



**Amoco Production Company**

Petroleum Center Building  
501 Airport Drive  
Farmington, New Mexico 87401  
505-325-8841

W. J. Holcomb  
District Manager

December 14, 1984

New Mexico Oil Conservation Division  
Attn: David Catanach  
P. O. Box 2088  
Santa Fe, NM 87501

File: DDL-1254-400.1

Dear Sirs:

Commingling Application for the Rosa Unit 100  
Section N21, T31N, R6W, Rio Arriba County, NM

Amoco Production Company requests approval to commingle production from the Flora Vista Gallup and Basin Dakota horizons in the subject well. Commingling is necessary due to producing rates from the Gallup that are too low to economically dual complete the well. There will be no crossflow between the two zones as neither zone is sensitive to produced liquids, and there will be no loss of value of production. Finally, the working interest and royalty of both zones are the same, and the bottom hole pressure of the Gallup is more than 50 percent of the bottom hole pressure of the Dakota. We therefore request approval of our commingling application.

As required by Rule 303C, we have attached two copies of the following:

1. Acreage Plat
2. Form C-107
3. Form 3160-4 Well Completion Report
4. Bottom hole pressures
5. Recommended allocation formula
6. Copy of notification to offset operators

This well is a new completion, and thus no production decline curves are supplied. Neither zone makes any condensate and there is no fluid compatibility problem. In conclusion, production from the Gallup is too low to warrant dual completion with the Dakota. Therefore, please approve our application to commingle at your earliest convenience.

Yours very truly,

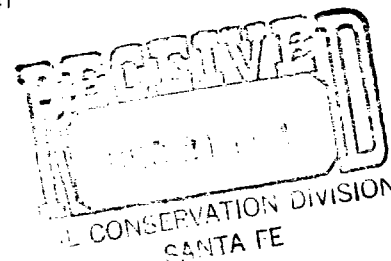
*W. J. Holcomb*

MEM/ct

cc: NMOCDD - Aztec, NM (2)

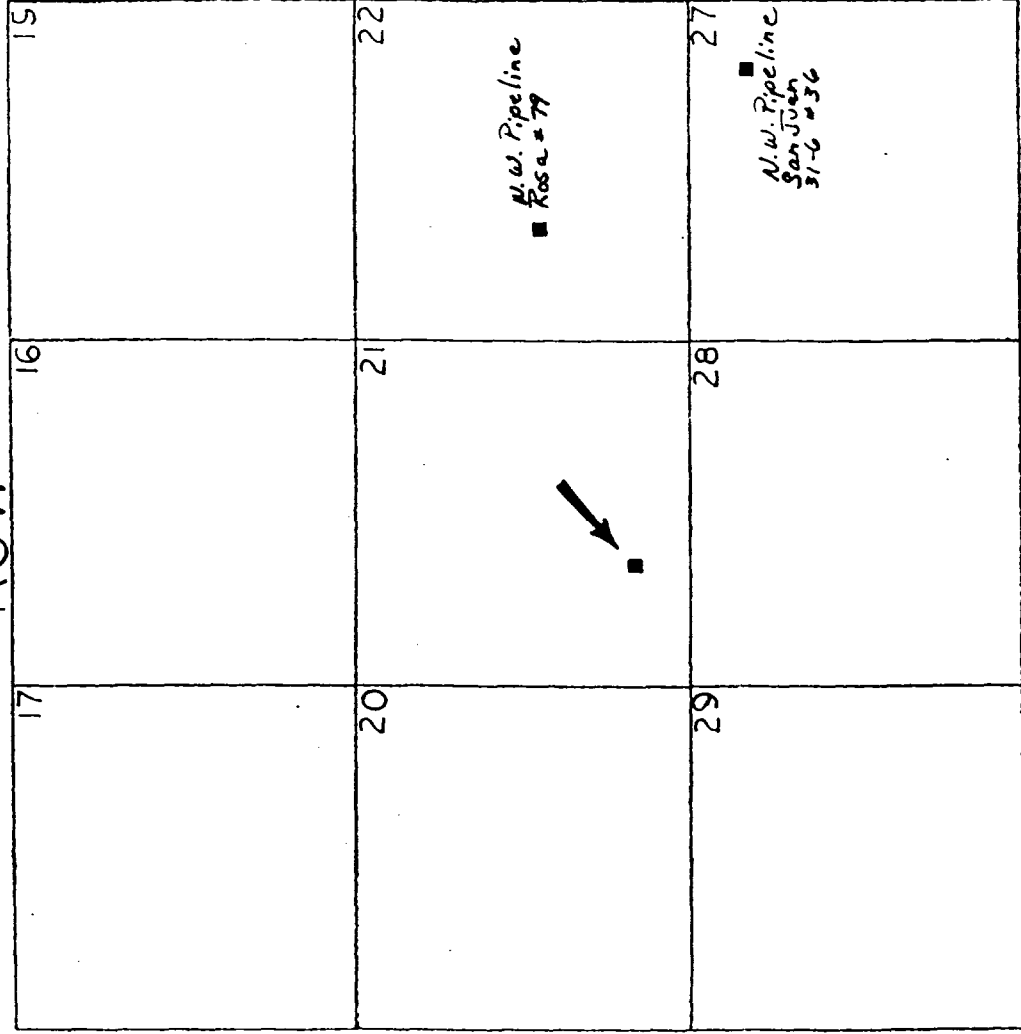
NWPL - Farmington, NM

AM7



ROSA UNIT #100

R6W



■ EXISTING BASIN DAKOTA WELLS

NO UNDES GALLUP WELLS

Case 8.5/6

STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT

P. O. BOX 2088  
SANTA FE, NEW MEXICO 87501

Form C-107  
Revised 10-1-

**All distances must be from the outer boundaries of the Section.**

|                                                                                                                               |                                             |                                           |                    |                                            |
|-------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|-------------------------------------------|--------------------|--------------------------------------------|
| Operator:<br><b>AMOCO PRODUCTION COMPANY</b>                                                                                  |                                             | Lease<br><b>Rosa Unit</b>                 |                    | Well No.<br><b>100</b>                     |
| Unit Letter<br><b>N</b>                                                                                                       | Section<br><b>21</b>                        | Township<br><b>31N</b>                    | Range<br><b>6W</b> | County<br><b>Rio Arriba</b>                |
| Actual Footage Location of Well:<br><b>890</b> feet from the <b>South</b> line and <b>1850</b> feet from the <b>West</b> line |                                             |                                           |                    |                                            |
| Ground Level Elev:<br><b>6387</b>                                                                                             | Producing Formation<br><b>Dakota-Gallup</b> | Pool<br><b>Basin Dakota-Undes. Gallup</b> |                    | Dedicated Acreage:<br><b>320/160</b> Acres |

