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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
Bureau of Land Management
Field Office

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a Type of Work <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. 701-06-0016
1b Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input checked="" type="checkbox"/> Multiple Zone		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. JAECO 28-3 #11
4 Location of Well (Report location clearly and in accordance with any State requirements *) At surface 1175' FNL and 770 FEL At proposed prod zone Same		9 API Well No. 30-039-30596
14. Distance in miles and direction from nearest town or post office* 24 miles NW from Lindrith, NM		10 Field and Pool, or Exploratory Blanco MV/Basin DK
15. Distance from proposed* location to nearest property or lease line, ft (Also to nearest drig unit line, if any) 770'	16 No. of Acres in lease 6000 +/-	11. Sec, T, R, M, or Blk. and Survey or Area H Section 20, T28N R3W
18 Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft 1 mile	19 Proposed Depth 8,644' 8781'	12 County or Parish Rio Arriba
21 Elevations (Show whether DF, KDB, RT, GL, etc) 7,237' GR	22. Approximate date work will start* January 1, 2009	13 State NM
23. Estimated duration 1 month		17. Spacing Unit dedicated to this well 320 (E/2)
24. Attachments		20. BLM/BIA Bond No. on file B001576
The following, completed in accordance with the requirements of Onshore Oil and Gas Order No 1, shall be attached to this form.		23. Estimated duration 1 month

RCVD FEB 4 '09
OIL CONS. DIV.
DIST. 3

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

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

25. Signature <i>Larry Higgins</i>	Name (Printed/Typed) Larry Higgins	Date 11-26-08
Title Drilling COM		
Approved by (Signature) <i>[Signature]</i>	Name (Printed/Typed) AFM	Date 2/4/09
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/Basin Dakota 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

A 5,597 3' foot pipeline tie would be required for this location and it is also located on Jicarilla Apache Nation Lands

Improvement of approximately 5600' of existing 2-track road will be needed to access this well

NOTIFY AZTEC OCD 24 HRS.
PRIOR TO CASING & CEMENT

FEB 12 2009

NMOC

[Signature]

[Signature]

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

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised October 12, 2005
Submit to Appropriate Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30039-305960		² Pool Code 72319/71599		³ Pool Name BLANCO MESAVERDE/BASIN DAKOTA	
⁴ Property Code 37575		⁵ Property Name JAECO - WPX 28-3			⁶ Well Number #11
⁷ OGRID No. 120782		⁸ Operator Name WILLIAMS PRODUCTION COMPANY			⁹ Elevation 7237

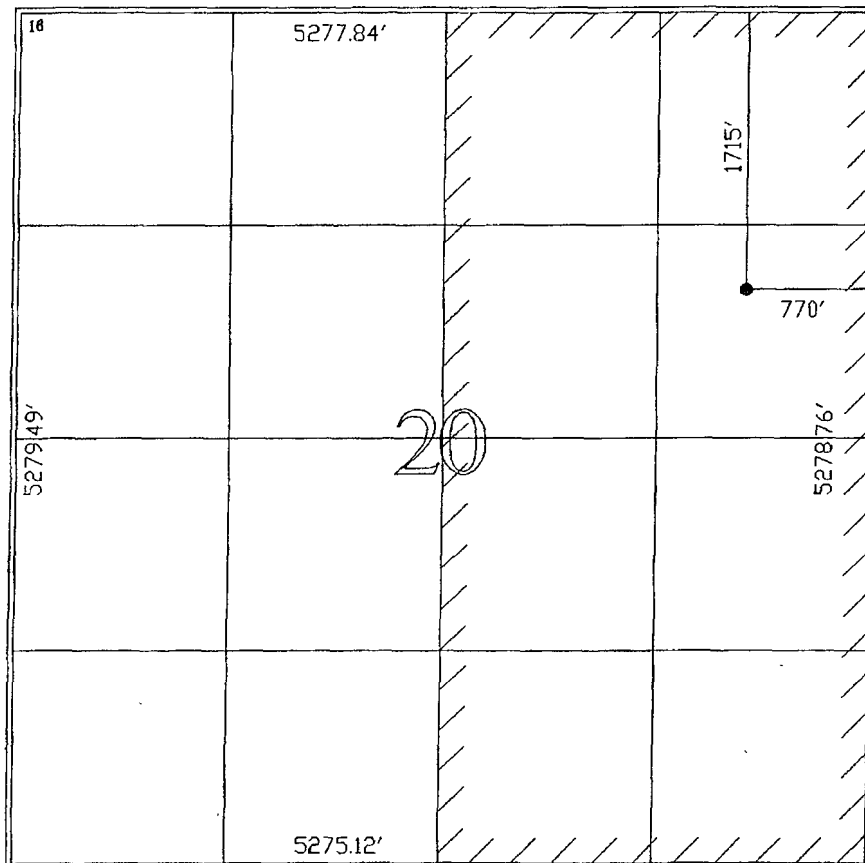
¹⁰ Surface Location

UL or Lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	20	28N	3W	1715		NORTH	770	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 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.

