
Total Dissolved Solids						
Dried @ 180 C	3562	mg/L				
pH	2.50					
Conductivity @ 25 C	6070	uS/cm				
Total Hardness as CaCO ₃	1005	mg/L				

Approved by: 

Date: 10/16/96

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

OFF: (505) 325-5667



LAB: (505) 325-1556

QUALITY ASSURANCE REPORT*Cation/Anion Balance***Date:** 14-Oct-96**Quality Control Sample**

<i>Parameter</i>	<i>Laboratory Identification</i>	<i>True Value</i>	<i>Analyzed Value</i>	<i>Unit of Measure</i>	<i>% Diff</i>	<i>Limit % Diff</i>
<i>Sodium, Na</i>	0507-QC	3.60	3.81	mg/L	6	10
<i>Calcium, Ca</i>	0454-QC	3.11	3.19	mg/L	3	10
<i>Magnesium, Mg</i>	0454-QC	0.97	0.94	mg/L	-3	10
<i>Potassium, K</i>	0507-QC	2.24	2.27	mg/L	1	10
<i>Chloride, Cl</i>	0507-QC	155	151	mg/L	-3	10
<i>Sulfate, SO₄</i>	0507-QC	116	120	mg/L	3	10
<i>Alkalinity</i>	0507-QC	174	190	mg/L	9	10
<i>pH</i>	0507-QC	9.05	9.21		2	10
<i>Conductivity</i>	0507-QC	1210	1172	uS/cm	-3	15
<i>Total Dissolved Solids, 180C</i>	0507-QC	905	884	uS/cm	-2	15

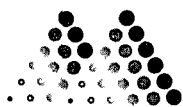
Matrix Spike

<i>Parameter</i>	<i>Laboratory Identification</i>	<i>Analyzed Value</i>	<i>Matrix Spike</i>	<i>Spike Value</i>	<i>Unit of Measure</i>	<i>Spike Recovery</i>
<i>Sodium, Na</i>	12544-4158	1.76	0.50	2.28	mg/L	101%
<i>Calcium, Ca</i>	12544-4158	0.69	0.50	1.15	mg/L	97%
<i>Magnesium, Mg</i>	12544-4158	0.70	0.50	1.16	mg/L	97%
<i>Potassium, K</i>	12544-4158	0.92	0.50	1.30	mg/L	92%

Method Blank

<i>Parameter</i>	<i>Laboratory Identification</i>	<i>Analyzed Value</i>	<i>Unit of Measure</i>
<i>Sodium, Na</i>	LF-Blank	<0.2	mg/L
<i>Calcium, Ca</i>	LF-Blank	<0.05	mg/L
<i>Magnesium, Mg</i>	LF-Blank	<0.05	mg/L
<i>Potassium, K</i>	LF-Blank	<0.05	mg/L
<i>Chloride, Cl</i>	LF-Blank	<3 X DL	mg/L
<i>Sulfate, SO₄</i>	LF-Blank	<1	mg/L
<i>Conductivity</i>	LF-Blank	<2	uS/cm

(pc)



Mountain States Analytical

The Quality Solution

October 31, 1996

Mr. David Cox
On Site Technologies, Ltd.
612 E Murray Drive
Farmington, NM 87401

Reference:

Project: Thriftway Refinery
Project No.: 13101001
MSAI Group: 13881

Dear Mr. Cox:

Enclosed are the analytical results for your project referenced above. The following samples are included in the report.

12543-4158

12544-4158

12553-4159

12554-4159

All holding times were met for the tests performed on these samples.

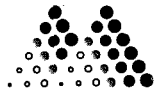
If the report is acceptable, please approve the enclosed invoice and forward it for payment.

Thank you for selecting Mountain States Analytical, Inc. to serve as your analytical laboratory on this project. If you have any questions concerning these results, please feel free to contact me at any time.

We look forward to working with you on future projects.

With Regards,

Rolf E. Larsen
Project Manager



Mountain States Analytical

The Quality Solution

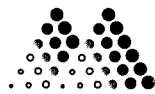
On Site Technologies, Ltd.
612 E Murray Drive
Farmington, NM 87401

Attn: Mr. David Cox
Project: Thriftway Refinery

Sample ID: 12543-4158 STRIPPER INLET (PC)
Matrix: Waste Water

MSAI Sample: 54016
MSAI Group: 13881
Date Reported: 10/31/96
Discard Date: 11/30/96
Date Submitted: 10/11/96
Date Sampled: 10/10/96
Collected by: DC
Purchase Order: 4158
Project No.: 13101001

Test Analysis	Results as Received	Units	Limit of Quantitation
0259B Mercury by CVAA, w/ww, SW-846 Method: SW-846 7470	0.0006	mg/l	0.0005
0392I Flame/ICP Prep for Metals, Waters Method: SW-846 3005A	Complete		
0392M Mercury Prep CVAA, Waters Method: SW-846 7470	Complete		
7245 Arsenic by ICP Method: SW-846 6010A	ND	mg/l	0.10
7246 Barium by ICP Method: SW-846 6010A	0.11	mg/l	0.02
7249 Cadmium by ICP Method: SW-846 6010A	ND	mg/l	0.02
7251 Chromium by ICP Method: SW-846 6010A	0.37	mg/l	0.03
7255 Lead by ICP Method: SW-846 6010A	ND	mg/l	0.15
7264 Selenium by ICP Method: SW-846 6010A	ND	mg/l	0.30
7266 Silver by ICP Method: SW-846 6010A	ND	mg/l	0.02
0504 Fluoride, Ion Chromatography Method: EPA 300.0	ND	mg/l	2.5
0505 Bromide, Ion Chromatography Method: EPA 300.0	ND	mg/l	2.5



Mountain States Analytical

On Site Technologies, Ltd. *The Quality Solution*

Page 2

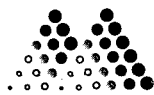
Sample ID: 12543-4158

MSAI Sample: 54016
MSAI Group: 13881

ND - Not detected at the limit of quantitation

Respectfully Submitted,
Reviewed and Approved by:

Rolf E. Larsen
Project Manager



Mountain States Analytical

The Quality Solution

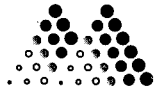
On Site Technologies, Ltd.
612 E Murray Drive
Farmington, NM 87401

Attn: Mr. David Cox
Project: Thriftway Refinery

Sample ID: 12544-4158 **STRIKES EFFLUENT** (PC)
Matrix: Waste Water

MSAI Sample: 54017
MSAI Group: 13881
Date Reported: 10/31/96
Discard Date: 11/30/96
Date Submitted: 10/11/96
Date Sampled: 10/10/96
Collected by: DC
Purchase Order: 4158
Project No.: 13101001

Test Analysis	Results as Received	Units	Limit of Quantitation
0259B Mercury by CVAA, w/ww, SW-846 Method: SW-846 7470	0.0006	mg/l	0.0005
0392I Flame/ICP Prep for Metals, Waters Method: SW-846 3005A	Complete		
0392M Mercury Prep CVAA, Waters Method: SW-846 7470	Complete		
7245 Arsenic by ICP Method: SW-846 6010A	ND	mg/l	0.10
7246 Barium by ICP Method: SW-846 6010A	0.11	mg/l	0.02
7249 Cadmium by ICP Method: SW-846 6010A	ND	mg/l	0.02
7251 Chromium by ICP Method: SW-846 6010A	0.09	mg/l	0.03
7255 Lead by ICP Method: SW-846 6010A	ND	mg/l	0.15
7264 Selenium by ICP Method: SW-846 6010A	ND	mg/l	0.30
7266 Silver by ICP Method: SW-846 6010A	ND	mg/l	0.02
0504 Fluoride, Ion Chromatography Method: EPA 300.0	ND	mg/l	2.5
0505 Bromide, Ion Chromatography Method: EPA 300.0	ND	mg/l	2.5



Mountain States Analytical

The Quality Solution

On Site Technologies, Ltd.

Sample ID: 12544-4158

Page 2

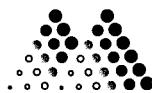
MSAI Sample: 54017

MSAI Group: 13881

ND - Not detected at the limit of quantitation

Respectfully Submitted,
Reviewed and Approved by:

Rolf E. Larsen
Project Manager



Mountain States Analytical

The Quality Solution

On Site Technologies, Ltd.
612 E Murray Drive
Farmington, NM 87401

Attn: Mr. David Cox
Project: Thriftway Refinery

Sample ID: 12553-4159 STRIPPER INLET (D)
Matrix: Waste Water

MSAI Sample: 54018
MSAI Group: 13881
Date Reported: 10/31/96
Discard Date: 11/30/96
Date Submitted: 10/11/96
Date Sampled: 10/10/96
Collected by: DC
Purchase Order: 4158
Project No.: 13101001

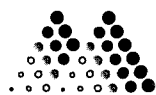
Test	Analysis	Results as Received	Units	Limit of Quantitation
----	-----	-----	-----	-----
6719	Polycyclic Aromatic Hydrocarbons Method: SW-846 8270A			
	Acenaphthene	ND	ug/l	(1) 10
	Acenaphthylene	ND	ug/l	10
	Anthracene	ND	ug/l	10
	Benz (a) anthracene	ND	ug/l	10
	Benzo (b) fluoranthene	ND	ug/l	10
	Benzo (k) fluoranthene	ND	ug/l	10
	Benzo (ghi) perylene	ND	ug/l	10
	Benzo (a) pyrene	ND	ug/l	10
	Chrysene	ND	ug/l	10
	Dibenz (a, h) anthracene	ND	ug/l	10
	Fluoranthene	ND	ug/l	10
	Fluorene	ND	ug/l	10
	Naphthalene	90	ug/l	10
	Phenanthrene	ND	ug/l	10
	Pyrene	ND	ug/l	10
	Indeno (1, 2, 3-cd) pyrene	ND	ug/l	10
	2-Methylnaphthalene	34	ug/l	10
3000	SVOA Extraction, Water Method: SW-846 3510/3520	Complete		

- (1) Surrogates fell outside of QC limits for this sample. Due to limited sample volume re-extraction was not possible. These values should be taken as approximate.

ND - Not detected at the limit of quantitation

Respectfully Submitted,
Reviewed and Approved by:

Rolf E. Larsen
Project Manager



Mountain States Analytical

The Quality Solution

On Site Technologies, Ltd.
612 E Murray Drive
Farmington, NM 87401

Attn: Mr. David Cox
Project: Thriftway Refinery

Sample ID: 12554-4159 STRIPPED EFFLUENT (P)
Matrix: Waste Water

MSAI Sample: 54019
MSAI Group: 13881
Date Reported: 10/31/96
Discard Date: 11/30/96
Date Submitted: 10/11/96
Date Sampled: 10/10/96
Collected by: DC
Purchase Order: 4158
Project No.: 13101001

Test	Analysis	Results as Received	Units	Limit of Quantitation
6719	Polycyclic Aromatic Hydrocarbons Method: SW-846 8270A			
	Acenaphthene	ND	ug/l	10
	Acenaphthylene	ND	ug/l	10
	Anthracene	ND	ug/l	10
	Benz (a) anthracene	ND	ug/l	10
	Benzo (b) fluoranthene	ND	ug/l	10
	Benzo (k) fluoranthene	ND	ug/l	10
	Benzo (ghi) perylene	ND	ug/l	10
	Benzo (a) pyrene	ND	ug/l	10
	Chrysene	ND	ug/l	10
	Dibenz (a,h) anthracene	ND	ug/l	10
	Fluoranthene	ND	ug/l	10
	Fluorene	ND	ug/l	10
	Naphthalene	ND	ug/l	10
	Phenanthrene	ND	ug/l	10
	Pyrene	ND	ug/l	10
	Indeno (1,2,3-cd) pyrene	ND	ug/l	10
	2-Methylnaphthalene	ND	ug/l	10
3000	SVOA Extraction, Water Method: SW-846 3510/3520	Complete		

ND - Not detected at the limit of quantitation

Respectfully Submitted,
Reviewed and Approved by:


Rolf E. Larsen
Project Manager

Analysis Batch Number: 0259T-10/22/96-001 -1

Test Identification : 0259T-Mercury by CVAA, TCLP

Sequence : 0259T-1

Number of Samples : 12

Batch Data-Date/Time : 10/22/96 / 10:16:48

BLANK#	ANALYTE	CONC FOUND #	CONC LIMIT
BW1-683	Mercury	0.0200	0.5000
PBW2-683-2	Mercury	0.0300	0.5000

						QC LIMITS	
SAMPLE#	ANALYTE	CONC ADDED	CONC SAMPLE	CONC SPIKE	% REC #	LOWER	UPPER
13987-54428	Mercury	1.0000	0.7700	1.0700	30.0(A)	80.0	120.0

						QC LIMITS			
SAMPLE#	ANALYTE	CONC ADDED	CONC SAMPLE	RESULT 2	%REC2 #	LOWER	UPPER	RPD #	LIMIT
13987-54428	Mercury	1.0000	0.7700	1.0700	30.0(A)	80.0	120.0	0.0	20.0

DUPLICATE							
SAMPLE#	ANALYTE	RESULT 1	RESULT 2	RPD #	LIMIT	DILUTION	
13987-54428	Mercury	0.7700	0.5200	38.8(3a)	20.0	1.00	

						QC LIMITS	
SAMPLE#	ANALYTE	CONC FOUND	CONC KNOWN	% REC #	LOWER	UPPER	
CSW-683	Mercury	2.2700	2.5000	90.8	80.0	120.0	

						QC LIMITS	
CV #	ANALYTE	TRUE VALUE	BATCH READ	% REC #	LOWER	UPPER	
ICV-	Mercury	3.0000	3.2300	107.7	80.0	120.0	
CCV--2	Mercury	5.0000	4.4200	88.4	80.0	120.0	
CCV--3	Mercury	5.0000	4.7900	95.8	80.0	120.0	
CCV--4	Mercury	5.0000	5.3700	107.4	80.0	120.0	
CCV--5	Mercury	5.0000	4.7500	95.0	80.0	120.0	

CB#	ANALYTE	CONC FOUND #	CONC LIMIT
CCB-	Mercury	0.0300	0.5000
CB-	Mercury	0.0500	0.5000
CB-	Mercury	ND	0.5000
CCB-	Mercury	0.1100	0.5000
CCB-	Mercury	0.0100	0.5000

----- Result Footnotes -----

(A) - Matrix Interference inherent to the sample

(3a) - Duplicate is valid because result is <5x the detection limit

Groups & Samples

13870-53979	13870-53980	13870-53981	13870-53982	13871-53983	13871-53984	13871-53985	13871-53986
13871-53987	13881-54016	13881-54017	13957-54296	13987-54428			

Analysis Batch Number: ICPWA-10/30/96-010 -2

Test Identification : ICPWA-Metals by ICP

Sequence : DATE304

Number of Samples : 22

Batch Data-Date/Time : 10/31/96 / 02:55:53

ANK#	ANALYTE	CONC FOUND #	CONC LIMIT
BW1-668	Arsenic	0.0044	0.0500
	Barium	0.0005	0.2000
	Cadmium	ND	0.0050
	Chromium	0.0024	0.0100
	Iron	0.0103	0.1000
	Lead	ND	0.0500
	Nickel	ND	0.0400
	Selenium	0.0061	0.1000
	Silver	ND	0.0100
	Titanium	0.0006	0.0100
BW2-668-2	Arsenic	ND	0.0500
	Barium	ND	0.2000
	Cadmium	ND	0.0050
	Chromium	ND	0.0100
	Iron	0.0451	0.1000
	Lead	ND	0.0500
	Nickel	ND	0.0400
	Selenium	0.0014	0.1000
	Silver	ND	0.0100
	Titanium	0.0007	0.0100

SPIKE							QC LIMITS	
SAMPLE#	ANALYTE	CONC ADDED	CONC SAMPLE	CONC SPIKE	% REC #		LOWER	UPPER
852-53917	Arsenic	2.0000	0.0008	2.0871	104.3		80.0	120.0
	Barium	2.0000	0.0291	2.0424	100.7		80.0	120.0
	Cadmium	0.0500	0.0000	0.0534	106.8		80.0	120.0
	Chromium	0.2000	0.0038	0.2090	102.6		80.0	120.0
	Iron	1.0000	1.0581	1.7334	67.5(B)		80.0	120.0
	Lead	0.5000	-0.0088	0.5029	102.3		80.0	120.0
	Nickel	0.5000	0.0030	0.5172	102.8		80.0	120.0
	Selenium	2.0000	0.4224	2.4375	100.8		80.0	120.0
	Silver	0.0500	-0.0028	0.0519	109.4		80.0	120.0
	Titanium	0.1000	0.0224	0.1246	102.2		75.0	125.0

SD							QC LIMITS			
SAMPLE#	ANALYTE	CONC ADDED	CONC SAMPLE	RESULT 2	%REC2 #		LOWER	UPPER	RPD #	LIMIT
852-53917	Arsenic	2.0000	0.0008	2.0805	104.0		80.0	120.0	0.3	20.0
	Barium	2.0000	0.0291	2.0211	99.6		80.0	120.0	1.1	20.0
	Cadmium	0.0500	0.0000	0.0524	104.8		80.0	120.0	1.9	20.0
	Chromium	0.2000	0.0038	0.2093	102.8		80.0	120.0	0.2	20.0
	Iron	1.0000	1.0581	1.7642	70.6(B)		80.0	120.0	4.5	20.0
	Lead	0.5000	-0.0088	0.4946	100.7		80.0	120.0	1.6	20.0
	Nickel	0.5000	0.0030	0.5129	102.0		80.0	120.0	0.8	20.0
	Selenium	2.0000	0.4224	2.4446	101.1		80.0	120.0	0.3	20.0
	Silver	0.0500	-0.0028	0.0518	109.2		80.0	120.0	0.2	20.0
	Titanium	0.1000	0.0224	0.1221	99.7		75.0	125.0	2.5	20.0

Analysis Batch Number: ICPWA-10/30/96-010 -2

Test Identification : ICPWA-Metals by ICP

Sequence : DATE304

Number of Samples : 22

Batch Date/Time : 10/31/96 / 02:55:53

DUPLICATE

AMPLE#	ANALYTE	RESULT 1	RESULT 2	RPD #	LIMIT	DILUTION
13852-53917	Arsenic	0.0008	0.0000	200.0(11)	20.0	1.00
	Barium	0.0291	0.0299	2.7	20.0	1.00
	Cadmium	0.0000	0.0000	0.0	20.0	1.00
	Chromium	0.0038	0.0060	44.9(11)	20.0	1.00
	Iron	1.0581	0.7997	27.8(B)	20.0	1.00
	Lead	-0.0088	0.0060	1057.1(11)	20.0	1.00
	Nickel	0.0030	0.0004	152.9(11)	20.0	1.00
	Selenium	0.4224	0.4050	4.2	20.0	1.00
	Silver	-0.0028	0.0000	200.0(11)	20.0	1.00
	Titanium	0.0224	0.0272	19.4	20.0	1.00

CONTROL

AMPLE#	ANALYTE	CONC FOUND	CONC KNOWN	% REC #	QC LIMITS	
LCSW-668	Arsenic	2.0501	2.0000	102.5	80.0	120.0
	Barium	1.9998	2.0000	100.0	80.0	120.0
	Cadmium	0.0532	0.0500	106.4	80.0	120.0
	Chromium	0.2110	0.2000	105.5	80.0	120.0
	Iron	1.1331	1.0000	113.3	80.0	120.0
	Lead	0.5357	0.5000	107.1	80.0	120.0
	Nickel	0.5257	0.5000	105.1	80.0	120.0
	Selenium	1.9882	2.0000	99.4	80.0	120.0
	Silver	0.0544	0.0500	108.8	80.0	120.0
	Titanium	0.1052	0.1000	105.2	80.0	120.0

QC LIMITS

CV #	ANALYTE	TRUE VALUE	BATCH READ	% REC #	LOWER	UPPER
CV-	Arsenic	1.6000	1.6153	101.0	90.0	110.0
	Barium	4.0000	3.8606	96.5	90.0	110.0
	Cadmium	4.0000	3.9679	99.2	90.0	110.0
	Chromium	4.0000	3.9917	99.8	90.0	110.0
	Iron	4.0000	3.9623	99.1	90.0	110.0
	Lead	20.0000	19.5094	97.5	90.0	110.0
	Nickel	8.0000	7.8985	98.7	90.0	110.0
	Selenium	1.6000	1.5664	97.9	90.0	110.0
	Silver	0.8000	0.8130	101.6	90.0	110.0
	Titanium	1.6000	1.6095	100.6	90.0	110.0
CV1--2	Arsenic	1.6000	1.6176	101.1	90.0	110.0
	Barium	4.0000	3.8966	97.4	90.0	110.0
	Cadmium	4.0000	4.0266	100.7	90.0	110.0
	Chromium	4.0000	4.0382	101.0	90.0	110.0
	Iron	4.0000	4.0606	101.5	90.0	110.0
	Lead	20.0000	19.7273	98.6	90.0	110.0
	Nickel	8.0000	7.9584	99.5	90.0	110.0
	Selenium	1.6000	1.6441	102.8	90.0	110.0
	Silver	0.8000	0.8168	102.1	90.0	110.0
	Titanium	1.6000	1.6239	101.5	90.0	110.0
CV2--3	Arsenic	1.6000	1.6295	101.8	90.0	110.0
	Barium	4.0000	3.8952	97.4	90.0	110.0
	Cadmium	4.0000	4.0340	100.9	90.0	110.0

Analysis Batch Number: ICPWA-10/30/96-010 -2

Test Identification : ICPWA-Metals by ICP

Sequence : DATE304

Number of Samples : 22

Batch Data-Date/Time : 10/31/96 / 02:55:53

CV #	ANALYTE	QC LIMITS				
		TRUE VALUE	BATCH READ	% REC #	LOWER	UPPER
CCV2--3	Chromium	4.0000	4.0450	101.1	90.0	110.0
	Iron	4.0000	4.0070	100.2	90.0	110.0
	Lead	20.0000	19.7185	98.6	90.0	110.0
	Nickel	8.0000	8.0070	100.1	90.0	110.0
	Selenium	1.6000	1.5778	98.6	90.0	110.0
	Silver	0.8000	0.8181	102.3	90.0	110.0
	Titanium	1.6000	1.6273	101.7	90.0	110.0
CCV3--4	Arsenic	1.6000	1.6351	102.2	90.0	110.0
	Barium	4.0000	3.8113	95.3	90.0	110.0
	Cadmium	4.0000	4.0388	101.0	90.0	110.0
	Chromium	4.0000	4.0290	100.7	90.0	110.0
	Iron	4.0000	4.0111	100.3	90.0	110.0
	Lead	20.0000	19.6934	98.5	90.0	110.0
	Nickel	8.0000	8.0532	100.7	90.0	110.0
	Selenium	1.6000	1.5773	98.6	90.0	110.0
	Silver	0.8000	0.8083	101.0	90.0	110.0
CCV4--5	Titanium	1.6000	5.8622	366.4(L)	90.0	110.0
	Arsenic	1.6000	1.6216	101.3	90.0	110.0
	Barium	4.0000	3.9140	97.9	90.0	110.0
	Cadmium	4.0000	3.9792	99.5	90.0	110.0
	Chromium	4.0000	4.0003	100.0	90.0	110.0
	Iron	4.0000	3.7547	93.9	90.0	110.0
	Lead	20.0000	19.4689	97.3	90.0	110.0
	Nickel	8.0000	7.8649	98.3	90.0	110.0
	Selenium	1.6000	1.5955	99.7	90.0	110.0
CCV5--6	Silver	0.8000	0.8235	102.9	90.0	110.0
	Titanium	1.6000	1.7353	108.5	90.0	110.0
	Arsenic	1.6000	1.6222	101.4	90.0	110.0
	Barium	4.0000	3.8500	96.3	90.0	110.0
	Cadmium	4.0000	3.9949	99.9	90.0	110.0
	Chromium	4.0000	3.9939	99.8	90.0	110.0
	Iron	4.0000	3.8978	97.4	90.0	110.0
	Lead	20.0000	19.4080	97.0	90.0	110.0
	Nickel	8.0000	7.8776	98.5	90.0	110.0
	Selenium	1.6000	1.6622	103.9	90.0	110.0
	Silver	0.8000	0.8145	101.8	90.0	110.0
	Titanium	1.6000	1.7347	108.4	90.0	110.0

CCB#	ANALYTE	CONC FOUND #	CONC LIMIT
CCB-	Arsenic	ND	0.0500
	Barium	ND	0.2000
	Cadmium	ND	0.0050
	Chromium	ND	0.0100
	Iron	ND	0.1000
	Lead	0.0114	0.0500
	Nickel	ND	0.0400
	Selenium	0.0083	0.1000
	Silver	ND	0.0100
	Titanium	ND	0.0100

Analysis Batch Number: ICPWA-10/30/96-010 -2

Test Identification : ICPWA-Metals by ICP

Sequence : DATE304

Number of Samples : 22

Batch Data-Date/Time : 10/31/96 / 02:55:53

CB#	ANALYTE	CONC FOUND #	CONC LIMIT
CB1-	Arsenic	ND	0.0500
	Barium	ND	0.2000
	Cadmium	ND	0.0050
	Chromium	ND	0.0100
	Iron	ND	0.1000
	Lead	ND	0.0500
	Nickel	ND	0.0400
	Selenium	0.0130	0.1000
	Silver	ND	0.0100
	Titanium	ND	0.0100
CB2-	Arsenic	ND	0.0500
	Barium	0.0003	0.2000
	Cadmium	0.0007	0.0050
	Chromium	ND	0.0100
	Iron	ND	0.1000
	Lead	0.0041	0.0500
	Nickel	ND	0.0400
	Selenium	0.0143	0.1000
	Silver	ND	0.0100
	Titanium	0.0004	0.0100
CB3-	Arsenic	0.0045	0.0500
	Barium	0.0005	0.2000
	Cadmium	0.0011	0.0050
	Chromium	0.0015	0.0100
	Iron	0.0207	0.1000
	Lead	0.0130	0.0500
	Nickel	ND	0.0400
	Selenium	0.0196	0.1000
	Silver	0.0021	0.0100
	Titanium	0.2750(L)	0.0100
CB4-	Arsenic	0.0073	0.0500
	Barium	ND	0.2000
	Cadmium	ND	0.0050
	Chromium	ND	0.0100
	Iron	ND	0.1000
	Lead	ND	0.0500
	Nickel	ND	0.0400
	Selenium	0.0061	0.1000
	Silver	0.0001	0.0100
	Titanium	ND	0.0100
CB5-	Arsenic	ND	0.0500
	Barium	ND	0.2000
	Cadmium	0.0009	0.0050
	Chromium	ND	0.0100
	Iron	0.0421	0.1000
	Lead	ND	0.0500
	Nickel	ND	0.0400
	Selenium	ND	0.1000
	Silver	ND	0.0100
	Titanium	ND	0.0100

Analysis Batch Number: ICPWA-10/30/96-010 -2

Test Identification : ICPWA-Metals by ICP

Sequence : DATE304

Number of Samples : 22

Batch Data-Date/Time : 10/31/96 / 02:55:53

----- Result Footnotes -----

(3) - Incomplete Homogenization

(11) - Both Duplicate results are less than the LOQ.

(1) - All samples associated with this QC sample were reanalyzed.

Groups & Samples

13852-53917	13852-53918	13852-53919	13852-53920	13852-53921	13859-53943	13859-53944	13863-53955
13863-53956	13863-53957	13863-53959	13881-54016	13881-54017	13884-54024	13884-54025	

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

WBLK

Lab Name: MOUNTAIN STATES

Contract:

Lab Code: MSAI

Case No.:

SAS No.:

SDG No.: OST

Matrix: (soil/water) WATER

Lab Sample ID: 961011WB

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: Z7610

Level: (low/med) LOW

Date Received: _____

% Moisture: _____ decanted: (Y/N) _____

Date Extracted: _____

Concentrated Extract Volume: 1000(uL)

Date Analyzed: 10/14/96

Injection Volume: 1.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
---------	----------	--	---

91-20-3-----	Naphthalene	10	U
91-57-6-----	2-Methylnaphthalene	10	U
208-96-8-----	Acenaphthylene	10	U
83-32-9-----	Acenaphthene	10	U
86-73-7-----	Fluorene	10	U
85-01-8-----	Phenanthrene	10	U
120-12-7-----	Anthracene	10	U
206-44-0-----	Fluoranthene	10	U
129-00-0-----	Pyrene	10	U
56-55-3-----	Benzo(a)anthracene	10	U
218-01-9-----	Chrysene	10	U
205-99-2-----	Benzo(b)fluoranthene	10	U
207-08-9-----	Benzo(k)fluoranthene	10	U
50-32-8-----	Benzo(a)pyrene	10	U
193-39-5-----	Indeno(1,2,3-cd)pyrene	10	U
53-70-3-----	Dibenz(a,h)anthracene	10	U
191-24-2-----	Benzo(g,h,i)perylene	10	U

2C
WATER SEMIVOLATILE SURROGATE RECOVERY

Lab Name: MOUNTAIN STATES

Contract:

Lab Code: MSAI

Case No.:

SAS No.:

SDG No.: OST

	EPA SAMPLE NO.	S1 (2FP) #	S2 (PHL) #	S3 (NBZ) #	S4 (FBP) #	S5 (TBP) #	S6 (TPH) #	S7 #	S8 #	TOT OUT
01	WBLK	48	32	83	72	101	99			0
02	WBLKLC	53	36	96	85	61	92			0
03	WBLKLCSD	56	38	99	87	102	98			0
04	12553	27	31	78	79	56	86			0
05	12554	3*	11	70	71	5*	86			2
06										
07										
08										
09										
10										
11										
12										
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25										
26										
27										
28										
29										
30										

QC LIMITS

S1 (2FP) = 2-Fluorophenol (21-100)
 S2 (PHL) = Phenol-d6 (10- 94)
 S3 (NBZ) = Nitrobenzene-d5 (35-114)
 S4 (FBP) = 2-Fluorobiphenyl (43-116)
 S5 (TBP) = 2,4,6-Tribromophenol (10-123)
 S6 (TPH) = Terphenyl-d14 (33-141)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogate diluted out

* note: Due to limited sample volume, re-extraction could
not be done.

FORM 3
WATER SEMIVOLATILE LAB CONTROL SAMPLE

Lab Name: MOUNTAIN STATES

Contract:

Lab Code: MSAI

Case No.:

SAS No.:

SDG No.: OST

Matrix Spike - Sample No.: WBLK

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC #	QC. LIMITS REC.
Phenol	100	0.0	32	32	5-112
2-Chlorophenol	100	0.0	67	67	23-134
1,4-Dichlorobenzene	100	0.0	46	46	20-124
N-Nitrosodi-n-propylami	100	0.0	89	89	1-230
1,2,4-Trichlorobenzene	100	0.0	55	55	44-142
4-Chloro-3-methylphenol	100	0.0	84	84	22-147
Acenaphthene	100	0.0	81	81	47-145
4-Nitrophenol	100	0.0	24	24	1-132
2,4-Dinitrotoluene	100	0.0	96	96	39-139
Pentachlorophenol	100	0.0	45	45	14-176
Pyrene	100	0.0	94	94	52-115

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC #	% RPD #	QC LIMITS RPD	REC.
Phenol	100	33	33	3	42	5-112
2-Chlorophenol	100	71	71	6	40	23-134
1,4-Dichlorobenzene	100	46	46	0	28	20-124
N-Nitrosodi-n-propylami	100	93	93	4	38	1-230
1,2,4-Trichlorobenzene	100	54	54	2	28	44-142
4-Chloro-3-methylphenol	100	86	86	2	42	22-147
Acenaphthene	100	83	83	2	31	47-145
4-Nitrophenol	100	29	29	19	50	1-132
2,4-Dinitrotoluene	100	97	97	1	38	39-139
Pentachlorophenol	100	72	72	46	50	14-176
Pyrene	100	100	100	6	31	52-115

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 11 outside limits

Spike Recovery: 0 out of 22 outside limits

COMMENTS:

3A
LFB RECOVERY

Lab Name: MOUNTAIN STATES ANALYTICAL Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix Spike - MSAI Sample No.: _____ Date Analyzed: 10/15/96

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	MS CONCENTRATION (mg/L)	MS % REC #	QC. LIMITS REC.
FLUORIDE	100.00	0.00	104.34	104	90 110
CHLORIDE	200.00	0.00	196.26	98	90 110
NITRATE	90.80	0.00	90.56	100	90 110
BROMIDE	400.00	0.00	418.59	105	90 110
SULFATE	400.00	0.00	405.10	101	90 110

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of in-house QC limits

Spike Recovery: 0 out of 5 outside of in-house QC limits

Comments: _____

3A
WATER ANION SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: MOUNTAIN STATES ANALYTICAL Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix Spike - MSAI Sample No.: 54195 Date Analyzed: 10/15/96

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	MS CONCENTRATION (mg/L)	MS % REC #	QC. LIMITS REC.
FLUORIDE	50.00	7.62	59.40	104	80 120
CHLORIDE	100.00	132.48	221.65	89	80 120
BROMIDE	200.00	0.00	206.04	103	80 120
NITRATE	45.40	0.00	45.35	100	80 120
SULFATE	200.00	145.04	348.59	102	80 120

COMPOUND	SPIKE ADDED (mg/L)	MSD CONCENTRATION (mg/L)	MSD % REC #	% RPD #	QC RPD	LIMITS REC.
FLUORIDE	50.00	58.69	102	1.2	20.0	80 120
CHLORIDE	100.00	216.40	84	2.4	20.0	80 120
BROMIDE	200.00	204.36	102	0.8	20.0	80 120
NITRATE	45.40	44.76	99	1.3	20.0	80 120
SULFATE	200.00	341.83	98	2.0	20.0	80 120

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of in-house QC limits

RPD: 0 out of 5 outside of in-house QC limits

Spike Recovery: 0 out of 10 outside of in-house QC limits

Comments: _____

CHAIN OF CUSTODY RECORD

ON SITE

TECHNOLOGIES, LTD.

657 W. Maple • P. O. Box 2606 • Farmington NM 87499
LAB: (505) 325-5667 • FAX: (505) 325-6256

Date: 10/10/96

Page 1 of 1

Purchase Order No.: 4158		Job No. B3101001		Name: DAVID COX		Title:	
Name: ACCOUNTS PAYABLE		Company: ON SITE TECH		Company: ON SITE TECH c/o BIOTECH			
Address: P.O. BOX 2606		Dept.:		Mailing Address: 612 E MURRAY			
City, State, Zip: FARMINGTON, NM 87499				City, State, Zip: FARMINGTON, NM 87401			
Sampling Location: THRIFTWAY REFINERY				Telephone No. 505 325-2432		Telefax No. 505 325-6256	
Sampler: KEN SINKS				ANALYSIS REQUESTED			
SEND INVOICE TO		REPORT RESULTS TO		Containers			
SAMPLE IDENTIFICATION		SAMPLE DATE		TIME		MATRIX	
THRIFTWAY REFINERY STRIPPER INLET		10/10/96		1030		H ₂ O	
" " STRIPPER EFFLUENT		10/10/96		1040		H ₂ O	
THRIFTWAY REFINERY STRIPPER INLET		10/10/96		1420		4°C	
" " STRIPPER EFFLUENT		10/10/96		1430		H ₂ O	
Relinquished by: [Signature]		Date/Time: 10/10/96 1600		Received by: [Signature]		Date/Time: 10/11/96 10:00	
Relinquished by:		Date/Time:		Received by:		Date/Time:	
Relinquished by:		Date/Time:		Received by:		Date/Time:	
Method of Shipment:		Rush		24-48 Hours		10 Working Days	
Authorized by: [Signature]		Date: 10/10/96		Special Instructions: Order temp 4.5°C [Signature]			
(Client Signature Must Accompany Request)				Pink - Sampler Goldenrod - Client			

Distribution: White - On Site Yellow - LAB Pink - Sampler Goldenrod - Client



Mountain States Analytical

The Quality Connection

October 31, 1996

Mr. David Cox
On Site Technologies, Ltd.
612 E Murray Drive
Farmington, NM 87401

Reference:

Project: Templeton 1E, Florance 124 (Relog)
Project No.: PNM1002
MSAI Group: 14122

Dear Mr. Cox:

Enclosed are the analytical results for your project referenced above. The following sample is included in the report.

