3R - 295

GENERAL CORRESPONDENCE

YEAR(S):

District I P.O. Box 1980, Hobbes, NM

*

District II P.O. Drawer DD, Arteus, NM 88211

District III 1000 Rio Brazos Rd, Aztec, NM 87410 State of New Mexico Energy, Minerals and Natural Resource Department

> OIL CONSERVATION DIVISION P.O. Box 2088 Santa Fe, New Mexico 87504-2088

SUBMIT 1 COPY TO APPROPRIATE DISTRICT OFFICE AND 1 COPY TO SANTA FE OFFICE (Revised 3/9/94)

PIT REMEDIATION AND CLOSURE REPORT

Operator: MOBIL PRODUCING T&NM INC.				Te	lephone: (505)	632-1891	
Address: P.O. 1	BOX 185, BLOOMFIELD,	NM 87413			·		
Facility Or: <u>LIN</u> Well Name	IDRITH "B" #77		<u> </u>	······	<u></u>	<u> </u>	
	Qtr/Qtr Sec L	Sec 01	т <u>24N</u>	R <u>3W</u>	County	, RIO ARRIB	Α
Pit Type: Separ	ator <u>XX</u> Dehydrator		Other			- <u></u>	
Land Type: BLI	M State						
Pit Location: (Attach diagram)	Pit dimensions:	Length	<u>38</u> widt	h <u>41</u>	depth 🤐	26	
	Reference:	wellhead _	Other			.	See Attached
	Footage from reference:				•	- T -	·
	Direction from reference:		_ Degrees	_	East	North	_
					of	f	
					West	South	-
					<u> </u>	<u> </u>	
Depth To Groun			Less than 50	feet	(20 p	oints)	
(Vertical Distan contaminants to			50 feet to 99	feet	(10 p	oints)	
high water eleva	ation of		Greater than	100 feet	(0 p	oints)	20
ground water)							
Wellhead Protec				Yes	(20 p	oints)	Ì
	eet from a private source, or, less than			No	(0 p	oints)	0
	all other water sources)						
Distance To Sur			Less than 20	0 feet	(20 p	oints)	
	ance to perennial vers, streams, creeks,		200 feet to 1	000 feet	(10 p	oints)	
irrigation canals			Greater than	1000 feet	(0 p	oints)	0
				RANKING S	SCORE (TO	TAL POINTS):	20

Mark 1 washing

Date Remediation Started:	11/28/95 Date Completed: 12/15/95
Remediation Method:	Excavation XX Approx. cubic yards 1500
	Landfarmed Insitu Bioremediation
	Other
Remediation Location: (ie. landfarmed onsite, name and location of offsite facility)	Onsite <u>XX</u> Offsite
General Description of Ren	nediation Action:
CONTAMINATION WAS	REMEDIATED BY DILUTION AND AERATION.
•	
· · · · · · · · · · · · · · · · · · ·	•
Ground Water Encountered	l: No Yes Depth
Final Pit: Closure Sampling:	Sample location See Attached
(if multiple samples, attach sample results	
and diagram of sample	Sample depth26
locations and depths)	Sample date <u>12/04/95</u> Sample time <u>11:00:00</u>
	Sample Results
	Benzene (ppm)1
	Total BTEX (ppm)3
	Field headspace (ppm)
	TPH37
Ground Water Sample:	Yes XX No (If yes, attach sample results)
I HEREBY CERTIFY THA	AT INFORMATION ABOVE IS TRUE AND COMPLETE
TO THE BEST OF MY KN	NOWLEDGE AND BELIEF
DATE 2/26 96	DENETED MANY TERRY K. Hubele, P.E.
SIGNATURE	PRINTED NAME AND TITLE Terry K. Hubele, P.E. Staff Environmental Engineer

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PIT CLOSURE SAMPLING REPORT



ADDRESS : P.O. BOX 185 BLOOMFIELD, NM 87413

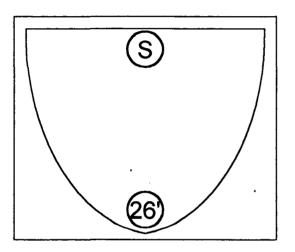
WELL NAME

OR FACILITY : LINDRITH "B" #77

-- · ·

PIT TYPE : SEPARATOR LEGALS : SEC. G-01 T24N R3W

DEPTH	TPH	BENZENE	BTEX
SURFACE	51100		
4'	19700		
12'	5950		
26'	37	1.2	3.8

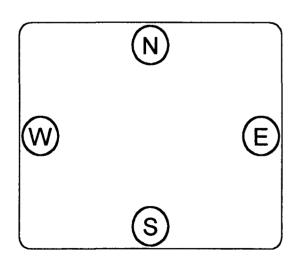


SIDE VIEW

:

