

3R - 10

**GENERAL
CORRESPONDENCE**

YEAR(S):
1999-1998



STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

2040 S. PACHECO
SANTA FE, NEW MEXICO 87505
(505) 827-7131

January 7, 1999

CERTIFIED MAIL
RETURN RECEIPT NO. Z-274-520-585

Mr. B.D. Shaw
Amoco Production Company
200 Amoco Court
Farmington, New Mexico 87401

**RE: GROUND WATER CONTAMINATION
FLORANCE 44 AND FLORANCE 47X WELL SITES**

Dear Mr. Shaw:

The New Mexico Oil Conservation Division (OCD) has reviewed Amoco Production Company's (Amoco) August 4, 1998 correspondence titled "AMOCO PRODUCTION COMPANY FLORANCE Y 44 AND FLORANCE M 47X EARTHEN PITS" which was submitted on behalf of Amoco by their consultant Blagg Engineering, Inc. This documents contain the results of Amoco's pit closure activities at the Florance Y 44 and Florance M 47X well sites and requests closure of remedial actions.

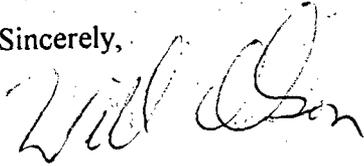
A review of recent PNM reports on these sites shows that ground water contamination upgradient of PNM's former dehydration pits appears to be a result of production disposal activities related to Amoco's operations. Due to the presence of ground water contamination downgradient of Amoco's operations at these sites, the above closure request is denied. The OCD requires that Amoco investigate and remediate soil and ground water contamination at and downgradient of Amoco's operations at these sites pursuant to Amoco's previously approved pit closure and ground water remediation plans.

The OCD requests that Amoco work together with PNM for overall remediation of site ground water and soils. Please refer to PNM reports on file at the OCD Aztec District Office for information on PNM's site investigations.

Mr. B. D. Shaw
January 7, 1999
Page 2

If you have any questions, please call me at (505) 827-7154.

Sincerely,



William C. Olson
Hydrologist
Environmental Bureau

xc: OCD Aztec District Office
 Bill Liess, BLM Farmington District Office
 Jeffery C. Blagg, Blagg Engineering, Inc.
 Maureen Gannon, PNM

PS Form 3800, April 1995

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Z 274 520 585

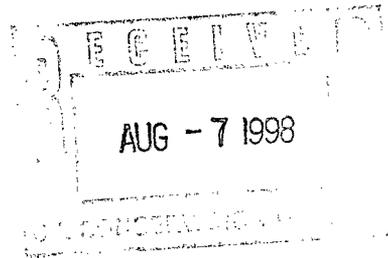
BLAGG ENGINEERING, INC.

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

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

August 4, 1998

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



Re: Amoco Production Company
Florance Y 44 and Florance M 47 X Earthen Pits

Dear Mr. Olson:

On behalf of Amoco Production Company, Blagg Engineering, Inc. (BEI) is responding to your correspondence dated July 15, 1998 with respect to the Florance Y 44, H Sec 31-T30N-R8W and the Florance M 47X, G Sec. 5-T30N-R9W. Public Service Company of New Mexico (PNM) has discovered subsurface contamination resulting from discharges to earthen dehydrator pits previously operated by PNM at these locations. At both sites Amoco Production Company has formerly conducted earthen pit reclamation activities on pits operated by Amoco. Attached, please find pit closure documentation for each site.

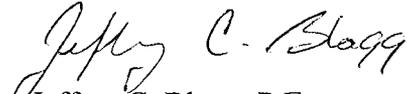
Based on review of the pit closure work conducted by Amoco at the Florance Y 44, a blow pit was remediated by excavation and landfarming in August, 1996. Closure of the pit is recommended due to sample results meeting closure standards. A separator pit remediated by excavation and landfarming in August, 1996 is recommended for closure due to a bedrock base and appropriate risk assessment procedures. No additional discharges to the environment have been conducted by Amoco at this site since the date of remediation. Therefore, it is the opinion of BEI that site contamination subsequently discovered by PNM is not the result of activities conducted by Amoco Production Company.

Amoco remediated a production tank pit at the Florance M 47X location in August, 1997. This pit meets closure standards appropriate to the area and closure of the pit by NMOCD is requested. However, Amoco may have conducted other prior (approved) discharges to the environment that have not been fully investigated. The effects of these other possible discharges will be investigated and a report will be made to your attention.

