BP AMERICA PRODUCTION CO

LEEPER GAS COM #001

API# 30-045-11142

C-141

Part 1 of 3

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☒ Final Report

Name of Company: BP America Production Co.	Contact: Steve Moskal
Address: 380 Airport Rd., Durango, CO 81303	Telephone No.: 505-330-9179
Facility Name: Leeper Gas Com 001	Facility Type: Natural gas well

Surface Owner: Fee	Mineral Owner: Fee	API No. 3004511142

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County: San Juan
L	34	32N	10W	1,340	South	790	West	

Latitude 36.93858° **Longitude** -107.875794°

NATURE OF RELEASE

Type of Release: Unknown - hydrocarbon	Volume of Release: unknown	Volume Recovered: none
Source of Release: Unknown – suspect earthen pit	Date and Hour of Occurrence: unknown	Date and Hour of Discovery: July 28, 1998
Was Immediate Notice Given? ☐ Yes ☐ No ☒ Not Required	If YES, To Whom?	
By Whom?	Date and Hour:	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.* During routine excavation at the site, observations indicated what appeared to be hydrocarbon impacts to the soil, likely associated with an earthen pit from previous, acceptable, operating practices. The site was excavated on three different occasions and several monitoring wells were installed and monitored from 1998 through 2006.

Describe Area Affected and Cleanup Action Taken.* The site was excavated in 1998 and 1999. Groundwater was determined to have impacts, at which time, several monitoring wells were drilled and installed in 1998 through 2000. The site was monitored until 2006 when it was determined that groundwater impacts were below standards for analyzed constituents. Three nearby domestic water wells were also sampled during this time. Based on the data gathered and presented during the excavations, groundwater monitoring and domestic water well sampling, BP request no further action. The attached report documents the findings.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature:	OIL CONSERVATION DIVISION
Printed Name: Steve Moskal	Approv
Title: Field Environmental Coordinator	Approv
E-mail Address: steven.moskal@bp.com	Conditi
Date: January 23, 2018 Phone: 505-330-9179	

District Copy
For Scanning Only
Has NOT been processed. ☐

* Attach Additional Sheets If Necessary

NMOCD
MAR 0 1 2018
DISTRICT III

Remediation
of
Hydrocarbon Impacts

Leeper GC 1
(L) Sec 34 – T32N – R10W
API: 30-045-11142
San Juan County, New Mexico

Prepared for:
BP America Production Co.
Farmington, New Mexico

Prepared by:
Blagg Engineering, Inc.
P.O. Box 87
Bloomfield, New Mexico 87413
(505)632-1199

January 22
2018

REMEDIATION
OF
HYDROCARBON IMPACTS

LEEPER GC 1

TABLE OF CONTENTS

APPENDICES

REMEDIATION OF
HYDROCARBON IMPACTS
LEEPER GC 1

INTRODUCTION and REMEDIATION ACTIVITIES

Blagg Engineering Inc. (BEI) has been retained by BP America Production Co. (BP) to monitor, sample and document environmental remediation of hydrocarbon impacts at the Leeper GC 1, a natural gas well located in rural San Juan County, New Mexico at (L) Sec. 34 – T32N – R10W (Figure 1). Hydrocarbon impacts at the site were discovered on July 28, 1998 during routine excavation work at the site. The source of impacts appeared to be historical, likely from prior standard well operations. At the time of discovery the well operator was Amoco Production Company, which subsequently was acquired by BP.

Amoco immediately began initial remedial excavations of on-site impacts and this remedial effort was completed on September 14, 1998. Impacts appeared to advance to an adjacent private property to the south of the well site but further remediation was held up pending litigation by that landowner. Remediation via excavation on that property was allowed to continue beginning on March 4, 1999 and completed on May 12, 1999

The site is immediately adjacent to the Animas River, found due east of the site. Shallow groundwater was present during all excavation of impacted soils. Groundwater monitor wells were installed following soil excavation to quantify water quality. The first monitor wells, MW-1, MW-2 and MW-3 were installed in and around the well-pad excavation on September 14, 1998 using a backhoe. Subsequent monitor wells, MW-4 through MW-13 were installed on the well-pad and in and around the off-pad excavation between December 30, 1999 and January 12, 2000. The monitor wells were sampled on a scheduled basis, depending on water quality, until June 28, 2006 when all wells had demonstrated constituents were within New Mexico Oil Conservation Division standards. Several of the monitor wells, specifically MW-4, MW-5, MW-6, MW-7 and MW-8, were installed to address the ongoing litigation and may not have otherwise been installed to confirm water quality for site closure.

Three domestic water wells were identified to be in the area of the well site. These wells were sampled periodically to insure no impacts from the hydrocarbon release were present. All analytical data collected indicated that the three domestic wells did not have impacts exceeding drinking water quality standards. This laboratory analytical data was provided to the private landowners.

A small area between the southern well-pad and the adjacent private property could not be excavated because of active high pressure water and gas lines located in that pipeline corridor. To address potential residual hydrocarbon impacts in that area a lateral air sparge system was install parallel to the pipeline corridor on April 28, 1999 and operated for approximately 2 years.

In March of 2000, BEI was instructed to seal all files related to the Leeper GC 1 remediation due to a resolution of the pending litigation. BEI had been working under attorney/client privilege due to the pending litigation and this sealing of files was ordered by the attorney. BEI was allowed to un-seal the files on November 7, 2017 in order to assemble this report. Note that BEI did continue to sample site monitor wells until June 2006 in order to acquire sufficient water quality data to demonstrate site closure.

Summary site remedial activities are presented in Appendix A and all supporting documentation for the remediation (figures, summary data spreadsheets, laboratory data reports, field notes and boring logs) are presented in Appendices B – F).

CONCLUSIONS AND RECOMMENDATIONS

1) Hydrocarbon impacted soil and at the BP operated Leeper GC 1 has been successfully excavated. Remediation sampling and analytical testing has confirmed that removable impacts have been excavated, with the exception of potential residual impacts along a pipeline corridor parallel to the southern boundary of the well pad. A lateral air sparge system was installed in that corridor to address those potential impacts.

2) Sampling and testing of nearby domestic water wells has not indicated impacts to those wells.

3) Monitor wells were installed in and around the remedial excavations to quantify residual water quality. Laboratory analytical testing results indicate that all wells meet NMOCD water quality standards.

4) Site closure is recommended. There are no known hydrocarbon impacts exceeding NMOCD standards at the site..

CLOSURE AND LIMITATIONS

This report has been prepared for the exclusive use of BP America Production Company as it pertains to hydrocarbon impact remediation at the Leeper GC 1 in San Juan County, New Mexico. The data presented herein is based on visual observations, subsurface conditions encountered at sampling locations and on information reported by analytical laboratory testing of soils. This report does not reflect variations which may exist between sampling locations.

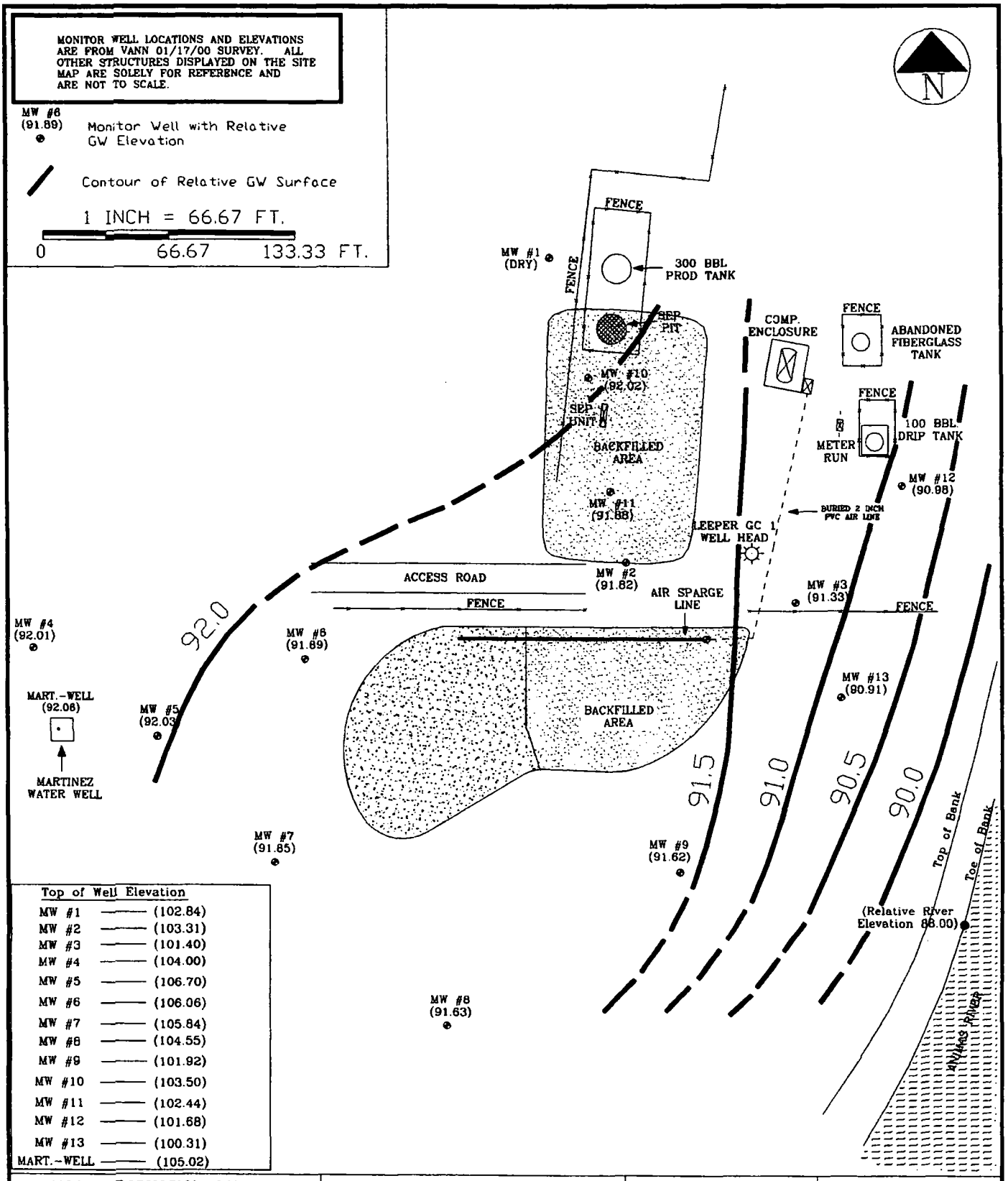
I certify that the work performed by Blagg Engineering, Inc. as described in this report was directed by my supervision, and that I am personally familiar with the remedial actions and the contents of this report.

Submitted by:
Blagg Engineering, Inc.

Jeffrey C. Blagg

Jeffrey C. Blagg, PE
NMPE 11607

Appendix B
Figures



Top of Well Elevation	
MW #1	(102.84)
MW #2	(103.31)
MW #3	(101.40)
MW #4	(104.00)
MW #5	(106.70)
MW #6	(106.06)
MW #7	(105.84)
MW #8	(104.55)
MW #9	(101.92)
MW #10	(103.50)
MW #11	(102.44)
MW #12	(101.68)
MW #13	(100.31)
MART.-WELL	(105.02)

AMOCO PRODUCTION COMPANY

LEEPER GAS COM # 1

NW/4 SW/4 SEC. 34, T32N, R10W

SAN JUAN COUNTY, NEW MEXICO

BLAGG ENGINEERING, INC.
CONSULTING PETROLEUM / RECLAMATION SERVICES
P.O. BOX 87
BLOOMFIELD, NEW MEXICO 87413
PHONE: (505) 632-1199

PROJECT: GW GRADIENT

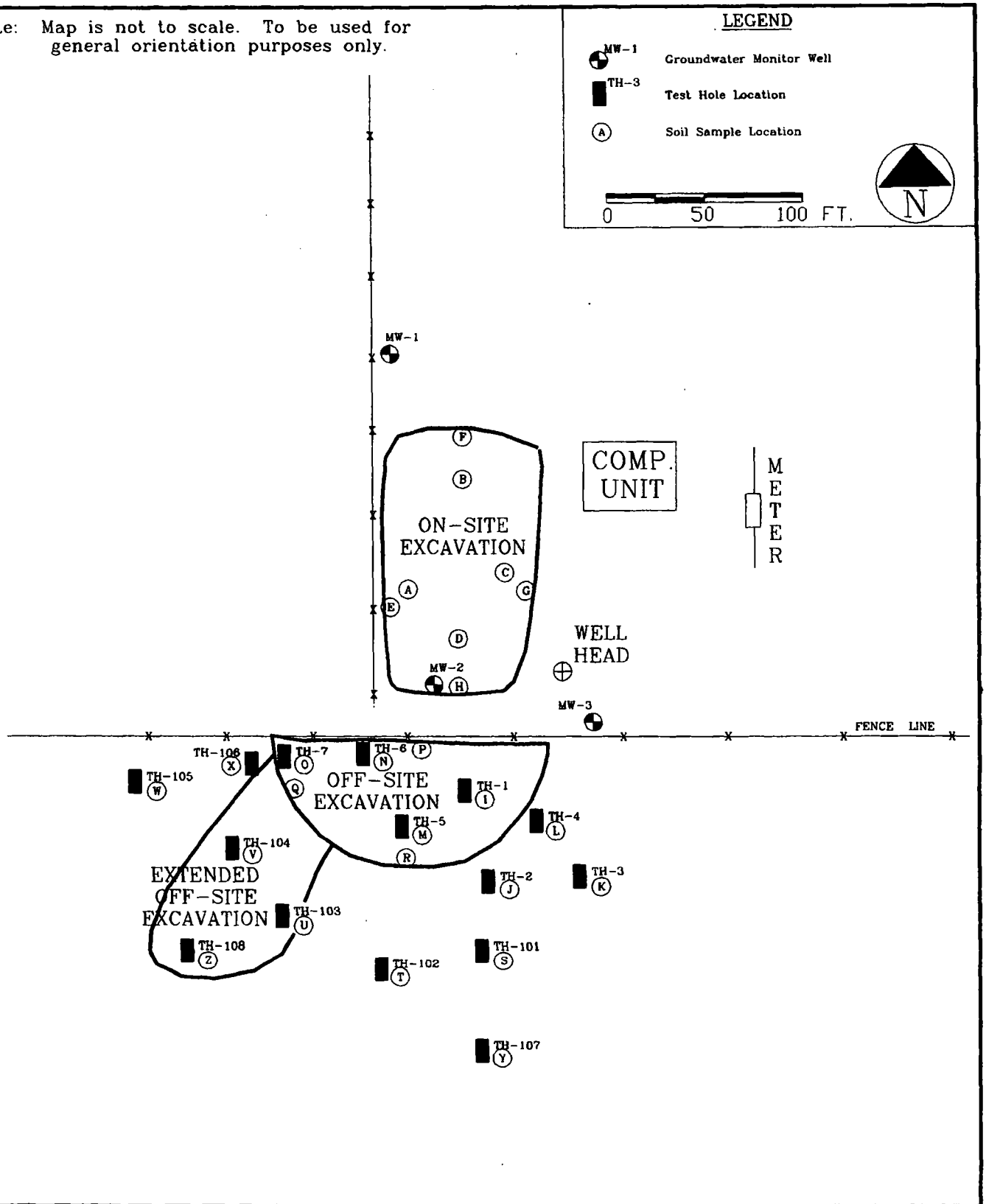
DRAWN BY: JCB

FILENAME: 01-17-GW

REVISED: 02/01/00 JCB

FIGURE 2 GRADIENT MAP 01/17/00

Note: Map is not to scale. To be used for general orientation purposes only.



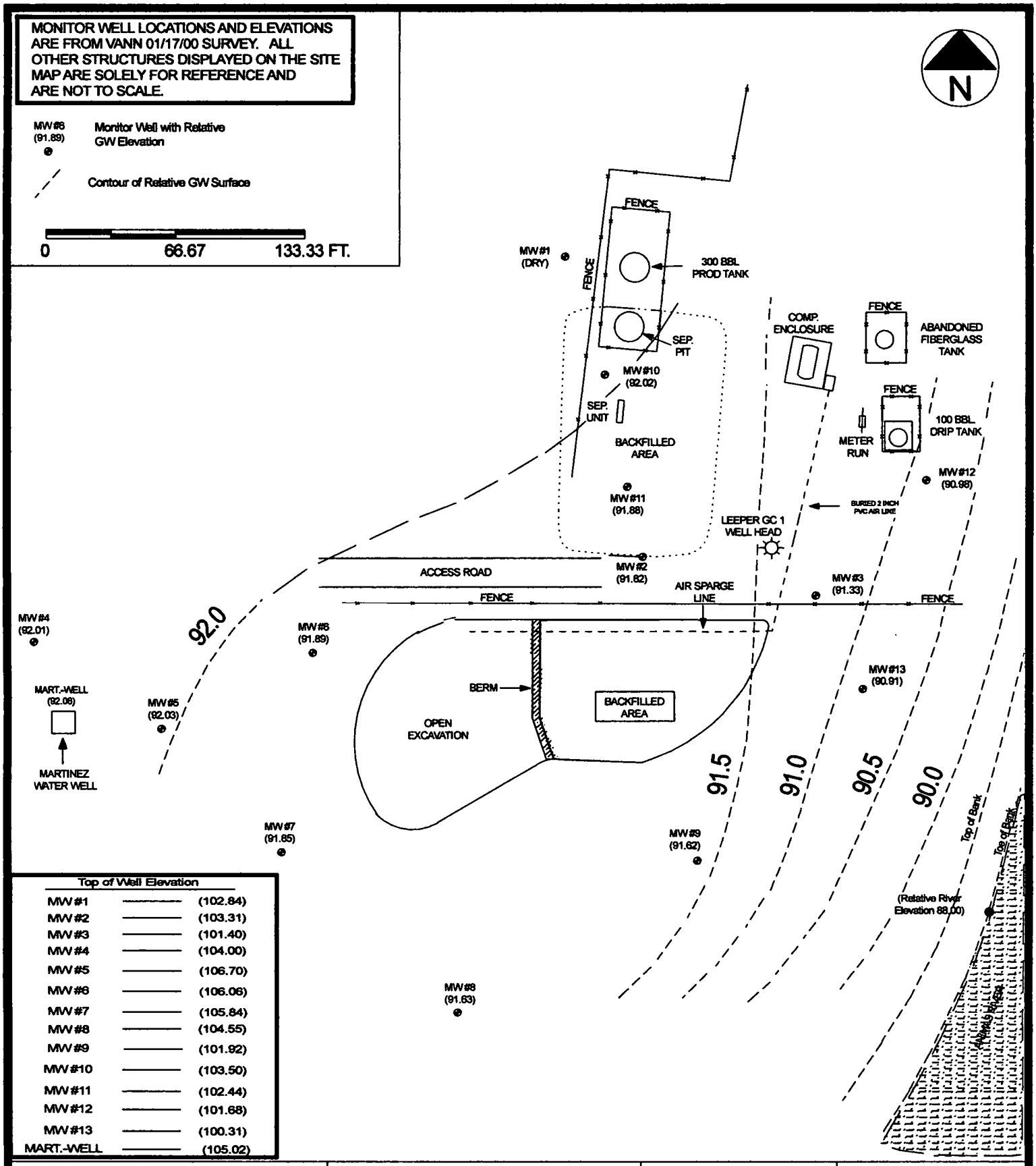
AMOCO PRODUCTION COMPANY LEEPER GC 1 (L) SEC 34-T32N-R10W SAN JUAN COUNTY, NEW MEXICO	BLAGG ENGINEERING, INC CONSULTING PETROLEUM / RECLAMATION SERVICES P.O. BOX 87 BLOOMFIELD, NEW MEXICO 87413 PHONE: (505) 632-1199	PROJECT: TEST SITES DRAWN BY: JCB FILENAME: LEPGC4 DRAFTED: 8/24/99 JCB	FIGURE 3-4 SOIL SAMPLE LOCATIONS 8/99

MONITOR WELL LOCATIONS AND ELEVATIONS ARE FROM VANN 01/17/00 SURVEY. ALL OTHER STRUCTURES DISPLAYED ON THE SITE MAP ARE SOLELY FOR REFERENCE AND ARE NOT TO SCALE.

MW#6 (91.89) — Monitor Well with Relative GW Elevation

Contour of Relative GW Surface

0 66.67 133.33 FT.



Top of Well Elevation	
MW #1	(102.84)
MW #2	(103.31)
MW #3	(101.40)
MW #4	(104.00)
MW #5	(106.70)
MW #6	(106.06)
MW #7	(105.84)
MW #8	(104.55)
MW #9	(101.92)
MW #10	(103.50)
MW #11	(102.44)
MW #12	(101.68)
MW #13	(100.31)
MART.-WELL	(105.02)

AMOCO PRODUCTION COMPANY

LEEPER GAS COM # 1

NW/4 SW/4 SEC. 34, T32N, R10W

SAN JUAN COUNTY, NEW MEXICO

BLAGG ENGINEERING, INC.

