

3R - 19

REPORTS

DATE:

June 5, 1995

BLAGG ENGINEERING, INC.

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

June 7, 1995

Mr. William C. Olson
Hydrogeologist
Environmental Bureau
New Mexico Oil Conservation Division
Post Office Box 2088
Santa Fe, New Mexico 87504

RECEIVED

JUN 12 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. Composting of contaminated soils has now been completed at the site and select monitoring wells destroyed during excavation have been replaced by wellpoints. The new sampling points include: WP # 10B, 32A, 21A, and 42. Those monitoring wells destroyed and replaced are noted on Figure 1 in this report.

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.

Robert 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

JUN95-WO.RPT

TABLE 1
AMOCO PRODUCTION COMPANY
GCU COM I 181
GROUNDWATER SAMPLING
JUNE 5, 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		
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		
T @10A	02/09/94	7.0	3200	41.0	37.7	0.4	325.0	0.08	0
	06/14/94	8.0	4400	<1	<1	132.0	118.0	0.109	<1
	09/26/94	7.7	3800	6.7	12.2	61.5	502.9	1.05	0
WP #10B	06/05/95	7.2	15600	1.7	ND	ND	4.6		
MW #13	11/03/94	7.4	47100	0.9	0.4	0.4	1.3		
MW #15	11/03/94	7.5	4400	ND	0.8	ND	0.9		
	06/05/95	7.4	4100	ND	ND	ND	0.9		
MW #17	11/03/94	7.2	4000	ND	ND	ND	ND		
	06/05/95	7.4	3400	ND	ND	ND	0.8		
MW #21	11/03/94	7.5	5200	13.8	12.9	2.3	16.9		
WP #21A	06/05/95			DRY					
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		
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		
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		
MW #32	02/09/94	7.0	3900	149.0	13.3	ND	408.2	0.04	0
T @32	06/14/94	8.0	4700	<1	<1	<1	<1	0.101	<1
	09/26/94	7.9	4000	ND	ND	ND	ND	0.85	0
WP #32A	06/05/95	7.1	14000	3.2	ND	ND	2.8		
WP #34A	02/09/94	7.0	5000	21.4	17.2	1.9	143.0	0.22	0
	06/14/94	7.0	13800	452.0	206.0	7933.0	3324.0	0.873	<1
	09/26/94	6.9	11000	0.9	ND	24.6	465.0	2.07	0
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		
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		
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		
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		
WP #42	06/05/95	6.6	11500	1.0	1.9	ND	7.5		

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

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

OFF: (505) 325-8786



LAB: (505) 325-5667

AROMATIC VOLATILE ORGANICS

Attn: *R.E. O'Neill*
Company: *Blagg Engineering, Inc.*
Address: *P.O. Box 87*
City, State: *Bloomfield, NM 87413*

Date: *6/6/95*
COC No.: *3067*
Sample ID: *6642*
Job No. *2-1000*

Project Name: *GCU COM I 181*
Project Location: *MW-5*
Sampled by: *REO* Date: *6/5/95*
Analyzed by: *DC* Date: *6/5/95*
Sample Matrix: *Water*

Time: *9:20*

Aromatic Volatile Organics

Component	Measured Concentration ug/L	Detection Limit Concentration ug/L
<i>Benzene</i>	ND	<i>0.2</i>
<i>Toluene</i>	ND	<i>0.2</i>
<i>Ethylbenzene</i>	<i>2.1</i>	<i>0.2</i>
<i>m,p-Xylene</i>	ND	<i>0.2</i>
<i>o-Xylene</i>	ND	<i>0.2</i>
	<i>TOTAL 2.1 ug/L</i>	

ND - Not Detectable

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

Approved by: *Da 4*
Date: *6/6/95*

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— TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT —

OFF: (505) 325-8786



LAB: (505) 325-5667

AROMATIC VOLATILE ORGANICS

Attn: *R.E. O'Neill*
Company: *Blagg Engineering, Inc.*
Address: *P.O. Box 87*
City, State: *Bloomfield, NM 87413*

Date: *6/6/95*
COC No.: *3067*
Sample ID: *6643*
Job No. *2-1000*

Project Name: *GCU COM I 181*
Project Location: *MW-7*
Sampled by: *REO* Date: *6/5/95*
Analyzed by: *DC* Date: *6/5/95*
Sample Matrix: *Water*

