

3R - 19

REPORTS

DATE:

Nov. 20, 1995

BLAGG ENGINEERING, INC.

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

December 4, 1995

Mr. William C. Olson
Hydrogeologist
Environmental Bureau
New Mexico Oil Conservation Division
2040 South Pacheco
Santa Fe, New Mexico 87505

RECEIVED

DEC 6 1995

Environmental Bureau
Oil Conservation Division

RE: Groundwater Sampling
Amoco GCU Com I 181 Well Location
San Juan County, New Mexico
Unit F, Section 34, T29N, R12W

Dear Mr. Olson:

On behalf of Amoco Production Company, Blagg Engineering, Inc. has prepared this quarterly monitoring report for the above referenced site. Table 1 of this report includes the latest and previous quarterly groundwater sampling results. Figure 1 shows the current monitor well locations and groundwater elevations.

We trust this information will be of assistance in evaluating the remediation process used at this site. If you have any further questions regarding this report, or we can be of assistance in any other matters, please contact Blagg Engineering at 632-1199.

Respectfully Submitted,
BLAGG ENGINEERING, INC.

R. E. O'Neill

Robert E. O'Neill, M.S.
Civil engineering, Environmental

Attachments: Table 1 - Sampling Results
Figure 1 - Site Diagram
Laboratory Reports
QA/QC

xc: Buddy Shaw, Amoco
Denny Foust, NMOCD Aztec Office

REO/reo

DEC95-WO.RPT

TABLE 1
AMOCO PRODUCTION COMPANY
GCU COM I 181
GROUNDWATER SAMPLING
NOVEMBER 20, 1995

SAMPLE I.D.	DATE	pH	COND. umhos/cm	BENZENE ppb	TOLUENE ppb	E-BENZ. ppb	T-XYL. ppb	NITRATE NITROGEN mg/L	FCB/ 100 mls COLONIES
MW #5	02/09/94	7.0	6300	ND	0.5	ND	3.1		
	06/13/94	7.0	7800	<1	<1	<1	<1		
	09/26/94	7.1	5200	ND	ND	ND	ND		
	06/05/95	7.1	7700	ND	ND	2.1	ND		
	08/29/95	6.9	5500	ND	ND	ND	ND		
	11/20/95	7.0	4200	ND	ND	ND	ND		
MW #7	02/09/94	7.0	10100	12.9	16.7	580.0	1300.3		
	06/13/94	7.0	11000	<1	10.0	<1	1480.0		
	09/26/94	7.2	9000	12.8	ND	606.0	73.3		
	06/05/95	7.2	10200	2.1	33.1	375.8	12.9		
	08/29/95	7.0	9000	9.2	21.7	200.0	21.6		
	11/20/95	7.2	7600	8.5	25.1	47.0	28.3		
WP #10B	06/05/95	7.2	15600	1.7	ND	ND	4.6		
	08/29/95	6.1	9000	1.2	1.0	0.8	2.4		
	11/20/95	6.4	7900	ND	0.6	0.6	1.9		
MW #17	11/03/94	7.2	4000	ND	ND	ND	ND		
	06/05/95	7.4	3400	ND	ND	ND	0.8		
	08/29/95	7.0	3800	ND	ND	ND	ND		
	11/20/95	6.9	3200	ND	ND	ND	ND		
WP #21A	06/05/95			DRY					
	08/29/95	6.9	4300	ND	1.0	0.5	0.4		
	11/20/95	6.8	3200	ND	1.3	0.8	ND		
MW #25	02/09/94	7.0	5500	ND	ND	0.3	1.8		
	06/13/94	7.0	5700	<1	<1	<1	<1		
	09/26/94	7.3	5100	ND	ND	ND	ND		
	06/05/95	7.3	5800	ND	ND	ND	0.7		
	08/29/95	7.0	5900	ND	ND	ND	ND		
	11/20/95	6.9	4700	ND	ND	ND	ND		
MW #28	02/09/94	7.0	3800	0.4	1.8	ND	8.8	0.07	0
	06/14/94	7.0	4000	<1	<1	<1	<1	0.18	<1
	09/26/94	7.1	3900	ND	ND	0.4	ND	1	0
	06/05/95	7.4	3500	ND	ND	ND	0.7		
	08/29/95	7.2	3200	ND	ND	0.3	ND		
	11/20/95	7.0	3700	ND	ND	ND	ND		
WP #31A	02/09/94	7.0	4800	ND	ND	ND	0.4		
	06/13/94	7.0	4500	<1	<1	<1	<1		
	09/26/94	6.8	4800	ND	0.5	ND	ND		
	06/05/95	7.1	4500	ND	ND	ND	0.5		
	08/29/95	6.4	4100	ND	1.7	ND	ND		
	11/20/95	6.7	4200	ND	ND	ND	ND		
WP #32A	06/05/95	7.1	14000	3.2	ND	ND	2.8		
	08/29/95	6.1	8200	3.2	0.7	1.3	2.0		
	11/20/95	6.2	6500	0.8	0.6	0.8	ND		
MW #36	02/09/94	7.0	5100	ND	ND	0.6	3.6		
	06/13/94	7.0	5600	<1	<1	<1	<1		
	09/26/94	7.2	4300	ND	ND	1.7	2.0		
	06/05/95	7.2	5600	ND	ND	ND	ND		
	08/29/95	6.9	4000	ND	ND	0.6	ND		
	11/20/95	7.0	3800	ND	ND	ND	ND		
WP #39	02/09/94	7.0	3400	ND	ND	ND	0.2	0.05	0
	06/13/94	7.0	3400	<1	<1	<1	<1		
	09/26/94	7.0	3200	ND	0.2	ND	0.7		
	06/05/95	7.0	3800	ND	ND	ND	0.5		
	08/29/95	6.8	3000	ND	ND	ND	ND		
	11/20/95	6.8	3100	ND	ND	ND	ND		

