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# **REPORTS**

**DATE:**

**2000**

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**BLAGG ENGINEERING, INC.**

P.O. Box 87, Bloomfield, New Mexico 87413

Phone: (505)632-1199 Fax: (505)632-3903

March 24, 2000

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MAR 30 2000

ENVIRONMENTAL BUREAU  
OIL CONSERVATION DIVISION

Mr. William C. Olson, Hydrologist  
New Mexico Oil Conservation Division-NMOCD  
Environmental Bureau  
2040 S. Pacheco  
Santa Fe, New Mexico 87505

**Re: BP Amoco (formerly Amoco Production Company)  
Groundwater Monitoring Report - Permanent Closure Requested  
Gallegos Canyon Unit (GCU) #93E, Unit L, Sec. 36, T29N, R12W, NMPM  
San Juan County, New Mexico**

Dear Mr. Olson:

BP Amoco has retained Blagg Engineering, Inc. to conduct environmental monitoring and reclamation of groundwater at its GCU # 93E well site.

After the initial pit closure cleanup effort in May, 1995, an air sparge/vapor extraction system was utilized in aggressively remediating on-site hydrocarbon contamination in groundwater. The system was designed to treat soils and groundwater that could not be accessed or reclaimed by other practical methods. An expansion of the air sparge system was conducted in April, 1998 to include areas off-site that were not effectively remediating.

Based on the enclosed documentation and adhering to BP Amoco's NMOCD previously approved groundwater management plan, dated October 22, 1996, BP Amoco is requesting permanent closure at this site.

If you have any questions concerning this document, please contact either myself or Jeffrey C. Blagg at the address or phone number listed above. Thank you for your cooperation and assistance.

Respectfully submitted:  
**Blagg Engineering, Inc.**



Nelson J. Velez  
Staff Geologist

cc: Mr. Denny Foust, NMOCD District III Office, Aztec, NM  
Mr. Bill Liese, BLM San Juan Basin Regional Office, Farmington, NM - 2 copies  
Mr. Buddy Shaw, BP Amoco, Farmington, NM (without document)  
Mr. Don Zwiener, Adjacent Landowner, Farmington, NM

District I  
P.O. Box 1980, Hobbs, NM  
District II  
P.O. Drawer DD, Artesia, NM 88211  
District III  
1000 Rio Brazos Rd, Aztec, NM 87410

State of New Mexico  
Energy, Minerals and Natural Resources Department

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

SUBMIT 1 COPY TO  
APPROPRIATE  
DISTRICT OFFICE  
AND 1 COPY TO  
SANTA FE OFFICE

## PIT REMEDIATION AND CLOSURE REPORT

80294

Operator: Amoco Production Company Telephone: (505) - 326-9200

Address: 200 Amoco Court, Farmington, New Mexico 87401

Facility Or: GCU 93 E  
Well Name

Location: Unit or Qtr/Qtr Sec L Sec 36 T 29N R 12W County SAN JUAN

Pit Type: Separator  Dehydrator  Other

Land Type: BLM , State , Fee , Other

Pit Location: Pit dimensions: length 40', width 20', depth 15'  
(Attach diagram)

Reference: wellhead , other

Footage from reference: 140'

Direction from reference: 50° Degrees  East North   
of  
 West South

### Depth To Ground Water:

(Vertical distance from  
contaminants to seasonal  
high water elevation of  
ground water)

Less than 50 feet (20 points)

50 feet to 99 feet (10 points)

Greater than 100 feet (0 Points) 20

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### Wellhead Protection Area:

(Less than 200 feet from a private  
domestic water source, or; less than  
1000 feet from all other water sources)

AUG 14 1995

Yes (20 points)

No (0 points) 0

Environmental Bureau  
Oil Conservation Division

### Distance To Surface Water:

(Horizontal distance to perennial  
lakes, ponds, rivers, streams, creeks,  
irrigation canals and ditches)

Less than 200 feet (20 points)

200 feet to 1000 feet (10 points)

Greater than 1000 feet (0 points) 0

RANKING SCORE (TOTAL POINTS):

20

Date Remediation Started: 5-31-95 Date Completed: \_\_\_\_\_

Remediation Method: Excavation X Approx. cubic yards 400  
(Check all appropriate sections) Landfarmed \_\_\_\_\_ Insitu Bioremediation \_\_\_\_\_  
Other Stockpile Soils

Remediation Location: Onsite X Offsite \_\_\_\_\_  
(ie. landfarmed onsite, name and location of offsite facility)

General Description Of Remedial Action: \_\_\_\_\_  
Excavation - GROUNDWATER CONTAMINATION REMAINS

Ground Water Encountered: No \_\_\_\_\_ Yes X Depth 15'

Final Pit: Sample location see Attached Documents

Closure Sampling: (if multiple samples, attach sample results and diagram of sample locations and depths)  
Sample depth 15'

Sample date 5/31 + 6/27 Sample time \_\_\_\_\_

Sample Results  
Benzene (ppm) \_\_\_\_\_  
Total BTEX (ppm) \_\_\_\_\_  
Field headspace (ppm) \_\_\_\_\_  
TPH \_\_\_\_\_

Ground Water Sample: Yes X No \_\_\_\_\_ (If yes, attach sample results)

I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF

DATE 8-8-95

SIGNATURE B. Shaw

PRINTED NAME AND TITLE

Buddy D. Shaw  
Environmental Coordinator





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: *5/31/95*  
COC No.: *3054*  
Sample ID: *6582*  
Job No. *2-1000*

Project Name: *GCU 93 E*  
Project Location: *Pit Water @ 15'*  
Sampled by: *REO* Date: *5/31/95* Time: *9:50*  
Analyzed by: *DC* Date: *5/31/95*  
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>470.2</i>	<i>0.2</i>
<i>Toluene</i>	<i>1548.0</i>	<i>0.2</i>
<i>Ethylbenzene</i>	<i>11.1</i>	<i>0.2</i>
<i>m,p-Xylene</i>	<i>739.6</i>	<i>0.2</i>
<i>o-Xylene</i>	<i>214.2</i>	<i>0.2</i>
	<i>TOTAL 2983.1 ug/L</i>	

*ND - Not Detectable*

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

Approved by: *Da H*  
Date: *6/1/95*

## PURGEABLE AROMATICS

**Blagg Engineering, Inc.**

Project ID: Amoco  
 Sample ID: GCU 93E  
 Lab ID: 1170  
 Sample Matrix: Water  
 Preservative: Cool, HgCl<sub>2</sub>  
 Condition: Intact

Report Date: 06/30/95  
 Date Sampled: 06/27/95  
 Date Received: 06/27/95  
 Date Analyzed: 06/28/95

Target Analyte	Concentration (ug/L)	Detection Limit (ug/L)
Benzene	1,960	50.0
Toluene	6,330	50.0
Ethylbenzene	ND	50.0
m,p-Xylenes	4,150	100
o-Xylene	1,320	50.0

<b>Total BTEX</b>	<b>13,800</b>
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ND - Analyte not detected at the stated detection limit.

Quality Control:	Surrogate	Percent Recovery	Acceptance Limits
	Trifluorotoluene	101	88 - 110%
	Bromofluorobenzene	98	86 - 115%

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

**Comments:**

  
 Analyst

  
 Review