FORM 3160-3 (December 1990) SUBMIT IN TRIPLICATE\* (Other instructions on Form approved.

reverse side)

Budget Bureau No. 1004-0136

Expires December 31, 1991 5 LEASE DESIGNATION AND SERIAL NO.

| UNITED STATES  |              |  |  |  |  |  |  |  |
|----------------|--------------|--|--|--|--|--|--|--|
| DEPARTMENT OF  | THE INTERIOR |  |  |  |  |  |  |  |
| DUDEAU OF LAND | MANACEMENT   |  |  |  |  |  |  |  |

| DEPARI  | MENI OF THE                                      | NIERIUR   |   |  |            |
|---|--|---|---|--|------------|
|   | U OF LAND MANAC                                  |   | 17 -6 11 11: 40   | SF- 078768                                       |            |
| <del></del>   |  |   |   | 6. IF INDIAN, ALLOTTEE OR TRIBE NAME             |            |
| APPLICATION FOR   | R PERMIT TO DRIL                                 | L, DEEPEŅ, O  | R PLUG BACK   |  |            |
| La. TYPE OF WORK DRILL  | X DEEPEN   | U, J  |   | 7. UNIT AGREEMENT NAME                           |            |
| <i>T</i> -  |  |   |   | Rosa Unit  |            |
| b. TYPE OF WELL   |  |   |   | 8. FARM OR LEASE NAME, WELL NO.                  |            |
| OIL GAS<br>WELL WELL  | X OTHER  | $ \begin{array}{c} \mathbf{SINGLE}_{X} \\ \mathbf{ZONE} \end{array} $ | MULTIPLE<br>ZONE  | 375  |            |
| 2. NAME OF OPERATOR Williams Proc   | luction Company, LL                              | С   |   | 9. API WELL NO.<br>30-039-269                    | 748        |
| 3. ADDRESS OF OPERATOR  |  |   |   | 10. FIELD AND POOL OR WILDCAT                    | ,          |
| c/o Walsh Engineering 741   | 5 E. Main St., Farming                           | ton, NM 87402 (5  | (05) 327-4892   | Basin Fruitland Co                               | al         |
| 4. LOCATION OF WELL (Report location  | clearly and in accordance with an                | y State requirements.*)   | 2718102   | 11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA |            |
| At Surface 1675' FSL and  | d 1875' FWL                                      | 160   | \$ 11 10 10 10 20 20 10 10 10 10 10 10 10 10 10 10 10 10 10 |  | <b>1</b> 7 |
| At proposed Prod. Zone  |  |   | A   | Sec. 24, T31N, R5V                               | <i>-</i>   |
| 14. DISTANCE IN MILES AND DIRECTION F. 30 miles NE o  | ROM NEAREST TOWN OR POST Of $Blanco$ , $NM$      | FFICE* Ç  |   | 12 COUNTY OR PARISH Rio Arriba                   | NM         |
| 15. DISTANCE FROM PROPOSED* LOCATIO<br>OR LEASE LINE, FT. (Also to nearest drig. u<br>1675' | ON TO NEAREST PROPERTY<br>nit line, if any)      |   | 50  | 7. NO. OF ACRES ASSIGNED TO THIS WELL  320 W 2   |            |
| 18. DISTANCE FROM PROPOSED LOCATION DRILLING, COMPLETED, OR APPLIED F                       | OR ON THIS LEASE, FT.                            | 19. PROPOSED DEPTH  |   | Rotary   |            |
| 21. ELEVATIONS (Show whether DE RT CR.  | ra) review pursuant to<br>leal pursuant to 43 CF | 43 CFR 3100.8<br>R 3165.4.  |   | 22. APPROX DATE WORK WILL START* April 15, 2002  |            |
| 23.   | PROPOSED CASIN                                   | G AND CEMENTING   |   | QUANTITY OF CEMEN                                | VT         |
| SIZE OF HOLE  | 9-5/8"   | <b>WEIGHT/FOOT</b> 36.0#  | **SETTING DEPTH +/- 250'                                    | ~188 cu.ft. Type III with 2%                     |            |
| 12-1/4"<br>8-3/4"   | 7"   | 20.0#   | +/- 3341'   | ~795 cu.ft.65/35 poz & ~20                       |            |
| 6-1/4"  | 4-1/2"   | 15.5#   | +/- 3451'   | Open hole completion - no                        |            |
| 0-1/4   | <u> </u>   |   |   |  |            |

