

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

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/>		7. UNIT AGREEMENT NAME <i>Rosa Unit</i>	
1b. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/> SINGLE ZONE <input type="checkbox"/> MULTIPLE ZONE <input checked="" type="checkbox"/>		8. FARM OR LEASE NAME, WELL NO <i>5 B</i>	
2. NAME OF OPERATOR <i>Williams Production Company</i>		9. API WELL NO <i>30-039-26927</i>	
3. ADDRESS OF OPERATOR <i>c/o Walsh Engineering 7415 E. Main St., Farmington, NM 87402 (505) 327-4892</i>		10. FIELD AND POOL OR WILDCAT <i>Blanco Mesa Verde DK</i>	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)* <i>At Surface 715' FNL and 1835' FEL</i> <i>At proposed Prod. Zone</i>		11. SEC., T., R., M., OR BLK AND SURVEY OR AREA <i>B Sec. 26, T31N, R6W</i>	
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* <i>24.5 miles NE of Blanco, NM</i>		12. COUNTY OR PARISH <i>Rio Arriba</i>	13. STATE <i>NM</i>
15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) <i>715'</i>	16. NO. OF ACRES IN LEASE <i>2560.00</i>	17. NO. OF ACRES ASSIGNED TO THIS WELL <i>320</i>	
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR PLUGGED FOR ANOTHER WELL <i>1000'</i>	19. PROPOSED DEPTH <i>8051'</i>	20. ROTARY OR CABLE TOOL LOGS <i>Rotary</i>	
21. ELEVATIONS (Show whether DEEPENING or PLUG BACK) <i>6309'</i>		22. APPROX DATE WORK WILL START* <i>April 1, 2002</i>	
23. PROPOSED CASING AND CEMENTING PROGRAM			
SIZE OF HOLE	SIZE OF CASING	WEIGHT/FOOT	SETTING DEPTH
<i>14-3/4"</i>	<i>10-3/4"</i>	<i>32.75#</i>	<i>+/- 250'</i>
<i>9-7/8"</i>	<i>7-5/8"</i>	<i>26.4#</i>	<i>+/- 3606'</i>
<i>6-3/4"</i>	<i>5-1/2"</i>	<i>17.0#</i>	<i>+/- 8051'</i>
QUANTITY OF CEMENT			
<i>~313 cu.ft. Type III with 2% CaCl₂</i>			
<i>~1195 cu.ft. 65/35 poz & ~354 cu.ft. Type</i>			
<i>~546 cu.ft. Prem. Lite HS w/ additives</i>			

Williams Production Company proposes to drill a vertical well to develop the Mesa Verde and Dakota formations at the above described location in accordance with the attached drilling and surface use plans.

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 BLM road and pipeline right-of-ways. This well will require approximately 600' on new road. The new access will originate from the Rosa Unit #5Y well pad which is accessed by an existing road that runs in the through the NE/NE of section 26 T31N, R6W, where it joins the main "Rosa Road" in the NW NW of section 25, T32N, R6W.

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. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24. SIGNED *[Signature]* TITLE *John C. Thompson, Agent* DATE *1/30/02*

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE *3/22/02*

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

CONDITIONS OF APPROVAL, IF ANY _____

APPROVED BY _____ TITLE _____ DATE _____

***See Instructions On Reverse Side**

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.

NAI000

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

State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-102
Revised February 21, 1994

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

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

OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

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

☐ AMENDED REPORT

District IV
PO Box 2088, Santa Fe, NM 87504-2088

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30039-26927		*Pool Code 72319 / 71599	*Pool Name Blanco Mesaverde / Basin Dakota
*Property Code 17033	*Property Name ROSA UNIT		*Well Number 5B
*GRID No. 120783	*Operator Name WILLIAMS PRODUCTION COMPANY		*Elevation 6309'