Please note that PNM has informed Amoco that PNM intends to pursue aggressive cost recovery procedures for remediation efforts that they conduct on pits owned and operated by PNM located on Amoco well sites. This cost recovery intention may interfere with your recommendation that Amoco work with PNM in remedial efforts at joint contamination sites.

Questions or comments concerning the this transmittal may be directed to Jeff Blagg of Blagg Engineering at (505)632-1199 or to Buddy Shaw with Amoco at (505)326-9200. We look forward to your review of our request for closure of the earthen pits at the subject well sites.

Respectfully submitted:
Blagg Engineering, Inc.


Jeffrey C. Blagg, P.E.
President

Attachments: Pit Closure Reports

cc: Denny Foust, NMOCD Aztec District Office
B.D. Shaw, Amoco San Juan Operations Center

Amoco/44y47x.xmt

80418

Form 3160-5
(June 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals

5. Lease Designation and Serial No.
SF079511 A

6. If Indian, Allottee or Tribe Name

7. If Unit or CA, Agreement Designation

SUBMIT IN TRIPLICATE

1. Type of Well
 Oil Well Gas Well Other

8. Well Name and No.
FLORANCE Y 44

2. Name of Operator
Amoco Production Company

9. API Well No.
3004509011

3. Address and Telephone No.
200 Amoco Court, Farmington, N.M. 87401 Tel: (505) 326-9200

10. Field and Pool, or Exploratory Area
MESA VERDE

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
SE 1/4 NE 1/4, SEC. 31, T30N, R8W, NMPM

11. County or Parish, State
SAN JUAN, NM

12. CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Abandonment
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Recompletion
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Plugging Back
	<input type="checkbox"/> Casing Repair
	<input type="checkbox"/> Altering Casing
	<input checked="" type="checkbox"/> Other Pit closure
	<input type="checkbox"/> Change of Plans
	<input type="checkbox"/> New Construction
	<input type="checkbox"/> Non-Routine Fracturing
	<input type="checkbox"/> Water Shut-Off
	<input type="checkbox"/> Conversion to Injection
	<input type="checkbox"/> Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

Pit closure verification - see attached documentation.

① BLOW PIT - ABANDONED, BEDROCK BOTTOM, CLOSED

② SEPARATOR PIT - ABANDONED, BEDROCK BOTTOM, RISK ASSESSMENT ATTACHED.

14. I hereby certify that the foregoing is true and correct

Signed B. Shaw

Title Enviro. Coordinator

Date 8/27/96

(This space for Federal or State office use)

Approved by _____ Title _____ Date _____
Conditions of approval, if any:

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

*See instruction on Reverse Side

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

80418

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

PIT REMEDIATION AND CLOSURE REPORT

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

Address: 200 Amoco Court, Farmington, New Mexico 87401

Facility Or: FLORANCE Y 44
Well Name

Location: Unit or Qtr/Qtr Sec H sec 31 T30N R 8W County SAN JUAN

Pit Type: Separator Dehydrator Other BLOW

Land Type: BLM , State , Fee , Other

Pit Location: Pit dimensions: length 45', width 35', depth 19'
(Attach diagram)

Reference: wellhead , other

Footage from reference: 105

Direction from reference: 35 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) 2

Wellhead Protection Area:

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

Yes (20 points)

No (0 points) 2

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) C

RANKING SCORE (TOTAL POINTS): 4

Date Remediation Started: _____ Date Completed: 8/23/96

Remediation Method: Excavation Approx. cubic yards 600 ^{ON-SITE} / 350 ^{FLORANCE 44}
(Check all appropriate sections) Landfarmed Insitu Bioremediation _____

Other _____

Remediation Location: Onsite Offsite FLORANCE 44E (APPROX. 350c
(ie. landfarmed onsite, name and location of offsite facility)

General Description Of Remedial Action: _____
Excavation. BEDROCK BOTTOM.

