

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

5. Lease Serial No.
NMSF-078765

6. If Indian, Allottee or Tribe Name

7. If Unit or CA Agreement, Name and No.
Rosa Unit NMNM 078407A

8. Lease Name and Well No.
75C

9. API Well No.
30-039-29847

10. Field and Pool, or Exploratory
Blanco Mesaverde

11. Sec., T., R., M., or Blk. and Survey or Area
Lot 2
L Section 10, 31N, 6W

12. County or Parish
Rio Arriba

13. State
NM

17. Spacing Unit dedicated to this well
319.36
320.00 (W.2)

20. BLM/BIA Bond No. on file
470899

23. Estimated duration
1 month

24. Attachments

1a. Type of Work: ☒ DRILL ☐ REENTER

1b. Type of Well: ☐ Oil Well ☒ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone

2. Name of Operator
Williams Production Company, LLC

3a. Address
P.O. Box 640 Aztec, NM 87410

3b. Phone No. (include area code)
(505) 634-4208

4. Location of Well (Report location clearly and in accordance with any State requirements. *)
At surface Lot L: 1800' FSL & 705' FWL
At proposed prod. zone Lot K: 1650' FSL & 2295' FWL

14. Distance in miles and direction from nearest town or post office*
approximately 20 miles northeast of Blanco, New Mexico

15. Distance from proposed* location to nearest property or lease line, ft.
(Also to nearest drig. unit line, if any) 705'

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.
1000'

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
6,294' GR

16. No. of Acres in lease
2,460.25

19. Proposed Depth
6,562'

22. Approximate date work will start*
April 1, 2006

The following, completed in accordance with the requirements of Onshore Oil and Gas Act, 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 BLM/BIA 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
Larry Higgins
Name (Printed/Typed)
Larry Higgins
Date
3/15/06

Drilling COM
Approved by (Signature)
Name (Printed/Typed)
Office
Date
4/5/06

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would enable 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 Exploration and Production Company, LLC, proposes to drill a directional well to develop the Blanco Mesaverde formation at the above described location in accordance with the attached drilling and surface use plans.

The well pad surface is under jurisdiction of the Bureau of Reclamation, with minerals administered by the Bureau of Land Management, Farmington Field Office.

This location has been archaeologically surveyed by La Plata Archaeological Consultants. Copies of their report have been submitted directly to the BLM.

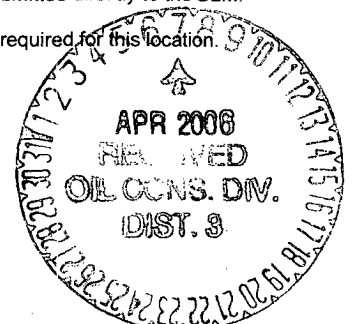
This APD is also serving as an application to obtain a pipeline right-of-way. An associated pipeline tie of 163.60 feet would be required for this location.

HOLD C104 FOR Directional Survey

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

NMOC



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

RECEIVED ☐ AMENDED REPORT
070 FARMINGTON NM

WELL LOCATION AND ACREAGE DEDICATION PLAT

| | | | | | |
|------------------------------------|--|---|--|--------------------------------|--|
| *API Number 30-039-29847 | | *Pool Code 72319 | | *Pool Name BLANCO MESAVERDE | |
| *Property Code 17033 | | *Property Name ROSA UNIT | | *Well Number 75C | |
| *OGRID No. 120782 | | *Operator Name WILLIAMS PRODUCTION COMPANY | | *Elevation 6294 | |

