2R - 6

REPORTS

DATE:
JULY 1996

Remediation System Operations

1996 Second Quarterly Report

Amoco Pipeline Station
Artesia, New Mexico

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July 30, 1996

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ENVIRONMENTAL
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(continued)

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1.0 INTRODUCTION

This report summarizes the results of the remediation system operations for the period of April 1996 through July 15, 1996.

The primary objectives of the remediation system continue to have been met since the system installation, namely:

- Approximately 123 gallons of product have been recovered.
- No free product has been observed in the downgradient wells.

As reported in "The Remediation Systems Operations 1996 First Quarterly Report" a chemical injection pump was put in operation on February 16, 1996. Operational changes were made during the remainder of the quarter. The concentration of sequestering agent was set at approximately 4 percent (50 gallons of water to 2 gallons of agent). The flow meter, which had been inoperable for an extended period of time, was repaired and replaced on March 5, 1996. The air stripper was cleaned and restarted on March 9, 1996. The mist eliminator was replaced on April 1, 1996.

Installation of the new sequestering agent reduced the maintenance problems with the air stripper. The calcium carbonate buildup in the stripper was reduced, the discharge lines were not fouling, and the flow meter was operational. However, the performance of the air stripper was below expectations.

A system evaluation of the groundwater recovery and treatment system was performed onsite by Clayton Environmental during the third week of May, 1996. The system evaluation consisted of removal and inspection of the groundwater recovery pumps located in the recovery sumps, inspection of the recovery sumps and associated piping including manifold adjustments, disassembly and inspection of the air stripper system,

inspection of the product recovery tank and associated components, and inspection of the groundwater discharge pump and piping.

Overall, the treatment unit and the associated area appeared to be in very good condition. The berms and diversion ditches surrounding the recovery trench are in good condition. The discharge line on the groundwater discharge pump was replaced to increase discharge flowrate and reduce constrictions in the system. The results presented in Table 1 demonstrate that the air stripper system is now meeting all permit requirements.

The onsite system evaluation identified three maintenance needs. First, the west sump requires jetting and cleaning to remove accumulated deposits. Currently, the center sump is in use for groundwater recovery. Second, BETZ Water Management Group is evaluating scaling deposits recovered from the trays of the air stripper in an effort to reduce fouling, and consequently, maintenance requirements. Continued contact will be maintained with BETZ to evaluate recommendations and associated costs. Third, the air stripper requires several new tray gaskets to prevent short circuiting. These maintenance activities will be conducted during the third quarter of 1996.

Excessive rains during late June 1996 caused water levels to rise and the pump in the sump to operate continually. In early July, a gate valve was installed to allow better flow control than the previously installed ball valve.

2.0 LABORATORY RESULTS

2.1 MONTHLY BETX RESULTS FOR THE INFLUENT AND EFFLUENT OF THE AIR STRIPPER

The monthly samples for the influent and effluent of the air stripper were taken on May 23, 1996, July 2, 1996, and July 6, 1996. The results from these sampling events are shown in Table 1. All figures and tables are presented at the end of the text before the appendices. The analytical results are presented in Appendix A. The results show that all discharge requirements were met during the quarter.

2.2 QUARTERLY BETX RESULTS FOR MONITORING WELLS WITH NO FREE PRODUCT

The quarterly BETX results for monitoring wells which did not contain free product are presented in Table 2. The analytical results are presented in Appendix A for the samples taken on July 2, 1996 and July 6, 1996.

The two monitoring wells south of the interception trench (monitoring wells MW-11 and MW-14) continue to show no indication of free product.

3.0 PRODUCT THICKNESS

Product thickness measurements were taken in the monitoring wells during the July sampling event. Table 3 contains product thickness information. The free product thickness map is shown in Figure 6. The product thickness maps from April 16 and 17, 1996; November 25 and 26, 1995; October 2, 1995; June 16, 1995; and February 9, 1995 are shown in Figures 5, 4, 3, 2, and 1. A bail down/recovery test was performed in January, 1996 on all wells containing free product. It is clear from the April 16, 1996 and July 2, 1996 data that, in general, with the exception of MW-2, the free product in all wells is decreasing or the wells are recovering extremely slowly.

4.0 FLUIDS PUMPED

At 10 a.m. on April 16, 1996 the totalizer read 210,097 gallons. On July 6, 1996 at 2:50 p.m. the totalizer read 565,390 gallons. This represents an average pumping rate of 3.04 GPM.

Three wells (#8, #10, and #13) were bailed on July 5, 1996. A total of 12.5 gallons of water and oil were removed. The product recovery rate was gauged and no oil was detected. As stated in the Introduction, heavy rains have resulted in the oil recovery tank being filled frequently, since the oil/water separator was being overloaded. This problem was corrected by installation of a gate valve. It is reasonable to assume that some oil was contained in the water in the tank, but it is impossible to quantitate the amount. It is reasonable to estimate that six gallons of oil was contained in the water from the wells which were bailed, plus the oil in the product recovery tank. This results in an estimated 123 gallons of oil being recovered. The water in the product recovery tank was taken by OK Hot Oil to the local wastewater treatment plant.

5.0 SOIL REMEDIATION

The soils were disked monthly from May through July, 1996. Samples were obtained on June 28, 1996 in four separate locations. All samples were taken approximately half way through the depth of the disked area. The results are contained in Appendix B. The June results and prior results of all sampling and analyses to that date are presented below (all results are expressed in mg/kg).

Designation	TPH (As Gas) (Modified Method 8015)					
	04/27/95	07/28/95	10/12/95	12/29/95	04/22/96	06/28/96
SS #1	<100	<100	<10	<100	Broken	<100
SS #2	<100	<10	<10	<100	<10	<100
SS #3	<100	<10	<10	<100	<10	<100
SS #4						<100
Average	<100	<100	<10	<100	<10	<100

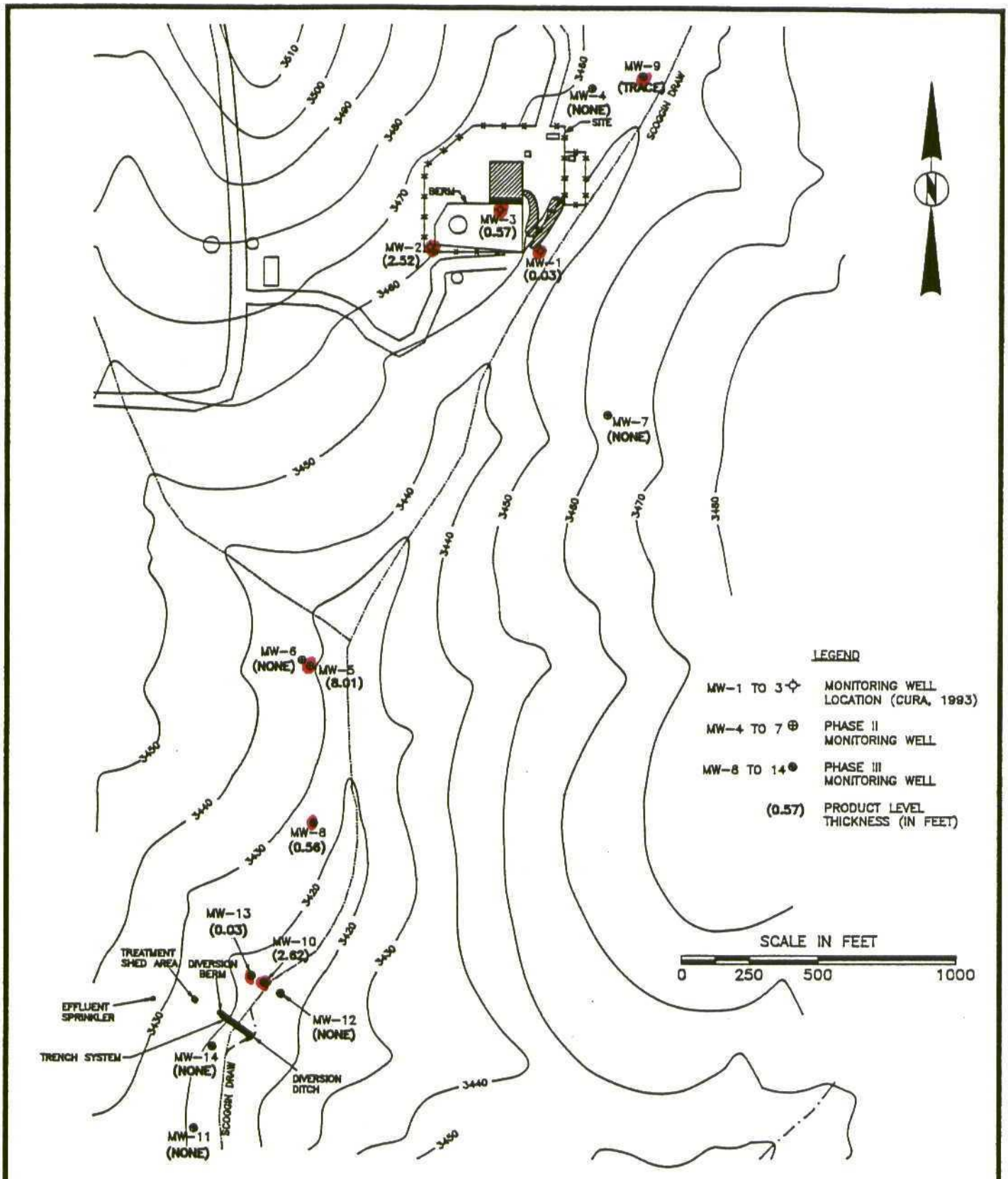
Designation	TPH (As Diesel) (Modified Method 8015)					
	04/27/95	07/28/95	10/12/95	12/29/95	04/22/96	06/28/96
SS #1	3,410	3,410	<100	5,700	Broken	<100
SS #2	6,200	<10	<100	3,700	<10	<100
SS #3	7,940	<10	<100	3,200	<10	<100
SS #4						<100
Average	5,847	1,149	<100	4,200	<10	<100

Designation	TPH (As Oil) (Modified Method 8015)					
	04/27/95	07/28/95	10/12/95	12/29/95	04/22/96	06/28/96
SS #1	29,600	80,200	5,410	21,000	Broken	13,900
SS #2	58,800	6,460	8,400	21,000	3,500	11,000
SS #3	44,900	15,700	4,930	17,000	10,000	5,300
SS #4						8,600
Average	44,433	34,130	6,247	19,666	6,750	9,700

NOTE: *Cleanup objective is 5,000 mg/kg TPH.*

The cleanup objective has been met for TPH as gas and diesel, but not as oil. A more comprehensive sampling program was undertaken on July 2, 1996. Nine samples were taken to determine its average TPH values. The results are provided in Appendix B. All nine samples had TPH values (as gas) and TPH values (as diesel) of less than 50 mg/kg. The TPH values (as oil) were: 12,000, 2,500, 8,900, 6,800, 160, 11,000, 9,500, 6,100, and 3,100 for an average TPH (as oil) value of 6,673. Since the cleanup object is 5,000 mg/kg we propose to discontinue testing for TPH (as gas) and TPH (as diesel). We propose to continue the monthly disking until the average TPH (as oil) value is less than 5,000 mg/kg.

FIGURES



CHECK BY	HMM
DRAWN BY	BCP
DATE	5-3-95
SCALE	AS SHOWN
CAD NO.	2775.00-02
PRJ NO.	2775102C

FREE PRODUCT
THICKNESS MAP
FEBRUARY 9, 1995

AMOCO PIPELINE COMPANY
ARTESIA, NEW MEXICO

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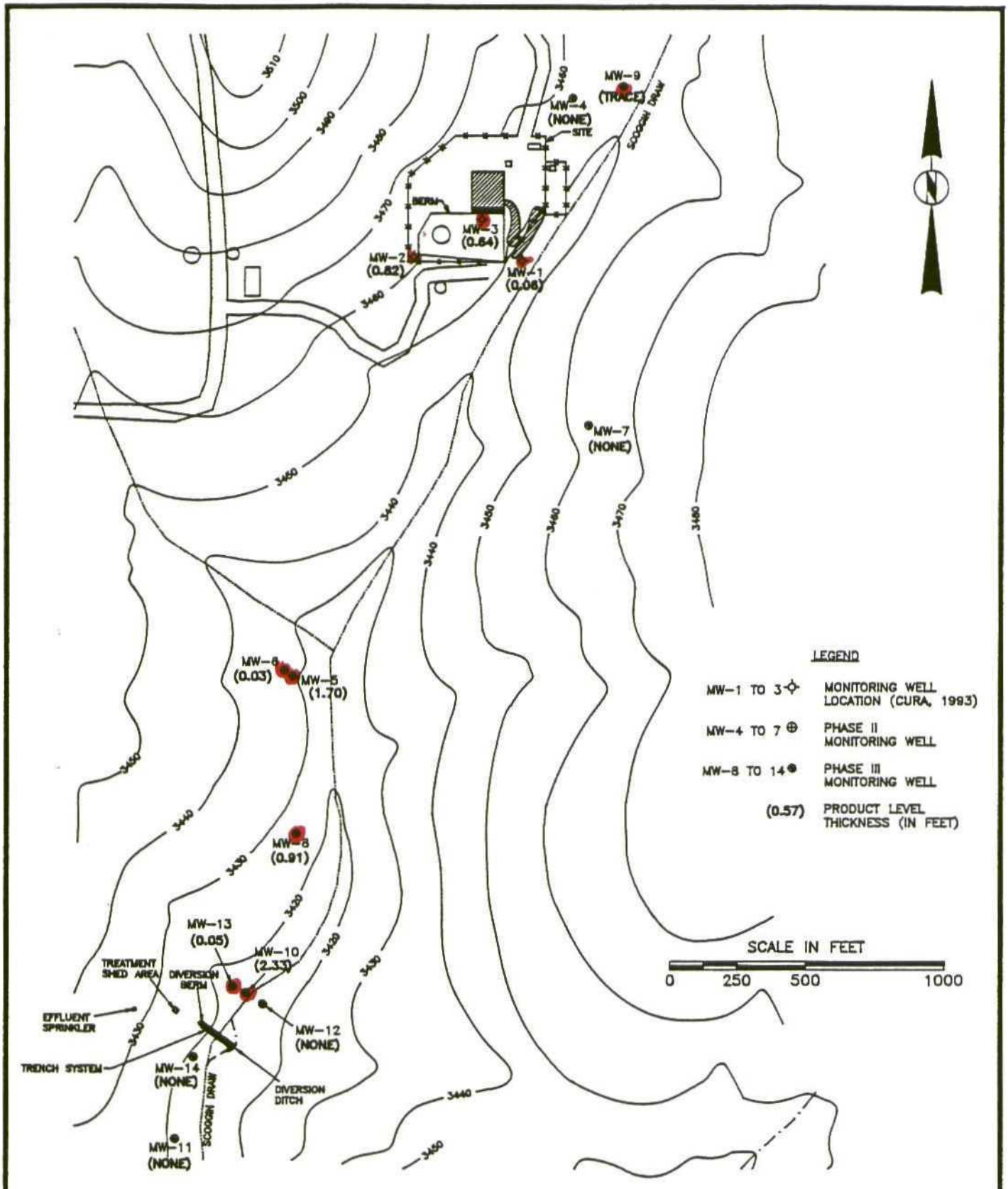
FIGURE
1



CHECK BY	HMM
DRAWN BY	BCP
DATE	7-25-95
SCALE	AS SHOWN
CAD NO.	2775102E
PRJ NO.	2775.00-02

FREE PRODUCT
THICKNESS MAP
JUNE 16, 1995

AMOCO PIPELINE COMPANY
ARTESIA, NEW MEXICO

Clayton
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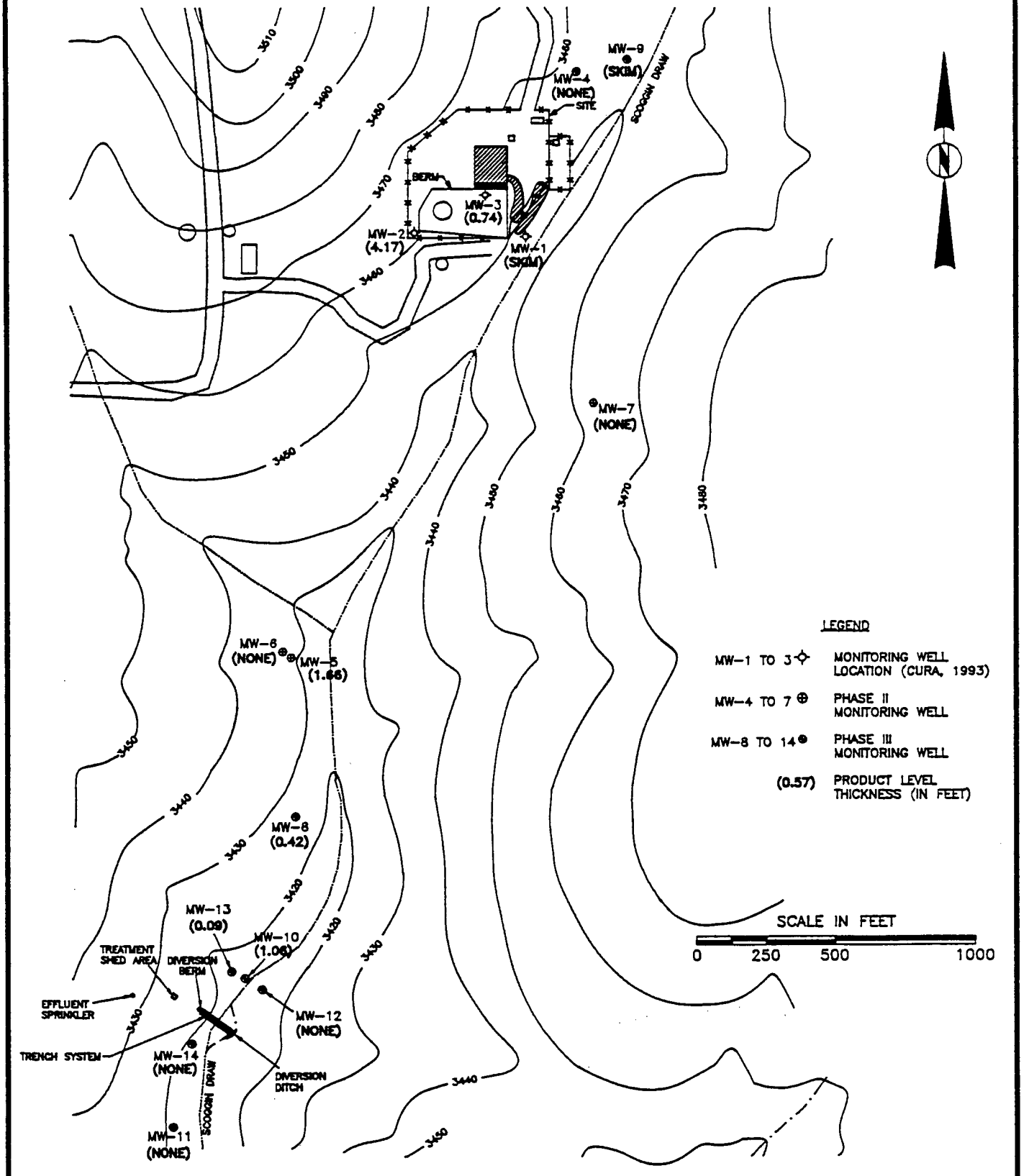
FIGURE 2