Williams Production Company proposes to drill a vertical well to develop the Mesa Verde formation at the above described location in accordance with the attached drilling and surface use plans. The surface is under the jurisdiction of the United States Forest Service (USFS), Jicarilla Ranger District of the Carson National Forest. This location has been archaeologically surveyed by Independent Contract Archaeology. Copies of their report have been submitted directly to your office.

This APD also is serving as an application to obtain road and pipeline right-of-ways. This well will not require any new access road (see Pipeline & Well Plats #3 & #4). The well will be placed next to Forest Road 309B in the NE/SW of section 24, T31N, R5W.

DRILLING OPERATIONS AUTHORIZED ARE

| IN ABOVE SPACE D       | ESCRIBE PROPOSED PROGRAM: If proposal is to deepen of deeper in the deeper of deeper in the deeper of deeper in the deeper of the deeper of deeper in the deeper of de | or plug back, give data on present produc<br>is and measured and true vertical depths. | "GENERAL REQUI-                           | PLIANCE WITH ATTACHED REMENTS" tive zone. fany. |
|------------------------|--|--|---|---|
| 24. SIGNED             | Ou C. The  | TILE John C. Thomps  |   | 3/5/02  |
| (This space for Federa |  | · · · · · · · · · · · · · · · · · · ·  |   |   |
| PERMIT NO.             |  | OVAL DATE  |   | si di   |
| Application approval   | does not warrant or certify that the applicant holds legal or equitable title  | to those rights in the subject lease which wou   | id entitle the applicant to conduct opera | nons thereon.                                   |
| CONDITIONS OF A        |  |  |   | CED 1 2   |
| APPROVED BY            | /s/ David J. Mankiewicz  | TTILE  | DATE                                      | SEF 12  |
|                        |  | uctions On Reverse Sig   | de  |   |

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.

District I PO Box 1980, Hobbs, NM 88241-1980

District II PO Drawer DD, Antesia, NM 88211-0719

District III 1000 Rio Brazos Rd., Aztec, NM 87410

District IV PO Box 2088, Santa Fe, NM 87504-2088 State of New Mexico Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION PO Box 2088 Santa Fe. NM 87504-2088 Form C–102 Revised February 21, 1994 Instructions on back

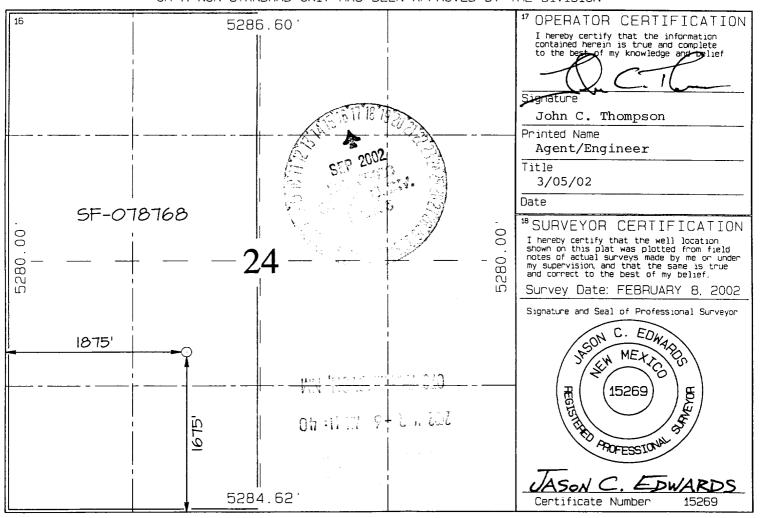
Submit to Appropriate District Office State Lease - 4 Copies Fee Lease - 3 Copies