¹⁰ Surface Location

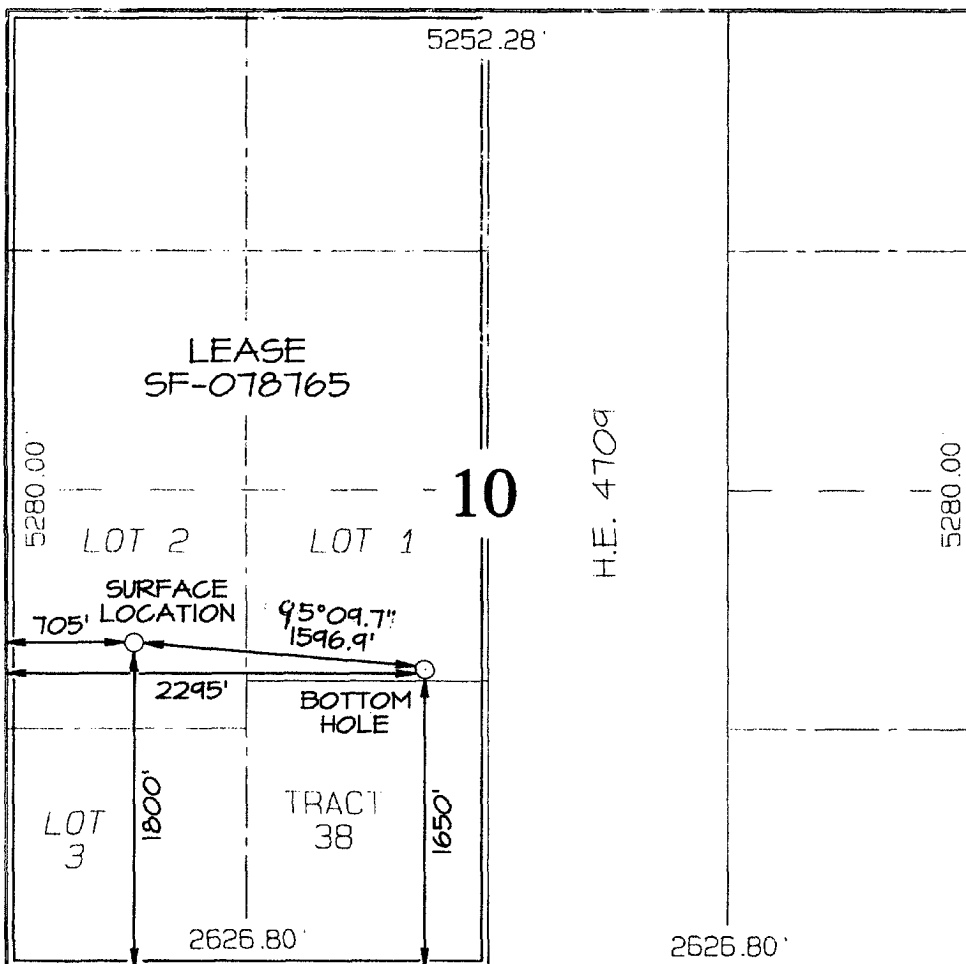

| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|----------|
| L | 10 | 31N | 6W | 2 | 1800 | SOUTH | 705 | WEST | SAN JUAN |

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 |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|----------|
| K | 10 | 31N | 6W | 1 | 1850 | SOUTH | 2295 | WEST | SAN JUAN |

| | | | |
|---|-------------------------------|----------------------------------|-------------------------|
| ¹² Dedicated Acres 320.0 ACRES - (W/2) 319.36 | 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

| | | |
|--|--|---|
|  | | <p>¹⁷ OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>Larry Higgins</i> Signature LARRY HIGGINS Printed Name DRILLING CO. INC. Title 3-15-06 Date</p> <p>¹⁸ SURVEYOR CERTIFICATION</p> <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 that the same is true and correct to the best of my belief.</p> <p>Survey Date: JANUARY 24, 2005</p> <p>Signature and Seal of Professional Surveyor</p> <p> JASON C. EDWARDS Certificate Number 15269</p> |
|--|--|---|

Submit 3 Copies To Appropriate District Office
District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Ave., 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 and Natural Resources