CHECK BY	HMM
DRAWN BY	BCP
DATE	10-16-95
SCALE	AS SHOWN
CAD NO.	2775.00-02
PRJ NO.	2775102F

FREE PRODUCT
THICKNESS MAP
OCTOBER 2, 1995

AMOCO PIPELINE COMPANY
ARTESIA, NEW MEXICO

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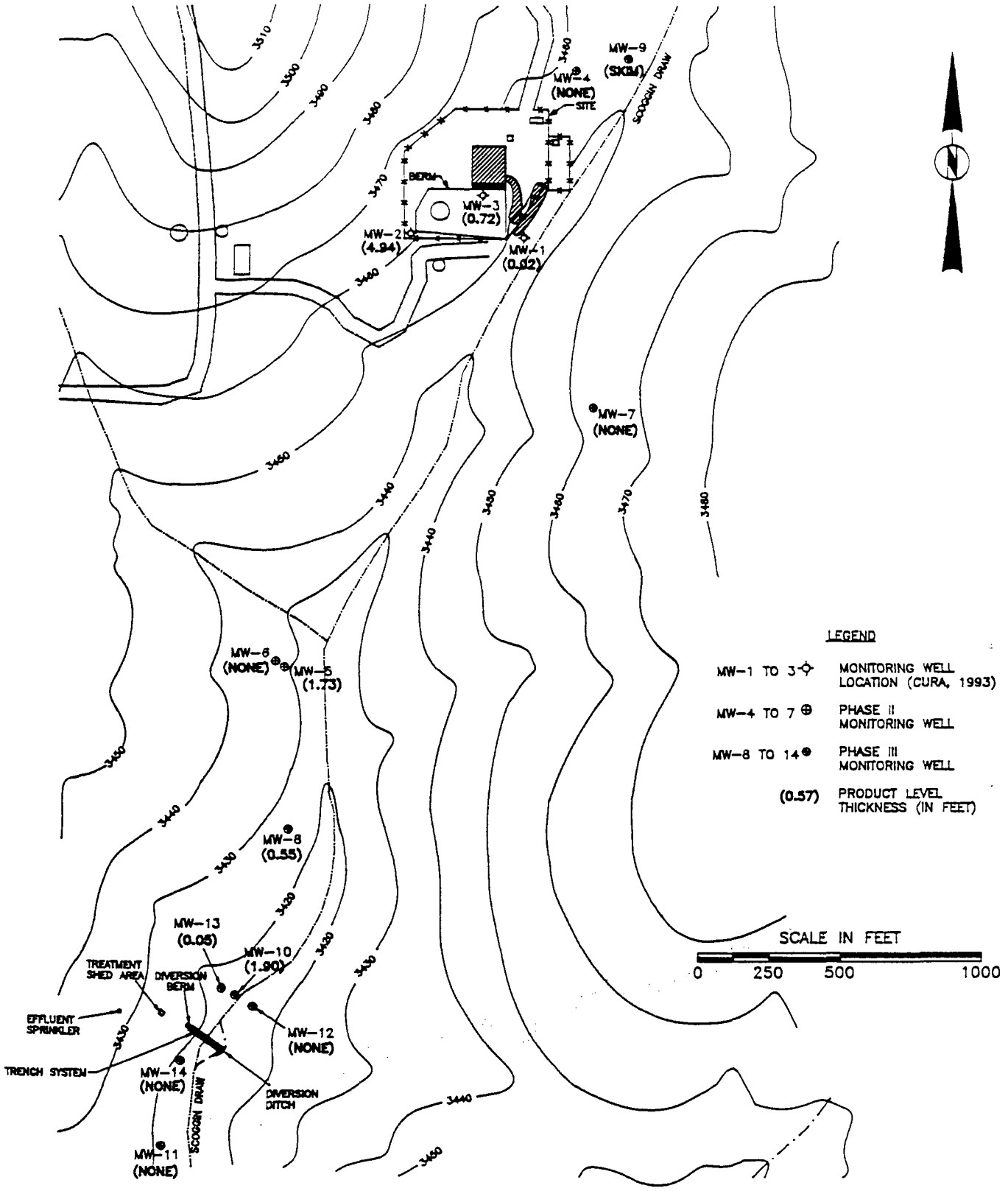
FIGURE 3



CHECK BY	HMM
DRAWN BY	BCP
DATE	1-12-96
SCALE	AS SHOWN
CAD NO.	2775.00-02
PRJ NO.	2775102G

FREE PRODUCT
THICKNESS MAP
NOVEMBER 25-26, 1995

AMOCO PIPELINE COMPANY
ARTESIA, NEW MEXICO

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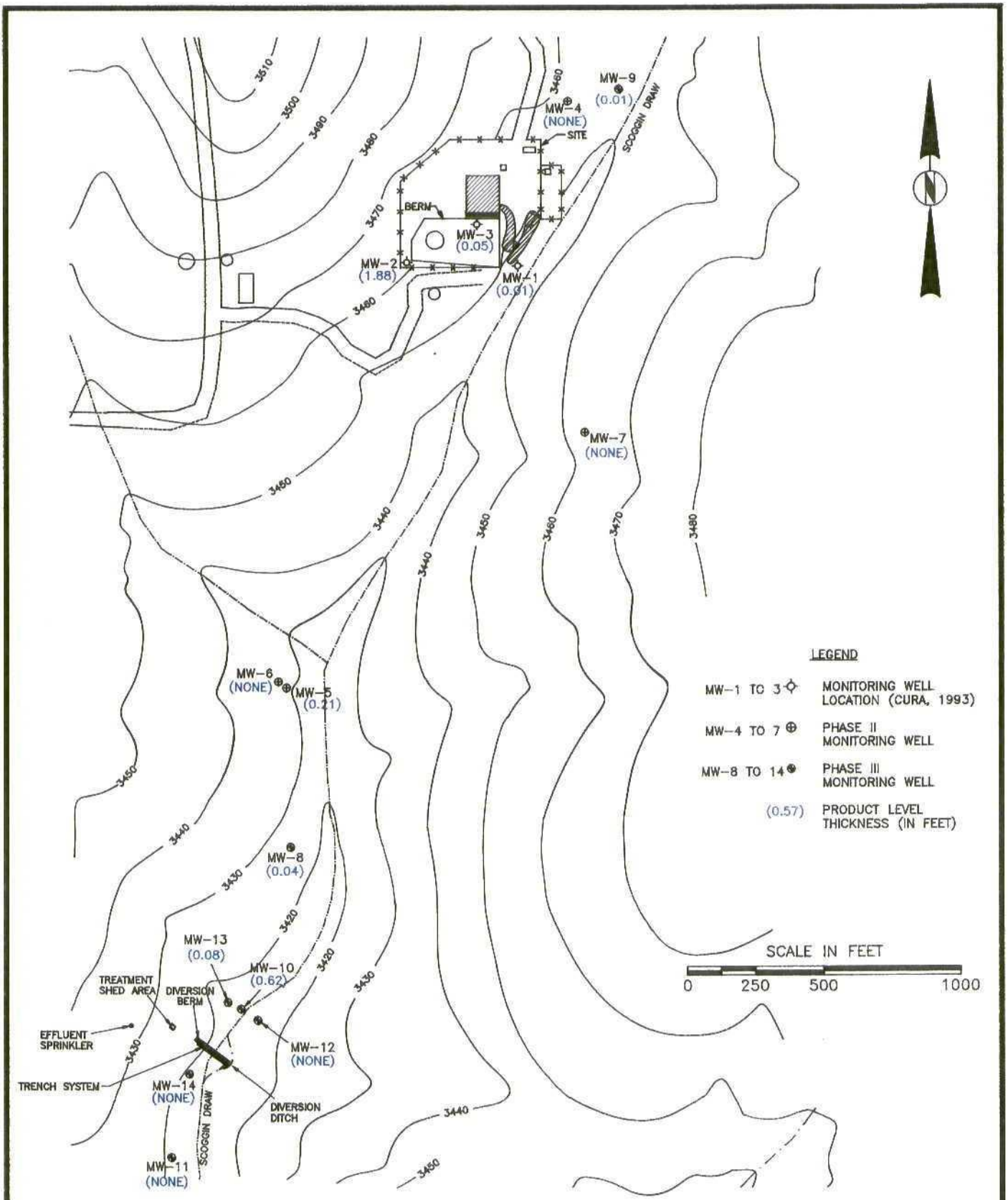
FIGURE 4



CHECK BY	HMM
DRAWN BY	BCP
DATE	4-24-96
SCALE	AS SHOWN
CAD NO.	2775.00-02
PRJ NO.	2775102H

FREE PRODUCT
THICKNESS MAP
APRIL 16-17, 1996

AMOCO PIPELINE COMPANY
ARTESIA, NEW MEXICO

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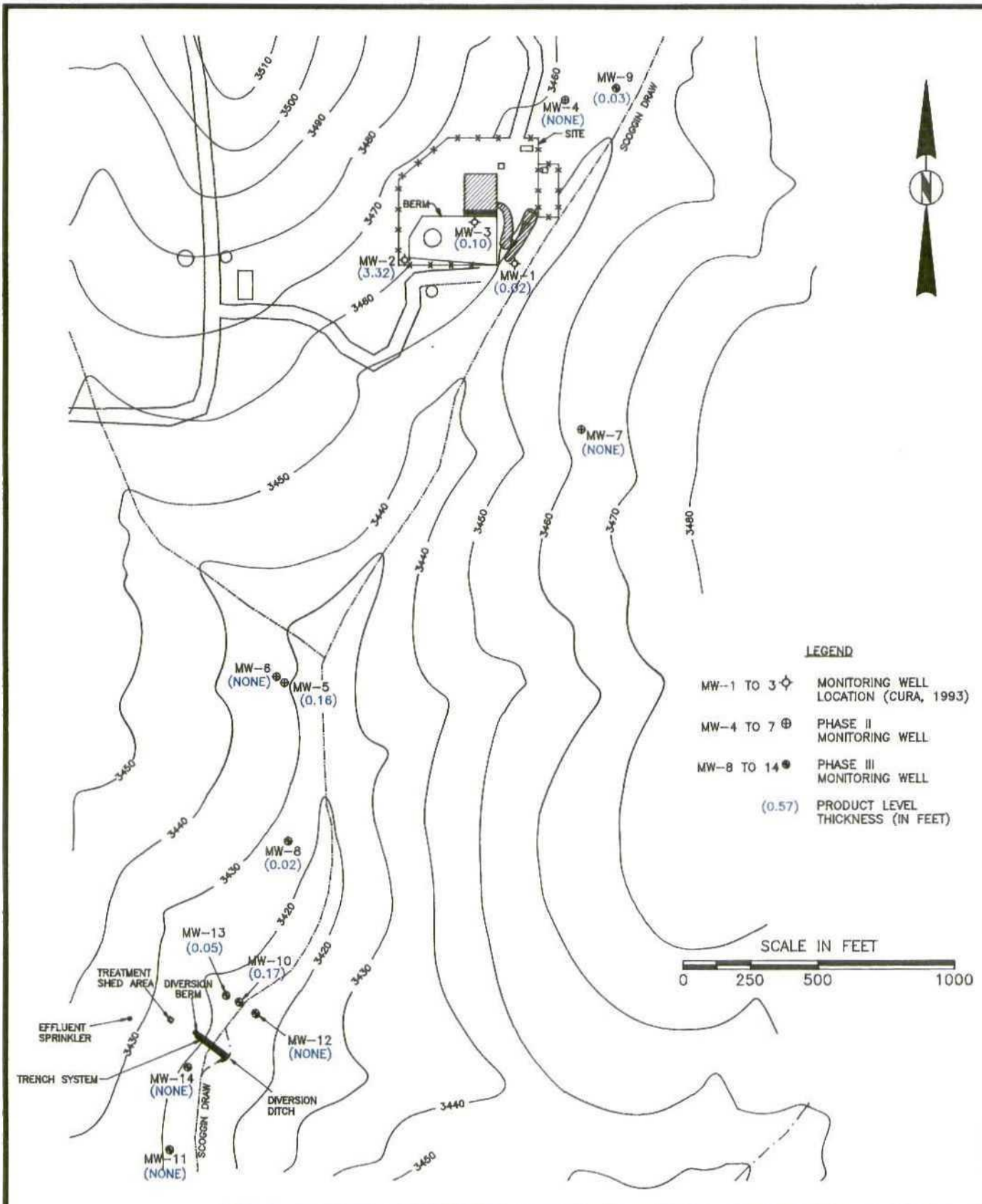
FIGURE 5



CHECK BY	HMM
DRAWN BY	BCP
DATE	7-16-96
SCALE	AS SHOWN
CAD NO.	2775.00-02
PRJ NO.	2775102I

FREE PRODUCT
THICKNESS MAP
JULY 2, 1996

AMOCO PIPELINE COMPANY
ARTESIA, NEW MEXICO

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FIGURE 6

TABLES

TABLE 1

Monthly BETX Results for the Influent and Effluent of the Air Stripper

Amoco Pipeline Company
Artesia, New Mexico

INFLUENT														
Sample Date:	11/25/94	12/21/94	02/28/95	04/12/95	07/12/95	10/12/95	11/04/95	01/16/96	02/28/96	03/13/96	04/16/96	05/23/96	07/02/96	07/06/96
Benzene	2,970	3,070	3,060	3,300	2,700	1,900	2,100	2,000	2,400	2,800	2,200	2,400	1,900	2,000
Ethylbenzene	364	338	442	476	380	250	340	210	280	310	260	240	280	260
Toluene	808	1,220	1,350	1,130	420	190	81	29	<20	<25	20	61	160	170
Xylene	1,770	2,130	2,750	2,500	1,900	1,100	1,800	840	1,000	1,200	910	780	1,000	920
EFFLUENT														
Sample Date:	11/25/94	12/21/94	02/28/95	04/12/95	07/12/95	10/12/95	11/04/95	01/16/96	02/28/96	03/13/96	04/16/96	05/23/96	07/02/96	07/06/96
Benzene	1.8	6.6	3.3	3.6	4.6	<1.0	3.5	<1.0	540	160	220	<1.0	3.8	8.0
Ethylbenzene	<1.0	<1.0	1.4	2.8	1.5	<1.0	<1.0	<1.0	63	20	25	<1.0	<1	1.2
Toluene	<1.0	5.1	2.2	2.8	1.1	<1.0	<1.0	<1.0	<5	1.8	2.2	<1.0	<1	<1
Xylene	<1.0	5.7	6.6	14.5	6.5	<1.0	3.0	<1.0	240	80	99	<1.0	2.9	4.1

NOTES: *1. All results are in ug/L.*
2. Permit effluent limits are benzene (10 ug/L), ethylbenzene (750 ug/L), xylene (620 ug/L), and toluene (750 ug/L).