TOP VIEW

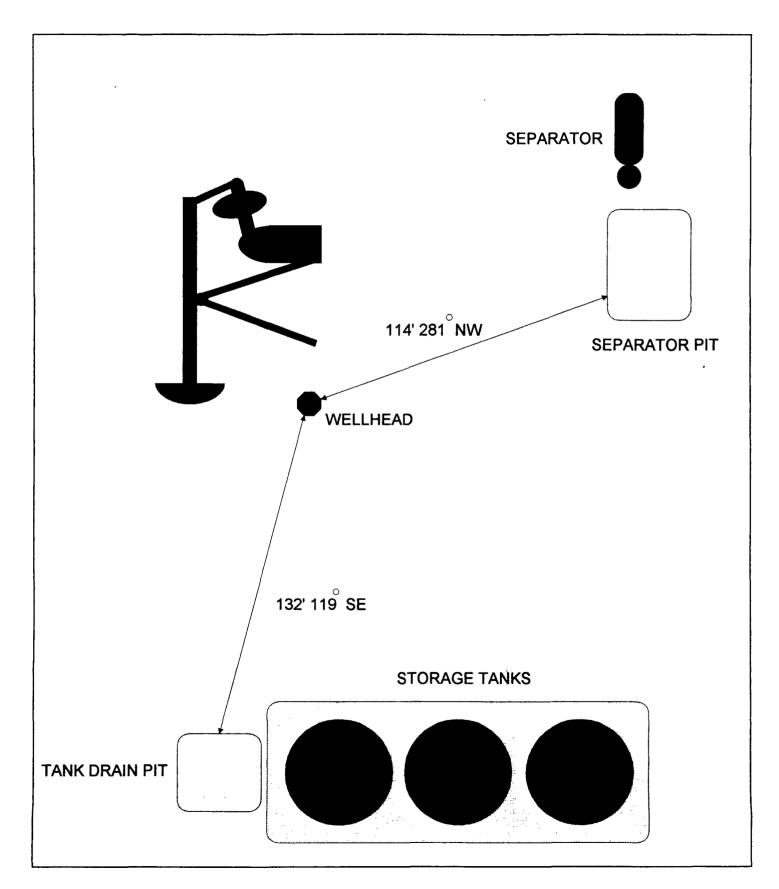
WALL	DEPTH	ТРН	BENZENE	BTEX
NORTH	15'	68	1.2	1.6
SOUTH	15'	43	.7	1.7
EAST	15'	53	.4	3.8
WEST	15'	71	2.3	9.4



MOBIL PRODUCING TEXAS & NEW MEXICO INC.

-----.

LINDRITH "B" #77





<u>Mobil E & P</u>

Project ID: Sample ID: Lab ID: Sample Matrix: Preservative: Condition:

NALYTICA

ENVIRONMENTAL LABORATORY

.

Whole Earth Environmental B - 77 Separator Pit 2157 Water Cool Plastic container

12/11/95
12/07/95
12/08/95
12/10/95

Target Analyte	Concentration (ug/L)	Detection Limit (ug/L)
Benzene	ND	0.20
Toluene	0.23	0.20
Ethylbenzene	0.25	0.20
m,p-Xylenes	0.63	0.40
o-Xylene	ND	0.20
Total BTEX	1.	11

ND - Analyte not detected at the stated detection limit.

Quality Control:	<u>Surrogate</u>	Percent Recovery	Acceptance Limits
	Trifluorotoluene	90	88 - 110%
	Bromofluorobenzene	93	86 - 115%
Reference:	Method 602.2, Purgeat Oct. 1984.	ole Aromatics; Federal Regi	ster, Vol. 49, No. 209,

mip RD____

Tanico armen Review

Analyst



November 30, 1995

Kirk Bennett Mobil E & P, Inc. PO Box 185 Bloomfield, NM 87413

Dear Mr. Bennett:

Enclosed are the results for the analysis of the aqueous sample received on November 29, 1995 from Stacy Stibling of Whole Earth Environmental. The sample was received intact. Analysis for Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX) was performed on the sample, as per the chain of custody.

Analysis was performed on the sample according to EPA Method 602, using a Hewlett-Packard 5890 gas chromatograph equipped with an OI Analytical purge and trap (model 4560) and a photoionization detector. Detectable levels of btex analytes were found in the sample, as reported.

Quality control reports appear at the end of the analytical package and can be identified by title. Should you have any questions regarding the analysis, feel free to call.

Sincerely Denise A. Bohemier

Lab Director

ANALYTICA ENVIRONMENTAL LABORATORY

PURGEABLE AROMATICS

Mobil Exploration and Production

Project ID: Sample ID: Lab ID: Sample Matrix: Preservative: Condition: Whole Earth Environmental B - 77 1999 Water Cool Intact

11/30/95
11/28/95
11/29/95
11/29/95

Target Analyte	Concentration (ug/L)	Detection Limit (ug/L)
Benzene	39.9	5.00
Toluene	92.6	5.00
Ethylbenzene	41.3	5.00
m,p-Xylenes	271	10.0
o-Xylene	112	5.00

Total BTEX	556

ND - Analyte not detected at the stated detection limit.