Florance 124 MW 2 (52999)

All holding times were met for the tests performed on these samples except:

Sample - (Sample Date)	Expiration Date	Date Analyzed	Days Past Holding Time

Florance 124 MW 2 (52999) - (09/05/96)			
Mercury by CVAA, w/ww, SW-846	10/03/96	10/31/96	28
Mercury Prep CVAA, Waters	10/03/96	10/29/96	26

If the report is acceptable, please approve the enclosed invoice and forward it for payment.

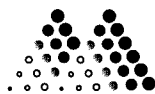
Thank you for selecting Mountain States Analytical, Inc. to serve as your analytical laboratory on this project. If you have any questions concerning these results, please feel free to contact me at any time.

We look forward to working with you on future projects.

With Regards,

Rolf E. Larsen
Project Manager

1615 W. 63rd Street, Suite 300, Lake City, Utah 84149 (801) 933-3300 FAX (801) 933-3301



Mountain States Analytical

The Quality Solution

On Site Technologies, Ltd.
612 E Murray Drive
Farmington, NM 87401

Attn: Mr. David Cox
Project: Templeton 1E, Florance 124 (Relog)

Sample ID: Florance 124 MW 2 (52999)
Matrix: Waste Water

MSAI Sample: 54931
MSAI Group: 14122
Date Reported: 10/31/96
Discard Date: 11/30/96
Date Submitted: 10/18/96
Date Sampled: 09/05/96
Collected by:
Purchase Order: 5251/52
Project No.: PNM1002

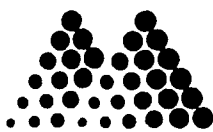
Test Analysis	Results as Received	Units	Limit of Quantitation
0259B Mercury by CVAA, w/ww, SW-846 Method: SW-846 7470	ND	mg/l	0.0005
0392M Mercury Prep CVAA, Waters Method: SW-846 7470	Complete		
7245 Arsenic by ICP Method: SW-846 6010A	ND	mg/l	0.10
7249 Cadmium by ICP Method: SW-846 6010A	ND	mg/l	0.02
7251 Chromium by ICP Method: SW-846 6010A	ND	mg/l	0.03
7264 Selenium by ICP Method: SW-846 6010A	ND	mg/l	0.30
7266 Silver by ICP Method: SW-846 6010A	ND	mg/l	0.02

ND - Not detected at the limit of quantitation

Respectfully Submitted,
Reviewed and Approved by:


Rolf E. Larsen
Project Manager

Facsimile Communication



Mountain States Analytical

The Quality Solution

CONFIDENTIAL MATERIAL

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Comments: QC for 14122

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Analysis Batch Number: 0259T-10/31/96-107 -1

Test Identification : 0259T-Mercury by CVAA, TCLP

Sequence : 0259T-1

Number of Samples : 6

Batch Date/Date/Time : 10/31/96 / 15:48:05

ANK#	ANALYTE	CONC FOUND #	CONC LIMIT
BW1-708	Mercury	0.3700	0.5000
PBW2-708-2	Mercury	0.3100	0.5000

						QC LIMITS	
SAMPLE#	ANALYTE	CONC ADDED	CONC SAMPLE	CONC SPIKE	% REC #	LOWER	UPPER
13984-54418	Mercury	1.0000	2.1000	2.1900	9.0(A)	80.0	120.0

						QC LIMITS			
SAMPLE#	ANALYTE	CONC ADDED	CONC SAMPLE	RESULT 2	%REC2 #	LOWER	UPPER	RPD #	LIMIT
13984-54419	Mercury	1.0000	2.1000	1.8300	-27.0(A)	80.0	120.0	400.0(A)	20.0

DUPLICATE						
SAMPLE#	ANALYTE	RESULT 1	RESULT 2	RPD #	LIMIT	DILUTION
13984-54417	Mercury	2.1000	2.1500	2.4	20.0	1.00

						QC LIMITS	
SAMPLE#	ANALYTE	CONC FOUND	CONC KNOWN	% REC #	LOWER	UPPER	
ECW-708	Mercury	2.2400	2.5000	89.6	80.0	120.0	

						QC LIMITS	
CV #	ANALYTE	TRUE VALUE	BATCH READ	% REC #	LOWER	UPPER	
ICV-	Mercury	3.0000	3.2700	109.0	80.0	120.0	
CCV--2	Mercury	5.0000	5.0000	100.0	80.0	120.0	
CCV--3	Mercury	5.0000	5.0600	101.2	80.0	120.0	
ICV--4	Mercury	3.0000	2.9400	98.0	80.0	120.0	
CCV--5	Mercury	5.0000	4.9200	98.4	80.0	120.0	
CCV--6	Mercury	5.0000	5.1800	103.6	80.0	120.0	
CCV--7	Mercury	5.0000	5.1100	102.2	80.0	120.0	
CCV--8	Mercury	5.0000	5.1800	103.6	80.0	120.0	

CB#	ANALYTE	CONC FOUND #	CONC LIMIT
ICB-	Mercury	0.1800	0.5000
CCB-	Mercury	0.0600	0.5000
CCB-	Mercury	0.0700	0.5000
CCB-	Mercury	0.0200	0.5000
CCB-	Mercury	0.0800	0.5000
CCB-	Mercury	0.0500	0.5000
CCB-	Mercury	ND	0.5000
CCB-	Mercury	-0.0100	0.5000

----- Result Footnotes -----

(A) - Matrix Interference inherent to the sample

----- Batch Notes -----

Post digestion spike confirms matrix interferences.

Mountain States Analytical, Inc.
Daily QC Batching Data
Data Released for Reporting

10/31/96
16:26:44
Group: 14122

Analysis Batch Number: 0259T-10/31/96-107 -1

Test Identification : 0259T-Mercury by CVAA, TCLP

Sequence : 0259T-1

Number of Samples : 6

Batch Data-Date/Time : 10/31/96 / 15:48:05

Groups & Samples

13984-54417 13984-54418 13984-54419 14030-54633 14037-54676 14038-54678 14039-54679 14040-54682
14122-54931

Analysis Batch Number: ICPWA-09/24/96-010 -2

Test Identification : ICPWA-Metals by ICP

Sequence : DATC268

Number of Samples : 14

Batch Data-Date/Time : 09/24/96 / 17:17:06

BLANK#	ANALYTE	CONC FOUND #	CONC LIMIT
3W-625	Aluminum	0.0202	0.2000
	Antimony	ND	0.1000
	Arsenic	0.0007	0.0500
	Barium	0.0008	0.2000
	Beryllium	ND	0.0050
	Cadmium	0.0032	0.0050
	Calcium	0.0530	1.0000
	Chromium	0.0022	0.0100
	Copper	0.0013	0.0250
	Iron	0.0726	0.1000
	Lead	ND	0.0500
	Magnesium	0.0077	1.0000
	Manganese	0.0086	0.0150
	Nickel	0.0132	0.0400
	Potassium	ND	1.0000
	Selenium	0.0096	0.1000
	Silver	0.0008	0.0100
	Sodium	0.0800	1.0000
	Thallium	0.0100	0.1500
	Vanadium	ND	0.0500
	Zinc	0.0014	0.0600
	Molybdenum	ND	0.0500

SPIKE						QC LIMITS	
SAMPLE#	ANALYTE	CONC ADDED	CONC SAMPLE	CONC SPIKE	% REC #	LOWER	UPPER
13489-52767	Aluminum	1.0000	0.1290	1.1953	106.6	80.0	120.0
	Antimony	1.0000	0.0035	0.9745	97.1	80.0	120.0
	Arsenic	1.0000	0.0009	0.9778	97.7	80.0	120.0
	Barium	0.2000	0.0885	0.2864	98.9	80.0	120.0
	Beryllium	0.1000	0.0000	0.1018	101.8	80.0	120.0
	Cadmium	0.2000	0.0011	0.1949	96.9	80.0	120.0
	Calcium	2.0000	45.3217	53.4600	406.9(2a)	80.0	120.0
	Chromium	0.2000	0.0098	0.1973	93.8	80.0	120.0
	Copper	0.2000	-0.0012	0.1916	96.4	80.0	120.0
	Iron	0.7000	0.1438	0.8537	101.4	80.0	120.0
	Lead	1.0000	-0.0168	0.9399	95.7	80.0	120.0
	Magnesium	1.0000	54.7313	62.3512	762.0(2a)	80.0	120.0
	Manganese	0.2000	0.0099	0.2003	95.2	80.0	120.0
	Nickel	0.4000	0.0113	0.3882	94.2	80.0	120.0
	Potassium	2.0000	5.8840	8.1982	115.7	80.0	120.0
	Selenium	1.0000	0.0052	0.9364	93.1	80.0	120.0
	Silver	0.1000	-0.0020	0.0980	100.0	80.0	120.0
	Sodium	3.0000	172.5171	188.6594	538.1(2a)	80.0	120.0
	Thallium	2.0000	0.0154	1.8851	93.5	80.0	120.0
	Vanadium	0.5000	0.0065	0.4979	98.3	80.0	120.0
	Zinc	0.2000	0.0076	0.1955	94.0	80.0	120.0
	Molybdenum	1.0000	-0.0039	0.9628	96.7	80.0	120.0

Analysis Batch Number: ICPWA-09/24/96-010 -2

Test Identification : ICPWA-Metals by ICP

Sequence : DATC268

Number of Samples : 14

Batch Data-Date/Time : 09/24/96 / 17:17:06

SAMPLE#	ANALYTE	QC LIMITS							
		CONC ADDED	CONC SAMPLE	RESULT 2	%REC2 #	LOWER	UPPER	RPD #	LIMIT
13489-52767	Aluminum	1.0000	0.1290	1.1524	102.3	80.0	120.0	4.1	20.0
	Antimony	1.0000	0.0035	0.9082	90.5	80.0	120.0	7.0	20.0
	Arsenic	1.0000	0.0009	0.9442	94.3	80.0	120.0	3.5	20.0
	Barium	0.2000	0.0885	0.2743	92.9	80.0	120.0	6.3	20.0
	Beryllium	0.1000	0.0000	0.1012	101.2	80.0	120.0	0.6	20.0
	Cadmium	0.2000	0.0011	0.1916	95.3	80.0	120.0	1.7	20.0
	Calcium	2.0000	45.3217	45.7920	23.5(2a)	80.0	120.0	178.2(1a)	20.0
	Chromium	0.2000	0.0098	0.1896	89.9	80.0	120.0	4.2	20.0
	Copper	0.2000	-0.0012	0.1943	97.8	80.0	120.0	1.4	20.0
	Iron	0.7000	0.1438	0.8220	96.9	80.0	120.0	4.5	20.0
	Lead	1.0000	-0.0168	0.9190	93.6	80.0	120.0	2.2	20.0
	Magnesium	1.0000	54.7313	54.1200	-61.1(2a)	80.0	120.0	234.9(1a)	20.0
	Manganese	0.2000	0.0099	0.1994	94.8	80.0	120.0	0.4	20.0
	Nickel	0.4000	0.0113	0.3790	91.9	80.0	120.0	2.5	20.0
	Potassium	2.0000	5.8840	7.6316	87.4	80.0	120.0	27.9(4a)	20.0
	Selenium	1.0000	0.0052	0.9702	96.5	80.0	120.0	3.6	20.0
	Silver	0.1000	-0.0020	0.0943	96.3	80.0	120.0	3.8	20.0
	Sodium	3.0000	172.5171	171.0307	-49.5(2a)	80.0	120.0	240.5(1a)	20.0
	Thallium	2.0000	0.0154	1.7872	88.6	80.0	120.0	5.4	20.0
	Vanadium	0.5000	0.0065	0.4894	96.6	80.0	120.0	1.7	20.0
	Zinc	0.2000	0.0076	0.2012	96.8	80.0	120.0	2.9	20.0
	Molybdenum	1.0000	-0.0039	0.9489	95.3	80.0	120.0	1.5	20.0

DUPLICATE

SAMPLE#	ANALYTE	RESULT 1	RESULT 2	RPD #	LIMIT	DILUTION
13489-52767	Aluminum	0.1290	0.1921	39.3(11)	20.0	1.00
	Antimony	0.0035	0.0344	163.1(11)	20.0	1.00
	Arsenic	0.0009	0.0250	186.1(11)	20.0	1.00
	Barium	0.0885	0.0905	2.2	20.0	1.00
	Beryllium	0.0000	0.0000	0.0	20.0	1.00
	Cadmium	0.0011	0.0015	30.8(11)	20.0	1.00
	Calcium	45.3217	45.9977	1.5	20.0	1.00
	Chromium	0.0098	0.0982	163.7(8)	20.0	1.00
	Copper	-0.0012	0.0008	1000.0(11)	20.0	1.00
	Iron	0.1438	0.6366	126.3(8)	20.0	1.00
	Lead	-0.0168	0.0000	200.0(11)	20.0	1.00
	Magnesium	54.7313	55.7875	1.9	20.0	1.00
	Manganese	0.0099	0.0111	11.4	20.0	1.00
	Nickel	0.0113	0.0681	143.1(3a)	20.0	1.00
	Potassium	5.8840	5.9577	1.2	20.0	1.00
	Selenium	0.0052	0.0398	153.8(11)	20.0	1.00
	Silver	-0.0020	0.0000	200.0(11)	20.0	1.00
	Sodium	172.5171	177.2939	2.7	20.0	1.00
	Thallium	0.0154	0.0322	70.6(11)	20.0	1.00
	Vanadium	0.0065	0.0063	3.1	20.0	1.00
	Zinc	0.0076	0.0085	11.2	20.0	1.00
	Molybdenum	-0.0039	0.0026	1000.0(11)	20.0	1.00

Analysis Batch Number: ICPWA-09/24/96-010 -2

Test Identification : ICPWA-Metals by ICP

Sequence : DATC268

Number of Samples : 14

Batch Data-Date/Time : 09/24/96 / 17:17:06

CONTROL SAMPLE#	ANALYTE	CONC FOUND	CONC KNOWN	% REC #	QC LIMITS	
					LOWER	UPPER
LCSW-625	Aluminum	0.9580	1.0000	95.8	80.0	120.0
	Antimony	0.9122	1.0000	91.2	80.0	120.0
	Arsenic	0.9717	1.0000	97.2	80.0	120.0
	Barium	0.1908	0.2000	95.4	80.0	120.0
	Beryllium	0.1019	0.1000	101.9	80.0	120.0
	Cadmium	0.1991	0.2000	99.6	80.0	120.0
	Calcium	2.0755	2.0000	103.8	80.0	120.0
	Chromium	0.2021	0.2000	101.1	80.0	120.0
	Copper	0.1929	0.2000	96.4	80.0	120.0
	Iron	0.7125	0.7000	101.8	80.0	120.0
	Lead	0.9701	1.0000	97.0	80.0	120.0
	Magnesium	0.9881	1.0000	98.8	80.0	120.0
	Manganese	0.2090	0.2000	104.5	80.0	120.0
	Nickel	0.4041	0.4000	101.0	80.0	120.0
	Potassium	1.9478	2.0000	97.4	80.0	120.0
	Selenium	1.0066	1.0000	100.7	80.0	120.0
	Silver	0.0999	0.1000	99.9	80.0	120.0
	Sodium	2.9307	3.0000	97.7	80.0	120.0
	Thallium	2.0302	2.0000	101.5	80.0	120.0
	Vanadium	0.4970	0.5000	99.4	80.0	120.0
	Zinc	0.2020	0.2000	101.0	80.0	120.0
	Molybdenum	0.9845	1.0000	98.5	80.0	120.0

CCV #	ANALYTE	TRUE VALUE	BATCH READ	% REC #	QC LIMITS	
					LOWER	UPPER
CV-	Aluminum	20.0000	19.6839	98.4	90.0	110.0
	Antimony	4.0000	4.0653	101.6	90.0	110.0
	Arsenic	1.6000	1.6020	100.1	90.0	110.0
	Barium	4.0000	3.8350	95.9	90.0	110.0
	Beryllium	0.4000	0.3975	99.4	90.0	110.0
	Cadmium	4.0000	3.9220	98.1	90.0	110.0
	Calcium	40.0000	40.0239	100.1	90.0	110.0
	Chromium	4.0000	3.9406	98.5	90.0	110.0
	Copper	4.0000	3.8607	96.5	90.0	110.0
	Iron	4.0000	3.8929	97.3	90.0	110.0
	Lead	20.0000	19.1943	96.0	90.0	110.0
	Magnesium	20.0000	19.7946	99.0	90.0	110.0
	Manganese	4.0000	3.8447	96.1	90.0	110.0
	Nickel	8.0000	7.7917	97.4	90.0	110.0
	Potassium	40.0000	40.3892	101.0	90.0	110.0
	Selenium	1.6000	1.5879	99.2	90.0	110.0
	Silver	0.4000	0.4238	106.0	90.0	110.0
	Sodium	40.0000	40.3638	100.9	90.0	110.0
	Thallium	4.0000	3.7819	94.5	90.0	110.0
	Vanadium	1.6000	1.5947	99.7	90.0	110.0
	Zinc	4.0000	3.8934	97.3	90.0	110.0
	Molybdenum	20.0000	20.0832	100.4	90.0	110.0
CCV1--2	Aluminum	20.0000	19.5707	97.9	90.0	110.0
	Antimony	4.0000	4.0739	101.8	90.0	110.0

Analysis Batch Number: ICPWA-09/24/96-010 -2

Test Identification : ICPWA-Metals by ICP

Sequence : DATC268

Number of Samples : 14

Batch Data-Date/Time : 09/24/96 / 17:17:06

CV #	ANALYTE	TRUE VALUE	BATCH READ	QC LIMITS		
				% REC #	LOWER	UPPER
CCV1--2	Arsenic	1.6000	1.6073	100.5	90.0	110.0
	Barium	4.0000	3.7946	94.9	90.0	110.0
	Beryllium	0.4000	0.3969	99.2	90.0	110.0
	Cadmium	4.0000	3.9350	98.4	90.0	110.0
	Calcium	40.0000	40.2729	100.7	90.0	110.0
	Chromium	4.0000	3.9480	98.7	90.0	110.0
	Copper	4.0000	3.8362	95.9	90.0	110.0
	Iron	4.0000	3.9315	98.3	90.0	110.0
	Lead	20.0000	19.3166	96.6	90.0	110.0
	Magnesium	20.0000	19.7681	98.8	90.0	110.0
	Manganese	4.0000	3.8522	96.3	90.0	110.0
	Nickel	8.0000	7.8338	97.9	90.0	110.0
	Potassium	40.0000	40.0508	100.1	90.0	110.0
	Selenium	1.6000	1.5851	99.1	90.0	110.0
	Silver	0.4000	0.4246	106.2	90.0	110.0
	Sodium	40.0000	39.4719	98.7	90.0	110.0
	Thallium	4.0000	3.7357	93.4	90.0	110.0
	Vanadium	1.6000	1.5956	99.7	90.0	110.0
	Zinc	4.0000	3.8997	97.5	90.0	110.0
	Molybdenum	20.0000	20.1201	100.6	90.0	110.0
CCV2--3	Aluminum	20.0000	19.4752	97.4	90.0	110.0
	Antimony	4.0000	4.0086	100.2	90.0	110.0
	Arsenic	1.6000	1.5745	98.4	90.0	110.0
	Barium	4.0000	3.7769	94.4	90.0	110.0
	Beryllium	0.4000	0.3911	97.8	90.0	110.0
	Cadmium	4.0000	3.8623	96.6	90.0	110.0
	Calcium	40.0000	39.6900	99.2	90.0	110.0
	Chromium	4.0000	3.8833	97.1	90.0	110.0
	Copper	4.0000	3.8151	95.4	90.0	110.0
	Iron	4.0000	3.8138	95.3	90.0	110.0
	Lead	20.0000	19.0276	95.1	90.0	110.0
	Magnesium	20.0000	19.5952	98.0	90.0	110.0
	Manganese	4.0000	3.8052	95.1	90.0	110.0
	Nickel	8.0000	7.6535	95.7	90.0	110.0
	Potassium	40.0000	39.6865	99.2	90.0	110.0
	Selenium	1.6000	1.5181	94.9	90.0	110.0
	Silver	0.4000	0.4201	105.0	90.0	110.0
	Sodium	40.0000	39.0637	97.7	90.0	110.0
	Thallium	4.0000	3.7412	93.5	90.0	110.0
	Vanadium	1.6000	1.5753	98.5	90.0	110.0
	Zinc	4.0000	3.8588	96.5	90.0	110.0
	Molybdenum	20.0000	19.7775	98.9	90.0	110.0
CCV3--4	Aluminum	20.0000	19.9146	99.6	90.0	110.0
	Antimony	4.0000	4.0115	100.3	90.0	110.0
	Arsenic	1.6000	1.6313	102.0	90.0	110.0
	Barium	4.0000	3.8701	96.8	90.0	110.0
	Beryllium	0.4000	0.4078	101.9	90.0	110.0
	Cadmium	4.0000	3.9836	99.6	90.0	110.0
	Calcium	40.0000	40.7504	101.9	90.0	110.0

Analysis Batch Number: ICPWA-09/24/96-010 -2

Test Identification : ICPWA-Metals by ICP

Sequence : DATC268

Number of Samples : 14

Batch Data-Date/Time : 09/24/96 / 17:17:06

CV #	ANALYTE	TRUE VALUE	BATCH READ	QC LIMITS		
				% REC #	LOWER	UPPER
CCV3--4	Chromium	4.0000	4.0028	100.1	90.0	110.0
	Copper	4.0000	3.9151	97.9	90.0	110.0
	Iron	4.0000	3.9753	99.4	90.0	110.0
	Lead	20.0000	19.4547	97.3	90.0	110.0
	Magnesium	20.0000	20.0755	100.4	90.0	110.0
	Manganese	4.0000	3.9120	97.8	90.0	110.0
	Nickel	8.0000	7.8815	98.5	90.0	110.0
	Potassium	40.0000	40.4407	101.1	90.0	110.0
	Selenium	1.6000	1.6507	103.2	90.0	110.0
	Silver	0.4000	0.4337	108.4	90.0	110.0
	Sodium	40.0000	39.2281	98.1	90.0	110.0
	Thallium	4.0000	3.8012	95.0	90.0	110.0
	Vanadium	1.6000	1.6194	101.2	90.0	110.0
	Zinc	4.0000	3.9553	98.9	90.0	110.0
	Molybdenum	20.0000	20.3911	102.0	90.0	110.0
CV4--5	Aluminum	20.0000	20.0711	100.4	90.0	110.0
	Antimony	4.0000	4.0220	100.6	90.0	110.0
	Arsenic	1.6000	1.6035	100.2	90.0	110.0
	Barium	4.0000	3.9156	97.9	90.0	110.0
	Beryllium	0.4000	0.3993	99.8	90.0	110.0
	Cadmium	4.0000	3.9206	98.0	90.0	110.0
	Calcium	40.0000	39.8531	99.6	90.0	110.0
	Chromium	4.0000	3.9413	98.5	90.0	110.0
	Copper	4.0000	3.9379	98.4	90.0	110.0
	Iron	4.0000	3.8432	96.1	90.0	110.0
	Lead	20.0000	19.1778	95.9	90.0	110.0
	Magnesium	20.0000	19.9605	99.8	90.0	110.0
	Manganese	4.0000	3.8621	96.6	90.0	110.0
	Nickel	8.0000	7.7755	97.2	90.0	110.0
	Potassium	40.0000	40.8527	102.1	90.0	110.0
	Selenium	1.6000	1.5923	99.5	90.0	110.0
	Silver	0.4000	0.4307	107.7	90.0	110.0
	Sodium	40.0000	41.4451	103.6	90.0	110.0
	Thallium	4.0000	3.8285	95.7	90.0	110.0
	Vanadium	1.6000	1.6071	100.4	90.0	110.0
	Zinc	4.0000	3.8875	97.2	90.0	110.0
	Molybdenum	20.0000	20.2935	101.5	90.0	110.0

CCB#	ANALYTE	CONC FOUND #	CONC LIMIT
CCB-	Aluminum	0.0224	0.2000
	Antimony	ND	0.1000
	Arsenic	0.0084	0.0500
	Barium	0.0010	0.2000
	Beryllium	0.0001	0.0050
	Cadmium	0.0036	0.0050
	Calcium	0.0089	1.0000
	Chromium	0.0047	0.0100
	Copper	0.0040	0.0250
	Iron	0.0127	0.1000

Analysis Batch Number: ICPWA-09/24/96-010 -2

Test Identification : ICPWA-Metals by ICP

Sequence : DATC268

Number of Samples : 14

Batch Date/Time : 09/24/96 / 17:17:06

CB#	ANALYTE	CONC FOUND #	CONC LIMIT
CB-	Lead	ND	0.0500
	Magnesium	0.0261	1.0000
	Manganese	0.0001	0.0150
	Nickel	0.0135	0.0400
	Potassium	0.0640	1.0000
	Selenium	0.0400	0.1000
	Silver	0.0044	0.0100
	Sodium	0.0328	1.0000
	Thallium	0.0010	0.1500
	Vanadium	0.0020	0.0500
	Zinc	ND	0.0600
	Molybdenum	ND	0.0500
CCB1-	Aluminum	0.0078	0.2000
	Antimony	ND	0.1000
	Arsenic	ND	0.0500
	Barium	0.0004	0.2000
	Beryllium	ND	0.0050
	Cadmium	0.0005	0.0050
	Calcium	0.0067	1.0000
	Chromium	ND	0.0100
	Copper	0.0015	0.0250
	Iron	ND	0.1000
	Lead	ND	0.0500
	Magnesium	0.0088	1.0000
	Manganese	ND	0.0150
	Nickel	0.0122	0.0400
	Potassium	0.0308	1.0000
	Selenium	0.0464	0.1000
	Silver	0.0026	0.0100
	Sodium	0.0208	1.0000
	Thallium	0.0137	0.1500
	Vanadium	0.0004	0.0500
	Zinc	ND	0.0600
	Molybdenum	ND	0.0500
CB2-	Aluminum	0.0078	0.2000
	Antimony	ND	0.1000
	Arsenic	ND	0.0500
	Barium	0.0005	0.2000
	Beryllium	ND	0.0050
	Cadmium	0.0036	0.0050
	Calcium	0.0035	1.0000
	Chromium	ND	0.0100
	Copper	0.0005	0.0250
	Iron	ND	0.1000
	Lead	ND	0.0500
	Magnesium	ND	1.0000
	Manganese	ND	0.0150
	Nickel	ND	0.0400
	Potassium	ND	1.0000
	Selenium	ND	0.1000

Analysis Batch Number: ICPWA-09/24/96-010 -2

Test Identification : ICPWA-Metals by ICP

Sequence : DATC268

Number of Samples : 14

Batch Data-Date/Time : 09/24/96 / 17:17:06

CB#	ANALYTE	CONC FOUND #	CONC LIMIT
CB2-	Silver	ND	0.0100
	Sodium	0.0081	1.0000
	Thallium	0.0124	0.1500
	Vanadium	ND	0.0500
	Zinc	ND	0.0600
	Molybdenum	ND	0.0500
CB3-	Aluminum	0.0204	0.2000
	Antimony	ND	0.1000
	Arsenic	ND	0.0500
	Barium	0.0005	0.2000
	Beryllium	ND	0.0050
	Cadmium	0.0033	0.0050
	Calcium	0.0053	1.0000
	Chromium	0.0017	0.0100
	Copper	0.0010	0.0250
	Iron	0.0141	0.1000
	Lead	ND	0.0500
	Magnesium	ND	1.0000
	Manganese	ND	0.0150
	Nickel	0.0087	0.0400
	Potassium	0.0125	1.0000
	Selenium	ND	0.1000
	Silver	0.0017	0.0100
	Sodium	0.0448	1.0000
	Thallium	0.0185	0.1500
	Vanadium	ND	0.0500
	Zinc	ND	0.0600
CCB4-	Molybdenum	ND	0.0500
	Aluminum	0.0057	0.2000
	Antimony	ND	0.1000
	Arsenic	ND	0.0500
	Barium	0.0013	0.2000
	Beryllium	ND	0.0050
	Cadmium	0.0030	0.0050
	Calcium	0.0085	1.0000
	Chromium	0.0023	0.0100
	Copper	0.0018	0.0250
	Iron	ND	0.1000
	Lead	ND	0.0500
	Magnesium	0.0076	1.0000
	Manganese	ND	0.0150
	Nickel	0.0142	0.0400
	Potassium	0.0529	1.0000
	Selenium	ND	0.1000
	Silver	0.0028	0.0100
	Sodium	0.0398	1.0000
	Thallium	0.0109	0.1500
	Vanadium	0.0015	0.0500
	Zinc	ND	0.0600
	Molybdenum	ND	0.0500

Mountain States Analytical, Inc.
Daily QC Batching Data
Data Released for Reporting10/31/96
16:38:04

Analysis Batch Number: ICPWA-09/24/96-010 -2

Test Identification : ICPWA-Metals by ICP

Sequence : DATC268

Number of Samples : 14

Batch Data-Date/Time : 09/24/96 / 17:17:06

----- Result Footnotes -----

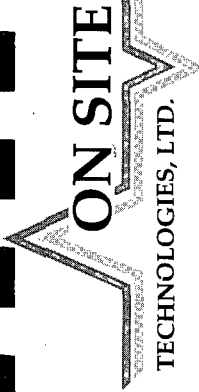
- (2a) - Recovery is valid because sample conc. is >4x spike conc.
(1a) - RPD has no significance due to insignificant spikes.
(4a) - RPD is valid because Spike and Spike Duplicate are within method requirements.
(11) - Both Duplicate results are less than the LOQ.
(B) - Incomplete Homogenization
(3a) - Duplicate is valid because result is <5x the detection limit

Groups & Samples

13488-52765	13489-52767	13489-52768	13489-52769	13489-52770	13545-52930	13545-52931	13562-52998
13562-52999	13568-53016						

CHAIN OF CUSTODY RECORD

[illegible]



CHAIN OF CUSTODY RECORD

4156

Date: 10/10/96

Page 4 of 5

657 W. Maple • P. O. Box 2606 • Farmington NM 87499
LAB: (505) 325-5667 • FAX: (505) 325-6256

Purchase Order No.:		Job No.					
Name: Terry Griffin		Title: Jane					
Company: BioTech Remediation, Inc.		Company:					
Address: 210 E. 20th Street, Suite 400		Mailing Address:					
City, State, Zip: Farmington, NM 87401		City, State, Zip:					
Telephone No.:		Telephone No.:					
Telefax No.:		Telefax No.:					
Sampling Location: Thetfordway Recovery 626 Rd 5500 Bloomfield, NM		ANALYSIS REQUESTED					
Sampler: Ken Sinks <i>Ken Sinks</i>							
SEND INVOICE TO	SAMPLE IDENTIFICATION	SAMPLE	MATRIX	PRES.			
		DATE	TIME				
	ST. 2000 Inlet	10/10	10:30	WATER			
	ST. 2000 Effluent (EFF)	↓	10:40	↓			
X							
					Relinquished by: <i>Ken Sinks</i>		Received by: <i>Heide Reas</i>
Date/Time: 10/10/96 13:30		Date/Time: 10/10/96 13:30					
Relinquished by:		Received by:					
Date/Time:		Date/Time:					
Relinquished by:		Received by:					
Date/Time:		Date/Time:					
Method of Shipment:		Rush					
Authorized by:		24-48 Hours					
(Client Signature <u>Musi</u> Accompany Request)		10 Working Days					
Date		Special Instructions:					

Distribution: White - On Site Yellow - LAB Pink - Sampler Goldenrod - Client

OFF: (505) 325-5667



ORIGINAL

LAB: (505) 325-1556

AROMATIC VOLATILE ORGANICS

Attn: *Ross Kenemer*
Company: *BioTech Remediation*
Address: *710 E 20th Street, Suite 400*
City, State: *Farmington, NM 87401*

Date: *8-Jan-97*
COC No.: *6253*
Sample No. *13280*
Job No. *2-1000*

Project Name: *Thriftway Refinery 626 Rd 5500 Bloomfield, NM*
Project Location: *MW-01*
Sampled by: *KS* Date: *31-Dec-96* Time: *16:10*
Analyzed by: *DC* Date: *5-Jan-97*
Sample Matrix: *Liquid*

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
Methyl-t-Butyl Ether	219.6	ug/L	0.2	ug/L
Benzene	164.0	ug/L	0.2	ug/L
Toluene	5.3	ug/L	0.2	ug/L
Ethylbenzene	19.8	ug/L	0.2	ug/L
m,p-Xylene	162.3	ug/L	0.2	ug/L
o-Xylene	14.3	ug/L	0.2	ug/L
TOTAL		585.4	ug/L	

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: *[Signature]*

Date: *1/10/97*

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AROMATIC VOLATILE ORGANICS

Attn: *Ross Kennemer*
Company: *BioTech Remediation*
Address: *710 E 20th Street, Suite 400*
City, State: *Farmington, NM 87401*

Date: *8-Jan-97*
COC No.: *6253*
Sample No. *13281*
Job No. *2-1000*

Project Name: *Thriftway Refinery 626 Rd 5500 Bloomfield, NM*
Project Location: *MW-04*
Sampled by: *KS* Date: *31-Dec-96* Time: *12:00*
Analyzed by: *DC* Date: *5-Jan-97*
Sample Matrix: *Liquid*

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
Methyl-t-Butyl Ether	27.0	ug/L	0.2	ug/L
Benzene	3.5	ug/L	0.2	ug/L
Toluene	1.4	ug/L	0.2	ug/L
Ethylbenzene	1.7	ug/L	0.2	ug/L
m,p-Xylene	1.3	ug/L	0.2	ug/L
o-Xylene	0.3	ug/L	0.2	ug/L
TOTAL		35.1	ug/L	

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: *[Signature]*
Date: *1/8/97*

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Attn: *Ross Kennemer*
Company: *BioTech Remediation*
Address: *710 E 20th Street, Suite 400*
City, State: *Farmington, NM 87401*

Date: *8-Jan-97*
COC No.: *6253*
Sample No. *13282*
Job No. *2-1000*

Project Name: *Thriftway Refinery 626 Rd 5500 Bloomfield, NM*
Project Location: *MW-05*
Sampled by: *KS* Date: *31-Dec-96* Time: *11:30*
Analyzed by: *DC* Date: *5-Jan-97*
Sample Matrix: *Liquid*

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
Methyl-t-Butyl Ether	47.9	ug/L	0.2	ug/L
Benzene	4.8	ug/L	0.2	ug/L
Toluene	<0.2	ug/L	0.2	ug/L
Ethylbenzene	0.2	ug/L	0.2	ug/L
m,p-Xylene	<0.2	ug/L	0.2	ug/L
o-Xylene	1.1	ug/L	0.2	ug/L
TOTAL		54.0	ug/L	

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: *[Signature]*

Date: *1/8/97*

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Attn: **Ross Kennemer**
Company: **BioTech Remediation**
Address: **710 E 20th Street, Suite 400**
City, State: **Farmington, NM 87401**

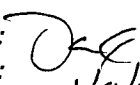
Date: **8-Jan-97**
COC No.: **6253**
Sample No. **13283**
Job No. **2-1000**

Project Name: **Thriftway Refinery 626 Rd 5500 Bloomfield, NM**
Project Location: **MW-06**
Sampled by: **KS** Date: **31-Dec-96** Time: **12:30**
Analyzed by: **DC** Date: **5-Jan-97**
Sample Matrix: **Liquid**

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
Methyl-t-Butyl Ether	0.9	ug/L	0.2	ug/L
Benzene	0.3	ug/L	0.2	ug/L
Toluene	5.4	ug/L	0.2	ug/L
Ethylbenzene	0.9	ug/L	0.2	ug/L
m,p-Xylene	0.5	ug/L	0.2	ug/L
o-Xylene	0.6	ug/L	0.2	ug/L
TOTAL		8.5	ug/L	