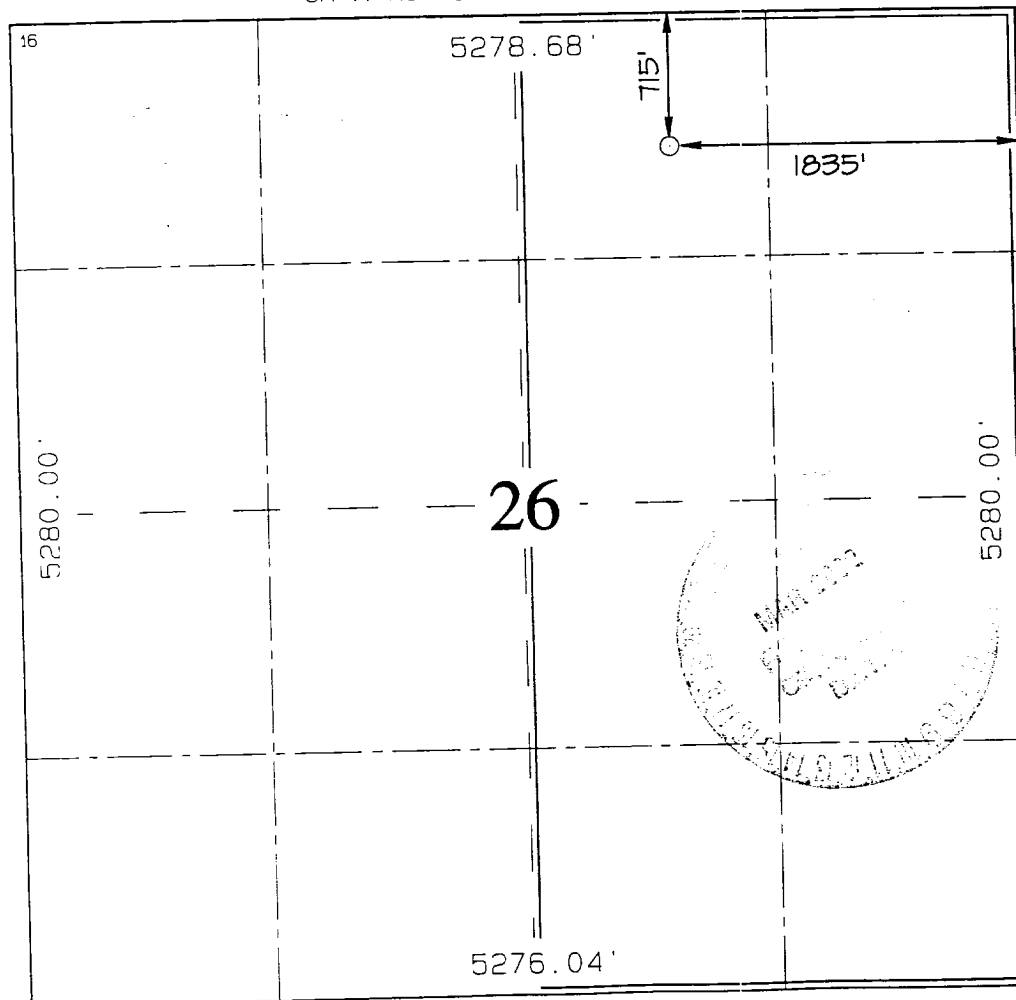
¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
8	26	31N	6W		715	NORTH	1835	EAST	RIO ARriba

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
¹² Dedicated Acres 320 Acres (E/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