TABLE 1
AMOCO PRODUCTION COMPANY
GCU COM I 181
GROUNDWATER SAMPLING
NOVEMBER 20, 1995

SAMPLE I.D.	DATE	pH	COND. umhos/cm	BENZENE ppb	TOLUENE ppb	E-BENZ. ppb	T-XYL. ppb	NITRATE NITROGEN mg/L	FCB/ 100 mls COLONIES
WP #40	02/09/94	7.0	3700	ND	ND	ND	3.8		
	06/13/94	7.0	3900	<1	<1	<1	<1		
	09/26/94	7.0	3900	ND	0.4	ND	0.4		
	06/05/95	6.7	3700	ND	ND	ND	ND		
	08/29/95	6.8	3500	ND	ND	ND	ND		
	11/20/95	6.9	2800	ND	ND	ND	ND		
WP #41	02/09/94	7.0	6900	171.0	7400.0	810.0	12060.0	0.88	0
	06/14/94	7.0	12200	1026.0	1061.0	14803.0	8939.0	11.8	<1
	09/26/94	7.0	9500	83.5	18.3	414.0	7811.0	1.18	0
	06/05/95	6.7	13000	ND	86.5	95.4	2151.8		
	08/29/95	6.9	12800	ND	168.0	159.0	2570.0		
	11/20/95	7.0	11000	ND	371.0	355.0	5454.0		
WP #42	06/05/95	6.6	11500	1.0	1.9	ND	7.5		
	08/29/95	6.9	4500	ND	ND	1.2	1.3		
	11/20/95	6.8	3200	ND	3.7	2.0	1.1		

Notes: MW = Monitor Well FCB = Fecal Coliform Bacteria. EPA Method 600/4-79-020
WP= Wellpoint

Benzene, Toluene, Ethyl-benzene, Total Xylenes, per EPA Method 8020

PURGEABLE AROMATICS

Blagg Engineering, Inc.