CONSULTING PETROLEUM / RECLAMATION SERVICES

P.O. BOX 87

BLOOMFIELD, NEW MEXICO 87413

PHONE: (505) 632-1199

PROJECT: GW GRADIENT

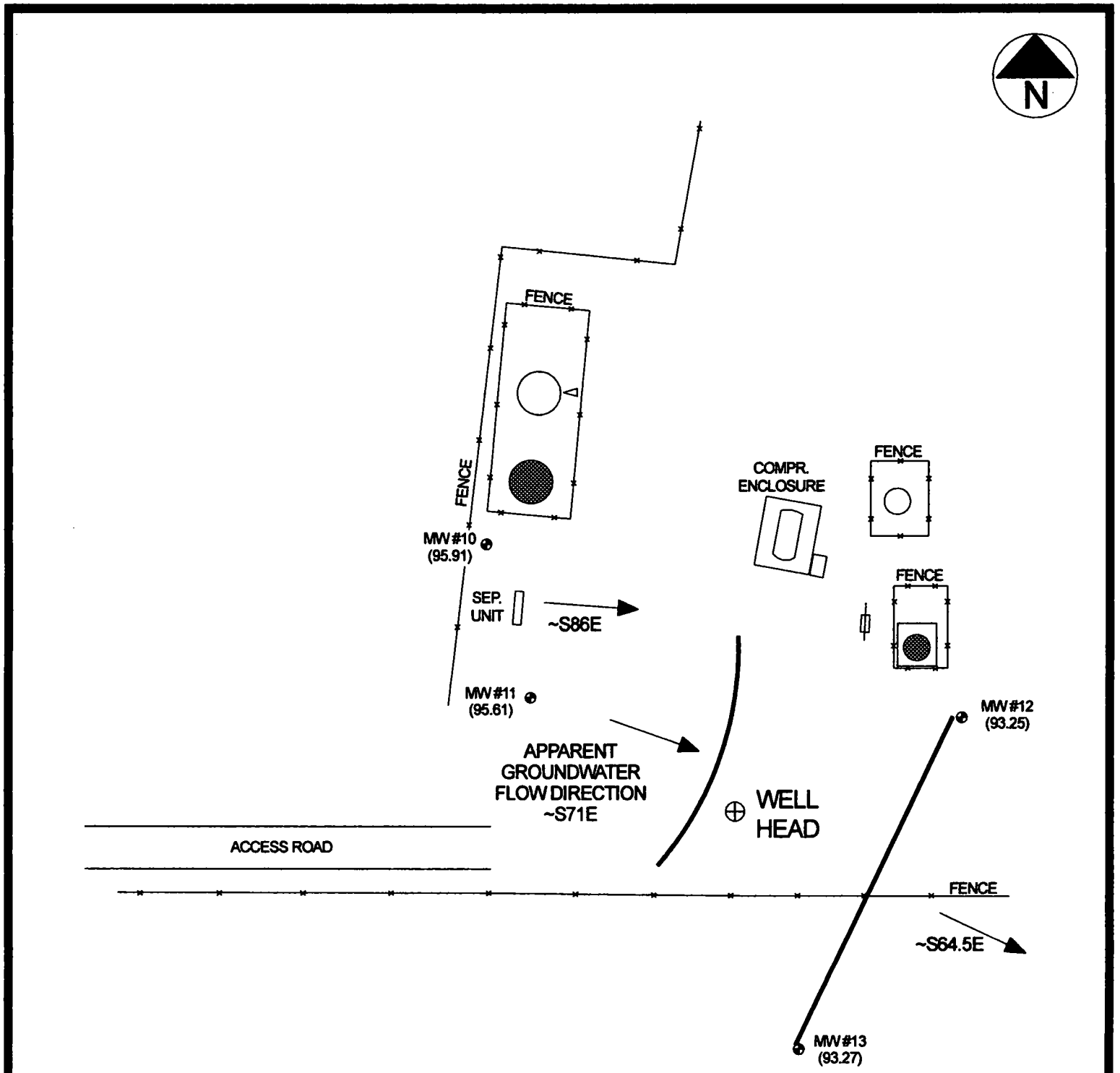
DRAWN BY: JCB

FILENAME: 01-17-GW

REVISED: 02/01/00 JCB

GROUNDWATER GRADIENT MAP

01/17/00



	Top of Well Elevation
MW#10	(103.50)
MW#11	(102.44)
MW#12	(101.68)
MW#13	(100.31)

MW#10 (95.91) Groundwater Elevation as of 05/29/02.

0 50 100 FT.

MONITOR WELL LOCATIONS ARE ONLY AS ACCURATE AS THE INSTRUMENTS USED IN OBTAINING THE FOOTAGE AND BEARING FROM THE WELL HEAD (BRUNTON COMPASS AND LASER RANGEFINDER). ALL OTHER STRUCTURES DISPLAYED ON THE SITE MAP ARE SOLELY FOR REFERENCE AND MAY NOT BE TO SCALE.

BP AMERICA PRODUCTION COMPANY

LEEPER GAS COM # 1

NW/4 SW/4 SEC. 34, T32N, R10W

SAN JUAN COUNTY, NEW MEXICO

BLAGG ENGINEERING, INC.

CONSULTING PETROLEUM / RECLAMATION SERVICES

P.O. BOX 87

BLOOMFIELD, NEW MEXICO 87413

PHONE: (505) 632-1199

PROJECT: MW SAMPLING

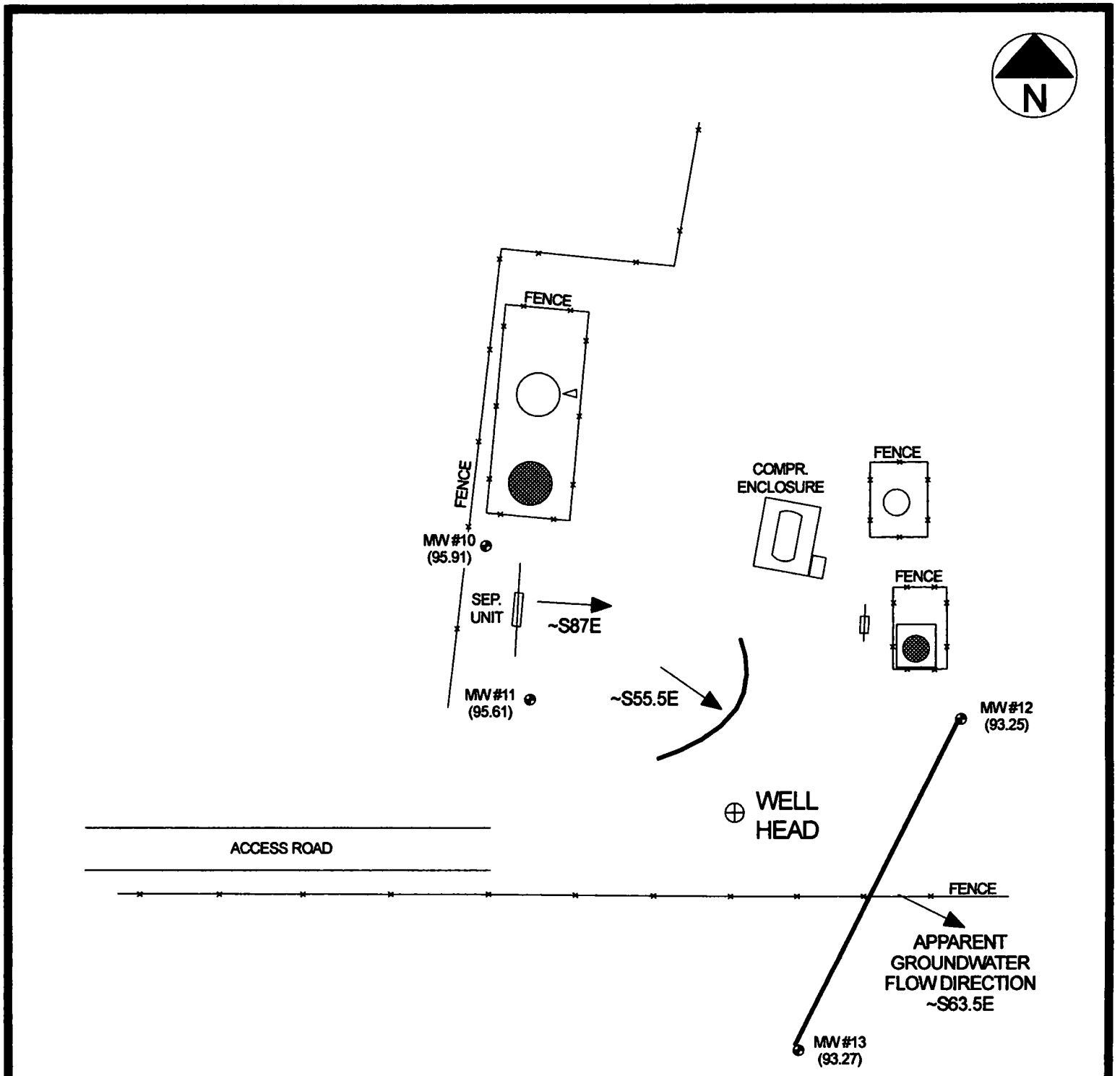
DRAWN BY: NJV

FILENAME: 05-29-02-GW.SKF

REVISED: 08/28/02 NJV

GROUNDWATER CONTOUR MAP

05/02



MONITOR WELL LOCATIONS ARE ONLY AS ACCURATE AS THE INSTRUMENTS USED IN OBTAINING THE FOOTAGE AND BEARING FROM THE WELL HEAD (BRUNTON COMPASS AND LASER RANGEFINDER). ALL OTHER STRUCTURES DISPLAYED ON THE SITE MAP ARE SOLELY FOR REFERENCE AND MAY NOT BE TO SCALE.

BP AMERICA PRODUCTION COMPANY

LEEPER GAS COM # 1

NW/4 SW/4 SEC. 34, T32N, R10W

SAN JUAN COUNTY, NEW MEXICO

BLAGG ENGINEERING, INC.

CONSULTING PETROLEUM / RECLAMATION SERVICES

P.O. BOX 87

BLOOMFIELD, NEW MEXICO 87413

PHONE: (505) 632-1199

PROJECT: MW SAMPLING

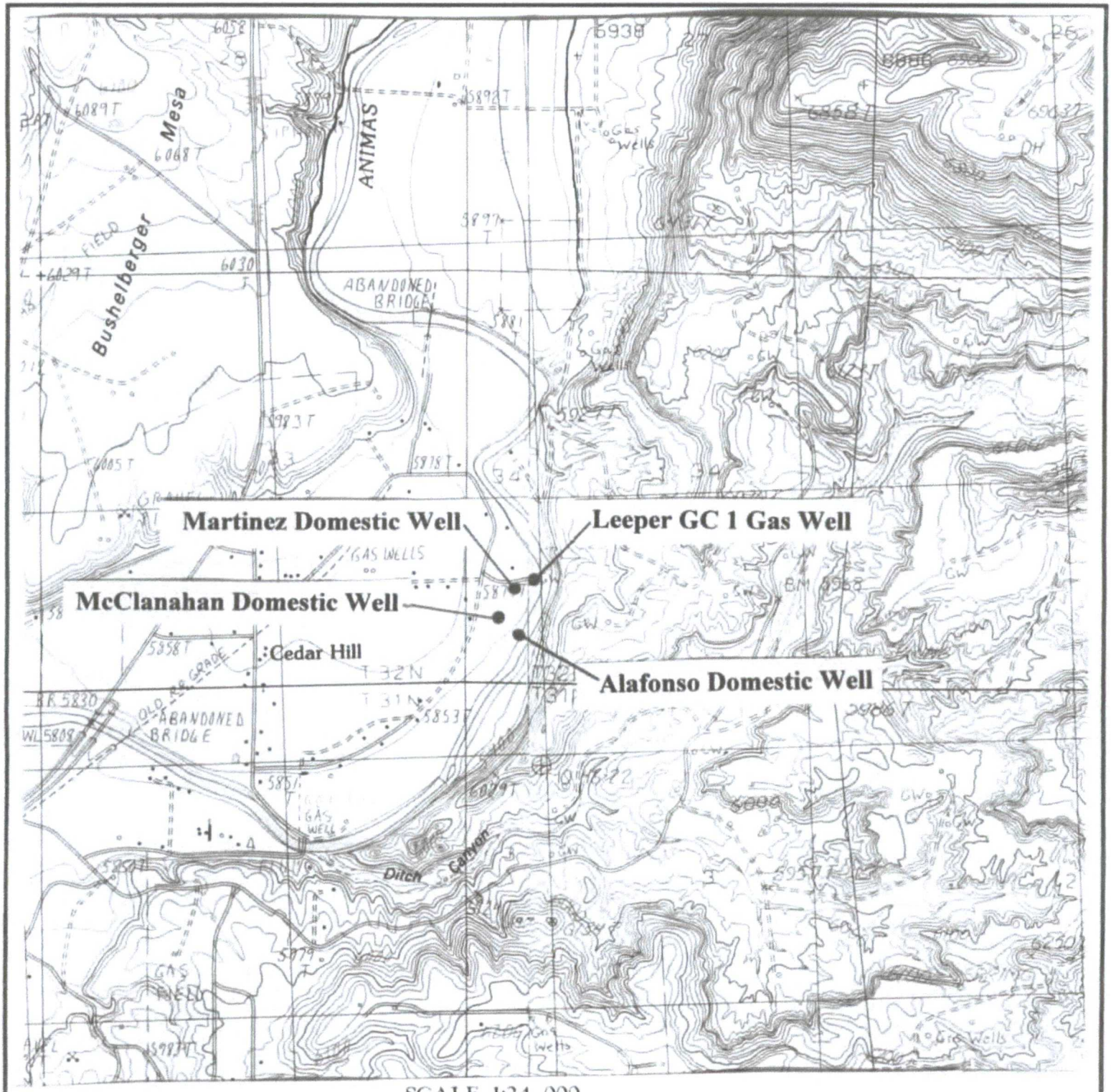
DRAWN BY: NJV

FILENAME: 08-23-02-GW.SKF

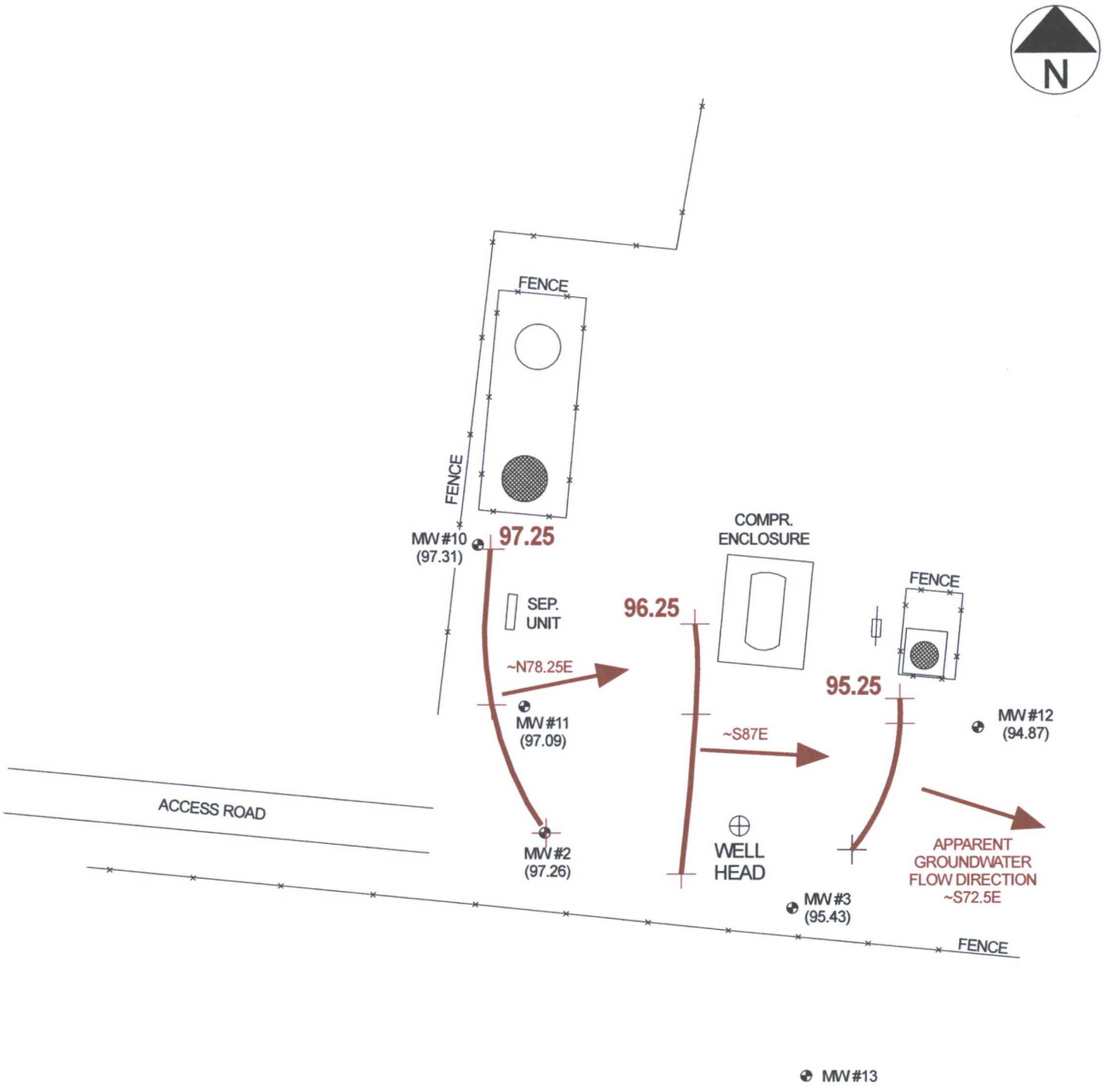
REVISED: 08/28/02 NJV

GROUNDWATER CONTOUR MAP

08/02



SITE LOCATION MAP – DOMESTIC WELLS AMOCO PRODUCTION CO – LEEPER GC 1			*BLAGG ENGINEERING, INC.*
DATE: 8/99	FIGURE 1	BY: JCB	*P.O. BOX 87, BLOOMFIELD, NM* *PHONE: (505)632-1199*



	Top of Well Elevation
MW #2	(104.68)
MW #3	(102.76)
MW #10	(104.84)
MW #11	(103.79)
MW #12	(103.05)

MW #2 (97.26) — Groundwater Elevation as of 7/13/06.

0 50 100 FT.

MONITOR WELL LOCATIONS ARE ONLY AS ACCURATE AS THE INSTRUMENTS USED IN OBTAINING THE FOOTAGE AND BEARING FROM THE WELL HEAD (BRUNTON COMPASS AND LASER RANGEFINDER). ALL OTHER STRUCTURES DISPLAYED ON THE SITE MAP ARE SOLELY FOR REFERENCE AND MAY NOT BE TO SCALE.

BP AMERICA PRODUCTION COMPANY

LEEPER GC # 1

NW/4 SW/4 SEC. 34, T32N, R10W

SAN JUAN COUNTY, NEW MEXICO

BLAGG ENGINEERING, INC.