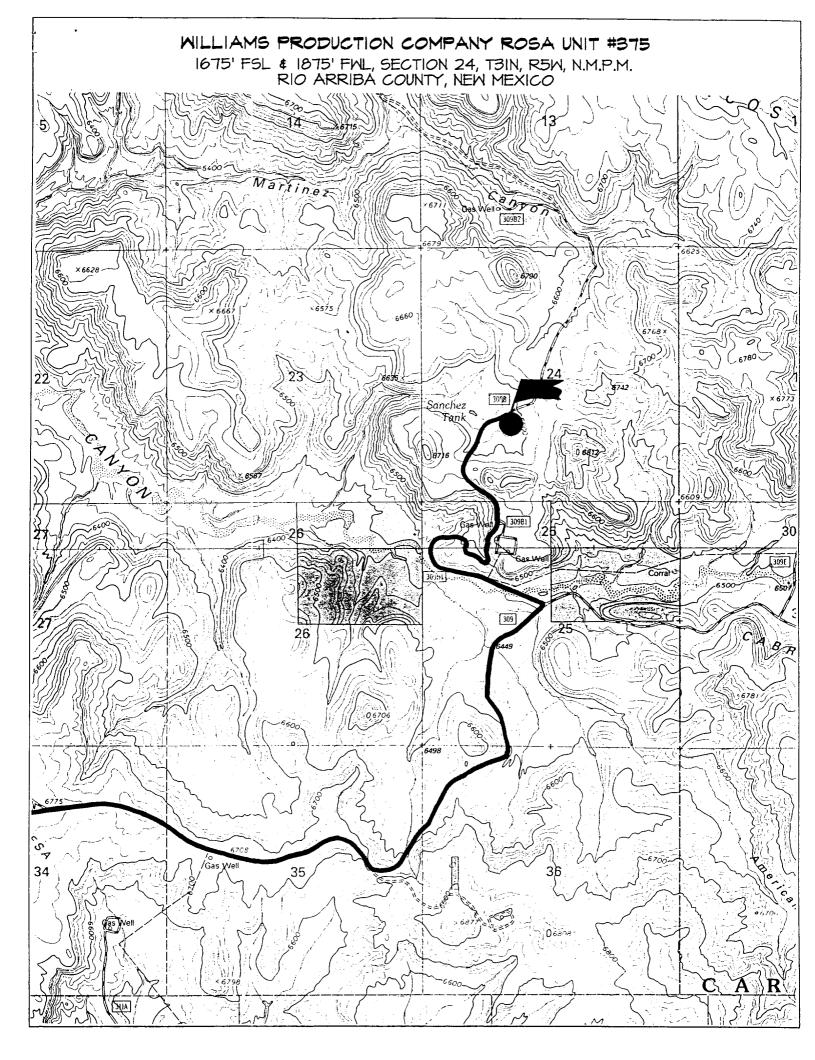
AMENDED REPORT

#### WELL LOCATION AND ACREAGE DEDICATION PLAT

| 'A  | VPI Numbe           | ^ <u> </u> | 1                           | ²Pool C | ode                     | 'Pool Name |                  |               |              |            |               |
|---|---------------------|------------|-----------------------------|---------|-------------------------|------------|------------------|---------------|--------------|------------|---------------|
| 100-0   | 34-                 | 2694       | 8                           | 716     | 29 Basin Fruitland Coal |            |                  |               |              |            |               |
| 1Property   | Code                |            | ³Property Name              |         |                         |            |                  |               | *Well Number |            |               |
| 1703  | 3                   |            | ROSA UNIT                   |         |                         |            |                  |               |              | 375        |               |
| 'OGRID N  | VO.                 |            | *Operator Name              |         |                         |            |                  |               | °E           | *Elevation |               |
| 12078   | 32                  |            | WILLIAMS PRODUCTION COMPANY |         |                         |            |                  |               | 6596 '       |            |               |
|   | 10.Surface Location |            |                             |         |                         |            |                  |               |              |            |               |
| UL or lot no.   | Section             | Township   | Range                       | Lot Idn | Feet from th            | e          | North/South line | Feet from the | East/We      | st line    | County        |
| K   | 24                  | 31N        | 5W                          | ,       | 1675                    |            | SOUTH            |               |              |            | RIO<br>ARRIBA |
| <sup>11</sup> Bottom Hole Location If Different From Surface                                  |                     |            |                             |         |                         |            |                  |               |              |            |               |
| UL or lot no.   | Section             | Township   | Range                       | Lot Idn | Feet from th            | e          | North/South line | Feet from the | East/We      | st line    | County        |
|   |                     |            |                             |         |                         |            |                  |               |              |            |               |
| 12 Dedicated Acres 320.0 ACRES - (W/2)  13 Joint or Infill 14 Consolidation Code 15 Order No. |                     |            |                             |         |                         |            |                  |               |              |            |               |