Project ID: Amoco/GCU 181
Sample ID: MW - 5
Lab ID: 1951
Sample Matrix: Water
Preservative: Cool, HgCl₂
Condition: Intact

Report Date: 11/30/95
Date Sampled: 11/20/95
Date Received: 11/20/95
Date Analyzed: 11/28/95

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

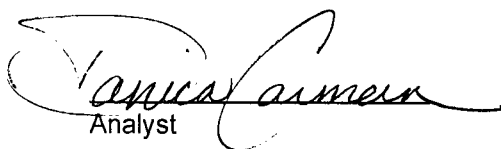
Total BTEX	ND
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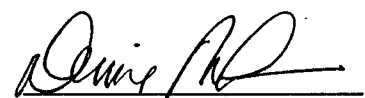
ND - Analyte not detected at the stated detection limit.

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

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

Comments:


Analyst


Review

PURGEABLE AROMATICS

Blagg Engineering, Inc.

Project ID: Amoco/GCU 181
Sample ID: MW - 7
Lab ID: 1952
Sample Matrix: Water
Preservative: Cool, HgCl₂
Condition: Intact

Report Date: 11/30/95
Date Sampled: 11/20/95
Date Received: 11/20/95
Date Analyzed: 11/28/95

Target Analyte	Concentration (ug/L)	Detection Limit (ug/L)
Benzene	8.52	0.50
Toluene	25.1	0.50
Ethylbenzene	47.0	5.00
m,p-Xylenes	22.3	1.00
o-Xylene	5.98	0.50

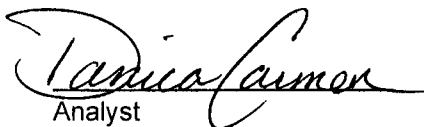
Total BTEX	107
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ND - Analyte not detected at the stated detection limit.

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

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

Comments:


Analyst


Review

PURGEABLE AROMATICS

Blagg Engineering, Inc.

Project ID: Amoco/GCU 181
Sample ID: WP - 10B
Lab ID: 1953
Sample Matrix: Water
Preservative: Cool, HgCl₂
Condition: Intact

Report Date: 11/30/95
Date Sampled: 11/20/95
Date Received: 11/20/95
Date Analyzed: 11/28/95

Target Analyte	Concentration (ug/L)	Detection Limit (ug/L)
Benzene	ND	0.50
Toluene	0.63	0.50
Ethylbenzene	0.63	0.50
m,p-Xylenes	1.16	1.00
o-Xylene	0.70	0.50

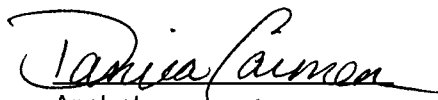
Total BTEX	3.12
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ND - Analyte not detected at the stated detection limit.

Quality Control:	<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Acceptance Limits</u>
	Trifluorotoluene	106	88 - 110%

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

Comments:


Analyst


Review

PURGEABLE AROMATICS

Blagg Engineering, Inc.

Project ID: Amoco/GCU 181
Sample ID: MW - 17
Lab ID: 1954
Sample Matrix: Water
Preservative: Cool, HgCl₂
Condition: Intact

Report Date: 11/30/95
Date Sampled: 11/20/95
Date Received: 11/20/95
Date Analyzed: 11/28/95

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

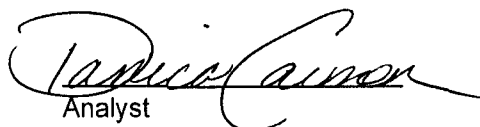
Total BTEX	ND
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ND - Analyte not detected at the stated detection limit.

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

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

Comments:


Analyst


Review

PURGEABLE AROMATICS

Blagg Engineering, Inc.