CONSULTING PETROLEUM / RECLAMATION SERVICES

P.O. BOX 87

BLOOMFIELD, NEW MEXICO 87413

PHONE: (505) 632-1199

PROJECT: MW SAMPLING

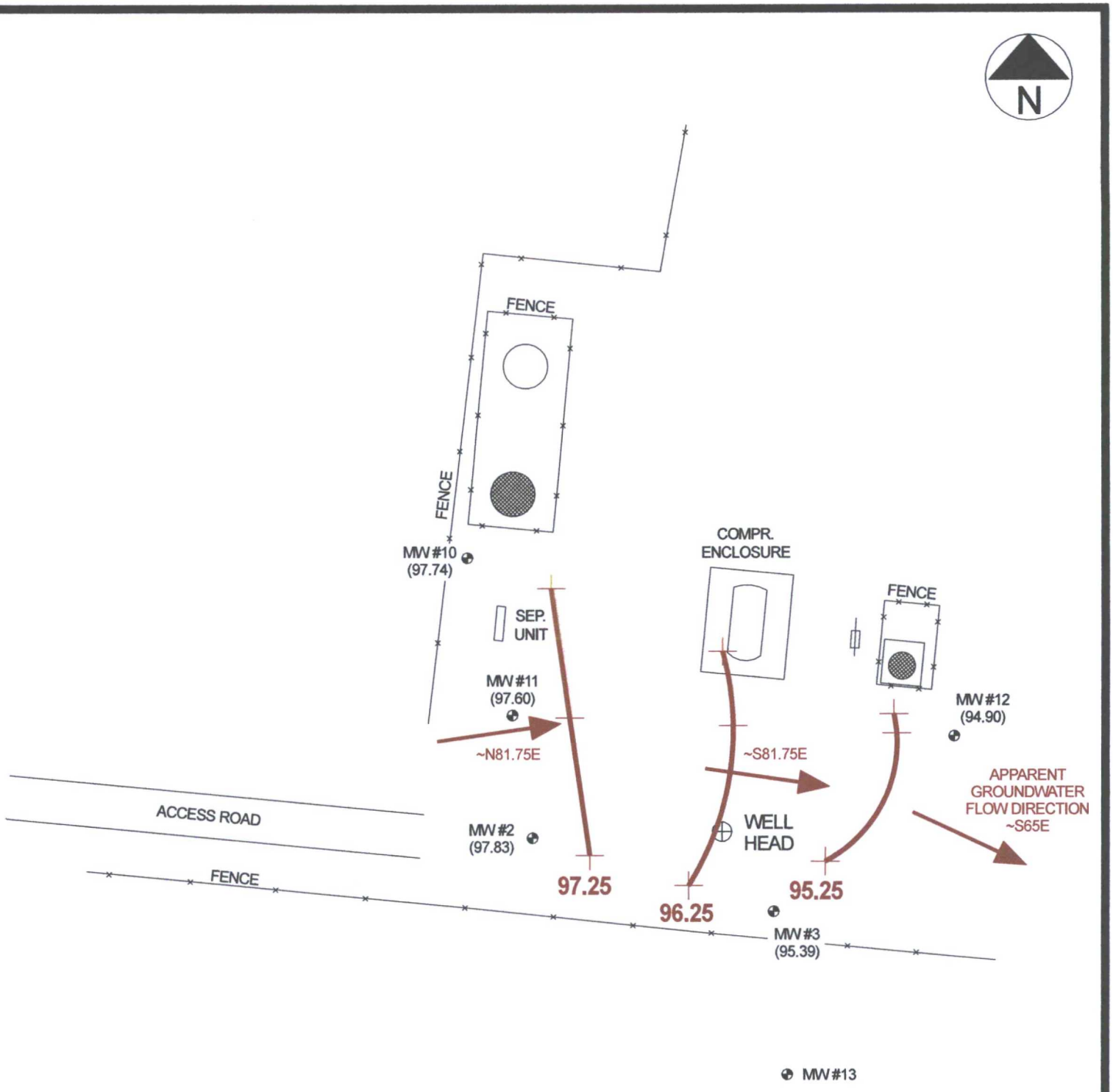
DRAWN BY: NJV

FILENAME: 07-13-06-GW.SKF

REVISED: 07/13/06 NJV

GROUNDWATER CONTOUR MAP

06/06



	Top of Well Elevation
MW #2	(104.68)
MW #3	(102.76)
MW #10	(104.84)
MW #11	(103.79)
MW #12	(103.05)

MW #2 (97.83) Groundwater Elevation as of 8/30/06.

0 50 100 FT.

MONITOR WELL LOCATIONS ARE ONLY AS ACCURATE AS THE INSTRUMENTS USED IN OBTAINING THE FOOTAGE AND BEARING FROM THE WELL HEAD (BRUNTON COMPASS AND LASER RANGEFINDER). ALL OTHER STRUCTURES DISPLAYED ON THE SITE MAP ARE SOLELY FOR REFERENCE AND MAY NOT BE TO SCALE.

BP AMERICA PRODUCTION COMPANY
LEEPER GAS COM # 1
NW/4 SW/4 SEC. 34, T32N, R10W
SAN JUAN COUNTY, NEW MEXICO

BLAGG ENGINEERING, INC.
CONSULTING PETROLEUM / RECLAMATION SERVICES
P.O. BOX 87
BLOOMFIELD, NEW MEXICO 87413
PHONE: (505) 632-1199

PROJECT: MW SAMPLING
DRAWN BY: NJV
FILENAME: 08-30-06-GW.SKF
REVISED: 08/31/06 NJV

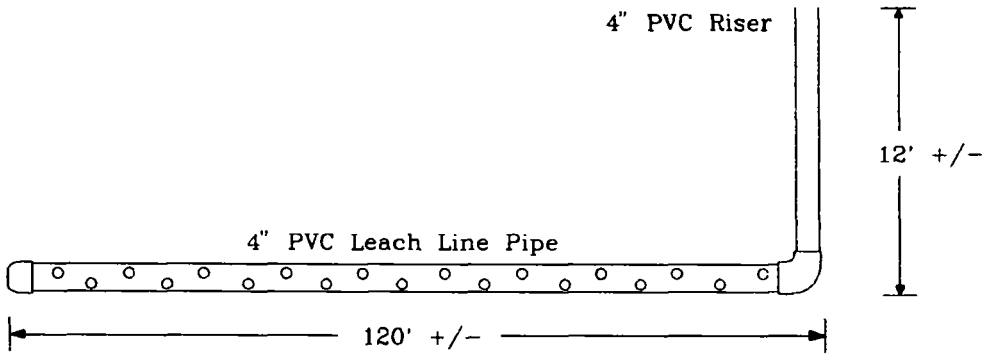
GROUNDWATER CONTOUR MAP

08/06

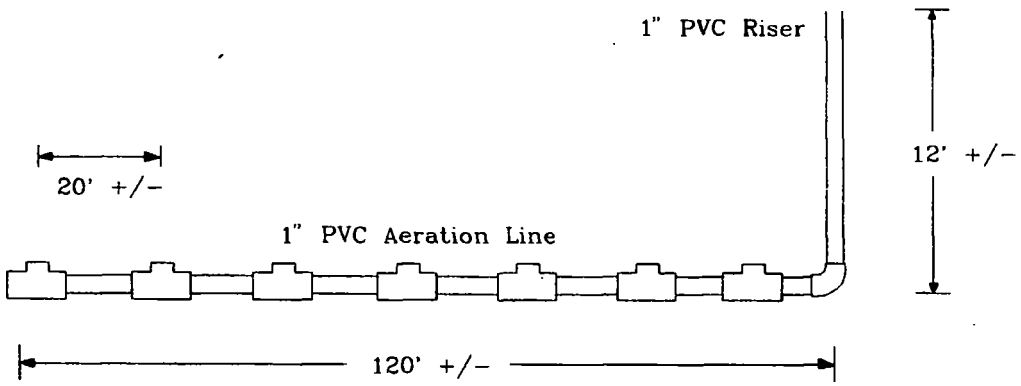
LEGEND

0 20 40 FT.

OUTER PIPING



INNER PIPING



AMOCO PRODUCTION COMPANY LEEPER GC 1 (L) SEC 34-T32N-R10W SAN JUAN COUNTY, NEW MEXICO	BLAGG ENGINEERING, INC. CONSULTING PETROLEUM / RECLAMATION SERVICES P.O. BOX 87 BLOOMFIELD, NEW MEXICO 87413 PHONE: (505) 632-1199	PROJECT: PIT CLOSURE DRAWN BY: JCB FILENAME: LEEPER DRAFTED: 3/15/99 JCB	Aeration System 3/99

Appendix C

Excavation Sampling
Laboratory Analytical Data Reports

BLAGG ENGINEERING INC.
P.O. Box 87, Bloomfield, New Mexico 87413
Phone: (505)632-1199 Fax: (505)632-3903

1/31/00

Leeper GC 1
Site Sampling Summary - Hydrocarbon Test Results - UPDATED 1/31/00

Table 1: Private Domestic Well Analytical Results - BTEX & Methane Summary

Well Name	Sample Date	Sample ID	Benzene ug/L	Toluene ug/L	Ethyl-benzene ug/L	Xylenes ug/L	Methane ppm
Martinez Domestic 93 CR 2350	08/24/98	Private Well	1.2	1.4	1.0	4.7	--
	09/03/98	Private Well	ND	ND	ND	ND	
	01/07/00	0107001110	ND	ND	ND	ND	
	01/07/00	0107001240	ND	ND	ND	ND	--
Alafonso Domestic 102 CR 2350	06/09/99	Alafonso	0.3	0.7	ND	1.3	0.24
	06/10/99	Alafonso	ND	ND	ND	ND	--
	12/21/99	1221991035	ND	ND	ND	ND	--
McClanahan Domestic 98 CR 2335	06/09/99	McLanahan	1.3	3.4	1.0	14.0	ND
	06/10/99	McLanahan	ND	ND	ND	ND	
	12/21/99	1221991145	ND	ND	ND	ND	--

Table 2: Excavation & Test Pit Water Sampling Analytical Results - BTEX Summary

Sample ID	Sample Date	Chain of Custody ID	Benzene ug/L	Toluene ug/L	Ethylbenzene ug/L	Xylenes ug/L
T1 @ GW 110'W x 30'N	05/08/92	T1 @ GW	ND	ND	ND	42.9
TH #2 115' S25W	02/12/99	TH#2@8'	2.9	6.9	2.8	22.5
TH #3 105' S4E	02/12/99	TH#3@9'	1.4	1.7	0.4	2.5
Bottom West @10' (4) on Fig. 3	03/17/99	Bottom West @10'	23.6	7.7	11.7	78.0

TH #101 150' S16W	03/24/99	TH#101(GW)	8.9	19.6	16.1	69.1
TH #104 195' S62W	03/24/99	TH#104(GW)	61.7	77	73.4	333
TH #106 168' S74W	03/24/99	TH#106(GW)	4.6	12.2	4.6	9.9
TH #108 243' S54W	03/24/99	TH#108(GW)	84.7	68.7	26.7	52
Main Pit @ NE Corner (9) on Fig. 3	05/21/99	Main Pit NE Corner	29.6	78.5	27	294.3
Excavation @ NE Corner (9) on Fig. 3	06/25/99	Excavation Water @ NE Corner	1.5	6.9	2.1	18.8
Excavation @ NE Corner (9) on Fig. 3	10/5/99	NE Excav.	1.1	ND	6.7	68.1

Table 3: Soil Sampling Analytical Results - Field OVM PID and Lab TPH/BTEX

Sample ID	Sample Date	Chain of Custody ID	Field Headspace ppm	Total Petroleum Hydrocarbons U.S. EPA 8015 mg/Kg	Benzene U.S. EPA 8021 mg/Kg	Total BTEX mg/Kg
West Wall @ 5' (A) on Fig. 4	08/14/98	--	2.0	--	--	--
North Wall@5' (B) on Fig. 4	08/14/98	--	48.5	--	--	--
East Wall @ 5' (C) on Fig. 4	08/14/99	--	74.0	--	--	--
South Wall@5' (D) on Fig. 4	08/14/99	--	474	--	--	--
West Wall @ 5' (E) on Fig. 4	09/11/99	--	3.5	--	--	--
North Wall@5' (F) on Fig. 4	09/11/99	--	5.5	--	--	--

East Wall @ 5' (G) on Fig. 4	09/11/99	--	1.4	--	--	--
South Wall@5' (H) on Fig. 4	09/11/99	--	322	--	--	--
TH #1 @ 6'-7'	02/12/99	--	412	--	--	--
TH #2 @ 8'-9'	02/12/99	--	173	--	--	--
TH #3 @ 11'-13'	02/12/99	--	0.0	--	--	--
TH #4 @ 9'	02/12/99	--	0.0	--	--	--

Sample ID	Sample Date	Chain of Custody ID	Field Headspace ppm	Total Petroleum Hydrocarbons U.SEPA 8015 mg/Kg	Benzene U.S. EPA 8021 mg/Kg	Total BTEX mg/Kg
TH #5 @ 7'-9'	02/12/99	--	89	--	-	--
TH #6 @ 4'-6'	02/12/99	--	196	--	--	--
TH #7 @ 4'-8'	02/12/99	--	94	--	--	--
Center N. Wall @ 8' (P) on Fig. 4	03/11/99	Center of N. Wall @ 8'	--	3.7	0.409	2.17
West Wall @ 8' (Q) on Fig. 4	03/17/99	W @ 8'	--	3.5	0.0	0.294
South Wall @ 9' (R) on Fig. 4	03/17/99	S @ 9'	--	0.5	--	--
TH 101 @ 11'	03/24/99	--	1,004	--	--	--
TH 102 @ 11'	03/24/99	--	0.0	--	--	--
TH 103 @ 9'	03/24/99	TH#103(9')	1,017	36.3	0.625	7.40

TH 104 @ 11'	03/24/99	TH#104(11')	1,017	210	1.940	13.62
TH 105 @ 9'	03/24/99	--	0.0	--	--	--
TH 106 @ 9'	03/24/99	TH#106(9')	0.0	0.3	--	--
TH 107 @ 9'	03/24/99	TH#107(9')	0.0	0.0	--	--
TH 108 @ 10'	03/24/99	TH#108(10')	99.3	1.5	0.139	1.34

Sample ID	Sample Date	Chain of Custody ID	Field Headspace ppm	Total Petroleum Hydrocarbons U.SEPA 8015 mg/Kg	Benzene U.S. EPA 8021 mg/Kg	Total BTEX mg/Kg
MW-4 @8'	12/30/99	--	0.0			
MW-4 @12'	12/30/99	--	0.0	--	--	--
MW-5 @8'	12/30/99		0.0			
MW-5 @12'	12/30/99	--	0.0	--	--	--
MW-6 @8'	12/31/99		0.0			
MW-6 @12'	12/31/99	--	0.0	--	--	--
MW-7 @8'	12/31/99		0.0			
MW-7 @12'	12/31/99	--	0.0	--	--	--
MW-8 @2'	01/11/00		0.0			
MW-8 @4'	01/11/00		0.0			
MW-8 @6'	01/11/00		0.7			
MW-8 @8'	01/11/00		0.0			
MW-8 @10'	01/11/00	--	0.0	--	--	--
MW-9 @2'	01/12/00		0.0			
MW-9 @4'	01/12/00		0.0			
MW-9 @6'	01/12/00		0.0			
MW-9 @8'	01/12/00	--	0.0	--	--	--
MW-10 @2'	01/10/00		0.0			
MW-10 @4'	01/10/00		0.0			
MW-10 @6'	01/10/00		0.0			
MW-10 @9'	01/10/00	--	1.2	--	--	--
MW-11 @2'	01/11/00		0.0			
MW-11 @4'	01/11/00		0.0			
MW-11 @6'	01/11/00		0.0			
MW-11 @8'	01/11/00	0111001018	402	38.1	--	--

MW-12 @2'	01/10/00		0.0			
MW-12 @4'	01/10/00		0.8			
MW-12 @6'	01/10/00		1.6			
MW-12 @8'	01/10/00	--	0.8	--	--	--
MW-13 @2'	01/12/00		0.0			
MW-13 @4'	01/12/00		0.0			
MW-13 @6'	01/12/00		18.0			
MW-13 @8'	01/12/00	--	88.0	--	--	--

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	Blagg / AMOCO	Project #:	403410
Sample ID:	TH #2 @ 8'	Date Reported:	02-15-99
Chain of Custody:	6598	Date Sampled:	02-12-99
Laboratory Number:	E644	Date Received:	02-12-99
Sample Matrix:	Water	Date Analyzed:	02-15-99
Preservative:	HgCl2 & Cool	Analysis Requested:	BTEX
Condition:	Cool & Intact		

Parameter	Concentration (ug/L)	Dilution Factor	Det. Limit (ug/L)
Benzene	**2.9**	**1**	**0.2**
Toluene	**6.9**	**1**	**0.2**
Ethylbenzene	**2.8**	**1**	**0.2**
p,m-Xylene	**20.0**	**1**	**0.2**
o-Xylene	**2.5**	**1**	**0.1**
Total BTEX	**35.1**		

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	**101 %**
	Bromofluorobenzene	**101 %**

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: **Leeper GC 1.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	Blagg / AMOCO	Project #:	403410
Sample ID:	TH #3 @ 9'	Date Reported:	02-15-99
Chain of Custody:	6598	Date Sampled:	02-12-99
Laboratory Number:	E645	Date Received:	02-12-99
Sample Matrix:	Water	Date Analyzed:	02-15-99
Preservative:	HgCl2 & Cool	Analysis Requested:	BTEX
Condition:	Cool & Intact		

Parameter	Concentration (ug/L)	Dilution Factor	Det. Limit (ug/L)
Benzene	**1.4**	**1**	**0.2**
Toluene	**1.7**	**1**	**0.2**
Ethylbenzene	**0.4**	**1**	**0.2**
p,m-Xylene	**1.8**	**1**	**0.2**
o-Xylene	**0.7**	**1**	**0.1**
Total BTEX	**6.0**		

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	**98 %**
	Bromofluorobenzene	**98 %**

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: **Leeper GC 1.**

Analyst

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CHAIN OF CUSTODY RECORD

6598

Client / Project Name	Project Location		
BLAGG / AMOCO	LEEPER GC 1		
Sampler: J-C-Blagg	Client No. 403410		

ANALYSIS / PARAMETERS

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	BTEX 8021						Remarks
TH #2 @ 8'	2-12-99	1130	E644	WATER	2	X						
TH #3 @ 9'	"	1215	E645	"	2	X						

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
J-C-Blagg	2-12-99	1351	Denise L. Ogilvie	2.12.99	1351
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

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Sample Receipt	Y	N	N/A
Received Intact	✓		
Cool - Ice/Blue Ice	✓		

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	N/A	Project #:	N/A
Sample ID:	02-15-BTEX QA/QC	Date Reported:	02-15-99
Laboratory Number:	E639	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	02-15-99
Condition:	N/A	Analysis:	BTEX

Calibration and Detection Limits (ug/L)	I-Cal RF:	C-Cal RF:	%Diff. Accept. Range 0 - 15%	Blank Conc	Detect. Limit
Benzene	7.0480E-002	7.0650E-002	0.2%	ND	0.2
Toluene	3.5438E-002	3.5502E-002	0.2%	ND	0.2
Ethylbenzene	4.3145E-002	4.3279E-002	0.3%	ND	0.2
p,m-Xylene	3.9865E-002	4.0145E-002	0.5%	ND	0.2
o-Xylene	3.9081E-002	3.9109E-002	0.1%	ND	0.1

Duplicate Conc. (ug/Kg)	Sample	Duplicate	%Diff.	Accept Range	Detect. Limit
Benzene	ND	ND	0.0%	0 - 30%	8.8
Toluene	ND	ND	0.0%	0 - 30%	8.4
Ethylbenzene	ND	ND	0.0%	0 - 30%	7.6
p,m-Xylene	39.6	37.9	4.3%	0 - 30%	10.8
o-Xylene	21.6	20.8	3.7%	0 - 30%	5.2

Spike Conc. (ug/Kg)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept Range
Benzene	ND	50.0	50.0	100%	39 - 150
Toluene	ND	50.0	50.0	100%	46 - 148
Ethylbenzene	ND	50.0	50.0	100%	32 - 160
p,m-Xylene	39.6	100.0	140	100%	46 - 148
o-Xylene	21.6	50.0	71.6	100%	46 - 148

ND - Parameter not detected at the stated detection limit.

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.
Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: QA/QC for samples E639 and E644 - E645.

Analyst

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AMOCO: LEEPER GC #1 2/12/99
J.C. BEAGG

TH #1
0'-3' Sandy Clay, Moist
3'-8' River Rock, up to 15 inches Diameter
4½'-9' Hit Grey Contamination, Strong Odor
TD @ 8', Very Moist, No W.T.
Sample Soil @ 6'-7' For OVM, V. Grey, Strong ODOR = 412
LOCATION: 78' S40°W From Well Head

TH #2
0'-4' Sandy Clay, Moist
4'-10' River Rock
7½' Hit Grey Contamination, Minor Odor
TD 10', Very Moist, W.T ~ 8'
Sample Soil @ 8'-9' For OVM. = 173
12:20 SAMPLE Water For BTEX @ 9'
LOCATION: 115' S25°W

TH #3
0'-11' silty Sand, No HC ODOR or STAIN
11'-13' River Rock, No Odor, No Stain. OVM = ND
LOCATION: 105' S4°E
12:50 Sample GW For BTEX @ 9'

TH #4
0'-10' SANDY Clay, Moist, No HC Stain or ODOR
10'-11' River Rock. GW @ 8'± - Did Not Sample H_2O
Sample Soil @ 9' For OVM = ND
LOCATION: 78' S9°W

TH#5 0'-4' Silty Clay/Sand – NO HC ODOR, STAIN
4'-9' River Rock
7'-9' MINOR HC ODOR & STAIN
Soil OVM = 89
LOCATION: 115' S43°W FROM Wellhead

TH#6 0'-4' Silty Sandy clay, NO HC
4'-6' River Rock, Dark Gry, HC ODOR & STAIN
Soil OVM: 196
LOCATION = 110' S68°W FROM Wellhead.

