UNITED STATES DEPARTMENT OF THE INTERIOR **BUREAU OF LAND MANAGEMENT**

FORM APPROVED OMB No. 1004-0136 Expires January 31, 2004

5. Lease Serial No.

NMSF-0078765

| la. Type of Work: DRILL REENTH | er 210 FAR | ELN MINGTON N | 7. If Unit or CA Agreemen Rosa Unit 8. Lease Name and Well No | | | |
|---|---|--|---|---|--|--|
| lb. Type of Well: Oil Well 🛛 Gas Well 🔲 Other | 156C | | | | | |
| 2. Name of Operator | | | 9. APLWell Not | 71/21/ | | |
| Williams Production Company, LLC | 3b. Phone No. (include area co | | | 34245 | | |
| Ba. Address | 10. Field and Pool, or Exploratory | | | | | |
| P.O. Box 640 Aztec, NM 87410 4. Location of Well (Report location clearly and in accordance with an | (505) 634-4208 | | | Blanco Mesaverde 11. Sec., T., R., M., or Bik. and Survey or Area | | |
| At surface 1675' FNL & 395' FEL | у вийс гединетств. | | 11, 500, 11, 10, 11, 01 5 | 200 000 100 01 111 | | |
| At proposed prod. zone 2310' FNL 990' FEL | | | H Section 9, 31N R.6 | N | | |
| 4. Distance in miles and direction from nearest town or post office* | | | 12. County or Parish | 13. State | | |
| approximately 30 miles northeast of Blanco, New Mexico | | | San Juan | NM | | |
| 5. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig, unit line, if any) | 16. No. of Acres in lease | | ng Unit dedicated to this well RCUD A | PR24'07 | | |
| (Also to hearest drig. unit line, if any) 8. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. | 2,460.230 19. Proposed Depth | | BIA Bond No. on file | NS. DIV. | | |
| 500' | 6,350' | | UI9847 | | | |
| 11. Elevations (Show whether DF, KDB, RT, GL, etc.) | 22. Approximate date work | will start* | 23. Estimated duration | 23. Estimated duration DIST. 3 | | |
| 6,447' GR | April 1, 2007 24. Attachments | | 1 month | | | |
| he following, completed in accordance with the requirements of Onsh | | 12 - 4 - 2 - 3 4 - 4 : | - C | | | |
| . Well plat certified by a registered surveyor. A Drilling Plan. A Surface Use Plan (if the location is on National Forest System SUPO shall be filed with the appropriate Forest Service Office) | 4. Bond to construct the state of the state | over the operation bove). ertification. r site specific inf | is unless covered by an existi | | | |
| . Signature // z | Name (Printed/Typed) | | Date | | | |
| larry Higga | Larry Higgins | | - 6 | 3-14-0 | | |
| itle Drilling COM | | | | , | | |
| pproved by (Signarare) Manke o w | Name (Printed/Typed) | | Date | 4/19/0 | | |
| At-M | Office | <u>ے</u> | | - | | |
| oplication approval does not warrant or certify that the applicant holds erations thereon. | s legal or equitable title to those r | ights in the subjec | t lease which would entitle the | applicant to conduc | | |

*(Instructions on reverse)

Williams Exploration and Production Company, LLC, proposes to drill a well to develop the Blanco Mesaverde formation at the above described location in accordance with the attached drilling and surface use plans.

The well pad surface is under jurisdiction of the Bureau of Land Management, Farmington Field Office (BLM/FFO).

This location has been archaeologically surveyed La Plata Archaeological Consultants. Copies of their report have been submitted directly to the BLM.

A 50-foot access road is needed to access this location. A pipeline tie of 209.8 feet would be required for this location. Williams Field Services has filed a pipeline route plan for the associated pipeline. The pipeline would be owned and operated by Williams Field Services. This action is subject to technical and procedural review of the subject to technical and the subject to technical

procedural review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4

DRILLING OPERATIONS AUTHORIZED ARE SUBJECT TO COMPLIANCE WITH ATTACHED "GENERAL REQUIREMENTS".