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

☐ Yes    ☐ No    If answer is "yes," type of consolidation \_\_\_\_\_

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) \_\_\_\_\_

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.

RECEIVED

OCT 20 1963

BUREAU OF LAND MANAGEMENT  
FARMINGTON RESOURCE AREA

Sec.

21

1850'

800'

### CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Original Signed By \_\_\_\_\_

Name D.E. Lawson

**Darrell D. Lawson**

**Position**

District Administrative

| Company | Supervisor |
|---------|------------|
|---------|------------|

Amoco Production Co.

Date \_\_\_\_\_

October 20, 1983

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed \_\_\_\_\_

October 4, 1983

Registered Professional Engineer  
and Land Surveyor

Franklin D. Roosevelt

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FARMINGTON DISTRICT  
OCT 28 1984  
SUBMIT TO DUPLICATE  
AS OTHER INSTRUCTIONS ON  
THE MODEL

Form approved,  
Budget Bureau No. 1004-0137  
Expires August 31, 1985

WELL COMPLETION OR RECOMPLETION REPORT AND LOG \*

|                                                                                                                                                                                                    |  |                                                                                                                                                                                                                                                     |  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| 1a. TYPE OF WELL:<br>OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> HOT <input type="checkbox"/> OTHER <input type="checkbox"/>                                    |  | 1b. TYPE OF COMPLETION:<br>NEW WELL <input checked="" type="checkbox"/> WORK OVER <input type="checkbox"/> DEEP-EN <input type="checkbox"/> PLUG BACK <input type="checkbox"/> DIFF. GENVR. <input type="checkbox"/> OTHER <input type="checkbox"/> |  |
| 2. NAME OF OPERATOR<br>Amoco Production Company                                                                                                                                                    |  |                                                                                                                                                                                                                                                     |  |
| 3. ADDRESS OF OPERATOR<br>501 Airport Drive, Farmington, N M 87401                                                                                                                                 |  |                                                                                                                                                                                                                                                     |  |
| 4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)<br>At surface 890' FSL X 1850' FWL<br>At top prod. interval reported below Same<br>At total depth Same |  |                                                                                                                                                                                                                                                     |  |
| 15. PERMIT NO.<br>BUREAU OF LAND MANAGEMENT<br>FARMINGTON RESOURCE AREA                                                                                                                            |  | DATE ISSUED<br>OCT 22 1984                                                                                                                                                                                                                          |  |
| 13. DATE SPICED<br>5-31-84                                                                                                                                                                         |  | 16. DATE T.D. REACHED<br>6-19-84                                                                                                                                                                                                                    |  |
| 17. DATE COMPL. (Ready to prod.)<br>8-28-84                                                                                                                                                        |  | 18. ELEVATIONS (OF, RKB, RT, CR, ETC.)<br>6400' KB                                                                                                                                                                                                  |  |
| 19. ELEV. CASINGHEAD<br>6387' GR                                                                                                                                                                   |  | 20. TOTAL DEPTH, MD & TVD<br>8127'                                                                                                                                                                                                                  |  |
| 21. PLUG BACK T.D., MD & TVD<br>8070'                                                                                                                                                              |  | 22. IF MULTIPLE COMPL., HOW MANY?<br>2                                                                                                                                                                                                              |  |
| 23. INTERVAL DRILLED BY<br>ROTARY TOOLS<br>0-TD                                                                                                                                                    |  | 24. PRODUCING INTERVAL(S) OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)<br>7092'-7300' Gallup                                                                                                                                                   |  |
| 25. WAS DIRECTIONAL SURVEY MADE<br>Yes                                                                                                                                                             |  | 26. TYPE ELECTRIC AND OTHER LOGS RUN<br>DIL-SP-GR-CNL-FIC-GR                                                                                                                                                                                        |  |
| 27. WAS WELL CORED<br>Yes                                                                                                                                                                          |  | 28. CASING RECORD (Report all strings set in well)                                                                                                                                                                                                  |  |
| Casing Size                                                                                                                                                                                        |  | Weight, lb./ft.                                                                                                                                                                                                                                     |  |
| 13-3/8"                                                                                                                                                                                            |  | 48#, N-40                                                                                                                                                                                                                                           |  |
| 4-1/2"                                                                                                                                                                                             |  | 11.6#, N-80                                                                                                                                                                                                                                         |  |
| Depth Set (MD)                                                                                                                                                                                     |  | Hole Size                                                                                                                                                                                                                                           |  |
| 391'                                                                                                                                                                                               |  | 17-1/4"                                                                                                                                                                                                                                             |  |
| 8127'                                                                                                                                                                                              |  | 7-7/8"                                                                                                                                                                                                                                              |  |
| Cementing Record                                                                                                                                                                                   |  | Amount Pulled                                                                                                                                                                                                                                       |  |
| 510 cu.ft. Class B, 2% CaCl <sub>2</sub>                                                                                                                                                           |  | Stage 1: 944 cu.ft. Class B Neat                                                                                                                                                                                                                    |  |
| Stage 2: 1,593 cu.ft. Class B Neat                                                                                                                                                                 |  | 6 cased in w/118 cu.ft. Class B Neat                                                                                                                                                                                                                |  |
| 29. LINER RECORD                                                                                                                                                                                   |  | 30. TUBING RECORD                                                                                                                                                                                                                                   |  |
| Size                                                                                                                                                                                               |  | Top (MD)                                                                                                                                                                                                                                            |  |
| Bottom (MD)                                                                                                                                                                                        |  | Screens (MD)                                                                                                                                                                                                                                        |  |
| Backs Cement                                                                                                                                                                                       |  | Size                                                                                                                                                                                                                                                |  |
| 2-3/8"                                                                                                                                                                                             |  | Depth Set (MD)                                                                                                                                                                                                                                      |  |
| 7973'                                                                                                                                                                                              |  | Packer Set (MD)                                                                                                                                                                                                                                     |  |
| 7313'                                                                                                                                                                                              |  | (sliding sleeve)                                                                                                                                                                                                                                    |  |
| 31. PERFORATION RECORD (Interval, size and number)<br>7300'-7092', 1 jsprf, .36", total of 208 holes                                                                                               |  | 32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.                                                                                                                                                                                                      |  |
| Depth Interval (MD)                                                                                                                                                                                |  | Amount and Kind of Material Used                                                                                                                                                                                                                    |  |
| 7092'-7300'                                                                                                                                                                                        |  | 81,000 gal 50# gel &                                                                                                                                                                                                                                |  |
|                                                                                                                                                                                                    |  | 84,000# 20-40 sand                                                                                                                                                                                                                                  |  |
| 33. PRODUCTION                                                                                                                                                                                     |  | 34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.)<br>To be sold                                                                                                                                                                            |  |
| Date First Production<br>10-2-84                                                                                                                                                                   |  | Production Method (Flowing, gas lift, pumping—size and type of pump)<br>Flowing                                                                                                                                                                     |  |
| Well Status (Producing or shut-in)<br>Shut-in                                                                                                                                                      |  | Date of Test<br>10-3-84                                                                                                                                                                                                                             |  |
| Hours Tested<br>3                                                                                                                                                                                  |  | Choke Size<br>.50"                                                                                                                                                                                                                                  |  |
| Prod'n. for Test Period<br>→                                                                                                                                                                       |  | Oil—BSL<br>2232                                                                                                                                                                                                                                     |  |
| Gas—MCF<br>279                                                                                                                                                                                     |  | Water—BSL                                                                                                                                                                                                                                           |  |
| Oil Gravity API (corr.)                                                                                                                                                                            |  | 35. LIST OF ATTACHMENTS<br>None                                                                                                                                                                                                                     |  |
| 36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records                                                                  |  | Original Signed By<br>E. J. Shaw                                                                                                                                                                                                                    |  |
| SIGNED                                                                                                                                                                                             |  | TITLE<br>Adm. Supervisor                                                                                                                                                                                                                            |  |
| DATE<br>10-18-84                                                                                                                                                                                   |  | TEST WITNESSED BY<br>J. Barnett                                                                                                                                                                                                                     |  |