Time: *9:00*

Aromatic Volatile Organics

<i>Component</i>	<i>Measured Concentration ug/L</i>	<i>Detection Limit Concentration ug/L</i>
<i>Benzene</i>	<i>2.1</i>	<i>0.2</i>
<i>Toluene</i>	<i>33.1</i>	<i>0.2</i>
<i>Ethylbenzene</i>	<i>375.8</i>	<i>0.2</i>
<i>m,p-Xylene</i>	<i>10.9</i>	<i>0.2</i>
<i>o-Xylene</i>	<i>2.0</i>	<i>0.2</i>
<i>TOTAL 423.9 ug/L</i>		

ND - Not Detectable

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

Approved by: *[Signature]*
Date: *6/6/95*

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LAB: (505) 325-5667

AROMATIC VOLATILE ORGANICS

Attn: *R.E. O'Neill*
Company: *Blagg Engineering, Inc.*
Address: *P.O. Box 87*
City, State: *Bloomfield, NM 87413*

Date: *6/6/95*
COC No.: *3067*
Sample ID: *6644*
Job No. *2-1000*

Project Name: *GCU COM I 181*
Project Location: *WP-10B*
Sampled by: *REO* Date: *6/5/95*
Analyzed by: *DC* Date: *6/5/95*
Sample Matrix: *Water*

Time: *10:00*

Aromatic Volatile Organics

<i>Component</i>	<i>Measured Concentration ug/L</i>	<i>Detection Limit Concentration ug/L</i>
<i>Benzene</i>	<i>1.7</i>	<i>0.2</i>
<i>Toluene</i>	<i>ND</i>	<i>0.2</i>
<i>Ethylbenzene</i>	<i>ND</i>	<i>0.2</i>
<i>m,p-Xylene</i>	<i>3.7</i>	<i>0.2</i>
<i>o-Xylene</i>	<i>0.9</i>	<i>0.2</i>
	<i>TOTAL 6.3 ug/L</i>	

ND - Not Detectable

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

Approved by: *Da 4*
Date: *6/6/95*

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LAB: (505) 325-5667

AROMATIC VOLATILE ORGANICS

Attn: *R.E. O'Neill*
Company: *Blagg Engineering, Inc.*
Address: *P.O. Box 87*
City, State: *Bloomfield, NM 87413*

Date: *6/6/95*
COC No.: *3067*
Sample ID: *6645*
Job No. *2-1000*

Project Name: *GCU COM I 181*
Project Location: *MW-15*
Sampled by: *REO* Date: *6/5/95*
Analyzed by: *DC* Date: *6/5/95*
Sample Matrix: *Water*

Time: *12:45*

Aromatic Volatile Organics

Component	Measured Concentration ug/L	Detection Limit Concentration ug/L
<i>Benzene</i>	ND	<i>0.2</i>
<i>Toluene</i>	ND	<i>0.2</i>
<i>Ethylbenzene</i>	ND	<i>0.2</i>
<i>m,p-Xylene</i>	<i>0.9</i>	<i>0.2</i>
<i>o-Xylene</i>	ND	<i>0.2</i>
	<i>TOTAL 0.9 ug/L</i>	

ND - Not Detectable

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

Approved by: *Ja 4*
Date: *6/6/95*

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LAB: (505) 325-5667

AROMATIC VOLATILE ORGANICS

Attn: *R.E. O'Neill*
Company: *Blagg Engineering, Inc.*
Address: *P.O. Box 87*
City, State: *Bloomfield, NM 87413*

Date: *6/6/95*
COC No.: *3067*
Sample ID: *6646*
Job No. *2-1000*

Project Name: *GCU COM I 181*
Project Location: *MW-17*
Sampled by: *REO* Date: *6/5/95*
Analyzed by: *DC* Date: *6/5/95*
Sample Matrix: *Water*