TABLE 2

Quarterly BETX Results for Monitoring Wells With No Free Product

Amoco Pipeline Company
Artesia, New Mexico

WELL 4								
Sample Date:	11/25/94	12/22/94	02/16/95	06/16/95	10/02/95	11/26/95	04/17/96	07/05/96
Benzene	<1	<1	<1	54.4	9.8	4.7	6.3	5.0
Ethylbenzene	<1	<1	<1	2.5	<1	1.3	<1.0	<1
Toluene	<1	<1	<1	<1	<1	2.0	1.1	<1
Xylene	<1	<1	<1	6.7	<1	3.8	3.6	2.8
WELL 6								
Sample Date:	11/25/94	12/21/94	02/16/95	06/16/95	10/02/95	11/26/95	04/16/96	07/06/96
Benzene	FREE	FREE	2.2	FREE	3.1	5.8	<1	<1
Ethylbenzene	PRODUCT	PRODUCT	<1	PRODUCT	<1	6.1	<1	<1
Toluene	PRESENT	PRESENT	<1	PRESENT	<1	<1.0	<1	<1
Xylene			<1		2.5	19	3.7	<1
WELL 7								
Sample Date:	11/25/94	12/22/94	02/16/95	06/16/95	10/02/95	11/26/95	04/17/96	07/06/96
Benzene	<1	1590	846	3100	880	3000	1900	1,800
Ethylbenzene	<1	39	20.9	58.7	17	51	130	160
Toluene	<1	<10	<10	3.6	<10	4.6	<20	<10
Xylene	<1	86.5	52.7	140	35	200	100	120
WELL 11								
Sample Date:	11/17/94	12/22/94	02/16/95	06/14/95	10/02/95	11/25/95	04/16/96	07/02/96
Benzene	<1	<1	<1	<1	<1	1.3	<1	<1
Ethylbenzene	<1	<1	<1	<1	<1	2.1	1.1	<1
Toluene	<1	<1	<1	<1	<1	5.3	2.8	<1
Xylene	<1	<1	<1	<1	<1	6.1	3.7	<1
WELL 12								
Sample Date:	11/17/94	12/22/94	02/16/95	06/16/95	10/02/95	11/26/95	04/16/96	07/02/96
Benzene	75	5.6	<1	<1	<1	1.1	1.5	4.1
Ethylbenzene	1	<1	<1	<1	<1	<1.0	1.8	<1
Toluene	1.1	<1	<1	<1	<1	3.5	5.1	<1
Xylene	1	<1	<1	<1	<1	5.1	5.8	1.2
WELL 14								
Sample Date:	11/17/94	12/22/94	02/16/95	06/16/95	10/02/95	11/26/95	04/16/96	07/02/96
Benzene	<1	<1	<1	<1	<1	<1.0	<1	<1
Ethylbenzene	<1	<1	<1	<1	<1	1.7	<1	<1
Toluene	<1	<1	<1	<1	<1	3.6	1.7	<1
Xylene	<1	<1	<1	<1	<1	6.8	2.4	<1

NOTE: *All results are in ug/L.*

TABLE 3

Monitoring Well Water / Product Levels

Amoco Pipeline Company
Artesia, New Mexico

WELL IDENTIFICATION	DATE	DEPTH TO PRODUCT (feet)	DEPTH TO WATER (feet)	PRODUCT LEVEL THICKNESS (feet)	
MW-1	05/21/93		20.73	0.21	
	11/17/94	17.54	17.56	0.02	
	02/09/95	18.02	18.05	0.03	
	06/16/95	19.15	19.21	0.06	
	10/02/95	SKIM	16.48	SKIM	
	11/26/95	15.85	15.87	0.02	(1)
	04/16-17/96	14.32	14.33	0.01	
	07/06/96	15.55	15.57	0.02	
MW-2	05/21/93		27.56	1.75	
	11/17/94	23.28	26.67	3.39	
	02/09/95	23.98	26.50	2.52	
	06/16/95	25.63	26.45	0.82	
	10/02/95	22.01	26.18	4.17	
	11/26/95	21.23	26.17	4.94	(1)
	04/16-17/96	20.58	22.46	1.88	
	07/06/96	21.86	25.18	3.32	
MW-3	05/21/93		17.81	1.36	
	11/17/94	13.07	13.65	0.58	
	02/09/95	13.75	14.32	0.57	
	06/16/95	15.20	15.84	0.64	
	10/02/95	10.69	11.43	0.74	
	11/26/95	9.69	10.41	0.72	(1)
	04/16-17/96	9.58	9.63	0.05	
	07/06/96	11.70	11.80	0.10	
MW-4	11/17/94	NONE	28.28	NONE	
	02/09/95	NONE	28.51	NONE	
	06/16/95	NONE	29.58	NONE	
	10/02/95	NONE	24.42	NONE	
	11/26/95	NONE	22.61	NONE	
	04/16-17/96	NONE	20.63	NONE	
	07/06/96	NONE	26.44	NONE	
MW-5	11/17/94	16.22	24.19	7.97	
	02/09/95	16.84	24.85	8.01	(1)
	06/16/95	19.44	21.14	1.70	
	10/02/95	16.19	17.85	1.66	
	11/26/95	17.58	19.31	1.73	(1)
	04/16-17/96	17.04	17.25	0.21	
	07/06/96	16.20	16.36	0.16	

TABLE 3

Monitoring Well Water / Product Levels

Amoco Pipeline Company
Artesia, New Mexico

WELL IDENTIFICATION	DATE	DEPTH TO PRODUCT (feet)	DEPTH TO WATER (feet)	PRODUCT LEVEL THICKNESS (feet)	
MW-6	11/17/94	TRACE	14.53	TRACE	
	02/09/95	NONE	15.02	NONE	
	06/16/95	16.24	16.27	0.03	
	10/02/95	NONE	13.55	NONE	
	11/26/95	NONE	14.84	NONE	
	04/16-17/96	NONE	13.80	NONE	
	07/06/96	NONE	14.55	NONE	
MW-7	11/17/94	NONE	34.33	NONE	
	02/09/95	NONE	34.67	NONE	
	06/16/95	NONE	35.61	NONE	
	10/02/95	NONE	33.79	NONE	
	11/26/95	NONE	33.2	NONE	
	04/16-17/96	NONE	30.95	NONE	
	07/06/96	NONE	33.36	NONE	
MW-8	11/17/94	13.69	14.95	1.26	
	02/09/95	14.46	15.02	0.56	
	06/16/95	15.50	16.41	0.91	
	10/02/95	13.03	13.45	0.42	
	11/26/95	14.16	14.71	0.55	(1)
	04/16-17/96	13.66	13.70	0.04	
	07/05/96	13.05	13.07	0.02	(1)
MW-9	11/17/94	23.07	23.10	0.03	
	02/09/95	TRACE	23.41	TRACE	
	06/16/95	TRACE	24.65	TRACE	
	10/02/95	SKIM	20.73	SKIM	
	11/26/95	SKIM	19.52	SKIM	
	04/16-17/96	17.53	17.54	0.01	
	07/06/96	21.20	21.23	0.03	
MW-10	11/17/94	19.02	21.24	2.22	
	02/09/95	19.74	22.36	2.62	
	06/16/95	20.97	23.30	2.33	
	10/02/95	18.49	19.55	1.06	
	11/25/95	20.13	22.03	1.90	(1)
	04/16-17/96	20.26	20.88	0.62	
	07/05/96	19.86	20.03	0.17	(1)
MW-11	11/17/94	NONE	19.34	NONE	
	02/09/95	NONE	19.61	NONE	
	06/16/95	NONE	20.08	NONE	
	10/02/95	NONE	19.74	NONE	
	11/25/95	NONE	19.94	NONE	
	04/16-17/96	NONE	19.68	NONE	
	07/06/96	NONE	19.75	NONE	

TABLE 3

Monitoring Well Water / Product Levels

Amoco Pipeline Company
Artesia, New Mexico

WELL IDENTIFICATION	DATE	DEPTH TO PRODUCT (feet)	DEPTH TO WATER (feet)	PRODUCT LEVEL THICKNESS (feet)	
MW-12	11/17/94	NONE	16.47	NONE	
	02/09/95	NONE	16.78	NONE	
	06/16/95	NONE	17.28	NONE	
	10/02/95	NONE	16.03	NONE	
	11/25/95	NONE	16.63	NONE	
	04/16-17/96	NONE	16.55	NONE	
	07/06/96	NONE	16.45	NONE	
MW-13	11/17/94	20.41	20.49	0.08	
	02/09/95	20.84	20.87	0.03	
	06/16/95	21.35	21.40	0.05	
	10/02/95	19.35	19.44	0.09	
	11/25/95	21.53	21.58	0.05	(1)
	04/16-17/96	21.82	21.90	0.08	
	07/05/96	21.00	21.05	0.05	(1)
MW-14	11/17/94	NONE	18.11	NONE	
	02/09/95	NONE	18.45	NONE	
	06/16/95	NONE	18.93	NONE	
	10/02/95	NONE	18.63	NONE	
	11/26/95	NONE	18.83	NONE	
	04/16-17/96	NONE	18.55	NONE	
	07/06/96	NONE	18.58	NONE	

(1) Well bailed after level measurements taken.

APPENDIX A

LABORATORY RESULTS

- BETX Results for the Influent and Effluent of the Air Stripper -- Samples Taken May 23, 1996.
- BETX Results for the Influent and Effluent of the Air Stripper and MW-11 -- Samples Taken July 2, 1996.
- BETX Results for Monitoring Wells MW-4, MW-6, MW-7, MW-12, and MW-14, and the Influent and Effluent of the Air Stripper -- Samples Taken July 5 and 6, 1996.

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Naperville, IL 60563

06/03/1996

NET Job Number: 96.04098

IEPA Cert. No.: 100221
WDNR Cert. No.: 999447130
A2LA Cert. No.: 0453-01

Enclosed is the Analytical and Quality Control reports for the following samples submitted to Bartlett Division of NET, Inc. for analysis.

Project Description: Amoco Artesia Station; Facility #10195

Sample Number	Sample Description	Date Taken	Date Received
356774	Influent; Grab	05/23/1996	05/24/1996
356775	Effluent; Grab	05/23/1996	05/24/1996
356776	Trip Blank	05/23/1996	05/24/1996

Sample analysis in support of the project referenced above has been completed and results are presented on the following pages. These results apply only to the samples analyzed. Reproduction of this report only in whole is permitted. Please refer to the enclosed "Key to Abbreviations" for definition of terms. Procedures used follow NET Standard Operating Procedures which reference the methods listed on your report. Should you have questions regarding procedures or results, please do not hesitate to call. NET has been pleased to provide these analytical services for you.

This Quality Control report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

Approved by:

Mary Pearson

Mary Pearson
Project Manager

NATIONAL ENVIRONMENTAL TESTING, INC.

Bartlett Division
850 W. Bartlett Rd.
Bartlett, IL 60103
Tel: (708) 289-3100
Fax: (708) 289-5445

ANALYTICAL REPORT

Mr. Hank Mittelhauser
MITTELHAUSER CORPORATION
1240 Iroquois Drive
Suite 206
Naperville, IL 60563

06/03/1996

Sample No. : 356774

NET Job No.: 96.04098

Sample Description: Influent; Grab
Amoco Artesia Station; Facility #10195

Date Taken: 05/23/1996
Time Taken: 09:30
IEPA Cert. No. 100221

Date Received: 05/24/1996
Time Received: 10:00
WDNR Cert. No. 999447130

Parameter	Results	Units	Date of Analysis	Method PQL	Analyst	Batch No. Prep/Run	Analytical Method
UST VOLATILES 8240 - AQUEOUS							
Benzene	2,400	ug/L	05/30/1996	1.0	llj	1487	8240 (1)
Ethyl Benzene	240	ug/L	05/30/1996	1.0	llj	1487	8240 (1)
Toluene	61	ug/L	05/30/1996	1.0	llj	1487	8240 (1)
Xylenes, Total	780	ug/L	05/30/1996	1.0	llj	1487	8240 (1)
Surr: Toluene-d8	108.8	%	05/30/1996	88-110	llj	1487	8240 (1)
Surr: Bromofluorobenzene	107.8	%	05/30/1996	86-115	llj	1487	8240 (1)
Surr: 1,2-Dichloroethane-d4	97.2	%	05/30/1996	76-114	llj	1487	8240 (1)

NATIONAL ENVIRONMENTAL TESTING, INC.

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ANALYTICAL REPORT

Mr. Hank Mittelhauser
MITTELHAUSER CORPORATION
1240 Iroquois Drive
Suite 206
Naperville, IL 60563

06/03/1996

Sample No. : 356775

NET Job No.: 96.04098

Sample Description: Effluent; Grab
Amoco Artesia Station; Facility #10195

Date Taken: 05/23/1996
Time Taken: 09:35
IEPA Cert. No. 100221

Date Received: 05/24/1996
Time Received: 10:00
WDNR Cert. No. 999447130

Parameter	Results	Units	Date of Analysis	Method PQL	Analyst	Batch No. Prep/Run	Analytical Method
UST VOLATILES 8240 - AQUEOUS							
Benzene	<1.0	ug/L	05/31/1996	1.0	llj	1486	8240 (1)
Ethyl Benzene	<1.0	ug/L	05/31/1996	1.0	llj	1486	8240 (1)
Toluene	<1.0	ug/L	05/31/1996	1.0	llj	1486	8240 (1)
Xylenes, Total	<1.0	ug/L	05/31/1996	1.0	llj	1486	8240 (1)
Surr: Toluene-d8	106.2	%	05/31/1996	88-110	llj	1486	8240 (1)
Surr: Bromofluorobenzene	103.0	%	05/31/1996	86-115	llj	1486	8240 (1)
Surr: 1,2-Dichloroethane-d4	102.0	%	05/31/1996	76-114	llj	1486	8240 (1)

NATIONAL ENVIRONMENTAL TESTING, INC.

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ANALYTICAL REPORT

Mr. Hank Mittelhauser
MITTELHAUSER CORPORATION
1240 Iroquois Drive
Suite 206
Naperville, IL 60563

06/03/1996

Sample No. : 356776

NET Job No.: 96.04098

Sample Description: Trip Blank
Amoco Artesia Station; Facility #10195

Date Taken: 05/23/1996
Time Taken:
IEPA Cert. No. 100221

Date Received: 05/24/1996
Time Received: 10:00
WDNR Cert. No. 999447130

Parameter	Results	Units	Date of Analysis	Method PQL	Analyst	Batch No. Prep/Run	Analytical Method
UST VOLATILES 8240 - AQUEOUS							
Benzene	<1.0	ug/L	05/30/1996	1.0	llj	1487	8240 (1)
Ethyl Benzene	<1.0	ug/L	05/30/1996	1.0	llj	1487	8240 (1)
Toluene	<1.0	ug/L	05/30/1996	1.0	llj	1487	8240 (1)
Xylenes, Total	<1.0	ug/L	05/30/1996	1.0	llj	1487	8240 (1)
Surr: Toluene-d8	108.8	%	05/30/1996	88-110	llj	1487	8240 (1)
Surr: Bromofluorobenzene	109.2	%	05/30/1996	86-115	llj	1487	8240 (1)
Surr: 1,2-Dichloroethane-d4	99.0	%	05/30/1996	76-114	llj	1487	8240 (1)

NATIONAL ENVIRONMENTAL TESTING, INC.

Bartlett Division
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QUALITY CONTROL REPORT

CONTINUING CALIBRATION VERIFICATION

MITTELHAUSER CORPORATION
1240 Iroquois Drive
Suite 206
Naperville, IL 60563
Mr. Hank Mittelhauser

06/03/1996

NET Job Number: 96.04098

Analyte	Run Batch Number	CCV True Conc.	Conc. Found	Percent Recovery
UST VOLATILES 8240 - AQUEOUS				
Benzene	1486	50.0	43.8	87.6
Ethyl Benzene	1486	50.0	44.0	88.0
Toluene	1486	50.0	45.7	91.4
Xylenes, Total	1486	150	136	90.7
UST VOLATILES 8240 - AQUEOUS				
Benzene	1487	50.0	45.9	91.8
Ethyl Benzene	1487	50.0	44.8	89.6
Toluene	1487	50.0	44.9	89.8
Xylenes, Total	1487	150	132	88.0

CCV - Continuing Calibration Verification

NATIONAL ENVIRONMENTAL TESTING, INC.

Bartlett Division
850 W. Bartlett Rd.
Bartlett, IL 60103
Tel: (708) 289-3100
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QUALITY CONTROL REPORT

BLANK ANALYSIS

MITTELHAUSER CORPORATION
1240 Iroquois Drive
Suite 206
Naperville, IL 60563
Mr. Hank Mittelhauser

06/03/1996

NET Job Number: 96.04098

Analyte	Prep Batch Number	Run Batch Number	Blank Analysis Results	Units	Reporting Limit	Analytical Method
UST VOLATILES 8240 - AQUEOUS						8240 (1)
Benzene		1486	<1.0	ug/L	1.0	8240 (1)
Ethyl Benzene		1486	<1.0	ug/L	1.0	8240 (1)
Toluene		1486	<1.0	ug/L	1.0	8240 (1)
Xylenes, Total		1486	<1.0	ug/L	1.0	8240 (1)
Surr: 1,2-Dichloroethane-d4		1486	105.6	%	76-114	8240 (1)
Surr: Toluene-d8		1486	105.0	%	88-110	8240 (1)
Surr: Bromofluorobenzene		1486	101.8	%	86-115	8240 (1)
UST VOLATILES 8240 - AQUEOUS						8240 (1)
Benzene		1487	<1.0	ug/L	1.0	8240 (1)
Ethyl Benzene		1487	<1.0	ug/L	1.0	8240 (1)
Toluene		1487	<1.0	ug/L	1.0	8240 (1)
Xylenes, Total		1487	<1.0	ug/L	1.0	8240 (1)
Surr: 1,2-Dichloroethane-d4		1487	96.6	%	76-114	8240 (1)
Surr: Toluene-d8		1487	109.8	%	88-110	8240 (1)
Surr: Bromofluorobenzene		1487	106.2	%	86-115	8240 (1)

Advisory Control Limits for Blanks:

All compounds should be less than the Reporting Limit, except for phthalate esters, toluene, methylene chloride, acetone and chloroform should be less than 5 times the Reporting Limit.

