

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

RECEIVED

JUN 07 2010

RCVD JUN 28 '12

OIL CONS. DIV.

FORM APPROVED
OMB No. 1004-0136 3
Expires January 31, 2004

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 #004
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface 2315' FSL & 1660' FWL At proposed prod zone Same		9. API Well No 30-039-30974
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/Basin MC
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest dng unit line, if any) 1472'	16. No. of Acres in lease 6000 +/-	11. Sec., T., R., M., or Blk. and Survey or Area K Section 28, T28N R3W
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft 1 mile	19. Proposed Depth 8366'	12. County or Parish Rio Arriba
21. Elevations (Show whether DF, KDB, RT, GL, etc) 6927' GR	22. Approximate date work will start* 11/1/2010	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.
2. A Drilling Plan.
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).

4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above)
5. Operator certification
6. 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 6/7/10
Title Drilling COM		
Approved by (Signature) <i>[Signature]</i>	Name (Printed/Typed) AFU	Date 6/26/12
Title AFU	Office FEO	

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/Basin Mancos 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 331.8' foot pipeline tie would be required for this location and it is also located on Jicarilla Apache Nation Lands

200' of new road will be needed to access this well

NOTIFY AZTEC OCD 24 HRS.
PRIOR TO CASING & CEMENT

NMOCD

JUL 10 2012

BLM'S APPROVAL OR ACCEPTANCE OF THIS ACTION DOES NOT RELIEVE THE LESSEE AND OPERATOR FROM OBTAINING ANY OTHER AUTHORIZATION REQUIRED FOR OPERATIONS ON FEDERAL AND INDIAN LANDS

A COMPLETE C-144 MUST BE SUBMITTED TO AND APPROVED BY THE NMOCD FOR: A PIT, CLOSED LOOP SYSTEM, BELOW GRADE TANK, OR PROPOSED ALTERNATIVE METHOD, PURSUANT TO NMOCD PART 19.15.17, PRIOR TO THE USE OR CONSTRUCTION OF THE ABOVE APPLICATIONS.

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 Bureau of Land Management

RECEIVED

Form C-102

Revised October 12, 2005

Submit to Appropriate Office

State Lease - 4 Copies

Fee Lease - 3 Copies

Farmington Field Office

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1AP Number 30-039-30976		2Pool Code 97232/72319/71599		3Pool Name BASIN MANCOS/BLANCO MESAVERDE/BASIN DAKOTA			
4Property Code 37575		5Property Name JAECO - WPX 28-3				6Well Number #4	
7OGED No. 120782		8Operator Name WILLIAMS PRODUCTION COMPANY				9Elevation 6927	

10Surface Location									
11 or Lot no.	Section	Township	Range	Lot 1/4	Feet from the	North/South line	Feet from the	East/West line	County
K	28	28N	3W		2315	SOUTH	1660	WEST	RIO ARriba

11Bottom Hole Location If Different From Surface									
11 or Lot no.	Section	Township	Range	Lot 1/4	Feet from the	North/South line	Feet from the	East/West line	County
12Dedicated Acres 320 W/2		13Joint or Infill		14Consolidation Code		15Order 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.

16		5281.21'		17 OPERATOR CERTIFICATION	
2638.03'		28		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 undivided 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.	
				Signature: <i>Larry Higgins</i> Date: 6-7-10	
1660'		2315'		Printed Name: LARRY HIGGINS	
2670.80'		2647.39'		18 SURVEYOR CERTIFICATION	
2631.90'				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.	
				NOVEMBER 11, 2008	
				Date of Survey	
				Signature of Surveyor: <i>Cecil B. Tullin</i>	
				NEW MEXICO REGISTERED PROFESSIONAL LAND SURVEYOR	
				Certificate Number: 9672	



WILLIAMS PRODUCTION COMPANY

Operations Plan

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

DATE: 11/12/2009 **FIELD:** Basin DK/ Basin MC/BlancoMV
WELL NAME: JAECO-WPX 28-3 #4 **SURFACE:** Jicarilla Apache
BH LOCATION: NESW Sec 28-28N-3W **MINERALS:** FEDERAL
Rio Arriba, NM
ELEVATION: 6,927' GR **LEASE #** 701-06-0016
MEASURED DEPTH: 8,366'