7. SUMMARY OF POROUS ZONES: (Show all important zones of porosity and contents thereof; cored intervals; and all drill-stem, tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures, and recoveries):

| FORMATION  | TOP  | BOTTOM | DESCRIPTION, CONTENTS, ETC. | 38. GEOLOGIC MARKERS |             |                  |
|------------|------|--------|-----------------------------|----------------------|-------------|------------------|
|            |      |        |                             | NAME                 | TOP         |                  |
|            |      |        |                             |                      | MEAS. DEPTH | TRUE VERT. DEPTH |
| jo Alamo   | 2568 |        |                             |                      |             |                  |
| ruftland   | 2903 |        |                             |                      |             |                  |
| ic. Cliffs | 3308 |        |                             |                      |             |                  |
| swis       | 3590 |        |                             |                      |             |                  |
| asaverde   | 5174 |        |                             |                      |             |                  |
| allup      | 6630 |        |                             |                      |             |                  |
| ancos      | 7414 |        |                             |                      |             |                  |
| rn. Hrn.   | 7794 |        |                             |                      |             |                  |
| caneros    | 7846 |        |                             |                      |             |                  |
| Dakot      | 7964 |        |                             |                      |             |                  |
| Dakota     | 8022 |        |                             |                      |             |                  |

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

SUBMIT IN DUPLICATE\*

Form approved.  
Budget Bureau No. 1004-0137  
Expires August 31, 1985

FARMINGTON DISTRICT  
OCT 29 1984

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1a. TYPE OF WELL: OIL WELL ☐ GAS WELL ☒ DRY ☐ Other ☐

b. TYPE OF COMPLETION: NEW WELL ☒ WORK OVER ☐ DEEP EN ☐ PLUG BACK ☐ DIFF. RESER. ☐ Other ☐

2. NAME OF OPERATOR  
Amoco Production Company

3. ADDRESS OF OPERATOR  
501 Airport Drive, Farmington, N M 87401

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)\*

At surface 890' FSL X 1850' FWL

At top prod. interval reported below Same

At total depth Same

14. PERMIT NO. OCT 29 1984

5. LEASE DESIGNATION AND SERIAL NO.  
SF-078766

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. ACQUISITION AGREEMENT NAME

Rosa Unit

8. FARM OR LEASE NAME

9. WELL NO.

100

10. FIELD AND POOL, OR WILDCAT

Basin Dakota

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA

SE/SW Sec. 21, T31N, R6W

12. COUNTY OR PARISH

Rio Arriba

13. STATE

N M

15. DATE SPUDDED 5-31-84 16. DATE T.D. REACHED 6-19-84 17. DATE COMPL. (Ready to prod.) 8-28-84 18. DEPTH OF COMPLETION (OF RKB, RT, GR, ETC.)\* 6400' KB 19. ELEV. CASINGHEAD 6387' GR