Form C-103
May 27, 2004

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

| |
|--|
| WELL API NO. 30-039-29847 |
| 5. Indicate Type of Lease FEDERAL X STATE <input type="checkbox"/> FEE <input type="checkbox"/> |
| 6. State Oil & Gas Lease No. NMSF-078765 |
| 7. Lease Name or Unit Agreement Name Rosa |
| 8. Well Number 75C |
| 9. OGRID Number 120782 |
| 10. Pool name or Wildcat Blanco Mesaverde |

| | |
|---|--|
| SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.) | |
| 1. Type of Well: Oil Well <input type="checkbox"/> Gas Well <input checked="" type="checkbox"/> Other | |
| 2. Name of Operator Williams Production Company, LLC | |
| 3. Address of Operator P.O. Box 640, Aztec, NM | |
| 4. Well Location Unit Letter L : 1800 feet from the S line and 705 feet from the W line Section 10 Township 31N Range 06W NMPM County Rio Arriba | |
| 11. Elevation (Show whether DR, RKB, RT, GR, etc.) 6294' GR | |
| Pit or Below-grade Tank Application <input checked="" type="checkbox"/> or Closure <input type="checkbox"/> | |
| Pit type Drilg/Completion Depth to Groundwater >100 ft Distance from nearest fresh water well >1000 ft Distance from nearest surface water >500 ft | |
| Pit Liner Thickness: 12 mil Below-Grade Tank: Volume bbbs Construction Material Construction Material | |

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

| | | | |
|--|---|--|--|
| NOTICE OF INTENTION TO: | | SUBSEQUENT REPORT OF: | |
| PERFORM REMEDIAL WORK <input type="checkbox"/> | PLUG AND ABANDON <input type="checkbox"/> | REMEDIAL WORK <input type="checkbox"/> | ALTERING CASING <input type="checkbox"/> |
| TEMPORARILY ABANDON <input type="checkbox"/> | CHANGE PLANS <input type="checkbox"/> | COMMENCE DRILLING OPNS. <input type="checkbox"/> | P AND A <input type="checkbox"/> |
| PULL OR ALTER CASING <input type="checkbox"/> | MULTIPLE COMPL <input type="checkbox"/> | CASING/CEMENT JOB <input type="checkbox"/> | |
| OTHER: <input type="checkbox"/> | | OTHER: <input type="checkbox"/> | |

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Drilling/Completion pit to be located approximately 50 to 75 feet from well head. Pit multi-use drilling and completion to avoid additional site disturbance and pit will be considered out of service once production tubing set. Pit to be constructed, operated and closed in accordance with NMOCD guidelines and Williams procedures.

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that any pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☒, a general permit ☐ or an (attached) alternative OCD-approved plan ☐.

SIGNATURE Michael K. Lane TITLE EH&S Specialist DATE 3/15/06

Type or print name Michael K. Lane E-mail address: myke.lane@williams.com Telephone No. 505-634-4219

For State Use Only

APPROVED BY: [Signature] TITLE DEPUTY OIL & GAS INSPECTOR, DIST. #2 DATE APR 07 2006
Conditions of Approval (if any):



WILLIAMS PRODUCTION COMPANY

Operations Plan

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

| | | | |
|-------------------------------|-------------------------------------|-------------------------|-----------|
| <u>DATE:</u> | 3/15/2006 | <u>FIELD:</u> | Blanco MV |
| <u>WELL NAME:</u> | Rosa #75C | <u>SURFACE:</u> | BOR |
| <u>BH LOCATION:</u> | NESW Sec 10-31N-06W San Juan, NM | <u>MINERALS:</u> | BLM |
| <u>SURF. LOCATION:</u> | NWSW Sec 10-31N-06W | | |
| <u>ELEVATION:</u> | 6,294' GR | <u>LEASE #</u> | FEE/Fed |
| <u>MEASURED DEPTH:</u> | 6,562' | | |

I. GEOLOGY: Surface formation - San Jose

A. FORMATION TOPS: (KB)

| Name | TVD | MD | Name | TVD | MD |
|----------------|-------|-------|---------------|-------|-------|
| Ojo Alamo | 2,303 | N/A | Cliff House | 5,333 | 5,830 |
| Kirtland | 2,408 | 2,843 | Menefee | 5,378 | 5,875 |
| Fruitland | 2,903 | 3,389 | Point Lookout | 5,593 | 6,090 |
| Picture Cliffs | 3,113 | 3,606 | Mancos | 5,908 | 6,405 |
| Lewis | 3,393 | 3,890 | TD | 6,063 | 6,562 |