Quality Control:	<u>Surrogate</u>	Percent Recovery	Acceptance Limits
	Trifluorotoluene	102	88 - 110%

Reference: Method 602.2, Purgeable Aromatics; Federal Register, Vol. 49, No. 209, Oct. 1984.

Lanico aimon Analyst

Dury AL

Review

Purgeable Aromatics

Matrix Spike Analysis

Lab ID:	1999Spk	Report Date:	11/30/95
Sample Matrix:	Water	Date Sampled:	11/28/95
Preservative:	Cool	Date Received:	11/29/95
Condition:	Intact	Date Analyzed:	11/29/95

Target Analyte	Spike Added (ug/L)	Original Conc. (ug/L)	Spiked Sample Conc. (ug/L)	% Recovery	Acceptance Limits (%)
Benzene	100	39.9	139	99%	39 -150
Toluene	100	92.6	190	97%	46 - 148
Ethyibenzene	100	41.3	141	99%	32 - 160 _.
m,p-Xylenes	200	271	463	96%	NE
o-Xylene	100	112	218	106%	NE

ND - Analyte not detected at the stated detection limit.

NA - Not applicable or not calculated.

NE - Spike acceptance range not established by the EPA.

Quality Control:	<u>Surrogate</u>	Percent Recovery	Acceptance Limits
	Trifluorotoluene	99	88 - 110%

Reference: Method 602.2, Purgeable Aromatics; Federal Register, Vol. 49, No. 209, Oct. 1984.

Comments: Calculation of spike recovery requires consideration of a sample dilution factor which is not applied to the spike added.

icafrimon Analyst

Divertob

Review

Purgeable Aromatics

Duplicate Analysis

Lab ID: 1999Dup Report Date: 11/30/95 Sample Matrix: Water Date Sampled: 11/28/95 Cool Date Received: Preservative: 11/29/95 Intact Condition: Date Analyzed: 11/29/95

Target Analyte	Original Conc. (ug/L)	Duplicate Conc. (ug/L)	Acceptance Range (ug/L)
Benzene	39.9	40.6	31.8 - 48.6
Toluene	92.6	98.5	77.4 - 114
Ethylbenzene	41.3	43.3	27.0 - 57.5
m,p-Xylenes	271	288	NE
o-Xylene	112	121	NE

ND - Analyte not detected at the stated detection limit.

NA - Not applicable or not calculated.

NE - Duplicate acceptance range not established by the EPA.

	<u>Surrogate</u>	Percent Recovery	Acceptance Limits
Quality Control:	Trifluorotoluene	101	88 - 110%

Reference: Method 602.2, Purgeable Aromatics; Federal Register, Vol. 49, No. 209, Oct. 1984.

Comments:

1 anica auman Analyst

Donie Rota

Review

PURGEABLE AROMATICS Quality Control Report

Method Blank Analysis

Sample Matrix:WaterReport Date:11/30/95Lab ID:MB35032Date Analyzed:11/29/95

Target Analyte	Concentration (ug/L)	Detection Limit (ug/L)
Benzene	ND	0.50
Toluene	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	1.00
o-Xylene	ND	0.50

ND - Analyte not detected at the stated detection limit.

Quality Control:	<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Acceptance Limits</u>
	Trifluorotoluene	99	88 - 110%
Reference:	Method 602.2, Purge	able Aromatics; Federal Regis	ster, Vol. 49, No. 209,

Comments:

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anica/aimon Analyst

Oct. 1984.