NATIONAL ENVIRONMENTAL TESTING, INC.

Bartlett Division
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QUALITY CONTROL REPORT

LABORATORY CONTROL STANDARD

MITTELHAUSER CORPORATION
1240 Iroquois Drive
Suite 206
Naperville, IL 60563
Mr. Hank Mittelhauser

06/03/1996

NET Job Number: 96.04098

Analyte	Prep Batch Number	Run Batch Number	True Conc.	Conc. Found	LCS % Recovery
UST VOLATILES 8240 - AQUEOUS					
Benzene		1487	20.0	20.2	101.0
Ethyl Benzene		1487	20.0	19.2	96.0
Toluene		1487	20.0	20.0	100.0
Xylenes, Total		1487	60.0	59.2	98.7
Surr: 1,2-Dichloroethane-d4		1487	50.0	50.5	101.0
Surr: Toluene-d8		1487	50.0	54.8	109.6
Surr: Bromofluorobenzene		1487	50.0	53.1	106.2

NET Midwest, Bartlett Division

KEY TO ABBREVIATIONS and METHOD REFERENCES

<	:	Less than; When appearing in the results column indicates the analyte was not detected at or above the reported value.
mg/L	:	Concentration in units of milligrams of analyte per liter of sample. Measurement used for aqueous samples. Can also be expressed as parts per million (ppm).
ug/g	:	Concentration in units of micrograms of analyte per gram of sample. Measurement used for non-aqueous samples. Can also be expressed as parts per million (ppm) or mg/Kg.
ug/L	:	Concentration in units of micrograms of analyte per liter of sample. Measurement used for aqueous samples. Can also be expressed as parts per billion (ppb).
ug/Kg	:	Concentration in units of micrograms of analyte per kilogram of sample. Measurement used for non-aqueous samples. Can also be expressed as parts per billion (ppb).
B	:	Sample result flag indicating that the analyte was also found in the method blank analysis. The value after the B indicates the concentration found in the blank analysis.
D	:	Sample result flag indicating that the reported concentration is from an analysis performed at a dilution. The value following the D indicates the dilution factor of the analysis.
J	:	Sample result flag indicating that the reported concentration is below the routine reporting limit but greater than the Method Detection Limit. The value should be considered estimated.
TCLP	:	These initials appearing in front of an analyte name indicate that the Toxicity Characteristic Leaching Procedure (TCLP) was performed for this test.
%	:	Percent; To convert ppm to %, divide the result by 10,000. To convert % to ppm, multiply the result by 10,000.
Dry Weight (dw)	:	When indicated, the results are reported on a dry weight basis. The contribution of the moisture content in the sample is subtracted when calculating the concentration of the analyte.
ICP	:	Indicates analysis was performed using Inductively Coupled Plasma Spectroscopy.
AA	:	Indicates analysis was performed using Atomic Absorption Spectroscopy.
GFAA	:	Indicates analysis was performed using Graphite Furnace Atomic Absorption Spectroscopy.
PQL	:	Practical Quantitation Limit; the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions.

Method References

(1) Methods 1000 through 9999: see "Test Methods for Evaluating Solid Waste", USEPA SW-846, 3rd Edition, 1986.

(2) ASTM "American Society for Testing Materials

(3) Methods 100 through 499: see "Methods for Chemical Analysis of Water and Wastes", USEPA, 600/4-79-020, Rev. 1983.

(4) See "Standard Methods for the Examination of Water and Wastewater", 17th Ed, APHA, 1989.

(5) Methods 600 through 625: see "Guidelines Establishing Test Procedures for the Analysis of Pollutants", USEPA Federal Register Vol. 49 No. 209, October 1984.

(6) Methods 500 through 599: see "Methods for the Determination of Organic Compounds in Drinking Water," USEPA 600/4-88/039, Rev. 1988.

H. [illegible]

NATIONAL ENVIRONMENTAL TESTING, INC.®

ATTN: Maria Holland

MBF SERVICES

CHAIN OF CUSTODY RECORD

COMPANY Amoco Pipeline Co.
ADDRESS MC P0630C2 P0B7513 Chicago, IL 60680-7513
PHONE 312 356 7251 FAX 312 856 3731
PROJECT NAME/LOCATION Amoco Artesia Station
PROJECT NUMBER Facility 10195
PROJECT MANAGER Mr. Douglas Earey

REPORT TO: D. Earey
INVOICE TO: Amoco
P.O. NO.
NET QUOTE NO.

SAMPLED BY Clayton M Barnhill (PRINT NAME) SIGNATURE [signature]

(PRINT NAME) SIGNATURE

DATE	TIME	SAMPLE ID/DESCRIPTION	MATRIX	GRAB	COMP	HCl	NaOH	HNO_3	H_2SO_4	OTHER	ANALYSES: BTEX 8020
						# and Type of Containers					
5/23/96	0:930	Influent 2 40mL Vials	H_2O	X		X					X
5/23/96	0:935	Effluent 2 40mL Vials	H_2O	X		X					X
		2 Trip Blanks -									X

To assist us in selecting the proper method

Is this work being conducted for regulatory compliance monitoring? Yes ✓ No ___

Is this work being conducted for regulatory enforcement action? Yes ___ No ___

Which regulations apply: RCRA ___ NPDES Wastewater ___ UST ___ Drinking Water ___ Other ___ None ___

COMMENTS

CONDITION OF SAMPLE: BOTTLES INTACT? (YES) / NO — FIELD FILTERED? YES / (NO)

COC SEALS PRESENT AND INTACT? (YES) / NO — VOLATILES FREE OF HEADSPACE? (YES) / NO

TEMPERATURE UPON RECEIPT: 9.3°C
Bottles supplied by NET? (YES) / NO

SAMPLE REMAINDER DISPOSAL: RETURN SAMPLE REMAINDER TO CLIENT VIA ___
I REQUEST NET TO DISPOSE OF ALL SAMPLE REMAINDERS ___ DATE ___

RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	RELINQUISHED BY:	DATE	TIME	RECEIVED FOR NET BY:
[signature]	5/23/96	16:43			5-24-96	10:00	Laurel Schaller

METHOD OF SHIPMENT: FEDEX

REMARKS: PLEASE SEND COPY OF REPORT PROMPTLY TO H. Mittelhauser # 2775

NATIONAL ENVIRONMENTAL TESTING, INC.

Bartlett Division
350 W. Bartlett Rd.
Bartlett, IL 60103
Tel: (708) 289-3100
Fax: (708) 289-5445

Mr. Hank Mittelhauser
MITTELHAUSER CORPORATION
1240 Iroquois Drive
Suite 206
Naperville, IL 60563

07/11/1996

NET Job Number: 96.05562

IEPA Cert. No.: 100221
WDNR Cert. No.: 999447130
A2LA Cert. No.: 0453-01

Enclosed is the Analytical and Quality Control reports for the following samples submitted to Bartlett Division of NET, Inc. for analysis.

Project Description:

Sample Number	Sample Description	Date Taken	Date Received
362510	MW #11; Grab	07/02/1996	07/03/1996
362511	Influent; Grab	07/02/1996	07/03/1996
362512	Effluent; Grab	07/02/1996	07/03/1996

Sample analysis in support of the project referenced above has been completed and results are presented on the following pages. These results apply only to the samples analyzed. Reproduction of this report only in whole is permitted. Please refer to the enclosed "Key to Abbreviations" for definition of terms. Procedures used follow NET Standard Operating Procedures which reference the methods listed on your report. Should you have questions regarding procedures or results, please do not hesitate to call. NET has been pleased to provide these analytical services for you.

This Quality Control report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

Approved by:

Mary Pearson

Mary Pearson
Project Manager

NATIONAL ENVIRONMENTAL TESTING, INC.

Bartlett Division
850 W. Bartlett Rd.
Bartlett, IL 60103
Tel: (708) 289-3100
Fax: (708) 289-5445

ANALYTICAL REPORT

Mr. Hank Mittelhauser
MITTELHAUSER CORPORATION
1240 Iroquois Drive
Suite 206
Naperville, IL 60563

07/11/1996

Sample No. : 362510

NET Job No.: 96.05562

Sample Description: MW #11; Grab

Date Taken: 07/02/1996
Time Taken: 12:35
IEPA Cert. No. 100221

Date Received: 07/03/1996
Time Received: 10:00
WDNR Cert. No. 999447130

Parameter	Results	Units	Date of Analysis	Method PQL	Analyst	Batch No. Prep/Run	Analytical Method
UST VOLATILES 9240 - AQUEOUS							
Benzene	<1.0	ug/L	07/10/1996	1.0	llj	1558	8240 (1)
Ethyl Benzene	<1.0	ug/L	07/10/1996	1.0	llj	1558	8240 (1)
Toluene	<1.0	ug/L	07/10/1996	1.0	llj	1558	8240 (1)
Xylenes, Total	<1.0	ug/L	07/10/1996	1.0	llj	1558	8240 (1)
Surr: Toluene-d8	108.6	%	07/10/1996	88-110	llj	1558	8240 (1)
Surr: Bromofluorobenzene	102.0	%	07/10/1996	86-115	llj	1558	8240 (1)
Surr: 1,2-Dichloroethane-d4	92.0	%	07/10/1996	76-114	llj	1558	8240 (1)

NATIONAL ENVIRONMENTAL TESTING, INC.

Bartlett Division
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ANALYTICAL REPORT

Mr. Hank Mittelhauser
MITTELHAUSER CORPORATION
1240 Iroquois Drive
Suite 206
Naperville, IL 60563

07/11/1996

Sample No. : 362511

NET Job No.: 96.05562

Sample Description: Influent; Grab

Date Taken: 07/02/1996
Time Taken: 14:08
IEPA Cert. No. 100221

Date Received: 07/03/1996
Time Received: 10:00
WDNR Cert. No. 999447130

Parameter	Results	Units	Date of Analysis	Method PQL	Analyst	Batch No. Prep/Run	Analytical Method
UST VOLATILES 8240 - AQUEOUS							
Benzene	1,900	ug/L	07/10/1996	1.0	llj	1558	8240 (1)
Ethyl Benzene	280	ug/L	07/10/1996	1.0	llj	1558	8240 (1)
Toluene	160	ug/L	07/10/1996	1.0	llj	1558	8240 (1)
Xylenes, Total	1,000	ug/L	07/10/1996	1.0	llj	1558	8240 (1)
Surr: Toluene-d8	107.4	%	07/10/1996	88-110	llj	1558	8240 (1)
Surr: Bromofluorobenzene	105.6	%	07/10/1996	86-115	llj	1558	8240 (1)
Surr: 1,2-Dichloroethane-d4	91.2	%	07/10/1996	76-114	llj	1558	8240 (1)

VOA ANALYZED AT A 50X DILUTION.

NATIONAL ENVIRONMENTAL TESTING, INC.

Bartlett Division
350 W. Bartlett Rd.
Bartlett, IL 60103
Tel: (708) 289-3100
Fax: (708) 289-5445

ANALYTICAL REPORT

Mr. Hank Mittelhauser
MITTELHAUSER CORPORATION
1240 Iroquois Drive
Suite 206
Naperville, IL 60563

07/11/1996

Sample No. : 362512

NET Job No.: 96.05562

Sample Description: Effluent; Grab

Date Taken: 07/02/1996
Time Taken: 14:10
IEPA Cert. No. 100221

Date Received: 07/03/1996
Time Received: 10:00
WDNR Cert. No. 999447130

Parameter	Results	Units	Date of Analysis	Method PQL	Analyst	Batch No. Prep/Run	Analytical Method
UST VOLATILES 8240 - AQUEOUS							
Benzene	3.8	ug/L	07/10/1996	1.0	llj	1558	8240 (1)
Ethyl Benzene	<1.0	ug/L	07/10/1996	1.0	llj	1558	8240 (1)
Toluene	<1.0	ug/L	07/10/1996	1.0	llj	1558	8240 (1)
Xylenes, Total	2.9	ug/L	07/10/1996	1.0	llj	1558	8240 (1)
Surr: Toluene-d8	108.4	%	07/10/1996	88-110	llj	1558	8240 (1)
Surr: Bromofluorobenzene	101.2	%	07/10/1996	86-115	llj	1558	8240 (1)
Surr: 1,2-Dichloroethane-d4	93.4	%	07/10/1996	76-114	llj	1558	8240 (1)

NATIONAL ENVIRONMENTAL TESTING, INC.

Bartlett Division
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Bartlett, IL 60103
Tel: (708) 289-3100
Fax: (708) 289-5445

QUALITY CONTROL REPORT

CONTINUING CALIBRATION VERIFICATION

MITTELHAUSER CORPORATION
1240 Iroquois Drive
Suite 206
Naperville, IL 60563
Mr. Hank Mittelhauser

07/11/1996

NET Job Number: 96.05562

Analyte	Run Batch Number	CCV True Conc.	Conc. Found	Percent Recovery
UST VOLATILES 8240 - AQUEOUS				
Benzene	1558	50.0	53.4	106.8
Ethyl Benzene	1558	50.0	55.9	111.8
Toluene	1558	50.0	53.0	106.0
Xylenes, Total	1558	150	162	108.0

CCV - Continuing Calibration Verification

NATIONAL ENVIRONMENTAL TESTING, INC.

Bartlett Division
850 W. Bartlett Rd.
Bartlett, IL 60103
Tel: (708) 289-3100
Fax: (708) 289-5445

QUALITY CONTROL REPORT

BLANK ANALYSIS

MITTELHAUSER CORPORATION
1240 Iroquois Drive
Suite 206
Naperville, IL 60563
Mr. Hank Mittelhauser

07/11/1996

NET Job Number: 96.05562

Analyte	Prep Batch Number	Run Batch Number	Blank Analysis Results	Units	Reporting Limit	Analytical Method
UST VOLATILES 8240 - AQUEOUS						8240 (1)
Benzene		1558	<1.0	ug/L	1.0	8240 (1)
Ethyl Benzene		1558	<1.0	ug/L	1.0	8240 (1)
Toluene		1558	<1.0	ug/L	1.0	8240 (1)
Xylenes, Total		1558	<1.0	ug/L	1.0	8240 (1)
Surr: 1,2-Dichloroethane-d4		1558	93.6	%	76-114	8240 (1)
Surr: Toluene-d8		1558	107.0	%	88-110	8240 (1)
Surr: Bromofluorobenzene		1558	102.4	%	86-115	8240 (1)

Advisory Control Limits for Blanks:

All compounds should be less than the Reporting Limit, except for phthalate esters, toluene, methylene chloride, acetone and chloroform should be less than 5 times the Reporting Limit.

NATIONAL ENVIRONMENTAL TESTING, INC.

Bartlett Division
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QUALITY CONTROL REPORT

LABORATORY CONTROL STANDARD

MITTELHAUSER CORPORATION
1240 Iroquois Drive
Suite 206
Naperville, IL 60563
Mr. Hank Mittelhauser

07/11/1996

NET Job Number: 96.05562

Analyte	Prep Batch Number	Run Batch Number	True Conc.	Conc. Found	LCS % Recovery
UST VOLATILES 8240 - AQUEOUS					
Benzene		1558	20.0	23.1	115.5
Ethyl Benzene		1558	20.0	23.3	116.5
Toluene		1558	20.0	23.3	116.5
Xylenes, Total		1558	60.0	69.9	116.5
Surr: 1,2-Dichloroethane-d4		1558	50.0	47.9	95.8
Surr: Toluene-d8		1558	50.0	53.6	107.2
Surr: Bromofluorobenzene		1558	50.0	52.8	105.6

NET Midwest, Bartlett Division

KEY TO ABBREVIATIONS and METHOD REFERENCES

<	:	Less than: When appearing in the results column indicates the analyte was not detected at or above the reported value.
mg/L	:	Concentration in units of milligrams of analyte per liter of sample. Measurement used for aqueous samples. Can also be expressed as parts per million (ppm).
ug/g	:	Concentration in units of micrograms of analyte per gram of sample. Measurement used for non-aqueous samples. Can also be expressed as parts per million (ppm) or mg/Kg.
ug/L	:	Concentration in units of micrograms of analyte per liter of sample. Measurement used for aqueous samples. Can also be expressed as parts per billion (ppb).
ug/Kg	:	Concentration in units of micrograms of analyte per kilogram of sample. Measurement used for non-aqueous samples. Can also be expressed as parts per billion (ppb).
B	:	Sample result flag indicating that the analyte was also found in the method blank analysis. The value after the B indicates the concentration found in the blank analysis.
D	:	Sample result flag indicating that the reported concentration is from an analysis performed at a dilution. The value following the D indicates the dilution factor of the analysis.
J	:	Sample result flag indicating that the reported concentration is below the routine reporting limit but greater than the Method Detection Limit. The value should be considered estimated.
TCLP	:	These initials appearing in front of an analyte name indicate that the Toxicity Characteristic Leaching Procedure (TCLP) was performed for this test.
%	:	Percent: To convert ppm to %, divide the result by 10,000. To convert % to ppm, multiply the result by 10,000.
Dry Weight (dw)	:	When indicated, the results are reported on a dry weight basis. The contribution of the moisture content in the sample is subtracted when calculating the concentration of the analyte.
ICP	:	Indicates analysis was performed using Inductively Coupled Plasma Spectroscopy.
AA	:	Indicates analysis was performed using Atomic Absorption Spectroscopy.
GFAA	:	Indicates analysis was performed using Graphite Furnace Atomic Absorption Spectroscopy.
PQL	:	Practical Quantitation Limit; the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions.