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: 
Date: **1/8/97**

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AROMATIC VOLATILE ORGANICS

Attn: *Ross Kennemer*
Company: *BioTech Remediation*
Address: *710 E 20th Street, Suite 400*
City, State: *Farmington, NM 87401*

Date: *8-Jan-97*
COC No.: *6253*
Sample No. *13284*
Job No. *2-1000*

Project Name: *Thriftway Refinery 626 Rd 5500 Bloomfield, NM*
Project Location: *MW-08*
Sampled by: *KS* Date: *31-Dec-96* Time: *15:30*
Analyzed by: *DC* Date: *5-Jan-97*
Sample Matrix: *Liquid*

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
Methyl-t-Butyl Ether	35.8	ug/L	0.2	ug/L
Benzene	<0.2	ug/L	0.2	ug/L
Toluene	<0.2	ug/L	0.2	ug/L
Ethylbenzene	<0.2	ug/L	0.2	ug/L
m,p-Xylene	<0.2	ug/L	0.2	ug/L
o-Xylene	<0.2	ug/L	0.2	ug/L
TOTAL		35.8	ug/L	

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: *[Signature]*
Date: *1/8/97*

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AROMATIC VOLATILE ORGANICS

Attn: **Ross Kennemer**
Company: **BioTech Remediation**
Address: **710 E 20th Street, Suite 400**
City, State: **Farmington, NM 87401**

Date: **8-Jan-97**
COC No.: **6253**
Sample No. **13285**
Job No. **2-1000**

Project Name: **Thriftway Refinery 626 Rd 5500 Bloomfield, NM**
Project Location: **MW-09**
Sampled by: **KS** Date: **31-Dec-96** Time: **15:10**
Analyzed by: **DC** Date: **5-Jan-97**
Sample Matrix: **Liquid**

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
Methyl-t-Butyl Ether	7.2	ug/L	0.2	ug/L
Benzene	<0.2	ug/L	0.2	ug/L
Toluene	<0.2	ug/L	0.2	ug/L
Ethylbenzene	<0.2	ug/L	0.2	ug/L
m,p-Xylene	<0.2	ug/L	0.2	ug/L
o-Xylene	<0.2	ug/L	0.2	ug/L
TOTAL		7.2	ug/L	

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: 
Date: **1/8/97**

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AROMATIC VOLATILE ORGANICS

Attn: *Ross Kennemer*
Company: *BioTech Remediation*
Address: *710 E 20th Street, Suite 400*
City, State: *Farmington, NM 87401*

Date: *8-Jan-97*
COC No.: *6253*
Sample No. *13286*
Job No. *2-1000*

Project Name: *Thriftway Refinery 626 Rd 5500 Bloomfield, NM*
Project Location: *Travel Blank*
Sampled by: *KS* Date: *31-Dec-96* Time: *8:30*
Analyzed by: *DC* Date: *5-Jan-97*
Sample Matrix: *Liquid*

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
Methyl-t-Butyl Ether	0.2	ug/L	0.2	ug/L
Benzene	<0.2	ug/L	0.2	ug/L
Toluene	<0.2	ug/L	0.2	ug/L
Ethylbenzene	<0.2	ug/L	0.2	ug/L
m,p-Xylene	<0.2	ug/L	0.2	ug/L
o-Xylene	<0.2	ug/L	0.2	ug/L
TOTAL		0.2		ug/L

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: *[Signature]*
Date: *1/8/97*

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AROMATIC VOLATILE ORGANICS

Attn: *Ross Kennemer*
Company: *BioTech Remediation*
Address: *710 E 20th Street, Suite 400*
City, State: *Farmington, NM 87401*

Date: *8-Jan-97*
COC No.: *6253*
Sample No. *13287*
Job No. *2-1000*

Project Name: *Thriftway Refinery 626 Rd 5500 Bloomfield, NM*
Project Location: *MW-10*
Sampled by: *KS* Date: *31-Dec-96* Time: *14:45*
Analyzed by: *DC* Date: *5-Jan-97*
Sample Matrix: *Liquid*

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
Methyl-t-Butyl Ether	<0.2	ug/L	0.2	ug/L
Benzene	<0.2	ug/L	0.2	ug/L
Toluene	<0.2	ug/L	0.2	ug/L
Ethylbenzene	<0.2	ug/L	0.2	ug/L
m,p-Xylene	<0.2	ug/L	0.2	ug/L
o-Xylene	<0.2	ug/L	0.2	ug/L
TOTAL		<0.2		ug/L

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: *[Signature]*
Date: *1/8/97*

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AROMATIC VOLATILE ORGANICS

Attn: *Ross Kennemer*
Company: *BioTech Remediation*
Address: *710 E 20th Street, Suite 400*
City, State: *Farmington, NM 87401*

Date: *8-Jan-97*
COC No.: *6253*
Sample No. *13288*
Job No. *2-1000*

Project Name: *Thriftway Refinery 626 Rd 5500 Bloomfield, NM*
Project Location: *MW-11*
Sampled by: *KS* Date: *31-Dec-96* Time: *14:20*
Analyzed by: *DC* Date: *6-Jan-97*
Sample Matrix: *Liquid*

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
Methyl-t-Butyl Ether	<0.2	ug/L	0.2	ug/L
Benzene	<0.2	ug/L	0.2	ug/L
Toluene	<0.2	ug/L	0.2	ug/L
Ethylbenzene	<0.2	ug/L	0.2	ug/L
m,p-Xylene	<0.2	ug/L	0.2	ug/L
o-Xylene	<0.2	ug/L	0.2	ug/L
	TOTAL	<0.2	ug/L	

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: *DC*
Date: *1/8/97*

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LAB: (505) 325-1556

AROMATIC VOLATILE ORGANICS

Attn: *Ross Kennemer*
Company: *BioTech Remediation*
Address: *710 E 20th Street, Suite 400*
City, State: *Farmington, NM 87401*

Date: *8-Jan-97*
COC No.: *6253*
Sample No. *13289*
Job No. *2-1000*

Project Name: *Thriftway Refinery 626 Rd 5500 Bloomfield, NM*
Project Location: *MW-13*
Sampled by: *KS* Date: *30-Dec-96* Time: *15:20*
Analyzed by: *DC* Date: *6-Jan-97*
Sample Matrix: *Liquid*

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
Methyl-t-Butyl Ether	<0.2	ug/L	0.2	ug/L
Benzene	<0.2	ug/L	0.2	ug/L
Toluene	<0.2	ug/L	0.2	ug/L
Ethylbenzene	<0.2	ug/L	0.2	ug/L
m,p-Xylene	<0.2	ug/L	0.2	ug/L
o-Xylene	<0.2	ug/L	0.2	ug/L
	TOTAL	<0.2	ug/L	

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: *[Signature]*
Date: *1/8/97*

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

OFF: (505) 325-5667



LAB: (505) 325-1556

AROMATIC VOLATILE ORGANICS

Attn: *Ross Kennemer*
Company: *BioTech Remediation*
Address: *710 E 20th Street, Suite 400*
City, State: *Farmington, NM 87401*

Date: *8-Jan-97*
COC No.: *6253*
Sample No. *13290*
Job No. *2-1000*

Project Name: *Thriftway Refinery 626 Rd 5500 Bloomfield, NM*
Project Location: *MW-14*
Sampled by: *KS* Date: *30-Dec-96* Time: *15:50*
Analyzed by: *DC* Date: *7-Jan-97*
Sample Matrix: *Liquid*

Laboratory Analysis

<i>Parameter</i>	<i>Result</i>	<i>Unit of Measure</i>	<i>Detection Limit</i>	<i>Unit of Measure</i>
<i>Methyl-t-Butyl Ether</i>	<i>94.8</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>Benzene</i>	<i>6673.5</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>Toluene</i>	<i>179.4</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>Ethylbenzene</i>	<i>857.3</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>m,p-Xylene</i>	<i>820.6</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>o-Xylene</i>	<i>119.9</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>TOTAL</i>	<i>8745.6</i>	<i>ug/L</i>		

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: *[Signature]*
Date: *1/8/97*

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LAB: (505) 325-1556

AROMATIC VOLATILE ORGANICS

Attn: **Ross Kenemer**
Company: **BioTech Remediation**
Address: **710 E 20th Street, Suite 400**
City, State: **Farmington, NM 87401**

Date: **8-Jan-97**
COC No.: **6253**
Sample No. **13291**
Job No. **2-1000**

Project Name: **Thriftway Refinery 626 Rd 5500 Bloomfield, NM**
Project Location: **MW-15**
Sampled by: **KS** Date: **30-Dec-96** Time: **14:45**
Analyzed by: **DC** Date: **6-Jan-97**
Sample Matrix: **Liquid**

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
Methyl-t-Butyl Ether	<0.2	ug/L	0.2	ug/L
Benzene	<0.2	ug/L	0.2	ug/L
Toluene	<0.2	ug/L	0.2	ug/L
Ethylbenzene	<0.2	ug/L	0.2	ug/L
m,p-Xylene	<0.2	ug/L	0.2	ug/L
o-Xylene	<0.2	ug/L	0.2	ug/L
TOTAL		<0.2		ug/L

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: 
Date: **1/8/97**

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

OFF: (505) 325-5667



LAB: (505) 325-1556

AROMATIC VOLATILE ORGANICS

Attn: *Ross Kennemer*
Company: *BioTech Remediation*
Address: *710 E 20th Street, Suite 400*
City, State: *Farmington, NM 87401*

Date: *8-Jan-97*
COC No.: *6254*
Sample No. *13292*
Job No. *2-1000*

Project Name: *Thriftway Refinery 626 Rd 5500 Bloomfield, NM*
Project Location: *MW-16*
Sampled by: *KS* Date: *30-Dec-96* Time: *16:15*
Analyzed by: *DC* Date: *6-Jan-97*
Sample Matrix: *Liquid*

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
Methyl-t-Butyl Ether	<0.2	ug/L	0.2	ug/L
Benzene	<0.2	ug/L	0.2	ug/L
Toluene	<0.2	ug/L	0.2	ug/L
Ethylbenzene	<0.2	ug/L	0.2	ug/L
m,p-Xylene	<0.2	ug/L	0.2	ug/L
o-Xylene	<0.2	ug/L	0.2	ug/L
TOTAL		<0.2		ug/L

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: *[Signature]*
Date: *1/8/97*

OFF: (505) 325-5667



LAB: (505) 325-1556

AROMATIC VOLATILE ORGANICS

Attn: *Ross Kennemer*
Company: *BioTech Remediation*
Address: *710 E 20th Street, Suite 400*
City, State: *Farmington, NM 87401*

Date: *8-Jan-97*
COC No.: *6254*
Sample No. *13293*
Job No. *2-1000*

Project Name: *Thriftway Refinery 626 Rd 5500 Bloomfield, NM*
Project Location: *MW-18*
Sampled by: *KS* Date: *31-Dec-96* Time: *10:45*
Analyzed by: *DC* Date: *6-Jan-97*
Sample Matrix: *Liquid*

Laboratory Analysis

<i>Parameter</i>	<i>Result</i>	<i>Unit of Measure</i>	<i>Detection Limit</i>	<i>Unit of Measure</i>
<i>Methyl-t-Butyl Ether</i>	<i>43.1</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>Benzene</i>	<i>176.0</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>Toluene</i>	<i>1.9</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>Ethylbenzene</i>	<i>1.3</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>m,p-Xylene</i>	<i>0.7</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>o-Xylene</i>	<i><0.2</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
	<i>TOTAL</i>	<i>222.9</i>		<i>ug/L</i>

Method - *SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography*

Approved by: *DAC*
Date: *1/8/97*

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- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

OFF: (505) 325-5667



LAB: (505) 325-1556

AROMATIC VOLATILE ORGANICS

Attn: *Ross Kennemer*
Company: *BioTech Remediation*
Address: *710 E 20th Street, Suite 400*
City, State: *Farmington, NM 87401*

Date: *8-Jan-97*
COC No.: *6254*
Sample No. *13294*
Job No. *2-1000*

Project Name: *Thriftway Refinery 626 Rd 5500 Bloomfield, NM*
Project Location: *MW-19*
Sampled by: *KS* Date: *30-Dec-96* Time: *17:15*
Analyzed by: *DC* Date: *6-Jan-97*
Sample Matrix: *Liquid*

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
Methyl-t-Butyl Ether	65.7	ug/L	0.2	ug/L
Benzene	17.9	ug/L	0.2	ug/L
Toluene	3.5	ug/L	0.2	ug/L
Ethylbenzene	43.0	ug/L	0.2	ug/L
m,p-Xylene	61.9	ug/L	0.2	ug/L
o-Xylene	0.6	ug/L	0.2	ug/L
TOTAL		192.5	ug/L	

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: *[Signature]*
Date: *1/8/97*

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OFF: (505) 325-5667



LAB: (505) 325-1556

AROMATIC VOLATILE ORGANICS

Attn: *Ross Kennemer*
Company: *BioTech Remediation*
Address: *710 E 20th Street, Suite 400*
City, State: *Farmington, NM 87401*

Date: *8-Jan-97*
COC No.: *6254*
Sample No. *13295*
Job No. *2-1000*

Project Name: *Thriftway Refinery 626 Rd 5500 Bloomfield, NM*
Project Location: *Travel Blank*
Sampled by: *KS* Date: *30-Dec-96* Time: *11:00*
Analyzed by: *DC* Date: *6-Jan-97*
Sample Matrix: *Liquid*

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
Methyl-t-Butyl Ether	0.2	ug/L	0.2	ug/L
Benzene	<0.2	ug/L	0.2	ug/L
Toluene	<0.2	ug/L	0.2	ug/L
Ethylbenzene	<0.2	ug/L	0.2	ug/L
m,p-Xylene	<0.2	ug/L	0.2	ug/L
o-Xylene	<0.2	ug/L	0.2	ug/L
TOTAL		0.2	ug/L	

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: *[Signature]*
Date: *1/8/97*

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LAB: (505) 325-1556

AROMATIC VOLATILE ORGANICS

Attn: *Ross Kennemer*
Company: *BioTech Remediation*
Address: *710 E 20th Street, Suite 400*
City, State: *Farmington, NM 87401*

Date: *8-Jan-97*
COC No.: *6254*
Sample No. *13296*
Job No. *2-1000*

Project Name: *Thriftway Refinery 626 Rd 5500 Bloomfield, NM*
Project Location: *MW-20*
Sampled by: *KS* Date: *31-Dec-96* Time: *9:00*
Analyzed by: *DC* Date: *6-Jan-97*
Sample Matrix: *Liquid*

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
Methyl-t-Butyl Ether	53.3	ug/L	0.2	ug/L
Benzene	2.7	ug/L	0.2	ug/L
Toluene	14.3	ug/L	0.2	ug/L
Ethylbenzene	9.5	ug/L	0.2	ug/L
m,p-Xylene	4.5	ug/L	0.2	ug/L
o-Xylene	1.2	ug/L	0.2	ug/L
TOTAL		85.4	ug/L	

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: *[Signature]*
Date: *1/8/97*

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LAB: (505) 325-1556

AROMATIC VOLATILE ORGANICS

Attn: *Ross Kenemer*
Company: *BioTech Remediation*
Address: *710 E 20th Street, Suite 400*
City, State: *Farmington, NM 87401*

Date: *8-Jan-97*
COC No.: *6254*
Sample No. *13297*
Job No. *2-1000*

Project Name: *Thriftway Refinery 626 Rd 5500 Bloomfield, NM*
Project Location: *MW-21*
Sampled by: *KS* Date: *31-Dec-96* Time: *9:30*
Analyzed by: *DC* Date: *6-Jan-97*
Sample Matrix: *Liquid*

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
Methyl-t-Butyl Ether	51.3	ug/L	0.2	ug/L
Benzene	<0.2	ug/L	0.2	ug/L
Toluene	<0.2	ug/L	0.2	ug/L
Ethylbenzene	0.5	ug/L	0.2	ug/L
m,p-Xylene	0.2	ug/L	0.2	ug/L
o-Xylene	<0.2	ug/L	0.2	ug/L
	TOTAL	52.0	ug/L	

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: *[Signature]*
Date: *1/8/97*

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AROMATIC VOLATILE ORGANICS

Attn: *Ross Kennemer*
Company: *BioTech Remediation*
Address: *710 E 20th Street, Suite 400*
City, State: *Farmington, NM 87401*

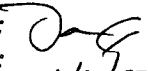
Date: *8-Jan-97*
COC No.: *6254*
Sample No. *13298*
Job No. *2-1000*

Project Name: *Thriftway Refinery 626 Rd 5500 Bloomfield, NM*
Project Location: *MW-22*
Sampled by: *KS* Date: *31-Dec-96* Time: *10:00*
Analyzed by: *DC* Date: *6-Jan-97*
Sample Matrix: *Liquid*

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
Methyl-t-Butyl Ether	22.1	ug/L	0.2	ug/L
Benzene	<0.2	ug/L	0.2	ug/L
Toluene	<0.2	ug/L	0.2	ug/L
Ethylbenzene	<0.2	ug/L	0.2	ug/L
m,p-Xylene	<0.2	ug/L	0.2	ug/L
o-Xylene	<0.2	ug/L	0.2	ug/L
	TOTAL	22.1	ug/L	

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: 
Date: *1/8/97*

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- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -



QUALITY ASSURANCE REPORT
for EPA Method 8020

Date Analyzed: 5-Jan-97

Internal QC No.: 0515-QC

Surrogate QC No.: 0516-QC

Reference Standard QC No.: 0417-QC

Method Blank

Parameter	Result	Unit of Measure
Average Amount of All Analytes In Blank	<0.2	ppb

Calibration Check

Parameter	Unit of Measure	True Value	Analyzed Value	% Diff	Limit
Methyl-t-Butyl Ether	ppb	20.0	17.1	14	15%
Benzene	ppb	20.0	19.1	5	15%
Toluene	ppb	20.0	20.0	0	15%
Ethylbenzene	ppb	20.0	20.5	3	15%
m,p-Xylene	ppb	40.0	40.0	0	15%
o-Xylene	ppb	20.0	20.3	1	15%

Matrix Spike

Parameter	1 - Percent Recovered	2 - Percent Recovered	Limit	%RSD	Limit
Methyl-t-Butyl Ether	72	65	(39-150)	7	20%
Benzene	92	80	(39-150)	10	20%
Toluene	77	64	(46-148)	12	20%
Ethylbenzene	62	56	(32-160)	7	20%
m,p-Xylene	56	49	(35-145)	9	20%
o-Xylene	63	58	(35-145)	6	20%

Surrogate Recoveries

Laboratory Identification	S1 Percent Recovered	S2 Percent Recovered	Laboratory Identification	S1 Percent Recovered	S2 Percent Recovered
Limit Percent Recovery	(70-130)		Limit Percent Recovery	(70-130)	
13280-6253	90				
13281-6253	94				
13282-6253	93				
13283-6253	92				
13284-6253	92				
13285-6253	93				
13286-6253	93				
13287-6253	93				

OFF: (505) 325-5667



LAB: (505) 325-1556

QUALITY ASSURANCE REPORT

for EPA Method 8020

Date Analyzed: 6-Jan-97

Internal QC No.: 0515-QC

Surrogate QC No.: 0516-QC

Reference Standard QC No.: 0417-QC

Method Blank

Parameter	Result	Unit of Measure
Average Amount of All Analytes In Blank	<0.2	ppb

Calibration Check

Parameter	Unit of Measure	True Value	Analyzed Value	% Diff	Limit
Methyl-t-Butyl Ether	ppb	20.0	17.4	13	15%
Benzene	ppb	20.0	18.8	6	15%
Toluene	ppb	20.0	19.6	2	15%
Ethylbenzene	ppb	20.0	20.0	0	15%
m,p-Xylene	ppb	40.0	39.0	2	15%
o-Xylene	ppb	20.0	19.8	1	15%

Matrix Spike

Parameter	1 - Percent Recovered	2 - Percent Recovered	Limit	%RSD	Limit
Methyl-t-Butyl Ether	88	88	(39-150)	0	20%
Benzene	96	93	(39-150)	2	20%
Toluene	99	96	(46-148)	2	20%
Ethylbenzene	102	102	(32-160)	0	20%
m,p-Xylene	99	96	(35-145)	2	20%
o-Xylene	102	97	(35-145)	4	20%

Surrogate Recoveries

Laboratory Identification	S1 Percent Recovered	S2 Percent Recovered	Laboratory Identification	S1 Percent Recovered	S2 Percent Recovered
Limit Percent Recovery	(70-130)		Limit Percent Recovery	(70-130)	
13288-6253	93		13297-6254	93	
13289-6253	93		13298-6254	93	
13291-6253	93				
13292-6254	93				
13293-6254	93				
13294-6254	90				
13295-6254	93				
13296-6254	88				

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- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

OFF: (505) 325-5667



LAB: (505) 325-1556

QUALITY ASSURANCE REPORT

for EPA Method 8020

Date Analyzed: 7-Jan-97

Internal QC No.: 0515-QC

Surrogate QC No.: 0516-QC

Reference Standard QC No.: 0417-QC

Method Blank

Parameter	Result	Unit of Measure
Average Amount of All Analytes In Blank	<0.2	ppb

Calibration Check

Parameter	Unit of Measure	True Value	Analyzed Value	% Diff	Limit
Methyl-t-Butyl Ether	ppb	20.0	18.4	8	15%
Benzene	ppb	20.0	20.0	0	15%
Toluene	ppb	20.0	20.8	4	15%
Ethylbenzene	ppb	20.0	21.3	6	15%
m,p-Xylene	ppb	40.0	41.4	4	15%
o-Xylene	ppb	20.0	20.8	4	15%

Matrix Spike

Parameter	1 - Percent Recovered	2 - Percent Recovered	Limit	%RSD	Limit
Methyl-t-Butyl Ether	88	88	(39-150)	0	20%
Benzene	96	93	(39-150)	2	20%
Toluene	99	96	(46-148)	2	20%
Ethylbenzene	102	102	(32-160)	0	20%
m,p-Xylene	99	96	(35-145)	2	20%
o-Xylene	102	97	(35-145)	4	20%

Surrogate Recoveries

Laboratory Identification	S1 Percent Recovered	S2 Percent Recovered	Laboratory Identification	S1 Percent Recovered	S2 Percent Recovered
Limit Percent Recovery	(70-130)		Limit Percent Recovery	(70-130)	
13290-6253	98				

(mc)

CHAIN OF CUSTODY RECORD

6253

ON SITE

TECHNOLOGIES, LTD.

657 W. Maple • P. O. Box 2606 • Farmington NM 87499
LAB: (505) 325-5667 • FAX: (505) 325-6256

Date: _____

Page 1 of 2

Purchase Order No.: B 97101		Job No.	
Name: Terry Griffin		Title	
Company: BioTech Remediation, Inc.		Company	
Address: 210 E. 20th St. Suite 400		Mailing Address	
City, State, Zip: Farmington, NM 87401		City, State, Zip	
Telephone No.		Telefax No.	
Sampling Location: Thriftway Refinery 1986 year end sample 626 Rd 5500 Bloomfield, NM		ANALYSIS REQUESTED	
Sampler: Ken Sinks		LAB ID	
SEND INVOICE TO		REPORT TO	
SAMPLE IDENTIFICATION		Number of Containers	
DATE		TIME	
DATE		PRES.	
MW-01		12/31 1610 H ₂ O HCL	
MW-02		12/31 1200 H ₂ O	
MW-05		12/31 1130 H ₂ O	
MW-06		12/31 1230	
MW-09		12/31 1530	
MW-09		12/31 1510	
Travel Blank		12/31 0930	
MW-10		12/31 1445	
MW-11		12/31 1420	
MW-13		12/30 1520 H ₂ O	
MW-14		12/30 1550	
MW-15		12/30 1445	
Relinquished by: Ken Sinks		Date/Time: 12/97 2pm	
Relinquished by:		Date/Time	
Relinquished by:		Date/Time	
Method of Shipment:		Rush	
Authorized by:		Date	
(Client Signature <u>Must</u> Accompany Request)		Date	
Distribution: White - On Site Yellow - LAB Pink - Sampler Goldenrod - Client		Special Instructions:	

ON SITE

TECHNOLOGIES, LTD.

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LAB: (505) 325-5667 • FAX: (505) 325-6256

LAB: (505) 325-5667 • FAX: (505) 325-6256

Purchase Order No.: B97101						Job No.	
Name Terry Griffin		Company BioTech Remediation, Inc				Dept.	
Address 210 E 20th St. Suite 400							
City, State, Zip Farmington, NM 87401							
Sampling Location: Thriftway Refinery 1996 year end samples 626 Rd 3500 Blomfield, NM							
Sampler: Ken Sinks							
REPORT TO RESULTS TO							
ANALYSIS REQUESTED							
Containers							
LAB ID							
Date/Time							
Date/Time							
Date/Time							
Rush							
24-48 Hours							
10 Working Days							
Special Instructions:							
Received by: Date/Time							
Received by: Date/Time							
Received by: Date/Time							
Authorized by: Date							
(Client Signature Must Accompany Request)							

Distribution:	White – On Site	Yellow – LAB	Pink – Sampler	Goldenrod – Client
---------------	-----------------	--------------	----------------	--------------------

OFF: (505) 325-5667



APR 10 1997

LAB: (505) 325-1556

ANALYTICAL REPORT

Attn: *Terry Griffin*
Company: *BioTech Remediation*
Address: *710 E 20th Street, Suite 400*
City, State: *Farmington, NM 87401*

Date: *7-Apr-97*
COC No.: *6039*
Sample No.: *14115*
Job No.: *B97-265*

Project Name: *Thriftway 812*
Project Location: *Effluent*
Sampled by: *DA*
Analyzed by: *DC*
Sample Matrix: *Liquid*

Date: *4-Apr-97* Time: *8:52*
Date: *4-Apr-97*

<i>Parameter</i>	<i>Result</i>	<i>Unit of Measure</i>	<i>Detection Limit</i>	<i>Unit of Measure</i>
<i>Benzene</i>	<i><0.2</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>Toluene</i>	<i>0.3</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>Ethylbenzene</i>	<i><0.2</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>m,p-Xylene</i>	<i>0.7</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>o-Xylene</i>	<i><0.2</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>TOTAL</i>	<i>1.0</i>	<i>ug/L</i>		

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved By: *[Signature]*
Date: *4/7/97*

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- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

Internal QC No.: 0527-STD
Surrogate QC No.: 0528-STD
Reference Standard QC No.: 0529/30-QC

<i>Parameter</i>	<i>Result</i>	<i>Unit of Measure</i>
<i>Average Amount of All Analytes In Blank</i>	<0.2	ppb

Calibration Check					
Parameter	Unit of Measure	True Value	Analyzed Value	% Diff	Limit
Benzene	ppb	20.0	20.5	2	15%
Toluene	ppb	20.0	21.2	6	15%
Ethylbenzene	ppb	20.0	21.8	9	15%
m,p-Xylene	ppb	40.0	41.3	3	15%
o-Xylene	ppb	20.0	21.3	7	15%

<i>Parameter</i>	<i>1- Percent Recovered</i>	<i>2 - Percent Recovered</i>	<i>Limit</i>	<i>%RSD</i>	<i>Limit</i>
<i>Benzene</i>	91	88	(39-150)	2	20%
<i>Toluene</i>	96	91	(46-148)	2	20%
<i>Ethylbenzene</i>	92	89	(32-160)	2	20%
<i>m,p-Xylene</i>	87	82	(35-145)	2	20%
<i>o-Xylene</i>	78	77	(35-145)	1	20%

	S1 Percent Recovered	S2 Percent Recovered		S1 Percent Recovered	S2 Percent Recovered
Laboratory Identification			Laboratory Identification		
Limit Percent Recovered	(70-130)		Limit Percent Recovered	(70-130)	
14115-6039	96				
					(PL)
					4/26/77

S1: Flourobenezene

OFF: (505) 325-5667



LAB: (505) 325-1556

AROMATIC VOLATILE ORGANICS

Attn: *Terry Griffin*
Company: *BioTech Remediation*
Address: *710 E 20th Street, Suite 400*
City, State: *Farmington, NM 87401*

Date: *22-Jul-96*
COC No.: *4149*
Sample No. *11551*
Job No. *B-3014*

Project Name: *Bio Tech Remediation*
Project Location: *Refinery Stripper Outlet*
Sampled by: *KS*
Analyzed by: *DC/HR*
Sample Matrix: *Liquid*

Date: *18-Jul-96* Time: *14:40*
Date: *19-Jul-96*

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
<i>Methyl-t-Butyl Ether</i>	<i>7.4</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>Benzene</i>	<i>62.6</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>Toluene</i>	<i>43.7</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>Ethylbenzene</i>	<i>13.1</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>m,p-Xylene</i>	<i>69.6</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>o-Xylene</i>	<i>19.3</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>TOTAL</i>	<i>215.7</i>	<i>ug/L</i>		

JUL 24 1996
JS

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: *JaG*
Date: *7/22/96*

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LAB: (505) 325-1556

AROMATIC VOLATILE ORGANICS

Attn: *Terry Griffin*
Company: *BioTech Remediation*
Address: *710 E 20th Street, Suite 400*
City, State: *Farmington, NM 87401*

Date: *22-Jul-96*
COC No.: *4149*
Sample No. *11552*
Job No. *B-3014*

Project Name: *Bio Tech Remediation*
Project Location: *Refinery Stripper Inlet*
Sampled by: *KS*
Analyzed by: *DC/HR*
Sample Matrix: *Liquid*

Date: *18-Jul-96* Time: *14:30*
Date: *19-Jul-96*

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
Methyl-t-Butyl Ether	26.9	ug/L	0.2	ug/L
Benzene	5255.8	ug/L	0.2	ug/L
Toluene	3155.6	ug/L	0.2	ug/L
Ethylbenzene	706.6	ug/L	0.2	ug/L
m,p-Xylene	3512.9	ug/L	0.2	ug/L
o-Xylene	885.7	ug/L	0.2	ug/L
	TOTAL	13543.5		ug/L

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: *[Signature]*
Date: *7/22/96*

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

OFF: (505) 325-5667



LAB: (505) 325-1556

AROMATIC VOLATILE ORGANICS

Attn: **Terry Griffin**
Company: **BioTech Remediation**
Address: **710 E 20th Street, Suite 400**
City, State: **Farmington, NM 87401**

Date: **22-Jul-96**
COC No.: **4149**
Sample No. **11553**
Job No. **B-3014**

Project Name: **Bio Tech Remediation**
Project Location: **Travel Blank**
Sampled by: **KS**
Analyzed by: **DC/HR**
Sample Matrix: **Liquid**

Date: **18-Jul-96** Time: **13:45**
Date: **19-Jul-96**

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
Methyl-t-Butyl Ether	<0.2	ug/L	0.2	ug/L
Benzene	<0.2	ug/L	0.2	ug/L
Toluene	<0.2	ug/L	0.2	ug/L
Ethylbenzene	<0.2	ug/L	0.2	ug/L
m,p-Xylene	<0.2	ug/L	0.2	ug/L
o-Xylene	<0.2	ug/L	0.2	ug/L
	TOTAL	<0.2	ug/L	

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: 
Date: **7/22/96**

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

OFF: (505) 325-5667



LAB: (505) 325-1556

QUALITY ASSURANCE REPORT
for EPA Method 8020

Date Analyzed: 19-Jul-96

Internal QC No.: 0444-STD

Surrogate QC No.: 0445-STD

Reference Standard QC No.: 0417-QC

Method Blank

Parameter	Result	Unit of Measure
Average Amount of All Analytes in Blank	<0.2	ppb

Calibration Check

Parameter	Unit of Measure	True Value	Analyzed Value	% Diff	Limit
Methyl-t-Butyl Ether	ppb	20.0	19.5	2	15%
Benzene	ppb	20.0	19.6	2	15%
Toluene	ppb	20.0	19.9	1	15%
Ethylbenzene	ppb	20.0	20.0	0	15%
m,p-Xylene	ppb	40.0	39.4	2	15%
o-Xylene	ppb	20.0	19.7	2	15%

Matrix Spike

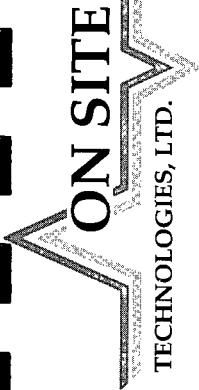
Parameter	1 - Percent Recovered	2 - Percent Recovered	Limit	%RSD	Limit
Methyl-t-Butyl Ether	86	78	(39-150)	7	20%
Benzene	107	107	(39-150)	0	20%
Toluene	96	98	(46-148)	1	20%
Ethylbenzene	100	101	(32-160)	1	20%
m,p-Xylene	86	87	(35-145)	1	20%
o-Xylene	91	93	(35-145)	1	20%

Surrogate Recoveries

Laboratory Identification	S1 Percent Recovered	S2 Percent Recovered	Laboratory Identification	S1 Percent Recovered	S2 Percent Recovered
Limit Percent Recovery	(70-130)		Limit Percent Recovery	(70-130)	
11551-4149	100				
11552-4149	104				
11553-4149	102				

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -



CHAIN OF CUSTODY RECORD

4147

Date: 7/13/96

Page 1 of 1

657 W. Maple • P. O. Box 2606 • Farmington NM 87499
LAB: (505) 325-5667 • FAX: (505) 325-6256

Purchase Order No.: 10014		Job No.		Name		Title	
SEND INVOICE TO		Name		Company		Company	
Name		Terry Gaffin		BioTech Remediation, Inc.		Mailing Address	
Address		710 E. 20th St., Suite 400		City, State, Zip		City, State, Zip	
City, State, Zip		Farmington, NM 87401		Telephone No.		Telefax No.	
Sampling Location:				ANALYSIS REQUESTED			
Sampler: Ken Sinko				602 (505) 325-5667			
SAMPLE IDENTIFICATION		SAMPLE DATE		MATRIX		PRES.	
Retinery Strippa Outlet		7/13 2:40		water		2	
Retinery Strippa Inlet		7/13 2:30		water		2	
Travel Blank		7/13 1:45		water		2	
Relinquished by: Ken Sinko		Date/Time 7/13/96 4:25		Received by: [Signature]		Date/Time 7/13/96 1:40	
Relinquished by:		Date/Time		Received by:		Date/Time	
Relinquished by:		Date/Time		Received by:		Date/Time	
Method of Shipment:		Rush		24-48 Hours		10 Working Days	
Authorized by:		Date 7/13/96		Special Instructions:			
(Client Signature Must Accompany Request)							

OFF: (505) 325-8786



LAB: (505) 325-5667

AROMATIC VOLATILE ORGANICS

Attn: *Terry Griffin*
Company: *BioTech Remediation*
Address: *710 E 20th Street, Suite 400*
City, State: *Farmington, NM 87401*

Date: *7-Jun-96*
COC No.: *4137*
Sample No. *11105*
Job No. *B2921*

Project Name: *626 Road 5500 Bloomfield, NM*
Project Location: *Stripper Outlet*
Sampled by: *KS*
Analyzed by: *DC*
Sample Matrix: *Liquid*

Date: *4-Jun-96* Time: *16:15*
Date: *7-Jun-96*

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
Methyl-t-Butyl Ether	3.5	ug/L	0.2	ug/L
Benzene	2.4	ug/L	0.2	ug/L
Toluene	0.7	ug/L	0.2	ug/L
Ethylbenzene	0.9	ug/L	0.2	ug/L
m,p-Xylene	3.6	ug/L	0.2	ug/L
o-Xylene	0.2	ug/L	0.2	ug/L
TOTAL		11.4	ug/L	

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: *JaK*
Date: *6/7/96*

P. O. BOX 2606 • FARMINGTON, NM 87499

— TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT —

OFF: (505) 325-8786



LAB: (505) 325-5667

AROMATIC VOLATILE ORGANICS

Attn: *Terry Griffin*
Company: *BioTech Remediation*
Address: *710 E 20th Street, Suite 400*
City, State: *Farmington, NM 87401*

Date: *7-Jun-96*
COC No.: *4137*
Sample No. *11106*
Job No. *B2921*

Project Name: *626 Road 5500 Bloomfield, NM*
Project Location: *UST Liner*
Sampled by: *KS*
Analyzed by: *DC*
Sample Matrix: *Liquid*