Project ID: Amoco/GCU 181
Sample ID: WP - 21A
Lab ID: 1955
Sample Matrix: Water
Preservative: Cool, HgCl₂
Condition: Intact

Report Date: 11/30/95
Date Sampled: 11/20/95
Date Received: 11/20/95
Date Analyzed: 11/28/95

Target Analyte	Concentration (ug/L)	Detection Limit (ug/L)
Benzene	ND	0.50
Toluene	1.33	0.50
Ethylbenzene	0.79	0.50
m,p-Xylenes	ND	1.00
o-Xylene	ND	0.50

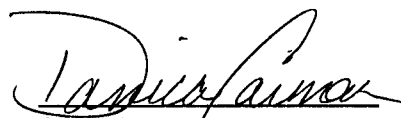
Total BTEX	2.13
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ND - Analyte not detected at the stated detection limit.

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

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

Comments:


Analyst


Review

PURGEABLE AROMATICS

Blagg Engineering, Inc.

Project ID: Amoco/GCU 181
Sample ID: MW - 25
Lab ID: 1956
Sample Matrix: Water
Preservative: Cool, HgCl₂
Condition: Intact

Report Date: 11/30/95
Date Sampled: 11/20/95
Date Received: 11/20/95
Date Analyzed: 11/27/95

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

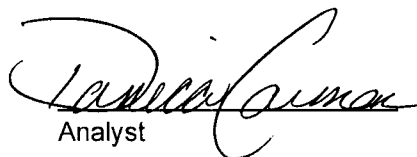
Total BTEX	ND
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ND - Analyte not detected at the stated detection limit.

Quality Control:	<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Acceptance Limits</u>
	Trifluorotoluene	100	88 - 110%

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

Comments:


Analyst


Review

PURGEABLE AROMATICS

Blagg Engineering, Inc.

Project ID: Amoco/GCU 181
Sample ID: MW - 28
Lab ID: 1957
Sample Matrix: Water
Preservative: Cool, HgCl₂
Condition: Intact

Report Date: 11/30/95
Date Sampled: 11/20/95
Date Received: 11/20/95
Date Analyzed: 11/27/95

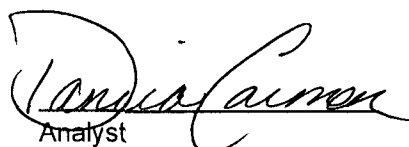
Target Analyte	Concentration (ug/L)	Detection Limit (ug/L)
Benzene	ND	0.50
Toluene	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	1.00
o-Xylene	ND	0.50
Total BTEX		ND

ND - Analyte not detected at the stated detection limit.

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

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

Comments:


Analyst


Review

PURGEABLE AROMATICS

Blagg Engineering, Inc.

Project ID: Amoco/GCU 181
Sample ID: WP - 31A
Lab ID: 1958
Sample Matrix: Water
Preservative: Cool, HgCl₂
Condition: Intact

Report Date: 11/30/95
Date Sampled: 11/20/95
Date Received: 11/20/95
Date Analyzed: 11/27/95

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

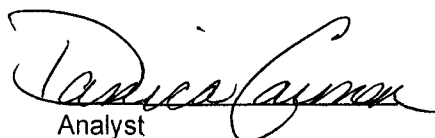
Total BTEX	ND
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ND - Analyte not detected at the stated detection limit.

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

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

Comments:


Analyst


Review

PURGEABLE AROMATICS

Blagg Engineering, Inc.

Project ID: Amoco/GCU 181
Sample ID: WP - 32A
Lab ID: 1959
Sample Matrix: Water
Preservative: Cool, HgCl₂
Condition: Intact

Report Date: 11/30/95
Date Sampled: 11/20/95
Date Received: 11/20/95
Date Analyzed: 11/27/95

Target Analyte	Concentration (ug/L)	Detection Limit (ug/L)
Benzene	0.78	0.50
Toluene	0.57	0.50
Ethylbenzene	0.75	0.50
m,p-Xylenes	ND	1.00
o-Xylene	ND	0.50

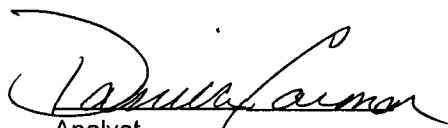
Total BTEX	2.10
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ND - Analyte not detected at the stated detection limit.