Method References

(1) Methods 1000 through 9999: see "Test Methods for Evaluating Solid Waste", USEPA SW-846, 3rd Edition, 1986.

(2) ASTM "American Society for Testing Materials

(3) Methods 100 through 499: see "Methods for Chemical Analysis of Water and Wastes", USEPA, 600/4-79-020, Rev. 1983.

(4) See "Standard Methods for the Examination of Water and Wastewater", 17th Ed, APHA, 1989.

(5) Methods 600 through 625: see "Guidelines Establishing Test Procedures for the Analysis of Pollutants", USEPA Federal Register Vol. 49 No. 209, October 1984.

(6) Methods 500 through 599: see "Methods for the Determination of Organic Compounds in Drinking Water." USEPA 600/4-88/039, Rev. 1988.

NATIONAL ENVIRONMENTAL TESTING, INC.

CHAIN OF CUSTODY RECORD

ATTN: Maria Holland

MBF Services

COMPANY Amoco Pipe Line Company
ADDRESS
PHONE 312-856-7754 FAX 312-856-3731
PROJECT NAME/LOCATION Amoco Pipeline Artesia Station
PROJECT NUMBER
PROJECT MANAGER

REPORT TO: H. Mittelhauser, D. Farney
INVOICE TO:
P.O. NO.
NET QUOTE NO.

SAMPLED BY (PRINT NAME) Clayton M Barnhill SIGNATURE [signature]
(PRINT NAME) SIGNATURE

To assist us in selecting the proper method
Is this work being conducted for regulatory compliance monitoring? Yes ✓ No ___
Is this work being conducted for regulatory enforcement action? Yes ___ No ___
Which regulations apply: RCRA ___ NPDES Wastewater ___ UST ___ Drinking Water ___ Other ___ None ___

DATE	TIME	SAMPLE ID/DESCRIPTION	MATRIX	GRAB	COMP	HCl	NaOH	HNO_3	H_2SO_4	OTHER	BTEX 8020	COMMENTS
7/1/96	11:35	2 40 VOAs 40ml MW #14 (Monitor Well #14)	H_2O	X		X					X	Changed sample id to MW-1 per Clayton Barnhill's request on 7/11/96 8:30 AM. LAO.
7/1/96	14:08	2 (40) ml VOA's Influent	H_2O	X		X					X	
7/1/96	14:10	2 (40) ml VOA's Effluent	H_2O	X		X					X	

CONDITION OF SAMPLE: BOTTLES INTACT? (YES) / NO
FIELD FILTERED? YES / NO N/A
COC SEALS PRESENT AND INTACT? YES / NO N/A
VOLATILES FREE OF HEADSPACE? (YES) / NO
TEMPERATURE UPON RECEIPT: 5.8°
Bottles supplied by NET? (YES) / NO

SAMPLE REMAINDER DISPOSAL: RETURN SAMPLE REMAINDER TO CLIENT VIA ______
I REQUEST NET TO DISPOSE OF ALL SAMPLE REMAINDERS ______ DATE ______

RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	RELINQUISHED BY:	DATE	TIME	RECEIVED FOR NET BY:
[signature]	7/2/96	16:08			7-3-96	1000	[signature]

METHOD OF SHIPMENT: FED-EX

REMARKS: PLEASE SEND COPY OF REPORT PROMPTLY TO H. MITTELHAUSER # 278

PT 1 - ORIGINAL - WHITE PT 2 - NET PROJECT MANAGER - YELLOW PT 3 - CUSTOMER COPY - PINK

NATIONAL ENVIRONMENTAL TESTING, INC.

Bartlett Division
850 W. Bartlett Rd.
Bartlett, IL 60103
Tel: (708) 289-3100
Fax: (708) 289-5445

Mr. Hank Mittelhauser
MITTELHAUSER CORPORATION
1240 Iroquois Drive
Suite 206
Naperville, IL 60563

07/16/1996

NET Job Number: 96.05702

IEPA Cert. No.: 100221
WDNR Cert. No.: 999447130
A2LA Cert. No.: 0453-01

Enclosed is the Analytical and Quality Control reports for the following samples submitted to Bartlett Division of NET, Inc. for analysis.

Project Description: Amoco Artesia Station; 3rd Quarter

Sample Number	Sample Description	Date Taken	Date Received
363045	MW-14; Grab	07/05/1996	07/09/1996
363046	MW-12; Grab	07/05/1996	07/09/1996
363047	MW-6; Grab	07/06/1996	07/09/1996
363048	MW-7; Grab	07/06/1996	07/09/1996
363049	MW-4; Grab	07/06/1996	07/09/1996
363050	Influent; Grab	07/06/1996	07/09/1996
363051	Effluent; Grab	07/06/1996	07/09/1996
363052	Trip Blank	07/08/1996	07/09/1996

Sample analysis in support of the project referenced above has been completed and results are presented on the following pages. These results apply only to the samples analyzed. Reproduction of this report only in whole is permitted. Please refer to the enclosed "Key to Abbreviations" for definition of terms. Procedures used follow NET Standard Operating Procedures which reference the methods listed on your report. Should you have questions regarding procedures or results, please do not hesitate to call. NET has been pleased to provide these analytical services for you.

This Quality Control report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

Approved by:

Mary Pearson

Mary Pearson
Project Manager

NATIONAL ENVIRONMENTAL TESTING, INC.

Bartlett Division
850 W. Bartlett Rd.
Bartlett, IL 60103
Tel: (708) 289-3100
Fax: (708) 289-5445

ANALYTICAL REPORT

Mr. Hank Mittelhauser
MITTELHAUSER CORPORATION
1240 Iroquois Drive
Suite 206
Naperville, IL 60563

07/16/1996

Sample No. : 363045

NET Job No.: 96.05702

Sample Description: MW-14; Grab
Amoco Artesia Station; 3rd Quarter

Date Taken: 07/05/1996
Time Taken: 12:50
IEPA Cert. No. 100221

Date Received: 07/09/1996
Time Received: 10:45
WDNR Cert. No. 999447130

Parameter	Results	Units	Date of Analysis	Method PQL	Analyst	Batch No. Prep/Run	Analytical Method
UST VOLATILES 8240 - AQUEOUS							
Benzene	<1.0	ug/L	07/11/1996	1.0	llj	1561	8240 (1)
Ethyl Benzene	<1.0	ug/L	07/11/1996	1.0	llj	1561	8240 (1)
Toluene	<1.0	ug/L	07/11/1996	1.0	llj	1561	8240 (1)
Xylenes, Total	<1.0	ug/L	07/11/1996	1.0	llj	1561	8240 (1)
Surr: Toluene-d8	108.2	%	07/11/1996	88-110	llj	1561	8240 (1)
Surr: Bromofluorobenzene	102.6	%	07/11/1996	86-115	llj	1561	8240 (1)
Surr: 1,2-Dichloroethane-d4	95.0	%	07/11/1996	76-114	llj	1561	8240 (1)

NATIONAL ENVIRONMENTAL TESTING, INC.

Bartlett Division
850 W. Bartlett Rd.
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ANALYTICAL REPORT

Mr. Hank Mittelhauser
MITTELHAUSER CORPORATION
1240 Iroquois Drive
Suite 206
Naperville, IL 60563

07/16/1996

Sample No. : 363046

NET Job No.: 96.05702

Sample Description: MW-12; Grab
Amoco Artesia Station; 3rd Quarter

Date Taken: 07/05/1996
Time Taken: 14:10
IEPA Cert. No. 100221

Date Received: 07/09/1996
Time Received: 10:45
WDNR Cert. No. 999447130

Parameter	Results	Units	Date of Analysis	Method PQL	Analyst	Batch No. Prep/Run	Analytical Method
UST VOLATILES 8240 - AQUEOUS							
Benzene	4.1	ug/L	07/12/1996	1.0	llj	1562	8240 (1)
Ethyl Benzene	<1.0	ug/L	07/12/1996	1.0	llj	1562	8240 (1)
Toluene	<1.0	ug/L	07/12/1996	1.0	llj	1562	8240 (1)
Xylenes, Total	1.2	ug/L	07/12/1996	1.0	llj	1562	8240 (1)
Surr: Toluene-d8	109.2	%	07/12/1996	88-110	llj	1562	8240 (1)
Surr: Bromofluorobenzene	104.8	%	07/12/1996	86-115	llj	1562	8240 (1)
Surr: 1,2-Dichloroethane-d4	95.6	%	07/12/1996	76-114	llj	1562	8240 (1)

NATIONAL ENVIRONMENTAL TESTING, INC.

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ANALYTICAL REPORT

Mr. Hank Mittelhauser
MITTELHAUSER CORPORATION
1240 Iroquois Drive
Suite 206
Naperville, IL 60563

07/16/1996

Sample No. : 363047

NET Job No.: 96.05702

Sample Description: MW-6; Grab
Amoco Artesia Station; 3rd Quarter

Date Taken: 07/06/1996
Time Taken: 12:15
IEPA Cert. No. 100221

Date Received: 07/09/1996
Time Received: 10:45
WDNR Cert. No. 999447130

Parameter	Results	Units	Date of Analysis	Method PQL	Analyst	Batch No. Prep/Run	Analytical Method
UST VOLATILES 8240 - AQUEOUS							
Benzene	<1.0	ug/L	07/11/1996	1.0	llj	1561	8240 (1)
Ethyl Benzene	<1.0	ug/L	07/11/1996	1.0	llj	1561	8240 (1)
Toluene	<1.0	ug/L	07/11/1996	1.0	llj	1561	8240 (1)
Xylenes, Total	<1.0	ug/L	07/11/1996	1.0	llj	1561	8240 (1)
Surr: Toluene-d8	109.0	%	07/11/1996	88-110	llj	1561	8240 (1)
Surr: Bromofluorobenzene	104.2	%	07/11/1996	86-115	llj	1561	8240 (1)
Surr: 1,2-Dichloroethane-d4	94.6	%	07/11/1996	76-114	llj	1561	8240 (1)

NATIONAL ENVIRONMENTAL TESTING, INC.

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ANALYTICAL REPORT

Mr. Hank Mittelhauser
MITTELHAUSER CORPORATION
1240 Iroquois Drive
Suite 206
Naperville, IL 60563

07/16/1996

Sample No. : 363048

NET Job No.: 96.05702

Sample Description: MW-7; Grab
Amoco Artesia Station; 3rd Quarter

Date Taken: 07/06/1996
Time Taken: 13:25
IEPA Cert. No. 100221

Date Received: 07/09/1996
Time Received: 10:45
WDNR Cert. No. 999447130

Parameter	Results	Units	Date of Analysis	Method PQL	Analyst	Batch No. Prep/Run	Analytical Method
UST VOLATILES 8240 - AQUEOUS							
Benzene	1,800	ug/L	07/12/1996	1.0	llj	1562	8240 (1)
Ethyl Benzene	160	ug/L	07/12/1996	1.0	llj	1562	8240 (1)
Toluene	<10	ug/L	07/12/1996	1.0	llj	1562	8240 (1)
Xylenes, Total	120	ug/L	07/12/1996	1.0	llj	1562	8240 (1)
Surr: Toluene-d8	108.6	%	07/12/1996	88-110	llj	1562	8240 (1)
Surr: Bromofluorobenzene	105.0	%	07/12/1996	86-115	llj	1562	8240 (1)
Surr: 1,2-Dichloroethane-d4	94.4	%	07/12/1996	76-114	llj	1562	8240 (1)

VOA ANALYZED AT A 10X DILUTION.

NATIONAL ENVIRONMENTAL TESTING, INC.

Bartlett Division
850 W. Bartlett Rd.
Bartlett, IL 60103
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ANALYTICAL REPORT

Mr. Hank Mittelhauser
MITTELHAUSER CORPORATION
1240 Iroquois Drive
Suite 206
Naperville, IL 60563

07/16/1996

Sample No. : 363049

NET Job No.: 96.05702

Sample Description: MW-4; Grab
Amoco Artesia Station; 3rd Quarter

Date Taken: 07/06/1996
Time Taken: 14:15
IEPA Cert. No. 100221

Date Received: 07/09/1996
Time Received: 10:45
WDNR Cert. No. 999447130

Parameter	Results	Units	Date of Analysis	Method PQL	Analyst	Batch No. Prep/Run	Analytical Method
UST VOLATILES 8240 - AQUEOUS							
Benzene	5.0	ug/L	07/11/1996	1.0	llj	1561	8240 (1)
Ethyl Benzene	<1.0	ug/L	07/11/1996	1.0	llj	1561	8240 (1)
Toluene	<1.0	ug/L	07/11/1996	1.0	llj	1561	8240 (1)
Xylenes, Total	2.0	ug/L	07/11/1996	1.0	llj	1561	8240 (1)
Surr: Toluene-d8	109.0	%	07/11/1996	88-110	llj	1561	8240 (1)
Surr: Bromofluorobenzene	102.4	%	07/11/1996	86-115	llj	1561	8240 (1)
Surr: 1,2-Dichloroethane-d4	96.8	%	07/11/1996	76-114	llj	1561	8240 (1)

NATIONAL ENVIRONMENTAL TESTING, INC.

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ANALYTICAL REPORT

Mr. Hank Mittelhauser
MITTELHAUSER CORPORATION
1240 Iroquois Drive
Suite 206
Naperville, IL 60563

07/16/1996

Sample No. : 363050

NET Job No.: 96.05702

Sample Description: Influent; Grab
Amoco Artesia Station; 3rd Quarter

Date Taken: 07/06/1996
Time Taken: 14:55
IEPA Cert. No. 100221

Date Received: 07/09/1996
Time Received: 10:45
WDNR Cert. No. 999447130

Parameter	Results	Units	Date of Analysis	Method PQL	Analyst	Batch No. Prep/Run	Analytical Method
UST VOLATILES 8240 - AQUEOUS							
Benzene	2,000	ug/L	07/11/1996	1.0	llj	1561	8240 (1)
Ethyl Benzene	260	ug/L	07/11/1996	1.0	llj	1561	8240 (1)
Toluene	170	ug/L	07/11/1996	1.0	llj	1561	8240 (1)
Xylenes, Total	920	ug/L	07/11/1996	1.0	llj	1561	8240 (1)
Surr: Toluene-d8	109.6	%	07/11/1996	88-110	llj	1561	8240 (1)
Surr: Bromofluorobenzene	100.4	%	07/11/1996	86-115	llj	1561	8240 (1)
Surr: 1,2-Dichloroethane-d4	95.2	%	07/11/1996	76-114	llj	1561	8240 (1)

VOA ANALYZED AT A 50X DILUTION.

NATIONAL ENVIRONMENTAL TESTING, INC.

Bartlett Division
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Bartlett, IL 60103
Tel: (708) 289-3100
Fax: (708) 289-5445

ANALYTICAL REPORT

Mr. Hank Mittelhauser
MITTELHAUSER CORPORATION
1240 Iroquois Drive
Suite 206
Naperville, IL 60563

07/16/1996

Sample No. : 363051

NET Job No.: 96.05702

Sample Description: Effluent; Grab
Amoco Artesia Station; 3rd Quarter

Date Taken: 07/06/1996
Time Taken: 15:00
IEPA Cert. No. 100221

Date Received: 07/09/1996
Time Received: 10:45
WDNR Cert. No. 999447130

Parameter	Results	Units	Date of Analysis	Method PQL	Analyst	Batch No. Prep/Run	Analytical Method
UST VOLATILES 8240 - AQUEOUS							
Benzene	8.0	ug/L	07/11/1996	1.0	11j	1561	8240 (1)
Ethyl Benzene	1.2	ug/L	07/11/1996	1.0	11j	1561	8240 (1)
Toluene	<1.0	ug/L	07/11/1996	1.0	11j	1561	8240 (1)
Xylenes, Total	4.1	ug/L	07/11/1996	1.0	11j	1561	8240 (1)
Surr: Toluene-d8	109.4	%	07/11/1996	88-110	11j	1561	8240 (1)
Surr: Bromofluorobenzene	99.2	%	07/11/1996	86-115	11j	1561	8240 (1)
Surr: 1,2-Dichloroethane-d4	96.0	%	07/11/1996	76-114	11j	1561	8240 (1)

NATIONAL ENVIRONMENTAL TESTING, INC.

Bartlett Division
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ANALYTICAL REPORT

Mr. Hank Mittelhauser
MITTELHAUSER CORPORATION
1240 Iroquois Drive
Suite 206
Naperville, IL 60563

07/16/1996

Sample No. : 363052

NET Job No.: 96.05702

Sample Description: Trip Blank
Amoco Artesia Station; 3rd Quarter

Date Taken: 07/08/1996
Time Taken: 15:11
IEPA Cert. No. 100221

Date Received: 07/09/1996
Time Received: 10:45
WDNR Cert. No. 999447130

Parameter	Results	Units	Date of Analysis	Method PQL	Analyst	Batch No. Prep/Run	Analytical Method
UST VOLATILES 8240 - AQUEOUS							
Benzene	<1.0	ug/L	07/11/1996	1.0	llj	1561	8240 (1)
Ethyl Benzene	<1.0	ug/L	07/11/1996	1.0	llj	1561	8240 (1)
Toluene	<1.0	ug/L	07/11/1996	1.0	llj	1561	8240 (1)
Xylenes, Total	<1.0	ug/L	07/11/1996	1.0	llj	1561	8240 (1)
Surr: Toluene-d8	107.8	%	07/11/1996	88-110	llj	1561	8240 (1)
Surr: Bromofluorobenzene	103.8	%	07/11/1996	86-115	llj	1561	8240 (1)
Surr: 1,2-Dichloroethane-d4	95.2	%	07/11/1996	76-114	llj	1561	8240 (1)

NATIONAL ENVIRONMENTAL TESTING, INC.

