State 7 care

FORM 3160-3 (December 1990)

# **UNITED STATES** DEPARTMENT OF THE INTERIOR

SUBMIT IN TRIPLICAT

Form approved. Budget Bureau No. 1004-0136

-718cu.ft.65/35 poz & ~209cu.ft.Type III

Open hole completion - no cement

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

| -   | BUREA           | U OF LAND MAN                                  | AGEMENT                       | MI C- MUL LUN  | SF-078766   |  |  |
|---|-----------------|--|-------------------------------|--|---|--|--|
| APPLICAT  | ION FOR         | PERMIT TO DR                                   | RILL, DEEPEN, O               | PLUG BACKON,   | 6. IF INDIAN, ALLOTTEE OR TRIBE NAME                          |  |  |
| 1a. TYPE OF WORK 1b. TYPE OF WELL                           | DRILL           | DEEPEN[  |                               | 213147575  | 7. UNIT AGREEMENT NAME<br>Rosa Unit                           |  |  |
| OII WELL  | GAS<br>WELL     | OTHER  | INGLE X J                     | UĮ 2003 MUSTIPLE                                     | 8. FARM OR LEASE NAME, WELL NO.  341 A                        |  |  |
|   | iams Prod       | luction Company, 1                             | LLC OILC                      | 27.  | 9. API WELL NO.<br>30085 31714                                |  |  |
|   |                 | 5 E. Main St., Farmi                           |                               | 05) 327-4892   | 10. FIELD AND POOL OR WILDCAT  Basin Fruitland Coal           |  |  |
|   |                 | clearly and in accordance with $560'FWL$       | any State requirements        | 0.62.12.02.22.12                                     | 11. SEC, T, R, M, OR BLK. AND SURVEY OR AREA  Sec / T31N, R6W |  |  |
|   |                 | ROM NEAREST TOWN OR POS<br><i>f Blanco, NM</i> | T OFFICE*                     |  | 12. COUNTY OR PARISH San Juan NM                              |  |  |
| 15. DISTANCE FROM PROPO<br>OR LEASE LINE, FT. (Also<br>560' |                 |  | 16. NO. OF ACRES IN LEASE 255 | 2.71'  | 7. NO. OF ACRES ASSIGNED TO THIS WELL  320 W/2-               |  |  |
| 18. DISTANCE FROM PROPO<br>DRILLING, COMPLETED<br>~700      | , OR APPLIED FO |  | 19. PROPOSED DEPTH  335       | OPOSED DEPTH 20. ROTARY OR CABLE TOOLS  3350' Rotary |   |  |  |
| 21. ELEVATIONS (Show when 638)                              |                 | •  |                               |  | 22. approx date work will start*  July 1, 2003                |  |  |
| 23.   |                 |  | ING AND CEMENTING             |  |   |  |  |
| SIZE OF HOL   | E               | SIZE OF CASING                                 | WEIGHT/FOOT                   | SETTING DEPTH  | QUANTITY OF CEMENT  |  |  |

Williams Production Company proposes to drill a vertical well to develop the Fruitland Coal formation at the above described location in accordance with the attached drilling and surface use plans.

20.0#

15.5#

This location has been archaeologically surveyed by Independent Contract Archaeology. Copies of their report have been submitted directly to your office.

+/- *3085* 

2985' - 3350'

This APD also is serving as an application to obtain BLM road and pipeline right-of-ways. This well will require  $\sim 250'$  of new access road (see Pipeline & Well Plats #3 & #4). The well will be accessed by utilizing an existing road that crosses NW/NW of sec. 16, W/2 of sec. 9, SE/SW, SW/SW of sec. 4, N/2 sec. 8, NE/NE sec. 7, SE/SE sec. 6, W/2 sec. 5 all of T31N, R6W, SW/SW, NW/SW sec 32, NE/SE, SE/NE, NE/NE sec.31, SE/SE, NE/SE, SE/NW & NW/NW of sec. 30 all of T32N, R6W & NE/NE of sec. 25 of 32N, R7W where it joins San Juan County Road #4020. IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. <u>If</u>