TH#7 0'-4' Silty Sandy clay, NO HC
4'-8' River Rock, Lite Gry, MINOR HC ODOR & STAIN
Soil OVM = 94
Location = 145' S74°W

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Client:	Blagg / AMOCO	Project #:	403410
Sample ID:	Center of N. Wall @ 8'	Date Reported:	03-12-99
Laboratory Number:	E611	Date Sampled:	03-11-99
Chain of Custody No:	6745	Date Received:	03-12-99
Sample Matrix:	Soil	Date Extracted:	03-12-99
Preservative:	Cool	Date Analyzed:	03-12-99
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	**3.7**	**0.2**
Diesel Range (C10 - C28)	**ND**	**0.1**
Total Petroleum Hydrocarbons	**3.7**	**0.2**

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **Leeper GC #1.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	Blagg / AMOCO	Project #:	403410
Sample ID:	Center of N. Wall @ 8'	Date Reported:	03-12-99
Laboratory Number:	E811	Date Sampled:	03-11-99
Chain of Custody:	6745	Date Received:	03-12-99
Sample Matrix:	Soil	Date Analyzed:	03-12-99
Preservative:	Cool	Date Extracted:	03-12-99
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	**409**	**8.8**
Toluene	**314**	**8.4**
Ethylbenzene	**187**	**7.6**
p,m-Xylene	**854**	**10.8**
o-Xylene	**403**	**5.2**
Total BTEX	**2,170**	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	**97 %**
	Bromofluorobenzene	**97 %**

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **Leeper GC #1.**

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CHAIN OF CUSTODY RECORD

6745

Client / Project Name	Project Location	ANALYSIS / PARAMETERS
BLAGG / AMOCO	LEEPER GC #1	
Sampler: J. BLAGG	Client No. 403410	

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	TPH 8015	BTEX 8021					Remarks
CENTER OF N. WALL @ 8'	3-11-99	1145	E811	SOIL	1	X	X					

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
J-C-Blagg	3-12-99	0052	Chris Ward	3-12-99	5:52
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

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Sample Receipt	Y	N	N/A
Received Intact	✓		
Cool - Ice/Blue Ice	✓		

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	03-12-TPH QA/QC	Date Reported:	03-12-99
Laboratory Number:	E802	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	03-12-99
Condition:	N/A	Analysis Requested:	TPH

	I-Cal Date	I-Cal RF:	C-Cal RF:	% Difference	Accept Range
Gasoline Range C5 - C10	01-11-99	2.6355E-002	2.6308E-002	0.18%	0 - 15%
Diesel Range C10 - C28	01-11-99	1.5731E-002	1.5706E-002	0.16%	0 - 15%

Blank Conc. (mg/L - mg/Kg)	Concentration	Detection Limit
Gasoline Range C5 - C10	ND	0.2
Diesel Range C10 - C28	ND	0.1
Total Petroleum Hydrocarbons	ND	0.2

Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Accept. Range
Gasoline Range C5 - C10	5.2	5.2	0.0%	0 - 30%
Diesel Range C10 - C28	4.1	4.1	0.0%	0 - 30%

Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept. Range
Gasoline Range C5 - C10	5.2	250	255	100%	75 - 125%
Diesel Range C10 - C28	4.1	250	254	100%	75 - 125%

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **QA/QC for samples E802 - E806 and E811.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	N/A	Project #:	N/A
Sample ID:	03-12-BTEX QA/QC	Date Reported:	03-12-99
Laboratory Number:	E811	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	03-12-99
Condition:	N/A	Analysis:	BTEX

Calibration and Detection Limits (ug/L)	I-Cal RF:	C-Cal RF:	%Diff. Accept. Range 0 - 15%	Blank Conc	Detect. Limit
Benzene	7.0480E-002	7.0650E-002	0.2%	ND	0.2
Toluene	3.5438E-002	3.5502E-002	0.2%	ND	0.2
Ethylbenzene	4.3145E-002	4.3278E-002	0.3%	ND	0.2
p,m-Xylene	3.9965E-002	4.0145E-002	0.5%	ND	0.2
o-Xylene	3.9081E-002	3.9109E-002	0.1%	ND	0.1

Duplicate Conc. (ug/Kg)	Sample	Duplicate	%Diff.	Accept Range	Detect. Limit
Benzene	409	414	1.1%	0 - 30%	8.8
Toluene	314	315	0.6%	0 - 30%	8.4
Ethylbenzene	187	188	0.7%	0 - 30%	7.6
p,m-Xylene	854	861	0.8%	0 - 30%	10.8
o-Xylene	403	408	1.3%	0 - 30%	5.2

Spike Conc. (ug/Kg)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept Range
Benzene	409	50.0	459	100%	39 - 150
Toluene	314	50.0	363	100%	46 - 148
Ethylbenzene	187	50.0	237	100%	32 - 160
p,m-Xylene	854	100.0	953	100%	46 - 148
o-Xylene	403	50.0	452	100%	46 - 148

ND - Parameter not detected at the stated detection limit.

References: *Method* 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.
Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: QA/QC for sample E811.

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	Blagg / AMOCO	Project #:	403410
Sample ID:	Bottom West @ 10'	Date Reported:	03-18-99
Chain of Custody:	6753	Date Sampled:	03-17-99
Laboratory Number:	E827	Date Received:	03-18-99
Sample Matrix:	Water	Date Analyzed:	03-18-99
Preservative:	HgCl2 & Cool	Analysis Requested:	BTEX
Condition:	Cool & Intact		

Parameter	Concentration (ug/L)	Dilution Factor	Det. Limit (ug/L)
Benzene	**23.6**	**1**	**0.2**
Toluene	**7.7**	**1**	**0.2**
Ethylbenzene	**11.7**	**1**	**0.2**
p,m-Xylene	**63.8**	**1**	**0.2**
o-Xylene	**14.2**	**1**	**0.1**
Total BTEX	**121**		

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	**101 %**
	Bromofluorobenzene	**101 %**

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: **Leeper GC 1.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Client:	Blagg / AMOCO	Project #:	403410
Sample ID:	W @ 8'	Date Reported:	03-18-99
Laboratory Number:	E828	Date Sampled:	03-17-99
Chain of Custody No:	6753	Date Received:	03-18-99
Sample Matrix:	Soil	Date Extracted:	03-18-99
Preservative:	Cool	Date Analyzed:	03-18-99
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	**1.2**	**0.2**
Diesel Range (C10 - C28)	**2.3**	**0.1**
Total Petroleum Hydrocarbons	**3.5**	**0.2**

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **Leeper GC 1.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	Blagg / AMOCO	Project #:	403410
Sample ID:	W @ 8'	Date Reported:	03-18-99
Laboratory Number:	E828	Date Sampled:	03-17-99
Chain of Custody:	6745	Date Received:	03-18-99
Sample Matrix:	Soil	Date Analyzed:	03-18-99
Preservative:	Cool	Date Extracted:	03-18-99
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	**ND**	**10.4**
Toluene	**ND**	**10.4**
Ethylbenzene	**ND**	**10.4**
p,m-Xylene	**243**	**10.8**
o-Xylene	**50.6**	**5.2**
Total BTEX	**294**	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	**98 %**
	Bromofluorobenzene	**98 %**

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **Leeper GC 1.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Client:	Blagg / AMOCO	Project #:	403410
Sample ID:	S @ 9'	Date Reported:	03-18-99
Laboratory Number:	E829	Date Sampled:	03-17-99
Chain of Custody No:	6753	Date Received:	03-18-99
Sample Matrix:	Soil	Date Extracted:	03-18-99
Preservative:	Cool	Date Analyzed:	03-18-99
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	**0.5**	**0.2**
Diesel Range (C10 - C28)	**ND**	**0.1**
Total Petroleum Hydrocarbons	**0.5**	**0.2**

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **Leeper GC 1.**

Analyst

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CHAIN OF CUSTODY RECORD

6753

Client / Project Name	Project Location	ANALYSIS / PARAMETERS
BLAGG/AMOCO	LEEPER GC 1	

Sampler:	Client No.
J. BLAGG	403410

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	BTEX 8021	TPH 8015					Remarks
BOTTOM WEST @ 10'	3-17-99	1445	E827	WATER	2	X						
W@ 8'	"	1440	E828	SOIL	1	X	X					
S@ 9'	"	1450	E829	SOIL	1		X					

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
J-C-Blagg	3-18-99	0700	Wendell Queen	3-18-99	0700
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

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Sample Receipt	Y	N	N/A
Received Intact	✓		
Cool - Ice/Blue Ice	✓		

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	03-18-TPH QA/QC	Date Reported:	03-18-99
Laboratory Number:	E828	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	03-18-99
Condition:	N/A	Analysis Requested:	TPH

	I-Cal Date	I-Cal RF:	C-Cal RF:	% Difference	Accept. Range
Gasoline Range C5 - C10	03-15-99	4.5896E-002	4.5814E-002	0.18%	0 - 15%
Diesel Range C10 - C28	03-15-99	3.1578E-002	3.1527E-002	0.16%	0 - 15%

Blank Conc. (mg/L - mg/Kg)	Concentration	Detection Limit
Gasoline Range C5 - C10	ND	0.2
Diesel Range C10 - C28	ND	0.1
Total Petroleum Hydrocarbons	ND	0.2

Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Accept. Range
Gasoline Range C5 - C10	1.2	1.2	0.0%	0 - 30%
Diesel Range C10 - C28	2.3	2.3	0.0%	0 - 30%

Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept. Range
Gasoline Range C5 - C10	1.2	250	251	100%	75 - 125%
Diesel Range C10 - C28	2.3	250	252	100%	75 - 125%

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **QA/QC for samples E828 - E829.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS
QUALITY ASSURANCE REPORT

Client:	N/A	Project #:	N/A
Sample ID:	03-18-BTEX QA/QC	Date Reported:	03-18-99
Laboratory Number:	E822	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	03-18-99
Condition:	N/A	Analysis:	BTEX

Calibration and Detection Limits (ug/L)	I-Cal RF:	C-Cal RF:	%Diff. Accept. Range 0 - 15%	Blank Conc	Detect. Limit
Methyl-t-Butyl Ether	2.1804E-001	2.1852E-001	0.22%	ND	0.2
Benzene	7.0480E-002	7.0706E-002	0.32%	ND	0.2
Toluene	3.5438E-002	3.5445E-002	0.02%	ND	0.2
Ethylbenzene	4.3145E-002	4.3196E-002	0.12%	ND	0.2
p,m-Xylene	3.9965E-002	3.9973E-002	0.02%	ND	0.2
o-Xylene	3.9081E-002	3.9199E-002	0.30%	ND	0.1
1,3,5-trimethylbenzene	3.5081E-002	3.5176E-002	0.27%	ND	0.2
1,2,4-trimethylbenzene	4.3888E-002	4.3971E-002	0.19%	ND	0.2

Duplicate Conc. (ug/L)	Sample	Duplicate	%Diff.	Accept Limit
Methyl-t-Butyl Ether	ND	ND	0.0%	0 - 30%
Benzene	ND	ND	0.0%	0 - 30%
Toluene	ND	ND	0.0%	0 - 30%
Ethylbenzene	ND	ND	0.0%	0 - 30%
p,m-Xylene	0.6	0.6	0.0%	0 - 30%
o-Xylene	ND	ND	0.0%	0 - 30%
1,3,5-trimethylbenzene	ND	ND	0.0%	0 - 30%
1,2,4-trimethylbenzene	ND	ND	0.0%	0 - 30%

Spike Conc. (ug/L)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept Limits
Methyl-t-Butyl Ether	ND	50.0	50.0	100%	*
Benzene	ND	50.0	50.0	100%	39 - 150
Toluene	ND	50.0	50.0	100%	46 - 148
Ethylbenzene	ND	50.0	50.0	100%	32 - 160
p,m-Xylene	0.6	100.0	100.6	100%	46 - 148
o-Xylene	ND	50.0	50.0	100%	46 - 148
1,3,5-trimethylbenzene	ND	50.0	50.0	100%	*
1,2,4-trimethylbenzene	ND	50.0	50.0	100%	*

ND - Parameter not detected at the stated detection limit.

* - Administrative Limits set at 80 - 120%.

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.
Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: QA/QC for samples E822 and E827 - E828.

Analyst

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LEEPER GC 1 3/24/99

TH 101 S16W, 150' FR/ W.H. ENCOUNTERED GRAVEL @ ~5' BGS BLACK DISCOLORATION OBSERVED @ ~ 9' BGS

TH 102 S32W, 180' FR/ W.H. ENCOUNTERED GRAVEL @ ~6' BGS APPARENTLY CLEAN HOLE

TH103 S4W, 192' FR/ W.H. 1' INTERVAL OF SMALL COBBLES BET. 10'-11' BGS, DISCOLORATION OBSERVED @ ~ 6'-7' BGS.

TH104 S62W, 195' FR/ W.H. ENCOUNTERED GRAVEL @ 6'-7' BGS, DISCOLORATION OBSERVED ~ 6'-7' BGS

TH105 S75W, 228' FR/ W.H. GRAVEL ENCOUNTERED WELL BELOW GW (~14' BGS), APPARENTLY CLEAN HOLE

TH 106 S74W, 168' FR/ W.H. ENCOUNTERED GRAVEL @ ~ 10' BGS APPARENTLY CLEAN HOLE.

TH 107 S12W, 200' FR/ W.H. ENCOUNTERED GRAVEL @ ~ 5' BGS APPARENTLY CLEAN HOLE

TH108 S54W, 243' FR/ W.H. SMALL GRAVEL ENCOUNTERED @ GW DEPTH (~ 11'), DISCOLORATION OBSERVED @ 8' BGS, GREEN FLOAT (STRONG HC ODOR) ON GW SURFACE [CRUDE OR FREE PRODUCT]

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	Blagg / AMOCO	Project #:	403410
Sample ID:	TH #101 (GW)	Date Reported:	03-25-99
Chain of Custody:	6627	Date Sampled:	03-24-99
Laboratory Number:	E857	Date Received:	03-25-99
Sample Matrix:	Water	Date Analyzed:	03-25-99
Preservative:	HgCl2 & Cool	Analysis Requested:	BTEX
Condition:	Cool & Intact		

Parameter	Concentration (ug/L)	Dilution Factor	Det. Limit (ug/L)
Benzene	**8.9**	**1**	**0.2**
Toluene	**19.6**	**1**	**0.2**
Ethylbenzene	**16.1**	**1**	**0.2**
p,m-Xylene	**63.5**	**1**	**0.2**
o-Xylene	**5.6**	**1**	**0.1**
Total BTEX	**114**		

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	**99 %**
	Bromofluorobenzene	**99 %**

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: **Leeper GC #1.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	Blagg / AMOCO	Project #:	403410
Sample ID:	TH #104 (GW)	Date Reported:	03-25-99
Chain of Custody:	6627	Date Sampled:	03-24-99
Laboratory Number:	E858	Date Received:	03-25-99
Sample Matrix:	Water	Date Analyzed:	03-25-99
Preservative:	HgCl2 & Cool	Analysis Requested:	BTEX
Condition:	Cool & Intact		

Parameter	Concentration (ug/L)	Dilution Factor	Det. Limit (ug/L)
Benzene	**61.7**	**1**	**0.2**
Toluene	**77.0**	**1**	**0.2**
Ethylbenzene	**73.4**	**1**	**0.2**
p,m-Xylene	**133**	**1**	**0.2**
o-Xylene	**200**	**1**	**0.1**
Total BTEX	**545**		

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	**95 %**
	Bromofluorobenzene	**95 %**

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: **Leeper GC #1.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	Blagg / AMOCO	Project #:	403410
Sample ID:	TH #106 (GW)	Date Reported:	03-25-99
Chain of Custody:	6627	Date Sampled:	03-24-99
Laboratory Number:	E859	Date Received:	03-25-99
Sample Matrix:	Water	Date Analyzed:	03-25-99
Preservative:	HgCl2 & Cool	Analysis Requested:	BTEX
Condition:	Cool & Intact		

Parameter	Concentration (ug/L)	Dilution Factor	Det. Limit (ug/L)
Benzene	**4.6**	**1**	**0.2**
Toluene	**12.2**	**1**	**0.2**
Ethylbenzene	**4.6**	**1**	**0.2**
p,m-Xylene	**1.8**	**1**	**0.2**
o-Xylene	**8.1**	**1**	**0.1**
Total BTEX	**31.3**		

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	**98 %**
	Bromofluorobenzene	**98 %**

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: **Leeper GC #1.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	Blagg / AMOCO	Project #:	403410
Sample ID:	TH #108 (GW)	Date Reported:	03-25-99
Chain of Custody:	6627	Date Sampled:	03-24-99
Laboratory Number:	E860	Date Received:	03-25-99
Sample Matrix:	Water	Date Analyzed:	03-25-99
Preservative:	HgCl2 & Cool	Analysis Requested:	BTEX
Condition:	Cool & Intact		

Parameter	Concentration (ug/L)	Dilution Factor	Det. Limit (ug/L)
Benzene	**84.7**	**1**	**0.2**
Toluene	**68.7**	**1**	**0.2**
Ethylbenzene	**26.7**	**1**	**0.2**
p,m-Xylene	**34.5**	**1**	**0.2**
o-Xylene	**17.5**	**1**	**0.1**
Total BTEX	**232**		

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	**95 %**
	Bromofluorobenzene	**95 %**

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: **Leeper GC #1.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Client:	Blagg / AMOCO	Project #:	403410
Sample ID:	TH #103 (9')	Date Reported:	03-25-99
Laboratory Number:	E861	Date Sampled:	03-24-99
Chain of Custody No:	8627	Date Received:	03-25-99
Sample Matrix:	Soil	Date Extracted:	03-25-99
Preservative:	Cool	Date Analyzed:	03-25-99
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	**34.3**	**0.2**
Diesel Range (C10 - C28)	**2.0**	**0.1**
Total Petroleum Hydrocarbons	**36.3**	**0.2**

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **Leeper GC #1.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	Blagg / AMOCO	Project #:	403410
Sample ID:	TH #103 (9')	Date Reported:	03-25-99
Laboratory Number:	E861	Date Sampled:	03-24-99
Chain of Custody:	6627	Date Received:	03-25-99
Sample Matrix:	Soil	Date Analyzed:	03-25-99
Preservative:	Cool	Date Extracted:	03-25-99
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	**625**	**10.4**
Toluene	**2,540**	**10.4**
Ethylbenzene	**711**	**10.4**
p,m-Xylene	**2,480**	**10.4**
o-Xylene	**1,040**	**5.2**
Total BTEX	**7,400**	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	**98 %**
	Bromofluorobenzene	**98 %**

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **Leeper GC #1.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Client:	Blagg / AMOCO	Project #:	403410
Sample ID:	TH #104 (11')	Date Reported:	03-25-99
Laboratory Number:	E862	Date Sampled:	03-24-99
Chain of Custody No:	6627	Date Received:	03-25-99
Sample Matrix:	Soil	Date Extracted:	03-25-99
Preservative:	Cool	Date Analyzed:	03-25-99
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	**201**	**0.2**
Diesel Range (C10 - C28)	**9.1**	**0.1**
Total Petroleum Hydrocarbons	**210**	**0.2**

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **Leeper GC #1.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	Blagg / AMOCO	Project #:	403410
Sample ID:	TH #104 (11')	Date Reported:	03-25-99
Laboratory Number:	E862	Date Sampled:	03-24-99
Chain of Custody:	6627	Date Received:	03-25-99
Sample Matrix:	Soil	Date Analyzed:	03-25-99
Preservative:	Cool	Date Extracted:	03-25-99
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	**1,940**	**10.4**
Toluene	**4,060**	**10.4**
Ethylbenzene	**1,270**	**10.4**
p,m-Xylene	**2,180**	**10.4**
o-Xylene	**4,170**	**5.2**
Total BTEX	**13,620**	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	**101 %**
	Bromofluorobenzene	**101 %**

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **Leeper GC #1.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Client:	Blagg / AMOCO	Project #:	403410
Sample ID:	TH # 106 (9')	Date Reported:	03-25-99
Laboratory Number:	E863	Date Sampled:	03-24-99
Chain of Custody No:	6627	Date Received:	03-25-99
Sample Matrix:	Soil	Date Extracted:	03-25-99
Preservative:	Cool	Date Analyzed:	03-25-99
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	**0.3**	**0.2**
Diesel Range (C10 - C28)	**ND**	**0.1**
Total Petroleum Hydrocarbons	**0.3**	**0.2**

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **Leeper GC #1.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Client:	Blagg / AMOCO	Project #:	403410
Sample ID:	TH # 107 (9')	Date Reported:	03-25-99
Laboratory Number:	E864	Date Sampled:	03-24-99
Chain of Custody No:	6627	Date Received:	03-25-99
Sample Matrix:	Soil	Date Extracted:	03-25-99
Preservative:	Cool	Date Analyzed:	03-25-99
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	ND	0.2
Diesel Range (C10 - C28)	ND	0.1
Total Petroleum Hydrocarbons	ND	0.2

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: Leeper GC #1.