Bartlett Division
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QUALITY CONTROL REPORT

CONTINUING CALIBRATION VERIFICATION

MITTELHAUSER CORPORATION
1240 Iroquois Drive
Suite 206
Naperville, IL 60563
Mr. Hank Mittelhauser

07/16/1996

NET Job Number: 96.05702

Analyte	Run Batch Number	CCV True Conc.	Conc. Found	Percent Recovery
UST VOLATILES 8240 - AQUEOUS				
Benzene	1561	50.0	55.7	111.4
Ethyl Benzene	1561	50.0	56.3	112.6
Toluene	1561	50.0	54.8	109.6
Xylenes, Total	1561	150	163	108.7
UST VOLATILES 8240 - AQUEOUS				
Benzene	1562	50.0	57.5	115.0
Ethyl Benzene	1562	50.0	58.2	116.4
Toluene	1562	50.0	56.7	113.4
Xylenes, Total	1562	150	172	114.7

CCV - Continuing Calibration Verification

NATIONAL ENVIRONMENTAL TESTING, INC.

Bartlett Division
850 W. Bartlett Rd.
Bartlett, IL 60103
Tel: (708) 289-3100
Fax: (708) 289-5445

QUALITY CONTROL REPORT

BLANK ANALYSIS

MITTELHAUSER CORPORATION
1240 Iroquois Drive
Suite 206
Naperville, IL 60563
Mr. Hank Mittelhauser

07/16/1996

NET Job Number: 96.05702

Analyte	Prep Batch Number	Run Batch Number	Blank Analysis Results	Units	Reporting Limit	Analytical Method
UST VOLATILES 8240 - AQUEOUS						8240 (1)
Benzene		1561	<1.0	ug/L	1.0	8240 (1)
Ethyl Benzene		1561	<1.0	ug/L	1.0	8240 (1)
Toluene		1561	<1.0	ug/L	1.0	8240 (1)
Xylenes, Total		1561	<1.0	ug/L	1.0	8240 (1)
Surr: 1,2-Dichloroethane-d4		1561	95.0	%	76-114	8240 (1)
Surr: Toluene-d8		1561	107.6	%	88-110	8240 (1)
Surr: Bromofluorobenzene		1561	101.6	%	86-115	8240 (1)
UST VOLATILES 8240 - AQUEOUS						8240 (1)
Benzene		1562	<1.0	ug/L	1.0	8240 (1)
Ethyl Benzene		1562	<1.0	ug/L	1.0	8240 (1)
Toluene		1562	<1.0	ug/L	1.0	8240 (1)
Xylenes, Total		1562	<1.0	ug/L	1.0	8240 (1)
Surr: 1,2-Dichloroethane-d4		1562	96.4	%	76-114	8240 (1)
Surr: Toluene-d8		1562	108.2	%	88-110	8240 (1)
Surr: Bromofluorobenzene		1562	103.6	%	86-115	8240 (1)

Advisory Control Limits for Blanks:

All compounds should be less than the Reporting Limit, except for phthalate esters, toluene, methylene chloride, acetone and chloroform should be less than 5 times the Reporting Limit.

NATIONAL ENVIRONMENTAL TESTING, INC.

Bartlett Division
850 W. Bartlett Rd.
Bartlett, IL 60103
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Fax: (708) 289-5445

QUALITY CONTROL REPORT

LABORATORY CONTROL STANDARD

MITTELHAUSER CORPORATION
1240 Iroquois Drive
Suite 206
Naperville, IL 60563
Mr. Hank Mittelhauser

07/16/1996

NET Job Number: 96.05702

Analyte	Prep Batch Number	Run Batch Number	True Conc.	Conc. Found	LCS % Recovery
UST VOLATILES 8240 - AQUEOUS					
Benzene		1561	20.0	23.1	115.5
Ethyl Benzene		1561	20.0	22.2	111.0
Toluene		1561	20.0	23.2	116.0
Xylenes, Total		1561	60.0	68.5	114.2
Surr: 1,2-Dichloroethane-d4		1561	50.0	48.5	97.0
Surr: Toluene-d8		1561	50.0	54.2	108.4
Surr: Bromofluorobenzene		1561	50.0	51.4	102.8
UST VOLATILES 8240 - AQUEOUS					
Benzene		1562	20.0	22.9	114.5
Ethyl Benzene		1562	20.0	22.9	114.5
Toluene		1562	20.0	23.2	116.0
Xylenes, Total		1562	60.0	70.3	117.2
Surr: 1,2-Dichloroethane-d4		1562	50.0	49.1	98.2
Surr: Toluene-d8		1562	50.0	54.7	109.4
Surr: Bromofluorobenzene		1562	50.0	52.1	104.2

NATIONAL ENVIRONMENTAL TESTING, INC.

Bartlett Division
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Fax: (708) 289-5445

QUALITY CONTROL REPORT

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

MITTELHAUSER CORPORATION
1240 Iroquois Drive
Suite 206
Naperville, IL 60563
Mr. Hank Mittelhauser

07/16/1996

NET Job Number: 96.05702

Analyte	Prep Batch Number	Run Batch Number	Matrix Spike Result	Sample Result	Spike Amount	Units	Percent Recovery	MSD Result	MSD Spike Amount	Units	Percent Recovery	MS/MSD RPD
UST VOLATILES 8240 - AQUEOU												
Benzene		1561	23.6	<1.0	20.0	ug/L	118.0	22.1	20.0	ug/L	110.5	6.6
Ethyl Benzene		1561	23.4	<1.0	20.0	ug/L	117.0	21.7	20.0	ug/L	108.5	7.5
Toluene		1561	23.3	<1.0	20.0	ug/L	116.5	21.9	20.0	ug/L	109.5	6.2
Xylenes, Total		1561	70.4	<1.0	60.0	ug/L	117.3	65.2	60.0	ug/L	108.7	7.6
UST VOLATILES 8240 - AQUEOU												
Benzene		1562	21.6	<1.0	20.0	ug/L	108.0	22.7	20.0	ug/L	113.5	5.0
Ethyl Benzene		1562	20.9	<1.0	20.0	ug/L	104.5	22.7	20.0	ug/L	113.5	8.3
Toluene		1562	22.1	<1.0	20.0	ug/L	110.5	22.9	20.0	ug/L	114.5	3.6
Xylenes, Total		1562	66.0	<1.0	60.0	ug/L	110.0	68.0	60.0	ug/L	113.3	3.0

NOTE: Matrix Spike Samples may not be samples from this job.

Advisory Control Limits for MS/MSDs:

For Inorganic Parameters and GC Volatiles, the spike recovery should be 75 - 125% if the spike added value was greater than or equal to one fourth of the sample result value. If not, the control limits are not established. The RPD for the MS/MSD pair should be less than 20.

MS = Matrix Spike
MSD = Matrix Spike Duplicate
RPD = Relative Percent Difference

NET Midwest, Bartlett Division

KEY TO ABBREVIATIONS and METHOD REFERENCES

<	:	Less than: When appearing in the results column indicates the analyte was not detected at or above the reported value.
mg/L	:	Concentration in units of milligrams of analyte per liter of sample. Measurement used for aqueous samples. Can also be expressed as parts per million (ppm).
ug/g	:	Concentration in units of micrograms of analyte per gram of sample. Measurement used for non-aqueous samples. Can also be expressed as parts per million (ppm) or mg/Kg.
ug/L	:	Concentration in units of micrograms of analyte per liter of sample. Measurement used for aqueous samples. Can also be expressed as parts per billion (ppb).
ug/Kg	:	Concentration in units of micrograms of analyte per kilogram of sample. Measurement used for non-aqueous samples. Can also be expressed as parts per billion (ppb).
B	:	Sample result flag indicating that the analyte was also found in the method blank analysis. The value after the B indicates the concentration found in the blank analysis.
D	:	Sample result flag indicating that the reported concentration is from an analysis performed at a dilution. The value following the D indicates the dilution factor of the analysis.
J	:	Sample result flag indicating that the reported concentration is below the routine reporting limit but greater than the Method Detection Limit. The value should be considered estimated.
TCLP	:	These initials appearing in front of an analyte name indicate that the Toxicity Characteristic Leaching Procedure (TCLP) was performed for this test.
%	:	Percent; To convert ppm to %, divide the result by 10,000. To convert % to ppm, multiply the result by 10,000.
Dry Weight (dw)	:	When indicated, the results are reported on a dry weight basis. The contribution of the moisture content in the sample is subtracted when calculating the concentration of the analyte.
ICP	:	Indicates analysis was performed using Inductively Coupled Plasma Spectroscopy.
AA	:	Indicates analysis was performed using Atomic Absorption Spectroscopy.
GFAA	:	Indicates analysis was performed using Graphite Furnace Atomic Absorption Spectroscopy.
PQL	:	Practical Quantitation Limit: the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions.

Method References

(1) Methods 1000 through 9999: see "Test Methods for Evaluating Solid Waste", USEPA SW-846, 3rd Edition, 1986.

(2) ASTM "American Society for Testing Materials

(3) Methods 100 through 499: see "Methods for Chemical Analysis of Water and Wastes", USEPA, 600/4-79-020, Rev. 1983.

(4) See "Standard Methods for the Examination of Water and Wastewater", 17th Ed, APHA, 1989.

(5) Methods 600 through 625: see "Guidelines Establishing Test Procedures for the Analysis of Pollutants", USEPA Federal Register Vol. 49 No. 209, October 1984.

(6) Methods 500 through 599: see "Methods for the Determination of Organic Compounds in Drinking Water," USEPA 600/4-88/039, Rev. 1988.

NET NATIONAL ENVIRONMENTAL TESTING, INC.

CHAIN OF CUSTODY RECORD

ATTN: Maria Holland

COMPANY: Amoco Pipeline Company -
ADDRESS: MC PO 60 63062 POB 7513 Chicago, IL 60680-7513
PHONE: 312-356-7254 FAX: 312 856 3731
PROJECT NAME/LOCATION: Quarterly Monitor Well Sampling
PROJECT NUMBER: Amoco Artesia Station
PROJECT MANAGER: D. Earney

REPORT TO: H. Mittelhauser / D. Earney -
INVOICE TO:
P.O. NO.
NET QUOTE NO.

MBF Services

(SA)MPLED BY: Layton M Barnhill
(PR)INT NAME)
SIGNATURE: [signature]
(PR)INT NAME)
SIGNATURE

(D)ATE	TIME	SAMPLE ID/DESCRIPTION	MATRIX	GRAB	COMP	HCl	NaOH	HNO_3	H_2SO_4	OTHER	BTEX 8020
/96	12:35	2 40 mL Voas MW-11	H_2O	X		X					X
/96	12:50	2 40 mL Voas MW-14	H_2O	X		X					X
/96	14:10	2 40 mL Voas MW-12	H_2O	X		X					X
/96	12:15	2 40 mL Voas MW-6	H_2O	X		X					X
/96	13:25	2 40 mL Voas MW-7	H_2O	X		X					X
/96	14:15	2 40 mL Voas MW-4	H_2O	X		X					X
/96	14:55	2 40 mL Voas Influent	H_2O	X		X					X
/96	15:00	2 40 mL Voas Effluent	H_2O	X		X					X
/96	15:11	Trip Blank	H_2O	X		X					X

ANALYSES / # and Type of Containers

To assist us in selecting the proper method
Is this work being conducted for regulatory compliance monitoring? Yes ✓ No ___
Is this work being conducted for regulatory enforcement action? Yes ___ No ___
Which regulations apply: RCRA ___ NPDES Wastewater ___ UST ___ Drinking Water ___ Other ___ None ___

COMMENTS
Did not recieve sample MW-6 7-9-96
Called Hank Mittelhauser

(C)ONDITION OF SAMPLE: BOTTLES INTACT? (YES) / NO — FIELD FILTERED? YES / (NO)
COC SEALS PRESENT AND INTACT? (YES) / NO — VOLATILES FREE OF HEADSPACE? YES / NO
TEMPERATURE UPON RECEIPT: 1.4°C
Bottles supplied by NET? (YES) NO

(S)AMPLE REMAINDER DISPOSAL: RETURN SAMPLE REMAINDER TO CLIENT VIA ___
I REQUEST NET TO DISPOSE OF ALL SAMPLE REMAINDERS ___ DATE ___

RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	RELINQUISHED BY:	DATE	TIME	RECEIVED FOR NET BY:
[signature]	7/8/96	15:03			7/9/96	10:45	[signature]

(M)ETHOD OF SHIPMENT: FED EX

REMARKS: Please Send Copy to H. Mittelhauser @ #2775

PT 1 - ORIGINAL - WHITE PT 2 - NET PROJECT MANAGER - YELLOW PT 3 - CUSTOMER COPY - PINK

APPENDIX B

LABORATORY RESULTS

- TPH Results for the Soils Remediation Area -- Samples Taken June 28, 1996.
- TPH Results for the Soils Remediation Area -- Samples Taken July 2, 1996.

NET® NATIONAL ENVIRONMENTAL TESTING, INC.

Bartlett Division
850 W. Bartlett Rd.
Bartlett, IL 60103
Tel: (708) 289-3100
Fax: (708) 289-5445

Mr. Hank Mittelhauser
CLAYTON/MITTELHAUSER CORP.
1240 Iroquois Drive
Suite 206
Naperville, IL 60563

07/15/1996

NET Job Number: 96.05515

IEPA Cert. No.: 100221
WDNR Cert. No.: 999447130
A2LA Cert. No.: 0453-01

Enclosed is the Analytical and Quality Control reports for the following samples submitted to Bartlett Division of NET, Inc. for analysis.

Project Description: Amoco Pipeline Co. Artesia; 2775.00-02

Sample Number	Sample Description	Date Taken	Date Received
362243	SS #1	06/28/1996	07/02/1996
362244	SS #2	06/28/1996	07/02/1996
362245	SS #3	06/28/1996	07/02/1996
362246	SS #4	06/28/1996	07/02/1996

Sample analysis in support of the project referenced above has been completed and results are presented on the following pages. These results apply only to the samples analyzed. Reproduction of this report only in whole is permitted. Please refer to the enclosed "Key to Abbreviations" for definition of terms. Procedures used follow NET Standard Operating Procedures which reference the methods listed on your report. Should you have questions regarding procedures or results, please do not hesitate to call. NET has been pleased to provide these analytical services for you.

This Quality Control report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

Approved by:

Mary Pearson

Mary Pearson
Project Manager

NATIONAL ENVIRONMENTAL TESTING, INC.

Bartlett Division
350 W. Bartlett Rd.
Bartlett, IL 60103
Tel: (708) 289-3100
Fax: (708) 289-5445

ANALYTICAL REPORT

Mr. Hank Mittelhauser
CLAYTON/MITTELHAUSER CORP.
1240 Iroquois Drive
Suite 206
Naperville, IL 60563

07/15/1996

Sample No. : 362243

NET Job No.: 96.05515

Sample Description: SS #1
Amoco Pipeline Co. Artesia; 2775.00-02

Date Taken: 06/28/1996
Time Taken: 14:00
IEPA Cert. No. 100221

Date Received: 07/02/1996
Time Received: 10:30
WDNR Cert. No. 999447130

Parameter	Results	Units	Date of Analysis	Method PQL	Analyst	Batch No. Prep/Run		Analytical Method
Solids, Total	80.8	%	07/10/1996	0.1	tdw		1564	2540 (4)
Prep. TPH 8015M - NONAQUEOUS	complete		07/08/1996		btl	146		8015M (1)
TPH MODIFIED 8015								
TPH as Gas	<100	mg/Kg	07/10/1996	10	tls	146	258	8015M (1)
TPH as Diesel	<100	mg/Kg	07/10/1996	10	tls	146	259	8015M (1)
TPH as Oil	13,900	mg/Kg	07/15/1996	10	tls	146	260	8015M (1)

TPH analysis performed at a 10x dilution.

NET® NATIONAL ENVIRONMENTAL TESTING, INC.

Bartlett Division
650 W. Bartlett Rd.
Bartlett, IL 60103
Tel: (708) 289-3100
Fax: (708) 289-5445

ANALYTICAL REPORT

Mr. Hank Mittelhauser
CLAYTON/MITTELHAUSER CORP.
1240 Iroquois Drive
Suite 206
Naperville, IL 60563

07/15/1996

Sample No. : 362244

NET Job No.: 96.05515

Sample Description: SS #2
Amoco Pipeline Co. Artesia; 2775.00-02

Date Taken: 06/28/1996
Time Taken: 14:00
IEPA Cert. No. 100221

Date Received: 07/02/1996
Time Received: 10:30
WDNR Cert. No. 999447130

Parameter	Results	Units	Date of Analysis	Method PQL	Analyst	Batch No. Prep/Run		Analytical Method
Solids, Total	85.0	%	07/10/1996	0.1	tdw		1564	2540 (4)
Prep, TPH 8015M - NONAQUEOUS	complete		07/08/1996		btl	146		8015M (1)
TPH MODIFIED 8015								
TPH as Gas	<100	mg/Kg	07/10/1996	10	tls	146	258	8015M (1)
TPH as Diesel	<100	mg/Kg	07/10/1996	10	tls	146	258	8015M (1)
TPH as Oil	11,000	mg/Kg	07/15/1996	10	tls	146	260	8015M (1)

TPH analysis performed at a 10x dilution.