NOTIFY AZTEC OCD 24 HRS. PRIOR TO CASING & CEMENT

4/30/07

District I 1625 N. French Dr., Hobbs, NM 88240

State of New Mexico Energy, Minerals & Natural Resources Department

District II 1301 W. Grand Avenue, Artesia, NM 88210

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

District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505

OIL CONSERVATION DIVIDED TO 12007 MAR 19 AM INDED REPORT OIL CONSERVATION DIVISION

Form C-102 Revised October 12, 2005 Instructions on back Submit to Appropriate District Office

State Lease - 4 Copies Fee Lease - 3 Copies

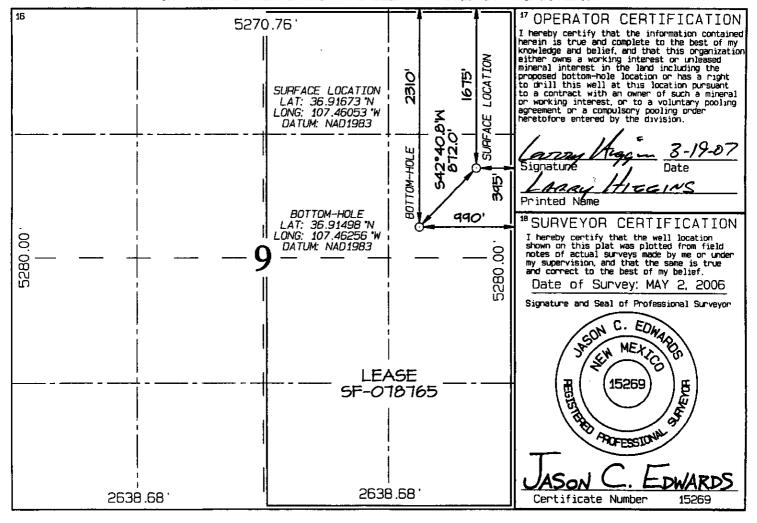
RECEIVED WELL LOCATION AND ACREAGE DEDICATION PLATEN NM

| 'API Number | *Pool Code | PDO1 Name | ERDE |
|----------------|------------|------------------|------------|
| 30-045-34245 | 72319 | BLANCO MESAVE | |
| ¹Property Code | °Pro | Well Number | |
| 17033 | RO | 156C | |
| 'OGRID №. | , . | rator Name | *Elevation |
| 120782 | | ODUCTION COMPANY | 6447 |

10 Surface Location

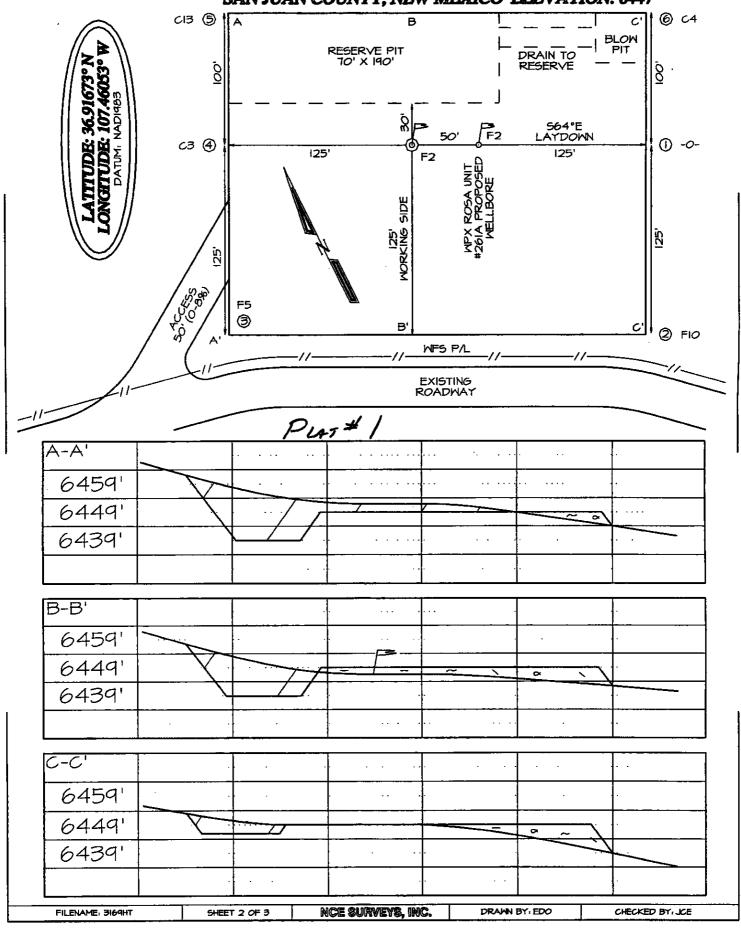
| | Sui race Education | | | | | | | | | |
|---------------------|---|----------|-------|---------|---------------|------------------|---------------|-------------------|-------------|--|
| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County | |
| Н | 9 | 31N | 6W | | 1675 | NORTH | 395 | EAST | SAN JUAN | |
| | ¹¹ Bottom Hole Location If Different From Surface | | | | | | | | | |
| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County | |
| Н | 9 | 31N | 6W | | 2310 | NORTH | 990 | EAST POUR OPPO | SAN JUAN | |
| 12 Dedicated Acres | 2 Dedicated Acres 13 Joint or Infill 14 Consolidation Code 15 Order No. RCVD APR24507 | | | | | | | 701 | | |
| 320.0 Acres - (E/2) | | | | | | OIL CONS. | | | | |
| | | | | | | 4 | L | - NICT | | |