20. TOTAL DEPTH, MD & TVD 8127' 21. PLUG, BACK T.D., MD & TVD 8070' 22. IF MULTIPLE COMPL., HOW MANY\* 2 23. INTERVALS DRILLED BY 0-TD 24. ROTARY TOOLS 25. CABLE TOOLS

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)\*

7877'-7980'

25. WAS DIRECTIONAL SURVEY MADE

Yes

26. TYPE ELECTRIC AND OTHER LOGS RUN

DIL-SP-GR-CNL-FDC-GR

27. WAS WELL CORED

Yes

28. CASING RECORD (Report all strings set in well)

| CASING SIZE | WEIGHT, LB./FT. | DEPTH SET (MD) | HOLE SIZE | CEMENTING RECORD                         | AMOUNT PULLED |
|-------------|-----------------|----------------|-----------|------------------------------------------|---------------|
| 13-3/8"     | 48#, H-40       | 391'           | 17-1/4"   | 510 cu.ft. Class B, 2% CaCl <sub>2</sub> |               |
| 4-1/2"      | 11.6#, N-80     | 8127'          | 7-7/8"    | Stage 1: 944 cu.ft. Class B Neat         |               |
|             |                 |                |           | Stage 2: 1,593 cu.ft. Class B Neat       |               |
|             |                 |                |           | & tailed in w/118 cu.ft. Class B Neat    |               |

29. LINER RECORD

| SIZE | TOP (MD) | BOTTOM (MD) | SACKS CEMENT* | SCREEN (MD) | SIZE   | DEPTH SET (MD) | PACKER SET (MD) |
|------|----------|-------------|---------------|-------------|--------|----------------|-----------------|
|      |          |             |               |             | 2-3/8" | 7973'          | 7313'           |

(sliding sleeve)

31. PERFORATION RECORD (Interval, size and number)

7902'-7877', 7942'-7924', 7980'-7962',  
2 jsfp, .36", total of 122 holes

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

| DEPTH INTERVAL (MD) | AMOUNT AND KIND OF MATERIAL USED                    |
|---------------------|-----------------------------------------------------|
| 7877'-7980'         | 71,406 gal 50# crosslinked gel & 91,686# 20-40 sand |

33. PRODUCTION

DATE FIRST PRODUCTION 10-1-84 PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump) Flowing WELL STATUS (Producing or shut-in) Shut-in

DATE OF TEST 10-2-84 HOURS TESTED 3 CHOKE SIZE .50" PROD'N. FOR TEST PERIOD OIL—BBL. GAS—MCF. WATER—BBL. GAS-OIL RATIO

FLOW, TUBING PRESS. 260 psig CASING PRESSURE N/A CALCULATED 24-HOUR RATE OIL—BBL. GAS—MCF. WATER—BBL. OIL GRAVITY-API (CORR.)

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.)

To be sold

TEST WITNESSED BY

J. Barne OCT 24 1984

35. LIST OF ATTACHMENTS

None

FARMINGTON RESOURCE AREA

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

Original Signed By

SIGNED B. D. Shaw

TITLE Adm. Supervisor

DATE 10-18-84

\*(See Instructions and Spaces for Additional Data on Reverse Side)

OPERATOR

37. SUMMARY OF POROUS ZONES: (Show all important zones of porosity and contents thereof; cored intervals; and all drill-stem, tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures, and recoveries):

| FORMATION   | TOP  | BOTTOM | DESCRIPTION, CONTENTS, ETC. | 38. GEOLOGIC MARKERS |             |                  |
|-------------|------|--------|-----------------------------|----------------------|-------------|------------------|
|             |      |        |                             | NAME                 | MEAS. DEPTH | TRUE VERT. DEPTH |
| Ojo Alamo   | 2568 |        |                             |                      |             |                  |
| Fruitland   | 2903 |        |                             |                      |             |                  |
| Pic. Cliffs | 3308 |        |                             |                      |             |                  |
| Lewis       | 3590 |        |                             |                      |             |                  |
| Mesaverde   | 5174 |        |                             |                      |             |                  |
| Gallup      | 6630 |        |                             |                      |             |                  |
| Mancos      | 7414 |        |                             |                      |             |                  |
| Grn. Hrn.   | 7794 |        |                             |                      |             |                  |
| Graneros    | 7846 |        |                             |                      |             |                  |
| G. Dakot    | 7964 |        |                             |                      |             |                  |
| M. Dakota   | 8022 |        |                             |                      |             |                  |

# B & R SERVICE, INC.

P. O. Box 1048  
Farmington, New Mexico 87499  
(505) 325-2393

Company AMOCO PRODUCTION CO. Lease ROSA UNIT Well 100 DAK  
County RIO ARRIBA State NEW MEXICO Date 10-1-84  
Shut-In 7 DAYS Zero Point G.L. Tbg. Pressure 2935  
Casing Pressure 2840 Tbg. Depth \_\_\_\_\_ Casing Perf. \_\_\_\_\_  
Max. Temp. 260°F Fluid Level 7875'

| <u>DEPTH</u> | <u>PSIG</u> | <u>GRADIENT</u> |
|--------------|-------------|-----------------|
| 0            | 2912        | ----            |
| 1000         | 2991        | .079            |
| 2000         | 3064        | .073            |
| 3000         | 3140        | .076            |
| 4000         | 3213        | .073            |
| 5000         | 3277        | .064            |
| 6000         | 3343        | .066            |
| 7000         | 3404        | .061            |
| 7825         | 3456        | .063            |
| 7925         | 3477        | .210            |



