

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

## APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK <b>DRILL</b> <input checked="" type="checkbox"/> <b>DEEPEN</b> <input type="checkbox"/>		5. LEASE DESIGNATION AND SERIAL NO. <b>SF-078766</b>		
1b. TYPE OF WELL <b>OIL</b> <input type="checkbox"/> <b>GAS</b> <input checked="" type="checkbox"/> <b>OTHER</b> <input type="checkbox"/> <b>SINGLE</b> <input checked="" type="checkbox"/> <b>MULTIPLE</b> <input type="checkbox"/> <b>WELL</b> <input type="checkbox"/> <b>WELL</b> <input checked="" type="checkbox"/> <b>ZONE</b> <input checked="" type="checkbox"/> <b>ZONE</b> <input type="checkbox"/>		6. IF INDIAN, ALLOTTEE OR TRIBE NAME <b>22 PM 11:13</b>		
2. NAME OF OPERATOR <b>Williams Production Company, LLC</b>		7. UNIT AGREEMENT NAME <b>Rosa Unit</b>		
3. ADDRESS OF OPERATOR <b>P.O. Box 316 - Ignacio, Colorado 81137 - Phone (970)563-3308</b>		8. FARM OR LEASE NAME, WELL NO. <b>276A</b>		
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)* At Surface <b>2165' FSL &amp; 380' FEL</b> At proposed Prod. Zone <b>990' FSL &amp; 990' FEL</b>		9. API WELL NO. <b>30045 32192</b>		
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* <b>24 miles NE of Blanco, NM</b>		10. FIELD AND POOL OR WILDCAT <b>Basin Fruitland Coal</b>		
15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) <b>380'</b>		11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA <b>I Sec. 17, T31N, R6W</b>		
16. NO. OF ACRES IN LEASE <b>2552.71</b>		12. COUNTY OR PARISH <b>San Juan</b>		
17. NO. OF ACRES ASSIGNED TO THIS WELL <b>320 - E/2</b>		13. STATE <b>NM</b>		
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR ON THIS LEASE, FT. <b>30'</b>		19. PROPOSED DEPTH <b>3614'</b>		
20. ROTARY OR CABLE TOOLS <b>Rotary</b>		21. APPROX. DATE WORK WILL START* <b>April 1, 2004</b>		
22. ELEVATIONS (Show whether DF, RT, GR, etc.) <b>6411' GR</b>				
23. PROPOSED CASING AND CEMENTING PROGRAM				
SIZE OF HOLE	SIZE OF CASING	WEIGHT/FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	9-5/8"	36.0#	+/- 300'	~206 cu.ft. Type III w/ 2% CaCl <sub>2</sub> & CF
8-3/4"	7"	20.0#	+/- 3471'	~903cu.ft. 65/35 poz & ~70cu.ft. Type III
6-1/4"	5-1/2"	15.5#	~ 3371' - 3620'	Open hole completion - no cement

Williams Production Company proposes to drill a directional well to develop the Fruitland Coal formation at the above described location in accordance with the attached drilling and surface use plans. The Surface is under the Jurisdiction of the Bureau of Reclamation.

This location has been archaeologically surveyed by Independent Contract Archaeology. Copies of their report have been submitted directly to your office.

This APD also is serving as an application to obtain BLM road and pipeline right-of-ways. This well will require No new access road (see Pipeline & Well Plats #3 & #4). The well will be accessed by utilizing an existing road that crosses The W/2 sec 17, NW qtr sec 16, W/2 sec 9, N/2 sec 8, NE qtr sec 7, SE qtr sec 6, SW qtr sec 5, T31N, R6W, the SW qtr sec 32, E/2 sec 31, all sec 30, T32N, R6W and the NE qtr of sec 25. T32N, R7W where it joins San Juan County road #4020.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM : If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24. SIGNED <u>Larry Higgins</u> TITLE <u>Larry Higgins, Drlg COM</u> DATE <u>2/23/2004</u>	
(This space for Federal or State office use)	
PERMIT NO. _____ APPROVAL DATE _____	
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	
APPROVED BY <u>[Signature]</u> TITLE <u>AFM</u> DATE <u>5-21-04</u>	

\*See Instructions On Reverse Side

Title 18 U.S.C. Section 1001, makes 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.