Date: *4-Jun-96* Time: *10:10*
Date: *7-Jun-96*

Laboratory Analysis

<i>Parameter</i>	<i>Result</i>	<i>Unit of Measure</i>	<i>Detection Limit</i>	<i>Unit of Measure</i>
<i>Methyl-t-Butyl Ether</i>	<i>0.2</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>Benzene</i>	<i><0.2</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>Toluene</i>	<i><0.2</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>Ethylbenzene</i>	<i><0.2</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>m,p-Xylene</i>	<i>0.3</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>o-Xylene</i>	<i><0.2</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
	<i>TOTAL</i>	<i>0.5</i>		<i>ug/L</i>

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: *Ja4*
Date: *6/7/96*

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— TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT —

OFF: (505) 325-8786



LAB: (505) 325-5667

QUALITY ASSURANCE REPORT*for EPA Method 8020**Date Analyzed: 7-Jun-96**Internal QC No.: 0444-STD**Surrogate QC No.: 0445-STD**Reference Standard QC No.: 0355-STD***Method Blank**

<i>Parameter</i>	<i>Result</i>	<i>Unit of Measure</i>
<i>Average Amount of All Analytes In Blank</i>	<0.2	ppb

Calibration Check

<i>Parameter</i>	<i>Unit of Measure</i>	<i>True Value</i>	<i>Analyzed Value</i>	<i>% Diff</i>	<i>Limit</i>
<i>Methyl-t-Butyl Ether</i>	ppb	20.0	20.5	3	15%
<i>Benzene</i>	ppb	20.0	19.4	3	15%
<i>Toluene</i>	ppb	20.0	19.8	1	15%
<i>Ethylbenzene</i>	ppb	20.0	20.0	0	15%
<i>m,p-Xylene</i>	ppb	40.0	40.0	0	15%
<i>o-Xylene</i>	ppb	20.0	19.6	2	15%

Matrix Spike

<i>Parameter</i>	<i>1 - Percent Recovered</i>	<i>2 - Percent Recovered</i>	<i>Limit</i>	<i>%RSD</i>	<i>Limit</i>
<i>Methyl-t-Butyl Ether</i>	83	64	(39-150)	18	20%
<i>Benzene</i>	101	109	(39-150)	5	20%
<i>Toluene</i>	105	112	(46-148)	5	20%
<i>Ethylbenzene</i>	103	110	(32-160)	5	20%
<i>m,p-Xylene</i>	101	108	(35-145)	5	20%
<i>o-Xylene</i>	103	105	(35-145)	1	20%

Surrogate Recoveries

<i>Laboratory Identification</i>	<i>S1 Percent Recovered</i>	<i>S2 Percent Recovered</i>	<i>Laboratory Identification</i>	<i>S1 Percent Recovered</i>	<i>S2 Percent Recovered</i>
<i>Limit Percent Recovery</i>	(70-130)		<i>Limit Percent Recovery</i>	(70-130)	
<i>11099-4136</i>	98				
<i>11100-4137</i>	98				
<i>11101-4137</i>	98				
<i>11102-4137</i>	101				
<i>11103-4137</i>	98				
<i>11104-4137</i>	100				
<i>11105-4137</i>	102				
<i>11106-4137</i>	99				

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- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

OFF: (505) 325-5667



LAB: (505) 325-1556

WATER ANALYSIS

Attn: **Terry Griffin**
 Company: **BioTech Remediation**
 Address: **710 E 20th Street, Suite 400**
 City, State: **Farmington, NM 87401**

Date: **12-Jun-96**
 COC No.: **4138**
 Sample ID: **11107**
 Job No.: **2-1000**

Project Name: **626 Road 5500 Bloomfield, NM**
 Project Location: **810 Stripper Influent**

Sampled by: **KS** Date: **6-Jun-96** Time: **9:15**
 Analyzed by: **HR** Date: **11-Jun-96**

Laboratory Analysis

Parameter	Result	Unit of Measure		Result	Unit of Measure	
Cations						
Sodium Na	712	mg/L		30.97	me/L	
Calcium Ca	228.0	mg/L		11.38	me/L	
Magnesium Mg	39.5	mg/L		3.25	me/L	
Potassium K	7.5	mg/L		0.19	me/L	
Anions						
Chloride Cl	1994	mg/L		56.24	me/L	
Sulfate SO4	1121	mg/L		23.34	me/L	
Carbonate CO3	<1	mg/L		<0.01	me/L	
Bicarbonate HCO3	<1	mg/L		<0.01	me/L	
Hydroxide OH	<1	mg/L		<0.01	me/L	
Nitrate NO3	<0.05	mg/L		<0.01	me/L	
Total Dissolved Solids						
Calculated, Sum of Cation/Anion	4102	mg/L		Cation-Anion Balance 33.79 Difference Cation-Anion, me/L 125.37 Total Cation-Anion, me/L 27.0 % Difference Cation-Anion		
Dried @ 180oC	3195	mg/L				
pH	1.65					
Resistivity	0.6618	ohm-m				
Conductivity	15.11	mS/cm		Comments NA: Not Analyzed		
Total Hardness as CaCO3	732	mg/L				

Approved by: 
 Date: **6/12/96**

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

OFF: (505) 325-5667



LAB: (505) 325-1556

WATER ANALYSIS

Attn: **Terry Griffin**
 Company: **BioTech Remediation**
 Address: **710 E 20th Street, Suite 400**
 City, State: **Farmington, NM 87401**

Date: **12-Jun-96**
 COC No.: **4138**
 Sample ID: **11108**
 Job No.: **2-1000**

Project Name: **626 Road 5500 Bloomfield, NM**
 Project Location: **810 Stripper Effluent**

Sampled by: **KS** Date: **6-Jun-96** Time: **9:15**
 Analyzed by: **HR** Date: **11-Jun-96**

Laboratory Analysis

Parameter		Result	Unit of Measure		Result	Unit of Measure	
Cations							
Sodium	Na	760	mg/L		33.06	me/L	
Calcium	Ca	418.0	mg/L		20.86	me/L	
Magnesium	Mg	40.0	mg/L		3.29	me/L	
Potassium	K	6.1	mg/L		0.15	me/L	
Anions							
Chloride	Cl	1599	mg/L		45.10	me/L	
Sulfate	SO4	1154	mg/L		24.03	me/L	
Carbonate	CO3	<1	mg/L		<0.01	me/L	
Bicarbonate	HCO3	<1	mg/L		<0.01	me/L	
Hydroxide	OH	<1	mg/L		<0.01	me/L	
Nitrate	NO3	<0.05	mg/L		<0.01	me/L	
Total Dissolved Solids							
Calculated, Sum of Cation/Anion		3977	mg/L				
Dried @ 180oC		3568	mg/L				
				Cation-Anion Balance			
				11.76 Difference Cation-Anion, me/L			
				126.49 Total Cation-Anion, me/L			
				9.3 % Difference Cation-Anion			
pH				2.21			
Resistivity		1.1806	ohm-m				
Conductivity		8.47	mS/cm				
Total Hardness as CaCO3		1208	mg/L				
				Comments			
				NA: Not Analyzed			

Approved by: Date: **6/12/96**

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

OFF: (505) 325-5667



LAB: (505) 325-1556

QUALITY ASSURANCE REPORT*Water Analysis*

Date: 11-Jun-96

Quality Control Sample

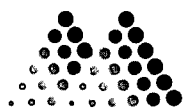
<i>Parameter</i>	<i>Laboratory Identification</i>	<i>True Value</i>	<i>Analyzed Value</i>	<i>Unit of Measure</i>	<i>% Diff</i>	<i>Limit % Diff</i>
Sodium, Na	0483-QC	3.46	3.52	mg/L	2	10
Calcium, Ca	0453-QC	3.89	3.61	mg/L	-7	10
Magnesium, Mg	0453-QC	1.22	1.28	mg/L	5	10
Potassium, K	0483-QC	2.46	2.59	mg/L	5	10
Chloride, Cl	0483-QC	138	135	mg/L	-2	10
Sulfate, SO ₄	0463-QC	88	84	mg/L	-5	10
Alkalinity	0483-QC	180	197	mg/L	9	10
Nitrate	0611-IML	10.3	10.3	mg/L	0	10
pH	0463-QC	9.04	9.22		2	10
Conductivity	0463-QC	894	868	uS/cm	-3	15

Matrix Spike

<i>Parameter</i>	<i>Laboratory Identification</i>	<i>Analyzed Value</i>	<i>Matrix Spike</i>	<i>Spike Value</i>	<i>Unit of Measure</i>	<i>Spike Recovery</i>
Sodium, Na	11174-4218	0.56	0.50	1.05	mg/L	99%
Calcium, Ca	11174-4218	0.82	0.50	1.36	mg/L	103%
Magnesium, Mg	11174-4218	1.64	0.50	2.13	mg/L	100%
Potassium, K	11174-4218	1.24	0.50	1.77	mg/L	102%

Method Blank

<i>Parameter</i>	<i>Laboratory Identification</i>	<i>Analyzed Value</i>	<i>Unit of Measure</i>
Sodium, Na	LF-Blank	<0.2	mg/L
Calcium, Ca	LF-Blank	<0.05	mg/L
Magnesium, Mg	LF-Blank	<0.05	mg/L
Potassium, K	LF-Blank	<0.05	mg/L
Chloride, Cl	LF-Blank	< 2 X DL	mg/L
Sulfate, SO ₄	LF-Blank	< 1	mg/L
Nitrate, NO ₃	LF-Blank	<0.05	mg/L
Conductivity	LF-Blank	< 2	uS/cm



Mountain States Analytical

The Quality Solution

June 24, 1996

Mr. David Cox
On Site Technologies, Ltd.
612 E Murray Drive
Farmington, NM 87401

Reference:

Project: Waste Water Samples
MSAI Group: 12366

Dear Mr. Cox:

Enclosed are the analytical results for your project referenced above. The following samples are included in the report.

810 Stripper Influent

810 Stripper Effluent

All holding times were met for the tests performed on these samples.

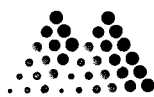
If the report is acceptable, please approve the enclosed invoice and forward it for payment.

Thank you for selecting Mountain States Analytical, Inc. to serve as your analytical laboratory on this project. If you have any questions concerning these results, please feel free to contact me at any time.

We look forward to working with you on future projects.

With Regards,

Rolf E. Larsen
Project Manager



Mountain States Analytical

The Quality Solution

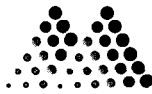
On Site Technologies, Ltd.
612 E Murray Drive
Farmington, NM 87401

Attn: Mr. David Cox
Project: Waste Water Samples

Sample ID: 810 Stripper Influent
Matrix: Waste Water

MSAI Sample: 48829
MSAI Group: 12366
Date Reported: 06/24/96
Discard Date: 07/24/96
Date Submitted: 06/11/96
Date Sampled: 06/06/96
Collected by: KS
Purchase Order: 4138
Project No.:

Test Analysis	Results as Received	Units	Limit of Quantitation
0259B Mercury by CVAA, w/ww, SW-846 Method: SW-846 7470	ND	mg/l	0.0005
0392I Flame/ICP Prep for Metals, Waters Method: SW-846 3005A	Complete		
0392M Mercury Prep CVAA, Waters Method: SW-846 7470	Complete		
7245 Arsenic by ICP Method: SW-846 6010A	ND	mg/l	0.10
7246 Barium by ICP, w/ww Method: SW-846 6010A	0.04	mg/l	0.02
7249 Cadmium by ICP, w/ww, SW-846 Method: SW-846 6010A	ND	mg/l	0.02
7251 Chromium by ICP Method: SW-846 6010A	0.02	mg/l	0.02
7255 Lead by ICP Method: SW-846 6010A	ND	mg/l	0.15
7264 Selenium by ICP Method: SW-846 6010A	ND	mg/l	0.30
7266 Silver by ICP Method: SW-846 6010A	ND	mg/l	0.02
6719 Polycyclic Aromatic Hydrocarbons Method: SW-846 8270A Acenaphthene	ND	ug/l	10



Mountain States Analytical

The Quality Solution

Page 2

On Site Technologies, Ltd.

MSAI Sample: 48829

MSAI Group: 12366

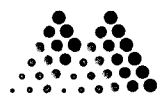
Sample ID: 810 Stripper Influent

Test	Analysis	Results as Received	Units	Limit of Quantitation
6719	Polycyclic Aromatic Hydrocarbons Method: SW-846 8270A			
	Acenaphthylene	ND	ug/l	10
	Anthracene	ND	ug/l	10
	Benz (a) anthracene	ND	ug/l	10
	Benzo (b) fluoranthene	ND	ug/l	10
	Benzo (k) fluoranthene	ND	ug/l	10
	Benzo (ghi) perylene	ND	ug/l	10
	Benzo (a) pyrene	ND	ug/l	10
	Chrysene	ND	ug/l	10
	Dibenz (a,h) anthracene	ND	ug/l	10
	Fluoranthene	ND	ug/l	10
	Fluorene	ND	ug/l	10
	Naphthalene	70	ug/l	10
	Phenanthrene	ND	ug/l	10
	Pyrene	ND	ug/l	10
	Indeno (1,2,3-cd) pyrene	ND	ug/l	10
	2-Methylnaphthalene	34	ug/l	10
3000	SVOA Extraction, Water Method: SW-846 3510/3520	complete		

ND - Not detected at the limit of quantitation

Respectfully Submitted,
Reviewed and Approved by:

Rolf E. Larsen
Project Manager



Mountain States Analytical

The Quality Solution

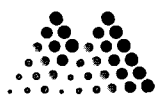
On Site Technologies, Ltd.
612 E Murray Drive
Farmington, NM 87401

Attn: Mr. David Cox
Project: Waste Water Samples

Sample ID: 810 Stripper Effluent
Matrix: Waste Water

MSAI Sample: 48831
MSAI Group: 12366
Date Reported: 06/24/96
Discard Date: 07/24/96
Date Submitted: 06/11/96
Date Sampled: 06/06/96
Collected by: DC
Purchase Order: 4138
Project No.:

Test Analysis	Results as Received	Units	Limit of Quantitation
0259B Mercury by CVAA, w/ww, SW-846 Method: SW-846 7470	ND	mg/l	0.0005
0392I Flame/ICP Prep for Metals, Waters Method: SW-846 3005A	Complete		
0392M Mercury Prep CVAA, Waters Method: SW-846 7470	Complete		
7245 Arsenic by ICP Method: SW-846 6010A	ND	mg/l	0.10
7246 Barium by ICP, w/ww Method: SW-846 6010A	0.12	mg/l	0.02
7249 Cadmium by ICP, w/ww, SW-846 Method: SW-846 6010A	ND	mg/l	0.02
7251 Chromium by ICP Method: SW-846 6010A	0.03	mg/l	0.02
7255 Lead by ICP Method: SW-846 6010A	ND	mg/l	0.15
7264 Selenium by ICP Method: SW-846 6010A	ND	mg/l	0.30
7266 Silver by ICP Method: SW-846 6010A	ND	mg/l	0.02
6719 Polycyclic Aromatic Hydrocarbons Method: SW-846 8270A Acenaphthene	ND	ug/l	10



Mountain States Analytical

The Quality Solution

On Site Technologies, Ltd.

Page 2

MSAI Sample: 48831

MSAI Group: 12366

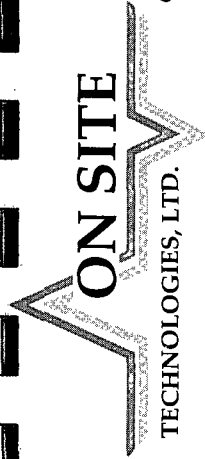
Sample ID: 810 Stripper Effluent

Test	Analysis	Results as Received	Units	Limit of Quantitation
6719	Polycyclic Aromatic Hydrocarbons Method: SW-846 8270A			
	Acenaphthylene	ND	ug/l	10
	Anthracene	ND	ug/l	10
	Benz (a) anthracene	ND	ug/l	10
	Benzo (b) fluoranthene	ND	ug/l	10
	Benzo (k) fluoranthene	ND	ug/l	10
	Benzo (ghi) perylene	ND	ug/l	10
	Benzo (a) pyrene	ND	ug/l	10
	Chrysene	ND	ug/l	10
	Dibenz (a,h) anthracene	ND	ug/l	10
	Fluoranthene	ND	ug/l	10
	Fluorene	ND	ug/l	10
	Naphthalene	ND	ug/l	10
	Phenanthrene	ND	ug/l	10
	Pyrene	ND	ug/l	10
	Indeno (1,2,3-cd) pyrene	ND	ug/l	10
	2-Methylnaphthalene	ND	ug/l	10
3000	SVOA Extraction, Water Method: SW-846 3510/3520	complete		

ND - Not detected at the limit of quantitation

Respectfully Submitted,
Reviewed and Approved by:

Rolf E. Larsen
Project Manager



ON SITE

TECHNOLOGIES, LTD.

657 W. Maple • P. O. Box 2606 • Farmington NM 87499
LAB: (505) 325-5667 • FAX: (505) 325-6256

CHAIN OF CUSTODY RECORD

4100

Date: 6/6/96

Page 1 of 3

Purchase Order No.: B2921		Job No.		Name Terry Gaffney		Title	
SEND INVOICE TO		Company Biotek Remediation Inc		Company Biotek Remediation Inc			
Address		710 E. 20th St. Suite 400		Mailing Address			
City, State, Zip		Farmington, NM 87401		City, State, Zip		5000 N. Industrial Parkway	
Sampling Location:		626 Rd 5500		Telephone No.		Telefax No.	
Blountfield, NM							
Sampler: Ken Smith							
SAMPLE IDENTIFICATION		SAMPLE		MATRIX		PRES.	
		DATE		TIME			
MW-04		6/3/96		10:00 AM		H ₂ O H ₂ CL ₂	
Travel Blank		6/3/96		10:00 AM		H ₂ O H ₂ CL ₂	
MW-04		6/4/96		2:25 PM		H ₂ O H ₂ CL ₂	
MW-05		6/4/96		2:15 PM		H ₂ O H ₂ CL ₂	
MW-06		↓		2:55 PM		↓	
MW-09		6/3/96		3:45 PM		↓	
MW-10		6/3/96		3:55 PM		↓	
MW-11		↓		4:20 PM		↓	
Travel Blank		6/4/96		9:00 AM		↓	
MW-13		6/4/96		9:30 AM		↓	
MW-15		6/3/96		11:15 AM		↓	
MW-13		6/4/96		3:45 PM		↓	
Relinquished by: J. Kenneth Smith		Date/Time 6/6/96 1:14 PM		Received by: J. Gaffney		Date/Time 6/6/96 1:14 PM	
Relinquished by:		Date/Time		Received by:		Date/Time	
Relinquished by:		Date/Time		Received by:		Date/Time	
Method of Shipment:		Rush		24-48 Hours		10 Working Days	
Authorized by: J. Kenneth Smith		Date 6/6/96		Special Instructions:			
(Client Signature Must Accompany Request)							

Distribution: White - On Site Yellow - LAB Pink - Sampler Goldenrod - Client

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[illegible]

Distribution: White – On Site Yellow – LAB Pink – Sampler Goldenrod – Client

**SEND
INVOICE
TO**

[illegible]

Distribution:	White – On Site	Yellow – LAB	Pink – Sampler	Goldenrod – Client
---------------	-----------------	--------------	----------------	--------------------

OFF: (505) 325-5667



LAB: (505) 325-1556

AROMATIC VOLATILE ORGANICS

Attn: *Terry Griffin*
Company: *BioTech Remediation*
Address: *710 E 20th Street, Suite 400*
City, State: *Farmington, NM 87401*

Date: *18-Nov-96*
COC No.: *6015*
Sample No. *12849*
Job No. *B-3208*

Project Name: *Thriftway Refinery*
Project Location: *Refinery Air Stripper Inlet*
Sampled by: *DA*
Analyzed by: *DC*
Sample Matrix: *Liquid*

Date: *13-Nov-96* Time: *9:15*
Date: *15-Nov-96*

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
<i>Methyl-t-Butyl Ether</i>	50.3	ug/L	0.2	ug/L
<i>Benzene</i>	3508.1	ug/L	0.2	ug/L
<i>Toluene</i>	2206.4	ug/L	0.2	ug/L
<i>Ethylbenzene</i>	676.2	ug/L	0.2	ug/L
<i>m,p-Xylene</i>	2852.0	ug/L	0.2	ug/L
<i>o-Xylene</i>	768.9	ug/L	0.2	ug/L
	<i>TOTAL</i>	10061.9	ug/L	

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: *[Signature]*
Date: *11/19/96*

OFF: (505) 325-5667



LAB: (505) 325-1556

AROMATIC VOLATILE ORGANICS

Attn: *Terry Griffin*
Company: *BioTech Remediation*
Address: *710 E 20th Street, Suite 400*
City, State: *Farmington, NM 87401*

Date: *18-Nov-96*
COC No.: *6015*
Sample No. *12850*
Job No. *B-3208*

Project Name: *Thriftway Refinery*
Project Location: *Refinery Air Stripper Effluent*
Sampled by: *DA*
Analyzed by: *DC*
Sample Matrix: *Liquid*

Date: *13-Nov-96* Time: *9:17*
Date: *15-Nov-96*

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
<i>Methyl-t-Butyl Ether</i>	<i>1.4</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>Benzene</i>	<i>88.5</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>Toluene</i>	<i>64.4</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>Ethylbenzene</i>	<i>21.3</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>m,p-Xylene</i>	<i>93.1</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>o-Xylene</i>	<i>26.4</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
	<i>TOTAL</i>	<i>295.1</i>		<i>ug/L</i>

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: *[Signature]*
Date: *11/18/96*

OFF: (505) 325-5667



LAB: (505) 325-1556

AROMATIC VOLATILE ORGANICS

Attn: *Terry Griffin*
Company: *BioTech Remediation*
Address: *710 E 20th Street, Suite 400*
City, State: *Farmington, NM 87401*

Date: *18-Nov-96*
COC No.: *6015*
Sample No. *12851*
Job No. *B-3208*

Project Name: *Thriftway Refinery*
Project Location: *Travel Blank*
Sampled by: *DA*
Analyzed by: *DC*
Sample Matrix: *Liquid*

Date: *13-Nov-96* Time: *NR*
Date: *18-Nov-96*

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
<i>Methyl-t-Butyl Ether</i>	0.5	ug/L	0.2	ug/L
<i>Benzene</i>	1.0	ug/L	0.2	ug/L
<i>Toluene</i>	<0.2	ug/L	0.2	ug/L
<i>Ethylbenzene</i>	<0.2	ug/L	0.2	ug/L
<i>m,p-Xylene</i>	<0.2	ug/L	0.2	ug/L
<i>o-Xylene</i>	<0.2	ug/L	0.2	ug/L
	<i>TOTAL</i>	1.5	ug/L	

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: *[Signature]*
Date: *11/18/96*

OFF: (505) 325-5667



LAB: (505) 325-1556

QUALITY ASSURANCE REPORT
for EPA Method 8020

Date Analyzed: 15-Nov-96

Internal QC No.: 0515-QC

Surrogate QC No.: 0516-QC

Reference Standard QC No.: 0417-QC

Method Blank

Parameter	Result	Unit of Measure
Average Amount of All Analytes In Blank	<0.2	ppb

Calibration Check

Parameter	Unit of Measure	True Value	Analyzed Value	% Diff	Limit
Methyl-t-Butyl Ether	ppb	20.0	18.9	5	15%
Benzene	ppb	20.0	19.5	2	15%
Toluene	ppb	20.0	20.2	1	15%
Ethylbenzene	ppb	20.0	20.4	2	15%
m,p-Xylene	ppb	40.0	40.2	0	15%
o-Xylene	ppb	20.0	20.1	0	15%

Matrix Spike

Parameter	1 - Percent Recovered	2 - Percent Recovered	Limit	%RSD	Limit
Methyl-t-Butyl Ether	84	78	(39-150)	5	20%
Benzene	118	110	(39-150)	5	20%
Toluene	120	112	(46-148)	5	20%
Ethylbenzene	122	113	(32-160)	5	20%
m,p-Xylene	118	110	(35-145)	5	20%
o-Xylene	115	107	(35-145)	5	20%

Surrogate Recoveries

Laboratory Identification	S1 Percent Recovered	S2 Percent Recovered	Laboratory Identification	S1 Percent Recovered	S2 Percent Recovered
Limit Percent Recovery	(70-130)		Limit Percent Recovery	(70-130)	
12849-6015	98				
12850-6015	91				

(12)

OFF: (505) 325-5667



LAB: (505) 325-1556

QUALITY ASSURANCE REPORT
for EPA Method 8020

Date Analyzed: 18-Nov-96

Internal QC No.: 0515-QC

Surrogate QC No.: 0516-QC

Reference Standard QC No.: 0417-QC

Method Blank

Parameter	Result	Unit of Measure
Average Amount of All Analytes In Blank	<0.2	ppb

Calibration Check

Parameter	Unit of Measure	True Value	Analyzed Value	% Diff	Limit
Methyl-t-Butyl Ether	ppb	20.0	18.0	10	15%
Benzene	ppb	20.0	19.3	4	15%
Toluene	ppb	20.0	19.8	1	15%
Ethylbenzene	ppb	20.0	20.1	0	15%
m,p-Xylene	ppb	40.0	39.7	1	15%
o-Xylene	ppb	20.0	19.9	0	15%

Matrix Spike

Parameter	1 - Percent Recovered	2 - Percent Recovered	Limit	%RSD	Limit
Methyl-t-Butyl Ether	84	78	(39-150)	5	20%
Benzene	118	110	(39-150)	5	20%
Toluene	120	112	(46-148)	5	20%
Ethylbenzene	122	113	(32-160)	5	20%
m,p-Xylene	118	110	(35-145)	5	20%
o-Xylene	115	107	(35-145)	5	20%

Surrogate Recoveries

Laboratory Identification	S1 Percent Recovered	S2 Percent Recovered	Laboratory Identification	S1 Percent Recovered	S2 Percent Recovered
Limit Percent Recovery	(70-130)		Limit Percent Recovery	(70-130)	
12851-6015	97				

[illegible]

Distribution:	White – On Site	Yellow – LAB	Pink – Sampler	Goldenrod – Client
---------------	-----------------	--------------	----------------	--------------------

OFF: (505) 325-5667



LAB: (505) 325-1556

AROMATIC VOLATILE ORGANICS

Attn: *Ross Kennemer*
Company: *BioTech Remediation*
Address: *710 E 20th Street, Suite 400*
City, State: *Farmington, NM 87401*

Date: *19-Dec-96*
COC No.: *6238*
Sample No. *13165*
Job No. *B-3275*

Project Name: *Thriftway #810*
Project Location: *Stripper Discharge*
Sampled by: *RK*
Analyzed by: *DC*
Sample Matrix: *Liquid*

Date: *14-Dec-96* Time: *10:10*
Date: *18-Dec-96*

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
Methyl-t-Butyl Ether	844.8	ug/L	0.2	ug/L
Benzene	427.5	ug/L	0.2	ug/L
Toluene	373.1	ug/L	0.2	ug/L
Ethylbenzene	47.5	ug/L	0.2	ug/L
m,p-Xylene	460.5	ug/L	0.2	ug/L
o-Xylene	211.0	ug/L	0.2	ug/L
TOTAL		2364.4	ug/L	

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: *[Signature]*
Date: *12/19/96*

JAN - 3 1997

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P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

OFF: (505) 325-5667



LAB: (505) 325-1556

AROMATIC VOLATILE ORGANICS

Attn: *Ross Kennemer*
Company: *BioTech Remediation*
Address: *710 E 20th Street, Suite 400*
City, State: *Farmington, NM 87401*

Date: *19-Dec-96*
COC No.: *6238*
Sample No. *13166*
Job No. *B-3275*

Project Name: *Thriftway #810*
Project Location: *Stripper Discharge*
Sampled by: *RK*
Analyzed by: *DC*
Sample Matrix: *Liquid*

Date: *15-Dec-96* Time: *13:20*
Date: *18-Dec-96*

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
Methyl-t-Butyl Ether	866.8	ug/L	0.2	ug/L
Benzene	436.1	ug/L	0.2	ug/L
Toluene	385.7	ug/L	0.2	ug/L
Ethylbenzene	49.9	ug/L	0.2	ug/L
m,p-Xylene	473.2	ug/L	0.2	ug/L
o-Xylene	216.3	ug/L	0.2	ug/L
TOTAL		2428.1	ug/L	

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: *[Signature]*

Date: *12/19/96*

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

OFF: (505) 325-5667



LAB: (505) 325-1556

AROMATIC VOLATILE ORGANICS

Attn: *Ross Kennemer*
Company: *BioTech Remediation*
Address: *710 E 20th Street, Suite 400*
City, State: *Farmington, NM 87401*

Date: *19-Dec-96*
COC No.: *6238*
Sample No. *13167*
Job No. *B-3275*

Project Name: *Thriftway #810*
Project Location: *Stripper Discharge*
Sampled by: *RK*
Analyzed by: *DC*
Sample Matrix: *Liquid*

Date: *16-Dec-96* Time: *15:00*
Date: *18-Dec-96*

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
Methyl-t-Butyl Ether	465.4	ug/L	0.2	ug/L
Benzene	150.4	ug/L	0.2	ug/L
Toluene	139.0	ug/L	0.2	ug/L
Ethylbenzene	13.7	ug/L	0.2	ug/L
m,p-Xylene	133.2	ug/L	0.2	ug/L
o-Xylene	88.6	ug/L	0.2	ug/L
TOTAL		990.5	ug/L	

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: *[Signature]*

Date: *12/19/96*

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

OFF: (505) 325-5667



LAB: (505) 325-1556

AROMATIC VOLATILE ORGANICS

Attn: *Ross Kennemer*
Company: *BioTech Remediation*
Address: *710 E 20th Street, Suite 400*
City, State: *Farmington, NM 87401*

Date: *19-Dec-96*
COC No.: *6238*
Sample No. *13168*
Job No. *B-3275*

Project Name: *Thriftway #810*
Project Location: *Stripper Discharge*
Sampled by: *RK*
Analyzed by: *DC*
Sample Matrix: *Liquid*

Date: *17-Dec-96* Time: *9:15*
Date: *18-Dec-96*

Laboratory Analysis

<i>Parameter</i>	<i>Result</i>	<i>Unit of Measure</i>	<i>Detection Limit</i>	<i>Unit of Measure</i>
<i>Methyl-t-Butyl Ether</i>	<i>331.8</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>Benzene</i>	<i>93.4</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>Toluene</i>	<i>90.3</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>Ethylbenzene</i>	<i>4.6</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>m,p-Xylene</i>	<i>52.5</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>o-Xylene</i>	<i>59.4</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
	<i>TOTAL</i>	<i>632.1</i>		<i>ug/L</i>

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: *[Signature]*
Date: *12/19/96*

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

OFF: (505) 325-5667



LAB: (505) 325-1556

QUALITY ASSURANCE REPORT
for EPA Method 8020

Date Analyzed: 18-Dec-96

Internal QC No.: 0515-QC

Surrogate QC No.: 0516-QC

Reference Standard QC No.: 0417-QC

Method Blank

Parameter	Result	Unit of Measure
Average Amount of All Analytes In Blank	<0.2	ppb

Calibration Check

Parameter	Unit of Measure	True Value	Analyzed Value	% Diff	Limit
Methyl-t-Butyl Ether	ppb	20.0	17.4	13	15%
Benzene	ppb	20.0	18.9	5	15%
Toluene	ppb	20.0	19.6	2	15%
Ethylbenzene	ppb	20.0	19.8	1	15%
m,p-Xylene	ppb	40.0	38.8	3	15%
o-Xylene	ppb	20.0	19.6	2	15%

Matrix Spike

Parameter	1 - Percent Recovered	2 - Percent Recovered	Limit	%RSD	Limit
Methyl-t-Butyl Ether	85	93	(39-150)	6	20%
Benzene	92	97	(39-150)	4	20%
Toluene	97	101	(46-148)	2	20%
Ethylbenzene	100	102	(32-160)	2	20%
m,p-Xylene	97	100	(35-145)	2	20%
o-Xylene	98	100	(35-145)	2	20%

Surrogate Recoveries

Laboratory Identification	S1 Percent Recovered	S2 Percent Recovered	Laboratory Identification	S1 Percent Recovered	S2 Percent Recovered
Limit Percent Recovery	(70-130)		Limit Percent Recovery	(70-130)	
13165-6238	95				
13166-6238	94				
13167-6238	93				
13168-6238	93				

CHAIN OF CUSTODY RECORD

ON SITE

TECHNOLOGIES, LTD.

657 W. Maple • P. O. Box 2606 • Farmington, NM 87499
LAB: (505) 325-5667 • FAX: (505) 325-6256

Date: 17/11/16

Page 1 of 1

Purchase Order No.: B-3275		Job No.	
SEND INVOICE TO		Name	
Company		Company	
Address		Mailing Address	
City, State, Zip		City, State, Zip	
Sampling Location: Tenthredin, # 210		Telephone No.	
Sampler: Ross Kennermer		Title	
REPORT RESULTS TO		ANALYSIS REQUESTED	
Number of Containers		LAB ID	
DATE		DATE	
TIME		TIME	
MATRIX		PRES.	
13-14-96 1010		H2O H2O	
13-15-96 1330		" "	
13-16-96 1500		" "	
13-17-96 0915		" "	
Stippen Discharge		1	
Stippen Discharge		1	
Stippen Discharge		2	
Stippen Discharge		2	
Relinquished by: Ross Kennermer		Received by: Hach Kees	
Relinquished by:		Received by:	
Relinquished by:		Received by:	
Method of Shipment:		Rush	
Authorized by:		Date	
(Client Signature Must Accompany Request)		Date	
Distribution: White - On Site Yellow - LAB Pink - Sampler Goldenrod - Client		24-48 Hours	
10 Working Days		Special Instructions:	

OFF: (505) 325-5667



LAB: (505) 325-1556

JB

ANALYTICAL REPORT

Attn: *Ross Kennemer*
Company: *BioTech Remediation*
Address: *710 E 20th Street, Suite 400*
City, State: *Farmington, NM 87401*

Date: *26-Mar-97*
COC No.: *6031*
Sample No.: *14028*
Job No.: *897-240*

Project Name: *Thriftway 812*
Project Location: *812 - Inlet*
Sampled by: *DA*
Analyzed by: *DC*
Sample Matrix: *Liquid*

Date: *24-Mar-97* Time: *10:00*
Date: *25-Mar-97*

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
Benzene	2110	ug/L	0.2	ug/L
Toluene	1010	ug/L	0.2	ug/L
Ethylbenzene	470	ug/L	0.2	ug/L
m,p-Xylene	948	ug/L	0.2	ug/L
o-Xylene	331	ug/L	0.2	ug/L
TOTAL	4868	ug/L		

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved By: *DC*
Date: *3/26/97*

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Attn: *Ross Kennemer*
Company: *BioTech Remediation*
Address: *710 E 20th Street, Suite 400*
City, State: *Farmington, NM 87401*

Date: *26-Mar-97*
COC No.: *6031*
Sample No.: *14029*
Job No.: *B97-240*

Project Name: *Thriftway 812*
Project Location: *812 - Outlet*
Sampled by: *DA*
Analyzed by: *DC*
Sample Matrix: *Liquid*

Date: *24-Mar-97* Time: *10:00*
Date: *25-Mar-97*

<i>Parameter</i>	<i>Result</i>	<i>Unit of Measure</i>	<i>Detection Limit</i>	<i>Unit of Measure</i>
<i>Benzene</i>	<i>34.0</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>Toluene</i>	<i>18.9</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>Ethylbenzene</i>	<i>9.1</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>m,p-Xylene</i>	<i>19.4</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>o-Xylene</i>	<i>7.6</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>TOTAL</i>	<i>89.0</i>	<i>ug/L</i>		

Method - *SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography*

Approved By: *DC*

Date: *3/26/97*

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

OFF: (505) 325-5667



LAB: (505) 325-1556

QUALITY ASSURANCE REPORT

for EPA Method 8020

Date Analyzed: 25-Mar-97

Internal QC No.: 0527-STD

Surrogate QC No.: 0528-STD

Reference Standard QC No.: 0529/30-QC

Method Blank

Parameter	Result	Unit of Measure
Average Amount of All Analytes In Blank	<0.2	ppb

Calibration Check

Parameter	Unit of Measure	True Value	Analyzed Value	% Diff	Limit
Benzene	ppb	20.0	18.4	8	15%
Toluene	ppb	20.0	19.2	4	15%
Ethylbenzene	ppb	20.0	19.5	2	15%
m,p-Xylene	ppb	40.0	37.6	6	15%
o-Xylene	ppb	20.0	19.2	4	15%

Matrix Spike

Parameter	1 - Percent Recovered	2 - Percent Recovered	Limit	%RSD	Limit
Benzene	89	85	(39-150)	3	20%
Toluene	93	89	(46-148)	3	20%
Ethylbenzene	94	90	(32-160)	3	20%
m,p-Xylene	91	87	(35-145)	3	20%
o-Xylene	93	89	(35-145)	3	20%

Surrogate Recoveries

Laboratory Identification	S1 Percent Recovered	S2 Percent Recovered	Laboratory Identification	S1 Percent Recovered	S2 Percent Recovered
Limit Percent Recovered	(70-130)		Limit Percent Recovered	(70-130)	
14028-6031	96				
14029-6031	95				

S1: Fluorobenzene

02
3/26/97

[illegible]

Distribution:	White – On Site	Yellow – LAB	Pink – Sampler	Goldenrod – Client
---------------	-----------------	--------------	----------------	--------------------

OFF: (505) 325-5667



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LAB: (505) 325-1556
7 1997

A handwritten signature, possibly "DM", is written in the upper right corner of the page.