Time: *13:20*

Aromatic Volatile Organics

<i>Component</i>	<i>Measured Concentration ug/L</i>	<i>Detection Limit Concentration ug/L</i>
<i>Benzene</i>	<i>ND</i>	<i>0.2</i>
<i>Toluene</i>	<i>ND</i>	<i>0.2</i>
<i>Ethylbenzene</i>	<i>ND</i>	<i>0.2</i>
<i>m,p-Xylene</i>	<i>0.8</i>	<i>0.2</i>
<i>o-Xylene</i>	<i>ND</i>	<i>0.2</i>
<i>TOTAL 0.8 ug/L</i>		

ND - Not Detectable

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

Approved by: *Ja G*
Date: *6/6/95*

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LAB: (505) 325-5667

AROMATIC VOLATILE ORGANICS

Attn: *R.E. O'Neill*
Company: *Blagg Engineering, Inc.*
Address: *P.O. Box 87*
City, State: *Bloomfield, NM 87413*

Date: *6/6/95*
COC No.: *3067*
Sample ID: *6647*
Job No. *2-1000*

Project Name: *GCU COM I 181*
Project Location: *MW-25*
Sampled by: *REO* Date: *6/5/95*
Analyzed by: *DC* Date: *6/5/95*
Sample Matrix: *Water*

Time: *11:50*

Aromatic Volatile Organics

<i>Component</i>	<i>Measured Concentration ug/L</i>	<i>Detection Limit Concentration ug/L</i>
<i>Benzene</i>	<i>ND</i>	<i>0.2</i>
<i>Toluene</i>	<i>ND</i>	<i>0.2</i>
<i>Ethylbenzene</i>	<i>ND</i>	<i>0.2</i>
<i>m,p-Xylene</i>	<i>0.7</i>	<i>0.2</i>
<i>o-Xylene</i>	<i>ND</i>	<i>0.2</i>
	<i>TOTAL 0.7 ug/L</i>	

ND - Not Detectable

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

Approved by: *Da 4*
Date: *6/6/95*

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LAB: (505) 325-5667

AROMATIC VOLATILE ORGANICS

Attn: *R.E. O'Neill*
Company: *Blagg Engineering, Inc.*
Address: *P.O. Box 87*
City, State: *Bloomfield, NM 87413*

Date: *6/6/95*
COC No.: *3067*
Sample ID: *6648*
Job No. *2-1000*

Project Name: *GCU COM I 181*
Project Location: *MW-28*
Sampled by: *REO* Date: *6/5/95*
Analyzed by: *DC* Date: *6/5/95*
Sample Matrix: *Water*

Time: *11:30*

Aromatic Volatile Organics

Component	Measured Concentration ug/L	Detection Limit Concentration ug/L
<i>Benzene</i>	ND	<i>0.2</i>
<i>Toluene</i>	ND	<i>0.2</i>
<i>Ethylbenzene</i>	ND	<i>0.2</i>
<i>m,p-Xylene</i>	<i>0.7</i>	<i>0.2</i>
<i>o-Xylene</i>	ND	<i>0.2</i>
	<i>TOTAL 0.7 ug/L</i>	

ND - Not Detectable

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

Approved by: *Da 4*
Date: *6/6/95*

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OFF: (505) 325-8786



LAB: (505) 325-5667

AROMATIC VOLATILE ORGANICS

Attn: *R.E. O'Neill*
Company: *Blagg Engineering, Inc.*
Address: *P.O. Box 87*
City, State: *Bloomfield, NM 87413*

Date: *6/6/95*
COC No.: *3067*
Sample ID: *6649*
Job No. *2-1000*

Project Name: *GCU COM I 181*

Project Location: *WP-31A*

Sampled by: *REO* Date: *6/5/95*

Time: *11:05*

Analyzed by: *DC* Date: *6/5/95*

Sample Matrix: *Water*

Aromatic Volatile Organics

Component	Measured Concentration ug/L	Detection Limit Concentration ug/L
<i>Benzene</i>	ND	<i>0.2</i>
<i>Toluene</i>	ND	<i>0.2</i>
<i>Ethylbenzene</i>	ND	<i>0.2</i>
<i>m,p-Xylene</i>	<i>0.5</i>	<i>0.2</i>
<i>o-Xylene</i>	ND	<i>0.2</i>
	<i>TOTAL 0.5 ug/L</i>	