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION





#### III. MATERIALS

#### A. CASING PROGRAM:

| CASING TYPE  | <b>HOLE SIZE</b> | <u>DEPTH</u>   | <b>CASING SIZE</b> | WT. & GRADE |
|--------------|------------------|----------------|--------------------|-------------|
| Surface      | 12-1/4"          | +/- 250'       | 9-5/8"             | 36# K-55    |
| Intermediate | 8-3/4"           | +/- 3341'      | 7"                 | 20# K-55    |
| Prod. Liner  | 6-1/4"           | +/- 3241-3451' | 5-1/2"             | 15.5# K-55  |

#### **B. FLOAT EQUIPMENT:**

- 1. SURFACE CASING: 9-5/8" notched regular pattern guide shoe.
- 2. <u>INTERMEDIATE CASING:</u> 7" cement nose guide shoe with a self- fill insert float. Place float one(1) joint above the shoe and five(5) centralizers, spaced every other joint, starting with the float collar. Place turbulent centralizers, at 120' intervals, starting at 1585' to the surface. Total centralizers = 5 regular and 14 turbulent.
- 3. PRODUCTION LINER: 5-1/2"liner with notched collar on bottom.

#### C. CEMENTING:

(Note: Volumes may be adjusted onsite due to actual conditions)

- 1. SURFACE: Use 130 sx (188 cu.ft.) of "Type III" with 2% CaCl2 and 1/4# of cello-flake/sk (Yield = 1.41 cu.ft./sk, Weight = 14.5 #/gal.). Use 125% excess to circulate the surface. WOC 12 hours. Test to 1500#.
- INTERMEDIATE: Lead 380 sx (795 cu.ft.) of "Type III" 65/35 poz with 8% gel, 1% CaCl2 and 1/4# cello-flake/sk (Yield = 2.09 cu.ft./sk, Weight = 12.1 #/gal.). Tail 150 sx (209cu.ft.) of "Type III" with 1/4# cello-flake/sk, and 1% CaCl2 (Yield = 1.4 cu.ft./sk, Weight = 14.5#/gal.). Use 100% excess in lead and tail to circulate to surface. Total volume = 1004 cu.ft. WOC 12 hours. Run a temperature survey after 8 hours if cement is not circulated. Test to 1500#.
- 3. <u>PLUGBACK:</u> 30 sk (41.7cft) of "Type III + 1% CaCl ( Yield = 1.39 cft/ft, weight == 14.5 ppg) Set plug over PC formation after logging.
- 4. PRODUCTION LINER: Open hole completion. No cement.

#### **IV COMPLETION**

#### A. PRESSURE TEST

Pressure test 7" casing to 3300# for 15 minutes.

#### **B. STIMULATION**

<u>Cavitate Well</u> with reciprocation and rotation. Surge wells with water and air and then flow back to pit. Cavitate for 2 to 3 weeks. Maximum pressure not expected to exceed 2,000 psi.

# Walsh Engineering & Production

## Well Control Equipment Schematic for 2M Service

Attachment to Drilling Technical Program

### Typical BOP setup