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

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

Comments:


Analyst


Review

PURGEABLE AROMATICS

Blagg Engineering, Inc.

Project ID: Amoco/GCU 181
Sample ID: MW - 36
Lab ID: 1960
Sample Matrix: Water
Preservative: Cool, HgCl₂
Condition: Intact

Report Date: 11/30/95
Date Sampled: 11/20/95
Date Received: 11/20/95
Date Analyzed: 11/27/95

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

Total BTEX	ND
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ND - Analyte not detected at the stated detection limit.

Quality Control:	<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Acceptance Limits</u>
	Trifluorotoluene	100	88 - 110%

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

Comments:


Analyst


Review

PURGEABLE AROMATICS

Blagg Engineering, Inc.

Project ID: Amoco/GCU 181
Sample ID: WP - 39
Lab ID: 1961
Sample Matrix: Water
Preservative: Cool, HgCl₂
Condition: Intact

Report Date: 11/30/95
Date Sampled: 11/20/95
Date Received: 11/20/95
Date Analyzed: 11/27/95

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

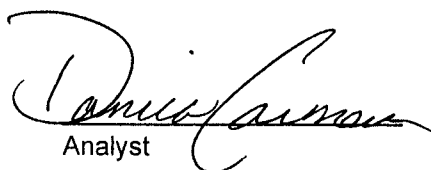
Total BTEX	ND
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ND - Analyte not detected at the stated detection limit.

Quality Control:	<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Acceptance Limits</u>
	Trifluorotoluene	100	88 - 110%

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

Comments:


Analyst


Review

PURGEABLE AROMATICS

Blagg Engineering, Inc.

Project ID: Amoco/GCU 181
Sample ID: WP - 40
Lab ID: 1962
Sample Matrix: Water
Preservative: Cool, HgCl₂
Condition: Intact

Report Date: 11/30/95
Date Sampled: 11/20/95
Date Received: 11/20/95
Date Analyzed: 11/27/95

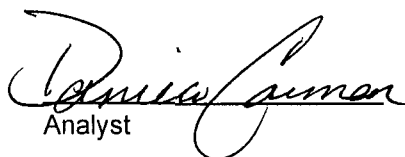
Target Analyte	Concentration (ug/L)	Detection Limit (ug/L)
Benzene	ND	0.50
Toluene	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	1.00
o-Xylene	ND	0.50
Total BTEX		ND

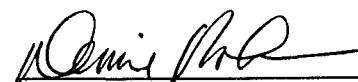
ND - Analyte not detected at the stated detection limit.

Quality Control: Surrogate Percent Recovery Acceptance Limits
Trifluorotoluene 101 88 - 110%

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

Comments:


Analyst


Review

PURGEABLE AROMATICS

Blagg Engineering, Inc.

Project ID: Amoco/GCU 181
Sample ID: WP - 41
Lab ID: 1963
Sample Matrix: Water
Preservative: Cool, HgCl₂
Condition: Intact

Report Date: 11/30/95
Date Sampled: 11/20/95
Date Received: 11/20/95
Date Analyzed: 11/27/95

Target Analyte	Concentration (ug/L)	Detection Limit (ug/L)
Benzene	ND	100
Toluene	371	100
Ethylbenzene	355	100
m,p-Xylenes	4,820	200
o-Xylene	634	100

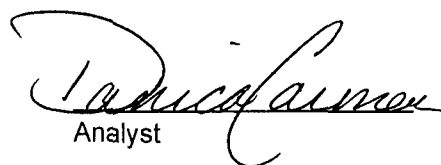
Total BTEX	6,180
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ND - Analyte not detected at the stated detection limit.