ND - Not Detectable

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

Approved by: *Da4*
Date: *6/6/95*

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AROMATIC VOLATILE ORGANICS

Attn: *R.E. O'Neill*
Company: *Blagg Engineering, Inc.*
Address: *P.O. Box 87*
City, State: *Bloomfield, NM 87413*

Date: *6/6/95*
COC No.: *3067*
Sample ID: *6650*
Job No. *2-1000*

Project Name: *GCU COM I 181*
Project Location: *WP-32A*
Sampled by: *REO* Date: *6/5/95*
Analyzed by: *DC* Date: *6/5/95*
Sample Matrix: *Water*

Time: *10:20*

Aromatic Volatile Organics

<i>Component</i>	<i>Measured Concentration ug/L</i>	<i>Detection Limit Concentration ug/L</i>
<i>Benzene</i>	<i>3.2</i>	<i>0.2</i>
<i>Toluene</i>	<i>ND</i>	<i>0.2</i>
<i>Ethylbenzene</i>	<i>ND</i>	<i>0.2</i>
<i>m,p-Xylene</i>	<i>2.1</i>	<i>0.2</i>
<i>o-Xylene</i>	<i>0.7</i>	<i>0.2</i>
	<i>TOTAL 6.0 ug/L</i>	

ND - Not Detectable

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

Approved by: *De 4*
Date: *6/6/95*

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AROMATIC VOLATILE ORGANICS

Attn: *R.E. O'Neill*
Company: *Blagg Engineering, Inc.*
Address: *P.O. Box 87*
City, State: *Bloomfield, NM 87413*

Date: *6/6/95*
COC No.: *3067*
Sample ID: *6651*
Job No. *2-1000*

Project Name: *GCU COM I 181*

Project Location: *MW-36*

Sampled by: *REO* Date: *6/5/95*

Time: *9:45*

Analyzed by: *DC* Date: *6/5/95*

Sample Matrix: *Water*

Aromatic Volatile Organics

<i>Component</i>	<i>Measured Concentration ug/L</i>	<i>Detection Limit Concentration ug/L</i>
<i>Benzene</i>	<i>ND</i>	<i>0.2</i>
<i>Toluene</i>	<i>ND</i>	<i>0.2</i>
<i>Ethylbenzene</i>	<i>ND</i>	<i>0.2</i>
<i>m,p-Xylene</i>	<i>ND</i>	<i>0.2</i>
<i>o-Xylene</i>	<i>ND</i>	<i>0.2</i>
<i>TOTAL 0.0 ug/L</i>		

ND - Not Detectable

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

Approved by: *De 4*

Date: *6/6/95*

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— TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT —

OFF: (505) 325-8786



LAB: (505) 325-5667

AROMATIC VOLATILE ORGANICS

Attn: *R.E. O'Neill*
Company: *Blagg Engineering, Inc.*
Address: *P.O. Box 87*
City, State: *Bloomfield, NM 87413*

Date: *6/6/95*
COC No.: *3067*
Sample ID: *6652*
Job No. *2-1000*

Project Name: *GCU COM I 181*
Project Location: *WP-39*
Sampled by: *REO* Date: *6/5/95*
Analyzed by: *DC* Date: *6/5/95*
Sample Matrix: *Water*

Time: *8:45*

Aromatic Volatile Organics

Component	Measured Concentration ug/L	Detection Limit Concentration ug/L
<i>Benzene</i>	ND	<i>0.2</i>
<i>Toluene</i>	ND	<i>0.2</i>
<i>Ethylbenzene</i>	ND	<i>0.2</i>
<i>m,p-Xylene</i>	<i>0.5</i>	<i>0.2</i>
<i>o-Xylene</i>	ND	<i>0.2</i>
	<i>TOTAL 0.5 ug/L</i>	

ND - Not Detectable

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

Approved by: *Da 4*
Date: *6/6/95*

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LAB: (505) 325-5667

AROMATIC VOLATILE ORGANICS

Attn: *R.E. O'Neill*
Company: *Blagg Engineering, Inc.*
Address: *P.O. Box 87*
City, State: *Bloomfield, NM 87413*