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



| Submit 3 Copies To Appropriate District | State of | f New Mexico | | Form C-103 | | | | |
|---|---------------------------|--|-----------------------------|---|--|--|--|--|
| Office District I | Energy, Minerals | s and Natural Resource | es | May 27, 2004 | | | | |
| 1625 N. French Dr., Hobbs, NM 88240 | , | | WELL API N | 0. | | | | |
| District II | OIL CONSER | VATION DIVISIO | | 45-34245 | | | | |
| 1301 W. Grand Ave., Artesia, NM 88210 District III | | th St. Francis Dr. | 5. Indicate 13 | 5. Indicate Type of Lease FEDERAL X STATE FEE | | | | |
| 1000 Rio Brazos Rd., Aztec, NM 87410 | Santa F | Fe, NM 87505 | | Gas Lease No. | | | | |
| <u>District IV</u> 1220 S. St. Francis Dr., Santa Fe, NM | | 5, 14111 07000 | SF-078765 | . Clas Lease No. | | | | |
| 87505 | | | 31-070703 | | | | | |
| | CES AND REPORTS (| | | ne or Unit Agreement Name | | | | |
| (DO NOT USE THIS FORM FOR PROPOS | | | 1 | ŀ | | | | |
| DIFFERENT RESERVOIR. USE "APPLIC PROPOSALS.) | ATION FOR PERMIT" (FO | RM C-101) FOR SUCH | Rosa Unit | | | | | |
| | Gas Well 🛛 Other | | 8. Well Numb | ber 156C | | | | |
| 2. Name of Operator | <u> </u> | ************************************** | 9. OGRID Nu | ımber 120782 | | | | |
| Williams Production Company, LL | C | |). Odiab i ii | 120,02 | | | | |
| 3. Address of Operator | <u> </u> | | Blanco Mesav | erde | | | | |
| P.O. Box 640 Aztec, NM 87410 | | | | | | | | |
| 4. Well Location | | | | | | | | |
| | | 050 .0 .4 .11 | | | | | | |
| Unit Letter H: 1675 feet fi | | | | | | | | |
| Section 9 Township 3 | | | | an Juan | | | | |
| | • | vhether DR, RKB, RT, C | FR, etc.) | | | | | |
| | | 47' GR | | | | | | |
| Pit or Below-grade Tank Application 🗵 o | r Closure 🗀 | | | | | | | |
| Pit typereserve_Depth to Groundwate | r_>100'_Distance from ne | arest fresh water weli_>1,00 | 0'_ Distance from nearest s | urface water>1,000° | | | | |
| Pit Liner Thickness: 12 mil Below- | Grade Tank: Volume | bbls; Const | uction Material | | | | | |
| 12 Charle A | appropriate Box to I | ndianta Natura of N | ation Report of Otl | nor Data | | | | |
| 12. Check P | rbbrobusie pox io i | ndicate Nature of in | once, Report of On | lei Data | | | | |
| NOTICE OF IN | TENTION TO: | | SUBSEQUENT I | REPORT OF | | | | |
| PERFORM REMEDIAL WORK □ | PLUG AND ABANDO | N □ REMEDIA | | ☐ ALTERING CASING □ | | | | |
| TEMPORARILY ABANDON | CHANGE PLANS | = 1 | CE DRILLING OPNS. | | | | | |
| PULL OR ALTER CASING | MULTIPLE COMPL | | EMENT JOB | - | | | | |
| , ore off Arizin Onloined | MOLIN EL COM L | | | , | | | | |
| OTHER: | | □ OTHER: | | | | | | |
| 13. Describe proposed or comp | | | | | | | | |
| of starting any proposed wo | rk). SEE RULE 1103. | For Multiple Completic | ons: Attach wellbore di | agram of proposed completion | | | | |
| or recompletion. | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| Drilling/Completion pit to be locat | | | | | | | | |
| additional site disturbance and pi | | | | it to be constructed, | | | | |
| operated and closed in accordance | ce with NMOCD guide | elines and Williams pr | ocedures. | | | | | |
| | | | | • | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| <u></u> | | | | | | | | |
| I hereby certify that the information | | | | | | | | |
| grade tank has been/will be constructed or | closed according to NMOCI | D guidelines ⊠, a general p | ermit 📙 or an (attached) al | ternative OCD-approved plan . | | | | |
| SIGNATURE CARRY A | E | TITLE | Dailling COM | DATE 3-19-07 | | | | |
| BIGNATURE COUNTY | gg~ | _111FE | Drilling COM | DATE 3-11-01 | | | | |
| Type or print name Larry Higgins | Famail address. 10 | rry.higgins@williams.c | om Telephone No. (| 505) 634-4208 | | | | |
| For State Use Only | L-man additess. Id | y.mggms@williams.c | ur reichnone izor (| 202) U2 4-4 2U0 | | | | |
| FOI State Use Offix | / W . ~ | | AC INCREPTAR MET A | 4 .400 0 0 0 0 0 | | | | |
| APPROVED BY: | MM | TITLE | as inspector, dist. 🦸 | APR 3 0 2007 | | | | |
| Conditions of Approval (if any): | 10 10 | | | | | | | |
| | / 31 | | | | | | | |