¹⁷ OPERATOR CERTIFICATION

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

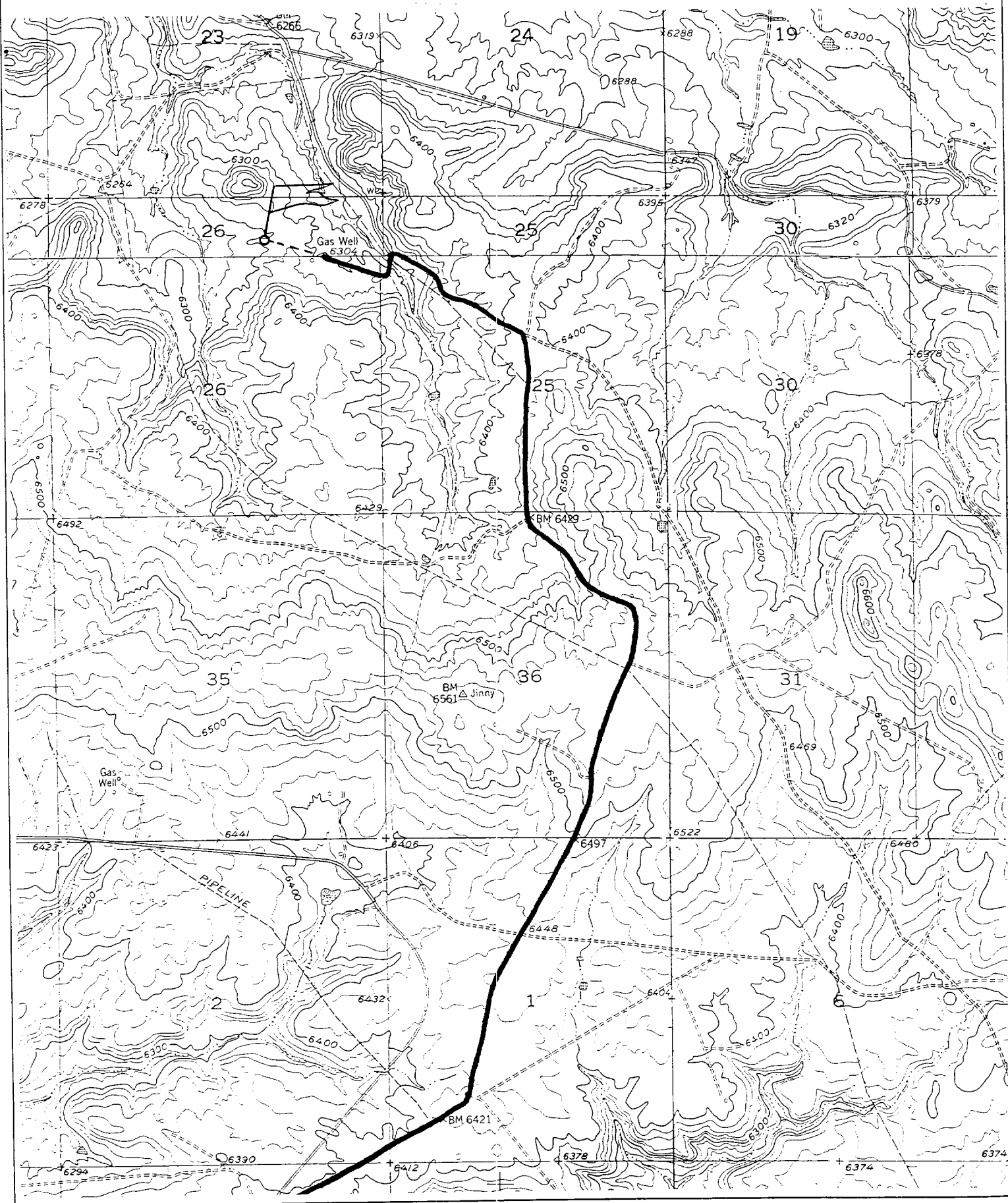
John C. Thompson
Signature
John C. Thompson
Printed Name
Agent
Title
1/19/02
Date

¹⁸ SURVEYOR CERTIFICATION

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 belief.

MAY 31, 2001
Date of Survey
Signature and Seal of Professional Surveyor
NEALE C. EDWARDS
NEW MEXICO
6857
Certificate No. 6857

WILLIAMS PRODUCTION COMPANY ROSA UNIT #5B
715' FNL 1835' FEL, SECTION 26, T31N, 10W, N.M.P.M.
RIO ARriba COUNTY, NEW MEXICO





WILLIAMS PRODUCTION COMPANY

OPERATIONS PLAN

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

DATE: 1/28/2002

WELL NAME: Rosa Unit 5B **FIELD:** Basin Blanco MV/DK

SURFACE LOCATION: NW/4 NE/4 Sec. 26- T31N-R6W **SURFACE:** BLM
La Plata, CO

ELEVATION: 6309' GR **MINERALS:** BLM

LEASE # SF-078771

MEASURED DEPTH: 8051'