| proposal is to drill or deepen directionally, give pertiner                                   | nt data on subsurface locations an         | d measured and true vertical depths. Give blowout pro           | venter program, if    | any.          |
|---|--|---|-----------------------|---------------|
| SIGNED .  | 16-  | TITLE John C. Thompson, Agent                                   | DATE                  | 5/28/2003     |
| (This space for Federal or State office use)  |  |   |                       |               |
| PERMIT NO.  | APPROVA                                    | AL DATE   |                       |               |
| Application approval does not warrant or certify that the applications of Apple Apple J. Mark | cant holds legal or equitable title to the | ose rights in the subject lease which would entitle the applica | nt to conduct operati | ions thereon. |
| APPROVED BY   |  | TITLE   | DATE                  | 11"           |
|   |  | tions On Reverse Side   |                       | JUL           |

States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

8-3/4'

6-1/4"

5-1/2"

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

District II PO Drawer DD, Artesia, 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
to Appropriate District Office

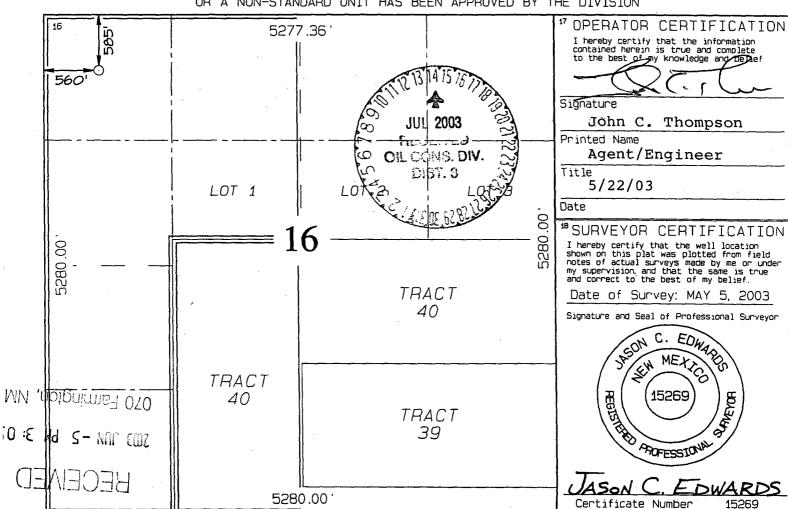
Submit to Appropriate District Office State Lease - 4 Copies Fee Lease - 3 Copies

AMENDED REPORT

## WELL LOCATION AND ACREAGE DEDICATION PLAT

| 'API Number  |  |                                    |          | <sup>2</sup> Pool Cod  | e                         | ³Pool Name     |                                  |                         |         |              |            |  |
|--------------|--|------------------------------------|----------|--|---------------------------|----------------|----------------------------------|-------------------------|---------|--------------|------------|--|
| 30.045-31714 |  |                                    |          |  | 71629 BASIN FRUITLAND COA |                |                                  |                         | AL      |              |            |  |
| ļ            | 'Property Code   |                                    |          |  |                           | ³Property Name |                                  |                         |         | *Well Number |            |  |
|              | 17033  |                                    |          |  |                           | ROSA UNIT      |                                  |                         |         | 341A         |            |  |
|              | 'OGRID N   | <b>NO</b> .                        |          | *Operator Name   |                           |                |                                  |                         |         |              | °Elevation |  |
|              | 12078  | 120782 WILLIAMS PRODUCTION COMPANY |          |  |                           |                |                                  | 6380,                   |         |              |            |  |
|              | <sup>10</sup> Surface Location                               |                                    |          |  |                           |                |                                  |                         |         |              |            |  |
| (            | UL or lot no.  | Section                            | Township | Township Range Lot Idn Feet from the North/South line Feet from the East/V |                           |                |                                  | East/We                 | st line | County       |            |  |
| ĺ            | ם  | 1/6                                | 31N      | 6W   |                           | 585            | NORTH                            | 560                     | WE      | ST           | SAN JUAN   |  |
|              | <sup>11</sup> Bottom Hole Location If Different From Surface |                                    |          |  |                           |                |                                  |                         |         |              |            |  |
|              | UL or lot no.  | Section .                          | Township | Range  | Lot Ion                   | Feet from the  | North/South line                 | Feet from the           | East/We | st line      | County     |  |
| Ì            |  |                                    |          |  |                           |                | _                                |                         |         |              |            |  |
| ĺ            | 12 Dedicated Acres 13 Jo                                     |                                    |          |  |                           |                | <sup>14</sup> Consolidation Code | <sup>15</sup> Order No. |         |              |            |  |
|              | 320.0 Acres - (W/2)  |                                    |          |  |                           |                |                                  | NSL*                    | 490     | 6            |            |  |