Raning / Ifle

Review

ANALYTICA	CA			CHAIN OF CUSTODY	CUSTODY			Pageof
ENVIRONMENTAL LABORATO	ENVIRONMENTAL LABORATORY		ORGANIC ANALYSES	SES	WATER ANALYSES	TASES	METALS	COMMENTS
BOT S. CARLTON • FARMINGTON, PROJECT MANAGER: Analytica Lab I.D.: Company: Phone: Fax: Fax: Bill To: Company: Address: Sample ID Date		Petroleum Hydrocarbons (418.1) ³ Gasoline / Diesel (mod. 8015) Gasoline (GRO) Aromatic HCs BTEX/MTBE (602 / 8020)	Chlorinated Hydrocarbons (8010) SDWA Volatiles (502.1 / 503.1) Chlorinated Pesticides / PCBs (608 / 8080) Herbicides (615 / 8150) Volatiles GC/MS (624 / 8240 / 8260)	Base / Neutral / Acid GC/MS (625 / 8270) Polynuclear Aromatic Hydrocarbons (8100) TCLP Extraction Other (specify):	Cation / Anion Specific Cations (specify): BOD / Fecal / Total Coliform Solids: TDS / TSS / SS	Nutrients: NH4+ / NO2- / NO3- / TKN Oil and Grease Other (specify):	Priority Pollutants RCRA Metals (Total) RCLP (1311) Other (specify):	
B-77 W	198 3.30m	X						
	-							
Project Information	Sample Receipt	Sampled By:		Relinquished By:	 	Relinquished By:		
Proj. #:	No. Containers:	Signature	Date:	Signature	Date: Sig	Signature	Date:	
Proj. Name:	Custody Seals: Y / N / NA	Tooy I. M	-28CIII MID	1 Mar Na	THE WIT		-	Please Fill Out Thoroughty.
P. O. No:	Received Intact:	Company:		Company:	93 	Company:	Time:	
Shipped Via:	_	WNDR CAR	18th 3:30	141) Vide Graph	8:55AL			Shaded areas
Required Turnaround Time	Required Turnaround Time (Prior Authorization Required for Rush)	Received By:		5	Ť	Received By:		for lab use only.
		Signature	Date:	Signature	Date:	Signature Signature	Pater J	Vhite/Yellow: Analytica
		Company:	Time:	Company:	Time:	ALL IL A		Pink: Cient
						ALL ALK IN	1.0.1	

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District I P.O. Box 1980, Hobbes, NM

District II P.O. Drawer DD, Arteus, NM 88211

District III 1000 Rio Brazos Rd, Aztec, NM 87410 State of New Mexico Energy, Minerals and Natural Resource Department

> OIL CONSERVATION DIVISION P.O. Box 2088 Santa Fe, New Mexico 87504-2088

SUBMIT 1 COPY TO APPROPRIATE DISTRICT OFFICE AND 1 COPY TO SANTA FE OFFICE (Revised 3/9/94)

PIT REMEDIATION AND CLOSURE REPORT

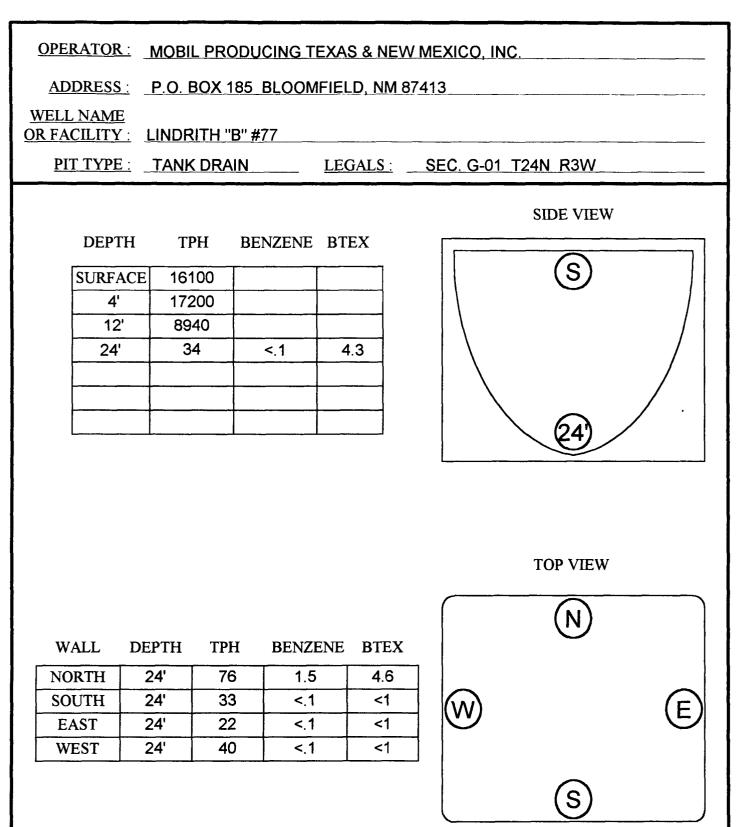
Operator: MOB	IL PRODUCING T&NM I	NC.	. <u></u>			Те	lephone: (505) 6	532-1891
Address: P.O.	BOX 185, BLOOMFIELD,	NM 87413						
Facility Or: <u>LIN</u> Well Name	NDRITH "B" #77							
	Qtr/Qtr Sec G	Sec 1	т 2	24N	R <u>3W</u>	County	RIO ARRIBA	<u>A</u>
Pit Type: Separ	ator Dehydrator	r	Other	ANK DRA	<u>IN</u>			
Land Type: BL	M State		Other					
Pit Location: (Attach diagram)	Pit dimensions:	Length	26	width	<u>28</u> d	lepth	24	
	Reference:	wellhead	0	ther				See Attached
	Footage from reference:							•
	Direction from reference:		Degrees			East	North	
						oi	f	
						West	South	
Depth To Groun		<u> </u>	Less that	n 50 feet		(20 p	oints)	,, <u></u> _, <u></u> , <u></u>
(Vertical Distar contaminants to			50 feet to	o 99 feet		(10 p	oints)	
high water elev			Greater	than 100 fe	et	(0 p	oints) _	20
ground water)								
Wellhead Protec	tion Area:			Yes		(20 p	oints)	
domestic water	eet from a private source, or, less than all other water sources)			No		(0 p	oints) _	0
Distance To Sur	face Water:		Less that	n 200 feet		(20 p	oints)	
	ance to perennial vers, streams, creeks,		200 feet	to 1000 fee	t	• -	oints)	
irrigation canals			Greater	than 1000 f	feet	•	oints)	0
				RANK	KING SCO	ORE (TO	TAL POINTS):	20