B. MUD LOGGING PROGRAM: None

C. LOGGING PROGRAM: Cased Hole Logs

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:

| <u>CASING TYPE</u> | <u>HOLE SIZE</u> | <u>DEPTH (MD)</u> | <u>CASING SIZE</u> | <u>WT. & GRADE</u> |
|--------------------|------------------|-------------------|--------------------|------------------------|
| Surface | 12-1/4" | +/- 300' | 9-5/8" | 36# K-55 |
| Intermediate | 8-3/4" | +/- 4,099' | 7" | 20# K-55 |
| Prod. Liner | 6-1/4" | +/- 3,999'-6,562' | 4-1/2" | 10.5# K-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" & 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: ²⁰⁷150sx (205 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.
2. INTERMEDIATE: Lead - ⁹⁴¹460sx (954 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 = 1,093 cu.ft. Bump Plug to 1,500 psi. Notify engineering if cement is not circulated to surface.
3. PRODUCTION LINER: 10 bbl Gelled Water space. Lead: 50sx (129ft³) of Premium Light HS + 1% FL-52 + .2% CD-32, 0.1% R-3, 3 #/sk CSE. (Yield = 2.59 cu.ft./sk, Weight = 11.6 #/gal.). Tail: 100 ³⁴⁵sx (236 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 345 ft³. WOC 12 hours

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 80,000# of 20/40 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 80,000# of 20/40 sand in slick water.
6. Test each zone before removing bridge plugs.

D. RUNNING TUBING

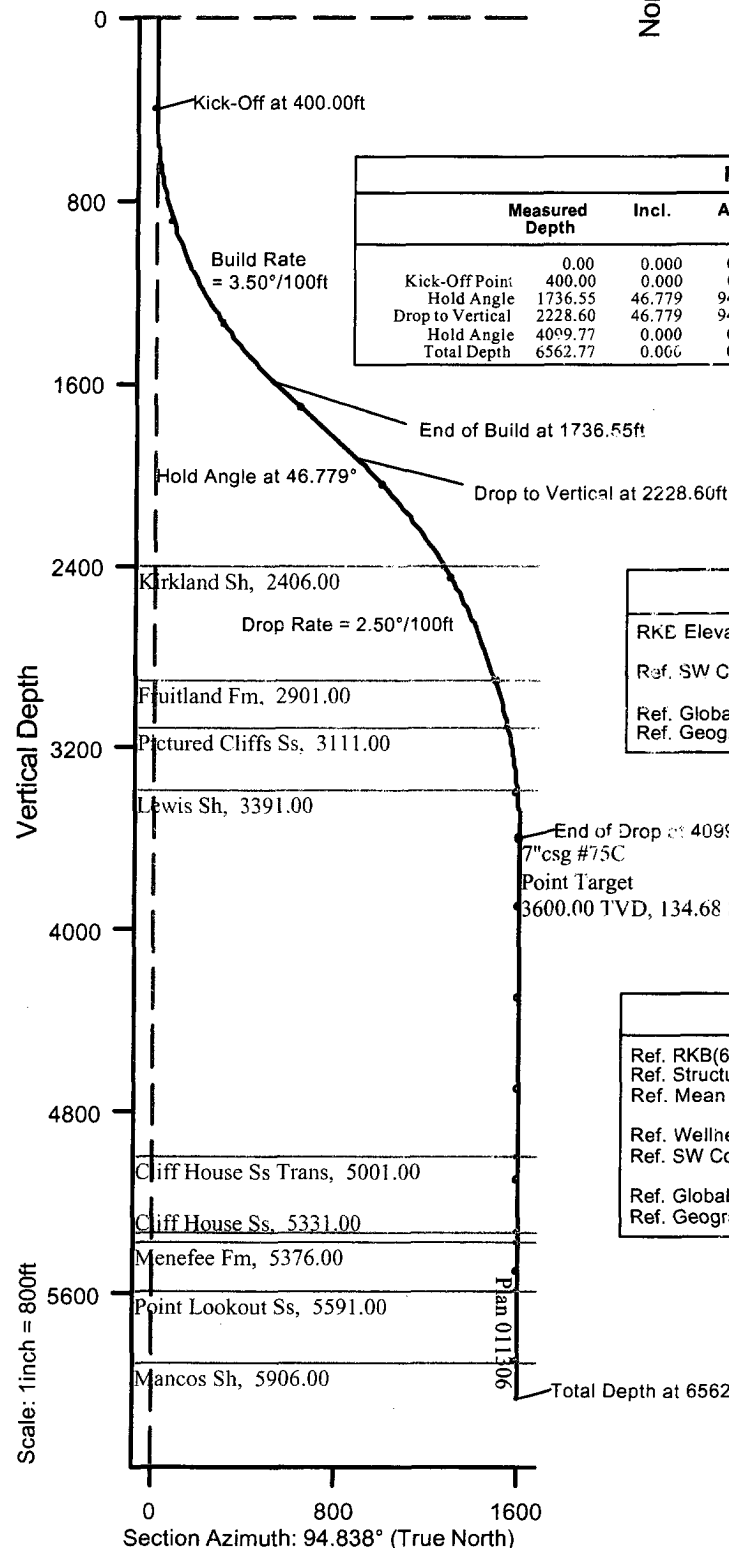
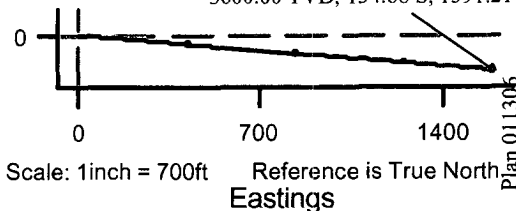
1. Mesa Verde: Run 2-3/8", 4.7#, J-55, EUE tubing with a SN (1.91" ID) on top of bottom joint. Land tubing approximately 25' above the bottom Point Lookout perforation.