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Client:	Blagg / AMOCO	Project #:	403410
Sample ID:	TH #108 (10')	Date Reported:	03-25-99
Laboratory Number:	E865	Date Sampled:	03-24-99
Chain of Custody No:	6627	Date Received:	03-25-99
Sample Matrix:	Soil	Date Extracted:	03-25-99
Preservative:	Cool	Date Analyzed:	03-25-99
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	1.4	0.2
Diesel Range (C10 - C28)	0.1	0.1
Total Petroleum Hydrocarbons	1.5	0.2

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **Leeper GC #1.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	Blagg / AMOCO	Project #:	403410
Sample ID:	TH #108 (10')	Date Reported:	03-25-99
Laboratory Number:	E865	Date Sampled:	03-24-99
Chain of Custody:	6627	Date Received:	03-25-99
Sample Matrix:	Soil	Date Analyzed:	03-25-99
Preservative:	Cool	Date Extracted:	03-25-99
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	**139**	**10.4**
Toluene	**464**	**10.4**
Ethylbenzene	**136**	**10.4**
p,m-Xylene	**191**	**10.4**
o-Xylene	**410**	**5.2**
Total BTEX	**1,340**	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	**98 %**
	Bromofluorobenzene	**98 %**

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **Leeper GC #1.**

Analyst

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CHAIN OF CUSTODY RECORD

6627

Client / Project Name			Project Location		ANALYSIS / PARAMETERS							
BLAGG / AMOCO			LEEPER GC #1									
Sampler: NJV			Client No. 04034-10		No. of Containers	TPH (8015)	BTEX (8021)					Remarks
Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix								
TH #101 (GW)	3/24/99	1215	E857	WATER	1		✓					
TH # 104 (GW)	3/24/99	1220	E858	WATER	1		✓					
TH # 106 (GW)	3/24/99	1205	E859	WATER	1		✓					
TH #108 (GW)	3/24/99	1230	E860	WATER	1		✓					
TH #103 (9')	3/24/99	1015	E861	SOIL	1	✓	✓					
TH #104 (11')	3/24/99	1035	E862	SOIL	1	✓	✓					
TH # 106 (9')	3/24/99	1110	E863	SOIL	1	✓						
TH # 107 (9')	3/24/99	1130	E864	SOIL	1	✓						
TH # 108 (10')	3/24/99	1145	E865	SOIL	1	✓	✓					

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Nelson Velez	3/25/99	7:13	Dean L. [signature]	3-25-99	7:13
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

ENVIROTECH INC.

5796 U.S. Highway 64
Farmington, New Mexico 87401
(505) 632-0615

Sample Receipt	Y	N	N/A
Received Intact	✓		
Cool - Ice/Blue Ice	✓		

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	03-25-TPH QA/QC	Date Reported:	03-25-99
Laboratory Number:	E861	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	03-25-99
Condition:	N/A	Analysis Requested:	TPH

	I-Cal Date	I-Cal RF:	C-Cal RF:	% Difference	Accept. Range
Gasoline Range C5 - C10	03-15-99	4.5896E-002	4.5814E-002	0.18%	0 - 15%
Diesel Range C10 - C28	03-15-99	3.1578E-002	3.1527E-002	0.16%	0 - 15%

Blank Conc. (mg/L - mg/Kg)	Concentration	Detection Limit
Gasoline Range C5 - C10	ND	0.2
Diesel Range C10 - C28	ND	0.1
Total Petroleum Hydrocarbons	ND	0.2

Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Accept. Range
Gasoline Range C5 - C10	34.3	34.2	0.3%	0 - 30%
Diesel Range C10 - C28	2.0	2.0	0.0%	0 - 30%

Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept. Range
Gasoline Range C5 - C10	34.3	250	284	100%	75 - 125%
Diesel Range C10 - C28	2.0	250	252	100%	75 - 125%

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **QA/QC for samples E861 - E865.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS
QUALITY ASSURANCE REPORT

Client:	N/A	Project #:	N/A
Sample ID:	03-25-BTEX QA/QC	Date Reported:	03-25-99
Laboratory Number:	E857	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	03-25-99
Condition:	N/A	Analysis:	BTEX

Calibration and Detection Limits (ug/L)	I-Cal RF:	C-Cal RF:	%Diff. Accept. Range 0 - 15%	Blank Conc	Detect. Limit
Benzene	3.2332E-002	3.2534E-002	0.62%	ND	0.2
Toluene	1.7471E-002	1.7510E-002	0.22%	ND	0.2
Ethylbenzene	3.0390E-002	3.0398E-002	0.02%	ND	0.2
p,m-Xylene	3.4911E-002	3.5023E-002	0.32%	ND	0.2
o-Xylene	2.9161E-002	2.9191E-002	0.10%	ND	0.1

Duplicate Conc. (ug/L)	Sample	Duplicate	%Diff.	Accept Limit
Benzene	8.9	8.5	4.5%	0 - 30%
Toluene	19.6	19.0	3.1%	0 - 30%
Ethylbenzene	16.1	15.5	3.7%	0 - 30%
p,m-Xylene	63.5	63.6	0.2%	0 - 30%
o-Xylene	5.6	5.4	3.6%	0 - 30%

Spike Conc. (ug/L)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept Limits
Benzene	8.9	50.0	58.6	99%	39 - 150
Toluene	19.6	50.0	68.9	99%	46 - 148
Ethylbenzene	16.1	50.0	65.4	99%	32 - 160
p,m-Xylene	63.5	100.0	161	98%	46 - 148
o-Xylene	5.6	50.0	55.3	99%	46 - 148

ND - Parameter not detected at the stated detection limit.

* - Administrative Limits set at 80 - 120%.

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.
Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: QA/QC for samples E857 - E862 and E865.

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

CATION / ANION ANALYSIS

Client:	Blagg / AMOCO	Project #:	403410
Sample ID:	PW - NS (GW)	Date Reported:	03-29-99
Laboratory Number:	E870	Date Sampled:	03-26-99
Chain of Custody:	6630	Date Received:	03-26-99
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	03-26-99
Condition:	Cool & Intact		

Parameter	Analytical Result	Units		Units
pH	**7.29**	s.u.		
Conductivity @ 25° C	**837**	umhos/cm		
Total Dissolved Solids @ 180C	**415**	mg/L		
Total Dissolved Solids (Calc)	**411**	mg/L		
SAR	**0.1**	ratio		
Total Alkalinity as CaCO3	**249**	mg/L		
Total Hardness as CaCO3	**343**	mg/L		
Bicarbonate as HCO3	**249**	mg/L	4.08	meq/L
Carbonate as CO3	**<1**	mg/L	0.00	meq/L
Hydroxide as OH	**<1**	mg/L	0.00	meq/L
Nitrate Nitrogen	**0.1**	mg/L	0.00	meq/L
Nitrite Nitrogen	**0.004**	mg/L	0.00	meq/L
Chloride	**33.8**	mg/L	0.95	meq/L
Fluoride	**0.69**	mg/L	0.04	meq/L
Phosphate	**<0.1**	mg/L	0.00	meq/L
Sulfate	**95.5**	mg/L	1.99	meq/L
Iron	**0.931**	mg/L		
Calcium	**104**	mg/L	5.17	meq/L
Magnesium	**20.5**	mg/L	1.69	meq/L
Potassium	**3.5**	mg/L	0.09	meq/L
Sodium	**2.6**	mg/L	0.11	meq/L
Cations			7.06	meq/L
Anions			7.06	meq/L
Cation/Anion Difference			**0.02%**	

Reference: U.S.E.P.A., 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983. Water And Waste Water", 18th ed., 1992.

Comments: **Leeper GC #1.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8100
Polynuclear Aromatic Hydrocarbons

Client:	Blagg / AMOCO	Project #:	403410
Sample ID:	PW - NS (GW)	Date Reported:	03-29-99
Laboratory Number:	E870	Date Sampled:	03-26-99
Chain of custody:	6630	Date Received:	03-26-99
Sample Matrix:	Water	Date Analyzed:	03-29-99
Preservative:	Cool	Date Concentrated:	03-29-99
Condition:	Cool & Intact	Analysis Requested:	8100

Parameter	oncentration (ug/L)	Det. Limit (ug/L)
Naphthalene	ND	0.2
Acenaphthylene	ND	0.2
Acenaphthene	ND	0.2
Fluorene	ND	0.2
Phenanthrene	ND	0.2
Anthracene	ND	0.2
Fluoranthene	ND	0.2
Pyrene	ND	0.2
Benzo[a]anthracene	ND	0.2
Chrysene	ND	0.2
Benzo(b)fluoranthene	ND	0.2
Benzo[k]fluoranthene	ND	0.2
Benzo(a)pyrene	ND	0.2
Indeno[1,2,3]pyrene	ND	0.2
Dibenzo[a,h]anthracene	ND	0.2
Benzo(g,h,i)perylene	ND	0.2

ND - Parameter not detected at the stated detection limit.

SURROGATE RECOVERY	Parameter	Percent Recovery
	1-fluoronapthalene	101%

References: Method 8100, Polynuclear Aromatic Hydrocarbons, Test Methods for Evaluating Soild Waste, SW-846, USEPA, September 1986.

Comments: **Leeper GC #1.**

Analyst

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CHAIN OF CUSTODY RECORD

6630

Client / Project Name	Project Location	ANALYSIS / PARAMETERS
BLAGG / Amoco	LEEPER GC #1	
Sampler: NJV	Client No. 04034-10	

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	PAH (8100)	ANION / CATION					Remarks
PW-N5 (GW)	3/26/99	1130	E870	WATER	3	✓	✓					ALL SAMPLES
												PRESERV. - COOL

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Nelson Velez	3/26/99	1252	D. Dean L. Ojeda	3.26.99	1252
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

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Sample Receipt	Y	N	N/A
Received Intact	✓		
Cool - Ice/Blue Ice	✓		

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8100
Polynuclear Aromatic Hydrocarbons
Quality Assurance Report

Client:	QA/QC	Project #:	QA/QC
Sample ID:	Laboratory Blank	Date Reported:	03-29-99
Laboratory Number:	03-29-PAH	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	03-29-99
Condition:	N/A	Analysis Requested:	8100

Parameter	Concentration (ug/L)	Det. Limit (ug/L)
Naphthalene	ND	0.2
Acenaphthylene	ND	0.2
Acenaphthene	ND	0.2
Fluorene	ND	0.2
Phenanthrene	ND	0.2
Anthracene	ND	0.2
Fluoranthene	ND	0.2
Pyrene	ND	0.2
Benzo[a]anthracene	ND	0.2
Chrysene	ND	0.2
Benzo(b)fluoranthene	ND	0.2
Benzo[k]fluoranthene	ND	0.2
Benzo(a)pyrene	ND	0.2
Indeno[1,2,3]pyrene	ND	0.2
Dibenzo[a,h]anthracene	ND	0.2
Benzo(g,h,i)perylene	ND	0.2

ND - Parameter not detected at the stated detection limit.

SURROGATE RECOVERY:	Parameter	Percent Recovery
	1-fluoronapthalene	101%

References: Method 8100, Polynuclear Aromatic Hydrocarbons, Test Methods for Evaluating Solid Waste, SW-846, USEPA, September 1986.

Comments: **QA/QC for sample E870.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8100
Polynuclear Aromatic Hydrocarbons
Quality Assurance Report

Client:	QA/QC	Project #:	QA/QC
Sample ID:	Matrix Duplicate	Date Reported:	03-29-99
Laboratory Number:	E870	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Analysis Requested:	8100	Date Analyzed:	03-29-99
Condition:	N/A		

Parameter	Sample Result (ug/L)	Duplicate Sample Result (ug/L)	Det. Limit (ug/L)	Percent Difference
Naphthalene	ND	ND	0.2	0.0%
Acenaphthylene	ND	ND	0.2	0.0%
Acenaphthene	ND	ND	0.2	0.0%
Fluorene	ND	ND	0.2	0.0%
Phenanthrene	ND	ND	0.2	0.0%
Anthracene	ND	ND	0.2	0.0%
Fluoranthene	ND	ND	0.2	0.0%
Pyrene	ND	ND	0.2	0.0%
Benzo[a]anthracene	ND	ND	0.2	0.0%
Chrysene	ND	ND	0.2	0.0%
Benzo(b)fluoranthene	ND	ND	0.2	0.0%
Benzo[k]fluoranthene	ND	ND	0.2	0.0%
Benzo(a)pyrene	ND	ND	0.2	0.0%
Indeno[1,2,3]pyrene	ND	ND	0.2	0.0%
Dibenzo[a,h]anthracene	ND	ND	0.2	0.0%
Benzo(g,h,i)perylene	ND	ND	0.2	0.0%

ND - Parameter not detected at the stated detection limit.

References: Method 8100, Polynuclear Aromatic Hydrocarbons, Test Methods for Evaluating Solid Waste, SW-846, USEPA, September 1986.

Comments: **QA/QC for sample E870.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8100
Polynuclear Aromatic Hydrocarbons
Quality Assurance Report

Client:	QA/QC	Project #:	QA/QC
Sample ID:	Matrix Spike	Date Reported:	03-29-99
Laboratory Number:	E870	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Analysis Requested:	8100	Date Analyzed:	03-29-99
Condition:	N/A		

Parameter	Sample Result (ug/L)	Spike Added (ug/L)	Spiked Sample Result (ug/L)	Det. Limit (ug/L)	Percent Recovery	SW-846 % Rec. Accept. Range
Naphthalene	ND	100.0	100.6	0.2	101%	10-122
Acenaphthylene	ND	100.0	100.6	0.2	101%	10-139
Acenaphthene	ND	100.0	100.6	0.2	101%	10-124
Fluorene	ND	100.0	100.8	0.2	101%	10-142
Phenanthrene	ND	100.0	100.5	0.2	101%	10-155
Anthracene	ND	100.0	100.8	0.2	101%	10-126
Fluoranthene	ND	10.0	10.1	0.2	101%	14-123
Pyrene	ND	10.0	10.1	0.2	101%	10-140
Benzo[a]anthracene	ND	10.0	10.1	0.2	101%	10-116
Chrysene	ND	10.0	10.0	0.2	100%	12-135
Benzo(b)fluoranthene	ND	10.0	10.1	0.2	101%	10-199
Benzo[k]fluoranthene	ND	5.0	5.0	0.2	101%	10-160
Benzo(a)pyrene	ND	10.0	10.1	0.2	101%	10-159
Indeno[1,2,3]pyrene	ND	10.0	10.1	0.2	101%	10-128
Dibenzo[a,h]anthracene	ND	10.0	10.1	0.2	101%	10-110
Benzo(g,h,i)perylene	ND	10.0	10.0	0.2	100%	10-116

ND - Parameter not detected at the stated detection limit.

References: Method 8100, Polynuclear Aromatic Hydrocarbons, Test Methods for Evaluating Solid Waste, SW-846, USEPA, September 1986.

Comments: **QA/QC for sample E870.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	Blagg / AMOCO	Project #:	403410
Sample ID:	Main Pit NE Corner	Date Reported:	05-24-99
Chain of Custody:	6988	Date Sampled:	05-21-99
Laboratory Number:	F367	Date Received:	05-21-99
Sample Matrix:	Water	Date Analyzed:	05-23-99
Preservative:	HgCl2 & Cool	Analysis Requested:	BTEX
Condition:	Cool & Intact		

Parameter	Concentration (ug/L)	Dilution Factor	Det. Limit (ug/L)
Benzene	**29.6**	**1**	**0.2**
Toluene	**78.5**	**1**	**0.2**
Ethylbenzene	**27.0**	**1**	**0.2**
p,m-Xylene	**229**	**1**	**0.2**
o-Xylene	**65.3**	**1**	**0.1**
Total BTEX	**429**		

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	**97 %**
	Bromofluorobenzene	**97 %**

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: **Leeper GC 1.**

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CHAIN OF CUSTODY RECORD

6988

Client / Project Name	Project Location	ANALYSIS / PARAMETERS
BLAGG/AMOCO	LEEPER GC 1	

Sampler:	Client No.
J. BLAGG	403410

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	BTEX 8021						Remarks
MAIN PIT NE CORNER	5-21-99	0928	F367	WATER	2	✓						

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
J. C. Blagg	5-21-99	1058	Christine Walter	5.21.99	10:58
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

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Sample Receipt	Y	N	N/A
Received Intact	✓		
Cool - Ice/Blue Ice	✓		

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS
QUALITY ASSURANCE REPORT

Client:	N/A	Project #:	N/A
Sample ID:	05-23-PM-BTEX QA/QC	Date Reported:	05-24-99
Laboratory Number:	F294	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	05-23-99
Condition:	N/A	Analysis:	BTEX

Benzene	1.6360E-002	1.6412E-002	0.32%	ND	0.2
Toluene	1.7563E-002	1.7566E-002	0.02%	ND	0.2
Ethylbenzene	7.1313E-003	7.1398E-003	0.12%	ND	0.2
p,m-Xylene	8.5740E-003	8.5758E-003	0.02%	ND	0.2
o-Xylene	7.9281E-003	7.9520E-003	0.30%	ND	0.1

Benzene	0.4	0.4	0.0%	0 - 30%
Toluene	ND	ND	0.0%	0 - 30%
Ethylbenzene	0.2	0.2	0.0%	0 - 30%
p,m-Xylene	0.9	1.0	11.1%	0 - 30%
o-Xylene	0.5	0.5	0.0%	0 - 30%

Benzene	0.4	50.0	50.4	100%	39 - 150
Toluene	ND	50.0	50.1	100%	46 - 148
Ethylbenzene	0.2	50.0	50.2	100%	32 - 160
p,m-Xylene	0.9	100.0	101	100%	46 - 148
o-Xylene	0.5	50.0	50.5	100%	46 - 148

ND - Parameter not detected at the stated detection limit.

* - Administrative Limits set at 80 - 120%.

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.
Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: QA/QC for samples F294 - F300 and F367.

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS
QUALITY ASSURANCE REPORT

Client:	N/A	Project #:	N/A
Sample ID:	06-10-BTEX QA/QC	Date Reported:	06-10-99
Laboratory Number:	F477	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	06-10-99
Condition:	N/A	Analysis:	BTEX

Benzene	1.6360E-002	1.6412E-002	0.32%	ND	0.2
Toluene	1.7583E-002	1.7566E-002	0.02%	ND	0.2
Ethylbenzene	7.1313E-003	7.1398E-003	0.12%	ND	0.2
p,m-Xylene	8.5740E-003	8.5758E-003	0.02%	ND	0.2
o-Xylene	7.9281E-003	7.9520E-003	0.30%	ND	0.1

Benzene	1.3	1.3	0.0%	0 - 30%
Toluene	3.4	3.4	0.0%	0 - 30%
Ethylbenzene	1.0	1.0	0.0%	0 - 30%
p,m-Xylene	10.2	10.6	3.9%	0 - 30%
o-Xylene	3.8	3.8	0.0%	0 - 30%

Benzene	1.3	50.0	51.3	100%	39 - 150
Toluene	3.4	50.0	53.4	100%	46 - 148
Ethylbenzene	1.0	50.0	51.0	100%	32 - 160
p,m-Xylene	10.2	100.0	110	100%	46 - 148
o-Xylene	3.8	50.0	53.8	100%	46 - 148

ND - Parameter not detected at the stated detection limit.

* - Administrative Limits set at 80 - 120%.

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996
Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996

Comments: QA/QC for samples F477 - F480.

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Appendix D

Monitor Well Sampling
Summary Data Spreadsheet

Field Sampling Notes
&
Laboratory Analytical Data Reports

BP AMERICA PRODUCTION COMPANY

GROUNDWATER FIELD DATA & LAB BTEX RESULTS

LEEPER GC # 1
UNIT L, SEC. 34, T32N, R10W

Revised Date: January 16, 2018
Submitted by Blagg Engineering, Inc.