Quality Control:	<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Acceptance Limits</u>
	Trifluorotoluene	108	88 - 110%

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

Comments:


Analyst


Review

PURGEABLE AROMATICS

Blagg Engineering, Inc.

Project ID: Amoco/GCU 181
Sample ID: WP - 42
Lab ID: 1964
Sample Matrix: Water
Preservative: Cool, HgCl₂
Condition: Intact

Report Date: 11/30/95
Date Sampled: 11/20/95
Date Received: 11/20/95
Date Analyzed: 11/27/95

Target Analyte	Concentration (ug/L)	Detection Limit (ug/L)
Benzene	ND	0.50
Toluene	3.70	0.50
Ethylbenzene	2.01	0.50
m,p-Xylenes	ND	1.00
o-Xylene	1.07	0.50

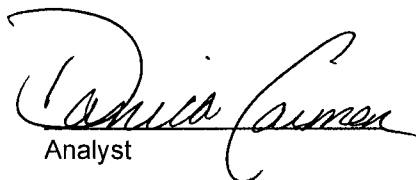
Total BTEX	6.78
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ND - Analyte not detected at the stated detection limit.

Quality Control:	<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Acceptance Limits</u>
	Trifluorotoluene	108	88 - 110%

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

Comments:


Analyst


Review

QUALITY ASSURANCE / QUALITY CONTROL
DOCUMENTATION

PURGEABLE AROMATICS

Quality Control Report

Method Blank Analysis

Sample Matrix: Water
Lab ID: MB35030

Report Date: 11/30/95
Date Analyzed: 11/27/95

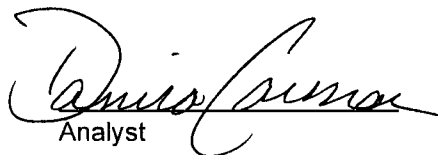
Target Analyte	Concentration (ug/L)	Detection Limit (ug/L)
Benzene	ND	0.20
Toluene	ND	0.20
Ethylbenzene	ND	0.20
m,p-Xylenes	ND	0.40
o-Xylene	ND	0.20

ND - Analyte not detected at the stated detection limit.

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

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

Comments:


Analyst


Review

PURGEABLE AROMATICS

Quality Control Report

Method Blank Analysis

Sample Matrix: Water
Lab ID: MB35031

Report Date: 11/30/95
Date Analyzed: 11/28/95

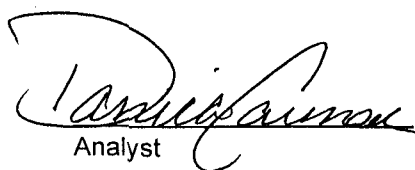
Target Analyte	Concentration (ug/L)	Detection Limit (ug/L)
Benzene	ND	0.20
Toluene	ND	0.20
Ethylbenzene	ND	0.20
m,p-Xylenes	ND	0.40
o-Xylene	ND	0.20

ND - Analyte not detected at the stated detection limit.

Quality Control: Surrogate Percent Recovery Acceptance Limits
Trifluorotoluene 100 88 - 110%

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

Comments:


Analyst


Review

Purgeable Aromatics

Duplicate Analysis

Lab ID: 1963Dup
Sample Matrix: Water
Preservative: Cool, HgCl₂
Condition: Intact

Report Date: 11/30/95
Date Sampled: 11/20/95
Date Received: 11/20/95
Date Analyzed: 11/27/95

Target Analyte	Original Conc. (ug/L)	Duplicate Conc. (ug/L)	Acceptance Range (ug/L)
Benzene	ND	ND	NA
Toluene	371	347	293 - 425
Ethylbenzene	355	355	49.9 - 72.9
m,p-Xylenes	4,820	4,810	NE
o-Xylene	634	615	NE

ND - Analyte not detected at the stated detection limit.