NATIONAL ENVIRONMENTAL TESTING, INC.

Bartlett Division
850 W. Bartlett Rd.
Bartlett, IL 60103
Tel: (708) 289-3100
Fax: (708) 289-5445

ANALYTICAL REPORT

Mr. Hank Mittelhauser
CLAYTON/MITTELHAUSER CORP.
1240 Iroquois Drive
Suite 206
Naperville, IL 60563

07/15/1996

Sample No. : 362245

NET Job No.: 96.05515

Sample Description: SS #3
Amoco Pipeline Co. Artesia; 2775.00-02

Date Taken: 06/28/1996
Time Taken: 14:00
IEPA Cert. No. 100221

Date Received: 07/02/1996
Time Received: 10:30
WDNR Cert. No. 999447130

Parameter	Results	Units	Date of Analysis	Method PQL	Analyst	Batch No. Prep/Run		Analytical Method
Solids, Total	81.0	%	07/10/1996	0.1	tdw		1564	2540 (4)
Prep, TPH 8015M - NONAQUEOUS	complete		07/08/1996		btl	146		8015M (1)
TPH MODIFIED 8015								
TPH as Gas	<100	mg/Kg	07/10/1996	10	tls	146	258	8015M (1)
TPH as Diesel	<100	mg/Kg	07/10/1996	10	tls	146	258	8015M (1)
TPH as Oil	5,300	mg/Kg	07/10/1996	10	tls	146	258	8015M (1)

TPH analysis performed at a 10x dilution.

NATIONAL ENVIRONMENTAL TESTING, INC.

Bartlett Division
850 W. Bartlett Rd.
Bartlett, IL 60103
Tel: (708) 289-3100
Fax: (708) 289-5445

ANALYTICAL REPORT

Mr. Hank Mittelhauser
CLAYTON/MITTELHAUSER CORP.
1240 Iroquois Drive
Suite 206
Naperville, IL 60563

07/15/1996

Sample No. : 362246

NET Job No.: 96.05515

Sample Description: SS #4
Amoco Pipeline Co. Artesia; 2775.00-02

Date Taken: 06/28/1996
Time Taken: 14:00
IEPA Cert. No. 100221

Date Received: 07/02/1996
Time Received: 10:30
WDNR Cert. No. 999447130

Parameter	Results	Units	Date of Analysis	Method PQL	Analyst	Batch No. Prep/Run		Analytical Method
Solids, Total	86.1	%	07/10/1996	0.1	tdw		1564	2540 (4)
Prep, TPH 8015M - NONAQUEOUS	complete		07/08/1996		bzl	146		8015M (1)
TPH MODIFIED 8015								
TPH as Gas	<100	mg/Kg	07/10/1996	10	tls	146	258	8015M (1)
TPH as Diesel	<100	mg/Kg	07/10/1996	10	tls	146	258	8015M (1)
TPH as Oil	8,600	mg/Kg	07/12/1996	10	tls	146	259	8015M (1)

TPH analysis performed at a 10x dilution.

NATIONAL ENVIRONMENTAL TESTING, INC.

Bartlett Division
850 W. Bartlett Rd.
Bartlett, IL 60103
Tel: (708) 289-3100
Fax: (708) 289-5445

QUALITY CONTROL REPORT

CONTINUING CALIBRATION VERIFICATION

CLAYTON/MITTELHAUSER CORP.
1240 Iroquois Drive
Suite 206
Naperville, IL 60563
Mr. Hank Mittelhauser

07/15/1996

NET Job Number: 96.05515

Analyte	Run Batch Number	CCV True Conc.	Conc. Found	Percent Recovery
TPH MODIFIED 8015				
TPH as Gas	258	300	277	92.3
TPH as Diesel	258	300	287	95.7
TPH as Oil	258	300	276	92.0
TPH MODIFIED 8015				
TPH as Gas	259	300	305	101.7
TPH as Diesel	259	300	301	100.3
TPH as Oil	259	300	306	102.0
TPH MODIFIED 8015				
TPH as Gas	260	300	303	101.0
TPH as Diesel	260	300	298	99.3
TPH as Oil	260	300	275	91.7

CCV - Continuing Calibration Verification

NATIONAL ENVIRONMENTAL TESTING, INC.

Bartlett Division
850 W. Bartlett Rd.
Bartlett, IL 60103
Tel: (708) 289-3100
Fax: (708) 289-5445

QUALITY CONTROL REPORT

BLANK ANALYSIS

CLAYTON/MITTELHAUSER CORP.
1240 Iroquois Drive
Suite 206
Naperville, IL 60563
Mr. Hank Mittelhauser

07/15/1996

NET Job Number: 96.05515

Analyte	Prep Batch Number	Run Batch Number	Blank Analysis Results	Units	Reporting Limit	Analytical Method
TPH MODIFIED 8015						8015M (1)
TPH as Gas	146	257	<10	mg/Kg	10	8015M (1)
TPH as Diesel	146	257	<10	mg/Kg	10	8015M (1)
TPH as Oil	146	257	<10	mg/Kg	10	8015M (1)
TPH MODIFIED 8015						8015M (1)
TPH as Gas	146	257	<10	mg/Kg	10	8015M (1)
TPH as Diesel	146	257	<10	mg/Kg	10	8015M (1)
TPH as Oil	146	257	<10	mg/Kg	10	8015M (1)

Advisory Control Limits for Blanks:

All compounds should be less than the Reporting Limit, except for phthalate esters, toluene, methylene chloride, acetone and chloroform should be less than 5 times the Reporting Limit.

NATIONAL ENVIRONMENTAL TESTING, INC.

Bartlett Division
850 W. Bartlett Rd.
Bartlett, IL 60103
Tel: (708) 289-3100
Fax: (708) 289-5445

QUALITY CONTROL REPORT

LABORATORY CONTROL STANDARD

CLAYTON/MITTELHAUSER CORP.
1240 Iroquois Drive
Suite 206
Naperville, IL 60563
Mr. Hank Mittelhauser

07/15/1996

NET Job Number: 96.05515

Analyte	Prep Batch Number	Run Batch Number	True Conc.	Conc. Found	LCS % Recovery
TPH MODIFIED 8015					
TPH as Gas	146	257	50	58	116.0
TPH as Diesel	146	257	50	55	110.0
TPH as Oil	146	257	50	49	98.0

NATIONAL ENVIRONMENTAL TESTING, INC.

Bartlett Division
850 W. Bartlett Rd.
Bartlett, IL 60103
Tel: (708) 289-3100
Fax: (708) 289-5445

QUALITY CONTROL REPORT

DUPLICATES

CLAYTON/MITTELHAUSER CORP.
1240 Iroquois Drive
Suite 206
Naperville, IL 60563
Mr. Hank Mittelhauser

07/15/1996

NET Job Number: 96.05515

Analyte	Prep Batch Number	Run Batch Number	Original Analysis	Duplicate Analysis	Units	RPD
Solids, Total		1564	91.6	92.5	%	1.0
Solids, Total		1564	62.8	70.5	%	11.7
Solids, Total		1564	94.3	94.0	%	0.3
Solids, Total		1564	23.5	23.3	%	0.9

NOTE: Spikes and Duplicates may not be samples from this job.

RPD - Relative Percent Difference

Advisory Control Limits for Duplicates - RPD should be less than 20.

NET Midwest, Bartlett Division

KEY TO ABBREVIATIONS and METHOD REFERENCES

<	:	Less than; When appearing in the results column indicates the analyte was not detected at or above the reported value.
mg/L	:	Concentration in units of milligrams of analyte per liter of sample. Measurement used for aqueous samples. Can also be expressed as parts per million (ppm).
ug/g	:	Concentration in units of micrograms of analyte per gram of sample. Measurement used for non-aqueous samples. Can also be expressed as parts per million (ppm) or mg/Kg.
ug/L	:	Concentration in units of micrograms of analyte per liter of sample. Measurement used for aqueous samples. Can also be expressed as parts per billion (ppb).
ug/Kg	:	Concentration in units of micrograms of analyte per kilogram of sample. Measurement used for non-aqueous samples. Can also be expressed as parts per billion (ppb).
B	:	Sample result flag indicating that the analyte was also found in the method blank analysis. The value after the B indicates the concentration found in the blank analysis.
D	:	Sample result flag indicating that the reported concentration is from an analysis performed at a dilution. The value following the D indicates the dilution factor of the analysis.
J	:	Sample result flag indicating that the reported concentration is below the routine reporting limit but greater than the Method Detection Limit. The value should be considered estimated.
TCLP	:	These initials appearing in front of an analyte name indicate that the Toxicity Characteristic Leaching Procedure (TCLP) was performed for this test.
%	:	Percent; To convert ppm to %, divide the result by 10,000. To convert % to ppm, multiply the result by 10,000.
Dry Weight (dw)	:	When indicated, the results are reported on a dry weight basis. The contribution of the moisture content in the sample is subtracted when calculating the concentration of the analyte.
ICP	:	Indicates analysis was performed using Inductively Coupled Plasma Spectroscopy.
AA	:	Indicates analysis was performed using Atomic Absorption Spectroscopy.
GFAA	:	Indicates analysis was performed using Graphite Furnace Atomic Absorption Spectroscopy.
PQL	:	Practical Quantitation Limit; the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions.

Method References

(1) Methods 1000 through 9999: see "Test Methods for Evaluating Solid Waste", USEPA SW-846, 3rd Edition, 1986.

(2) ASTM "American Society for Testing Materials

(3) Methods 100 through 499: see "Methods for Chemical Analysis of Water and Wastes", USEPA, 600/4-79-020, Rev. 1983.

(4) See "Standard Methods for the Examination of Water and Wastewater", 17th Ed, APHA, 1989.

(5) Methods 600 through 625: see "Guidelines Establishing Test Procedures for the Analysis of Pollutants", USEPA Federal Register Vol. 49 No. 209, October 1984.

(6) Methods 500 through 599: see "Methods for the Determination of Organic Compounds in Drinking Water," USEPA 600/4-88/039, Rev. 1988.

NET NATIONAL ENVIRONMENTAL TESTING, INC.

CHAIN OF CUSTODY RECORD

COMPANY Clayton Mittelhauser Corp
ADDRESS 1210 Iroquois DR. #206
PHONE (708) 369-0201 FAX (708) 369-1279
PROJECT NAME/LOCATION Amoco Pipeline Co. Artesian
PROJECT NUMBER 2775.00-02
PROJECT MANAGER Hank Mittelhauser

REPORT TO: H. Mittelhauser
INVOICE TO: H. Mittelhauser
P.O. NO.
NET QUOTE NO. Not Rec

SAMPLED BY (PRINT NAME) Chet L. Armstrong — SIGNATURE
(PRINT NAME) — SIGNATURE

DATE	TIME	SAMPLE ID/DESCRIPTION	MATRIX	GRAB	COMP	# and Type of Containers: HCl	NaOH	HNO_3	H_2SO_4	OTHER	ANALYSES: TPH Method 8015 (EPA)
6-28	2:00p	SS#1		X							X
6-28	2:10p	SS#2		X							X
6-28	2:00p	SS#3		X							X
6-28	2:00p	SS#4		X							X

To assist us in selecting the proper method

Is this work being conducted for regulatory compliance monitoring? Yes ____ No ____

Is this work being conducted for regulatory enforcement action? Yes ____ No ____

Which regulations apply: RCRA ____ NPDES (Wastewater) ____ UST ____ Drinking Water ____ Other ____ None ____

COMMENTS

Please Designate EPA Method 8015 In Report

CONDITION OF SAMPLE: BOTTLES INTACT? (YES) NO FIELD FILTERED? YES / NO N/A
COC SEALS PRESENT AND INTACT? YES / NO N/A VOLATILES FREE OF HEADSPACE? YES / NO N/A
TEMPERATURE UPON RECEIPT: 25.9° Bottles supplied by NET? (YES) NO

SAMPLE REMAINDER DISPOSAL: RETURN SAMPLE REMAINDER TO CLIENT VIA ____
I REQUEST NET TO DISPOSE OF ALL SAMPLE REMAINDERS ____ DATE ____

RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	RELINQUISHED BY:	DATE	TIME	RECEIVED FOR NET BY:
Chet Armstrong	6-28	4:00p			7-2-96	10:30	

METHOD OF SHIPMENT: Fed Exp.

REMARKS: Questions To H. Mittelhauser C (708) 367-0201

PT 1 - ORIGINAL - WHITE PT 2 - NET PROJECT MANAGER - YELLOW PT 3 - CUSTOMER COPY - PINK

NET NATIONAL ENVIRONMENTAL TESTING, INC.

Bartlett Division
850 W. Bartlett Rd.
Bartlett, IL 60103
Tel: (708) 289-3100
Fax: (708) 289-5445

Mr. Hank Mittelhauser
CLAYTON/MITTELHAUSER CORP.
1240 Iroquois Drive
Suite 206
Naperville, IL 60563

07/16/1996

NET Job Number: 96.05624

IEPA Cert. No.: 100221
WDNR Cert. No.: 999447130
A2LA Cert. No.: 0453-01

Enclosed is the Analytical and Quality Control reports for the following samples submitted to Bartlett Division of NET, Inc. for analysis.

Project Description: Amoco Pipeline Co. Arteisa; 277.00-02

Sample Number	Sample Description	Date Taken	Date Received
362773	SS #1	07/02/1996	07/05/1996
362774	SS #2	07/02/1996	07/05/1996
362775	SS #3	07/02/1996	07/05/1996
362776	SS #4	07/02/1996	07/05/1996
362777	SS #5	07/02/1996	07/05/1996
362778	SS #6	07/02/1996	07/05/1996
362779	SS #7	07/02/1996	07/05/1996
362780	SS #8	07/02/1996	07/05/1996
362781	SS #9	07/02/1996	07/05/1996

Sample analysis in support of the project referenced above has been completed and results are presented on the following pages. These results apply only to the samples analyzed. Reproduction of this report only in whole is permitted. Please refer to the enclosed "Key to Abbreviations" for definition of terms. Procedures used follow NET Standard Operating Procedures which reference the methods listed on your report. Should you have questions regarding procedures or results, please do not hesitate to call. NET has been pleased to provide these analytical services for you.

This Quality Control report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

Approved by:

Mary Pearson

Mary Pearson
Project Manager

NATIONAL ENVIRONMENTAL TESTING, INC.

Bartlett Division
850 W. Bartlett Rd.
Bartlett, IL 60103
Tel: (708) 289-3100
Fax: (708) 289-5445

ANALYTICAL REPORT

Mr. Hank Mittelhauser
CLAYTON/MITTELHAUSER CORP.
1240 Iroquois Drive
Suite 206
Naperville, IL 60563

07/16/1996

Sample No. : 362773

NET Job No.: 96.05624

Sample Description: SS #1
Amoco Pipeline Co. Arteisa; 277.00-02

Date Taken: 07/02/1996
Time Taken: 14:45
IEPA Cert. No. 100221

Date Received: 07/05/1996
Time Received: 10:09
WDNR Cert. No. 999447130

Parameter	Results	Units	Date of Analysis	Method PQL	Analyst	Batch No. Prep/Run		Analytical Method
Solids, Total	81.0	%	07/10/1996	0.1	tdw		1564	2540 (4)
Prep, TPH 8015M - NONAQUEOUS	complete		07/08/1996		btl	146		8015M (1)
TPH MODIFIED 8015								
TPH as Gas	<50	mg/Kg	07/12/1996	10	tls	146	259	8015M (1)
TPH as Diesel	<50	mg/Kg	07/12/1996	10	tls	146	259	8015M (1)
TPH as Oil	12,000	mg/Kg	07/15/1996	10	tls	146	260	8015M (1)

NATIONAL ENVIRONMENTAL TESTING, INC.

Bartlett Division
850 W. Bartlett Rd.
Bartlett, IL 60103
Tel: (708) 289-3100
Fax: (708) 289-5445

ANALYTICAL REPORT

Mr. Hank Mittelhauser
CLAYTON/MITTELHAUSER CORP.
1240 Iroquois Drive
Suite 206
Naperville, IL 60563

07/16/1996

Sample No. : 362774

NET Job No.: 96.05624

Sample Description: SS #2
Amoco Pipeline Co. Arteisa; 277.00-02

Date Taken: 07/02/1996
Time Taken: 14:45
IEPA Cert. No. 100221

Date Received: 07/05/1996
Time Received: 10:09
WDNR Cert. No. 999447130

Parameter	Results	Units	Date of Analysis	Method PQL	Analyst	Batch No. Prep/Run		Analytical Method
Solids, Total	86.8	%	07/10/1996	0.1	tdw		1564	2540 (4)
Prep, TPH 8015M - NONAQUEOUS	complete		07/08/1996		btl	146		8015M (1)
TPH MODIFIED 8015								
TPH as Gas	<50	mg/Kg	07/12/1996	10	tls	146	259	8015M (1)
TPH as Diesel	<50	mg/Kg	07/12/1996	10	tls	146	259	8015M (1)
TPH as Oil	2,500	mg/Kg	07/15/1996	10	tls	146	260	8015M (1)

NATIONAL ENVIRONMENTAL TESTING, INC.