SAMPLE DATE	WELL NAME / NUMBER	DEPTH TO WATER (ft)	WELL DEPTH (ft)	TDS (mg/L)	CONDUCT. (umhos)	pH	FREE PHASE PRODUCT (ft)	BTEX US EPA METHOD 8021B or 8260B			
								BENZENE (ppb)	TOLUENE (ppb)	ETHYL BENZENE (ppb)	TOTAL XYLENES (ppb)
14-Oct-98	MW #1	9.57	11.57		-	-	-	3.2	7.4	4.9	16.8
25-Jun-99		6.21			-	-	-	0.7	0.7	1.1	8.6
5-Oct-99		9.33			-	-	-	ND	ND	ND	ND
14-Oct-98	MW #2	9.41	15.56		-	-	-	224	101	51.1	1,238
29-Jan-99		12.1			-	-	-	549	476	129	535
25-Jun-99		5.86	15.21		-	-	-	122	264	98.9	296
5-Oct-99		7.84			-	-	-	130	15	210	4,510
18-Jan-00		11.51			1,077	7.01	-	140	30	120	3,370
10-Jun-03		6.85			500	7.03		32	ND	3.5	130
20-Aug-03		7.12			700	6.88		17	ND	14	21
11-Nov-03		10.41			1,000	6.91		3.6	ND	4.5	28
27-May-04		6.88			1,200	6.63		80	ND	5.4	140
23-Jun-05		5.11			800	6.99		7.9	ND	1.5	2
20-Sep-05		8.9			900	6.8		ND	ND	1.8	2.1
28-Jun-06		5.76			800	6.93		1	ND	ND	4.2
28-Jun-06		6.85			800	6.95		ND	ND	ND	ND
14-Oct-98	MW #3	8.79	11.33		-	-	-	0.5	0.5	ND	0.9
25-Jun-99		5.62	11.3		-	-	-	2.3	12.3	3.3	29.6
5-Oct-99		7.93			-	-	-	7.7	1.7	1.1	9
10-Jun-03		6.65						1.3	ND	ND	210
3-Jan-00	MW #4	11.72	19.88		705	7.22	-	ND	ND	ND	ND
7-Jan-00		11.82			702	7.25	-	ND	ND	ND	ND
4-Jan-00	MW #5	14.45	23.5		697	7.18	-	ND	ND	ND	ND
7-Jan-00		14.51			694	7.14	-	ND	ND	ND	ND
7-Jan-00	dup.	-			-	-	-	ND	ND	ND	ND
4-Jan-00	MW #6	13.97	23		705	7.19	-	ND	ND	ND	ND
7-Jan-00		14.01			712	7.2	-	ND	ND	ND	ND
16-May-00		10.85	22.5		700	7.3		ND	ND	ND	ND
4-Jan-00	MW #7	13.78	22		668	7.38	-	ND	0.8	ND	ND
7-Jan-00		13.82			696	7.21	-	ND	ND	ND	ND
18-Jan-00	MW #8	12.94	21.9		696	7.35	-	ND	ND	ND	ND
27-Jan-00		13.04			704	7.32	-	ND	ND	ND	ND
18-Jan-00	MW #9	10.31	22		715	7.33	-	ND	ND	ND	ND
27-Jan-00		10.41			714	7.31	-	ND	ND	ND	ND
18-Jan-00	MW #10	11.51	22		807	7.25	-	9.6	ND	12	77.7
27-Jan-00		11.59			790	7.22	-	2.2	ND	3.6	16.7
16-May-00		7.59	19.9		800	7.3		ND	ND	ND	ND
22-May-01		7.17			700	7.44		ND	ND	ND	ND
29-May-02		7.59			1,100	7.15		14	0.9	7.2	41
23-Aug-02		8.52			900	6.9		ND	0.6	ND	0.6
27-Nov-02		11.24			700	7.3		ND	ND	ND	ND
24-Feb-03		11.84			600	7.46		ND	ND	ND	ND
27-May-03		7.58			500	7.07		ND	ND	ND	ND
							NMWQCC GROUNDWATER STANDARDS	10	750	750	620

BP AMERICA PRODUCTION COMPANY

GROUNDWATER FIELD DATA & LAB BTEX RESULTS

LEEPER GC # 1
UNIT L, SEC. 34, T32N, R10W

Revised Date: January 16, 2018
Submitted by Blagg Engineering, Inc.

SAMPLE DATE	WELL NAME / NUMBER	DEPTH TO WATER (ft)	WELL DEPTH (ft)	TDS (mg/L)	CONDUCT. (umhos)	pH	FREE PHASE PRODUCT (ft)	BTEX US EPA METHOD 8021B or 8260B BENZENE (ppb)	TOLUENE (ppb)	ETHYL BENZENE (ppb)	TOTAL XYLENES (ppb)
18-Jan-00	MW #11	10.6	22		745	7.24	-	**31**	ND	3.3	63
27-Jan-00		10.68			747	7.18	-	**35**	ND	1.5	31.3
16-May-00		6.81	20.4		800	6.9		**26**	0.6	8	74.9
22-May-01		6.33			900	7.15		**16**	0.8	3	21
29-May-02		6.83			1,000	7		**2.8**	ND	ND	ND
23-Aug-02		7.72			800	7.72		**1.6**	ND	ND	ND
27-Nov-02		10.34			700	7.32		**0.6**	ND	ND	ND
24-Feb-03		10.92			600	7.48		**ND**	ND	ND	ND
18-Jan-00	MW #12	10.71	22		759	7.27	-	ND	ND	ND	ND
27-Jan-00		10.74			742	7.23	-	ND	ND	ND	ND
27-Jan-00	dup.	-			-	-	-	ND	ND	ND	ND
16-May-00		8.21	19.7		800	7.1		ND	ND	ND	ND
22-May-01		7.28			700	7.34		ND	ND	ND	ND
28-Jun-06		7.47			800	6.96		ND	ND	ND	ND
18-Jan-00	MW #13	9.41	22		789	7.23	-	2.6	ND	2.5	19
27-Jan-00		9.46			749	7.19	-	1.5	ND	1.8	9
16-May-00		6.87	20.4		900	7.2	-	**14**	0.8	9	75.6
22-May-01		5.91			800	7.27		**0.5**	ND	0.7	3.1
29-May-02		7.04			1,100	7.25		**ND**	ND	ND	2.7
23-Aug-02		7.74			900	7.2		**ND**	ND	ND	ND
27-Nov-02		9.24			700	7.4		**ND**	ND	ND	ND
							NMWQCC GROUNDWATER STANDARDS	**10**	**750**	**750**	**620**

NOTES :

1) **RESULTS IN BOLD RED TYPE INDICATE EXCEEDING NMWQCC STANDARDS .**
2) **RESULTS IN BOLD BLUE TYPE INDICATE BELOW NMWQCC STANDARDS AFTER PREVIOUS RESULTS IN BOLD RED TYPE EXCEEDED .**
3) **ND - NOT DETECTED AT THE REPORTING LIMITS (less than regulatory standards of at least a magnitude of 10).**
4) **NMWQCC - NEW MEXICO WATER QUALITY CONTROL COMMISSION.**

BLAGG ENGINEERING, INC.

MONITOR WELL SAMPLING DATA

CLIENT : AMOCO PRODUCTION CO. **CHAIN-OF-CUSTODY # :**

LOCATION : LEEPER GC # 1 **LABORATORY (S) USED :** ENVIROTECH, INC.

Date : January 29, 1999 **SAMPLER :** R E P

Filename : 01-29-99.WK4 **PROJECT MANAGER :** J C B

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pH	CONDUCT (umhos)	VOLUME PURGED (gal.)	FREE PRODUCT (ft)
1				11.57	-	-	-	-	-
2	105.19	93.09	12.10	15.56	1020	8.4	1000	2.00	-
3				11.33	-	-	-	-	-
4					-	-	-	-	-

NOTES : Volume of water purged from well prior to sampling: V = pi X r2 X h X 7.48 gal./ft3) X 3 (wellbores).

(i.e. 2" MW r = (1/12) ft. h = 1 ft.) (i.e. 4" MW r = (2/12) ft. h = 1 ft.)

Ideally a minimum of three (3) wellbore volumes:

1.25 " well diameter = 0.19 gallons per foot of water (or 24 oz.).

2 bails per foot - small teflon bailer.

3 bails per foot - 3 / 4 " teflon bailer.

2.00 " well diameter = 0.49 gallons per foot of water.

4.00 " well diameter = 1.95 gallons per foot of water.

Comments or note well diameter if not standard 2 ".

MW - #,s 1 & 3 contained no water.

BLAGG ENGINEERING, INC.

MONITOR WELL SAMPLING DATA

CLIENT : AMOCO PRODUCTION CO. **CHAIN-OF-CUSTODY # :**

LOCATION : LEEPER GC # 1 **LABORATORY (S) USED :** ENVIROTECH, INC.

Date : June 25, 1999 **SAMPLER :** R E P

Filename : 06-25-99.WK4 **PROJECT MANAGER :** J C B

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pH	CONDUCT (umhos)	VOLUME PURGED (gal.)	FREE PRODUCT (ft)
1	106.23	100.02	6.21	11.57	1000	7.19	1010	2.68	-
2	104.80	98.94	5.86	15.21	0920	7.14	600	4.67	-
3	102.83	97.21	5.62	11.30	0940	7.78	200	2.84	-
NE EXCAV.	NA		NA	NA	1010	7.89	600	-	-

NOTES : Volume of water purged from well prior to sampling: V = pi X r2 X h X 7.48 gal./ft3) X 3 (wellbores).

(i.e. 2" MW r = (1/12) ft. h = 1 ft.) (i.e. 4" MW r = (2/12) ft. h = 1 ft.)

Ideally a minimum of three (3) wellbore volumes:

1.25 " well diameter = 0.19 gallons per foot of water (or 24 oz.).

2 bails per foot - small teflon bailer.

3 bails per foot - 3 / 4 " teflon bailer.

2.00 " well diameter = 0.49 gallons per foot of water.

4.00 " well diameter = 1.95 gallons per foot of water.

Comments or note well diameter if not standard 2 ".

BLAGG ENGINEERING, INC.

MONITOR WELL SAMPLING DATA

CLIENT : AMOCO PRODUCTION CO. **CHAIN-OF-CUSTODY # :** 10341

LOCATION : LEEPER GC #1 **LABORATORY (S) USED :** ON SITE TECH.

Date : October 5, 1999 **SAMPLER :** R E P

Filename : 10-05-99.WK4 **PROJECT MANAGER :** J C B

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pH	CONDUCT (umhos)	VOLUME PURGED (gal.)	FREE PRODUCT (ft)
1	106.23	96.90	9.33	11.57	1030	6.82	1700	1.00	-
2	104.80	96.96	7.84	15.21	1050	6.94	800	3.75	-
3	102.83	94.90	7.93	11.30	1110	6.92	900	1.75	-
NE EXCAV.	NA		NA	NA	1130	8.00	500	-	-

NOTES : Volume of water purged from well prior to sampling: V = pi X r2 X h X 7.48 gal./ft3) X 3 (wellbores).

(i.e. 2" MW r = (1/12) ft. h = 1 ft.) (i.e. 4" MW r = (2/12) ft. h = 1 ft.)

Ideally a minimum of three (3) wellbore volumes:

1.25 " well diameter = 0.19 gallons per foot of water (or 24 oz.).

2 bails per foot - small teflon bailer.

3 bails per foot - 3 / 4 " teflon bailer.

2.00 " well diameter = 0.49 gallons per foot of water.

4.00 " well diameter = 1.95 gallons per foot of water.

Comments or note well diameter if not standard 2 ".

BLAGG ENGINEERING, INC.

MONITOR WELL SAMPLING DATA

CLIENT : BP AMOCO **CHAIN-OF-CUSTODY # :** 10584

LOCATION : LEEPER GC # 1 **LABORATORY (S) USED :** ON - SITE TECH.

Date : May 16, 2000 **SAMPLER :** N J V

Filename : 05-16-00.WK4 **PROJECT MANAGER :** J C B

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pH	CONDUCT (umhos)	VOLUME PURGED (gal.)	FREE PRODUCT (ft)
4	104.00	97.56	6.44	19.88	-	-	-	-	-
5	106.70	97.56	9.14	23.50	-	-	-	-	-
6	106.06	95.21	10.85	22.50	1035	7.3	700	5.75	-
7	105.84	97.16	8.68	22.00	-	-	-	-	-
8	104.55	95.72	8.83	21.90	-	-	-	-	-
9	101.92	95.32	6.60	22.00	-	-	-	-	-
10	103.50	95.91	7.59	19.90	1105	7.3	800	6.00	-
11	102.44	95.63	6.81	20.40	1155	6.9	800	6.75	-
12	101.68	93.47	8.21	19.70	0950	7.1	800	5.75	-
13	100.31	93.44	6.87	20.40	0920	7.2	900	6.75	-

NOTES : Volume of water purged from well prior to sampling: V = pi X r2 X h X 7.48 gal./ft3) X 3 (wellbores).

(i.e. 2" MW r = (1/12) ft. h = 1 ft.) (i.e. 4" MW r = (2/12) ft. h = 1 ft.)

Ideally a minimum of three (3) wellbore volumes:

1.25 " well diameter = 0.19 gallons per foot of water (or 24 oz.).
2 bails per foot - small teflon bailer.
3 bails per foot - 3 / 4 " teflon bailer.

2.00 " well diameter = 0.49 gallons per foot of water.

4.00 " well diameter = 1.95 gallons per foot of water.

Comments or note well diameter if not standard 2 ".

Collected BTEX from MW #'s 6, 10, 11, 12, & 13 . Excellent recovery in all MW 's sampled . MW elevations conducted by Vann Survey on 1 / 17 / 00 .

BLAGG ENGINEERING, INC.

MONITOR WELL SAMPLING DATA

CLIENT : BP AMOCO **CHAIN-OF-CUSTODY # :** 11145

LOCATION : LEEPER GC # 1 **LABORATORY (S) USED :** ON - SITE TECH.

Date : May 22, 2001 **SAMPLER :** N J V

Filename : 05-22-01.WK4 **PROJECT MANAGER :** J C B

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pH	CONDUCT (umhos)	VOLUME PURGED (gal.)	FREE PRODUCT (ft)
10	103.50	96.33	7.17	19.90	1030	7.44	700	6.25	-
11	102.44	96.11	6.33	20.40	1120	7.15	900	7.00	-
12	101.68	94.40	7.28	19.70	0830	7.34	700	6.25	-
13	100.31	94.40	5.91	20.40	0930	7.27	800	7.25	-

NOTES : Volume of water purged from well prior to sampling: V = pi X r2 X h X 7.48 gal./ft3) X 3 (wellbores).

(i.e. 2" MW r = (1/12) ft. h = 1 ft.) (i.e. 4" MW r = (2/12) ft. h = 1 ft.)

Ideally a minimum of three (3) wellbore volumes:

1.25 " well diameter = 0.19 gallons per foot of water (or 24 oz.).

2 bails per foot - small teflon bailer.

3 bails per foot - 3 / 4 " teflon bailer.

2.00 " well diameter = 0.49 gallons per foot of water.

4.00 " well diameter = 1.95 gallons per foot of water.

Comments or note well diameter if not standard 2 ".

Excellent recovery in all MW's listed above . Collected BTEX from all MW's listed above .

BLAGG ENGINEERING, INC.

MONITOR WELL SAMPLING DATA

CLIENT : BP AMOCO **CHAIN-OF-CUSTODY # :** 11771

LOCATION : LEEPER GC # 1 **LABORATORY (S) USED :** ON - SITE TECH.

Date : May 29, 2002 **SAMPLER :** N J V

Filename : 05-29-02.WK4 **PROJECT MANAGER :** J C B

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pH	CONDUCT (umhos)	VOLUME PURGED (gal.)	FREE PRODUCT (ft)
10	103.50	95.91	7.59	19.90	1120	7.15	1,100	6.00	-
11	102.44	95.61	6.83	20.40	1155	7.00	1,000	6.75	-
12	101.68	93.25	8.43	19.70	-	-	-	-	-
13	100.31	93.27	7.04	20.40	1035	7.25	1,100	6.50	-

NOTES : Volume of water purged from well prior to sampling: V = pi X r2 X h X 7.48 gal./ft3) X 3 (wellbores).

(i.e. 2" MW r = (1/12) ft. h = 1 ft.) (i.e. 4" MW r = (2/12) ft. h = 1 ft.)

Ideally a minimum of three (3) wellbore volumes:

1.25 " well diameter = 0.19 gallons per foot of water (or 24 oz.).

2 bails per foot - small teflon bailer.

3 bails per foot - 3 / 4 " teflon bailer.

2.00 " well diameter = 0.49 gallons per foot of water.

4.00 " well diameter = 1.95 gallons per foot of water.

Comments or note well diameter if not standard 2 ".

Excellent recovery in all MW 's sampled . Collected BTEX from all MW 's listed above except MW # 12 .

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : BP AMER. PROD. CO.

CHAIN-OF-CUSTODY # : 11997

LEEPER GC # 1
UNIT L, SEC. 34, T32N, R10W

LABORATORY (S) USED : ON - SITE TECH.

Date : August 23, 2002

SAMPLER : N J V

Filename : 08-23-02.WK4

PROJECT MANAGER : J C B

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pH	CONDUCT (umhos)	VOLUME PURGED (gal.)	FREE PRODUCT (ft)
10	103.50	94.98	8.52	19.90	0935	6.90	900	5.50	-
11	102.44	94.72	7.72	20.40	6.85	6.85	800	6.25	-
12	101.68	92.59	9.09	19.70	-	-	-	-	-
13	100.31	92.57	7.74	20.40	0820	7.20	900	6.25	-

NOTES : Volume of water purged from well prior to sampling: V = pi X r2 X h X 7.48 gal./ft3) X 3 (wellbores).

(i.e. 2" MW r = (1/12) ft. h = 1 ft.) (i.e. 4" MW r = (2/12) ft. h = 1 ft.)

Ideally a minimum of three (3) wellbore volumes:

1.25 " well diameter = 0.19 gallons per foot of water (or 24 oz.).

2 bails per foot - small teflon bailer.

3 bails per foot - 3 / 4 " teflon bailer.

2.00 " well diameter = 0.49 gallons per foot of water.

4.00 " well diameter = 1.95 gallons per foot of water.

Comments or note well diameter if not standard 2 ".

Excellent recovery in all MW 's sampled . Collected BTEX from all MW 's listed above except MW # 12 .

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : BP AMER. PROD. CO.

CHAIN-OF-CUSTODY # : 12148

LEEPER GC # 1
UNIT L, SEC. 34, T32N, R10W

LABORATORY (S) USED : ON - SITE TECH.

Date : November 27, 2002

SAMPLER : N J V

Filename : 11-27-02.WK4

PROJECT MANAGER : J C B

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pH	CONDUCT (umhos)	VOLUME PURGED (gal.)	FREE PRODUCT (ft)
10	103.50	92.26	11.24	19.90	1215	7.30	700	4.25	-
11	102.44	92.10	10.34	20.40	1245	7.32	700	5.00	-
12	101.68	91.19	10.49	19.70	-	-	-	-	-
13	100.31	91.07	9.24	20.40	1145	7.40	700	5.50	-

NOTES : Volume of water purged from well prior to sampling: V = pi X r2 X h X 7.48 gal./ft3) X 3 (wellbores).

(i.e. 2" MW r = (1/12) ft. h = 1 ft.) (i.e. 4" MW r = (2/12) ft. h = 1 ft.)

Ideally a minimum of three (3) wellbore volumes:

1.25 " well diameter = 0.19 gallons per foot of water (or 24 oz.).

2 bails per foot - small teflon bailer.

3 bails per foot - 3 / 4 " teflon bailer.

2.00 " well diameter = 0.49 gallons per foot of water.

4.00 " well diameter = 1.95 gallons per foot of water.

Comments or note well diameter if not standard 2 ".

Excellent recovery in all MW 's sampled . Collected BTEX from all MW 's listed above except MW # 12 .

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : BP AMER. PROD. CO.

CHAIN-OF-CUSTODY # : 12156

LEEPER GC # 1
UNIT L, SEC. 34, T32N, R10W

LABORATORY (S) USED : ON - SITE TECH.

Date : February 24, 2003

SAMPLER : N J V

Filename : 02-24-03.WK4

PROJECT MANAGER : J C B

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pH	CONDUCT (umhos)	VOLUME PURGED (gal.)	FREE PRODUCT (ft)
10	103.50	91.66	11.84	19.90	0910	7.46	600	4.00	-
11	102.44	91.52	10.92	20.40	0935	7.48	600	4.75	-
12	101.68	90.73	10.95	19.70	-	-	-	-	-
13	100.31	-	-	20.40	-	-	-	-	-

NOTES : Volume of water purged from well prior to sampling: V = pi X r2 X h X 7.48 gal./ft3) X 3 (wellbores).

(i.e. 2" MW r = (1/12) ft. h = 1 ft.) (i.e. 4" MW r = (2/12) ft. h = 1 ft.)

Ideally a minimum of three (3) wellbore volumes:

1.25 " well diameter = 0.19 gallons per foot of water (or 24 oz.).
2 bails per foot - small teflon bailer.
3 bails per foot - 3 / 4 " teflon bailer.

2.00 " well diameter = 0.49 gallons per foot of water.

4.00 " well diameter = 1.95 gallons per foot of water.

Comments or note well diameter if not standard 2 ".

Excellent recovery in all MW 's sampled . Collected BTEX from MW 's # 10 & # 11 only .

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : BP AMER. PROD. CO.

CHAIN-OF-CUSTODY # : N / A

LEEPER GC # 1
UNIT L, SEC. 34, T32N, R10W

LABORATORY (S) USED : HALL ENVIRONMENTAL

Date : May 27, 2003

Filename : 05-27-03.WK4

SAMPLER : N J V

PROJECT MANAGER : N J V

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pH	CONDUCT (umhos)	VOLUME PURGED (gal.)	FREE PRODUCT (ft)
10	103.50	95.92	7.58	19.90	0915	7.07	500	6.00	-
11	102.44	95.59	6.85	20.40	-	-	-	-	-
12	101.68	93.88	7.80	19.70	-	-	-	-	-
13	100.31	93.94	6.37	20.40	-	-	-	-	-
					INSTRUMENT CALIBRATIONS =	7.00	2,700		
					DATE & TIME =	05/27/2003	0907		

NOTES : Volume of water purged from well prior to sampling: V = pi X r2 X h X 7.48 gal./ft3) X 3 (wellbores).

(i.e. 2" MW r = (1/12) ft. h = 1 ft.) (i.e. 4" MW r = (2/12) ft. h = 1 ft.)

Ideally a minimum of three (3) wellbore volumes:

1.25 " well diameter = 0.19 gallons per foot of water (or 24 oz.).
2 bails per foot - small teflon bailer.
3 bails per foot - 3 / 4 " teflon bailer.

2.00 " well diameter = 0.49 gallons per foot of water.