Date: *6/6/95*
COC No.: *3067*
Sample ID: *6653*
Job No. *2-1000*

Project Name: *GCU COM I 181*
Project Location: *WP-40*
Sampled by: *REO* Date: *6/5/95*
Analyzed by: *DC* Date: *6/5/95*
Sample Matrix: *Water*

Time: *8:30*

Aromatic Volatile Organics

Component	Measured Concentration ug/L	Detection Limit Concentration ug/L
<i>Benzene</i>	ND	0.2
<i>Toluene</i>	ND	0.2
<i>Ethylbenzene</i>	ND	0.2
<i>m,p-Xylene</i>	ND	0.2
<i>o-Xylene</i>	ND	0.2
	TOTAL 0.0 ug/L	

ND - Not Detectable

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

Approved by: *[Signature]*

Date: *6/6/95*

P. O. BOX 2606 • FARMINGTON, NM 87499

— TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT —

OFF: (505) 325-8786



LAB: (505) 325-5667

AROMATIC VOLATILE ORGANICS

Attn: *R.E. O'Neill*
Company: *Blagg Engineering, Inc.*
Address: *P.O. Box 87*
City, State: *Bloomfield, NM 87413*

Date: *6/6/95*
COC No.: *3068*
Sample ID: *6654*
Job No. *2-1000*

Project Name: *GCU COM I 181*
Project Location: *WP-41*
Sampled by: *REO* Date: *6/5/95*
Analyzed by: *DC* Date: *6/5/95*
Sample Matrix: *Water*

Time: *10:35*

Aromatic Volatile Organics

<i>Component</i>	<i>Measured Concentration ug/L</i>	<i>Detection Limit Concentration ug/L</i>
<i>Benzene</i>	<i>ND</i>	<i>0.2</i>
<i>Toluene</i>	<i>86.5</i>	<i>0.2</i>
<i>Ethylbenzene</i>	<i>95.4</i>	<i>0.2</i>
<i>m,p-Xylene</i>	<i>2077.1</i>	<i>0.2</i>
<i>o-Xylene</i>	<i>74.7</i>	<i>0.2</i>
<i>TOTAL 2333.6 ug/L</i>		

ND - Not Detectable

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

Approved by: *Da 4*
Date: *6/6/95*

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AROMATIC VOLATILE ORGANICS

Attn: *R.E. O'Neill*
Company: *Blagg Engineering, Inc.*
Address: *P.O. Box 87*
City, State: *Bloomfield, NM 87413*

Date: *6/6/95*
COC No.: *3068*
Sample ID: *6655*
Job No. *2-1000*

Project Name: *GCU COM I 181*
Project Location: *WP-42*
Sampled by: *REO* Date: *6/5/95*
Analyzed by: *DC* Date: *6/5/95*
Sample Matrix: *Water*

Time: *12:20*

Aromatic Volatile Organics

<i>Component</i>	<i>Measured Concentration ug/L</i>	<i>Detection Limit Concentration ug/L</i>
<i>Benzene</i>	<i>1.0</i>	<i>0.2</i>
<i>Toluene</i>	<i>1.9</i>	<i>0.2</i>
<i>Ethylbenzene</i>	<i>ND</i>	<i>0.2</i>
<i>m,p-Xylene</i>	<i>4.0</i>	<i>0.2</i>
<i>o-Xylene</i>	<i>3.5</i>	<i>0.2</i>
<i>TOTAL 10.4 ug/L</i>		

ND - Not Detectable

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Approved by: *Da 4*
Date: *6/6/95*

P. O. BOX 2606 • FARMINGTON, NM 87499

— TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT —

QUALITY ASSURANCE / QUALITY CONTROL
DOCUMENTATION

OFF: (505) 325-8786



LAB: (505) 325-5667

QUALITY ASSURANCE REPORT
for EPA Method 8020

Date Analyzed: 6/5/95

Internal QC No.: 0379-STD

Surrogate QC No.: 0378-STD

Reference Standard QC No.: 0355-STD

Method Blank

Analytes in Blank	Amount
Average Amount of All Analytes in Blank	<0.2 ppb

Calibration Check

Calibration Standards	Units of Measure	*True Value	Analyzed Value	% Diff	Limit
Benzene	ppb	20	19	3	15%
Toluene	ppb	20	19	5	15%
Ethylbenzene	ppb	20	19	6	15%
m,p-Xylene	ppb	40	40	1	15%
o-Xylene	ppb	20	18	8	15%