WILLIAMS PRODUCTION COMPANY ROSA UNIT #156C 1675' FNL & 395' FEL, SECTION 9, T31N, R6W, NMPM SAN JUAN COUNTY, NEW MEXICO ELEVATION: 6447'





WILLIAMS PRODUCTION COMPANY

Operations Plan

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

DATE:

2/27/2007

FIELD:

Blanco MV

WELL NAME:

Rosa #156C

San Juan, NM

SURFACE:

FED

BH LOCATION:

SENE Sec 9-31N-6W

MINERALS:

FED

SURF LOCATION:

SENE Sec 9-31N-6W

ELEVATION:

6,447' GR

LEASE #

SF-078765

MEASURED DEPTH: 6,350'

I. GEOLOGY:

Surface formation - San Jose

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

| Name | TVD | MD | Name | TVD | MD |
|-----------------|-------|-------|---------------|-------|-------|
| Ojo Alamo | 2,441 | 2,556 | Cliff House | 5,471 | 5,615 |
| Kirtland | 2,546 | 2,667 | Menefee | 5,516 | 5,660 |
| Fruitland | 3,041 | 3,180 | Point Lookout | 5,731 | 5,875 |
| Pictured Cliffs | 3,251 | 3,393 | Mancos | 6,046 | 6,190 |
| Lewis | 3,531 | 3,674 | TD | 6,206 | 6,350 |

- B. MUD LOGGING PROGRAM: none
- C. LOGGING PROGRAM: Cased Hole logs only
- D. NATURAL GAUGES: Gauge any noticeable increases in gas flow. Record all gauges in Tour book and on morning reports.