Ground Water Encountered: No Yes _____ Depth _____

Final Pit: Sample location see Attached Documents

Closure Sampling: (if multiple samples, attach sample results and diagram of sample locations and depths)
Sample depth 13'
Sample date 8/22/96 Sample time 1130

Sample Results
Benzene (ppm) _____
Total BTEX (ppm) _____
Field headspace (ppm) 0.0
TPH 40 ppm

Ground Water Sample: Yes _____ 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 8/23/96
SIGNATURE B. Shaw PRINTED NAME AND TITLE Buddy D. Shaw Environmental Coordinator

CLIENT: <u>AMOCO</u>	BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	LOCATION NO: <u>80418</u> C.O.C. NO: _____
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FIELD REPORT: CLOSURE VERIFICATION PAGE No: 1 of 1

LOCATION: NAME: <u>FLORANCE Y</u> WELL #: <u>44</u> PIT: <u>BLOW</u>	DATE STARTED: <u>8/22/96</u>
QUAD/UNIT: <u>H</u> SEC: <u>31</u> TWP: <u>30N</u> RNG: <u>8W</u> PM: <u>NM</u> CNTY: <u>ST</u> ST: <u>NM</u>	DATE FINISHED: _____
QTR/FOOTAGE: <u>SE 1/4 NE 1/4</u> CONTRACTOR: <u>EPC</u>	ENVIRONMENTAL SPECIALIST: <u>NV</u>

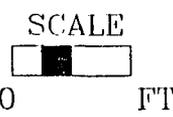
EXCAVATION APPROX. 45 FT. x 35 FT. x 19 FT. DEEP. CUBIC YARDAGE: 600/350
 DISPOSAL FACILITY: ON-SITE & FLORANCE 44E REMEDIATION METHOD: LANDFARMED
 LAND USE: RANGE LEASE: 5F-079511A FORMATION: MV

FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 105 FT. S35E FROM WELLHEAD.
 DEPTH TO GROUNDWATER: <50' NEAREST WATER SOURCE: <1000' NEAREST SURFACE WATER: >1000'
 NMDCD RANKING SCORE: 40 NMDCD TPH CLOSURE STD: 100 PPM

CHECK ONE
 PIT ABANDONED
 STEEL TANK INSTALLED

SOIL AND EXCAVATION DESCRIPTION:
 MAJORITY OF SIDEWALLS OK. YELL. ORANGE SAND, NON-COHESIVE, SLIGHTLY MOIST, FIRM, NO APPARENT STAINING OR HC ODOR OBSERVED. NATURAL SPRING LOCATED NE OF EXCAVATION APPROX. 400-500'.
 BOTTOM - BEDROCK, SHALE SOFT @ TOP TO HARD (PIT BOTTOM) SEEPAGE @ NE CORNER & SMALL PATCH OF PIT BOTTOM FROM NATURAL SPRING. BOTTOM SAMPLE COLLECTED @ SMALL PATCH, NO ACCUMULATION OF WATER WITH EXCAVATION.