ANALYTICAL REPORT

Attn: *Ross Kennemer*
Company: *BioTech Remediation*
Address: *710 E 20th Street, Suite 400*
City, State: *Farmington, NM 87401*

Date: *2-Apr-97*
COC No.: *6035*
Sample No.: *14073*
Job No.: *B97-256*

Project Name: *Thriftway 812*
Project Location: *Stripper Influent*
Sampled by: *RK*
Analyzed by: *DC*
Sample Matrix: *Liquid*

Date: *2-Apr-97* Time: *8:00*
Date: *2-Apr-97*

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
<i>Benzene</i>	<i>1436</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>Toluene</i>	<i>650</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>Ethylbenzene</i>	<i>361</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>m,p-Xylene</i>	<i>830</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>o-Xylene</i>	<i>449</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>TOTAL</i>	<i>3725</i>	<i>ug/L</i>		

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved By: *DC*
Date: *4/2/97*

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

OFF: (505) 325-5667



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APR 04 1997

LAB: (505) 325-1556

ANALYTICAL REPORT

Attn: *Ross Kennemer*
Company: *BioTech Remediation*
Address: *710 E 20th Street, Suite 400*
City, State: *Farmington, NM 87401*

Date: *2-Apr-97*
COC No.: *6035*
Sample No.: *14074*
Job No.: *B97-256*

Project Name: *Thriftway 812*
Project Location: *Stripper Effluent*
Sampled by: *RK*
Analyzed by: *DC*
Sample Matrix: *Liquid*

Date: *2-Apr-97* Time: *8:00*
Date: *2-Apr-97*

<i>Parameter</i>	<i>Result</i>	<i>Unit of Measure</i>	<i>Detection Limit</i>	<i>Unit of Measure</i>
<i>Benzene</i>	<i>54.4</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>Toluene</i>	<i>26.1</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>Ethylbenzene</i>	<i>14.3</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>m,p-Xylene</i>	<i>34.6</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>o-Xylene</i>	<i>13.4</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>TOTAL</i>	<i>142.8</i>	<i>ug/L</i>		

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved By: *[Signature]*
Date: *4/2/97*

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

OFF: (505) 325-5667


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LAB: (505) 325-1556

QUALITY ASSURANCE REPORT

for EPA Method 8020

Date Analyzed: 2-Apr-97

Internal QC No.: 0527-STD

Surrogate QC No.: 0528-STD

Reference Standard QC No.: 0529/30-QC

Method Blank

Parameter	Result	Unit of Measure
Average Amount of All Analytes In Blank	<0.2	ppb

Calibration Check

Parameter	Unit of Measure	True Value	Analyzed Value	% Diff	Limit
Benzene	ppb	20.0	18.1	9	15%
Toluene	ppb	20.0	19.2	4	15%
Ethylbenzene	ppb	20.0	19.7	2	15%
m,p-Xylene	ppb	40.0	37.9	5	15%
o-Xylene	ppb	20.0	19.5	3	15%

Matrix Spike

Parameter	1 - Percent Recovered	2 - Percent Recovered	Limit	%RSD	Limit
Benzene	68	82	(39-150)	2	20%
Toluene	81	88	(46-148)	2	20%
Ethylbenzene	86	91	(32-160)	2	20%
m,p-Xylene	82	87	(35-145)	2	20%
o-Xylene	45	52	(35-145)	3	20%

Surrogate Recoveries

Laboratory Identification	S1 Percent Recovered	S2 Percent Recovered	Laboratory Identification	S1 Percent Recovered	S2 Percent Recovered
Limit Percent Recovered	(70-130)		Limit Percent Recovered	(70-130)	
14073-6035	99				
14074-6035	95				

S1: Fluorobenzene

657 W. Maple • P. O. Box 2606 • Farmington NM 87499
LAB: (505) 325-5667 • FAX: (505) 325-6256

657 W. Maple • P. O. Box 2606 • Farmington NM 87499
LAB: (505) 325-5667 • FAX: (505) 325-6256

Distribution:	White – On Site	Yellow – LAB	Pink – Sampler	Goldenrod – Client
---------------	-----------------	--------------	----------------	--------------------

ON SITE TECHNOLOGIES, LTD.

P.O. Box 2606 Farmington, NM 87499 (505) 325-5667

APR 8 1997

P/B

Facsimile Cover Sheet

Attn: ROSS / TERRY
Company: BIOTELH REMEDIATION
Phone: _____
Fax: 632-9850

From: DAVID COX
Company: On Site Technologies, LTD.
Laboratory Phone: (505) 325-2432
Laboratory Fax: (505) 325-6256

Date: 4/8/97

Pages Including Cover Sheet: 5

Comments:

Thank you for your patience!
D.C.

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Attn: Terry Griffin
Company: BioTech Remediation
Address: 710 E 20th Street, Suite 400
City, State: Farmington, NM 87401

Date: 7-Apr-97
COC No.: 6036
Sample No.: 14090
Job No.: B97-256

Project Name: Thriftway Refinery 626 CR 5500 Bloomfield, NM
Project Location: Air Stripper Effluent
Sampled by: KS
Analyzed by: DC
Sample Matrix: Liquid

Date: 3-Apr-97 Time: 11:08
Date: 4-Apr-97

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
Benzene	0.3	ug/L	0.2	ug/L
Toluene	0.2	ug/L	0.2	ug/L
Ethylbenzene	<0.2	ug/L	0.2	ug/L
m,p-Xylene	0.9	ug/L	0.2	ug/L
o-Xylene	<0.2	ug/L	0.2	ug/L
TOTAL	1.4	ug/L		

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved By: 
Date: 4/7/97

P.O. BOX 2606 • FARMINGTON, NM 87499
- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

OFF: (505) 325-5667



LAB: (505) 325-1556

QUALITY ASSURANCE REPORT

Date Analyzed: 4-Apr-97

Internal QC No.: 0527-STD

Surrogate QC No.: 0528-STD

Reference Standard QC No.: 0529/30-QC

Method Blank

Parameter	Result	Unit of Measure
Average Amount of All Analytes In Blank	<0.2	ppb

Calibration Check

Parameter	Unit of Measure	True Value	Analyzed Value	% Diff	Limit
Benzene	ppb	20.0	20.5	2	15%
Toluene	ppb	20.0	21.2	6	15%
Ethylbenzene	ppb	20.0	21.8	9	15%
m,p-Xylene	ppb	40.0	41.3	3	15%
o-Xylene	ppb	20.0	21.3	7	15%

Matrix Spike

Parameter	1 - Percent Recovered	2 - Percent Recovered	Limit	%RSD	Limit
Benzene	91	88	(39-150)	2	20%
Toluene	96	91	(46-148)	2	20%
Ethylbenzene	92	89	(32-160)	2	20%
m,p-Xylene	87	82	(35-145)	2	20%
o-Xylene	78	77	(35-145)	1	20%

Surrogate Recoveries

[illegible]

S1: Fluorobenzene

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Attn: **Terry Griffin**
Company: **BioTech Remediation**
Address: **710 E 20th Street, Suite 400**
City, State: **Farmington, NM 87401**

Date: **7-Apr-97**
COC No.: **6039**
Sample No.: **14115**
Job No.: **897-265**

Project Name: **Thriftway 812**
Project Location: **Effluent**
Sampled by: **DA**
Analyzed by: **DC**
Sample Matrix: **Liquid**

Date: **4-Apr-97** Time: **8:52**
Date: **4-Apr-97**

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
Benzene	<0.2	ug/L	0.2	ug/L
Toluene	0.3	ug/L	0.2	ug/L
Ethylbenzene	<0.2	ug/L	0.2	ug/L
m,p-Xylene	0.7	ug/L	0.2	ug/L
o-Xylene	<0.2	ug/L	0.2	ug/L
TOTAL	1.0	ug/L		

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved By: 
Date: **4/7/97**

OFF: (505) 325-5667



LAB: (505) 325-1556

QUALITY ASSURANCE REPORT for EPA Method 8020

Date Analyzed: 4-Apr-97

Internal QC No.: 0527-STD

Surrogate QC No.: 0528-STD

Reference Standard QC No.: 0529/30-QC

Method Blank

Parameter	Result	Unit of Measure
Average Amount of All Analytes In Blank	<0.2	ppb

Calibration Check

Parameter	Unit of Measure	True Value	Analyzed Value	% Diff	Limit
Benzene	ppb	20.0	20.5	2	15%
Toluene	ppb	20.0	21.2	6	15%
Ethylbenzene	ppb	20.0	21.8	9	15%
m,p-Xylene	ppb	40.0	41.3	3	15%
o-Xylene	ppb	20.0	21.3	7	15%

Matrix Spike

Parameter	1 - Percent Recovered	2 - Percent Recovered	Limit	%RSD	Limit
Benzene	91	88	(39-150)	2	20%
Toluene	96	91	(46-148)	2	20%
Ethylbenzene	92	89	(32-160)	2	20%
m,p-Xylene	87	82	(35-145)	2	20%
o-Xylene	78	77	(35-145)	1	20%

Surrogate Recoveries

Laboratory Identification	S1 Percent Recovered	S2 Percent Recovered	Laboratory Identification	S1 Percent Recovered	S2 Percent Recovered
Limit Percent Recovered	(70-130)		Limit Percent Recovered	(70-130)	
14115-6039	96				

S1: Fluorobenzene

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

OFF: (505) 325-5667



APR 10 1997
66
LAB: (505) 325-1556

ANALYTICAL REPORT

Attn: *Terry Griffin*
Company: *BioTech Remediation*
Address: *710 E 20th Street, Suite 400*
City, State: *Farmington, NM 87401*

Date: *7-Apr-97*
COC No.: *6036*
Sample No.: *14090*
Job No.: *897-256*

Project Name: *Thriftway Refinery 626 CR 5500 Bloomfield, NM*
Project Location: *Air Stripper Effluent*
Sampled by: *KS* Date: *3-Apr-97* Time: *11:08*
Analyzed by: *DC* Date: *4-Apr-97*
Sample Matrix: *Liquid*

<i>Parameter</i>	<i>Result</i>	<i>Unit of Measure</i>	<i>Detection Limit</i>	<i>Unit of Measure</i>
<i>Benzene</i>	<i>0.3</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>Toluene</i>	<i>0.2</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>Ethylbenzene</i>	<i><0.2</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>m,p-Xylene</i>	<i>0.9</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>o-Xylene</i>	<i><0.2</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>TOTAL</i>	<i>1.4</i>	<i>ug/L</i>		

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved By: *[Signature]*

Date: *4/7/97*

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

Reference Standard QC No.: 0529/30-QC

4/3/97

Page _____ of _____

TECHNOLOGIES, LTD.

657 W. Maple • P. O. Box 2606 • Farmington NM 87499
LAB: (505) 325-5667 • FAX: (505) 325-6256

Purchase Order No.: B97-256		Job No.									
Name SAME											
Company		Dept.									
Address											
City, State, Zip											
Sampling Location: The City Refining Co. 626 R.D. 5500 Bloomfield, NM											
Sampler: Ken Smith											
SEND INVOICE TO	NAME	SAMPLE IDENTIFICATION	SAMPLE		MATRIX	PRES.	REPORT RESULTS TO	Number of Containers	ANALYSIS REQUESTED	Name	Title
			DATE	TIME							
	Resample MW-01		4/3	1055	M20	Cool		1		Terry Griffin	
	2nd Resample MW-05			1130				1		Biotech Remediation, Inc.	
	2nd Resample MW-06			1155				1		710 E. 20th Street, Suite 400	
	Resample MW-13			1000				1		Farmingington, NM 87401	
	Resample MW-21			1020				1		Telephone No. 505-632-3365	Telex No. 505-632-9850
	2nd Resample MW-22			1035				1			
	Air Stripped Effluent		4/3	1108	M20	HSC12 Cool		1			
Relinquished by:			Date/Time 4/13/97 1530		Received by: Heidi Reese		Date/Time 4/13/97 1530				
Relinquished by:			Date/Time		Received by:		Date/Time				
Relinquished by:			Date/Time		Received by:		Date/Time				
Method of Shipment:					Rush		24-48 Hours		10 Working Days		Special Instructions:
Authorized by:					(Client Signature Must Accompany Request)		Date				

Distribution:	White – On Site	Yellow – LAB	Pink – Sampler	Goldenrod – Client
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APPENDIX B

THRIFTWAY REFINERY
PRODUCT RECOVERY DATA

MONITOR WELL	DATE	OIL LEVEL FEET	WATER LEVEL FEET	PRODUCT THICKNESS FEET	PRODUCT REMOVED GALLONS	TIME	SAMPLED BY
FILE:\B10\BAILTBL.WK4							
MW-01	12/27/96	15.62	15.62	0.00	0.0000		D. ALBIN
MW-01	01/10/97	15.61	15.61	0.00	0.0000		D. ALBIN
MW-01	01/31/97	NOT MEASURED					D. ALBIN
MW-01	02/21/97	NOT MEASURED					D. ALBIN
MW-02	12/27/96	12.23	13.24	1.01	0.1398		D. ALBIN
MW-02	01/10/97	12.33	12.54	0.21	0.0132		D. ALBIN
MW-02	01/31/97	12.27	12.53	0.26	0.0185		D. ALBIN
MW-02	02/21/97	12.20	12.51	0.31	0.0185		D. ALBIN
MW-03	12/27/96	4.60	4.72	0.12	0.0111		D. ALBIN
MW-03	01/31/97	3.85	3.85	0.00	0.0000		D. ALBIN
MW-03	02/21/97	3.63	3.63	0.00	0.0000		D. ALBIN
MW-07	12/27/96	7.62	7.62	0.00	0.0000		D. ALBIN
MW-07	01/10/97	7.36	7.36	0.00	0.0000		D. ALBIN
MW-07	01/31/97	6.92	6.92	0.00	0.0000		D. ALBIN
MW-07	02/21/97	6.64	6.64	0.00	0.0000		D. ALBIN
MW-12	12/27/96	14.17	15.60	1.43	0.2982		D. ALBIN
MW-12	01/10/97	14.17	15.62	1.45	0.2929		D. ALBIN
MW-12	01/31/97	14.19	15.55	1.36	0.2876		D. ALBIN
MW-12	02/21/97	14.16	15.47	1.31	0.2665		D. ALBIN
MW-14	12/27/96	12.97	12.97	0.00	0.0000		D. ALBIN
MW-14	01/10/97	12.01	12.76	0.75	0.2929		D. ALBIN
MW-14	01/31/97	12.75	13.64	0.89	0.1266		D. ALBIN
MW-14	02/21/97	12.74	13.59	0.85	0.1214		D. ALBIN
MW-17	12/27/96	5.21	6.30	1.09	0.4700		D. ALBIN
MW-17	01/10/97	5.86	6.23	0.37	0.1609		D. ALBIN
MW-17	01/31/97	5.73	5.75	0.02	0.0066		D. ALBIN
MW-17	02/21/97	5.67	5.72	0.05	0.0053		D. ALBIN
MW-29	12/27/96	14.65	14.78	0.13	0.0149		D. ALBIN
MW-29	01/10/97	14.64	14.74	0.10	0.0132		D. ALBIN
MW-29	01/31/97	14.66	14.74	0.08	0.0079		D. ALBIN
MW-29	02/21/97	14.63	14.71	0.08	0.0264		D. ALBIN
RW-24	12/27/96	13.94	15.34	1.40	0.2427		D. ALBIN
RW-24	01/10/97	13.94	15.31	1.37	0.2427		D. ALBIN
RW-24	01/31/97	13.94	15.25	1.31	0.2348		D. ALBIN
RW-24	02/21/97	13.92	15.14	1.22	0.1741		D. ALBIN
RW-25	12/27/96	14.89	15.02	0.13	0.0101		D. ALBIN
RW-25	01/10/97	14.86	14.95	0.09	0.0066		D. ALBIN
RW-25	01/31/97	14.87	14.98	0.11	0.0132		D. ALBIN
RW-25	02/21/97	14.82	14.94	0.12	0.0132		D. ALBIN
RW-26	12/27/96	12.97	13.70	0.73	0.7000		D. ALBIN
RW-26	01/10/97	12.01	12.76	0.75	0.3219		D. ALBIN
RW-26	01/31/97	12.02	12.71	0.69	0.2850		D. ALBIN
RW-26	02/21/97	12.00	12.62	0.62	0.2164		D. ALBIN
T-17-1	12/27/96	DRY	DRY	0.00	0.0000		D. ALBIN
T-17-1	01/10/97	18.07	18.07	0.00	0.0000		D. ALBIN
T-17-1	01/31/97	NOT MEASURED					D. ALBIN
T-17-1	02/21/97	NOT MEASURED					D. ALBIN
T-17-3	12/30/96	17.16	17.16	0.00	0.0000		D. ALBIN
T-17-3	01/10/97	17.16	17.16	0.00	0.0000		D. ALBIN
T-17-3	01/31/97	NOT MEASURED					D. ALBIN
T-17-3	02/21/97	NOT MEASURED					D. ALBIN

total

5.0531

FREE PRODUCT BAILING LOG THRIFTWAY REFINERY

DATE: 2-21-97

TECHNICIAN: _____

F:\FILE1810\BAILLOG.WK4
BALLETABLE

MONITOR WELL#	AO LEVEL	OW LEVEL	DELTA FEET	PRODUCT GALLONS	COMMENTS
MW-02	12.20	12.51	0.31	.0158	GO .0158
MW-03	3.63	3.63	0	0	-0-
MW-07	6.64	6.64	0	0	-0-
MW-12	14.16	15.47	1.31	.2665	1010 .2665
MW-14	12.74	13.59	.85	.1214	460 .1214
MW-17	5.67	5.72	.05	.0053	100 20 .0053
MW-29	14.63	14.71	.80	.0264	100 .0264
RW-24	13.92	15.14	1.22	.1741	660 .1741
RW-25	14.82	14.94	.12	.0132	50 .0132
RW-26	12.00	12.62	.62	.2164	820 .2164
STR UST					

* Should not have free product on the water surface.

FREE PRODUCT BAILING LOG THRIFTWAY REFINERY

DATE: 2-28-97

TECHNICIAN: D. Lin

F:\FILE1810\BAILLOG.WK4

Baitable

MONITOR WELL#	AO LEVEL	OW LEVEL	DELTA FEET	PRODUCT GALLONS	COMMENTS
MW-02	12.18	12.39	0.21		30ml
MW-03	3.53	3.53	0	0	
MW-07	6.56	6.56	0	0	
MW-12	14.13	15.40	1.27		1000
MW-14	12.71	13.52	0.81		400
MW-17	5.65	5.69	0.04		20ml
MW-29	14.60	14.60	0.00		50ml
RW-24	13.90	15.11	1.21		620
RW-25	14.78	14.97	0.19		50ml
RW-26	11.98	12.57	0.78		720
STR UST					

* Should not have free product on the water surface.

000264

THRIFTWAY REFINERY
PRODUCT RECOVERY DATA

WELL		LEVEL FEET	LEVEL FEET	THICKNESS FEET	REMOVED GALLONS	ML	BY
------	--	---------------	---------------	-------------------	--------------------	----	----

FILE:\810\BAILTBL.WK4

THRIFTWAY REFINERY
PRODUCT RECOVERY DATA

WELL		LEVEL FEET	LEVEL FEET	THICKNESS FEET	REMOVED GALLONS	ML	BY
------	--	---------------	---------------	-------------------	--------------------	----	----

FILE:\810\BAILTBL.WK4

MW-01	12/27/96	15.62	15.62	0.00	0.0000		D. ALBIN
MW-01	01/10/97	15.61	15.61	0.00	0.0000		D. ALBIN
MW-01	01/31/97		NOT MEASURED				D. ALBIN
MW-01	02/21/97		NOT MEASURED				D. ALBIN
MW-01	02/28/97		NOT MEASURED				D. ALBIN

MW-02	12/27/96	12.23	13.24	1.01	0.1398		D. ALBIN
MW-02	01/10/97	12.33	12.54	0.21	0.0132		D. ALBIN
MW-02	01/31/97	12.27	12.53	0.26	0.0185		D. ALBIN
MW-02	02/21/97	12.20	12.51	0.31	0.0185		D. ALBIN
MW-02	02/28/97	12.18	12.39	0.21	0.0079	30.0	D. ALBIN

MW-03	12/27/96	4.60	4.72	0.12	0.0111		D. ALBIN
MW-03	01/31/97	3.85	3.85	0.00	0.0000		D. ALBIN
MW-03	02/21/97	3.63	3.63	0.00	0.0000		D. ALBIN
MW-03	02/21/97	3.63	3.63	0.00	0.0000		D. ALBIN
MW-03	02/28/97	3.53	3.53	0.00	0.0000		D. ALBIN

MW-07	12/27/96	7.62	7.62	0.00	0.0000		D. ALBIN
MW-07	01/10/97	7.36	7.36	0.00	0.0000		D. ALBIN
MW-07	01/31/97	6.92	6.92	0.00	0.0000		D. ALBIN
MW-07	02/21/97	6.64	6.64	0.00	0.0000		D. ALBIN
MW-07	02/28/97	6.56	6.56	0.00	0.0000		D. ALBIN

MW-12	12/27/96	14.17	15.60	1.43	0.2982		D. ALBIN
MW-12	01/10/97	14.17	15.62	1.45	0.2929		D. ALBIN
MW-12	01/31/97	14.19	15.55	1.36	0.2876		D. ALBIN
MW-12	02/21/97	14.16	15.47	1.31	0.2665		D. ALBIN
MW-12	02/28/97	14.13	15.40	1.27	0.2640	1000.0	D. ALBIN

MW-14	12/27/96	12.97	12.97	0.00	0.0000		D. ALBIN
MW-14	01/10/97	12.01	12.76	0.75	0.2929		D. ALBIN
MW-14	01/31/97	12.75	13.64	0.89	0.1266		D. ALBIN
MW-14	02/21/97	12.74	13.59	0.85	0.1214		D. ALBIN
MW-14	02/28/97	12.71	13.52	0.81	0.1056	400.0	D. ALBIN

THRIFTWAY REFINERY
PRODUCT RECOVERY DATA

WELL		LEVEL FEET	LEVEL FEET	THICKNESS FEET	REMOVED GALLONS	ML	BY
FILE:\810\BAILTBL.WK4							
MW-17	12/27/96	5.21	6.30	1.09	0.4700		D. ALBIN
MW-17	01/10/97	5.86	6.23	0.37	0.1609		D. ALBIN
MW-17	01/31/97	5.73	5.75	0.02	0.0066		D. ALBIN
MW-17	02/21/97	5.67	5.72	0.05	0.0053		D. ALBIN
MW-17	02/28/97	5.65	5.69	0.04	0.0053	20.0	D. ALBIN
MW-29	12/27/96	14.65	14.78	0.13	0.0149		D. ALBIN
MW-29	01/10/97	14.64	14.74	0.10	0.0132		D. ALBIN
MW-29	01/31/97	14.66	14.74	0.08	0.0079		D. ALBIN
MW-29	02/21/97	14.63	14.71	0.08	0.0264		D. ALBIN
MW-29	02/28/97	14.60	14.68	0.08	0.0132	50.0	D. ALBIN
RW-24	12/27/96	13.94	15.34	1.40	0.2427		D. ALBIN
RW-24	01/10/97	13.94	15.31	1.37	0.2427		D. ALBIN
RW-24	01/31/97	13.94	15.25	1.31	0.2348		D. ALBIN
RW-24	02/21/97	13.92	15.14	1.22	0.1741		D. ALBIN
RW-24	02/28/97	13.90	15.11	1.21	0.1637	620.0	D. ALBIN
RW-25	12/27/96	14.89	15.02	0.13	0.0101		D. ALBIN
RW-25	01/10/97	14.86	14.95	0.09	0.0066		D. ALBIN
RW-25	01/31/97	14.87	14.98	0.11	0.0132		D. ALBIN
RW-25	02/21/97	14.82	14.94	0.12	0.0132		D. ALBIN
RW-25	02/28/97	14.78	14.97	0.19	0.0132	50.0	D. ALBIN
RW-26	12/27/96	12.97	13.70	0.73	0.7000		D. ALBIN
RW-26	01/10/97	12.01	12.76	0.75	0.3219		D. ALBIN
RW-26	01/31/97	12.02	12.71	0.69	0.2850		D. ALBIN
RW-26	02/21/97	12.00	12.62	0.62	0.2164		D. ALBIN
RW-26	02/28/97	11.98	12.57	0.59	0.1901	720.0	D. ALBIN
T-17-1	12/27/96	DRY	DRY	0.00	0.0000		D. ALBIN
T-17-1	01/10/97	18.07	18.07	0.00	0.0000		D. ALBIN
T-17-1	01/31/97		NOT MEASURED				D. ALBIN
T-17-1	02/21/97		NOT MEASURED				D. ALBIN
T-17-1	02/28/97		NOT MEASURED				D. ALBIN
T-17-3	12/30/96	17.16	17.16	0.00	0.0000		D. ALBIN
T-17-3	01/10/97	17.16	17.16	0.00	0.0000		D. ALBIN
T-17-3	01/31/97		NOT MEASURED				D. ALBIN
T-17-3	02/21/97		NOT MEASURED				D. ALBIN
T-17-3	02/28/97		NOT MEASURED				D. ALBIN

TABLE 4
THRIFTWAY REFINERY
PRODUCT RECOVERY DATA

MONITOR WELL	DATE	OIL LEVEL FEET	WATER LEVEL FEET	PRODUCT THICKNESS FEET	PRODUCT REMOVED GALLONS	TIME	SAMPLED BY
FILE:\810\QMRTABL4.WK4							
MW-01	12/27/96	15.62	15.62	0.00	0.0000		D. ALBIN
MW-01	01/10/97	15.61	15.61	0.00	0.0000		D. ALBIN
MW-01	01/31/97	NOT MEASURED					D. ALBIN
MW-02	12/27/96	12.23	13.24	1.01	0.1398		D. ALBIN
MW-02	01/10/97	12.33	12.54	0.21	0.0132		D. ALBIN
MW-02	01/31/97	12.27	12.53	0.26	0.0185		D. ALBIN
MW-03	12/27/96	4.60	4.72	0.12	0.0111		D. ALBIN
MW-03	01/31/97	3.85	3.85	0.00	0.0000		D. ALBIN
MW-07	12/27/96	7.62	7.62	0.00	0.0000		D. ALBIN
MW-07	01/10/97	7.36	7.36	0.00	0.0000		D. ALBIN
MW-07	01/31/97	6.92	6.92	0.00	0.0000		D. ALBIN
MW-12	12/27/96	14.17	15.60	1.43	0.2982		D. ALBIN
MW-12	01/10/97	14.17	15.62	1.45	0.2929		D. ALBIN
MW-12	01/31/97	14.19	15.55	1.36	0.2876		D. ALBIN
MW-14	12/27/96	12.97	12.97	0.00	0.0000		D. ALBIN
MW-14	01/10/97	12.01	12.76	0.75	0.2929		D. ALBIN
MW-14	01/31/97	12.75	13.64	0.89	0.1266		D. ALBIN
MW-17	12/27/96	5.21	6.30	1.09	0.4700		D. ALBIN
MW-17	01/10/97	5.86	6.23	0.37	0.1609		D. ALBIN
MW-17	01/31/97	5.73	5.75	0.02	0.0066		D. ALBIN
MW-29	12/27/96	14.65	14.78	0.13	0.0149		D. ALBIN
MW-29	01/10/97	14.64	14.74	0.10	0.0132		D. ALBIN
MW-29	01/31/97	14.66	14.74	0.08	0.0079		D. ALBIN
RW-24	12/27/96	13.94	15.34	1.40	0.2427		D. ALBIN
RW-24	01/10/97	13.94	15.31	1.37	0.2427		D. ALBIN
RW-24	01/31/97	13.94	15.25	1.31	0.2348		D. ALBIN
RW-25	12/27/96	14.89	15.02	0.13	0.0101		D. ALBIN
RW-25	01/10/97	14.86	14.95	0.09	0.0066		D. ALBIN
RW-25	01/31/97	14.87	14.98	0.11	0.0132		D. ALBIN
RW-26	12/27/96	12.97	13.70	0.73	0.7000		D. ALBIN
RW-26	01/10/97	12.01	12.76	0.75	0.3219		D. ALBIN
RW-26	01/31/97	12.02	12.71	0.69	0.2850		D. ALBIN
T-17-1	12/27/96	DRY	DRY	0.00	0.0000		D. ALBIN
T-17-1	01/10/97	18.07	18.07	0.00	0.0000		D. ALBIN
T-17-1	01/31/97	NOT MEASURED					D. ALBIN
T-17-3	12/30/96	17.16	17.16	0.00	0.0000		D. ALBIN
T-17-3	01/10/97	17.16	17.16	0.00	0.0000		D. ALBIN
T-17-1	01/31/97	NOT MEASURED					D. ALBIN

FREE PRODUCT BAILING LOG THRIFTWAY REFINERY

DATE: 1-31-97

TECHNICIAN: DALton

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MONITOR WELL#	AO LEVEL	OW LEVEL	DELTA FEET	PRODUCT GALLONS	COMMENTS
MW-02	12.27	12.53	0.26		70 ml .0185
MW-03	3.85	3.85	0	0	
MW-07	6.92	6.92	0	0	
MW-12	5.73	5.75	0.02		250 ml
MW-14	12.75	13.64	0.89		480
MW-17	5.73	5.75	0.02		25 ml
MW-29	14.66	14.74	0.08		30 ml
RW-24	13.94	15.25	1.31		890
RW-25	14.87	14.98	0.11		50 ml
RW-26	12.02	12.71	0.69		870 + 210
STR UST					
MW 12	14.19	15.55			950 + 140 ml

* Should not have free product on the water surface.

File until Annual
monitoring Report - then
include in report

LOCATION: Refinery

TECHNICIAN: D. Albin

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of the 1000

MONITOR WELL#	AO LEVEL	OW LEVEL	DELTA FEET	PRODUCT GALLONS	COMMENTS
MW-01 *	—	12.98'	- 0 -	- 0 -	
MW-02	12.23	13.24	1.01	1398	530 ml
MW-07	—	7.62	- 0 -	- 0 -	
MW-12	14.17	15.60	1.43	2982	900 + 230
MW-14 *	—	15.59	- 0 -	- 0 -	
MW-17	5.90	6.36	0.46	3325	800 ml 440 ml
MW-29	14.62	14.75	0.13	- 0 -	not bailed
RW-24	13.93	15.13	1.20	2997	850 + 210
RW-25	14.85	15.02	0.17	- 0 -	Less than 1/2" in bailer
RW-26	12.95	13.74	0.69	3404	4" Needs Cement 800 + 100
STR UST			not checked	- 0 -	
T-17-1	18.10	???	- 0 -	- 0 -	Bottom of Hole
T-17-3	—	17.15	- 0 -	- 0 -	

* Should not have free product on the water surface.

3325
2297
~~11-10-10~~
10132
30490
3404

DATA
5/12/11
J. J. J. J. J.

BAILING LOG

THRIFTWAY REFINERY

DATE: 12/30/96

TECHNICIAN: D. Albino

F:\FILE1810\BAILLOG.WK4

MONITOR WELL#	AO LEVEL	OW LEVEL	DELTA FEET	PRODUCT GALLONS	COMMENTS
MW-02	12.35	12.54	0.19		50ml
MW-07	7.54	7.54	-0-		no trace
MW-12	14.20	15.60	1.40		840ml + 300ml = 1140ml
MW-17	5.91	6.30	0.39		410ml + 110 = 520ml
MW-29	14.65	14.78	0.13		25 ml
RW-24	13.94	15.34	1.40		800ml + 230 = 1030ml
RW-25	14.89	15.02	0.13		25 ml
RW-26	12.97	13.70	0.73		630 + 630 + 100 = 1360ml
STR UST					
T-17-1	0.00	18.07	-0-		Well Dry
T-17-3*	12.16	17.16	-0-		

* Should not have free product on the water surface.

12/2/97
12/19/97
12/19/97

THRIFTWAY REFINERY DAILY MONITORING SHEET FOR AIR STRIPPER FLOWS

gallons of oil
received

Kw's

DATE	TIME	pH	FLOW TO STRIP. GPM	RECYCLE RATE GPM	FLOW TO INJ. SYS. GPM	UST LIQUID DEPTH	ACID PUMP RPM	ELECT. METER READING	PROD. DEPTH FEET	WATER DEPTH FEET
7/11/96	8:10 AM	6.2	1297260	566950	250790	3' 1 3/8"	6.5	93687	1/4"	3' 1 3/8"
	3:04 PM	3.7	1299730	567720	251390		6.9	dropped acid	RPM's to 6.1	5705
7/12/96	8:13 AM	5.7	1306230	571680	254560	3' 5 1/2"	6.05	93804	not checked	4153
	1:22 PM	6.4	1308050	573190	255640	3' 5"	6.30		not checked	1642
	5:45 PM	6.7	1309700	574400	256540					
7/15/96	5:15 PM	7.4	1335310	592330	269120	4' 1 1/4"	6.05	99243	Still Inj. Acid	
7/16/96	8:20 AM	7.4	1340290	596620	272460	3' 5 3/8"	5.80	94325	~ 1/2"	3' 8 3/8"
					Increased acid flow to 6.5 RPM @			8:30 AM	2/16/96	
7/17/96	8:20 AM	3.4	1348750	602110	276660	3' 6 3/8"	6.5	94451	5 1/2"	3 1/2"
7/18/96	8:09 AM	3.0	1356920	607610	280750	3' 8"	5.9	94577	1/2"	3 1/2"
	11:45 AM	5.5				3' 6"	5.8		started skimmer ~ 1/2"	thick prod.
7/19/96	8:19 AM	7.3	1365660	617710	285110	3' 6 1/2"	5.5	94704	increased acid to 5.8 RPM	
7/22/96	8:04 AM	8.5	1379560	624380	292180	6' 4 1/2"	5.6	95093	Out of Acid	some flow.
	5:30 PM	6.4	1383330	627640	294710	5' 3 1/2"	6.1			
7/25/96	10:00 AM	2.7	1403420	645060	306560	4' 4 3/4"	5.8	95497	on valve seat. Increased all flows.	
	All flows		Decreased due to	building up of solids						
			set to 6.6	set to 5.7	set to 4.6					
	5:30	7.5	1412450	653020	311820	3' 8 3/4"	No change			
7/26/96	8:30	4.8	1412450	653020	311820	3' 1 1/8"	5.8	95622		
	9:30		SYSTEM	Down	new	H.C. odor to stripped water			on line	
7/31/96	5:30 PM	5.0	1416930	653600	312040		6.0			
8/1/96	8:30 AM	8.5	1424890	658930	315110		5.9			
	5:17	7.3	10 gpm	50	6.0	5' 6"	5.9	95771	2.25'	
8/2/96	Air Stripper		Slower	Kicked off.		need Amp probe or meter to check motor amper				
	SYSTEM		Down							

810\LOGSHEET

This log sheet is part of the OCO Annual reporting.