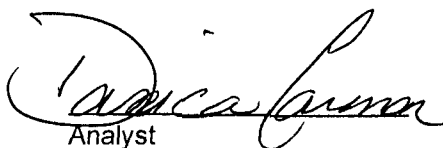
NA - Not applicable or not calculated.

NE - Duplicate acceptance range not established by the EPA.

	<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Acceptance Limits</u>
Quality Control:	Trifluorotoluene	108	88 - 110%

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

Comments:


Analyst


Review

Purgeable Aromatics

Matrix Spike Analysis

Lab ID: 1964Spk
Sample Matrix: Water
Preservative: Cool, HgCl₂
Condition: Intact

Report Date: 11/30/95
Date Sampled: 11/20/95
Date Received: 11/20/95
Date Analyzed: 11/27/95

Target Analyte	Spike Added (ug/L)	Original Conc. (ug/L)	Spiked Sample Conc. (ug/L)	% Recovery	Acceptance Limits (%)
Benzene	10	ND	10.8	108%	39 - 150
Toluene	10	3.70	13.1	94%	46 - 148
Ethylbenzene	10	2.01	11.5	95%	32 - 160
m,p-Xylenes	20	0.83	20.6	99%	NE
o-Xylene	10	1.07	11.5	104%	NE

ND - Analyte not detected at the stated detection limit.

NA - Not applicable or not calculated.

NE - Spike acceptance range not established by the EPA.

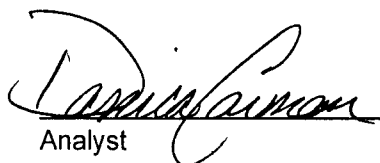
Quality Control: Surrogate
Trifluorotoluene

Percent Recovery
106

Acceptance Limits
88 - 110%

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

Comments:


Analyst


Review

Purgeable Aromatics

Matrix Spike Analysis

Lab ID: 1951Spk
Sample Matrix: Water
Preservative: Cool, HgCl₂
Condition: Intact

Report Date: 11/30/95
Date Sampled: 11/20/95
Date Received: 11/20/95
Date Analyzed: 11/28/95

Target Analyte	Spike Added (ug/L)	Original Conc. (ug/L)	Spiked Sample Conc. (ug/L)	% Recovery	Acceptance Limits (%)
Benzene	10	ND	9.99	100%	39 - 150
Toluene	10	0.22	10.1	99%	46 - 148
Ethylbenzene	10	ND	10.2	100%	32 - 160
m,p-Xylenes	20	ND	20.2	100%	NE
o-Xylene	10	ND	10.3	103%	NE

ND - Analyte not detected at the stated detection limit.

NA - Not applicable or not calculated.

NE - Spike acceptance range not established by the EPA.

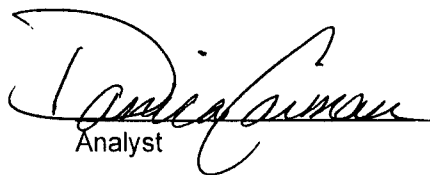
Quality Control: Surrogate
Trifluorotoluene

Percent Recovery
101

Acceptance Limits
88 - 110%

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

Comments:


Analyst


Review

VOLATILE AROMATIC HYDROCARBONS

Matrix Spike Duplicate Analysis

Lab ID: 1951Spkdup
Sample Matrix: Water
Preservative: Cool, HgCl₂
Condition: Intact

Report Date: 11/30/95
Date Sampled: 11/20/95
Date Received: 11/20/95
Date Analyzed: 11/28/95

Target Analyte	Spike Added (ug/L)	Sample Spike Recovery (%)	Duplicate Spike Recovery (%)	Acceptance Limits (%)
Benzene	10	100%	100%	80.6 - 119
Toluene	10	99%	100%	80.7 - 118
Ethylbenzene	10	100%	99%	80.9 - 118
m,p-Xylenes	20	100%	101%	NE
o-Xylene	10	103%	103%	NE

ND - Analyte not detected at the stated detection limit.