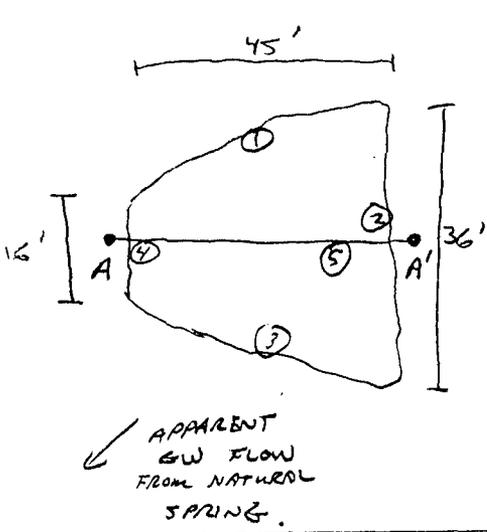
CLOSED



FIELD 418.1 CALCULATIONS

TIME	SAMPLE I.D.	LAB No:	WEIGHT (g)	mL. FREON	DILUTION	READING	CALC. ppm
1130	③ @ 13'	TPH-1797	5	20	1:1	10	40

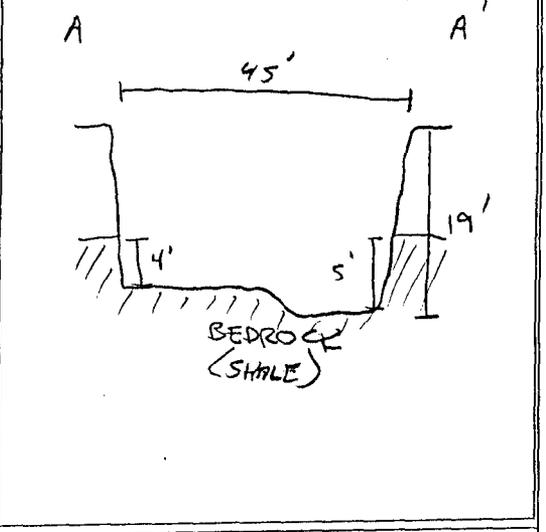
PIT PERIMETER



OVM RESULTS

SAMPLE ID	FIELD HEADSPACE PID (ppm)
1 @ 13'	0.0
2 @ 12'	0.0
3 @ 13'	0.0
4 @ 12'	0.0
5 @ 19'	0.0

PIT PROFILE



LAB SAMPLES

SAMPLE ID	ANALYSIS	TIME

TRAVEL NOTES: CALLOUT: 8/21/96 MORN. ONSITE: 8/22/96 MORN.

BLAGG ENGINEERING, INC.

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

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

**FIELD MODIFIED EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS**

Client: AMOCO
Sample ID: 3 @ 13'
Project Location: Florance Y #44
Laboratory Number: TPH-1797

Project #:
Date Analyzed: 08-22-96
Date Reported: 08-22-96
Sample Matrix: Soil

Parameter	Result, mg/kg	Detection Limit, mg/kg
Total Recoverable Petroleum Hydrocarbons	40	20

ND = Not Detectable at stated detection limits.

QA/QC:	QA/QC Sample TPH mg/kg	Duplicate TPH mg/kg	% *Diff.
	1420	1344	5.50

*Administrative Acceptance limits set at 30%.

Method: Modified Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No.4551, 1978

Comments: Blow Pit - B0418


Analyst


Review

80418

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

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

Address: 200 Amoco Court, Farmington, New Mexico 87401

Facility Or: FLORANCE Y 44
Well Name

Location: Unit or Qtr/Qtr Sec H Sec 31 T 30N R 8W County SAN JUAN

Pit Type: Separator Dehydrator Other

Land Type: BLM , State , Fee , Other

Pit Location: Pit dimensions: length 37', width 30', depth 9'
(Attach diagram)

Reference: wellhead , other

Footage from reference: 85'

Direction from reference: 19 Degrees East North
of
 West South

Depth To Ground Water: Less than 50 feet (20 points)
(Vertical distance from 50 feet to 99 feet (10 points)
contaminants to seasonal Greater than 100 feet (0 Points) 20
high water elevation of
ground water)

Wellhead Protection Area: Yes (20 points)
(Less than 200 feet from a private No (0 points) 20
domestic water source, or; less than
1000 feet from all other water sources)

Distance To Surface Water: Less than 200 feet (20 points)
(Horizontal distance to perennial 200 feet to 1000 feet (10 points) 0
lakes, ponds, rivers, streams, creeks, Greater than 1000 feet (0 points)

RANKING SCORE (TOTAL POINTS): 4

Date Remediation Started: _____ Date Completed: 8/27/96

Remediation Method: Excavation (Check all appropriate sections) Approx. cubic yards 350
Landfarmed Insitu Bioremediation _____

Other _____

Remediation Location: Onsite offsite FLORANCE 44
(ie. landfarmed onsite, name and location of offsite facility)

General Description Of Remedial Action: _____

Excavation, EXCAVATION CONSIST MOSTLY OF SHALE BEDROCK.

SEE "CLOSURE VERIFICATION: FIELD REPORT".

Ground Water Encountered: No Yes _____ Depth _____

Final Pit: Sample location see Attached Documents

Closure Sampling: (if multiple samples, attach sample results and diagram of sample locations and depths)
Sample depth 4'
Sample date 8/27/96 Sample time 1025

Sample Results

Benzene (ppm) _____

Total BTEX (ppm) _____

Field headspace (ppm) 854

TPH 5,560

Ground Water Sample: Yes _____ 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 8/27/96
SIGNATURE B.D. Shaw

PRINTED NAME AND TITLE Buddy D. Shaw
ENVIRONMENTAL COORDINATOR

BLAGG ENGINEERING, INC.

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

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

**FIELD MODIFIED EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS**

Client: AMOCO
Sample ID: 5 @ 4'
Project Location: Florance Y # 44
Laboratory Number: TPH-1808

Project #:
Date Analyzed: 08-27-96
Date Reported: 08-27-96
Sample Matrix: Soil

Parameter	Result, mg/kg	Detection Limit, mg/kg
Total Recoverable Petroleum Hydrocarbons	5,600	200

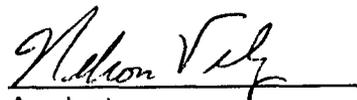
ND = Not Detectable at stated detection limits.