# B & R SERVICE, INC.

P. O. Box 1048  
Farmington, New Mexico 87499  
(505) 325-2393

Company AMOCO PRODUCTION CO. Lease ROSA UNIT Well 100 GALLUP  
County RIO ARriba State NEW MEXICO Date 10-29-84  
Shut-In 7 DAYS Zero Point G.L. Tbg. Pressure 2550  
Casing Pressure 2700 Tbg. Depth \_\_\_\_\_ Casing Perf. \_\_\_\_\_  
Max. Temp. 248<sup>o</sup>F Fluid Level 6800'

| <u>DEPTH</u> | <u>PSIG</u> | <u>GRADIENT</u> |
|--------------|-------------|-----------------|
| 0            | 2511        | ----            |
| 1000         | 2580        | .069            |
| 2000         | 2650        | .070            |
| 3000         | 2713        | .063            |
| 4000         | 2770        | .067            |
| 5000         | 2831        | .061            |
| 6000         | 2882        | .058            |
| 7000         | 3024        | .142            |
| 7200         | 3116        | .460            |
| 7300         | 3161        | .450            |

### Recommended Allocation Formula

Amoco Production Company recommends the following percentages be used to allocate hydrocarbons to the Gallup and Dakota horizons in the Rosa Unit 100:

|        | <u>Gas</u> |
|--------|------------|
| Gallup | 61%        |
| Dakota | 39%        |

Note: The gas allocation percentages were calculated using initial potential test results.

7112  
December 18, 1984

El Paso Natural Gas Company  
P. O. Box 990  
Farmington, NM 87499

File: DDL-1276-400.1

Dear Sirs:

Commingling Application  
Rosa Unit 100  
Section N21, T31N, R6W  
Rio Arriba County, New Mexico

Amoco Production Company has applied for approval to commingle the Gallup and Dakota horizons in the subject well. If you have any objections, you have 20 days to notify the New Mexico Oil Conservation Division. If you do not respond within 20 days, your approval will be assumed.

Yours very truly,

Original Signed  
W. J. Holcomb  
by DDI.

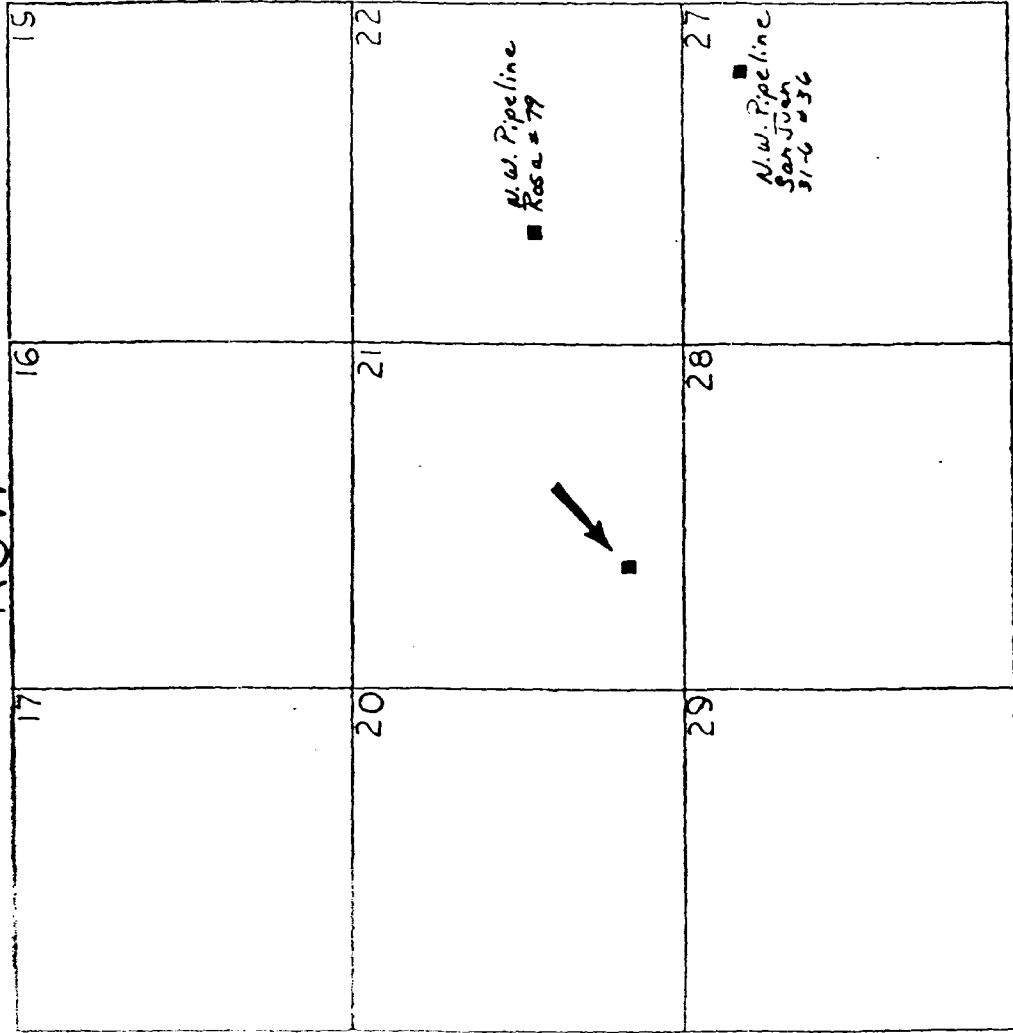
MEM/ct

AM7

ROSA UNIT #100

R6W

T 31 N



■ EXISTING BASIN DAKOTA WELLS

■ UNDEFS GALLUP WELLS

# OIL CONSERVATION DIVISION

STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT

P. O. BOX 2088  
SANTA FE, NEW MEXICO 87501

Form C-107  
Revised 10-1

All distances must be from the outer boundaries of the Section.

|                                                                                                                               |                                             |                        |                                           |                             |                                            |
|-------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|------------------------|-------------------------------------------|-----------------------------|--------------------------------------------|
| Operator:<br><b>AMOCO PRODUCTION COMPANY</b>                                                                                  |                                             |                        | Lease<br><b>Rosa Unit</b>                 |                             | Well No.<br><b>100</b>                     |
| Unit Letter<br><b>N</b>                                                                                                       | Section<br><b>21</b>                        | Township<br><b>31N</b> | Range<br><b>6W</b>                        | County<br><b>Rio Arriba</b> |                                            |
| Actual Footage Location of Well:<br><b>890</b> feet from the <b>South</b> line and <b>1850</b> feet from the <b>West</b> line |                                             |                        |                                           |                             |                                            |
| Ground Level Elev:<br><b>6387</b>                                                                                             | Producing Formation<br><b>Dakota-Gallup</b> |                        | Pool<br><b>Basin Dakota-Undes. Gallup</b> |                             | Dedicated Acreage:<br><b>320/160</b> Acres |

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.

