

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

RCVD JAN 5 '07
OIL CONS. DIV
DIST. 3

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. 701-02-0014
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 26-3 16 #1 COM
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface 2300' FNL & 1450' FEL At proposed prod. zone same		9. API Well No. 30-039-30026
14. Distance in miles and direction from nearest town or post office* 16 miles from Lindrieth, NM		10. Field and Pool, or Exploratory Blanco MV/Basin Dakota
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 1450'	16. No. of Acres in lease 320	11. Sec., T., R., M., or Blk. and Survey or Area Section 16, T26N R3W
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 2800'	19. Proposed Depth 8,413'	12. County or Parish Rio Arriba
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 7,064' GR	22. Approximate date work will start* November 1, 2005	13. State NM
17. Spacing Unit dedicated to this well 320' F/L		
20. BLM/BIA Bond No. on file B001576		
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:

- 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 1. and 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 8-9-06
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Approved by (Signature) <i>D. Mankiewicz</i>	Name (Printed/Typed) D. Mankiewicz	Date 12/29/08
Title AFM	Office F&E	

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)

File application for pit permit on OGD Form C-103 prior to constructing location

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 4335.0 foot pipeline tie would be required for this location and it is also located on Jicarilla Apache Nation Lands.

625' of new access road will be needed to access this well.

NMOCD

8/8/07

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

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

RCVD JAN5'07

OIL CONS. DIV.

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

DIST. 3

Revised June 10, 2003

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

'API Number 30-039-30026	'Pool Code 72319/71599	'Pool Name BLANCO MESAVERDE / BASIN DAKOTA
'Property Code 36209 36247	'Property Name JAECO 26-3 16 Com	'Well Number 1001
'OGRID No. 120782	'Operator Name Williams Production JAECO Company, LLC	'Elevation 7064

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
G	16	26N	3W		2300	NORTH	1450	EAST	RIO ARriba

11 Bottom Hole Location If Different From Surface

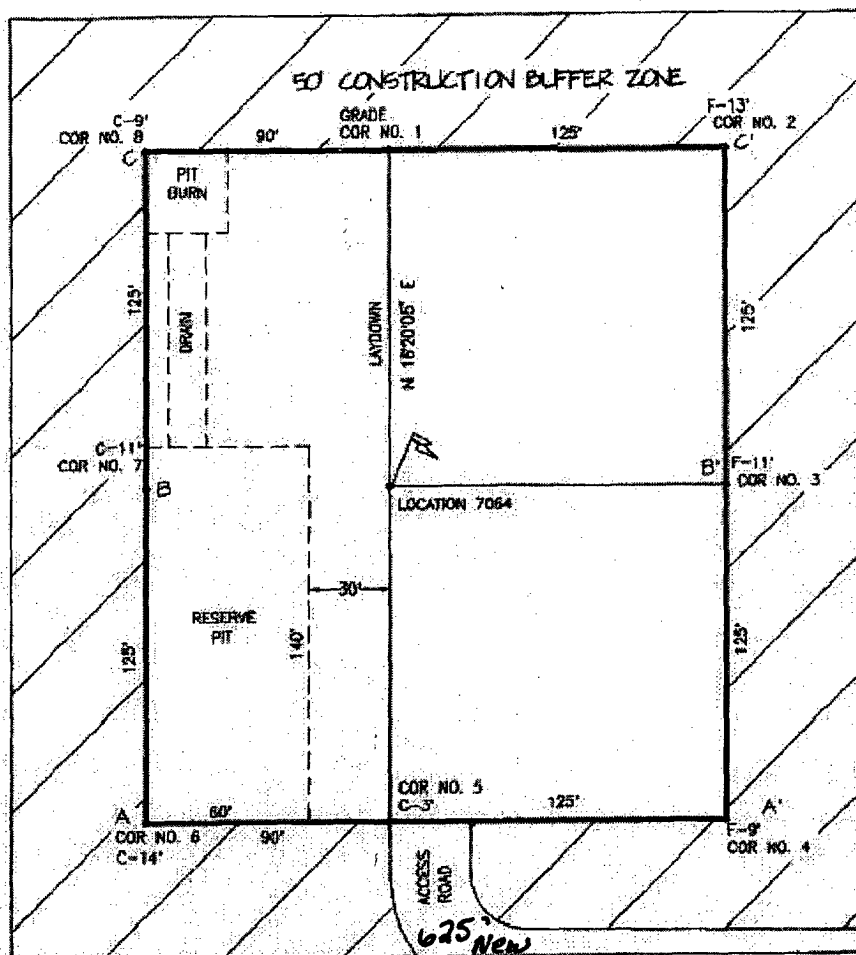
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