<div>16</div> 	<div>17 OPERATOR CERTIFICATION</div> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</p> <p><i>Larry Higgins</i> 2-6-09 Signature Date <i>LARRY HIGGINS</i> Printed Name</p>
	<div>18 SURVEYOR CERTIFICATION</div> <p>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 the same is true and correct to the best of my belief.</p> <p>MAY 25, 2007 Date of Survey Signature and Seal of Professional Surveyor <i>Cecil B. Tullis</i> Certificate Number 9672 NEW MEXICO REGISTERED PROFESSIONAL LAND SURVEYOR</p>



WILLIAMS PRODUCTION COMPANY

Operations Plan

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

DATE: 11/18/2008 **FIELD:** Basin DK/ BlancoMV
WELL NAME: JAECO 28-3 20 #11 **SURFACE:** Jicarilla Apache
BH LOCATION: SENE Sec 20-28N-3W **MINERALS:** BLM
Rio Arriba, NM
ELEVATION: 7,237' GR **LEASE #**
MEASURED DEPTH: 8,781'

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

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

Name	MD	Name	MD
Nacimiento	2,401	Menefee	6,006
Ojo Alamo	3,581	Point Lookout	6,271
Kirtland	3,741	Mancos	6,576
Fruitland	3,741	Gallup	7,341
Pictured Cliffs	3,951	Greenhorn	8,246
Lewis	4,231	Graneros	8,311
Cliff House	5,946	Dakota	8,456
		Morrison	8,681
		TD	8,781

- B. **MUD LOGGING PROGRAM:** Mudlogger on location at surface csg to TD, Mud logger will pick TD.
- C. **LOGGING PROGRAM:** HRI from surface casing to TD. SDL\DSN\DMSEN over zones of interest.
- 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:** Use a LSND mud (+/-40 Vis.) to drill 9-7/8 in. Intermediate Hole. Increase vis to +/-60 to run Casing. Treat for lost circulation as necessary. Obtain 100% returns prior to cementing. Notify Engineering of any mud losses. Use air w/Air Hammer w/ 6-3/4 in. bit to drill-out 7-5/8 in. csg. to TD +/- 8,511 ft.
- 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	14 3/4	300	10 3/4	40.5	K-55
Intermediate	9 7/8	4,421	7 5/8	26.4	K-55
Longstring	6 3/4	8,781	5 1/2	17	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 (4) joints of Surface Casing.
2. INTERMEDIATE CASING: 7 5/8" 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 LINER / CASING: 5-1/2" 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.

C. CEMENTING:

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

1. SURFACE: Slurry: 255sx (356 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. INTERMEDIATE: Lead - 710 sx (1,484 cu.ft.) of "Premium Light with 8% gel and 1/4# cello-flake/sk (Yield = 2.09 cu.ft./sk, Weight = 12.1 #/gal.). Tail - 100 sx (139cu.ft.) of "Type III" with 1/4# cello-flake/sk, (Yield = 1.4 cu.ft./sk, Weight = 14.5#/gal.). **70% EXCESS IN LEAD PUMP AS WRITTEN No excess in Tail Slurry.** Total volume = 1,623 cu.ft. Bump Plug to 1,500 psi. Notify engineering if cement is not circulated to surface.
3. PRODUCTION CASING: 10 bbl Gelled Water space. Cement: 210 sx (442 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 slurry should cover 100 ft into intermediate casing. Total volume 442ft³. WOC 12 hours

IV. 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 not circulated to surface..

B. PRESSURE TEST

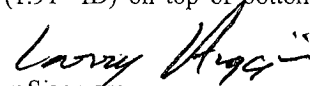
1. Pressure test 5-1/2" casing to 6000 psi max, hold at 1500 psi for 30 minutes.

C. STIMULATION

1. Stimulate Dakota with approximately 10,000# of LiteProp 108™ sand in slick water..
2. Isolate Dakota with a RBP.
3. Stimulate Point Lookout with approximately 9300# of 14/30 LiteProp™ in slick water.
4. Isolate Point Lookout with a RBP.
5. Perforate the Menefee/Cliff House as determined from the open hole logs.
6. Stimulate with approximately 9300# of 14/30 LiteProp™ in slick water.
7. Test each zone before removing bridge plugs.

D. RUNNING TUBING

1. Dakota: Run 2-1/16", 3.25#, J-55, IJ tubing with 1/2 mule shoe on bottom, SN with pump-out plug on top of adeem joint and 5 Seal Units. Land tubing approximately 100' below top Dakota perf.
2. Mesa Verde: Run 2-1/16", 2.9#, J-55, EUE tubing with a SN (1.91" ID) on top of bottom joint. Land tubing approximately 25' above the bottom Point Lookout perforations.


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)