Spike Results

Analyte	1- Percent Recovered	2 - Percent Recovered	Limit	%RSD	Limit
Benzene	113	110	(39-150)	2	20%
Toluene	110	108	(46-148)	2	20%
Ethylbenzene	108	105	(32-160)	2	20%
m,p-Xylene	111	108	(35-145)	2	20%
o-Xylene	103	101	(35-145)	1	20%

Surrogate Recoveries

Laboratory Identification	S1 Percent Recovered	S2 Percent Recovered	S3 Percent Recovered
Limits	(70-130)		
6655-3068	99		

S1: Fluorobenzene

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- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -



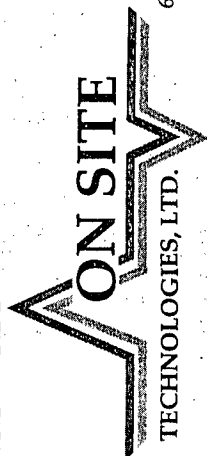
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6-5-95

Page 1 of 2

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

Purchase Order No.: _____ Job No. <u>A400</u>						Name <u>R. E. O'MELL</u> Title _____	
SEND INVOICE TO		Company <u>BLAGG ENGINEERING</u>		Company <u>SAME</u>			
Address <u>P.O. BOX 87</u>		Dept.		Mailing Address			
City, State, Zip <u>BLOOMFIELD</u>				City, State, Zip		Telephone No. _____ Telefax No. _____	
Sampling Location: <u>GCH Com I 181</u>						ANALYSIS REQUESTED	
Sampler: <u>R. E. O'NEILL</u>							
SAMPLE IDENTIFICATION		SAMPLE DATE		MATRIX	PRES.	LAB ID	
<u>MW-5</u>		<u>6-5 0920</u>		<u>water</u>		<u>6647-3067</u>	
<u>MW-7</u>		<u>" 0900</u>		<u>"</u>		<u>6643</u>	
<u>WP-10B</u>		<u>" 1000</u>		<u>"</u>		<u>6641</u>	
<u>MW-15</u>		<u>" 1245</u>		<u>"</u>		<u>6645</u>	
<u>MW-17</u>		<u>" 1320</u>		<u>"</u>		<u>6646</u>	
<u>MW-25</u>		<u>" 1150</u>		<u>"</u>		<u>6647</u>	
<u>MW-28</u>		<u>" 1130</u>		<u>"</u>		<u>6648</u>	
<u>WP-31A</u>		<u>" 1105</u>		<u>"</u>		<u>6649</u>	
<u>WP-32A</u>		<u>" 1020</u>		<u>"</u>		<u>6650</u>	
<u>MW-36</u>		<u>" 0945</u>		<u>"</u>		<u>6651</u>	
<u>WP-39</u>		<u>" 0845</u>		<u>"</u>		<u>6652</u>	
<u>WP-40</u>		<u>" 0830</u>		<u>"</u>		<u>6653 ✓</u>	
Relinquished by: <u>R. E. O'Neill</u>		Date/Time <u>6-5 1345</u>		Received by: <u>[Signature]</u>		Date/Time <u>6/5/15 1345</u>	
Relinquished by:		Date/Time		Received by:		Date/Time	
Relinquished by:		Date/Time		Received by:		Date/Time	
Method of Shipment:		Rush		24-48 Hours		10 Working Days	
Authorized by: <u>R. E. O'Neill</u>		Date <u>6-5-95</u>		Special Instructions:			
(Client Signature Must Accompany Request)							



TECHNOLOGIES, LTD.