Bartlett Division
850 W. Bartlett Rd.
Bartlett, IL 60103
Tel: (708) 289-3100
Fax: (708) 289-5445

ANALYTICAL REPORT

Mr. Hank Mittelhauser
CLAYTON/MITTELHAUSER CORP.
1240 Iroquois Drive
Suite 206
Naperville, IL 60563

07/16/1996

Sample No. : 362775

NET Job No.: 96.05624

Sample Description: SS #3
Amoco Pipeline Co. Arteisa; 277.00-02

Date Taken: 07/02/1996
Time Taken: 14:45
IEPA Cert. No. 100221

Date Received: 07/05/1996
Time Received: 10:09
WDNR Cert. No. 999447130

Parameter	Results	Units	Date of Analysis	Method PQL	Analyst	Batch No. Prep/Run		Analytical Method
Solids, Total	87.5	%	07/10/1996	0.1	tdw		1564	2540 (4)
Prep. TPH 8015M - NONAQUEOUS	complete		07/08/1996		btl	146		8015M (1)
TPH MODIFIED 8015								
TPH as Gas	<50	mg/Kg	07/12/1996	10	tls	146	259	8015M (1)
TPH as Diesel	<50	mg/Kg	07/12/1996	10	tls	146	259	8015M (1)
TPH as Oil	8,900	mg/Kg	07/15/1996	10	tls	146	260	8015M (1)

NATIONAL ENVIRONMENTAL TESTING, INC.

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ANALYTICAL REPORT

Mr. Hank Mittelhauser
CLAYTON/MITTELHAUSER CORP.
1240 Iroquois Drive
Suite 206
Naperville, IL 60563

07/16/1996

Sample No. : 362776

NET Job No.: 96.05624

Sample Description: SS #4
Amoco Pipeline Co. Arteisa; 277.00-02

Date Taken: 07/02/1996
Time Taken: 14:45
IEPA Cert. No. 100221

Date Received: 07/05/1996
Time Received: 10:09
WDNR Cert. No. 999447130

Parameter	Results	Units	Date of Analysis	Method PQL	Analyst	Batch No. Prep/Run		Analytical Method
Solids, Total	62.8	%	07/10/1996	0.1	tdw		1564	2540 (4)
Prep. TPH 8015M - NONAQUEOUS	complete		07/08/1996		btl	146		8015M (1)
TPH MODIFIED 8015								
TPH as Gas	<50	mg/Kg	07/12/1996	10	tls	146	259	8015M (1)
TPH as Diesel	<50	mg/Kg	07/12/1996	10	tls	146	259	8015M (1)
TPH as Oil	6,800	mg/Kg	07/12/1996	10	tls	146	259	8015M (1)

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ANALYTICAL REPORT

Mr. Hank Mittelhauser
CLAYTON/MITTELHAUSER CORP.
1240 Iroquois Drive
Suite 206
Naperville, IL 60563

07/16/1996

Sample No. : 362777

NET Job No.: 96.05624

Sample Description: SS #5
Amoco Pipeline Co. Arteisa; 277.00-02

Date Taken: 07/02/1996
Time Taken: 14:45
IEPA Cert. No. 100221

Date Received: 07/05/1996
Time Received: 10:09
WDNR Cert. No. 999447130

Parameter	Results	Units	Date of Analysis	Method PQL	Analyst	Batch No. Prep/Run		Analytical Method
Solids, Total	86.2	%	07/10/1996	0.1	tdw		1564	2540 (4)
Prep, TPH 8015M - NONAQUEOUS	complete		07/08/1996		btl	146		8015M (1)
TPH MODIFIED 8015								
TPH as Gas	<10	mg/Kg	07/12/1996	10	tls	146	259	8015M (1)
TPH as Diesel	<10	mg/Kg	07/12/1996	10	tls	146	259	8015M (1)
TPH as Oil	160	mg/Kg	07/15/1996	10	tls	146	260	8015M (1)

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ANALYTICAL REPORT

Mr. Hank Mittelhauser
CLAYTON/MITTELHAUSER CORP.
1240 Iroquois Drive
Suite 206
Naperville, IL 60563

07/16/1996

Sample No. : 362778

NET Job No.: 96.05624

Sample Description: SS #6
Amoco Pipeline Co. Arteisa; 277.00-02

Date Taken: 07/02/1996
Time Taken: 14:45
IEPA Cert. No. 100221

Date Received: 07/05/1996
Time Received: 10:09
WDNR Cert. No. 999447130

Parameter	Results	Units	Date of Analysis	Method PQL	Analyst	Batch No. Prep/Run		Analytical Method
Solids, Total	80.0	%	07/10/1996	0.1	tdw		1564	2540 (4)
Prep. TPH 8015M - NONAQUEOUS	complete		07/08/1996		btl	146		8015M (1)
TPH MODIFIED 8015								
TPH as Gas	<50	mg/Kg	07/12/1996	10	tls	146	259	8015M (1)
TPH as Diesel	<50	mg/Kg	07/12/1996	10	tls	146	259	8015M (1)
TPH as Oil	11,000	mg/Kg	07/15/1996	10	tls	146	260	8015M (1)

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Bartlett Division
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ANALYTICAL REPORT

Mr. Hank Mittelhauser
CLAYTON/MITTELHAUSER CORP.
1240 Iroquois Drive
Suite 206
Naperville, IL 60563

07/16/1996

Sample No. : 362779

NET Job No.: 96.05624

Sample Description: SS #7
Amoco Pipeline Co. Arteisa; 277.00-02

Date Taken: 07/02/1996
Time Taken: 14:45
IEPA Cert. No. 100221

Date Received: 07/05/1996
Time Received: 10:09
WDNR Cert. No. 999447130

Parameter	Results	Units	Date of Analysis	Method PQL	Analyst	Batch No. Prep/Run		Analytical Method
Solids, Total	78.5	%	07/10/1996	0.1	tdw		1564	2540 (4)
Prep, TPH 8015M - NONAQUEOUS	complete		07/08/1996		btl	146		8015M (1)
TPH MODIFIED 8015								
TPH as Gas	<50	mg/Kg	07/12/1996	10	tls	146	259	8015M (1)
TPH as Diesel	<50	mg/Kg	07/12/1996	10	tls	146	259	8015M (1)
TPH as Oil	9,500	mg/Kg	07/12/1996	10	tls	146	259	8015M (1)

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Bartlett Division
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ANALYTICAL REPORT

Mr. Hank Mittelhauser
CLAYTON/MITTELHAUSER CORP.
1240 Iroquois Drive
Suite 206
Naperville, IL 60563

07/16/1996

Sample No. : 362780

NET Job No.: 96.05624

Sample Description: SS #8
Amoco Pipeline Co. Arteisa; 277.00-02

Date Taken: 07/02/1996
Time Taken: 14:45
IEPA Cert. No. 100221

Date Received: 07/05/1996
Time Received: 10:09
WDNR Cert. No. 999447130

Parameter	Results	Units	Date of Analysis	Method PQL	Analyst	Batch No. Prep/Run		Analytical Method
Solids, Total	81.8	%	07/10/1996	0.1	tdw		1564	2540 (4)
Prep, TPH 8015M - NONAQUEOUS	complete		07/08/1996		btl	146		8015M (1)
TPH MODIFIED 8015								
TPH as Gas	<50	mg/Kg	07/12/1996	10	tls	146	259	8015M (1)
TPH as Diesel	<50	mg/Kg	07/12/1996	10	tls	146	259	8015M (1)
TPH as Oil	6,100	mg/Kg	07/12/1996	10	tls	146	259	8015M (1)

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ANALYTICAL REPORT

Mr. Hank Mittelhauser
CLAYTON/MITTELHAUSER CORP.
1240 Iroquois Drive
Suite 206
Naperville, IL 60563

07/16/1996

Sample No. : 362781

NET Job No.: 96.05624

Sample Description: SS #9
Amoco Pipeline Co. Arteisa; 277.00-02

Date Taken: 07/02/1996
Time Taken: 14:45
IEPA Cert. No. 100221

Date Received: 07/05/1996
Time Received: 10:09
WDNR Cert. No. 999447130

Parameter	Results	Units	Date of Analysis	Method POL	Analyst	Batch No. Prep/Run		Analytical Method
Solids, Total	86.1	%	07/10/1996	0.1	tdw		1564	2540 (4)
Prep, TPH 8015M - NONAQUEOUS	complete		07/08/1996		btl	146		8015M (1)
TPH MODIFIED 8015								
TPH as Gas	<50	mg/Kg	07/12/1996	10	tls	146	259	8015M (1)
TPH as Diesel	<50	mg/Kg	07/12/1996	10	tls	146	259	8015M (1)
TPH as Oil	3,100	mg/Kg	07/12/1996	10	tls	146	259	8015M (1)

NATIONAL ENVIRONMENTAL TESTING, INC.

Bartlett Division
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QUALITY CONTROL REPORT

CONTINUING CALIBRATION VERIFICATION

CLAYTON/MITTELHAUSER CORP.
1240 Iroquois Drive
Suite 206
Naperville, IL 60563
Mr. Hank Mittelhauser

07/16/1996

NET Job Number: 96.05624

Analyte	Run Batch Number	CCV True Conc.	Conc. Found	Percent Recovery
TPH MODIFIED 8015				
TPH as Gas	259	300	305	101.7
TPH as Diesel	259	300	301	100.3
TPH as Oil	259	300	306	102.0
TPH MODIFIED 8015				
TPH as Gas	260	300	303	101.0
TPH as Diesel	260	300	298	99.3
TPH as Oil	260	300	275	91.7

CCV - Continuing Calibration Verification

NATIONAL ENVIRONMENTAL TESTING, INC.

Bartlett Division
850 W. Bartlett Rd.
Bartlett, IL 60103
Tel: (708) 289-3100
Fax: (708) 289-5445

QUALITY CONTROL REPORT

BLANK ANALYSIS

CLAYTON/MITTELHAUSER CORP.
1240 Iroquois Drive
Suite 206
Naperville, IL 60563
Mr. Hank Mittelhauser

07/16/1996

NET Job Number: 96.05624

Analyte	Prep Batch Number	Run Batch Number	Blank Analysis Results	Units	Reporting Limit	Analytical Method
TPH MODIFIED 8015						8015M (1)
TPH as Gas	146	257	<10	mg/Kg	10	8015M (1)
TPH as Diesel	146	257	<10	mg/Kg	10	8015M (1)
TPH as Oil	146	257	<10	mg/Kg	10	8015M (1)
TPH MODIFIED 8015						8015M (1)
TPH as Gas	146	257	<10	mg/Kg	10	8015M (1)
TPH as Diesel	146	257	<10	mg/Kg	10	8015M (1)
TPH as Oil	146	257	<10	mg/Kg	10	8015M (1)

Advisory Control Limits for Blanks:

All compounds should be less than the Reporting Limit, except for phthalate esters, toluene, methylene chloride, acetone and chloroform should be less than 5 times the Reporting Limit.

NATIONAL ENVIRONMENTAL TESTING, INC.

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QUALITY CONTROL REPORT

LABORATORY CONTROL STANDARD

CLAYTON/MITTELHAUSER CORP.
1240 Iroquois Drive
Suite 206
Naperville, IL 60563
Mr. Hank Mittelhauser

07/16/1996

NET Job Number: 96.05624

Analyte	Prep Batch Number	Run Batch Number	True Conc.	Conc. Found	LCS % Recovery
TPH MODIFIED 8015					
TPH as Gas	146	257	50	58	116.0
TPH as Diesel	146	257	50	55	110.0
TPH as Oil	146	257	50	49	98.0

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Bartlett Division
850 W. Bartlett Rd.
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QUALITY CONTROL REPORT

DUPLICATES

CLAYTON/MITTELHAUSER CORP.
1240 Iroquois Drive
Suite 206
Naperville, IL 60563
Mr. Hank Mittelhauser

07/16/1996

NET Job Number: 96.05624

Analyte	Prep Batch Number	Run Batch Number	Original Analysis	Duplicate Analysis	Units	RPD
Solids, Total		1564	91.6	92.5	%	1.0
Solids, Total		1564	62.8	70.6	%	11.7
Solids, Total		1564	94.3	94.0	%	0.3
Solids, Total		1564	23.5	23.3	%	0.9

NOTE: Spikes and Duplicates may not be samples from this job.

RPD - Relative Percent Difference

Advisory Control Limits for Duplicates - RPD should be less than 20.

NET Midwest, Bartlett Division

KEY TO ABBREVIATIONS and METHOD REFERENCES

<	:	Less than; When appearing in the results column indicates the analyte was not detected at or above the reported value.
mg/L	:	Concentration in units of milligrams of analyte per liter of sample. Measurement used for aqueous samples. Can also be expressed as parts per million (ppm).
ug/g	:	Concentration in units of micrograms of analyte per gram of sample. Measurement used for non-aqueous samples. Can also be expressed as parts per million (ppm) or mg/Kg.
ug/L	:	Concentration in units of micrograms of analyte per liter of sample. Measurement used for aqueous samples. Can also be expressed as parts per billion (ppb).
ug/Kg	:	Concentration in units of micrograms of analyte per kilogram of sample. Measurement used for non-aqueous samples. Can also be expressed as parts per billion (ppb).
B	:	Sample result flag indicating that the analyte was also found in the method blank analysis. The value after the B indicates the concentration found in the blank analysis.
D	:	Sample result flag indicating that the reported concentration is from an analysis performed at a dilution. The value following the D indicates the dilution factor of the analysis.
J	:	Sample result flag indicating that the reported concentration is below the routine reporting limit but greater than the Method Detection Limit. The value should be considered estimated.
TCLP	:	These initials appearing in front of an analyte name indicate that the Toxicity Characteristic Leaching Procedure (TCLP) was performed for this test.
%	:	Percent; To convert ppm to %, divide the result by 10,000. To convert % to ppm, multiply the result by 10,000.
Dry Weight (dw)	:	When indicated, the results are reported on a dry weight basis. The contribution of the moisture content in the sample is subtracted when calculating the concentration of the analyte.
ICP	:	Indicates analysis was performed using Inductively Coupled Plasma Spectroscopy.
AA	:	Indicates analysis was performed using Atomic Absorption Spectroscopy.
GFAA	:	Indicates analysis was performed using Graphite Furnace Atomic Absorption Spectroscopy.
PQL	:	Practical Quantitation Limit; the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions.

Method References

(1) Methods 1000 through 9999; see "Test Methods for Evaluating Solid Waste", USEPA SW-846, 3rd Edition, 1986.

(2) ASTM "American Society for Testing Materials

(3) Methods 100 through 499; see "Methods for Chemical Analysis of Water and Wastes", USEPA, 600/4-79-020, Rev. 1983.

(4) See "Standard Methods for the Examination of Water and Wastewater", 17th Ed, APHA, 1989.

(5) Methods 600 through 625: see "Guidelines Establishing Test Procedures for the Analysis of Pollutants", USEPA Federal Register Vol. 49 No. 209, October 1984.

(6) Methods 500 through 599: see "Methods for the Determination of Organic Compounds in Drinking Water," USEPA 600/4-88/039, Rev. 1988.

NET NATIONAL ENVIRONMENTAL TESTING, INC.

CHAIN OF CUSTODY RECORD

COMPANY Clayton Mittelhauser Corp
ADDRESS 1210 Interstate Dr. #206
PHONE (708) 369-0201 FAX (708) 369-1279
PROJECT NAME/LOCATION Amoco Pipeline Co. Antioch
PROJECT NUMBER 277.00-02
PROJECT MANAGER Heath Mittelhauser

REPORT TO: H. Mittelhauser
INVOICE TO: H Mittelhauser
P.O. NO.
NET QUOTE NO. MOIRA

SAMPLED BY (PRINT NAME) Chet Armstrong SIGNATURE Chet Armstrong
(PRINT NAME) SIGNATURE

DATE	TIME	SAMPLE ID/DESCRIPTION	MATRIX	GRAB	COMP	# and Type of Containers: HCl	NaOH	HNO_3	H_2SO_4	OTHER	ANALYSES: TPH Method 8015 (EPA)
2	2145	SS #1		X							X
2	2145	SS #2		X							X
2	2145	SS #3		X							X
2	2145	SS #4		X							X
2	2145	SS #5		X							X
2	2145	SS #6		X							X
2	2145	SS #7		X							X
2	2145	SS #8		X							X
2	2145	SS #9		X							X

To assist us in selecting the proper method
Is this work being conducted for regulatory compliance monitoring? Yes ___ No ___
Is this work being conducted for regulatory enforcement action? Yes ___ No ___
Which regulations apply: RCRA ___ NPDES Wastewater ___ UST ___ Drinking Water ___ Other ___ None ___

COMMENTS
Please designate EPA Method 8015 in Report

Sample #2 broken

CONDITION OF SAMPLE: BOTTLES INTACT? YES / NO
FIELD FILTERED? YES / NO N/A
COC SEALS PRESENT AND INTACT? YES / NO N/A
VOLATILES FREE OF HEADSPACE? YES / NO N/A
TEMPERATURE UPON RECEIPT: 26.1°
Bottles supplied by NET? YES / NO

SAMPLE REMAINDER DISPOSAL: RETURN SAMPLE REMAINDER TO CLIENT VIA ___
I REQUEST NET TO DISPOSE OF ALL SAMPLE REMAINDERS ___ DATE ___

RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	RELINQUISHED BY:	DATE	TIME	RECEIVED FOR NET BY:
[signature]	7-3	8:00AM			7-5-96	1009	[signature]

METHOD OF SHIPMENT: Fed Express

REMARKS: Questions to H. Mittelhauser @ (708) 369-0201

PT 1 - ORIGINAL - WHITE PT 2 - NET PROJECT MANAGER - YELLOW PT 3 - CUSTOMER COPY - PINK