Date Remediation Started:	11/28/95 Date Completed: 12/15/95
Remediation Method:	Excavation XX Approx. cubic yards 647
	Landfarmed Insitu Bioremediation
	Other
Remediation Location: (ie. landfarmed onsite, name and location of offsite facility)	Onsite <u>XX</u> Offsite
· –	nediation Action:
CONTAMINATION WAS	REMEDIATED BY DILUTION AND AERATION.
· · · · · · · · · · · · · · · · · · ·	
Ground Water Encountered	d: No Yes Depth
Final Pit: Closure Sampling: (if multiple samples, attach sample results	Sample location See Attached
and diagram of sample	Sample depth24
locations and depths)	Sample date <u>12/01/95</u> Sample time <u>11:00:00</u>
	Sample Results
	Benzene (ppm)
	Total BTEX (ppm)4
	Field headspace (ppm)
	TPH34
Ground Water Sample:	Yes No _XX (If yes, attach sample results)
	AT INFORMATION ABOVE IS TRUE AND COMPLETE NOWLEDGE AND BELIEF
DATE 2/ 26 96	
SIGNATURE	PRINTED NAME Terry K. Hubele, P.E. AND TITLE Staff Environmental Engineer

....

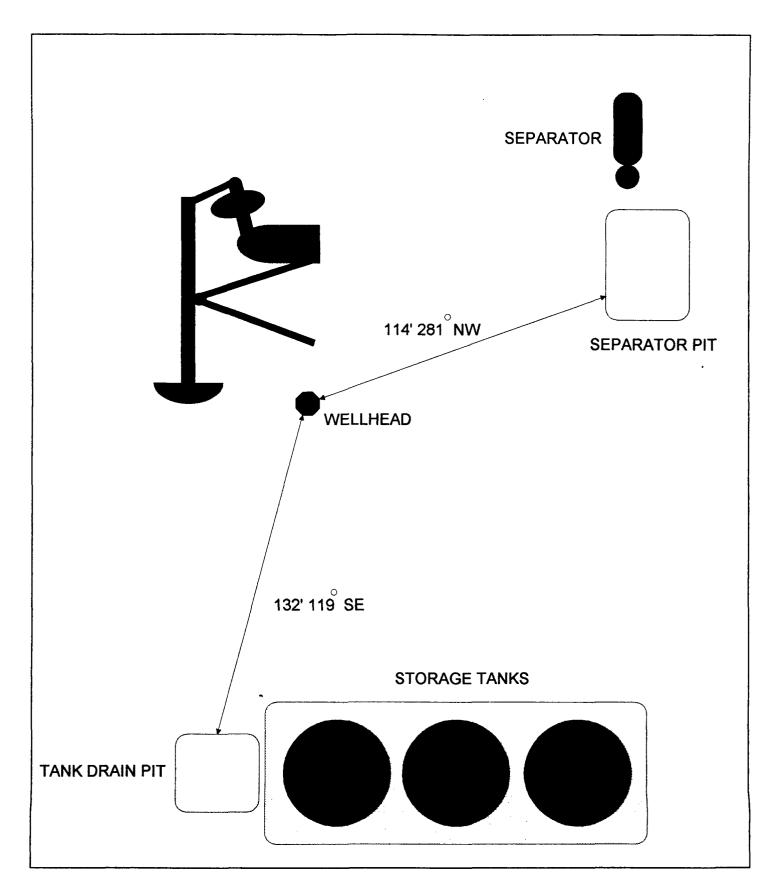
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PIT CLOSURE SAMPLING REPORT



MOBIL PRODUCING TEXAS & NEW MEXICO INC.

LINDRITH "B" #77





ENVIRONMENTAL LABORATORY

December 7, 1995

Kirk Bennett Mobil E & P, Inc. PO Box 185 Bloomfield, NM 87413

Dear Mr. Bennett:

Enclosed are the results for the analysis of the aqueous sample received on December 2, 1995 from Stacy Stibling of Whole Earth Environmental. The sample was received intact. Analysis for Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX) was performed on the sample, as per the chain of custody.

Analysis was performed on the sample according to EPA Method 602, using a Hewlett-Packard 5890 gas chromatograph equipped with an OI Analytical purge and trap (model 4560) and a photoionization detector. Detectable levels of btex analytes were found in the sample, as reported.