4.00 " well diameter = 1.95 gallons per foot of water.

Comments or note well diameter if not standard 2 ".

Excellent recovery in MW # 10 . Collected BTEX from MW # 10 only .

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : BP AMERICA PROD. CO.

CHAIN-OF-CUSTODY # : N / A

LEEPER GC # 1
UNIT L, SEC. 34, T32N, R10W

LABORATORY (S) USED : HALL ENVIRONMENTAL

Date : June 10, 2003

SAMPLER : N J V

Filename : 06-10-03.WK4

PROJECT MANAGER : N J V

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pH	CONDUCT (umhos)	TEMP. (celcius)	VOLUME PURGED (gal.)
2	105.19	98.34	6.85	15.21	0745	7.03	500	-	4.25
3	101.28	94.63	6.65	11.30	0825	7.15	600	-	1.00
					INSTRUMENT CALIBRATIONS =	7.00	2,800		
					DATE & TIME =	06/10/2003	0714		

NOTES : Volume of water purged from well prior to sampling: V = pi X r2 X h X 7.48 gal./ft3) X 3 (wellbores).

(i.e. 2" MW r = (1/12) ft. h = 1 ft.) (i.e. 4" MW r = (2/12) ft. h = 1 ft.)

Ideally a minimum of three (3) wellbore volumes:

2.00 " well diameter = 0.49 gallons per foot of water.

Comments or note well diameter if not standard 2 ".

Excellent recovery in MW # 2 , poor recovery in MW # 3 . Black mud accumulation @ bottom of MW # 3 . Collected BTEX samples from MW # 2 & # 3 only . DTW = 8.38 ft. in MW # 3 immediately before collecting sample .

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : BP AMER. PROD. CO.

CHAIN-OF-CUSTODY # : N / A

LEEPER GC # 1
UNIT L, SEC. 34, T32N, R10W

LABORATORY (S) USED : HALL ENVIRONMENTAL

Date : August 20, 2003

Filename : 08-20-03.WK4

SAMPLER : N J V

PROJECT MANAGER : N J V

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pH	CONDUCT (umhos)	TEMP. (celcius)	VOLUME PURGED (gal.)
2	105.19	98.07	7.12	15.21	1025	6.88	700	25.2	4.00
10	103.50		-	19.90	-	-	-	-	-
11	102.44		-	20.40	-	-	-	-	-
12	101.68		-	19.70	-	-	-	-	-

INSTRUMENT CALIBRATIONS =	7.00	2,800
DATE & TIME =	08/19/2003	1554

NOTES : Volume of water purged from well prior to sampling: V = pi X r2 X h X 7.48 gal./ft3) X 3 (wellbores).

(i.e. 2" MW r = (1/12) ft. h = 1 ft.) (i.e. 4" MW r = (2/12) ft. h = 1 ft.)

Ideally a minimum of three (3) wellbore volumes:

1.25 " well diameter = 0.19 gallons per foot of water (or 24 oz.).

2 bails per foot - small teflon bailer.

3 bails per foot - 3 / 4 " teflon bailer.

2.00 " well diameter = 0.49 gallons per foot of water.

4.00 " well diameter = 1.95 gallons per foot of water.

Comments or note well diameter if not standard 2 ".

Excellent recovery in MW # 2 . Collected BTEX from MW # 2 only .

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : BP AMER. PROD. CO.

CHAIN-OF-CUSTODY # : N / A

LEEPER GC # 1
UNIT L, SEC. 34, T32N, R10W

LABORATORY (S) USED : HALL ENVIRONMENTAL

Date : November 11, 2003

Filename : 11-11-03.WK4

SAMPLER : N J V

PROJECT MANAGER : N J V

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pH	CONDUCT (umhos)	TEMP. (celcius)	VOLUME PURGED (gal.)
2	105.19	94.78	10.41	15.21	1135	6.91	1,000	17.9	2.50
10	103.50	-	-	19.90	-	-	-	-	-
11	102.44	-	-	20.40	-	-	-	-	-
12	101.68	-	-	19.70	-	-	-	-	-

INSTRUMENT CALIBRATIONS =	7.00	2,800
DATE & TIME =	11/11/2003	0730

NOTES : Volume of water purged from well prior to sampling: V = pi X r2 X h X 7.48 gal./ft3) X 3 (wellbores).

(i.e. 2" MW r = (1/12) ft. h = 1 ft.) (i.e. 4" MW r = (2/12) ft. h = 1 ft.)

Ideally a minimum of three (3) wellbore volumes:

1.25 " well diameter = 0.19 gallons per foot of water (or 24 oz.).

2 bails per foot - small teflon bailer.

3 bails per foot - 3 / 4 " teflon bailer.

2.00 " well diameter = 0.49 gallons per foot of water.

4.00 " well diameter = 1.95 gallons per foot of water.

Comments or note well diameter if not standard 2 ".

Excellent recovery in MW # 2 . Collected BTEX from MW # 2 only .

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : BP AMER. PROD. CO.

CHAIN-OF-CUSTODY # : N / A

LEEPER GC # 1
UNIT L, SEC. 34, T32N, R10W

LABORATORY (S) USED : HALL ENVIRONMENTAL

Date : May 27, 2004

SAMPLER : N J V

Filename : 05-27-04.WK4

PROJECT MANAGER : N J V

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pH	CONDUCT (umhos)	TEMP. (celcius)	VOLUME PURGED (gal.)
2	105.19	98.31	6.88	15.21	1255	6.63	1,200	22.3	4.25
10	103.50	-	-	19.90	-	-	-	-	-
11	102.44	-	-	20.40	-	-	-	-	-
12	101.68	-	-	19.70	-	-	-	-	-

INSTRUMENT CALIBRATIONS =	7.00	2,800
DATE & TIME =	05/27/2004	1245

NOTES : Volume of water purged from well prior to sampling: V = pi X r2 X h X 7.48 gal./ft3) X 3 (wellbores).

(i.e. 2" MW r = (1/12) ft. h = 1 ft.) (i.e. 4" MW r = (2/12) ft. h = 1 ft.)

Ideally a minimum of three (3) wellbore volumes:

1.25 " well diameter = 0.19 gallons per foot of water (or 24 oz.).

2 bails per foot - small teflon bailer.

3 bails per foot - 3 / 4 " teflon bailer.

2.00 " well diameter = 0.49 gallons per foot of water.

4.00 " well diameter = 1.95 gallons per foot of water.

Comments or note well diameter if not standard 2 ".

Excellent recovery in MW # 2 . Collected sample for BTEX analysis only .

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : BP AMER. PROD. CO.

CHAIN-OF-CUSTODY # : N / A

LEEPER GC # 1
UNIT L, SEC. 34, T32N, R10W

LABORATORY (S) USED : HALL ENVIRONMENTAL

Date : June 23, 2005

SAMPLER : N J V

Filename : 06-23-05.WK4

PROJECT MANAGER : N J V

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pH	CONDUCT (umhos)	TEMP. (celcius)	VOLUME PURGED (gal.)
2	104.80	99.69	5.11	15.21	0835	6.81	800	21.3	5.00
11	102.44	97.23	5.21	20.40	-	-	-	-	-
13	100.31	94.23	6.08	20.40	-	-	-	-	-

INSTRUMENT CALIBRATIONS =	7.00	2,800
DATE & TIME =	06/23/2005	0630

NOTES : Volume of water purged from well prior to sampling: V = pi X r2 X h X 7.48 gal./ft3) X 3 (wellbores).

(i.e. 2" MW r = (1/12) ft. h = 1 ft.) (i.e. 4" MW r = (2/12) ft. h = 1 ft.)

Ideally a minimum of three (3) wellbore volumes:

1.25 " well diameter = 0.19 gallons per foot of water (or 24 oz.).

2 bails per foot - small teflon bailer.

3 bails per foot - 3 / 4 " teflon bailer.

2.00 " well diameter = 0.49 gallons per foot of water.

4.00 " well diameter = 1.95 gallons per foot of water.

ter if not standard 2 ".

Excellent recovery in MW # 2 . Collected sample for BTEX analysis only .

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : BP AMER. PROD. CO.

CHAIN-OF-CUSTODY # : N / A

LEEPER GC # 1
UNIT L, SEC. 34, T32N, R10W

LABORATORY (S) USED : HALL ENVIRONMENTAL

Date : September 20, 2005

SAMPLER : N J V

Filename : 09-20-05.WK4

PROJECT MANAGER : N J V

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pH	CONDUCT (umhos)	TEMP. (celcius)	VOLUME PURGED (gal.)
2	104.80	95.90	8.90	15.21	0930	6.80	900	22.6	3.25
11	102.44		-	20.40	-	-	-	-	-
13	100.31		-	20.40	-	-	-	-	-

INSTRUMENT CALIBRATIONS =	7.00	2,800
DATE & TIME =	09/20/2005	0845

NOTES : (wellbores).

(i.e. 2" MW r = (1/12) ft. h = 1 ft.) (i.e. 4" MW r = (2/12) ft. h = 1 ft.)

Ideally a minimum of three (3) wellbore volumes:

1.25 " well diameter = 0.19 gallons per foot of water (or 24 oz.).

2 bails per foot - small teflon bailer.

3 bails per foot - 3 / 4 " teflon bailer.

2.00 " well diameter = 0.49 gallons per foot of water.

4.00 " well diameter = 1.95 gallons per foot of water.

Comments or note well diameter if not standard 2 ".

Excellent recovery in MW # 2 . Collected sample for BTEX analysis only .

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : BP AMER. PROD. CO.

CHAIN-OF-CUSTODY # : N / A

LEEPER GC # 1
UNIT L, SEC. 34, T32N, R10W

LABORATORY (S) USED : HALL ENVIRONMENTAL

Date : August 30, 2006

Filename : 08-30-06.WK4

SAMPLER : J C B

PROJECT MANAGER : N J V

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pH	CONDUCT (umhos)	TEMP. (celcius)	VOLUME PURGED (gal.)
2	104.68	97.83	6.85	15.21	1135	6.95	800	25.5	4.25
3	102.76	95.39	7.37	11.30	-	-	-	-	-
10	104.84	97.74	7.10	19.90	-	-	-	-	-
11	103.79	97.60	6.19	20.40	-	-	-	-	-
12	103.05	94.90	8.15	19.70	-	-	-	-	-

INSTRUMENT CALIBRATIONS =	7.00	2,800
DATE & TIME =	08/29/2006	1000

NOTES : Volume of water purged from well prior to sampling: V = pi X r2 X h X 7.48 gal./ft3) X 3 (wellbores).

(i.e. 2" MW r = (1/12) ft. h = 1 ft.) (i.e. 4" MW r = (2/12) ft. h = 1 ft.)

Ideally a minimum of three (3) wellbore volumes:

1.25 " well diameter = 0.19 gallons per foot of water (or 24 oz.).

2 bails per foot - small teflon bailer.

3 bails per foot - 3 / 4 " teflon bailer.

2.00 " well diameter = 0.49 gallons per foot of water.

4.00 " well diameter = 1.95 gallons per foot of water.

Comments or note well diameter if not standard 2 ".

Excellent recovery in MW # 2 . Collected sample for BTEX analysis only .

BLAGG ENGINEERING INC.

MONITOR WELL QUARTERLY MONITORING DATA

DATE: 10/14/98 PROJECT NO: _____

CLIENT: Amoco CHAIN-OF-CUSTODY NO: _____

LOCATION: Leeper GC #1

PROJECT MANAGER: J.C. Blagg SAMPLER: J.C. Blagg

MONITOR WELL DATA

WELL #	WELL ELEV.	WATER ELEV.	DTW (FT)	T.D. (FT)	TIME	pH	COND. (uMHO)	BAIL (GAL)	PROD (IN)	
MW #1	105.42	95.85	9.57	10.1	1245	-	-	1/2	0	Very Poor Recovery
MW #2	105.19	95.78	9.41	9.8	1310	-	-	1/4	0	
MW #3	102.90	94.11	8.79	10.1	1325	6.8	1,900	1/2	0	- Good Recovery

Notes: Volume of water bailed from well prior to sampling.
Ideally a minimum of 3 well volumes:
1.25" well = 24 oz. per foot of water.
= 2 bails per foot - small teflon bailer
= 3 bails per foot - 3/4" disposable bailer
2" well = 0.49 gallons per foot of water.
4" well = 1.95 gallons per foot of water.
Note well diameter if not standard 2".

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	Blagg / AMOCO	Project #:	04034-10
Sample ID:	MW #1	Date Reported:	10-15-98
Chain of Custody:	6352	Date Sampled:	10-14-98
Laboratory Number:	E067	Date Received:	10-14-98
Sample Matrix:	Water	Date Analyzed:	10-15-98
Preservative:	HgCl2 & Cool	Analysis Requested:	BTEX
Condition:	Cool & Intact		

Parameter	Concentration (ug/L)	Dilution Factor	Det. Limit (ug/L)
Benzene	**3.2**	**1**	**0.2**
Toluene	**7.4**	**1**	**0.2**
Ethylbenzene	**4.9**	**1**	**0.2**
p,m-Xylene	**10.8**	**1**	**0.2**
o-Xylene	**6.0**	**1**	**0.1**
Total BTEX	**32.3**		

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	**95 %**
	Bromofluorobenzene	**95 %**

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: **Leeper GC 1.**

Analyst

Review Stacy W Sendler

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	Blagg / AMOCO	Project #:	04034-10
Sample ID:	MW #2	Date Reported:	10-15-98
Chain of Custody:	6352	Date Sampled:	10-14-98
Laboratory Number:	E068	Date Received:	10-14-98
Sample Matrix:	Water	Date Analyzed:	10-15-98
Preservative:	HgCl2 & Cool	Analysis Requested:	BTEX
Condition:	Cool & Intact		

Parameter	Concentration (ug/L)	Dilution Factor	Det. Limit (ug/L)
Benzene	**224**	**10**	**1.8**
Toluene	**101**	**10**	**1.7**
Ethylbenzene	**51.1**	**10**	**1.5**
p,m-Xylene	**1,030**	**10**	**2.2**
o-Xylene	**208**	**10**	**1.0**
Total BTEX	**1,610**		

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	**98 %**
	Bromofluorobenzene	**98 %**

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: **Leeper GC 1.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	Blagg / AMOCO	Project #:	04034-10
Sample ID:	MW #3	Date Reported:	10-15-98
Chain of Custody:	6352	Date Sampled:	10-14-98
Laboratory Number:	E069	Date Received:	10-14-98
Sample Matrix:	Water	Date Analyzed:	10-15-98
Preservative:	HgCl2 & Cool	Analysis Requested:	BTEX
Condition:	Cool & Intact		

Parameter	Concentration (ug/L)	Dilution Factor	Det. Limit (ug/L)
Benzene	**0.5**	**1**	**0.2**
Toluene	**0.5**	**1**	**0.2**
Ethylbenzene	**ND**	**1**	**0.2**
p,m-Xylene	**0.8**	**1**	**0.2**
o-Xylene	**0.1**	**1**	**0.1**
Total BTEX	**1.9**		

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	**95 %**
	Bromofluorobenzene	**95 %**

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: **Leeper GC 1.**

Analyst

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CHAIN OF CUSTODY RECORD

6352

Client / Project Name	Project Location	ANALYSIS / PARAMETERS
BLAGG/AMOCO	LEEPER GC 1	
Sampler: J. C. Blagg	Client No. 04034-10	

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	BTEX 8021						Remarks
MW #1	10/14/98	1245	E067	WATER	2							
MW #2	"	1310	E068	"	2							
MW #3	"	1325	E069	"	2							

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
J. C. Blagg	10/14/98	1413	[signature]	10.14.98	19:13
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

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Sample Receipt	Y	N	N/A
Received Intact	✓		
Cool - Ice/Blue Ice	✓		

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS
QUALITY ASSURANCE REPORT

Client:	N/A	Project #:	N/A
Sample ID:	10-15-BTEX QA/QC	Date Reported:	10-15-98
Laboratory Number:	E067	Date Sampled:	N/A
Sample Matrix	Water	Date Received:	N/A
Preservative:	N/A	Date Analyzed	10-15-98
Condition:	N/A	Analysis:	BTEX

Calibration and Detection Limits (ug/L)	I-Cal RF:	C-Cal RF:	%Diff. Accept. Range 0 - 15%	Blank Conc	Detect. Limit
Benzene	3.7569E-002	3.7690E-002	0.32%	ND	0.2
Toluene	1.2324E-002	1.2348E-002	0.20%	ND	0.2
Ethylbenzene	1.5149E-002	1.5213E-002	0.42%	ND	0.2
p,m-Xylene	1.2209E-002	1.2211E-002	0.02%	ND	0.2
o-Xylene	1.2474E-002	1.2511E-002	0.30%	ND	0.1

Duplicate Conc. (ug/L)	Sample	Duplicate	%Diff.	Accept Limit
Benzene	3.2	3.2	0.0%	0 - 30%
Toluene	7.4	7.4	0.0%	0 - 30%
Ethylbenzene	4.9	4.9	0.0%	0 - 30%
p,m-Xylene	10.8	11.1	2.8%	0 - 30%
o-Xylene	6.0	6.0	0.0%	0 - 30%

Spike Conc. (ug/L)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept Limits
Benzene	3.2	50.0	53.1	100%	39 - 150
Toluene	7.4	50.0	57.0	99%	46 - 148
Ethylbenzene	4.9	50.0	54.7	100%	32 - 160
p,m-Xylene	10.8	100.0	110.2	99%	46 - 148
o-Xylene	6.0	50.0	55.8	100%	46 - 148

ND - Parameter not detected at the stated detection limit

* - Administrative Limits set at 80 - 120%

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846 USEPA, December 1996
Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996

Comments: QA/QC for samples E067 - E070.

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BLAGG ENGINEERING, INC.

MONITOR WELL SAMPLING DATA

CLIENT : AMOCO PRODUCTION CO.

CHAIN-OF-CUSTODY # :

LOCATION : LEEPER GC # 1

LABORATORY (S) USED :

Date : January 29, 1999

SAMPLER : R E P

Filename : 01-29-99.WK4

PROJECT MANAGER : J C B

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pH	CONDUCT (umhos)	VOLUME PURGED (gal.)	FREE PRODUCT (ft)
1				11.57	-	-	-	-	-
2	105.19	93.09	12.10	15.56	1020	8.4	1000	2.00	-
3				11.33	-	-	-	-	-
4					-	-	-	-	-

NOTES : Volume of water purged from well prior to sampling: V = pi X r2 X h X 7.48 gal./ft3) X 3 (wellbores).

(i.e. 2" MW r = (1/12) ft. h = 1 ft.) (i.e. 4" MW r = (2/12) ft. h = 1 ft.)

Ideally a minimum of three (3) wellbore volumes:

1.25 " well diameter = 0.19 gallons per foot of water (or 24 oz.).

2 bails per foot - small teflon bailer.

3 bails per foot - 3 / 4 " teflon bailer.

2.00 " well diameter = 0.49 gallons per foot of water.

4.00 " well diameter = 1.95 gallons per foot of water.

Comments or note well diameter if not standard 2 ".

MW - #.s 1 & 3 contained no water.

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	Blagg / AMOCO	Project #:	04034-10
Sample ID:	MW # 2	Date Reported:	02-01-99
Chain of Custody:	6562	Date Sampled:	01-29-99
Laboratory Number:	E593	Date Received:	01-29-99
Sample Matrix:	Water	Date Analyzed:	02-01-99
Preservative:	HgCl2 & Cool	Analysis Requested:	BTEX
Condition:	Cool & Intact		

Parameter	Concentration (ug/L)	Dilution Factor	Det. Limit (ug/L)
Benzene	**549**	**10**	**1.8**
Toluene	**476**	**10**	**1.7**
Ethylbenzene	**129**	**10**	**1.5**
p,m-Xylene	**224**	**10**	**2.2**
o-Xylene	**311**	**10**	**1.0**
Total BTEX	**1,690**		

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	**95 %**
	Bromofluorobenzene	**95 %**

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: **Leeper Gas Com 1.**

Analyst

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CHAIN OF CUSTODY RECORD

6562

Client / Project Name	Project Location	ANALYSIS / PARAMETERS
BLAGG/AMOCO	LEEPER GAS COM. 1	
Sampler: REP	Client No. 04034-10	

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	BTEX (8021)						Remarks
MW # 2	1-29-99	1020	E593	WATER	2	✓						
												SAMPLE PRESERVE -
												$HgCl_2$ + COOL

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	1-29-99	13:30	[signature]	1-29-99	13:30
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

ENVIROTECH INC.