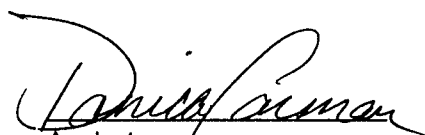
NA - Not applicable or not calculated.

NE - Spike acceptance range not established by the EPA.

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

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

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


Analyst


Review

PROJECT MANAGER: R. E. ONEILL

Analytica Lab I.D.:

Company:

Address:

Phone:

Fax:

Bill To:

Company:

Address:

BLAG ENG.P.O. Box 87632-1199JEFF BLAGSAME

CHAIN OF CUSTODY

0546

ORGANIC ANALYSES				WATER ANALYSES							METALS																				
Sample ID	Date	Time	Matrix	Lab ID	Petroleum Hydrocarbons (418.1)	Gasoline / Diesel (mod. 8015)	Gasoline (GRO)	Aromatic HCs BTEX/MTBE (602/8020)	Chlorinated Hydrocarbons (8010)	SDWA Volatiles (502.1/503.1)	Chlorinated Pesticides / PCBs (608 / 8080)	Herbicides (615 / 8150)	Volatiles GC/MS (624 / 8240 / 8260)	Base / Neutral / Acid GC/MS (625 / 8270)	Polynuclear Aromatic Hydrocarbons (8100)	TCLP Extraction	Other (specify):	Cation / Anion	Specific Cations (specify):	Specific Anions (specify):	BOD / Fecal / Total Coliform	Solids : TDS / TSS / SS	Nutrients: NH4+ / NO2- / NO3- / TKN	Oil and Grease	Other (specify):	Priority Pollutants	RCRA Metals (Total)	RCRA Metals TCLP (1311)	Other (specify):		
MW # 5	11-20	0900	WATER																												
MW # 7	"	0945	"																												
WP # 10B	"	1100	"																												
MW # 17	"	1315	"																												
WP # 21A	"	1330	"																												
MW # 25	"	1140	"																												
MW # 28	"	1000	"																												
WP # 31A	"	1045	"																												

Project Information		Sample Receipt	
Proj. #:	AmoCo	No. Containers:	Y/N/NA
Proj Name:	604 181	Custody Seals:	Y/N/NA
P.O. No.		Received Intact:	
Shipped Via:		Received Cold	

Required Turnaround Time (Prior Authorization Required for Rush)	
Signature	Signature
Date:	Date:
Company:	Company:

Relinquished by:		Relinquished by:	
Signature	Date:	Signature	Date:
R. E. ONEILL	11-20-95	R. E. ONEILL	11-20-95
Company: BLAG ENG.	Time: 1410	Company: BLAG	Time: 1410

Received By:		Received By:	
Signature	Date:	Signature	Date:
Signature	Date:	Signature	Date:
Company:	Time:	Company:	Time:

CHAIN OF CUSTODY

ENVIRONMENTAL LABORATORY

807 S. CARLTON • FARMINGTON, NM 87401 • (505) 326-2395

PROJECT MANAGER: R. E. O'MELL

Analytica Lab I.D.:

Company:

Address:

Phone:

max

Bill To:

Company:

Address:

Sample ID	Date	Time	Matrix	Lab ID
WP # 32A	11-20	1120	WATER	
MW # 36	"	0920	"	
WP # 39	"	0835	"	
WP # 40	"	0820	"	
WP # 41	"	1020	"	
WP # 42	"	1350	"	

Project Information		Sample Receipt
Proj. #:	A1100	No. Containers:
Proj Name:	614 181	Custody Seals:
P.O. No.		Received Intact:
Shipped Via:		Received Cold
Required Turnaround Time (Prior Authorization Required for Rush)		

ORGANIC ANALYSES										WATER ANALYSES										METALS																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
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