[illegible]

Case	Year	Age	Sex	Occupation	Education	Marital Status	Religion	Political Party	Income	Assets	Liabilities	Net Worth	Assets	Liabilities	Net Worth
1	1950	35	M	Teacher	High School	Married	Catholic	Democrat	\$12,000	\$15,000	\$3,000	\$15,000	\$15,000	\$3,000	\$15,000
2	1951	42	F	Homemaker	High School	Married	Catholic	Democrat	\$10,000	\$12,000	\$2,000	\$12,000	\$12,000	\$2,000	\$12,000
3	1952	28	M	Engineer	College	Single	Protestant	Republican	\$18,000	\$20,000	\$2,000	\$20,000	\$20,000	\$2,000	\$20,000
4	1953	55	F	Retired	High School	Married	Catholic	Democrat	\$8,000	\$10,000	\$2,000	\$10,000	\$10,000	\$2,000	\$10,000
5	1954	38	M	Doctor	College	Married	Jewish	Democrat	\$25,000	\$28,000	\$3,000	\$28,000	\$28,000	\$3,000	\$28,000
6	1955	48	F	Homemaker	High School	Married	Catholic	Democrat	\$10,000	\$12,000	\$2,000	\$12,000	\$12,000	\$2,000	\$12,000
7	1956	32	M	Engineer	College	Single	Protestant	Republican	\$18,000	\$20,000	\$2,000	\$20,000	\$20,000	\$2,000	\$20,000
8	1957	52	F	Retired	High School	Married	Catholic	Democrat	\$8,000	\$10,000	\$2,000	\$10,000	\$10,000	\$2,000	\$10,000
9	1958	40	M	Doctor	College	Married	Jewish	Democrat	\$25,000	\$28,000	\$3,000	\$28,000	\$28,000	\$3,000	\$28,000
10	1959	45	F	Homemaker	High School	Married	Catholic	Democrat	\$10,000	\$12,000	\$2,000	\$12,000	\$12,000	\$2,000	\$12,000
11	1960	30	M	Engineer	College	Single	Protestant	Republican	\$18,000	\$20,000	\$2,000	\$20,000	\$20,000	\$2,000	\$20,000
12	1961	50	F	Retired	High School	Married	Catholic	Democrat	\$8,000	\$10,000	\$2,000	\$10,000	\$10,000	\$2,000	\$10,000
13	1962	35	M	Doctor	College	Married	Jewish	Democrat	\$25,000	\$28,000	\$3,000	\$28,000	\$28,000	\$3,000	\$28,000
14	1963	43	F	Homemaker	High School	Married	Catholic	Democrat	\$10,000	\$12,000	\$2,000	\$12,000	\$12,000	\$2,000	\$12,000
15	1964	33	M	Engineer	College	Single	Protestant	Republican	\$18,000	\$20,000	\$2,000	\$20,000	\$20,000	\$2,000	\$20,000
16	1965	53	F	Retired	High School	Married	Catholic	Democrat	\$8,000	\$10,000	\$2,000	\$10,000	\$10,000	\$2,000	\$10,000
17	1966	41	M	Doctor	College	Married	Jewish	Democrat	\$25,000	\$28,000	\$3,000	\$28,000	\$28,000	\$3,000	\$28,000
18	1967	46	F	Homemaker	High School	Married	Catholic	Democrat	\$10,000	\$12,000	\$2,000	\$12,000	\$12,000	\$2,000	\$12,000
19	1968	31	M	Engineer	College	Single	Protestant	Republican	\$18,000	\$20,000	\$2,000	\$20,000	\$20,000	\$2,000	\$20,000
20	1969	51	F	Retired	High School	Married	Catholic	Democrat	\$8,000	\$10,000	\$2,000	\$10,000	\$10,000	\$2,000	\$10,000
21	1970	36	M	Doctor	College	Married	Jewish	Democrat	\$25,000	\$28,000	\$3,000	\$28,000	\$28,000	\$3,000	\$28,000
22	1971	44	F	Homemaker	High School	Married	Catholic	Democrat	\$10,000	\$12,000	\$2,000	\$12,000	\$12,000	\$2,000	\$12,000
23	1972	34	M	Engineer	College	Single	Protestant	Republican	\$18,000	\$20,000	\$2,000	\$20,000	\$20,000	\$2,000	\$20,000
24	1973	54	F	Retired	High School	Married	Catholic	Democrat	\$8,000	\$10,000	\$2,000	\$10,000	\$10,000	\$2,000	\$10,000
25	1974	42	M	Doctor	College	Married	Jewish	Democrat	\$25,000	\$28,000	\$3,000	\$28,000	\$28,000	\$3,000	\$