2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

☐ Yes ☐ No If answer is "yes," type of consolidation \_\_\_\_\_

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) \_\_\_\_\_

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.

|      |                                                                  |
|------|------------------------------------------------------------------|
| Sec. | RECEIVED<br>OCT 20 1983<br>DISTRICT ADMINISTRATIVE<br>SUPERVISOR |
| 21   | 1850'                                                            |

|                                                                                                                                                                                                                             |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <b>CERTIFICATION</b>                                                                                                                                                                                                        |  |
| I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.                                                                                                         |  |
| Original Signed By _____                                                                                                                                                                                                    |  |
| Name <b>D.D. Lawson</b>                                                                                                                                                                                                     |  |
| <b>Darrell D. Lawson</b>                                                                                                                                                                                                    |  |
| Position _____                                                                                                                                                                                                              |  |
| <b>District Administrative</b>                                                                                                                                                                                              |  |
| Company <b>Supervisor</b>                                                                                                                                                                                                   |  |
| <b>Amoco Production Co.</b>                                                                                                                                                                                                 |  |
| Date _____                                                                                                                                                                                                                  |  |
| <b>October 20, 1983</b>                                                                                                                                                                                                     |  |
| I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief. |  |
| Date Surveyed _____                                                                                                                                                                                                         |  |
| <b>October 4, 1983</b>                                                                                                                                                                                                      |  |
| Registered Professional Engineer and Land Surveyor _____                                                                                                                                                                    |  |

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FARMINGTON DISTRICT  
SUBMIT IN DUPLICATE  
OCT 29 1984

Form approved  
Budget Bureau No. 1004-0137  
Expires August 31, 1985

WELL COMPLETION OR RECOMPLETION REPORT AND LOG \*

1a. TYPE OF WELL: ☐ OIL WELL ☒ GAS WELL ☐ HOT ☐ Other ☐  
b. TYPE OF COMPLETION: ☒ NEW WELL ☐ WORK OVER ☐ REPAIR ☐ PLUG BACK ☐ REPAIR ☐ Other ☐  
1805 BSS

2. NAME OF OPERATOR  
Amoco Production Company

3. ADDRESS OF OPERATOR  
501 Airport Drive, Farmington, N M 87401

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)

At surface 890' FSL X 1850' FWL

At top prod. interval reported below Same

At total depth Same

RECEIVED  
OCT 22 1984  
BUREAU OF LAND MANAGEMENT  
FARMINGTON RESOURCE SPEC.

14. PERMIT NO. DATE ISSUED

5. LEASE IDENTIFICATION AND SERIAL NO.  
SF-078766

6. IF INDIAN, ALIQUOT OR TRIBE NAME

7. LEASE IDENTIFICATION NAME  
Rosa Unit

8. FARM OR LEASE NAME

9. WELL NO.  
100

10. FIELD AND POOL OR WILDCAT

Undesignated Gallup

11. SEC. T. R. N. OR BLOCK AND SURVEY OR AREA

SE/SW Sec. 21, T31N, R6W

12. COUNTY OR PARISH  
Rio Arriba

13. STATE  
N M

15. DATE RECORDED 5-31-84 16. DATE T.D. REACHED 6-19-84 17. DATE COMPL. (Ready to prod.) 8-28-84 18. ELEVATION (OF. RKB, RT. CR, ETC.) 6400' KB 19. ELEV. CASINGHEAD 6387' GR

20. TOTAL DEPTH, MD & TVD 8127' 21. PLUG BACK T.D., MD & TVD 8070' 22. IF MULTIPLE COMPL. HOW MANY? 2 23. INTERVAL DRILLED BY 0-TD 24. ROTARY TOOLS 25. CABLE TOOLS

24. SUCCEEDING INTERVAL(S) OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)\*

7092'-7300' Gallup

Yes

26. TYPE ELECTRIC AND OTHER LOGS RUN

DIL-SP-GR-CNL-FMC-GR

27. WAS WELL CORED

Yes

28. Casing Record (Report all strings set in well)

| CASING SIZE | WEIGHT, LB./FT. | DEPTH SET (MD) | HOLE SIZE | CEMENTING RECORD                         | AMOUNT PULLED |
|-------------|-----------------|----------------|-----------|------------------------------------------|---------------|
| 13-3/8"     | 48# N-40        | 391'           | 17-1/4"   | 510 cu.ft. Class B, 2% CaCl <sub>2</sub> |               |
| 4-1/2"      | 11.6# N-80      | 8127'          | 7-7/8"    | Stage 1: 944 cu.ft. Class B Neat         |               |
|             |                 |                |           | Stage 2: 1,593 cu.ft. Class B Neat       |               |
|             |                 |                |           | 6 tailed in w/118 cu.ft. Class B Neat    |               |

29. Liner Record

| SIZE | TOP (MD) | BOTTOM (MD) | BACKS CEMENT* | SCREEN (MD) | SIZE   | DEPTH SET (MD) | PACKER SET (MD) |
|------|----------|-------------|---------------|-------------|--------|----------------|-----------------|
|      |          |             |               |             | 2-3/8" | 7973'          | 7313'           |

(sliding sleeve)

31. Perforation Record (Interval, size and number)

7300'-7092', 1 jspe, .36", total of 208 holes

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

| DEPTH INTERVAL (MD) | AMOUNT AND KIND OF MATERIAL USED        |
|---------------------|-----------------------------------------|
| 7092'-7300'         | 81,000 gal 50# gel & 84,000# 20-40 sand |

33. PRODUCTION

DATE FIRST PRODUCTION 10-2-84 PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump) Flowing WELL STATUS (Producing or shut-in) Shut-in

DATE OF TEST 10-3-84 HOURS TESTED 3 CHOKE SIZE .50" PROD'N. FOR TEST PERIOD OIL—BBL. GAS—MCF. WATER—BBL. GAS-OIL RATIO 279

24-HOUR RATE OIL—BBL. GAS—MCF. WATER—BBL. OIL GRAVITY-API (CORE.) 2232

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.)