Gary Sizemore
Sr. Drilling Engineer

New Mexico
San Juan County
Sec. 10-T31N-R06W
Rosa Unit #75C
Plan 011306

7" csg #75C
Point Target
3600.00 TVD, 134.68 S, 1591.21 E

Northings



| Plan 011306 Proposal Data | | | | | | | |
|---------------------------|----------------|--------|--------|----------------|-----------|-----------|-------------|
| | Measured Depth | Incl. | Azim. | Vertical Depth | Northings | Eastings | Dogleg Rate |
| Kick-Off Point | 400.00 | 0.000 | 0.000 | 400.00 | 0.00 N | 0.00 E | 0.00 |
| Hold Angle | 1736.55 | 46.779 | 94.838 | 1592.93 | 43.52 S | 514.13 E | 3.50 |
| Drop to Vertical | 2228.60 | 46.779 | 94.838 | 1929.90 | 73.76 S | 871.42 E | 0.00 |
| Hold Angle | 4099.77 | 0.000 | 0.000 | 3600.00 | 134.68 S | 1591.21 E | 2.50 |
| Total Depth | 6562.77 | 0.000 | 0.000 | 6063.00 | 134.68 S | 1591.21 E | 0.00 |

Rosa Unit #75C Surface Location

RKE Elevation: 6306.00ft above Mean Sea Level
Ref. SW Cor Sec 10: 1800.00 N, 705.00 E
Ref. Global Coordinates: 2151329.29 N, 610282.15 E
Ref. Geographical Coordinates: 36° 54' 42.0000" N, 107° 27' 22.0000" W



Plan 011306 Bottom Hole Location

Ref. RKB(6294'+12' KB): 6063.00ft
Ref. Structure: 6051.00ft
Ref. Mean Sea Level: -243.00ft
Ref. Wellhead: 134.68 S, 1591.21 E (True North)
Ref. SW Cor Sec 10: 1665.36 N, 2296.21 E (True North)
Ref. Global Coordinates: 2151200.90 N, 611873.88 E
Ref. Geographical Coordinates: 36° 54' 40.6678" N, 107° 27' 02.4064" W

Williams

Vertical Section

Prepared by:
Dennis Cook

Date/Time:
13 January, 2006 - 10:17

Checked:

Approved:

Williams Production Company, LLC
Well Control Equipment Schematic for 2M Service

Attachment to Drilling Technical Program

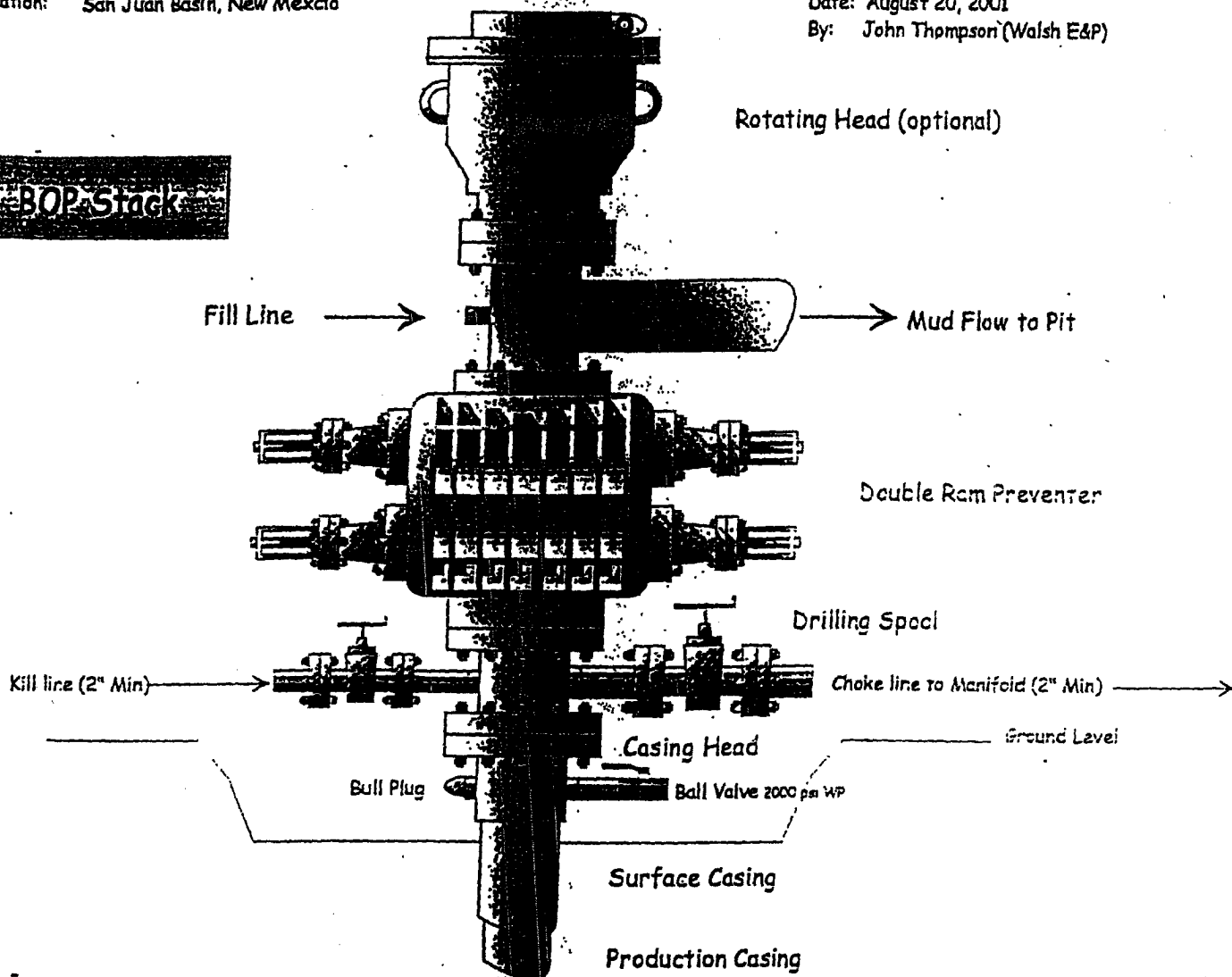
Typical BOP setup

Location: San Juan Basin, New Mexico

Date: August 20, 2001

By: John Thompson (Walsh E&P)

BOP Stack



Choke & Kill Manifold