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

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

Name	MD	Name	MD
Nacimiento	1,986	Point Lookout	5,856
Ojo Alamo	3,166	Mancos	6,161
Kirtland	3,326	Gallup	6,926
Fruitland	3,326	Greenhorn	7,831
Pictured Cliffs	3,536	Graneros	7,896
Lewis	3,816	Dakota	8,041
Cliff House	5,531	Morrison	8,266
Menefee	5,591	TD	8,366

B. **MUD LOGGING PROGRAM:** Mudlogger on location from surface csg to TD. Mud logger to pick TD.

C. **LOGGING PROGRAM:** HRI from surface casing to TD. SDL\DSN 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 Water + Gel/Polymer sweeps to drill Surface hole. Convert to a LSLD - EZ-MUD system mud (+/-50 Vls.) 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 , Air Hammer and 6-3/4 in. Flat btm. bit to drill-out of 7-5/8 in. csg. and to TD well at +/- 8,366 ft. (MD).

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	4,066	7 5/8	26.4	K-55
Longstring	6 3/4	8,366	4 1/2	11.6	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: 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.

C. CEMENTING:

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

1. SURFACE: Slurry: 290sx (521 cu.ft.) of "Type III" + 2% Cal-Seal 60 + ¼ # of poly-e-flake/sk + 0.3% Versaset + 2% Econolite + 6% Salt (Yield = 1.796 cu.ft./sk, Weight = 13.5 #/gal.). The 100% excess should circulate cement to the surface. WOC 12 hours. Test csg to 600psi. for 30 minutes.
2. INTERMEDIATE: Lead - 525 sx (1430 cu.ft.) of "EXTENDACEM" + 5 #/sk pheno-seal + 5% Cal-Seal 60 (Yield = 2.723 cu.ft./sk, Weight = 11.5 #/gal.). Tail - 100 sx (117.8cu.ft.) of Premium cement + 0.125 #/sk Poly-E-Flake, (Yield = 1.178 cu.ft./sk, Weight = 15.6#/gal.). **NO EXCESS PUMP AS WRITTEN SHOULD CIRCULATE TO SURFACE** Total volume = 1547 cu.ft. Bump Plug to 1,500 psi. Notify engineering if cement is not circulated to surface. WOC 12 hours. Test Csg to 1500 psi for 30 minutes.
3. PRODUCTION CASING: 10 bbl Gelled Water spacer. Cement: 575 sx (804 ft³) of "FRACCEM" + 0.8% Halad-9 + 0.1% CFR-3 + 5 #/sk Gilsonite + 0.125 #/sk Poly-E-Flake + 0.15% HR-800. (Yield = 1.398 ft³/sk, Weight = 13.1 #/gal.). Displace cement at a minimum of 8 BPM. **NO EXCESS SHOULD COVER 150 FEET INTO 7-5/8" CASING** Total volume (804) ft³. WOC 12 hours. Casing will be tested at completion.

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 4-1/2" casing to 1500 psi for 30 minutes.

C. STIMULATION

1. Stimulate Dakota with approximately 5000# 100 mesh sand and 120,000# Ottawa Sand in slick water.
2. Isolate Dakota with a RBP.
3. Perforate Mancos as determined from the open hole logs
4. Stimulate Mancos with 3 stages of approximates 5000# 100 mesh sand and 150,000# 40/70 Ottawa sand
5. Stimulate Point Lookout with approximately 40,000# 20/40 Ottawa sand in slick water.
6. Isolate Point Lookout with a RBP.
7. Perforate the Menefee/Cliff House as determined from the open hole logs.
8. Stimulate with approximately 40,000# 20/40 Ottawa sand in slick water.
9. Test each zone before removing bridge plugs.

D. RUNNING TUBING

1. Production Tubing: 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


Brian Alleman
 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)