'Dedicated Acres E/2 320	'Joint or Infill	'Consolidation Code	'Order No.
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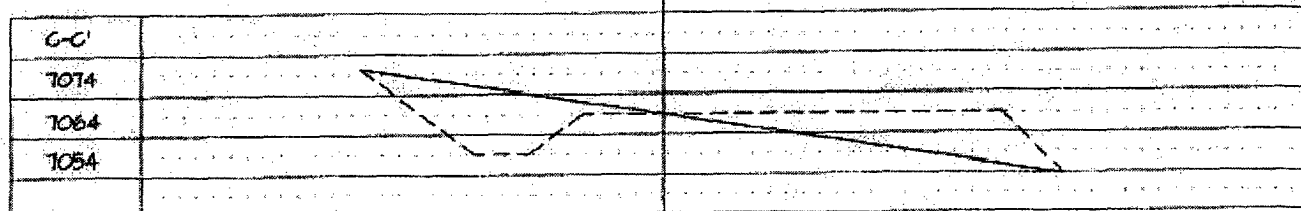
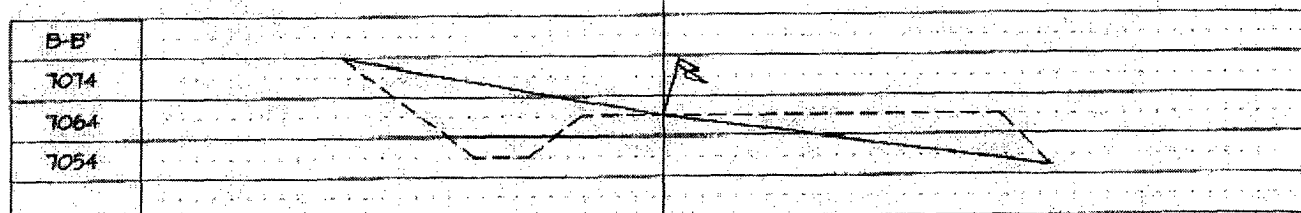
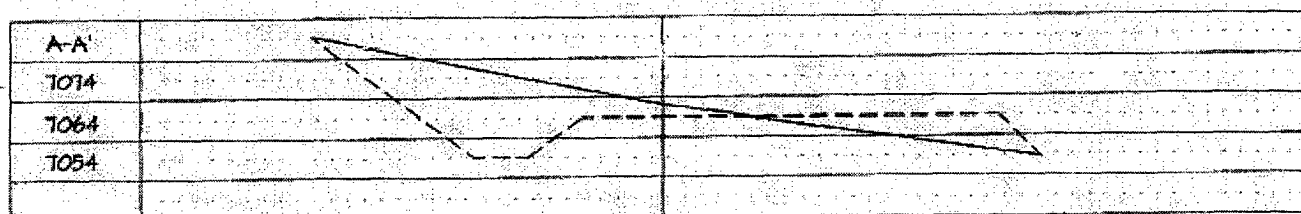
NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

5280.00	16	5284.84	2300'	1450'	5280.00	17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief. <i>Larry Higgins</i> Signature <i>LARRY HIGGINS</i> Printed Name <i>DRILLING COM</i> Title and E-mail Address <i>8-9-06</i> Date
	SECTION 16					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 2006 Date Signature and Seal of Professional Land Surveyor <i>9672</i> Certificate Number
	5284.25					

ELEVATION: 7064



LATITUDE: 36°29'15" N
LONGITUDE: 107°08'46" W
WGS 84
VERT. DATUM: NAD 1927





WILLIAMS PRODUCTION COMPANY

Operations Plan

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

<u>DATE:</u>	8/4/2006	<u>FIELD:</u>	BlancoMV/BasinDK
<u>WELL NAME:</u>	JAECO 26-3 16 #1Com	<u>SURFACE:</u>	BOIA
<u>BH LOCATION:</u>	SWNE Sec 16-26N-3W Rio Arriba, NM	<u>MINERALS:</u>	Jicarilla Apache
<u>ELEVATION:</u>	7,064' GR	<u>LEASE #</u>	MDA#701-02-0014
<u>MEASURED DEPTH:</u>	8,413'		

I. GEOLOGY: Surface formation - San Jose

A. FORMATION TOPS: (KB)

Name	MD	Name	MD
Nacimiento	2,313	Cliff House	5,393
Ojo Alamo	3,208	Menefee	5,508
Kirtland	3,413	Point Lookout	5,813
Fruitland	3,473	Mancos	6,108
Pictured Cliffs	3,668	Gallup	6,833
Lewis	3,853	Greenhorn	7,868
Huerfanito Bentonite	4,168	Graneros	7,933
		Dakota	7,978
		Morrison	8,313
		TD	8,413

B. MUD LOGGING PROGRAM: Mud log from 300' above Ojo Alamo to TD. Mud logger to pick TD.

C. LOGGING PROGRAM: HRI from surface casing to TD. SDL/DSN/DSEN over zones of interest. Onsite geologist to pick intervals.

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	14 3/4	300	10 3/4	32.75	H-40
Intermediate	9 7/8	4,083	7 5/8	26.4	K-55
Longstring	6 3/4	8,413	5 1/2	17	N-80

B. FLOAT EQUIPMENT:

- SURFACE CASING:** 10-3/4" notched regular pattern guide shoe. Run (1) standard centralizer on each of the bottom (3) joints of Surface Casing.
- 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).
- PRODUCTION 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.

IV. CEMENTING:

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

- SURFACE:** Slurry: 255sx (356 cu.ft.) of "Type III" + 2% CaCl₂ + 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.
- INTERMEDIATE:** Lead - 710 sx (1476) cu.ft.) of "Type III" 65/35 poz with 8% gel, 1% CaCl₂ 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, and 1% CaCl₂ (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 = 1,615 cu.ft. Bump Plug to 1,500 psi. Notify engineering if cement is not circulated to surface.
- PRODUCTION CASING:** 10 bbl Gelled Water space. Cement: 210 sx (443 ft³) 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 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 443ft³. 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 5-1/2" casing to 6000 psi for 15 minutes.

C. STIMULATION

1. Stimulate Dakota with approximately 70,000# of 20/40 sand in x-link foam.
2. Isolate Dakota with a RBP.
3. Stimulate Point Lookout with approximately 80,000# of 20/40 sand 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 80,000# of 20/40 sand 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