II. DRILLING:

- A. MUD PROGRAM: Clear water with benex to 7" casing point. Convert to a LSND mud to log and run pipe. Treat for lost circulation as necessary. Obtain 100% returns prior to cementing. Notify Engineering of any mud losses. Use air w/Air Hammer from 7 in. csg.to TD.
- B. BOP TESTING: 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 BOPE will be tested to 250 psi (Low) for 5 minutes and 1500 psi (High) for 10 minutes. Utilize a BOPE Testing Unit with a recording chart and appropriate test plug for testing. The drum brakes will be inspected and tested each tour. All tests and inspections will be recorded in the tour book as to time and results.

III. MATERIALS

A. CASING PROGRAM:

| CASING TYPE | OH SIZE (IN) | DEPTH (| MD) (FT) | CASING SIZE (IN) | WEIGHT(LB) | GRADE |
|--------------|--------------|---------|----------|------------------|------------|-------|
| Surface | 12 1/4 | 300 | | 9 5/8 | 36 | K-55 |
| Intermediate | 8 3/4 | 3,870 | | 7 | 20 | K-55 |
| Liner | 6 1/4 | 3,770 | 6,350 | 4 1/2 | 10.5 | J-55 |

B. FLOAT EQUIPMENT:

- 1. <u>SURFACE CASING:</u> 9-5/8" notched regular pattern guide shoe. Run (1) standard centralizer on each of the bottom (3) joints of Surface Casing.
- 2. INTERMEDIATE CASING: 7" cement nose guide shoe with a self-fill insert float. Place float collar one joint above the shoe. Install (1) Turbulent centralizer on each of the bottom (3) joints and one standard centralizer every (3) joints to 2,500 ft. Run (1) Turbulent centralizer at 2,700 ft., 2,500 ft., 2,300ft., 2,000ft., 1,500 ft., and 1,000 ft. (NTL-FRA 90-1).
- 3. <u>PRODUCTION CASING:</u> 4-1/2" whirler type cement nose guide shoe with a latch collar on top of 20' bottom joint. Place marker joint above 5,400'. Place centralizers as needed across selected production intervals.

IV. <u>CEMENTING:</u>

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

- 1. SURFACE: Slurry: 150sx (205 cu.ft.) of "Type III" + 2% CaCl₂ + ¼ # of cello-flake/sk (Yield = 1.39 cu.ft./sk, Weight = 14.5 #/gal.). The 100% excess should circulate cement to the surface. WOC 12 hours. Test csg to 1500psi.
- 2. <u>INTERMEDIATE</u>: Lead 490 sx (1023) cu.ft.) of "Premium Light" with 8% gel, 1% CaCl₂ and 1/4# cello-flake/sk (Yield = 2.09 cu.ft./sk, Weight = 12.1 #/gal.). Tail 50 sx (70cu.ft.) of "Type III" with 1/4# cello-flake/sk (Yield = 1.4 cu.ft./sk, Weight = 14.5#/gal.). Use 100% excess in Lead Slurry to circulate to surface. No excess in Tail Slurry. Total volume = 1,093 cu.ft. Bump Plug to 1,500 psi. Notify engineering if cement is not circulated to surface.
- 3. PRODUCTION LINER: 10 bbl Gelled Water spacer. Cement: 155 sx (330 ft³) of Premium Light HS + 1% FL-52 + .2% CD-32, 0.1% R-3, 3 #/sk CSE, ¼ #/sk cello flake and 4% Phenoseal. (Yield = 2.15 ft³/sk, Weight = 12.3 #/gal.). Displace cement at a minimum of 8 BPM. The 20% excess in lead and tail should cover 100 ft into intermediate casing. Total volume 330 ft³. WOC 12 hours

V. IV COMPLETION

A. CBL

1. Run Cement Bond Log across all intervals to be perforated and find Top of Cement behind all casing strings if cement is not circulated to surface.

Well Control Equipment Schematic for 2M Service

Attachment to Drilling Technical Program

Exhibit #1 Typical BOP setup