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(505) 632-0615

Sample Receipt	Y	N	N/A
Received Intact	✓		
Cool - Ice/Blue Ice	✓		

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS
QUALITY ASSURANCE REPORT

Client:	N/A	Project #:	N/A
Sample ID:	02-01-BTEX QA/QC	Date Reported:	02-01-99
Laboratory Number:	E587	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	02-01-99
Condition:	N/A	Analysis:	BTEX

Benzene	7.0480E-002	7.0708E-002	0.32%	ND	0.2
Toluene	3.5438E-002	3.5445E-002	0.02%	ND	0.2
Ethylbenzene	4.3145E-002	4.3196E-002	0.12%	ND	0.2
p,m-Xylene	3.9985E-002	3.9973E-002	0.02%	ND	0.2
o-Xylene	3.9081E-002	3.9199E-002	0.30%	ND	0.1

Benzene	30.6	30.7	0.3%	0 - 30%
Toluene	14.1	14.2	0.7%	0 - 30%
Ethylbenzene	134	135	1.1%	0 - 30%
p,m-Xylene	4.6	4.8	4.3%	0 - 30%
o-Xylene	3.7	3.7	0.0%	0 - 30%

Benzene	30.6	50.0	79.1	98%	39 - 150
Toluene	14.1	50.0	63.3	99%	46 - 148
Ethylbenzene	134	50.0	176	96%	32 - 160
p,m-Xylene	4.6	100.0	104	100%	46 - 148
o-Xylene	3.7	50.0	53.5	100%	46 - 148

ND - Parameter not detected at the stated detection limit.

References

Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.
Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: **QA/QC for samples E587 - E593.**

Analyst

Review

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BLAGG ENGINEERING, INC.

MONITOR WELL SAMPLING DATA

CLIENT : AMOCO PRODUCTION CO. CHAIN-OF-CUSTODY # : 6997

LOCATION : LEEPER GC # 1 LABORATORY (S) USED : ENVIROTECH, INC.

Date : June 25, 1999 SAMPLER : R E P

Filename : 06-25-99.WK4 PROJECT MANAGER : J C B

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pH	CONDUCT (umhos)	VOLUME PURGED (gal.)	FREE PRODUCT (ft)
1	106.23	100.02	6.21	11.57	1000	7.19	1010	2.68	-
2	104.80	98.94	5.86	15.21	0920	7.14	600	4.67	-
3	102.83	97.21	5.62	11.30	0940	7.78	200	2.84	-
NE EXCAV.	NA		NA	NA	1010	7.89	600	-	-

NOTES : Volume of water purged from well prior to sampling: V = pi X r2 X h X 7.48 gal./ft3) X 3 (wellbores).

(i.e. 2" MW r = (1/12) ft. h = 1 ft.) (i.e. 4" MW r = (2/12) ft. h = 1 ft.)

Ideally a minimum of three (3) wellbore volumes:

1.25 " well diameter = 0.19 gallons per foot of water (or 24 oz.).

2 bails per foot - small teflon bailer.

3 bails per foot - 3 / 4 " teflon bailer.

2.00 " well diameter = 0.49 gallons per foot of water.

4.00 " well diameter = 1.95 gallons per foot of water.

Comments or note well diameter if not standard 2".

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	Blagg / AMOCO	Project #:	403410
Sample ID:	MW #1	Date Reported:	06-28-99
Chain of Custody:	6997	Date Sampled:	06-25-99
Laboratory Number:	F601	Date Received:	06-25-99
Sample Matrix:	Water	Date Analyzed:	06-28-99
Preservative:	HgCl2 & Cool	Analysis Requested:	BTEX
Condition:	Cool & Intact		

Parameter	Concentration (ug/L)	Dilution Factor	Det. Limit (ug/L)
Benzene	**0.7**	**1**	**0.2**
Toluene	**0.7**	**1**	**0.2**
Ethylbenzene	**1.1**	**1**	**0.2**
p,m-Xylene	**6.1**	**1**	**0.2**
o-Xylene	**2.5**	**1**	**0.1**
Total Xylene	**8.6**		
Total BTEX	**11.1**		

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	**97 %**
	Bromofluorobenzene	**97 %**

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: **Leeper Gas Com #1.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	Blagg / AMOCO	Project #:	403410
Sample ID:	MW #2	Date Reported:	06-28-99
Chain of Custody:	6997	Date Sampled:	06-25-99
Laboratory Number:	F602	Date Received:	06-25-99
Sample Matrix:	Water	Date Analyzed:	06-28-99
Preservative:	HgCl2 & Cool	Analysis Requested:	BTEX
Condition:	Cool & Intact		

Parameter	Concentration (ug/L)	Dilution Factor	Det. Limit (ug/L)
Benzene	**122**	**1**	**0.2**
Toluene	**264**	**1**	**0.2**
Ethylbenzene	**98.9**	**1**	**0.2**
p,m-Xylene	**154**	**1**	**0.2**
o-Xylene	**142**	**1**	**0.1**
Total Xylene	**296**		
Total BTEX	**781**		

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	**100 %**
	Bromofluorobenzene	**100 %**

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: **Leeper Gas Com #1.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	Blagg / AMOCO	Project #:	403410
Sample ID:	MW #3	Date Reported:	06-28-99
Chain of Custody:	6997	Date Sampled:	06-25-99
Laboratory Number:	F603	Date Received:	06-25-99
Sample Matrix:	Water	Date Analyzed:	06-28-99
Preservative:	HgCl2 & Cool	Analysis Requested:	BTEX
Condition:	Cool & Intact		

Parameter	Concentration (ug/L)	Dilution Factor	Det. Limit (ug/L)
Benzene	**2.3**	**1**	**0.2**
Toluene	**12.3**	**1**	**0.2**
Ethylbenzene	**3.3**	**1**	**0.2**
p,m-Xylene	**21.8**	**1**	**0.2**
o-Xylene	**7.8**	**1**	**0.1**
Total Xylene	**29.6**		
Total BTEX	**47.5**		

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	**96 %**
	Bromofluorobenzene	**96 %**

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: **Leeper Gas Com #1.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	Blagg / AMOCO	Project #:	403410
Sample ID:	Excavation Water @ NE Corner	Date Reported:	06-28-99
Chain of Custody:	6997	Date Sampled:	06-25-99
Laboratory Number:	F604	Date Received:	06-25-99
Sample Matrix:	Water	Date Analyzed:	06-28-99
Preservative:	HgCl2 & Cool	Analysis Requested:	BTEX
Condition:	Cool & Intact		

Parameter	Concentration (ug/L)	Dilution Factor	Det. Limit (ug/L)
Benzene	**1.5**	**1**	**0.2**
Toluene	**6.9**	**1**	**0.2**
Ethylbenzene	**2.1**	**1**	**0.2**
p,m-Xylene	**13.0**	**1**	**0.2**
o-Xylene	**5.8**	**1**	**0.1**
Total Xylene	**18.8**		
Total BTEX	**29.3**		

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	**99 %**
	Bromofluorobenzene	**99 %**

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: **Leeper Gas Com #1.**

Analyst

Review

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CHAIN OF CUSTODY RECORD

6997

Client / Project Name	Project Location	ANALYSIS / PARAMETERS
BLAGG / AMOCO	LEEPER GAS COM. # 1	
Sampler: REP	**Client No.** 403410	

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	BTEX (8021)						Remarks
MW # 1	6-25-99	1000	F601	WATER	2	✓						
MW # 2	6-25-99	0920	F602	WATER	2	✓						
MW # 3	6-25-99	0940	F603	WATER	2	✓						
EXCAVATION WATER @ NE CORNER	6-25-99	1010	F604	WATER	2	✓						
												SAMPLES PRESERVE-
												$HgCl_2$ + COOL

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	6-25-99	1105	[signature]	6-25-99	1105
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

ENVIROTECH INC.

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Sample Receipt	Y	N	N/A
Received Intact	✓		
Cool - Ice/Blue Ice	✓		

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS
QUALITY ASSURANCE REPORT

Client:	N/A	Project #:	N/A
Sample ID:	06-28-BTEX QA/QC	Date Reported:	06-28-99
Laboratory Number:	F601	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	06-28-99
Condition:	N/A	Analysis:	BTEX

Calibration and Detection Limits (ug/L)	I-Cal RF:	C-Cal RF:	%Diff. Accept. Range 0 - 15%	Blank Conc	Detect. Limit
Benzene	5.1692E-003	5.1858E-003	0.32%	ND	0.2
Toluene	5.2037E-003	5.2097E-003	0.02%	ND	0.2
Ethylbenzene	3.4516E-003	3.4557E-003	0.12%	ND	0.2
p,m-Xylene	4.0509E-003	4.0517E-003	0.02%	ND	0.2
o-Xylene	3.9685E-003	3.9804E-003	0.30%	ND	0.1

Duplicate Conc. (ug/L)	Sample	Duplicate	%Diff.	Accept Limit
Benzene	0.7	0.7	0.0%	0 - 30%
Toluene	0.7	0.7	0.0%	0 - 30%
Ethylbenzene	1.1	1.1	0.0%	0 - 30%
p,m-Xylene	6.1	6.4	4.9%	0 - 30%
o-Xylene	2.5	2.5	0.0%	0 - 30%

Spike Conc. (ug/L)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept Limits
Benzene	0.7	50.0	50.7	100%	39 - 150
Toluene	0.7	50.0	50.7	100%	46 - 148
Ethylbenzene	1.1	50.0	51.1	100%	32 - 160
p,m-Xylene	6.1	100.0	106	100%	46 - 148
o-Xylene	2.5	50.0	52.5	100%	46 - 148

ND - Parameter not detected at the stated detection limit.

* - Administrative Limits set at 80 - 120%.

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996
Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996

Comments: QA/QC for samples F601 - F604.

Analyst

Review

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BLAGG ENGINEERING, INC.

MONITOR WELL SAMPLING DATA

CLIENT : AMOCO PRODUCTION CO. **CHAIN-OF-CUSTODY # :** 10341

LOCATION : LEEPER GC #1 **LABORATORY (S) USED :** ON SITE TECH.

Date : October 5, 1999 **SAMPLER :** R E P

Filename : 10-05-99.WK4 **PROJECT MANAGER :** J C B

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pH	CONDUCT (umhos)	VOLUME PURGED (gal.)	FREE PRODUCT (ft)
1	106.23	96.90	9.33	11.57	1030	6.82	1700	1.00	-
2	104.80	96.96	7.84	15.21	1050	6.94	800	3.75	-
3	102.83	94.90	7.93	11.30	1110	6.92	900	1.75	-
NE EXCAV.	NA		NA	NA	1130	8.00	500	-	-

NOTES : Volume of water purged from well prior to sampling: V = pi X r2 X h X 7.48 gal./ft3) X 3 (wellbores).

(i.e. 2" MW r = (1/12) ft. h = 1 ft.) (i.e. 4" MW r = (2/12) ft. h = 1 ft.)

Ideally a minimum of three (3) wellbore volumes:

1.25 " well diameter = 0.19 gallons per foot of water (or 24 oz.).

2 bails per foot - small teflon bailer.

3 bails per foot - 3 / 4 " teflon bailer.

2.00 " well diameter = 0.49 gallons per foot of water.

4.00 " well diameter = 1.95 gallons per foot of water.

Comments or note well diameter if not standard 2".

OFF: (505) 325-5667

ON SITE TECHNOLOGIES, LTD.

LAB: (505) 325-1556

ANALYTICAL REPORT

Date: *22-Oct-99*

Client:	Blagg Engineering	**Client Sample Info:**	Leeper GC #1
Work Order:	9910009	**Client Sample ID:**	MW #1
Lab ID:	9910009-01A **Matrix:** AQUEOUS	**Collection Date:**	10/5/99 10:30:00 AM
Project:	Leeper GC #1	**COC Record:**	10341

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID		**SW8021B**				Analyst: **HR**
Benzene	ND	0.5		µg/L	1	10/15/99
Toluene	ND	0.5		µg/L	1	10/15/99
Ethylbenzene	ND	0.5		µg/L	1	10/15/99
m,p-Xylene	ND	1		µg/L	1	10/15/99
o-Xylene	ND	0.5		µg/L	1	10/15/99

Qualifiers:

PQL - Practical Quantitation Limit

ND - Not Detected at Practical Quantitation Limit

J - Analyte detected below Practical Quantitation Limit

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Surr: - Surrogate

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OFF: (505) 325-5667

ON SITE TECHNOLOGIES, LTD.

LAB: (505) 325-1556

ANALYTICAL REPORT

Date: *22-Oct-99*

Client:	Blagg Engineering	**Client Sample Info:**	Leeper GC #1
Work Order:	9910009	**Client Sample ID:**	MW #2
Lab ID:	9910009-02A **Matrix:** AQUEOUS	**Collection Date:**	10/5/99 10:50:00 AM
Project:	Leeper GC #1	**COC Record:**	10341

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID		**SW8021B**				Analyst: **HR**
Benzene	130	10		µg/L	20	10/16/99
Toluene	15	10		µg/L	20	10/16/99
Ethylbenzene	210	10		µg/L	20	10/16/99
m,p-Xylene	3800	20		µg/L	20	10/16/99
o-Xylene	710	10		µg/L	20	10/16/99

Qualifiers:

PQL - Practical Quantitation Limit

ND - Not Detected at Practical Quantitation Limit

J - Analyte detected below Practical Quantitation Limit

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Surr - Surrogate

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ON SITE TECHNOLOGIES, LTD.

LAB: (505) 325-1556

ANALYTICAL REPORT

Date: *22-Oct-99*

Client:	Blagg Engineering	**Client Sample Info:**	Leeper GC #1
Work Order:	9910009	**Client Sample ID:**	MW #3
Lab ID:	9910009-03A **Matrix:** AQUEOUS	**Collection Date:**	10/5/99 11:10:00 AM
Project:	Leeper GC #1	**COC Record:**	10341

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID		**SW8021B**				Analyst: **HR**
Benzene	7.7	0.5		µg/L	1	10/15/99
Toluene	1.7	0.5		µg/L	1	10/15/99
Ethylbenzene	1.1	0.5		µg/L	1	10/15/99
m,p-Xylene	8.3	1		µg/L	1	10/15/99
o-Xylene	0.7	0.5		µg/L	1	10/15/99

Qualifiers:

PQL - Practical Quantitation Limit

ND - Not Detected at Practical Quantitation Limit

J - Analyte detected below Practical Quantitation Limit

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Surr - Surrogate

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OFF: (505) 325-5667

ON SITE TECHNOLOGIES, LTD.

LAB: (505) 325-1556

ANALYTICAL REPORT

Date: *22-Oct-99*

Client:	Blagg Engineering	**Client Sample Info:**	Leeper GC #1
Work Order:	9910009	**Client Sample ID:**	NE Excav.
Lab ID:	9910009-04A **Matrix:** AQUEOUS	**Collection Date:**	10/5/99 11:30:00 AM
Project:	Leeper GC #1	**COC Record:**	10341

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID		**SW8021B**				Analyst: **HR**
Benzene	1.1	0.5		µg/L	1	10/15/99
Toluene	ND	0.5		µg/L	1	10/15/99
Ethylbenzene	6.7	0.5		µg/L	1	10/15/99
m,p-Xylene	60	1		µg/L	1	10/15/99
o-Xylene	8.1	0.5		µg/L	1	10/15/99

Qualifiers:

PQL - Practical Quantitation Limit

ND - Not Detected at Practical Quantitation Limit

J - Analyte detected below Practical Quantitation Limit

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Surr: - Surrogate

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CHAIN OF CUSTODY RECORD

ON SITE TECHNOLOGIES, LTD.

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LAB: (505) 325-5667 • FAX: (505) 327-1496

Date: _____

Page: _____ of _____

Purchase Order No.:	Project No.	REPORT RESULTS TO	Name / Title
SEND INVOICE TO	Name / Company / Dept. / Address / City, State, Zip		Company / Mailing Address / City, State, Zip / Telephone No. / Telefax No.
PROJECT LOCATION:		Number of Containers	ANALYSIS REQUESTED
SAMPLER'S SIGNATURE:			

SAMPLE IDENTIFICATION	SAMPLE DATE	TIME	MATRIX	PRES	Number of Containers	ANALYSIS REQUESTED	LAB ID

Relinquished by:	Date/Time	Received by:	Date/Time
Relinquished by:	Date/Time	Received by:	Date/Time
Relinquished by:	Date/Time	Received by:	Date/Time
Method of Shipment:		Rush ☐ 24-48 Hours ☐ 10 Working Days ☐ By Date ☐	

Authorized by: _____ Date _____
(Client Signature Must Accompany Request)

Special Instructions / Remarks:

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

On Site Technologies, LTD.

Date: *22-Oct-99*

CLIENT: Blagg Engineering
Work Order: 9910009
Project: Leeper GC #1

QC SUMMARY REPORT
Method Blank

Sample ID: **MB1** Batch ID: **GC-1_991015** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **10/15/99** Prep Date:
Client ID: **9910009** Run ID: **GC-1_991015A** SeqNo: **20607**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.5									
Ethylbenzene	ND	0.5									
m,p-Xylene	.2588	1									J
Methyl tert-Butyl Ether	ND	1									
o-Xylene	.0849	0.5									J
Toluene	.2295	0.5									J

Sample ID: **MB1** Batch ID: **GC-1_991016** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **10/16/99** Prep Date:
Client ID: **9910009** Run ID: **GC-1_991016A** SeqNo: **20634**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.5									
Ethylbenzene	ND	0.5									
m,p-Xylene	.1669	1									J
Methyl tert-Butyl Ether	ND	1									
o-Xylene	ND	0.5									
Toluene	.1699	0.5									J

Qualifiers: ND - Not Detected at the Reporting Limit; J - Analyte detected below quantitation limits; S - Spike Recovery outside accepted recovery limits; R - RPD outside accepted recovery limits; B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: *22-Oct-99*

CLIENT: Blagg Engineering
Work Order: 9910009
Project: Leeper GC #1

QC SUMMARY REPORT
Sample Matrix Spike

Sample ID: 9910015-01AMS | **Batch ID:** GC-1_991015 | **Test Code:** SW8021B | **Units:** µg/L | **Analysis Date:** 10/15/99 | **Prep Date:**
Client ID: 9910009 | **Run ID:** GC-1_991015A | **SeqNo:** 20608

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	6738	25	2000	4676	103.2%	80	116				
Ethylbenzene	4718	25	2000	2647	103.6%	80	118				
m,p-Xylene	6248	50	4000	2382	96.6%	77	116				
Methyl tert-Butyl Ether	2768	50	2000	823.3	97.2%	62	122				
o-Xylene	2170	25	2000	88.14	104.1%	83	117				
Toluene	2344	25	2000	233.8	105.5%	80	116				

Sample ID: 9910015-01AMSD | **Batch ID:** GC-1_991015 | **Test Code:** SW8021B | **Units:** µg/L | **Analysis Date:** 10/15/99 | **Prep Date:**
Client ID: 9910009 | **Run ID:** GC-1_991015A | **SeqNo:** 20609

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	6738	25	2000	4676	103.1%	80	116	6738	0.0%	7	
Ethylbenzene	4739	25	2000	2647	104.6%	80	118	4718	0.4%	7	
m,p-Xylene	6287	50	4000	2382	97.6%	77	116	6248	0.6%	7	
Methyl tert-Butyl Ether	2655	50	2000	823.3	91.6%	62	122	2768	4.2%	7	
o-Xylene	2190	25	2000	88.14	105.1%	83	117	2170	0.9%	6	
Toluene	2355	25	2000	233.8	106.1%	80	116	2344	0.5%	6	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Blagg Engineering
Work Order: 9910009
Project: Leeper GC #1

QC SUMMARY REPORT
Sample Matrix Spike

Sample ID: 9910015-05AMS	Batch ID: GC-1_991016	Test Code: SW8021B	Units: µg/L	Analysis Date: 10/16/99	Prep Date:
Client ID: 9910009	Run ID: GC-1_991016A			SeqNo: 20635	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	208.7	2.5	200	9.829	99.4%	80	116				
Ethylbenzene	203.6	2.5	200	0	101.8%	80	118				
m,p-Xylene	379.5	5	400	0.1672	94.8%	77	116				
Methyl tert-Butyl Ether	619.9	5	200	404.3	107.8%	62	122				
o-Xylene	201.5	2.5	200	0.2972	100.6%	83	117				
Toluene	201.3	2.5	200	0.1504	100.6%	80	116				

Sample ID: 9910015-05AMSD	Batch ID: GC-1_991016	Test Code: SW8021B	Units: µg/L	Analysis Date: 10/16/99	Prep Date:
Client ID: 9910009	Run ID: GC-1_991016A			SeqNo: 20636	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	214.2	2.5	200	9.829	102.2%	80	116	208.7	2.6%	7	
Ethylbenzene	209.4	2.5	200	0	104.7%	80	118	203.6	2.8%	7	
m,p-Xylene	390	5	400	0.1672	97.5%	77	116	379.5	2.7%	7	
Methyl tert-Butyl Ether	624.8	5	200	404.3	110.3%	62	122	619.9	0.8%	7	
o-Xylene	206.7	2.5	200	0.2972	103.2%	83	117	201.5	2.6%	6	
Toluene	206.9	2.5	200	0.1504	103.4%	80	116	201.3	2.8%	6	

Qualifiers: ND - Not Detected at the Reporting Limit; J - Analyte detected below quantitation limits; S - Spike Recovery outside accepted recovery limits; R - RPD outside accepted recovery limits; B - Analyte detected in the associated Method Blank