Quality control reports appear at the end of the analytical package and can be identified by title. Should you have any questions regarding the analysis, feel free to call.

Sincerely,

Denise A. Bohemier Lab Director

Purgeable Aromatics

Matrix Spike Analysis

Lab ID:	2027Spk	Report Date:	12/07/95
Sample Matrix:	Water	Date Sampled:	12/01/95
Preservative:	Cool	Date Received:	12/02/95
Condition:	Intact	Date Analyzed:	12/06/95

Target Analyte	Spike Added (ug/L)	Original Conc. (ug/L)	Spiked Sample Conc. (ug/L)	% Recovery	Acceptance Limits (%)
Benzene	10	0.38	10.6	103%	39 -150
Toluene	10	1.48	10.9	94%	46 - 148
Ethylbenzene	10	0.38	11.5	112%	32 - 160 _.
m,p-Xylenes	20	1.31	21.2	99%	NE
o-Xylene	10	0.77	11.0	103%	NE

ND - Analyte not detected at the stated detection limit.

NA - Not applicable or not calculated.

NE - Spike acceptance range not established by the EPA.

Quality Control:	<u>Surrogate</u>	Percent Recovery	Acceptance Limits
	Trifluorotoluene	105	88 - 110%
	Bromofluorobenzene	103	86 - 115%

Reference: Method 602.2, Purgeable Aromatics; Federal Register, Vol. 49, No. 209, Oct. 1984.

Comments:

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uni/hel

Analyst

Anica acmon Review

PURGEABLE AROMATICS

Mobil E & P

Project ID: Sample ID: Lab ID: Sample Matrix: Preservative: Condition:

Whole Earth Environmental B-77 TD 2027 Water Cool Intact

12/07/95
12/01/95
12/02/95
12/06/95

Target Analyte	Concentration (ug/L)	Detection Limit (ug/L)
Benzene	0.38	0.20
Toluene	1.48	0.20
Ethylbenzene	0.38	0.20
m,p-Xylenes	1.31	0.40
o-Xylene	0.77	0.20
	• • • • • • • • • • • • • • • • • • •	

Total BTEX	4.31

ND - Analyte not detected at the stated detection limit.

Quality Control:	<u>Surrogate</u>	Percent Recovery	Acceptance Limits
	Trifluorotoluene	105	88 - 110%
	Bromofluorobenzene	93	86 - 115%
Reference:	Method 602.2, Purgeab Oct. 1984.	ole Aromatics; Federal Regi	ster, Vol. 49, No. 209,

Analyst

Janico armon Review

Purgeable Aromatics

Duplicate Analysis

Lab ID: Sample Matrix: Preservative: Condition: 2027Dup Water Cool Intact
 Report Date:
 12/07/95

 Date Sampled:
 12/01/95

 Date Received:
 12/02/95

 Date Analyzed:
 12/06/95

Target Analyte	Original Conc. (ug/L)	Duplicate Conc. (ug/L)	Acceptance Range (ug/L)
Benzene	0.38	0.32	0 - 1.59
Toluene	1.48	1.69	0.34 - 2.83
Ethylbenzene	0.38	0.35	0 - 1.41
m,p-Xylenes	1.31	1.03	NE
o-Xylene	0.77	0.89	NE

ND - Analyte not detected at the stated detection limit.

NA - Not applicable or not calculated.

NE - Duplicate acceptance range not established by the EPA.

	<u>Surrogate</u>	Percent Recovery	Acceptance Limits
Quality Control:	Trifluorotoluene	101	88 - 110%
	Bromofluorobenzene	94	86 - 115%

Reference: Method 602.2, Purgeable Aromatics; Federal Register, Vol. 49, No. 209, Oct. 1984.

Duine Phot

Tanica arman Review

Analyst

PURGEABLE AROMATICS Quality Control Report

Method Blank Analysis

Sample Matrix: Lab ID:

Water MB35039 Report Date: 12/07/95 Date Analyzed: 12/06/95

Target Analyte	Concentration (ug/L)	Detection Limit (ug/L)
Benzene	ND	0.20
Toluene	ND	0.20
Ethylbenzene	ND	0.20
m,p-Xylenes	ND	0.40
o-Xylene	ND	0.20

ND - Analyte not detected at the stated detection limit.

Quality Control:	Surrogate	Percent Recovery	Acceptance Limits
	Trifluorotoluene	102	88 - 110%
	Bromofluorobenzene	92	86 - 115%

Method 602.2, Purgeable Aromatics; Federal Register, Vol. 49, No. 209, **Reference:** Oct. 1984.