I. GEOLOGY: Surface formation - San Jose

A. FORMATION TOPS: (KB)

	<u>MD</u>		<u>MD</u>
Ojo Alamo	2371'	Mancos sh	5926'
Kirtland sh	2481'	Gallup ss	6886'
Fruitland cl	2881'	Greenhorn ls	7621'
Pictured Cliffs ss	3131'	Graneros sh	7671'
Lewis sh	3446'	Dakota ss	7801'
Cliff House ss	5316'		
Menefee	5356'		
Point Lookout ss	5546'	Total Depth	8051'

B. LOGGING PROGRAM: IND/GR/TEMP from TD to the Intermediate Casing Shoe.
DEN/Neutron/GR (selected intervals by on-site Geologist). *Subject to change as wellbore conditions dictate.*

C. NATURAL GAUGES: Gauge any noticeable increases in gas flow. Gauge well @ 5800' and before TOH for logs @ 7954'. Record all gauges in Tour book and on morning reports.

II. DRILLING

A. MUD PROGRAM: Clear water with benex to 7" casing point. LSND to log and run pipe.
Treat for lost circulation as necessary. Obtain 100% returns prior to cementing. Notify Engineering of any mud losses.

B. BOP TESTING: While drill pipe is in use, the pipe rams will be function tested not less than once each day. 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 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:

<u>CASING TYPE</u>	<u>HOLE SIZE</u>	<u>DEPTH</u>	<u>CASING SIZE</u>	<u>WT. & GRADE</u>
Surface	14-3/4"	+/- 250'	10-3/4"	32.75# H-40
Intermediate	9-7/8"	+/-3606'	7-5/8"	26.4# K-55
Prod. Casing	6-3/4"	+/- 8051'	5-1/2"	17.0# N-80

B. FLOAT EQUIPMENT:

1. SURFACE CASING: 10-3/4" notched regular pattern guide shoe. Run (1) Standard centralizer on each of the bottom (3) Joints.
2. INTERMEDIATE CASING: 7-5/8" 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 1500' to the surface. Total centralizers (5 regular and 13 turbulent).
3. PRODUCTION CASING: 5-1/2" whirler type cement nose guide shoe with a latch collar on top of 20' bottom joint. Place 20' marker joint on top of 10 th joint and one above 5100'.

C. CEMENTING:

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

1. SURFACE: Use 230sx (313cu.ft.) of class "Type III" with 2% CaCl₂ and 1/4# of cello-flake/sk (Yield = 1.39 cu.ft./sk, Weight = 14.5 #/gal.). 125% excess to circulate the surface. WOC 12 hours. Test to 1500#.
2. INTERMEDIATE: Lead: 575sx (1195cu.ft.) of class "Premium Lite" 65/35, Type III/Poz with 8% gel and 1/4# cello-flake/sk (Yield = 2.09 cu.ft./sk, Weight = 12.1 #/gal.). Tail: 255sx (354cu.ft.) of class "Type III" with 1/4# cello-flake/sk (Yield = 1.39 cu.ft./sk, Weight = 14.5#/gal.). 100% excess in lead and tail to circulate to surface. Total volume = 1549 cu.ft. WOC 12 hours. Run a temperature survey after 8 hours if cement is not circulated.
3. PRODUCTION CASING: 30 sks Scavenger of Premium Light HS + 1% FL-52 + .2% CD-32 + .25 #/sk Celloflake + 4% Phenoseal + .3% R3. (Weight = 11 #/gal.). **Cement Slurry:** 290 sx (546 ft³) of Premium Light HS + 1% FL-52 + .2% CD-32 + .25 #/sk Celloflake + 4% Phenoseal + .3% R3. (Yield = 1.99 ft³/sk, Weight = 12.5 #/gal.). Displace cement at a minimum of 8 BPM. Use 50% excess in calculation to raise cement 100' into intermediate casing. Total volume 569ft³. WOC 12 hours.

Walsh Engineering & Production

Well Control Equipment Schematic for 2M Service

Attachment to Drilling Technical Program

Typical BOP setup

Location: San Juan Basin, New Mexico

Date: August 20, 2001
By: John Thompson