To be sold

TEST WITNESSED BY

J. Barnett

35. LIST OF ATTACHMENTS

None

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available data.

E. J. Shaw

TITLE Adm. Supervisor

RV

SIGNED

10-19-84

ACCEPTED FOR RECORD  
OCT 24 1984

SUMMARY OF POROUS ZONES: (Show all important zones of porosity and contents thereof; cored intervals; and all drillstem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures, and recoveries):

38. GEOLOGIC MARKERS

| FORMATION | TOP  | BOTTOM | DESCRIPTION, CONTENTS, ETC. | NAME | TOP         |                  |
|-----------|------|--------|-----------------------------|------|-------------|------------------|
|           |      |        |                             |      | MEAS. DEPTH | TRUP VERT. DEPTH |
| Alamo     | 2568 |        |                             |      |             |                  |
| Cliffs    | 2903 |        |                             |      |             |                  |
| Cliffs    | 3308 |        |                             |      |             |                  |
| Cliffs    | 3590 |        |                             |      |             |                  |
| verde     | 5174 |        |                             |      |             |                  |
| up        | 6630 |        |                             |      |             |                  |
| os        | 7414 |        |                             |      |             |                  |
| Hrn.      | 7794 |        |                             |      |             |                  |
| eros      | 7846 |        |                             |      |             |                  |
| akot      | 7964 |        |                             |      |             |                  |
| akota     | 8022 |        |                             |      |             |                  |

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

SUBMIT IN DUPLICATE\*

Form approved.  
Budget Bureau No. 1004-0137  
Expires August 31, 1985

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1. TYPE OF WELL: OIL WELL ☐ GAS WELL ☒ DRY ☐ Other ☐  
2. TYPE OF COMPLETION: NEW WELL ☒ WORK OVER ☐ DEEP EN ☐ PLUG BACK ☐ DEEP REPAIR ☐ Other ☐

3. NAME OF OPERATOR  
Amoco Production Company

4. ADDRESS OF OPERATOR  
501 Airport Drive, Farmington, N M 87401

5. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)\*  
At surface 890' FSL X 1850' FWL  
At top prod. interval reported below Same  
At total depth Same

14. PERMIT NO. OCT 29 1984

15. DATE SPUDDED 5-31-84 16. DATE T.D. REACHED 6-19-84 17. DATE COMPL. (Ready to prod.) 8-28-84  
18. COUNTY OR PARISH Rio Arriba 19. STATE N M  
20. TOTAL DEPTH, MD & TVD 8127' 21. PLUG BACK T.D., MD & TVD 8070' 22. IF MULTIPLE COMPL., HOW MANY\* 2  
23. INTERVALS DRILLED BY ROTARY TOOLS 0-TD CABLE TOOLS  
24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)\* 7877'-7980'  
25. WAS DIRECTIONAL SURVEY MADE Yes  
26. TYPE ELECTRIC AND OTHER LOGS R/N DIL-SP-GR-CNL-FDC-GR 27. WAS WELL CORED Yes

28. CEMENTING RECORD (Report all strings set in well)  
Casing Size 13-3/8" 48#, H-40 Depth Set (MD) 391' Hole Size 17-1/4" Cementing Record 510 cu.ft. Class B, 2% CaCl<sub>2</sub>  
4-1/2" 11.6#, N-80 8127' 7-7/8" Stage 1: 944 cu.ft. Class B Near  
Stage 2: 1,593 cu.ft. Class B Near  
& tailed in w/118 cu.ft. Class B Near

29. LINER RECORD  
Size Top (MD) Bottom (MD) Backs Cement\* Screen (MD)  
30. TUBING RECORD  
Size 2-3/8" Depth Set (MD) 7973' Packer Set (MD) 7313'  
(sliding sleeve)

31. VERIFICATION RECORD (Intervals, size and number)  
7902'-7877', 7942'-7924', 7980'-7962',  
2 jspfs, .36", total of 122 holes

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.  
Depth Interval (MD) Amount and Kind of Material Used  
7877'-7980' 71,406 gal 50# crosslinked  
gel & 91,686# 20-40 sand

33. PRODUCTION  
Date First Production 10-1-84 Production Method (Flowing, gas lift, pumping—size and type of pump) Flowing Well Status (Producing or shut-in) Shut-in

34. TEST DATA  
Date of Test 10-2-84 Motor Tested 3 Choke Size .50" Prod'n for Test Period 177  
Flow, tubing press. 260 psig Casing Pressure N/A Calculated 24-hour rate 1417  
35. INFORMATION ON GAS (Sold, used for fuel, vented, etc.) To be sold

36. TEST WITNESSED BY  
J. Barne OCT 24 1984

37. SIGNATURES  
Original Signed By B. D. Shaw TITLE Adm. Supervisor DATE 10-18-84

38. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

23. FIELD AND POOL OR WILDCAT Basin Dakota  
24. SEC. T., R., N., OR BLOCK AND SURVEY OR AREA SE/SW Sec. 21, T31N, R6W

25. COUNTY OR PARISH Rio Arriba 26. STATE N M

27. TOTAL DEPTH, MD & TVD 8127' 28. PLUG BACK T.D., MD & TVD 8070' 29. IF MULTIPLE COMPL., HOW MANY\* 2

30. INTERVALS DRILLED BY ROTARY TOOLS 0-TD CABLE TOOLS

31. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)\* 7877'-7980'