QA/QC:	QA/QC Sample TPH mg/kg	Duplicate TPH mg/kg	% *Diff.
	1420	1344	5.50

*Administrative Acceptance limits set at 30%.

Method: Modified Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No.4551, 1978

Comments: Separator Pit - B0418


Analyst


Review

Well Name:
Well Site location:
Pit Type:
Producing Formation:
Pit Category:
Horizontal Distance to Surface Water:
Vicinity Groundwater Depth:

Florance Y #44
Unit H, Sec. 31, T30N, R08W
Separator pit
Mesaverde
Vulnerable Area
> 1000 ft.
< 50 ft.

RISK ASSESSMENT

Pit remediation activities were terminated when trackhoe encountered shale bedrock at 9 feet below grade.

No past or future threat to surface water or groundwater is likely based on the following considerations:

1. Past production fluids were contained locally by a relatively shallow shale bedrock located 9 feet below grade. Groundwater levels located on or close to the well pad are estimated to be at a depth of approximately 20-30 feet (estimation of between 11 and 21 feet below the excavation pit bottom).
2. Visual observation does not indicate off site lateral fluid migration near the earthen pit.
3. Daily discharge into the earthen pit has been terminated (pit abandoned). Prior discharge into the pit is believed to be under 5 barrels per day.
4. Field headspace readings (OVM/PID) on Mesaverde type locations do not reflect direct correlation to total BTEX per USEPA Method 8020 concentrations. Listed below are a few typical AMOCO Mesaverde pit soil analyses comparing headspace to Benzene and total BTEX results.

LOCATION	HEADSPACE (ppm)	BENZENE (ppm)	TOTAL BTEX (ppm)
L.C. Kelly #6A	833	0.033	2.857
Johnston LS 7	998	0.017	24.985
Neil LS 7A	819	0.282	0.440

The comparisons listed above demonstrates that headspace testing is not an accurate measurement to Benzene or total BTEX concentrations when above standards for Mesaverde type pits.

Based upon the information given, we conclude that the subsurface lateral impact from the earthen pit is very limited and that the shale bottom creates enough of a permeable barrier as to subdue impact to groundwater below it (please refer to AMOCO's report "Post Excavation Pit Closure Investigation Summary, July, 1995", with cover letter dated November 30, 1995). AMOCO requests pit closure approval on this location.



STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
2040 S. PACHECO
SANTA FE, NEW MEXICO 87505
(505) 827-7131

July 15, 1998

CERTIFIED MAIL
RETURN RECEIPT NO. Z-235-437-313

Mr. B.D. Shaw
Amoco Production Company
200 Amoco Court
Farmington, New Mexico 87401

**RE: GROUND WATER CONTAMINATION
FLORANCE 44 AND FLORANCE 47X WELL SITES**

Dear Mr. Shaw:

The New Mexico Oil Conservation Division (OCD) has recently reviewed Public Service Company of New Mexico's (PNM) April 29, 1998 "FLORANCE 44 SITE, RECONTAMINATION OF CLEAN FILL AND GROUNDWATER CONTAMINATION" and April 29, 1998 "FLORANCE 47X SITE, FREE PRODUCT AND GROUND WATER CONTAMINATION". These documents contain the results of PNM's recent investigation of ground water contamination related to PNM dehydrator pits at Amoco's Florance 44 and Florance 47X well sites.

A review of the above referenced documents shows that ground water contamination upgradient of PNM's former dehydration pits appears to be a result of production disposal activities related to Amoco's former separator pits. Therefore, the OCD requires that Amoco investigate and remediate soil and ground water contamination at and downgradient of Amoco's separator pits at these sites pursuant to Amoco's previously approved ground water remediation plan. Ground water contamination originating from PNM's former dehy pits will be handled by PNM. The OCD requests that Amoco work together with PNM for overall remediation of site ground waters.

If you have any questions, please call me at (505) 827-7154.

Sincerely,

William C. Olson
Hydrogeologist
Environmental Bureau

xc: OCD Aztec District Office
Bill Liess, BLM Farmington District Office
Nelson Velez, Blagg Engineering, Inc.
Maureen Gannon, PNM