Derris Manalyst

Janica Jaimon Review

ANALYTICA	Ř			CHAIN OF CU	CUSTODY		Page of
ENVIRONMENTAL 1 ABORATORY		ORGANIC ANALYSES	NALYSES		WATER ANALYSES	METALS	COMMENTS
BIOT S. CARLTON • FARMINGTON, IM 87401 • (505) 326-2395 PROJECT MANAGER: Analytica Lab I.D.: Company: Address: Phone: Frickin wingfou • i Phone: Fax: Bill To: Company: Address: Address: Address: Fax: Bill To: Company: Sample ID Date Time Matrix	N. NM 87401 (505) 326-2395 R. Marker (505) 326-2395 (A)MAR CARCHA CAN) 7. AKUN WIGIDU MISS 744444 7. AKUN WIGIDU MISS 744444 3. 200 - 3. 4732 3. 200 - 3. 4732 3. 1720 1. 2. 1720 1. 2. 1730 1. 2. 17410 1. 17410 1. 2. 174100 1. 2	Petroleum Hydrocarbons (418.1) Gasoline / Diesel (mod. 8015) Gasoline (GRO) Aromatic HCs BTEX/MTBE (602 / 8020) Chlorinated Hydrocarbons (8010) SDWA Volatiles (502.1 / 503.1) Chlorinated Pesticides / PCBs (608 / 8080)	Herbicides (615 / 8150) Volatiles GC/MS (624 / 8240 / 8260) Base / Neutral / Acid GC/MS (625 / 8270)	Polynuclear Aromatic Hydrocarbons (8100) TCLP Extraction Other (specify): Cation / Anion	Specific Cations (specify): Specific Anions (specify): BOD / Fecal / Total Coliform Solids: TDS / TSS / SS Oil and Grease Other (specify):	Priority Pollutants RCRA Metals (Total) RCRA Metals TCLP (1311) Other (specify):	
B-77 T.O. 12	1 3:45	X					
-							
Project Information	Sample Receipt	Sampled By:		Relinquished By:			
Proj. #:	No. Containers:	Signature AL-CAA.	Date: Sign	Signature	Date: Signature	Date:	
Proj. Name:	Custody Seals: Y / N / NA	Nacon Millin (1/94/	be that	NOC		Please Fill Out Thoroughly.
P. O. No:	Received Intact:		int: Com	pany:	Time: 1 Company:	Time:	
Shipped Via:	Received Cold:	IN NOP GROWN	Sirvin Sirvin	MULLER PL	q'Wh		Shaded areas
Required Turnaround Time (Required Turnaround Time (Prior Authorization Required for Rush) Received By:		-	Received By:	Received By:	۲ خ	for lab use only.
			Date: Signature	ature .	Date: Signature	11 12 Date:	White/Yellow: Analytica Pink: Client
		Company: TI	Time: Com	Company:	Time: Company:	10 0:20	
					X		



December 11, 1995

Kirk Bennett Mobil E & P, Inc. PO Box 185 Bloomfield, NM 87413

Dear Mr. Bennett:

Enclosed are the results for the analysis of the aqueous sample received on December 8, 1995 from Stacy Stibling of Whole Earth Environmental. The sample was received intact. Analysis for Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX) was performed on the sample, as per the chain of custody.

Analysis was performed on the sample according to EPA Method 602, using a Hewlett-Packard 5890 gas chromatograph equipped with an OI Analytical purge and trap (model 4560) and a photoionization detector. Detectable levels of btex analytes were found in the sample, as reported.

Quality control reports appear at the end of the analytical package and can be identified by title. Should you have any questions regarding the analysis, feel free to call.

Sincerely,

Denise A. Bohemier Lab Director

PURGEABLE AROMATICS

Mobil E & P

Project ID: Sample ID: Lab ID: Sample Matrix: Preservative: Condition:

AN ALY TICA

ENVIRONMENTAL LABORATORY

Whole Earth Environmental B - 77 Separator Pit 2157 Water Cool Plastic container

12/11/95
12/07/95
12/08/95
12/10/95

Target Analyte	Concentration (ug/L)	Detection Limit (ug/L)
Benzene	ND	0.20
Toluene	0.23	0.20
Ethylbenzene	0.25	0.20
m,p-Xylenes	0.63	0.40
o-Xylene	ND	0.20
Total BTEX	1.	11

ND - Analyte not detected at the stated detection limit.

Quality Control:	Surrogate	Percent Recovery	Acceptance Limits
	Trifluorotoluene	90	88 - 110%
	Bromofluorobenzene	93	86 - 115%
Reference:	Method 602.2, Purgeat Oct. 1984.	ble Aromatics; Federal Regi	ster, Vol. 49, No. 209,

enie MD

Analyst

Tanico armen Review

Purgeable Aromatics

Matrix Spike Analysis

Lab ID:	2099Spk	Report Date:	12/11/95
Sample Matrix:	Water	Date Sampled:	12/05/95
Preservative:	Cool, HgCl2	Date Received:	12/06/95
Condition:	Intact	Date Analyzed:	12/10/95

Target Analyte	Spike Added (ug/L)	Original Conc. (ug/L)	Spiked Sample Conc. (ug/L)	% Recovery	Acceptance Limits (%)
Benzene	10	2.43	12.2	98%	39 -150
Toluene	10	0.39	10.0	96%	46 - 148
Ethylbenzene	10	2.01	11.4	94%	32 - 160 _.
m,p-Xylenes	20	4.44	24.1	98%	NE
o-Xylene	10	0.53	10.5	99%	NE

ND - Analyte not detected at the stated detection limit.