Quarterly Summary

DAILY LOG

BAILING OF FREE PRODUCT

1996

Thriftway Refiners
810 file
RAW-Field
DATA - uninit
10/11/96 init
810\QMRTABLE1.
WK4

DATE: 7/12/96 &
10/10/96

LOCATION:

TECHNICIAN:

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MONITOR WELL #	ORS WATER LEVEL	100' TAPE PRODUCT LEVEL	DEPTH OF FREE PRODUCT	GALLONS OF FREE PRODUCT RECOVERED
10/19 MW-2	.2000	TOTAL gal 22 2000	8/30 RW-24	.1250
10/7 MW-7	.045		8/16 RW-24	.1788
8/30 MW-7	.0625		7/26 RW-24	.2500
8/16 MW-7	.0501		10/7 RW-25	.0053
7/26 MW-7	.0156		8/30 RW-25	TRACE
7/2 MW-7	.0625	2052	8/16 RW-25	.0897
10/7 MW-12	.2876 .2145		7/26 RW-25	.2500 .125
8/30 MW-12	.1250			2200
7/16 MW-12	.1266			
7/26 MW-12	.2500			
7/12 MW-12	.5000	1.2892		
10/7 MW-17	.0092	.0092		
10/10 MW-17-1	.0039	.0039		
10/10 MW-17-3	.0040	.0040		
10/7 MW-29	.0132	.0132		
10/7 RW-24	.2955			

ADDITIONAL COMMENTS:

EQUIPMENT LIST:

2 - 5 GALLON BUCKETS
1 - 3" BAILER
3 - 1.66" BAILERS
NYLON CORD WITH PERMANENT CLIPS (33 FT.)
100' TAPE
ORS PROBE

EQUIPMENT LIST:
2 - 5 GALLON BUCKETS
1 - 3" BAILER
3 - 1.66" BAILERS
NYLON CORD WITH PERMANENT CLIPS (33 FT)
100' TAPE
CORE PROBE

DAILY LOG

BAILING OF FREE PRODUCT

DATE: 10/7/96

LOCATION: Bloomfield
Refinery

TECHNICIAN: K. Sinker

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[illegible]

ADDITIONAL COMMENTS:

EQUIPMENT LIST:
2 - 5 GALLON BUCKETS
1 - 3" BAILER
3 - 1.66" BAILERS
NYLON CORD WITH PERMANENT CLIPS (33 FT)
100' TAPE
QRS PROBE

DATE: month of September

LOCATION: _____

TECHNICIAN: _____

[illegible]

ADDITIONAL COMMENTS:

2 - 5 GALLON BUCKETS
1 - 3" BAILER
3 - 1.66" BAILERS
NYLON CORD WITH PERMANENT CLIPS (33 FT ,
100' TAPE
QRS PROBE

DAILY LOG

BAILING OF FREE PRODUCT

DATE: 8-30-96

LOCATION: Bloomfield
Refinery

TECHNICIAN: *K. Shannon*

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[illegible]

ADDITIONAL COMMENTS:

EQUIPMENT LIST:
2 - 5 GALLON BUCKETS
1 - 3" BAILER
3 - 1.66" BAILERS
NYLON CORD WITH PERMANENT CLIPS ,33 FT
100' TAPE
ORS PROBE

	P.	W.	Thickness (ft)	Volume	
<u>RW-24-</u>	13.73	15.13	1.38	500ml + bag .1389 + .0469	gal .1788
<u>RW-25</u>	14.56	15.31	0.75	340ml	.0847
<u>MW-12</u>	14.00	15.42	1.42	480 ml	.1266
MW-29	14.42	15.00	0.58	250 ml	.0660
6" perme well in Dike 21	14.27	14.75	0.46	not bailed	
MW-17	6.11	6.32	0.21	not bailed	
<u>MW-7</u>	8.07	8.59	0.52	190 ml	.0501

8-16-96
 Kent Mannon
 SITE 810

EQUIPMENT LIST:
2 - 5 GALLON BUCKETS
1 - 3" BAILER
3 - 1.66" BAILERS
NYLON CORD WITH PERMANENT CLIPS (33 FT.)
100' TAPE
ORS PROBE

LOCATION: BLOOMFIELD
REFINERY

TECHNICIAN: *K. Shannon*

[illegible]

EQUIPMENT LIST:
2 - 5 GALLON BUCKETS
1 - 3" BAILER
3 - 1.66" BAILERS
NYLON CORD WITH PERMANENT CLIPS (33 FT
100' TAPE
QRS PROBE

EQUIPMENT LIST:
2 - 5 GALLON BUCKETS
1 - 3" BAILER
3 - 1.66" BAILERS
NYLON CORD WITH PERMANENT CLIPS (33 FT ,
100' TAPE
QRS PROBE

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[illegible]

ADDITIONAL COMMENTS:

EQUIPMENT LIST:
2 - 5 GALLON BUCKETS
1 - 3" BAILER
3 - 1.66" BAILERS
NYLON CORD WITH PERMANENT CLIPS .33 FT
100' TAPE
QRS PROBE

EQUIPMENT LIST:
2 - 5 GALLON BUCKETS
1 - 3" BAILER
3 - 1.66" BAILERS
NYLON CORD WITH PERMANENT CLIPS (33 FT /
100' TAPE
QRS PROBE

May 8 200 gallons

April 26 50 gallons

Refinery 810

UST @ STRIPPER

TOTAL gallons since March 5, 1996

250 gallons

DAILY LOG

BAILING OF FREE PRODUCT

DATE: 3-29-96

LOCATION: Bloomfield
Refinery

TECHNICIAN: J. Shannon

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[illegible]

ADDITIONAL COMMENTS:

EQUIPMENT LIST:
2 - 5 GALLON BUCKETS
1 - 3" BAILER
3 - 1.66" BAILERS
NYLON CORD WITH PERMANENT CLIPS ,33 FT
100' TAPE
ORS PROBE

DAILY LOG

BAILING OF FREE PRODUCT

DATE: 4-26-96

LOCATION: Bloomfield
Refinery

TECHNICIAN: K. A. Hannon

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[illegible]

ADDITIONAL COMMENTS:

EQUIPMENT LIST:
2 - 5 GALLON BUCKETS
1 - 3" BAILER
3 - 1.66" BAILERS
NYLON CORD WITH PERMANENT CLIPS (33 FT ,
100' TAPE
ORS PROBE

EQUIPMENT LIST:
2 - 5 GALLON BUCKETS
1 - 3" BAILER
3 - 1.66" BAILERS
NYLON CORD WITH PERMANENT CLIPS .33 FT
100' TAPE
ORS PROBE

BioTech Remediation Inc.

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

RECEIVED

MAY 13 1996

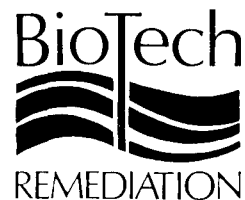
Environmental Bureau
Oil Conservation Division

PREPARED FOR THE
NEW MEXICO OIL CONSERVATION DIVISION
MR. WILL OLSEN, PROJECT MANAGER, SANTA FE OFFICE
&
MR. DENNY FOUST, AZTEC OFFICE

BY

**BIOTECH REMEDIATION, INC.
710 EAST 20TH STREET, SUITE 400
FARMINGTON, NEW MEXICO 87401**

MAY 6, 1996



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

710 East 20th Street, Suite 400
Farmington, New Mexico 87401
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PREPARED FOR THE
NEW MEXICO OIL CONSERVATION DIVISION
MR. WILL OLSEN, PROJECT MANAGER, SANTA FE OFFICE

&

MR. DENNY FOUST, AZTEC OFFICE

MAY 6, 1996

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

PREPARED BY:

A handwritten signature in black ink, appearing to read "Ross Kennemer", written over a horizontal line.

ROSS KENNEMER
PROJECT SCIENTIST/MANAGER

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1.0 INTRODUCTION

In compliance with Ground Water Discharge Plan GW-55 and pursuant to the requirements of the New Mexico Oil Conservation Division (NMOCD), BioTech Remediation, Inc., (BioTech) on behalf of Thriftway Company, submits the following quarterly monitoring and sampling report.

This report summarizes the monitoring and sampling events, the compiled data and the phase-separated product recovery activities. An update reporting the performance of the ground water treatment equipment is provided as well.

2.0 QUARTERLY MONITORING AND SAMPLING FIELD ACTIVITIES

On March 3, 1996, BioTech personnel completed the monitoring and sampling requirements for the February 1996 Quarterly Monitoring event. Ground water monitoring well measurements and sampling procedures strictly followed methods described in previous reports.

Summaries of the ground water measurement data, including measurements of phase-separated product and laboratory analysis data are provided in Tables 1 and 2 respectively. Copies of laboratory analysis reports, QA/QC Documentation and Chain of Custody Records are provided in Appendix A.

Prior to this monitoring event, a resurvey was completed for all ground water monitoring wells due to suspicions of inaccuracies in the original survey data. As indicated by the current ground water contour interpretation, which is formulated from the new survey data, this

suspicion has been substantiated and the author now believes the presented interpretations to be correct.

3.0 GROUND WATER TREATMENT EQUIPMENT PERFORMANCE

The air stripper which is used to remove dissolve-phase contamination from ground water, during the pump and treat remediation process, has performed adequately for the entire quarter. Samples collected during mid-quarter from both the inlet and discharge indicated that the unit was efficiently removing 98% of the BTEX constituents. This data is reported in the cumulative summary in Table 2. The laboratory reports and associated documentation for these analysis are provided in Appendix A.

Due to the excessive dissolve solids contained in the ground water, an acid injection system was set in place and is operational; however, it is not sufficient for keeping the stripper tray free of scale buildup. Therefore, a periodic hand cleaning of the tray is needed to maintain efficiency. Following this down time, which usually occurs once every other month, several thousand gallons of water must pass through the stripper and adjustments must be made before peak efficiency is realized. Laboratory analysis of the effluent, during the system restart, indicate benzene levels which slightly exceed acceptable regulatory levels.

The samples collected from the stripper unit were collected during one of the above described restart periods and are summarized in Table 2. The noted concentrations typical of these instances are extremely temporary and the post analysis performed indicate a rapid return to an efficient operating unit.

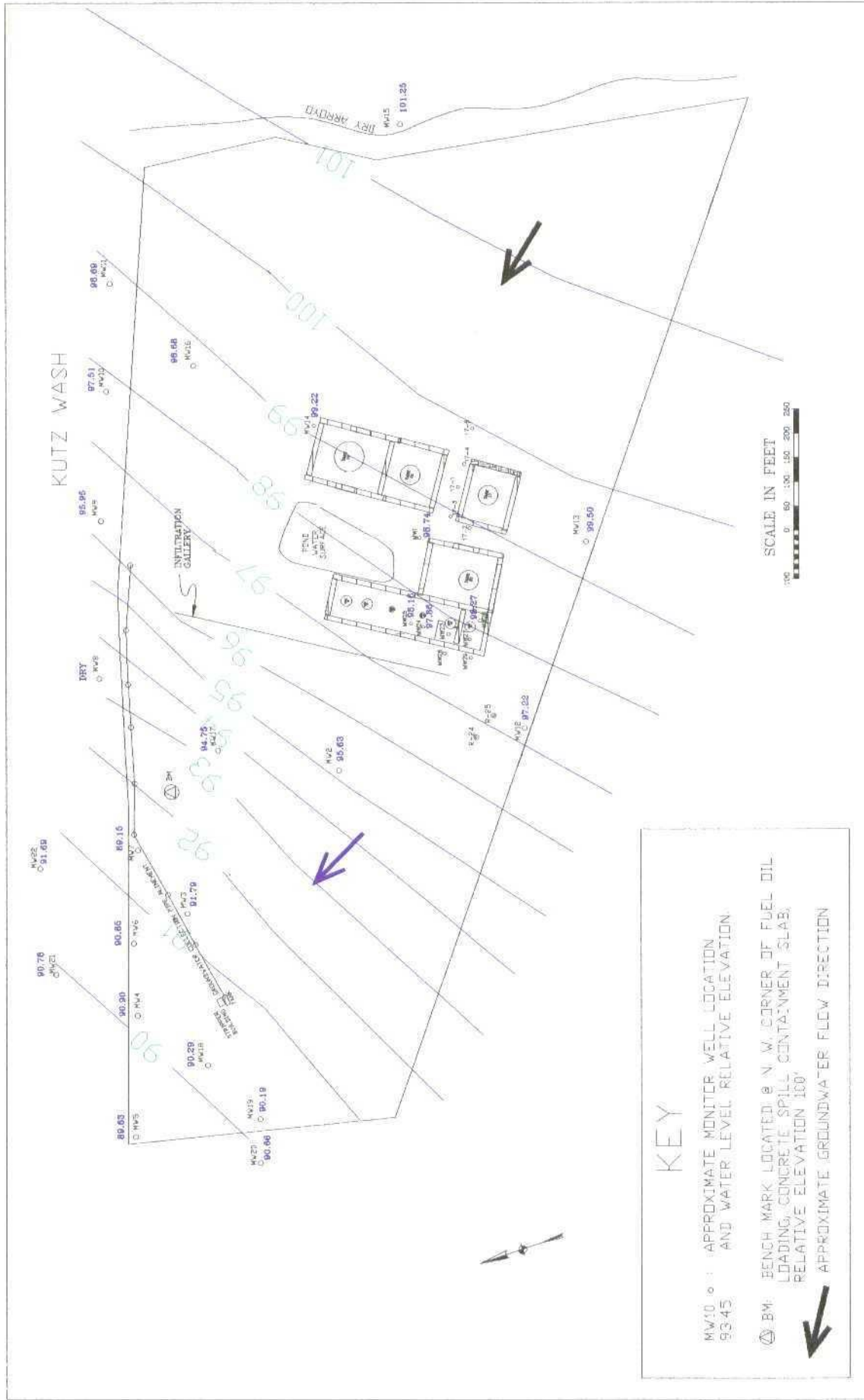
Currently 7.0 gpm of water is being discharged to the infiltration gallery which is a decrease in volume over the past quarter. The cause of the decrease is scale fouling in the formation surrounding the infiltration gallery. This continued problem could be resolved by increasing acid injection rates thereby lowering the pH in the ground water, in the area of the infiltration galleries. Another alternative to mitigate the problematic situation is to abandon the infiltration system and discharge the treated water to the fire water pond. This method would mimic the ground water mounding which occurred while the fire system was operational and the pond received continuous discharges from the on-site artesian well.

Both options are being examined for consideration and once a decision is made, a proposal will be submitted to the OCD.

4.0 DISCUSSION & CONCLUSIONS

Summaries of ground water analysis and contaminant concentration and location mapping indicate that the ground water remediation system is sufficient in operation. The phase-separated product removal is continuing on a bi-monthly schedule. No significant changes have occurred since the last quarterly monitoring event.

FIGURES



THRIFTWAY REFINERY
626 COUNTY ROAD 5500
BLOOMFIELD, NEW MEXICO

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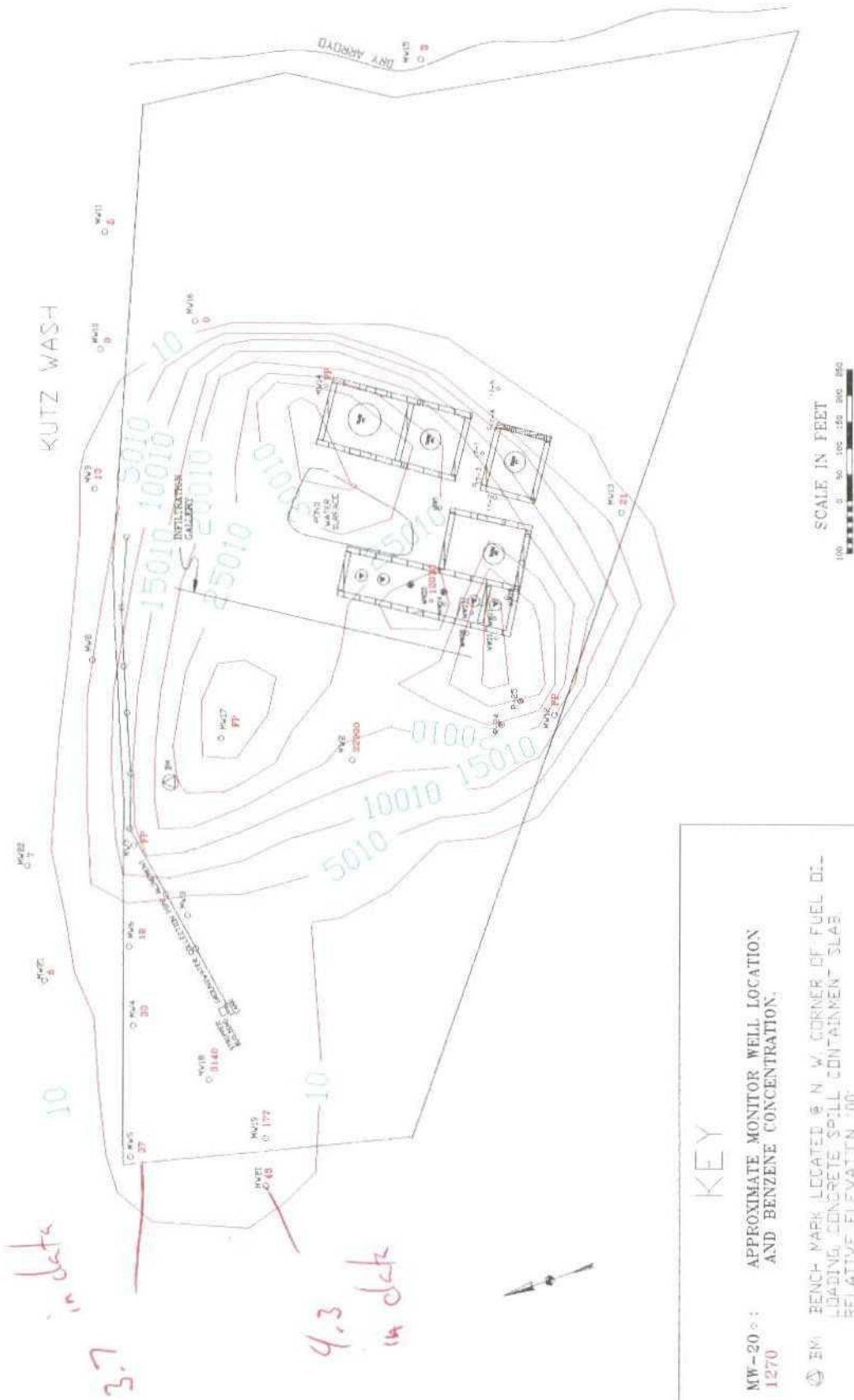
ENGINEER: R. KENNEVER
DRAWN BY: K. SINKS

FIG. 1: GROUND WATER
CONTOUR MAP

NOVEMBER 12, 1995



710 EAST 20TH STREET, SUITE 400
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KEY

MW-20: APPROXIMATE MONITOR WELL LOCATION AND BENZENE CONCENTRATION.

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

THRIFTWAY REFINERY
626 COUNTY ROAD 5500
BLOOMFIELD, NEW MEXICO

8-01-EZ1112953-D

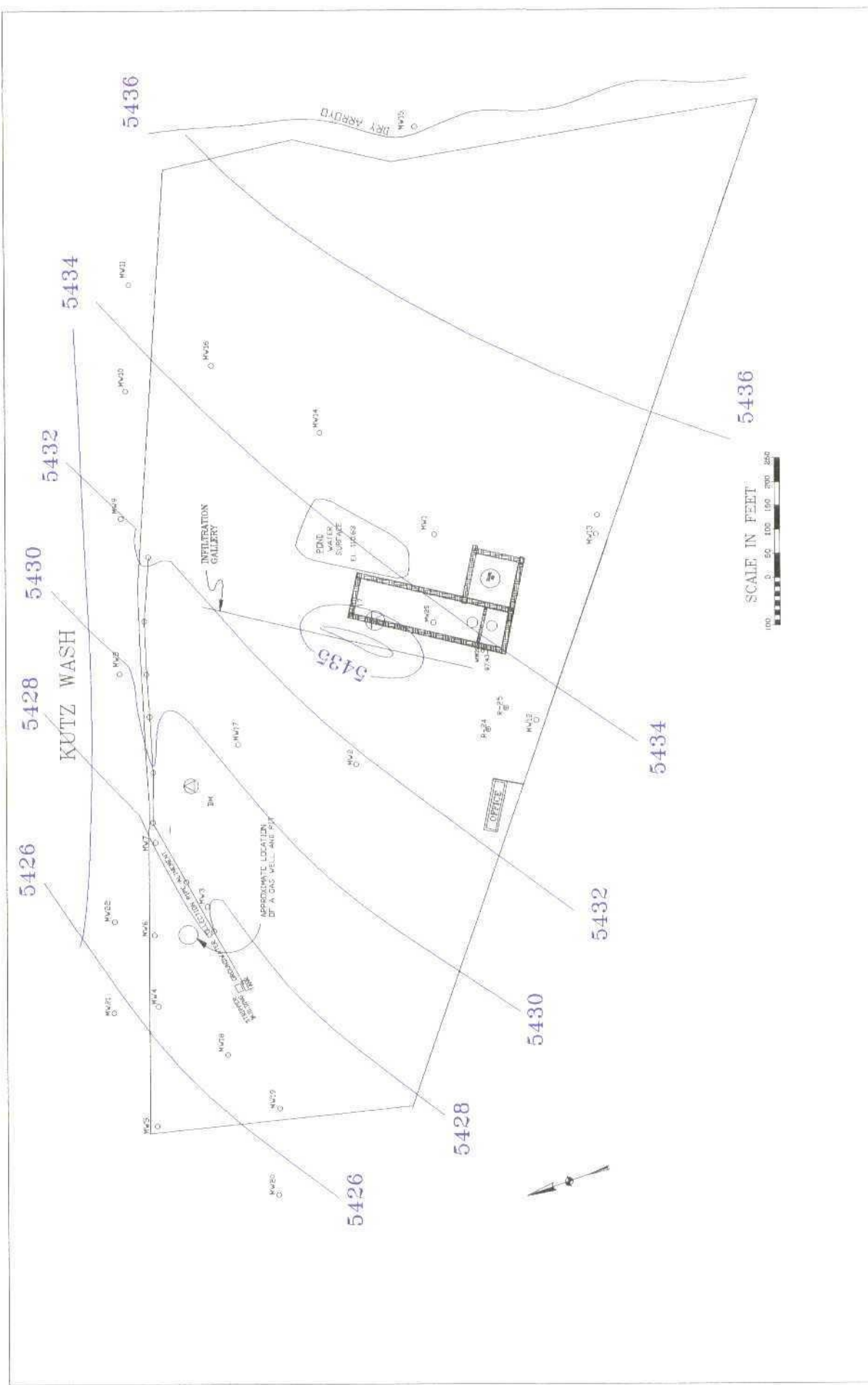
ENGINEER: R. KENNEMER
DRAWN BY: K. SINKS

FIG. 3: BENZENE
CONTOUR MAP

NOVEMBER 12, 1995



710 EAST 20TH STREET, SUITE 400
FARMINGTON, NEW MEXICO 87401
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THRIFTWAY REFINERY
 626 COUNTY ROAD 5500
 BLOOMFIELD, NEW MEXICO

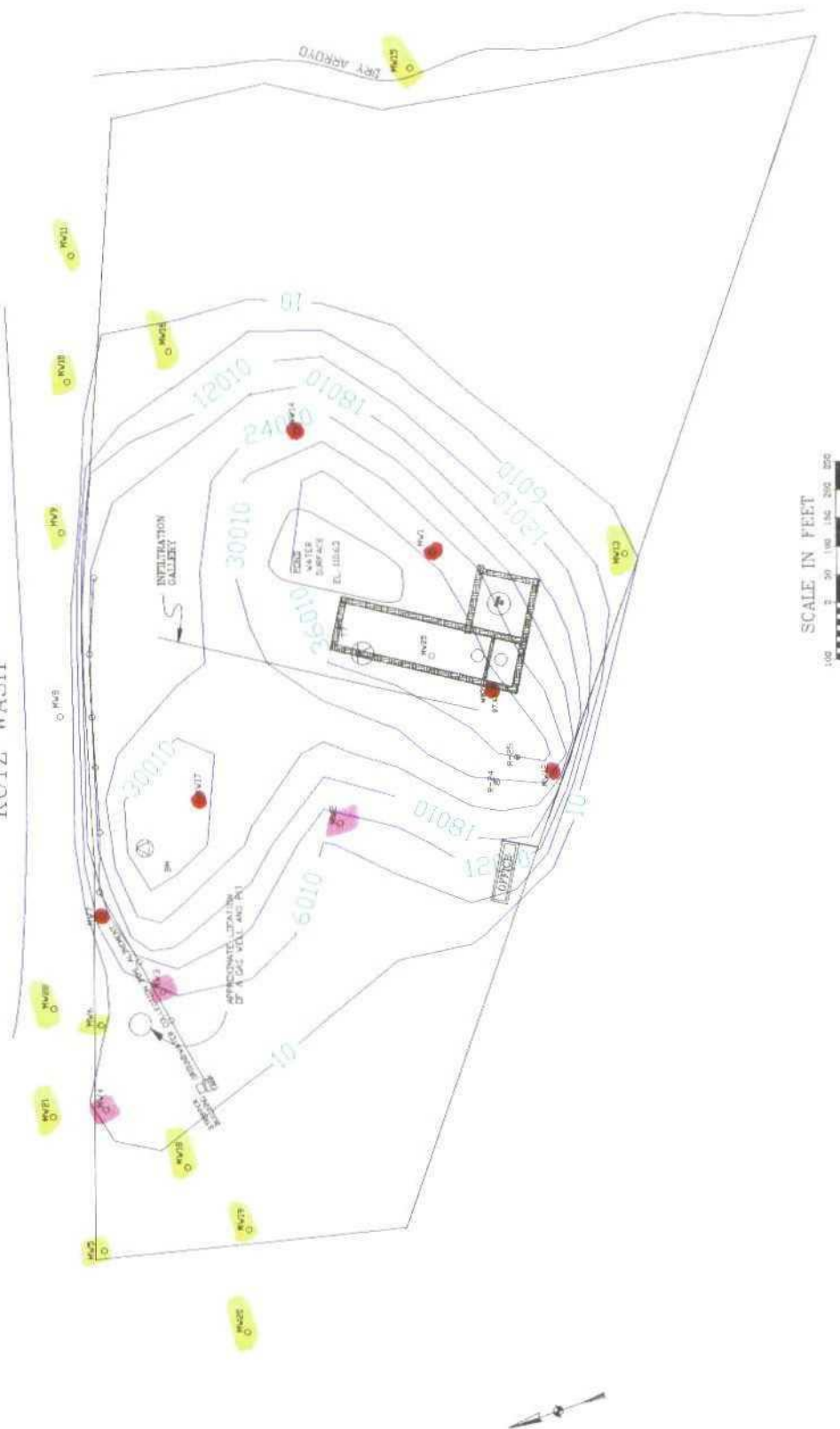
ENGINEER: R. KENNEMER
 DRAWN BY: K. SINKS
**FIG. 2 WATER CONTOUR
 MAP**
 MARCH 5, 1996



710 EAST 20TH STREET, SUITE 400
 FARMINGTON, NEW MEXICO 87401
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810\WL030596.SKD

KUTZ WASH



THRIFTWAY REFINERY
626 COUNTY ROAD 5500
BLOOMFIELD, NEW MEXICO

B10\BZ030596

ENGINEER: R. KENNEMER
DRAWN BY: K. SINKS

FIG. 3 BENZENE
PLUME

MARCH 5, 1996



710 EAST 20TH STREET, SUITE 400
FARMINGTON, NEW MEXICO 87401

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TABLES

TABLE 1
THRIFTWAY REFINERY, BLOOMFIELD, NM
SUMMARY OF GROUND WATER MONITING DATA

WELL #	TOP OF PIPE ELEVATION	DATE	TIME	AIR/OIL INTERFACE (feet))	WATER OUTAGE (feet)	PRODUCT THICKNESS (feet))	WATER LEVEL ELEVATION (feet)	ACCUMULATED PRODUCT (gallons)
1	114.08	02/11/94	16:15		12.97		101.11	
		06/14/94	14:50		13.70		100.38	
		09/20/94	10:55		14.60		99.48	
		01/20/95	11:21		16.08	1.71	98.00	0.52
		04/19/95	10:10		15.52	1.83	98.56	0.79
		08/24/95	18:30		16.1	1.47	97.98	1.32
		11/12/95	11:55		15.41	1.08	98.67	1.66
	5449.08	03/05/96	14:10	15.10	15.19	0.09	5433.96	1.66
2	107.62	02/11/94	14:10		9.91		97.71	
		06/14/94	13:30		10.59		97.03	
		09/20/94	09:25		11.43		96.19	
		01/20/95	13:39		11.73		95.89	
		04/12/95	10:10		11.57		96.05	
		08/24/95	17:25		11.80		95.82	
		11/12/95	10:00		11.99		95.63	
	5442.65	03/05/96	12:40	11.85	11.85	0.00	5430.80	
3	96.28	02/11/94	11:25		1.27		95.01	
		06/14/94	14:05		2.40		93.88	
		09/19/94	15:25		3.93		92.35	
		01/20/95	12:10		4.75		91.53	
		04/12/95	08:36		5.21		91.07	
		08/24/95	17:00		4.33		91.95	
		11/12/95	10:20		4.49		91.79	
	5431.43	03/05/96	12:15	5.13	5.13	0.00	5426.30	
4	95.82	02/11/94	10:55		2.93		92.89	
		06/14/94	14:00		3.85		91.97	
		09/19/94	16:05		4.55		91.27	
		01/17/95	16:09		4.77		91.05	
		04/11/95	16:30		4.62		91.20	
		08/28/95	16:45		5.13		90.69	
		11/12/95	10:40		4.92		90.90	
	5430.12	03/05/96	11:45	5.10	5.10	0.00	5425.02	
5	94.66	02/11/94	10:20		3.44		91.22	
		06/14/94	13:45		4.13		90.53	
		09/19/94	15:55		4.79		89.87	
		01/17/95	15:47		4.54		90.12	
		04/11/95	15:40		4.33		90.33	
		08/28/95	16:20		5.25		89.41	
		11/12/95	09:40		5.03		89.63	
	5428.97	03/05/96	11:20	4.91	4.91	0.00	5424.06	

TABLE 1
THRIFTWAY REFINERY, BLOOMFIELD, NM
SUMMARY OF GROUND WATER MONITING DATA

WELL #	TOP OF PIPE ELEVATION	DATE	TIME	AIR/OIL INTERFACE (feet))	WATER OUTAGE (feet)	PRODUCT THICKNESS (feet))	WATER LEVEL ELEVATION (feet)	ACCUMULATED PRODUCT (gallons)
6	96.31	02/11/94	11:00		1.91		94.40	
		06/14/94	15:00		2.89		93.42	
		09/19/94	16:15		4.03		92.28	
		01/20/95	12:45		4.65		91.66	
		04/12/95	12:45		4.72		91.59	
		08/24/95	16:50		4.59		91.72	
		11/12/95	10:50		5.46		90.85	
	5430.7	03/05/96	11:55	4.95	4.95	0.00	5425.75	
7	96.79	02/11/94	11:35		4.36		92.43	
		06/14/94	14:10		5.63		91.16	
		09/19/94	16:25		7.21		89.58	
		01/20/95	13:11		7.60		89.19	
		04/12/95	09:30		8.09		88.70	
		08/24/95	17:10		7.82		88.97	
		11/12/95	10:55		8.11		88.68	
	5434.34	03/05/96	14:25	7.45	7.89	0.44	5426.45	
8	97.04	02/11/94	09:00		1.17		95.87	
		06/14/94	11:30		3.09		93.95	
		09/19/94	14:30		3.42		93.62	
		01/17/95	13:17		3.00		94.04	
		04/11/95	13:21		3.00		94.04	
		08/24/95			DRY		DRY	
		11/12/95	1350		DRY		DRY	
	5432.09	03/05/96		DRY	DRY	0.00	DRY	
9	100.16	02/10/94	15:57		2.62		97.54	
		06/14/94	11:15		3.85		96.31	
		09/19/94	14:20		4.37		95.79	
		01/17/95	12:53		4.20		95.96	
		04/11/95	13:02		4.20		95.96	
		08/24/95	10:35		4.47		95.69	
		11/12/95	13:40		4.21		95.95	
	5435.19	03/05/96	08:45	4.09	4.09	0.00	5431.10	
10	101.55	02/10/94	15:55		2.31		99.24	
		06/14/94	11:00		3.78		97.77	
		09/19/94	13:45		4.51		97.04	
		01/17/95	12:16		4.09		97.46	
		04/11/95	11:32		4.05		97.50	
		08/24/95	10:30		4.31		97.24	
		11/12/95	14:00		4.04		97.51	
	5436.56	03/05/96	08:20	3.95	3.95	0.00	5432.61	

TABLE 1
THRIFTWAY REFINERY, BLOOMFIELD, NM
SUMMARY OF GROUND WATER MONITING DATA

WELL #	TOP OF PIPE ELEVATION	DATE	TIME	AIR/OIL INTERFACE (feet))	WATER OUTAGE (feet)	PRODUCT THICKNESS (feet))	WATER LEVEL ELEVATION (feet)	ACCUMULATED PRODUCT (gallons)
11	103.63	02/10/94	15:50		4.16		99.47	
		06/14/94	10:30		4.87		98.76	
		09/19/94	13:55		5.09		98.54	
		01/17/95	10:30		4.83		98.80	
		04/11/95	11:51		4.75		98.88	
		08/24/95	10:15		5.16		98.47	
		11/12/95	14:15		4.94		98.69	
	5438.65	03/05/96	08:55	4.81	4.81	0.00	5433.84	
12	111.11	02/14/94	14:30		11.99	0.47	99.12	2.19
		06/14/94	15:40		14.01	1.87	97.10	7.46
		09/20/94	11:45		15.25	3.17	95.86	11.69
		01/20/95	15:57		15.18	1.96	95.93	16.97
		04/19/95	09:15		13.41	1.81	97.70	18.02
		08/24/95	12:00		15.13	1.69	95.98	21.45
		11/12/95	12:45		15.17	1.54	95.94	22.45
	5446.09	03/05/96	14:40	13.45	14.94	1.49	5432.39	26.45
13	117.12	02/10/94	15:15		16.17		100.95	
		06/14/94	10:00		16.46		100.66	
		09/19/94	11:45		17.05		100.07	
		01/20/95	10:37		17.30		99.82	
		04/11/95	10:30		17.15		99.97	
		08/24/95	15:10		17.47		99.65	
		11/12/95	12:35		17.62		99.50	
	5452.12	03/05/96	15:05	17.43	17.43	0.00	5434.69	
14	111.94	02/14/94	16:00		11.22	0.95	100.72	2.00
		06/15/94	09:10		12.71	1.30	99.23	2.42
		09/20/94	11:30		13.32	1.18	98.62	2.82
		01/20/95	15:01		12.59	0.27	99.35	2.88
		04/19/95	15:01		12.23	0.42	99.71	2.96
		08/24/95	12:15		12.66	0.2	99.28	2.96
		11/12/95	12:05		12.75	0.04	99.19	2.96
	5446.93	03/05/96	15:25	12.20	12.53	0.33	5434.40	3.10
15	114.53	02/10/94	15:45		12.89		101.64	
		06/14/94	10:45		12.81		101.72	
		09/19/94	14:10		13.15		101.38	
		01/17/95	11:50		13.17		101.36	
		04/11/95	12:35		12.96		101.57	
		08/24/95	10:00		13.35		101.18	
		11/12/95	14:30		13.28		101.25	
	5449.51	03/05/96	08:40	13.29	13.29	0.00	5436.22	