32. WAS DIRECTIONAL SURVEY MADE Yes

33. TYPE ELECTRIC AND OTHER LOGS R/N DIL-SP-GR-CNL-FDC-GR 34. WAS WELL CORED Yes

35. CEMENTING RECORD (Report all strings set in well)  
Casing Size 13-3/8" 48#, H-40 Depth Set (MD) 391' Hole Size 17-1/4" Cementing Record 510 cu.ft. Class B, 2% CaCl<sub>2</sub>  
4-1/2" 11.6#, N-80 8127' 7-7/8" Stage 1: 944 cu.ft. Class B Near  
Stage 2: 1,593 cu.ft. Class B Near  
& tailed in w/118 cu.ft. Class B Near

36. LINER RECORD  
Size Top (MD) Bottom (MD) Backs Cement\* Screen (MD)  
37. TUBING RECORD  
Size 2-3/8" Depth Set (MD) 7973' Packer Set (MD) 7313'  
(sliding sleeve)

38. VERIFICATION RECORD (Intervals, size and number)  
7902'-7877', 7942'-7924', 7980'-7962',  
2 jspfs, .36", total of 122 holes

39. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.  
Depth Interval (MD) Amount and Kind of Material Used  
7877'-7980' 71,406 gal 50# crosslinked  
gel & 91,686# 20-40 sand



SUMMARY OF POROUS ZONES (Show all important zones of porosity and contents thereof; cored intervals; and all drill-stem, test, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures, and recoveries).

38. GEOLOGIC MARKERS

| FORMATION | TOP  | BOTTOM | DESCRIPTION, CONTENTS, ETC. | NAME | TOP         |                  |
|-----------|------|--------|-----------------------------|------|-------------|------------------|
|           |      |        |                             |      | MEAS. DEPTH | TRUE VERT. DEPTH |
| o Alamo   | 2568 |        |                             |      |             |                  |
| uitland   | 2903 |        |                             |      |             |                  |
| c. Cliffs | 3308 |        |                             |      |             |                  |
| wig       | 3590 |        |                             |      |             |                  |
| saverde   | 5174 |        |                             |      |             |                  |
| llup      | 6630 |        |                             |      |             |                  |
| ncos      | 7414 |        |                             |      |             |                  |
| a. Hrn.   | 7794 |        |                             |      |             |                  |
| aneros    | 7846 |        |                             |      |             |                  |
| Dakot     | 7964 |        |                             |      |             |                  |
| Dakota    | 8022 |        |                             |      |             |                  |

# B & R SERVICE, INC.

P. O. Box 1048  
Farmington, New Mexico 87499  
(505) 325-2393

Company AMOCO PRODUCTION CO. Lease ROSA UNIT Well 100 DAK  
County RIO ARriba State NEW MEXICO Date 10-1-84  
Shut-In 7 DAYS Zero Point G.L. Tbg. Pressure 2935  
Casing Pressure 2840 Tbg. Depth \_\_\_\_\_ Casing Perf. \_\_\_\_\_  
Max. Temp. 260°F Fluid Level 7875'

| <u>DEPTH</u> | <u>PSIG</u> | <u>GRADIENT</u> |
|--------------|-------------|-----------------|
| 0            | 2912        | ----            |
| 1000         | 2991        | .079            |
| 2000         | 3064        | .073            |
| 3000         | 3140        | .076            |
| 4000         | 3213        | .073            |
| 5000         | 3277        | .064            |
| 6000         | 3343        | .066            |
| 7000         | 3404        | .061            |
| 7825         | 3456        | .063            |
| 7925         | 3477        | .210            |

# B & R SERVICE, INC.

P. O. Box 1048  
Farmington, New Mexico 87499  
(505) 325-2393

Company AMOCO PRODUCTION CO. Lease ROSA UNIT Well 100 GALLUP  
County RIO ARriba State NEW MEXICO Date 10-29-84  
Shut-In 7 DAYS Zero Point G.L. Tbg. Pressure 2550  
Casing Pressure 2700 Tbg. Depth \_\_\_\_\_ Casing Perf. \_\_\_\_\_  
Max. Temp. 248°F Fluid Level 6800'

| <u>DEPTH</u> | <u>PSIG</u> | <u>GRADIENT</u> |
|--------------|-------------|-----------------|
| 0            | 2511        | ----            |
| 1000         | 2580        | .069            |
| 2000         | 2650        | .070            |
| 3000         | 2713        | .063            |
| 4000         | 2770        | .067            |
| 5000         | 2831        | .061            |
| 6000         | 2882        | .058            |
| 7000         | 3024        | .142            |
| 7200         | 3116        | .460            |
| 7300         | 3161        | .450            |

### Recommended Allocation Formula

Amoco Production Company recommends the following percentages be used to allocate hydrocarbons to the Gallup and Dakota horizons in the Rosa Unit 100:

|        | <u>Gas</u> |
|--------|------------|
| Gallup | 61%        |
| Dakota | 39%        |

Note: The gas allocation percentages were calculated using initial potential test results.

7112  
December 18, 1984

El Paso Natural Gas Company  
P. O. Box 990  
Farmington, NM 87499

File: DDL-1276-400.1

Dear Sirs:

Commingle Application  
Rosa Unit 100  
Section N21, T31N, R6W  
Rio Arriba County, New Mexico

Amoco Production Company has applied for approval to commingle the Gallup and Dakota horizons in the subject well. If you have any objections, you have 20 days to notify the New Mexico Oil Conservation Division. If you do not respond within 20 days, your approval will be assumed.

Yours very truly,

Original Signed  
W. J. Holcomb  
by DDI.

MEM/ct

AH7