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





# WILLIAMS PRODUCTION COMPANY

## **Operations Plan**

(Note: This procedure will be adjusted on site based upon actual conditions)

**DATE:** 

5/28/2003

**WELLNAME:** 

Rosa #341A

FIELD:

Basin Fruitland Coal

**LOCATION:** 

NWNW Sec. 16 T31N-R6W San Juan, NM

**SURFACE:** 

FED

**ELEVATION:** 

6380' GR

**MINERALS:** 

FED

**TOTAL DEPTH:** 

3350

LEASE#

SF-078766

L GEOLOGY:

Surface formation - San Jose

#### A. FORMATION TOPS: (KB)

| Ojo Alamo       | 2375' |
|-----------------|-------|
| Kirtland        | 2485' |
| Fruitland       | 2975  |
| Top of Coal     | 3105' |
| Base of Coal    | 3250' |
| Pictured Cliffs | 3250' |
| Total Depth     | 3350' |

- \* Note: Well will be vertically drilled to 100' into Picture Cliff, logged through the PC then plug the PC.
- **B. LOGGING PROGRAM:** SDL (EVR) from TD to intermediate casing; DSN from TD to surface casing.
- C. <u>NATURAL GAUGES</u>: Gauge any noticeable increases in gas flow. Record all gauges in Tour book and on morning reports.

#### II. DRILLING

- A. <u>MUD PROGRAM:</u> Clear water with benex to 7" casing point. Treat for lost circulation as necessary. Expect 100% returns prior to cementing. Notify Engineering of any mud losses. If coal is detected before 3085' DO NOT drill deeper until Engineering is contacted.
- **B.** <u>Drilling Fluid:</u> Coal section will be drilled with air/mist. The water used will be produced Fruitland Coal water. Mud logger will pick TD at +/- 3350'.
- C. MUD LOGGING PRORAM: Mud logger will be on location at drill out below 7" casing to TD.

C. <u>BOP TESTING:</u> While drill pipe is in use, the pipe rams and the blind rams will be function tested once each trip. The anticipated reservoir is expected to be less than 1300 psi, so the rams will be tested to 1500 psi. The surface and intermediate casing strings will be pressure tested to 1500 psi in conjunction with the BOP test before drilling out cement. The drum brakes will be inspected and tested each tour. All tests, inspections and SPR's will be recorded in the tour book as to time and results.

### III. MATERIALS

#### A. CASING PROGRAM:

| CASING TYPE  | HOLE SIZE | <u>DEPTH</u>   | <b>CASING SIZE</b> | WT. & GRADE |
|--------------|-----------|----------------|--------------------|-------------|
| Surface      | 12-1/4"   | +/- 500'       | 9-5/8"             | 36# K-55    |
| Intermediate | 8-3/4"    | +/- 3085'      | 7"                 | 20# K-55    |
| Prod. Liner  | 6-1/4"    | +/- 2985-3350' | 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 255 sx (352 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#.
- 2. INTERMEDIATE: Lead 345 sx (718 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 = 927 cu.ft. WOC 12 hours. Run a temperature survey after 8 hours if cement is not circulated. Test to 1500#.
- 3. PRODUCTION LINER: Open hole completion. No cement.

# Willias Production Company LLC Well Control Equipment Schematic for 2M Service

Attachment to Drilling Technical Program

# Typical BOP setup