TABLE 1
THRIFTWAY REFINERY, BLOOMFIELD, NM
SUMMARY OF GROUND WATER MONITING DATA

WELL #	TOP OF PIPE ELEVATION	DATE	TIME	AIR/OIL INTERFACE (feet))	WATER OUTAGE (feet)	PRODUCT THICKNESS (feet))	WATER LEVEL ELEVATION (feet)	ACCUMULATED PRODUCT (gallons)
16	107.64	02/10/94	15:30		8.03		99.61	
		06/14/94	10:15		8.51		99.13	
		09/19/94	12:00		8.92		98.72	
		01/20/95	11:03		8.78		98.86	
		04/11/95	10:55		8.69		98.95	
		08/24/95	15:35		9.03		98.61	
		11/12/95	12:15		8.96		98.68	
	5442.63	03/05/96	09:15	8.81	8.81	0.00	5433.82	
17	100.84	02/11/94	14:25		3.90		96.94	
		06/14/94	14:12		5.01		95.83	
		09/20/94	11:15		6.11	0.25	94.73	1.06
		01/20/95	14:22		6.10	0.27	94.74	2.24
		04/19/95	09:45		5.85	0.23	94.99	3.03
		08/24/95	17:00		6.39	0.39	94.45	4.54
		11/12/95	11:05		6.27	0.22	94.57	4.54
	5435.57	03/05/96	15:40	5.84	6.04	0.20	5429.53	4.54
18	94.04	02/11/94	10:10		1.75		92.29	
		06/14/94	15:10		2.60		91.44	
		09/19/94	15:45		3.29		90.75	
		01/17/95	15:25		3.64		90.40	
		04/11/95	16:00		3.54		90.50	
		08/24/95	16:10		3.85		90.19	
		11/12/95	08:50		3.75		90.29	
	5429.1	03/05/96	13:30	DRY	DRY	0.00	DRY	
19	93.64	02/11/94	10:00		2.09		91.55	
		06/14/94	13:40		2.55		91.09	
		09/19/94	15:35		3.14		90.50	
		01/17/95	15:04		3.02		90.62	
		04/11/95	15:20		2.89		90.75	
		08/24/95	16:05		3.59		90.05	
		11/12/95	09:30		3.45		90.19	
	5428.69	03/05/96	10:50	3.51	3.51	0.00	5425.18	
20	96.11	02/10/94	16:17		4.30		91.81	
		06/14/94	15:30		4.64		91.47	
		09/19/94	14:45		5.15		90.96	
		01/17/95	13:45		4.99		91.12	
		04/11/95	13:52		4.81		91.30	
		08/24/95	11:35		5.52		90.59	
		11/12/95	08:40		5.45		90.66	
	5430.36	03/05/96	09:50	5.37	5.37	0.00	5424.99	

TABLE 1
THRIFTWAY REFINERY, BLOOMFIELD, NM
SUMMARY OF GROUND WATER MONITING DATA

WELL #	TOP OF PIPE ELEVATION	DATE	TIME	AIR/OIL INTERFACE (feet))	WATER OUTAGE (feet)	PRODUCT THICKNESS (feet))	WATER LEVEL ELEVATION (feet)	ACCUMULATED PRODUCT (gallons)
21	94.34	02/10/94	16:25		1.92		92.42	
		06/14/94	15:15		2.64		91.70	
		09/19/94	14:55		3.38		90.96	
		01/17/95	14:08		3.09		91.25	
		04/11/95	14:31		3.02		91.32	
		08/24/95	11:20		3.83		90.51	
		11/12/95	08:55		3.56		90.78	
	5428.62	03/05/96	10:15	3.55	3.55	0.00	5425.07	
22	97.51	02/10/94	16:25		3.75		93.76	
		06/14/94	15:20		4.96		92.55	
		09/19/94	15:05		5.69		91.82	
		01/17/95	14:26		5.31		92.20	
		04/11/95	14:17		5.29		92.22	
		08/24/95	11:10		6.24		91.27	
		11/12/95	09:10		5.82		91.69	
	5430.75	03/05/96	10:25	5.64	5.64	0.00	5425.11	
23	115.77	06/15/94				1.17		0.42
		09/19/94				1.71		0.89
		01/20/95	15:19		DRY	DRY	DRY	0.89
		04/19/95	11:30		DRY	DRY	DRY	0.89
		08/24/95			DRY	DRY	DRY	0.89
		11/12/95	13:10		DRY	DRY	DRY	0.89
		03/05/96	15:55	DRY	DRY	DRY	DRY	0.89
	5448.32							
24	116.17	01/20/95	15:16		17.83		98.34	
		04/12/95	11:50		17.45		98.72	
		08/24/95	17:45		17.84		98.33	
		11/12/95	13:15		18.31		97.86	
	5447.53	03/05/96	16:10	DRY	DRY	0.00	DRY	
25	112.62	06/14/94	16:04		9.58		103.04	
		09/20/94	11:00		11.15		101.47	
		01/20/95	15:15		13.78		98.84	
		04/12/95	11:40		12.00		100.62	
		08/24/95	18:10		11.94		100.68	
		11/12/95	13:25		14.46		98.16	
	5447.62	03/05/96	16:15	DRY	DRY	0.00	DRY	

TABLE 1
THRIFTWAY REFINERY, BLOOMFIELD, NM
SUMMARY OF GROUND WATER MONITING DATA

WELL #	TOP OF PIPE ELEVATION	DATE	TIME	AIR/OIL INTERFACE (feet))	WATER OUTAGE (feet)	PRODUCT THICKNESS (feet))	WATER LEVEL ELEVATION (feet)	ACCUMULATED PRODUCT (gallons)
26	112.36	09/20/94	11:52		14.15	0.08	98.21	8.55
		01/20/95	15:46		14.30	0.00	98.06	8.55
		04/19/95	11:45		14.00	0.06	98.36	8.55
		08/24/95	18:30		14.32	0	98.04	8.55
		11/12/95	NOT MEASURED			0.00		8.55
	5447.26	03/05/96	NOT MEASURED		-	0.00		8.55
27		06/15/94				1.43		8.44
		09/20/94				0		8.44
		01/20/95				DRY		8.44
		08/24/95				DRY		8.44
		11/12/95				DRY		8.44
	5448.04	03/05/96				DRY		8.44
28	113.06	01/20/95	15:22	13.83	14.71	0.00	98.35	5.96
		04/19/95	11:40		14.46	0.17	98.60	5.96
		08/24/95	18:45		14.91	0.23	98.15	6.17
		11/12/95	13:05		DRY	0.07	DRY	6.17
	5448.06	03/05/96	16:30	14.64	14.79	0.15	5433.39	6.17
29	5446.90	01/20/95				0.78		5.91
		04/12/95				1.09		6.04
		08/24/95				0.72		6.75
		11/12/95				0.78		7.09
	5446.90	03/05/96	NOT MEASURED					7.09
RW-1		REMOVED				DRY		11.16
RW-3		REMOVED				DRY		15.44
RW-8		REMOVED				DRY		32.08
RW-9		REMOVED				DRY		26.91
RW-12		REMOVED				DRY		34.40
RW-13		REMOVED				DRY		28.89
RW-14		REMOVED				DRY		27.18
RW-24		01/20/95				0.80		94.99
		11/12/95				1.19		101.48
		03/05/96	NOT MEASURED					101.48
RW-25		01/20/95				0.90		26.39
		06/19/95				0.90		40.18
		08/25/95				0.00		41.77
		11/12/95				0.52		43.75
	5446.67	03/05/96	NOT MEASURED					43.75

TABLE 1
THRIFTWAY REFINERY, BLOOMFIELD, NM
SUMMARY OF GROUND WATER MONITING DATA

WELL #	TOP OF PIPE ELEVATION	DATE	TIME	AIR/OIL INTERFACE (feet))	WATER OUTAGE (feet)	PRODUCT THICKNESS (feet))	WATER LEVEL ELEVATION (feet)	ACCUMULATED PRODUCT (gallons)
T-17-1	5452.41	06/15/94				1.62		2.11
		01/20/95				0.80		3.17
		04/12/95				1.20		4.22
		08/24/95				0.93		4.75
		11/12/95				0.61		6.33
		03/05/96	NOT MEASURED					6.33
T-17-2	5453.51	01/20/95						
		03/05/96	NOT MEASURED					
T-17-3	5450.98	01/20/95						
		03/05/96	NOT MEASURED					
UST		01/20/95						211.08
		04/21/95						633.25
		06/16/95						1688.65
		08/25/95						1688.65
		11/12/95						1767.81
		03/05/96						1767.81

TOTAL GALLONS OF PRODUCT RECOVERED :

2162.32

MRTABL1.WK4

TABLE 2
SUMMARY OF LABORATORY ANALYSIS DATA
THRIFTWAY REFINERY
BLOOMFIELD , NEW MEXICO
CONCENTRATIONS IN mg/L

WELL #	DATE	BENZENE	TOLUENE	ETHYLBENZENE	XYLENES	MTBE
MW-1	02/11/94	7.1210	0.0630	0.2270	0.5970	
	06/22/94	0.0600	0.0240	0.5800	0.1206	1.6280
	09/20/94	9.8510	0.0105	0.2140	0.8960	0.3820
	01/20/95	FREE PRODUCT FOUND IN WELL				
	04/12/95	FREE PRODUCT FOUND IN WELL				
	08/24/95	FREE PRODUCT FOUND IN WELL				
	11/12/95	FREE PRODUCT FOUND IN WELL				
	03/05/96	FREE PRODUCT FOUND IN WELL				
MW-2	02/11/94	3.4780	0.0630	0.5810	0.7860	
	06/22/94	1.0700	0.0239	0.0139	0.4732	0.1380
	09/20/94	3.0050	0.0380	0.3690	0.5096	0.0880
	01/20/95	1.5810	0.0159	0.3950	0.5317	0.0830
	04/12/95	3.0500	0.1700	0.6360	0.8731	0.2290
	08/24/95	2.0730	0.0550	0.3910	0.4471	0.3190
	11/12/95	2.2900	0.0980	0.5360	0.5660	0.3340
	03/05/96	3.1200	0.0535	0.4840	0.5198	0.6640
MW-3	02/11/94	ND	ND	ND	ND	
	06/22/94	0.0128	ND	ND	0.0011	0.0236
	09/19/94	0.0730	0.0009	0.0006	0.0023	0.0390
	01/20/95	0.0262	0.0010	0.0048	0.0042	0.1110
	04/12/95	0.1240	0.0004	0.0082	0.0044	0.2010
	08/24/95	0.0106	0.0024	ND	0.0017	0.2130
	11/12/95	0.0028	0.0018	ND	0.0016	0.2640
	03/05/96	0.1170	0.0059	0.0282	0.0169	0.2980
MW-4	02/11/94	1.1270	0.0100	0.0310	0.0990	
	06/22/94	0.0226	0.0040	0.0003	0.0024	0.0283
	09/19/94	0.0640	0.0055	0.0008	0.0068	0.0570
	01/17/95	0.3910	0.0082	0.0290	0.2040	0.0530
	04/11/95	0.4290	0.0052	0.0112	0.0104	0.0468
	08/24/95	0.0051	0.0049	0.0012	0.0065	0.0309
	11/12/95	0.0030	0.0050	0.0009	0.0068	0.0350
	03/05/96	0.0500	0.0056	ND	0.0083	0.0315
MW-5	02/11/94	0.0060	ND	ND	ND	
	06/22/94	ND	ND	ND	ND	0.0312
	09/19/94	0.0030	ND	0.0004	0.0011	0.0412
	01/17/95	0.0028	ND	ND	ND	0.0550
	04/11/95	0.0031	ND	ND	ND	0.0657
	08/24/95	ND	ND	0.0002	0.0010	0.0477
	11/12/95	0.0037	0.0004	0.0008	0.0011	0.0458
	03/05/96	0.0020	0.0004	0.0006	0.0012	0.0529

TABLE 2
SUMMARY OF LABORATORY ANALYSIS DATA
THRIFTWAY REFINERY
BLOOMFIELD , NEW MEXICO
CONCENTRATIONS IN mg/L

WELL #	DATE	BENZENE	TOLUENE	ETHYLBENZENE	XYLENES	MTBE
MW-6	02/11/94	0.0230	0.0170	0.0150	0.0720	
	06/22/94	0.2340	0.0016	0.0337	0.0015	0.0338
	09/19/94	0.0560	0.0047	0.0028	0.0067	0.0418
	01/20/95	0.0009	0.0050	0.0014	0.0054	0.0195
	04/12/95	0.0270	0.0181	0.0026	0.0102	0.0211
	08/24/95	0.0029	0.0013	0.0002	0.0016	0.0266
	11/12/95	0.0018	0.0021	0.0006	0.0012	0.0280
	03/05/96	0.0002	ND	ND	ND	0.0009
MW-7	02/11/94	14.3990	2.0620	0.6300	4.1270	
	06/22/94	4.0830	0.6950	0.3010	1.7170	0.0670
	09/19/94	4.0860	0.2550	0.2110	0.5650	0.0890
	01/20/95	0.1760	0.1250	0.0500	0.4330	0.0680
	04/12/95	FREE PRODUCT FOUND IN WELL				
	08/24/95	FREE PRODUCT FOUND IN WELL				
	11/12/95	FREE PRODUCT FOUND IN WELL				
	03/05/96	FREE PR;ODUCT FOUND IN WELL				
MW-8	02/11/94	0.0010	0.0007	0.0003	0.0010	
	06/14/94	0.0018	0.0004	ND	ND	0.0470
	09/19/94	0.0045	0.0005	ND	0.0003	0.0650
	01/17/95	0.0022	0.0004	ND	0.0003	0.0750
	04/11/95	0.0013	ND	0.0003	0.0017	0.0876
	08/24/95	DRY				
	11/12/95	DRY				
	03/05/96	DRY				
MW-9	02/11/94	ND	ND	ND	ND	
	06/14/94	ND	ND	ND	ND	0.0156
	09/19/94	0.2210	0.0005	ND	ND	0.0510
	01/17/95	0.0483	ND	ND	ND	0.0469
	04/11/95	0.0558	ND	0.0003	0.0005	0.0400
	08/24/95	0.0710	ND	ND	0.0005	0.0710
	11/12/95	0.0013	0.0082	0.0020	0.0136	0.0358
	03/05/96	0.0008	0.0003	0.0011	0.0013	0.0168
MW-10	02/11/94	ND	ND	ND	ND	
	06/14/94	ND	ND	ND	ND	ND
	09/19/94	ND	ND	ND	ND	0.0003
	01/17/95	ND	ND	ND	ND	0.0003
	04/11/95	0.0015	ND	ND	0.0003	ND
	08/24/95	0.0042	0.0020	0.0051	0.0141	0.0011
	11/12/95	ND	0.0026	0.0006	0.0051	ND
	03/05/96	0.0010	ND	0.0009	0.0004	ND

TABLE 2
SUMMARY OF LABORATORY ANALYSIS DATA
THRIFTWAY REFINERY
BLOOMFIELD , NEW MEXICO
CONCENTRATIONS IN mg/L

WELL #	DATE	BENZENE	TOLUENE	ETHYLBENZENE	XYLENES	MTBE
MW-11	02/11/94	ND	ND	ND	ND	
	06/14/94	ND	ND	ND	ND	ND
	09/19/94	ND	ND	ND	ND	ND
	01/17/95	ND	ND	ND	ND	ND
	04/11/95	ND	ND	0.0002	0.0005	ND
	08/24/95	0.0017	ND	0.0008	0.0024	ND
	11/12/95	0.0005	0.0017	0.0005	0.0042	ND
	03/05/96	ND	ND	ND	0.0003	ND
MW-12	02/11/94	FREE PRODUCT FOUND IN WELL				
	06/14/94	FREE PRODUCT FOUND IN WELL				
	09/19/94	FREE PRODUCT FOUND IN WELL				
	01/17/95	FREE PRODUCT FOUND IN WELL				
	04/11/95	FREE PRODUCT FOUND IN WELL				
	08/24/95	FREE PRODUCT FOUND IN WELL				
	11/12/95	FREE PRODUCT FOUND IN WELL				
	03/05/96	FREE PRODUCT FOUND IN WELL				
MW-13	02/11/94	ND	ND	ND	ND	ND
	06/14/94	ND	ND	ND	0.0005	ND
	09/19/94	ND	ND	ND	0.0002	ND
	01/20/95	ND	ND	ND	0.0002	ND
	04/11/95	ND	ND	ND	ND	ND
	08/24/95	ND	ND	ND	ND	0.0003
	11/12/95	0.0021	0.0060	0.0024	0.0209	ND
	03/05/96	ND	ND	ND	0.0005	ND
MW-14	02/11/94	FREE PRODUCT FOUND IN WELL				
	06/14/94	FREE PRODUCT FOUND IN WELL				
	09/19/94	FREE PRODUCT FOUND IN WELL				
	01/20/95	FREE PRODUCT FOUND IN WELL				
	04/11/95	FREE PRODUCT FOUND IN WELL				
	08/24/95	FREE PRODUCT FOUND IN WELL				
	11/12/95	FREE PRODUCT FOUND IN WELL				
	03/05/96	FREE PRODUCT FOUND IN WELL				
MW-15	02/11/94	ND	ND	ND	ND	
	06/14/94	ND	ND	ND	ND	ND
	09/19/94	ND	ND	ND	ND	ND
	01/17/95	ND	ND	ND	ND	ND
	04/11/95	ND	ND	ND	ND	ND
	08/24/95	ND	ND	ND	0.0005	ND
	11/12/95	0.0003	0.0027	0.0004	0.0032	ND
	03/05/96	0.0016	0.0004	0.0038	0.0035	ND

TABLE 2
SUMMARY OF LABORATORY ANALYSIS DATA
THRIFTWAY REFINERY
BLOOMFIELD , NEW MEXICO
CONCENTRATIONS IN mg/L

WELL #	DATE	BENZENE	TOLUENE	ETHYLBENZENE	XYLENES	MTBE
MW-16	02/11/94	ND	ND	0.0050	0.0010	
	06/14/94	ND	ND	0.0027	0.0003	ND
	09/19/94	ND	0.0003	0.0006	0.0009	ND
	01/20/95	ND	ND	0.0005	0.0005	0.0003
	04/11/95	ND	ND	0.0003	0.0008	ND
	08/24/95	ND	ND	0.0007	0.0016	ND
	11/12/95	ND	0.0005	0.0019	0.0127	ND
	03/05/96	ND	ND	0.0006	0.0016	ND
MW-17	02/11/94	61.5850	25.4200	1.6580	12.7870	
	06/22/94	21.6100	15.5510	0.8480	7.7600	0.0900
	09/19/94	FREE PRODUCT FOUND IN WELL				
	01/20/95	FREE PRODUCT FOUND IN WELL				
	01/20/95	FREE PRODUCT FOUND IN WELL				
	08/24/95	FREE PRODUCT FOUND IN WELL				
	11/12/95	FREE PRODUCT FOUND IN WELL				
	03/05/96	FREE PRODUCT FOUND IN WELL				
MW-18	02/11/94	0.3610	0.0090	0.0250	0.2450	
	06/22/94	0.0020	ND	ND	ND	0.0335
	09/19/94	0.4090	0.0042	0.0375	0.2406	0.0470
	01/17/95	0.0920	0.0032	0.0131	0.0957	0.0433
	04/11/95	0.0766	0.0014	0.0041	0.0122	0.0300
	08/24/95	0.1780	0.0030	0.0155	0.0098	0.0357
	11/12/95	0.3140	0.0062	0.0326	0.1667	0.0337
	03/05/96	0.0068	0.0024	0.0018	0.0141	0.0530
MW-19	02/11/94	0.0580	0.0200	0.5450	1.4580	
	06/22/94	0.0058	0.0069	0.0112	0.0491	0.0246
	09/19/94	0.0620	0.0040	0.1960	0.4992	0.0433
	01/17/95	0.0083	0.0037	0.1460	0.3364	0.0159
	04/11/95	0.0055	0.0016	0.1390	0.3020	0.0079
	08/24/95	0.0074	0.0027	0.0680	0.1251	0.0320
	11/12/95	0.0177	0.0060	0.2010	0.3520	0.0630
	03/05/96	0.0061	0.0028	0.0249	0.0553	0.0806
MW-20	02/11/94	0.0380	0.0220	0.0840	0.3500	
	06/22/94	0.0104	0.0111	0.0122	0.0207	0.1090
	09/19/94	0.0245	0.0176	0.0100	0.0327	0.1120
	01/17/95	0.0065	0.0173	0.0211	0.0600	0.1090
	04/11/95	0.0016	0.0058	0.0021	0.0120	0.1370
	08/24/95	0.0003	0.0067	0.0023	0.0106	0.1040
	11/12/95	0.0043	0.0152	0.0059	0.0089	0.1390
	03/05/96	0.0036	0.0168	0.0033	0.0218	0.1334

TABLE 2
SUMMARY OF LABORATORY ANALYSIS DATA
THRIFTWAY REFINERY
BLOOMFIELD , NEW MEXICO
CONCENTRATIONS IN mg/L

WELL #	DATE	BENZENE	TOLUENE	ETHYLBENZENE	XYLENES	MTBE
MW-21	02/11/94	0.0820	0.0090	0.0260	0.0060	
	06/22/94	0.0173	0.0025	0.0019	0.0019	0.0451
	09/19/94	0.0014	0.0032	0.0009	0.0008	0.0418
	01/17/95	0.0510	0.0080	0.0410	0.0663	0.0392
	04/11/95	0.0034	0.0012	0.0005	0.0016	0.0626
	08/24/95	0.0050	0.0006	0.0004	0.0010	0.0700
	11/12/95	0.0006	0.0007	ND	0.0007	0.0610
	03/05/96	0.0060	0.0020	0.0293	0.0061	0.0820
MW-22	02/11/94	ND	ND	ND	ND	
	06/22/94	ND	ND	ND	ND	0.0392
	09/19/94	ND	ND	ND	ND	0.0358
	01/17/95	ND	ND	ND	ND	0.0408
	04/11/95	ND	ND	ND	ND	0.0353
	08/24/95	ND	ND	ND	0.0004	0.0256
	11/12/95	0.0007	0.0008	0.0002	0.0008	0.0250
	03/05/96	ND	ND	0.0002	0.0004	0.0367
MW-23	02/11/94	198.5730	190.8910	7.2400	48.8370	
	06/22/94	FREE PRODUCT FOUND IN WELL				
	09/19/94	FREE PRODUCT FOUND IN WELL				
	01/20/95	DRY				
	04/12/95	DRY				
	08/24/95	DRY				
	11/12/95	DRY				
	03/05/96	DRY				
MW-25	02/11/94	7.3150	0.0700	0.1150	0.5880	
	06/22/94	NOT SAMPLED				
	09/20/94	5.0500	0.0377	0.0930	0.7360	0.1090
	01/20/95	NOT SAMPLED				
	04/12/95	0.2450	0.0015	0.0036	0.0233	0.0753
	08/24/95	1.6410	0.0153	0.1080	0.1610	0.1000
	11/12/95	1.2070	1.9790	0.3980	2.4700	0.0660
	03/05/96	NOT SAMPLED		DRY		
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				
	09/20/94	9.6700	0.7540	0.1580	0.6330	0.0500
	01/20/95	NOT SAMPLED				
	04/12/95	2.0600	0.9870	0.2460	1.6890	0.0245
	03/05/96	6.9900	3.5700	1.3000	6.6800	0.1550

TABLE 2
SUMMARY OF LABORATORY ANALYSIS DATA
THRIFTWAY REFINERY
BLOOMFIELD , NEW MEXICO
CONCENTRATIONS IN mg/L

WELL #	DATE	BENZENE	TOLUENE	ETHYLBENZENE	XYLENES	MTBE
EFFLUENT	12/13/93	0.0021	0.0016	0.0013	0.0038	
	02/11/94	BLOWER SHUT DOWN				
	06/22/94	BLOWER SHUT DOWN				
	09/20/94	0.0093	0.0009	ND	0.0007	ND
	01/20/95	NOT SAMPLED				
	04/12/95	0.0975	0.3630	0.2780	2.6390	0.0075
	11/12/95	0.0339	0.0123	0.0089	0.0481	0.0032
	03/05/96	0.0500	0.0212	0.0071	0.0434	0.0070
NMWQCC	12/24/87	0.0100	0.7500	0.7500	0.6200	0.1000

ND - NON-DETECT

810\QMRTABL3

APPENDIX A

BioTech LABORATORIES
710 E. 20th Street, Suite 400
Farmington, New Mexico 87401
Office (505) 632-3365
Fax (505) 632-9850

**EPA METHOD 8020
PURGEABLE AROMATICS**



CLIENT:	Thriftway Refinery	SAMPLE MATRIX:	WATER
CLIENT NUMBER:	810	PRESERVATIVE:	HgCl2
PHASE/TASK:	NA	DATE SAMPLED:	Mar 05, 1996
PROJECT LOCATION:	Bloomfield, NM	DATE RECEIVED:	Mar 06, 1996
SAMPLE ID:	MW-2	DATE ANALYZED:	Mar 06, 1996
SAMPLE NUMBER:	1006	ANALYSIS:	BTEX/MTBE

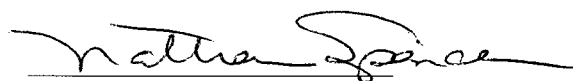
ANALYTE	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
METHYL-T-B-ETHER	664	5.0
BENZENE	3120	2.0
TOLUENE	53.5	3.0
ETHYLBENZENE	484	3.0
P,M-XYLENE	454	3.0
O-XYLENE	65.8	2.0

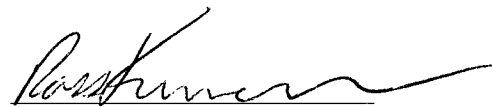
ND - ANALYTE NOT DETECTED AT STATED DETECTION LIMIT

QUALITY CONTROL:	SURROGATES	PERCENT RECOVERY	ACCEPTANCE LIMIT
	TRIFLUOROTOLUENE	96	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:


ANALYST


REVIEW

BioTech LABORATORIES
710 E. 20th Street, Suite 400
Farmington, New Mexico 87401
Office (505) 632-3365
Fax (505) 632-9850

**EPA METHOD 8020
PURGEABLE AROMATICS**



CLIENT:	Thriftway Refinery	SAMPLE MATRIX:	WATER
CLIENT NUMBER:	810	PRESERVATIVE:	HgCl2
PHASE/TASK:	NA	DATE SAMPLED:	Mar 05, 1996
PROJECT LOCATION:	Bloomfield, NM	DATE RECEIVED:	Mar 06, 1996
SAMPLE ID:	MW-3	DATE ANALYZED:	Mar 06, 1996
SAMPLE NUMBER:	1005	ANALYSIS:	BTEX/MTBE

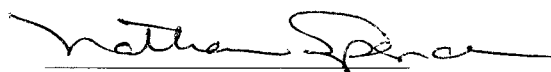
ANALYTE	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
METHYL-T-B-ETHER	298	0.4
BENZENE	117	0.3
TOLUENE	5.9	0.3
ETHYLBENZENE	28.2	0.3
P,M-XYLENE	14.1	0.4
O-XYLENE	2.8	0.3

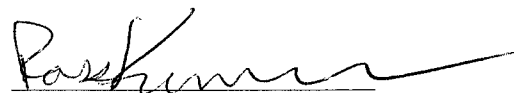
ND - ANALYTE NOT DETECTED AT STATED DETECTION LIMIT

QUALITY CONTROL:	SURROGATES	PERCENT RECOVERY	ACCEPTANCE LIMIT
	TRIFLUOROTOLUENE	102	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:


ANALYST


REVIEW

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710 E. 20th Street, Suite 400
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**EPA METHOD 8020
PURGEABLE AROMATICS**



CLIENT:	Thriftway Refinery	SAMPLE MATRIX:	WATER
CLIENT NUMBER:	810	PRESERVATIVE:	HgCl2
PHASE/TASK:	NA	DATE SAMPLED:	Mar 05, 1996
PROJECT LOCATION:	Bloomfield, NM	DATE RECEIVED:	Mar 06, 1996
SAMPLE ID:	MW-4	DATE ANALYZED:	Mar 06, 1996
SAMPLE NUMBER:	1003	ANALYSIS:	BTEX/MTBE

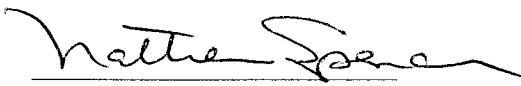
ANALYTE	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
METHYL-T-B-ETHER	31.5	0.2
BENZENE	50.0	0.2
TOLUENE	5.6	0.3
ETHYLBENZENE	ND	0.2
P,M-XYLENE	5.2	0.3
O-XYLENE	3.1	0.2

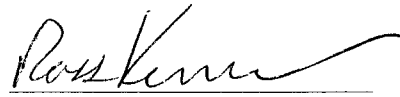
ND - ANALYTE NOT DETECTED AT STATED DETECTION LIMIT

QUALITY CONTROL:	SURROGATES	PERCENT RECOVERY	ACCEPTANCE LIMIT
	TRIFLUOROTOLUENE	89	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:


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**EPA METHOD 8020
PURGEABLE AROMATICS**



CLIENT:	Thriftway Refinery	SAMPLE MATRIX:	WATER
CLIENT NUMBER:	810	PRESERVATIVE:	HgCl2
PHASE/TASK:	NA	DATE SAMPLED:	Mar 05, 1996
PROJECT LOCATION:	Bloomfield, NM	DATE RECEIVED:	Mar 06, 1996
SAMPLE ID:	MW-5	DATE ANALYZED:	Mar 06, 1996
SAMPLE NUMBER:	1002	ANALYSIS:	BTEX/MTBE

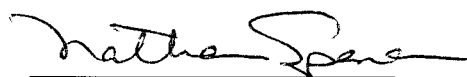
ANALYTE	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
METHYL-T-B-ETHER	52.9	0.2
BENZENE	2.0	0.2
TOLUENE	0.4	0.3
ETHYLBENZENE	0.6	0.2
P,M-XYLENE	0.8	0.3
O-XYLENE	0.4	0.2

ND - ANALYTE NOT DETECTED AT STATED DETECTION LIMIT

QUALITY CONTROL:	SURROGATES	PERCENT RECOVERY	ACCEPTANCE LIMIT
	TRIFLUOROTOLUENE	91	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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**EPA METHOD 8020
PURGEABLE AROMATICS**



CLIENT:	Thriftway Refinery	SAMPLE MATRIX:	WATER
CLIENT NUMBER:	810	PRESERVATIVE:	HgCl2
PHASE/TASK:	NA	DATE SAMPLED:	Mar 05, 1996
PROJECT LOCATION:	Bloomfield, NM	DATE RECEIVED:	Mar 06, 1996
SAMPLE ID:	MW-6	DATE ANALYZED:	Mar 06, 1996
SAMPLE NUMBER:	1004	ANALYSIS:	BTEX/MTBE

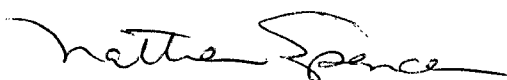
ANALYTE	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
METHYL-T-B-ETHER	0.9	0.2
BENZENE	0.2	0.2
TOLUENE	ND	0.3
ETHYLBENZENE	ND	0.2
P,M-XYLENE	ND	0.3
O-XYLENE	ND	0.2

ND - ANALYTE NOT DETECTED AT STATED DETECTION LIMIT

QUALITY CONTROL:	SURROGATES	PERCENT RECOVERY	ACCEPTANCE LIMIT
	TRIFLUOROTOLUENE	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.

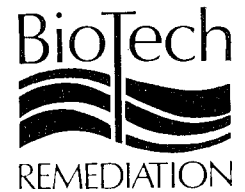
COMMENTS:


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**EPA METHOD 8020
PURGEABLE AROMATICS**



CLIENT:	Thriftway Refinery	SAMPLE MATRIX:	WATER
CLIENT NUMBER:	810	PRESERVATIVE:	HgCl2
PHASE/TASK:	NA	DATE SAMPLED:	Mar 05, 1996
PROJECT LOCATION:	Bloomfield, NM	DATE RECEIVED:	Mar 06, 1996
SAMPLE ID:	MW-9	DATE ANALYZED:	Mar 06, 1996
SAMPLE NUMBER:	0994	ANALYSIS:	BTEX/MTBE

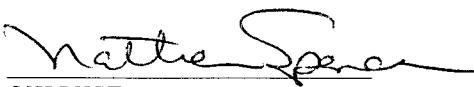
ANALYTE	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
METHYL-T-B-ETHER	16.8	0.2
BENZENE	0.8	0.2
TOLUENE	0.3	0.3
ETHYLBENZENE	1.1	0.2
P,M-XYLENE	1.3	0.3
O-XYLENE	ND	0.2

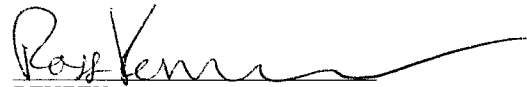
ND - ANALYTE NOT DETECTED AT STATED DETECTION LIMIT

QUALITY CONTROL:	SURROGATES	PERCENT RECOVERY	ACCEPTANCE LIMIT
	TRIFLUOROTOLUENE	87	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.