NA - Not applicable or not calculated.

NE - Spike acceptance range not established by the EPA.

Quality Control:	Surrogate	Percent Recovery	Acceptance Limits
	Trifluorotoluene	99	88 - 110%
	Bromofluorobenzene	101	86 - 115%

Reference: Method 602.2, Purgeable Aromatics; Federal Register, Vol. 49, No. 209, Oct. 1984.

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VOLATILE AROMATIC HYDROCARBONS

Matrix Spike Duplicate Analysis

Lab ID: Sample Matrix:	2099Spkdup Water	Report Date:	12/11/95 12/05/95
Preservative:	Cool, HgCl2	Date Sampled: Date Received:	12/05/95
Condition:	Intact	Date Analyzed:	12/10/95

Target Analyte	Spike Added (ug/L)	Sample Spike Recovery (%)	Duplicate Spike Recovery (%)	Acceptance Limits (%)
Benzene	10	98%	95%	78 - 115
Toluene	10	96%	94%	77 - 113
Ethylbenzene	10	94%	92%	60 - 111 ·
m,p-Xylenes	20	98%	96%	NE
o-Xylene	10	99%	96%	NE

ND - Analyte not detected at the stated detection limit.

NA - Not applicable or not calculated.

NE - Spike acceptance range not established by the EPA.

Quality Control:	Surrogate	Percent Recovery	Acceptance Limits
	Trifluorotoluene	97	88 - 110%
	Bromofluorobenzene	100	86 - 115%
Reference:	Method 602.2, Purgeable Aromatics; Fed Oct. 1984.	eral Register, Vol. 49	, No. 209,

Comments: Calculation of spike recovery requires consideration of a sample dilution factor

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PURGEABLE AROMATICS Quality Control Report

Method Blank Analysis

Sample Matrix: Lab ID:

Water MB35043 Report Date: 12/11/95 Date Analyzed: 12/10/95

Target Analyte	Concentration (ug/L)	Detection Limit (ug/L)
Benzene	ND	0.20
Toluene	ND	0.20
Ethylbenzene	ND	0.20
m,p-Xylenes	ND	0.40
o-Xylene	ND	0.20

ND - Analyte not detected at the stated detection limit.

Quality Control:	<u>Surrogate</u>	Percent Recovery	Acceptance Limits
	Trifluorotoluene	98	88 - 110%
	Bromofluorobenzene	86	86 - 115%

Reference: Method 602.2, Purgeable Aromatics; Federal Register, Vol. 49, No. 209, Oct. 1984.

Comments:

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BROJECT MANAGER: PROJECT MANAGER: Analytica Lab I.D.: Company: Phone: Fax: Fax: Bill To: Company: Address: Samole ID Date	N. NM BTADI (505) 326.2395 N. M. BTADI (CARRAN 4.130 F. MANN 72 MILLIN 4.130 F. MANN 72 MILLIN 4.130 F. MANN 72 MILLIN 2.320-24(33) 2.320-24(33) 2.320-24(33) 2.320-24(33) 1.100 (124 ILIC 2.320 F. MANN 18540 MANN 100 (124 ILIC 1.100 (124 ILIC 1.100 (124 ILIC 1.100 (124 ILIC 1.100 (124 ILIC 1.100 (124 ILIC) 1.100 (124 I	Petroleum Hydrocarbons (418.1) Gasoline / Diesel (mod. 8015) Aromatic HCs BTEX/MTBE (602 / 8020) Chlorinated Hydrocarbons (8010)	SDWA Volatiles (502.1 / 503.1) Chlorinated Pesticides / PCBs (608 / 8080) Herbicides (615 / 8150) Volatiles GC/MS (624 / 8240 / 8260)	Base / Neutral / Acid GC/MS (625 / 8270) Polynuclear Aromatic Hydrocarbons (8100) JCher (specify):	Cation / Anion Specific Cations (specify): SPECIFIC Anions (specify): SOD / Fecal / Total Coliform SOD / Fecal / Total Coliform	Solids: TDS / TSS / SS Jutrients: NH4+ / NO2- / NO3- / TKN Dil and Grease Dther (specify):	Priority Pollutants PCRA Metals (Total) ARPA Metals TCLP (1311) Dther (specify):	
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Project Information	Sample Receipt	Sampled By:		Relinquished By:		Relinquished By:		
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