

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

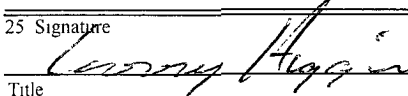
FORM APPROVED  
OMB No 1004-0136  
Expires January 31, 2004

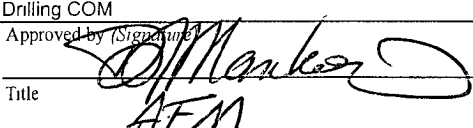
1a Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No Jicarilla Apache Contract #93
1b Type of Well <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other		6 If Indian, Allottee or Tribe Name Jicarilla Apache Nation
2 Name of Operator Williams Production Company, LLC		7 If Unit or CA Agreement, Name and No
3a Address P O Box 640, Aztec, NM 87410	3b Phone No (include area code) (505) 634-4208	8 Lease Name and Well No Jicarilla 93 #13
4 Location of Well (Report location clearly and in accordance with any State requirements *) At surface 660' FSL & 1970 FWL At proposed prod zone same		9. API Well No. 30-039-30101
14 Distance in miles and direction from nearest town or post office* 16 miles NE of Lindrieth, NM		10 Field and Pool, or Exploratory Blanco MV
15 Distance from proposed* location to nearest property or lease line, ft (Also to nearest drg unit line, if any) 660'	16 No. of Acres in lease 320	11 Sec., T., R., M., or Blk. and Survey or Area N Sec 32, T27N, R3W
18 Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft 2200'	19. Proposed Depth 6580'	12 County or Parish Rio Arriba
21 Elevations (Show whether DF, KDB, RT, GL, etc) 7256' GR	22. Approximate date work will start* February 1, 2006	13 State NM
23 Estimated duration 1 month		

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No 1, shall be attached to this form

- |  |  |
|--|--|
| 1 Well plat certified by a registered surveyor.  | 4 Bond to cover the operations unless covered by an existing bond on file (see Item 20 above)    |
| 2 A Drilling Plan  | 5 Operator certification   |
| 3 A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office). | 6 Such other site specific information and/or plans as may be required by the authorized officer |

25 Signature 	Name (Printed/Typed) Larry Higgins	Date 11-1-06
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Drilling COM Approved by (Signature) 	Name (Printed/Typed) AFM	Date 12/1/08
Title AFM	Office FFO	

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, are attached

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make 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

\*(Instructions on reverse)

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

The surface is located on Jicarilla Apache Nation lands.

This location has been archaeologically surveyed by Velarde Energy.

3144.9 foot pipeline tie would be required for this location and it is also located on Jicarilla Apache Nation lands

3020' new access road will be needed to access this well

A COMPLETE C-144 MUST BE SUBMITTED TO AND APPROVED BY THE NMOC FOR: A PIT, CLOSED LOOP SYSTEM, BELOW GRADE TANK, OR PROPOSED ALTERNATIVE METHOD, PURSUANT TO NMOC PART 19.15 17, PRIOR TO THE USE OR CONSTRUCTION OF THE ABOVE APPLICATIONS.

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

NOTIFY AZTEC OGD 24 HRS.  
PRIOR TO CASING & CEMENT

DEC 05 2008

OW

NMOC

This action is subject to technical and procedural review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4

RCVD DEC 4 '08  
OIL CONS. DIV.

DIST. 3

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

☐ AMENDED REPORT

RECEIVED

OTO FARMINGTON NM

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30039-30101	*Pool Code 72319	*Pool Name BLANCO MESAVERDE
*Property Code 17029	*Property Name JICARILLA 93	*Well Number 13
*GRID No. 120782	*Operator Name WILLIAMS PRODUCTION COMPANY	*Elevation 7256'

<sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	32	27N	3W		660	SOUTH	1970	WEST	RIO ARriba

<sup>11</sup> 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
<sup>12</sup> Dedicated Acres 320.0 Acres - (W/2)					<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> 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

<sup>16</sup>  Jicarilla Contract #93 5280.00' 1970' 660' 5273.40' 32 5280.00'	<sup>17</sup> OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief   Signature LARRY HIGGINS Printed Name DRILLING COM Title 11-1-06 Date
	<sup>18</sup> 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. Survey Date: FEBRUARY 7, 2005 Signature and Seal of Professional Surveyor  JASON C. EDWARDS Certificate Number 15269



## WILLIAMS PRODUCTION COMPANY

### Operations Plan

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

**DATE:** 10/25/2006 **FIELD:** Blanco MV  
**WELL NAME:** Jicarilla 93 #13 **SURFACE:** BOIA  
**BH LOCATION:** SESW Sec 32-27N-3W **MINERALS:** Jicarilla #93  
Rio Arriba, NM  
**ELEVATION:** 7,256' GR **LEASE #** Jicarilla #93  
**MEASURED DEPTH:** 6,580'

I. **GEOLOGY:** Surface formation - San Jose

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

Name	MD	Name	MD
Nacimiento	2,355	Cliff House	5,680
Ojo Alamo	3,480	Menefee	5,810
Kirtland	3,695	Point Lookout	6,130
Fruitland	3,775	Mancos	6,395
Picture Cliffs	3,985	TD	6,580
Lewis	4,210		
Huerfanito Bentonite	4,485		

B. **MUD LOGGING PROGRAM:** Mud log from 500' above Ojo Alamo SS to intermediate casing point.

C. **LOGGING PROGRAM:** High Resolution Induction log from surface casing to TD. SDL/DSN/DSN over zones of interest. Onsite geologist will pick Density/Neutron log interval.

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	4,360	7	20	K-55
Liner	6 1/4	4,260 6,580	4 1/2	10.5	J-55

**B. FLOAT EQUIPMENT:**

1. SURFACE CASING: 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. PRODUCTION CASING: 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. CEMENTING:**

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

1. SURFACE: Slurry: 150sx (205 cu.ft.) of "Type III" + 2% CaCl<sub>2</sub> + 1/4 # 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. INTERMEDIATE: Lead - 560 sx (1170 cu.ft.) of "Premium Light" with 8% gel, 1% CaCl 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 = 1,240 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: 140 sx (298 ft<sup>3</sup>) of Premium Light HS + 1% FL-52 + .2% CD-32, 0.1% R-3, 3 #/sk CSE, 1/4 #/sk cello flake and 4% Phenoseal. (Yield = 2.15 ft<sup>3</sup>/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 298 ft<sup>3</sup>. 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.

B. PRESSURE TEST

1. Pressure test 7" & 4-1/2" casing to 3300# for 15 minutes.

C. STIMULATION

1. Perforate the Point Lookout as determined from the open hole logs.
2. Stimulate with approximately 9,300# of 14/30 LiteProp™ sand in slick water.
3. Isolate Point Lookout with a CIBP.
4. Perforate the Menefee/Cliff House as determined from the open hole logs.
5. Stimulate with approximately 9,300# of 14/30 LiteProp™ sand in slick water.
6. Test each zone before removing bridge plugs.

D. RUNNING TUBING

1. Mesa Verde: Run 2-3/8", 4.7#, J-55, EUE tubing with a SN (1.91" ID) on top of bottom joint. Land tubing approximately 25' above the bottom Point Lookout perforation.

*Gary Sizemore*  
for Gary Sizemore  
Sr. Drilling Engineer

# Well Control Equipment Schematic for 2M Service

Attachment to Drilling Technical Program

## Exhibit #1 Typical BOP setup

Location: San Juan Basin, New Mexico

Date: August 20, 2001

By: John Thompson (Walsh E&P)