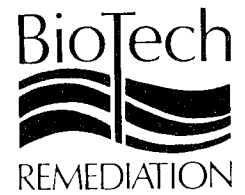
COMMENTS:


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**EPA METHOD 8020
PURGEABLE AROMATICS**



CLIENT:	Thriftway Refinery	SAMPLE MATRIX:	WATER
CLIENT NUMBER:	810	PRESERVATIVE:	HgCl2
PHASE/TASK:	NA	DATE SAMPLED:	Mar 05, 1996
PROJECT LOCATION:	Bloomfield, NM	DATE RECEIVED:	Mar 06, 1996
SAMPLE ID:	MW-10	DATE ANALYZED:	Mar 06, 1996
SAMPLE NUMBER:	0992	ANALYSIS:	BTEX/MTBE

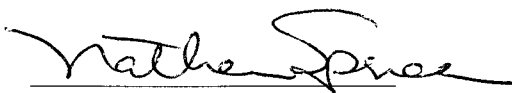
ANALYTE	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
METHYL-T-B-ETHER	ND	0.2
BENZENE	1.0	0.2
TOLUENE	ND	0.3
ETHYLBENZENE	0.9	0.2
P,M-XYLENE	0.4	0.3
O-XYLENE	ND	0.2

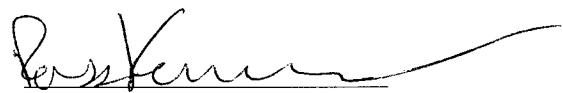
ND - ANALYTE NOT DETECTED AT STATED DETECTION LIMIT

QUALITY CONTROL:	SURROGATES	PERCENT RECOVERY	ACCEPTANCE LIMIT
	TRIFLUOROTOLUENE	102	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:


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**EPA METHOD 8020
PURGEABLE AROMATICS**



CLIENT:	Thriftway Refinery	SAMPLE MATRIX:	WATER
CLIENT NUMBER:	810	PRESERVATIVE:	HgCl2
PHASE/TASK:	NA	DATE SAMPLED:	Mar 05, 1996
PROJECT LOCATION:	Bloomfield, NM	DATE RECEIVED:	Mar 06, 1996
SAMPLE ID:	MW-11	DATE ANALYZED:	Mar 06, 1996
SAMPLE NUMBER:	0995	ANALYSIS:	BTEX/MTBE

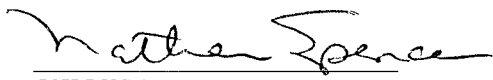
ANALYTE	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
METHYL-T-B-ETHER	ND	0.2
BENZENE	ND	0.2
TOLUENE	ND	0.3
ETHYLBENZENE	ND	0.2
P,M-XYLENE	0.3	0.3
O-XYLENE	ND	0.2

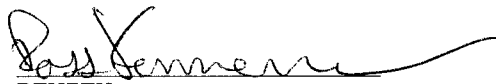
ND - ANALYTE NOT DETECTED AT STATED DETECTION LIMIT

QUALITY CONTROL:	SURROGATES	PERCENT RECOVERY	ACCEPTANCE LIMIT
	TRIFLUOROTOLUENE	88	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:


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**EPA METHOD 8020
PURGEABLE AROMATICS**



CLIENT:	Thriftway Refinery	SAMPLE MATRIX:	WATER
CLIENT NUMBER:	810	PRESERVATIVE:	HgCl ₂
PHASE/TASK:	NA	DATE SAMPLED:	Mar 05, 1996
PROJECT LOCATION:	Bloomfield, NM	DATE RECEIVED:	Mar 06, 1996
SAMPLE ID:	MW-13	DATE ANALYZED:	Mar 06, 1996
SAMPLE NUMBER:	0997	ANALYSIS:	BTEX/MTBE

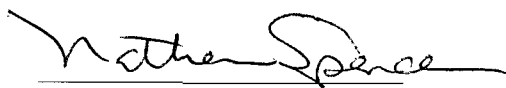
ANALYTE	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
METHYL-T-B-ETHER	ND	0.2
BENZENE	ND	0.2
TOLUENE	ND	0.3
ETHYLBENZENE	ND	0.2
P,M-XYLENE	0.5	0.3
O-XYLENE	ND	0.2

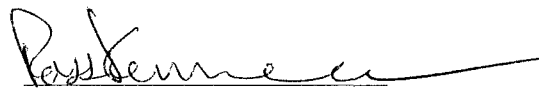
ND - ANALYTE NOT DETECTED AT STATED DETECTION LIMIT

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:


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**EPA METHOD 8020
PURGEABLE AROMATICS**



CLIENT:	Thriftway Refinery	SAMPLE MATRIX:	WATER
CLIENT NUMBER:	810	PRESERVATIVE:	HgCl2
PHASE/TASK:	NA	DATE SAMPLED:	Mar 05, 1996
PROJECT LOCATION:	Bloomfield, NM	DATE RECEIVED:	Mar 06, 1996
SAMPLE ID:	MW-15	DATE ANALYZED:	Mar 06, 1996
SAMPLE NUMBER:	0993	ANALYSIS:	BTEX/MTBE

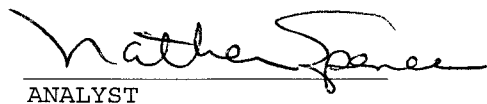
ANALYTE	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
METHYL-T-B-ETHER	ND	0.2
BENZENE	1.6	0.2
TOLUENE	0.4	0.3
ETHYLBENZENE	3.8	0.2
P,M-XYLENE	3.1	0.3
O-XYLENE	0.4	0.2

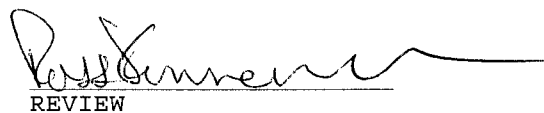
ND - ANALYTE NOT DETECTED AT STATED DETECTION LIMIT

QUALITY CONTROL:	SURROGATES	PERCENT RECOVERY	ACCEPTANCE LIMIT
	TRIFLUOROTOLUENE	93	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:


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**EPA METHOD 8020
PURGEABLE AROMATICS**



CLIENT:	Thriftway Refinery	SAMPLE MATRIX:	WATER
CLIENT NUMBER:	810	PRESERVATIVE:	HgCl2
PHASE/TASK:	NA	DATE SAMPLED:	Mar 05, 1996
PROJECT LOCATION:	Bloomfield, NM	DATE RECEIVED:	Mar 06, 1996
SAMPLE ID:	MW-16	DATE ANALYZED:	Mar 06, 1996
SAMPLE NUMBER:	0996	ANALYSIS:	BTEX/MTBE

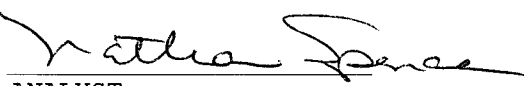
ANALYTE	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
METHYL-T-B-ETHER	ND	0.2
BENZENE	ND	0.2
TOLUENE	ND	0.3
ETHYLBENZENE	0.6	0.2
P,M-XYLENE	0.9	0.3
O-XYLENE	0.7	0.2

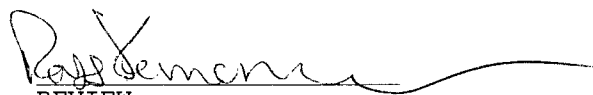
ND - ANALYTE NOT DETECTED AT STATED DETECTION LIMIT

QUALITY CONTROL:	SURROGATES	PERCENT RECOVERY	ACCEPTANCE LIMIT
	TRIFLUOROTOLUENE	84	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:


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**EPA METHOD 8020
PURGEABLE AROMATICS**



CLIENT:	Thriftway Refinery	SAMPLE MATRIX:	WATER
CLIENT NUMBER:	810	PRESERVATIVE:	HgCl2
PHASE/TASK:	NA	DATE SAMPLED:	Mar 05, 1996
PROJECT LOCATION:	Bloomfield, NM	DATE RECEIVED:	Mar 06, 1996
SAMPLE ID:	MW-18	DATE ANALYZED:	Mar 06, 1996
SAMPLE NUMBER:	1009	ANALYSIS:	BTEX/MTBE

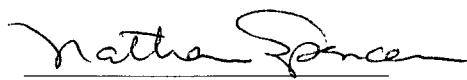
ANALYTE	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
METHYL-T-B-ETHER	53.0	0.4
BENZENE	6.8	0.3
TOLUENE	2.4	0.3
ETHYLBENZENE	1.8	0.3
P,M-XYLENE	12.2	0.4
O-XYLENE	1.9	0.3

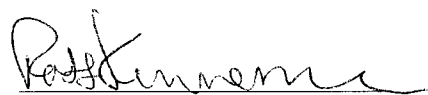
ND - ANALYTE NOT DETECTED AT STATED DETECTION LIMIT

QUALITY CONTROL:	SURROGATES	PERCENT RECOVERY	ACCEPTANCE LIMIT
	TRIFLUOROTOLUENE	88	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.

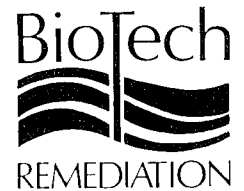
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**EPA METHOD 8020
PURGEABLE AROMATICS**



CLIENT:	Thriftway Refinery	SAMPLE MATRIX:	WATER
CLIENT NUMBER:	810	PRESERVATIVE:	HgCl ₂
PHASE/TASK:	NA	DATE SAMPLED:	Mar 05, 1996
PROJECT LOCATION:	Bloomfield, NM	DATE RECEIVED:	Mar 06, 1996
SAMPLE ID:	MW-19	DATE ANALYZED:	Mar 07, 1996
SAMPLE NUMBER:	1001	ANALYSIS:	BTEX/MTBE

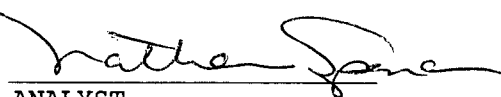
ANALYTE	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
METHYL-T-B-ETHER	80.6	0.5
BENZENE	6.1	0.2
TOLUENE	2.8	0.3
ETHYLBENZENE	24.9	0.3
P,M-XYLENE	49.7	0.3
O-XYLENE	5.6	0.2

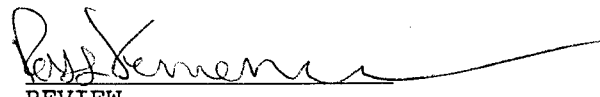
ND - ANALYTE NOT DETECTED AT STATED DETECTION LIMIT

QUALITY CONTROL:	SURROGATES	PERCENT RECOVERY	ACCEPTANCE LIMIT
	TRIFLUOROTOLUENE	94	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:


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**EPA METHOD 8020
PURGEABLE AROMATICS**



CLIENT:	Thriftway Refinery	SAMPLE MATRIX:	WATER
CLIENT NUMBER:	810	PRESERVATIVE:	HgCl2
PHASE/TASK:	NA	DATE SAMPLED:	Mar 05, 1996
PROJECT LOCATION:	Bloomfield, NM	DATE RECEIVED:	Mar 06, 1996
SAMPLE ID:	MW-20	DATE ANALYZED:	Mar 06, 1996
SAMPLE NUMBER:	0998	ANALYSIS:	BTEX/MTBE

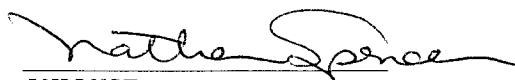
ANALYTE	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
METHYL-T-B-ETHER	133.4	0.2
BENZENE	3.6	0.2
TOLUENE	16.8	0.3
ETHYLBENZENE	3.3	0.2
P,M-XYLENE	11.1	0.3
O-XYLENE	10.7	0.2

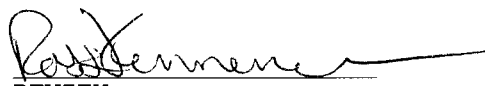
ND - ANALYTE NOT DETECTED AT STATED DETECTION LIMIT

QUALITY CONTROL:	SURROGATES	PERCENT RECOVERY	ACCEPTANCE LIMIT
	TRIFLUOROTOLUENE	85	80 - 120%
	BROMOFLUOROBENZENE	104	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
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**EPA METHOD 8020
PURGEABLE AROMATICS**



CLIENT:	Thriftway Refinery	SAMPLE MATRIX:	WATER
CLIENT NUMBER:	810	PRESERVATIVE:	HgCl2
PHASE/TASK:	NA	DATE SAMPLED:	Mar 05, 1996
PROJECT LOCATION:	Bloomfield, NM	DATE RECEIVED:	Mar 06, 1996
SAMPLE ID:	MW-21	DATE ANALYZED:	Mar 07, 1996
SAMPLE NUMBER:	0999	ANALYSIS:	BTEX/MTBE

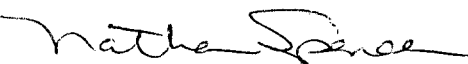
ANALYTE	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
METHYL-T-B-ETHER	82.0	0.2
BENZENE	6.0	0.2
TOLUENE	2.0	0.3
ETHYLBENZENE	29.3	0.2
P,M-XYLENE	5.2	0.3
O-XYLENE	0.9	0.2

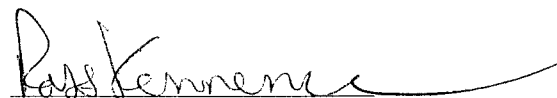
ND - ANALYTE NOT DETECTED AT STATED DETECTION LIMIT

QUALITY CONTROL:	SURROGATES	PERCENT RECOVERY	ACCEPTANCE LIMIT
	TRIFLUOROTOLUENE	96	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:


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**EPA METHOD 8020
PURGEABLE AROMATICS**



CLIENT:	Thriftway Refinery	SAMPLE MATRIX:	WATER
CLIENT NUMBER:	810	PRESERVATIVE:	HgCl2
PHASE/TASK:	NA	DATE SAMPLED:	Mar 05, 1996
PROJECT LOCATION:	Bloomfield, NM	DATE RECEIVED:	Mar 06, 1996
SAMPLE ID:	MW-22	DATE ANALYZED:	Mar 06, 1996
SAMPLE NUMBER:	1000	ANALYSIS:	BTEX/MTBE

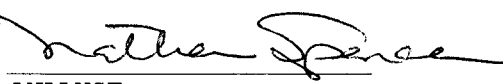
ANALYTE	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
METHYL-T-B-ETHER	36.7	0.2
BENZENE	ND	0.2
TOLUENE	ND	0.3
ETHYLBENZENE	0.2	0.2
P,M-XYLENE	0.4	0.3
O-XYLENE	ND	0.2

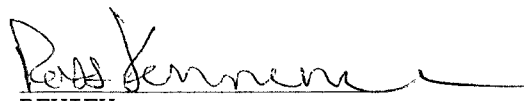
ND - ANALYTE NOT DETECTED AT STATED DETECTION LIMIT

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


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**EPA METHOD 8020
PURGEABLE AROMATICS**



CLIENT:	Thriftway Refinery	SAMPLE MATRIX:	WATER
CLIENT NUMBER:	810	PRESERVATIVE:	HgCl2
PHASE/TASK:	NA	DATE SAMPLED:	Mar 05, 1996
PROJECT LOCATION:	Bloomfield, NM	DATE RECEIVED:	Mar 06, 1996
SAMPLE ID:	Inlet	DATE ANALYZED:	Mar 07, 1996
SAMPLE NUMBER:	1007	ANALYSIS:	BTEX/MTBE

ANALYTE	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
METHYL-T-B-ETHER	155	50.0
BENZENE	6990	20.0
TOLUENE	3570	30.0
ETHYLBENZENE	1300	30.0
P,M-XYLENE	5470	30.0
O-XYLENE	1210	20.0

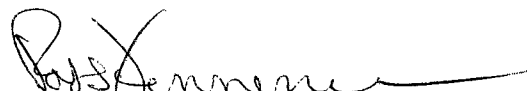
ND - ANALYTE NOT DETECTED AT STATED DETECTION LIMIT

QUALITY CONTROL:	SURROGATES	PERCENT RECOVERY	ACCEPTANCE LIMIT
	TRIFLUOROTOLUENE	99	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:


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**EPA METHOD 8020
PURGEABLE AROMATICS**



CLIENT:	Thriftway Refinery	SAMPLE MATRIX:	WATER
CLIENT NUMBER:	810	PRESERVATIVE:	HgCl2
PHASE/TASK:	NA	DATE SAMPLED:	Mar 05, 1996
PROJECT LOCATION:	Bloomfield, NM	DATE RECEIVED:	Mar 06, 1996
SAMPLE ID:	DISCHARGE	DATE ANALYZED:	Mar 06, 1996
SAMPLE NUMBER:	1008	ANALYSIS:	BTEX/MTBE

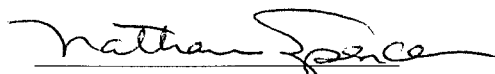
ANALYTE	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
METHYL-T-B-ETHER	7.0	0.4
BENZENE	50.0	0.3
TOLUENE	21.2	0.3
ETHYLBENZENE	7.1	0.3
P,M-XYLENE	32.9	0.4
O-XYLENE	10.5	0.3

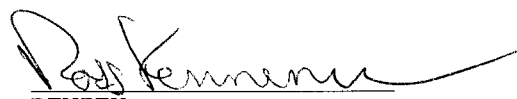
ND - ANALYTE NOT DETECTED AT STATED DETECTION LIMIT

QUALITY CONTROL:	SURROGATES	PERCENT RECOVERY	ACCEPTANCE LIMIT
	TRIFLUOROTOLUENE	100	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:


ANALYST


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**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:	Mar 06, 1996
SAMPLE NUMBER:	03066AM.00	ANALYSIS:	BTEX

ANALYTE	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
MTBE	ND	0.2
BENZENE	ND	0.2
TOLUENE	ND	0.3
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	91	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: QA/QC for samples 0992 - 1000, 1002 - 1004.

ANALYST

REVIEW

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EPA METHOD 8020
PURGEABLE AROMATICS



CLIENT:	NA	SAMPLE MATRIX:	WATER
CLIENT NUMBER:	NA	PRESERVATIVE:	HgCl ₂
PHASE/TASK:	NA	DATE SAMPLED:	NA
PROJECT LOCATION:	NA	DATE RECEIVED:	NA
SAMPLE ID:	LAB BLANK	DATE ANALYZED:	Mar 06, 1996
SAMPLE NUMBER:	03066pm.00	ANALYSIS:	BTEX

ANALYTE	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
MTBE	ND	0.4
BENZENE	ND	0.3
TOLUENE	ND	0.3
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	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: QA/QC for samples 1005 - 1010.

ANALYST

REVIEW

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**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:	Lab blank	DATE ANALYZED:	Mar 07, 1996
SAMPLE NUMBER:	03076am.00	ANALYSIS:	BTEX

ANALYTE	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
MTBE	ND	0.5
BENZENE	ND	0.2
TOLUENE	ND	0.3
ETHYLBENZENE	ND	0.3
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	89	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: QA/QC for samples 1001 and 1007.

ANALYST

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**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:	Mar 05, 1996
PROJECT LOCATION:	NA	DATE RECEIVED:	Mar 06, 1996
SAMPLE ID:	MW-10	DATE ANALYZED:	Mar 06, 1996
SAMPLE NUMBER:	0992	ANALYSIS:	BTEX/MTBE

SPIKE CONCENTRATION (ug/L) = 20.0

ANALYTE	Sample Result (ug/L)	Spiked Result (ug/L)	Det. Limit (ug/L)	PERCENT RECOVERY	ACCEPTANCE CRITERIA
METHYL-T-B-ETHER	0.1	22.9	0.0	114	-
BENZENE	1.0	20.5	0.2	98	39 - 150%
TOLUENE	ND	20.5	0.2	102	46 - 148%
ETHYLBENZENE	0.9	20.3	0.3	97	32 - 160%
P,M-XYLENE	0.4	40.7	0.2	101	-
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: QA/QC for samples 0992 - 1010.

ANALYST _____

REVIEW _____

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Fax (505) 632-9850

**EPA METHOD 8020
PURGEABLE AROMATICS**



CLIENT:	Thriftway-Refinery	SAMPLE MATRIX:	WATER
CLIENT NUMBER:	810	PRESERVATIVE:	HgCl2
PHASE/TASK:	NA	DATE SAMPLED:	Jan 17, 1996
PROJECT LOCATION:	Bloomfield, NM	DATE RECEIVED:	Jan 17, 1996
SAMPLE ID:	Bypass	DATE ANALYZED:	Jan 23, 1996
SAMPLE NUMBER:	0977	ANALYSIS:	BTEX/MTBE

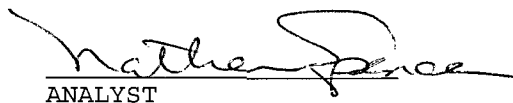
ANALYTE	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
METHYL-T-B-ETHER	0.4	0.4
BENZENE	ND	0.2
TOLUENE	0.7	0.4
ETHYLBENZENE	0.4	0.3
P,M-XYLENE	2.4	0.3
O-XYLENE	0.7	0.2

ND - ANALYTE NOT DETECTED AT STATED DETECTION LIMIT

	SURROGATES	PERCENT RECOVERY	ACCEPTANCE LIMIT
QUALITY CONTROL:	TRIFLUOROTOLUENE	98	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.

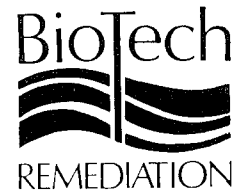
COMMENTS:


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**EPA METHOD 8020
PURGEABLE AROMATICS**



CLIENT:	Thriftway-Refinery	SAMPLE MATRIX:	WATER
CLIENT NUMBER:	810	PRESERVATIVE:	HgCl2
PHASE/TASK:	NA	DATE SAMPLED:	Jan 16, 1996
PROJECT LOCATION:	Bloomfield, NM	DATE RECEIVED:	Jan 25, 1996
SAMPLE ID:	Stripper Bypass	DATE ANALYZED:	Jan 25, 1996
SAMPLE NUMBER:	0980	ANALYSIS:	BTEX/MTBE

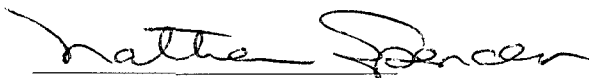
ANALYTE	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
METHYL-T-B-ETHER	ND	0.4
BENZENE	ND	0.3
TOLUENE	ND	1.1
ETHYLBENZENE	0.3	0.2
P,M-XYLENE	1.9	0.8
O-XYLENE	0.7	0.2

ND - ANALYTE NOT DETECTED AT STATED DETECTION LIMIT

QUALITY CONTROL:	SURROGATES	PERCENT RECOVERY	ACCEPTANCE LIMIT
	TRIFLUOROTOLUENE	114	80 - 120%
	BROMOFLUOROBENZENE	113	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

EPA METHOD 8020 "BTEX" WORKSHEET



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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:	Jan 23, 1996
SAMPLE NUMBER:	01236am.00	ANALYSIS:	BTEX/MTBE

	PEAK AREA	RES. FACTOR	DET. LIMIT CONCENTRATION (ug/L)	(ug/L)
Methyl-T-Butyl Ether	750	3.271E-04	0.4	ND
Benzene:	819	4.639E-05	0.2	ND
Toluene:	3872	4.787E-05	0.4	ND
Ethylbenzene:	1090	5.513E-05	0.3	ND
p,m-Xylene:	1875	4.798E-05	0.3	ND
o-Xylene:	0	5.198E-05	0.2	ND
1,3-Dichlorobenzene	0	5.540E-05	0.2	ND
1,4-Dichlorobenzene	15487	5.433E-05	1.0	ND
1,2-Dichlorobenzene	0	6.529E-05	0.2	ND
BFB:	1480358	3.044E-05	45.3	ND
TFT:	651337	7.894E-05	51.6	ND

Dilution Factor: 1

EPA METHOD 8020
PURGEABLE AROMATICS



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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:	Jan 23, 1996
SAMPLE NUMBER:	01236am.00	ANALYSIS:	BTEX/MTBE

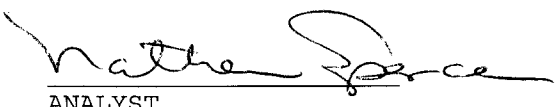
ANALYTE	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
METHYL-T-B-ETHER	ND	0.4
BENZENE	ND	0.2
TOLUENE	ND	0.4
ETHYLBENZENE	ND	0.3
P,M-XYLENE	ND	0.3
O-XYLENE	ND	0.2

ND - ANALYTE NOT DETECTED AT STATED DETECTION LIMIT

QUALITY CONTROL:	SURROGATES	PERCENT RECOVERY	ACCEPTANCE LIMIT
	TRIFLUOROTOLUENE	103	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


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**EPA METHOD 8020
PURGEABLE AROMATICS**



CLIENT:	Thriftway-Refinery	SAMPLE MATRIX:	WATER
CLIENT NUMBER:	810	PRESERVATIVE:	HgCl2
PHASE/TASK:	NA	DATE SAMPLED:	Jan 25, 1996
PROJECT LOCATION:	Bloomfield, NM	DATE RECEIVED:	Jan 25, 1996
SAMPLE ID:	Tank Return	DATE ANALYZED:	Jan 25, 1996
SAMPLE NUMBER:	0982	ANALYSIS:	BTEX/MTBE

ANALYTE	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
METHYL-T-B-ETHER	3.9	0.4
BENZENE	5.9	0.3
TOLUENE	5.3	1.1
ETHYLBENZENE	3.4	0.2
P,M-XYLENE	19.3	0.8
O-XYLENE	9.4	0.2

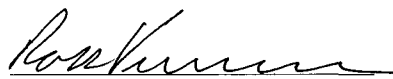
ND - ANALYTE NOT DETECTED AT STATED DETECTION LIMIT

QUALITY CONTROL:	SURROGATES	PERCENT RECOVERY	ACCEPTANCE LIMIT
	TRIFLUOROTOLUENE	114	80 - 120%
	BROMOFLUOROBENZENE	116	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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**EPA METHOD 8020
PURGEABLE AROMATICS**



CLIENT:	Thriftway-Refinery	SAMPLE MATRIX:	WATER
CLIENT NUMBER:	810	PRESERVATIVE:	HgCl2
PHASE/TASK:	NA	DATE SAMPLED:	Jan 25, 1996
PROJECT LOCATION:	Bloomfield, NM	DATE RECEIVED:	Jan 25, 1996
SAMPLE ID:	Stripper Discharge	DATE ANALYZED:	Jan 25, 1996
SAMPLE NUMBER:	0981	ANALYSIS:	BTEX/MTBE

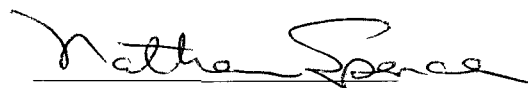
ANALYTE	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
METHYL-T-B-ETHER	4.1	0.4
BENZENE	8.1	0.3
TOLUENE	7.1	1.1
ETHYLBENZENE	4.9	0.2
P,M-XYLENE	23.5	0.8
O-XYLENE	5.9	0.2

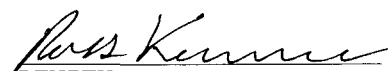
ND - ANALYTE NOT DETECTED AT STATED DETECTION LIMIT

QUALITY CONTROL:	SURROGATES	PERCENT RECOVERY	ACCEPTANCE LIMIT
	TRIFLUOROTOLUENE	115	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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REVIEW

BioTech LABORATORIES
710 E. 20th Street, Suite 400
Farmington, New Mexico 87401
Office (505) 632-3365
Fax (505) 632-9850

**EPA METHOD 8020
PURGEABLE AROMATICS**



CLIENT:	Thriftway-Refinery	SAMPLE MATRIX:	WATER
CLIENT NUMBER:	810	PRESERVATIVE:	HgCl2
PHASE/TASK:	NA	DATE SAMPLED:	Jan 25, 1996
PROJECT LOCATION:	Bloomfield, NM	DATE RECEIVED:	Jan 25, 1996
SAMPLE ID:	Stripper Inlet	DATE ANALYZED:	Jan 25, 1996
SAMPLE NUMBER:	0983	ANALYSIS:	BTEX/MTBE

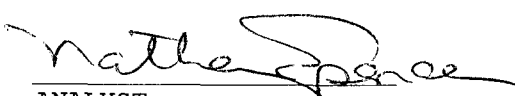
ANALYTE	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
METHYL-T-B-ETHER	194	200
BENZENE	4809	150
TOLUENE	1948	550
ETHYLBENZENE	711	100
P,M-XYLENE	3790	400
O-XYLENE	1344	100

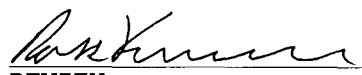
ND - ANALYTE NOT DETECTED AT STATED DETECTION LIMIT

QUALITY CONTROL:	SURROGATES	PERCENT RECOVERY	ACCEPTANCE LIMIT
	TRIFLUOROTOLUENE	116	80 - 120%
	BROMOFLUOROBENZENE	106	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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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:	Jan 25, 1996
SAMPLE NUMBER:	01256am.00	ANALYSIS:	BTEX/MTBE

ANALYTE	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
METHYL-T-B-ETHER	ND	0.4
BENZENE	ND	0.3
TOLUENE	ND	1.1
ETHYLBENZENE	ND	0.2
P,M-XYLENE	ND	0.8
O-XYLENE	ND	0.2

ND - ANALYTE NOT DETECTED AT STATED DETECTION LIMIT

QUALITY CONTROL:	SURROGATES	PERCENT RECOVERY	ACCEPTANCE LIMIT
	TRIFLUOROTOLUENE	115	80 - 120%
	BROMOFLUOROBENZENE	104	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: QA/QC for samples 0980 - 0983.


ANALYST


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**EPA METHOD 8020
PURGEABLE AROMATICS**



CLIENT:	Thriftway-Refinery	SAMPLE MATRIX:	WATER
CLIENT NUMBER:	810	PRESERVATIVE:	HgCl2
PHASE/TASK:	NA	DATE SAMPLED:	Jan 17, 1996
PROJECT LOCATION:	Bloomfield, NM	DATE RECEIVED:	Jan 17, 1996
SAMPLE ID:	Stripper Discharge	DATE ANALYZED:	Jan 23, 1996
SAMPLE NUMBER:	0978	ANALYSIS:	BTEX/MTBE

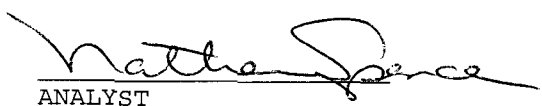
ANALYTE	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
METHYL-T-B-ETHER	4.5	0.4
BENZENE	9.0	0.2
TOLUENE	5.4	0.4
ETHYLBENZENE	2.1	0.3
P,M-XYLENE	9.6	0.3
O-XYLENE	4.0	0.2

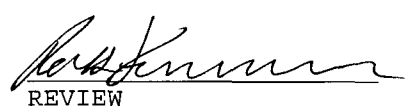
ND - ANALYTE NOT DETECTED AT STATED DETECTION LIMIT

	SURROGATES	PERCENT RECOVERY	ACCEPTANCE LIMIT
QUALITY CONTROL:	TRIFLUOROTOLUENE	106	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:


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Office (505) 632-3365
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**EPA METHOD 8020
PURGEABLE AROMATICS**



CLIENT:	Thriftway-Refinery	SAMPLE MATRIX:	WATER
CLIENT NUMBER:	810	PRESERVATIVE:	HgCl2
PHASE/TASK:	NA	DATE SAMPLED:	Jan 24, 1996
PROJECT LOCATION:	Bloomfield, NM	DATE RECEIVED:	Jan 24, 1996
SAMPLE ID:	Stripper Discharge	DATE ANALYZED:	Jan 24, 1996
SAMPLE NUMBER:	0979	ANALYSIS:	BTEX/MTBE

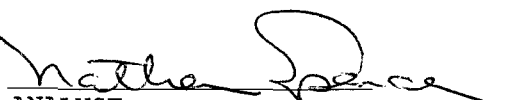
ANALYTE	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
METHYL-T-B-ETHER	6.7	0.4
BENZENE	8.3	0.2
TOLUENE	7.7	0.4
ETHYLBENZENE	5.3	0.3
P,M-XYLENE	26.6	0.3
O-XYLENE	6.5	0.2

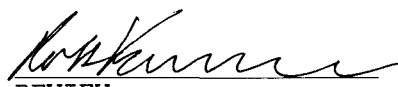
ND - ANALYTE NOT DETECTED AT STATED DETECTION LIMIT

QUALITY CONTROL:	SURROGATES	PERCENT RECOVERY	ACCEPTANCE LIMIT
	TRIFLUOROTOLUENE	109	80 - 120%
	BROMOFLUOROBENZENE	113	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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REVIEW

QUALITY CONTROL
MATRIX SPIKE RECOVERY
EPA METHOD 8020
AROMATIC VOLATILE ORGANICS



710 East 20th Street, Suite 400
Farmington, New Mexico 87401
Field Office: (505) 632-3365
Fax: (505) 632-9850

CLIENT: NA
CLIENT NUMBER: NA
PHASE/TASK: NA
PROJECT LOCATION: Lubbock, TX
SAMPLE ID: 1
SAMPLE NUMBER: 0965

SAMPLE MATRIX: SOIL
PRESERVATIVE: COOL
DATE SAMPLED: Jan 15, 1996
DATE RECEIVED: Jan 17, 1996
DATE ANALYZED: Jan 23, 1996
ANALYSIS: BTEX/MTBE

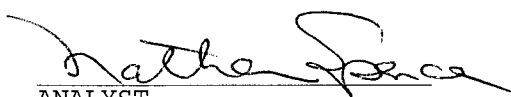
SPIKE CONCENTRATION (ug/Kg) = 55

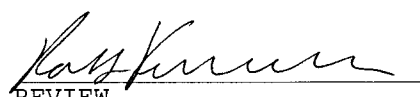
ANALYTE	Sample Result (ug/Kg)	Spiked Result (ug/Kg)	Det. Limit (ug/Kg)	PERCENT RECOVERY
BENZENE	ND	54	0.5	99
TOLUENE	2.7	52	1.1	91
ETHYLBENZENE	ND	56	0.8	102
P,M-XYLENE	14.0	114	0.8	92
O-XYLENE	8.0	57	0.5	91

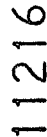
ND - ANALYTE NOT DETECTED AT STATED DETECTION LIMIT

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.

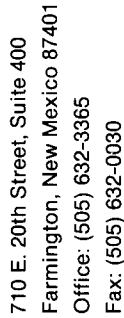
COMMENTS: QA/QC for samples 0965 - 0978.


ANALYST


REVIEW



San Juan repro Form 578-97



CHAIN OF CUSTODY RECORD

san juan repro Form 578-97

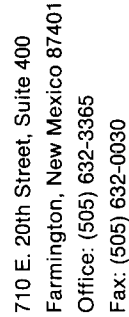
WATER QUALITY LABORATORIES

710 E. 20th Street, Suite 400
Farmington, New Mexico 87401
Office: (505) 632-3365
Fax: (505) 632-0030

1217

CHAIN OF CUSTODY RECORD

[illegible]



CHAIN OF CUSTODY RECORD

san juan repro Form 578-97

11223

CHAIN OF CUSTODY RECORD

Client/Project Name			Project Location			ANALYSIS/PARAMETERS							
Sample No./ID			Date	Time	Lab No.	Matrix	No. Cont.	BTEX/MBE					Remarks
Thiessen Refinery			Bloomfield, NM										
Sampler: (Signature)													
MW-5	3-5-76	1130	1002	Water	2								
MW-61		1145	1003										
MW-6		1155	1004										
MW-3		1215	1005										
MW-2		1340	1006										
Air Stripper Inlet		1300	1007										
Air Stripper Overflow		1310	1008										
Air Stripper		1330	1009										
Relinquished by: (Signature)			Date	Time	Received by: (Signature)								
Relinquished by: (Signature)			3-6-76	0900	Received by: (Signature)								
Relinquished by: (Signature)					Received by: (Signature)								

11222

CHAIN OF CUSTODY RECORD

Client/Project Name			Project Location		ANALYSIS/PARAMETERS						
Sampler: (Signature)			Tape No.		No. Cont.	BTEX/MTBE					Remarks
Sample No./ID	Date	Time	Lab No.	Matrix							
MW-10	3-5-96	0830	0992	Water	2						
MW-15		0840	0993								
MW-9		0845	0994								
MW-11		0855	0995								
MW-16		0915	0996								
MW-13		0935	0997								
MW-20		0950	0998								
MW-21		1015	0999								
MW-22		1025	1000								
MW-19		1050	1001								
Relinquished by: (Signature)			Date	Time	Received by: (Signature)						
Relinquished by: (Signature)			3-6-96	0900	Received by: (Signature)						
Relinquished by: (Signature)					Received by: (Signature)						
Relinquished by: (Signature)					Received by: (Signature)						

APPENDIX B

EQUIPMENT LIST:
2 - 5 GALLON BUCKETS
1 - 3" BAILER
3 - 1.66" BAILERS
NYLON CORD WITH PERMANENT CLIPS ,33 FT ,
100' TAPE
QRS PROBE

100 TAPE
ORS PROBE

DAILY LOG

BAILING OF FREE PRODUCT

DATE: 1-8-96

LOCATION: Bloomfield
Refinery

TECHNICIAN: K. Shannon

f:\files\baillog

[illegible]

ADDITIONAL COMMENTS:

EQUIPMENT LIST:
2 - 5 GALLON BUCKETS
1 - 3" BAILER
3 - 1.66" BAILERS
NYLON CORD WITH PERMANENT CLIPS (33 FT)
100' TAPE
QRS PROBE

DAILY LOG

BAILING OF FREE PRODUCT

DATE: 1-26-96

LOCATION: Bloomfield
Refinery 810

TECHNICIAN: K. Shannon

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[illegible]

ADDITIONAL COMMENTS:

EQUIPMENT LIST:
2 - 5 GALLON BUCKETS
1 - 3" BAILER
3 - 1.66" BAILERS
NYLON CORD WITH PERMANENT CLIPS (33 FT ,
100' TAPE
QRS PROBE

DAILY LOG

BAILING OF FREE PRODUCT

DATE: 2-16-96

LOCATION: Bloomfield
Refinery

TECHNICIAN: K. Mannon

f:\files\baillog

[illegible]

ADDITIONAL COMMENTS:

EQUIPMENT LIST:
2 - 5 GALLON BUCKETS
1 - 3" BAILER
3 - 1.66" BAILERS
NYLON CORD WITH PERMANENT CLIPS (33 FT)
100' TAPE
QRS PROBE

DAILY LOG

BAILING OF FREE PRODUCT

DATE: 3-8-96

LOCATION: Bloomfield
Refinery

TECHNICIAN: E. Hemmer

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[illegible]

ADDITIONAL COMMENTS:

EQUIPMENT LIST:
2 - 5 GALLON BUCKETS
1 - 3" BAILER
3 - 1.66" BAILERS
NYLON CORD WITH PERMANENT CLIPS (33 FT.)
100' TAPE
QRS PROBE