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

HOLDING FOR

NMOC

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

District II  
PO Drawer DD, Artesia, NM 88211-0719

OIL CONSERVATION DIVISION  
PO Box 2088  
Santa Fe, NM 87504-2088

District III  
1000 Rio Brazos Rd., Aztec, NM 87410

District IV  
PO Box 2088, Santa Fe, NM 87504-2088

☐ AMENDED REPORT

## WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-045-32192		*Pool Code 71629	*Pool Name BASIN FRUITLAND COAL	
*Property Code 17033	*Property Name ROSA UNIT		*Well Number 276A	
*OGRID No. 120782	*Operator Name WILLIAMS PRODUCTION COMPANY		*Elevation 6411'	

<sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot 1 or 2	Feet from the	North/South line	Feet from the	East/West line	County
I	17	31N	6W		2165	SOUTH	380	EAST	SAN JUAN

<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
P	17	31N	6W		990	SOUTH	990	EAST	SAN JUAN

<sup>12</sup> Dedicated Acres	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.
320.0 Acres - (E/2)			

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>16</p> <div style="text-align: center; margin-top: 20px;"> </div> <p style="text-align: center; font-size: 1.2em; margin-top: 20px;">SF-078766</p> <div style="position: relative; height: 200px; margin-top: 20px;"> <span style="position: absolute; left: -40px; top: 50%; transform: translateY(-50%); white-space: nowrap;">5280.00'</span> <span style="position: absolute; right: -40px; top: 50%; transform: translateY(-50%); white-space: nowrap;">5280.00'</span> <div style="position: absolute; left: 50%; top: 50%; transform: translate(-50%, -50%) rotate(90deg); font-size: 3em; font-weight: bold;">17</div> <div style="position: absolute; bottom: 20px; left: 50%; transform: translateX(-50%);"> <p><b>BOTTOM-HOLE LOCATION</b></p> <p>S27°22'N 1329.6'</p> <p>990'</p> <p>2165'</p> <p>990'</p> </div> <div style="position: absolute; top: 20px; right: 20px;"> <p><b>SURFACE LOCATION</b></p> <p>380'</p> </div> </div> <div style="margin-top: 20px;"> <p style="text-align: center;">RECEIVED</p> <p style="text-align: center;">2004 FEB 23 PM 4:14</p> <p style="text-align: center;">WINNING NM 070 PLANNING</p> </div> <p style="text-align: right; margin-top: 20px;">5281.32'</p>	<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 style="font-family: cursive; font-size: 1.2em;"><u>Larry Higgins</u></p> <p>Signature</p> <p style="font-family: cursive; font-size: 1.2em;"><u>LARRY HIGGINS</u></p> <p>Printed Name</p> <p style="font-family: cursive; font-size: 1.2em;"><u>DRAILINE COM</u></p> <p>Title</p> <p style="font-family: cursive; font-size: 1.2em;"><u>2-23-04</u></p> <p>Date</p> <hr/> <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>Revised: JANUARY 29, 2004 Survey Date: AUGUST 19, 2003</p> <p>Signature and Seal of Professional Surveyor</p> <div style="text-align: center; margin-top: 20px;"> </div> <p style="font-family: cursive; font-size: 1.2em; margin-top: 20px;"><u>JASON C. EDWARDS</u></p> <p>Certificate Number      15269</p>
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## WILLIAMS PRODUCTION COMPANY

### Operations Plan

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

**DATE:** 2/23/2004

**WELLNAME:** Rosa Unit #276A      **FIELD:** Basin Fruitland Coal

**BH LOCATION:** SESE Sec 17-31N-6W  
San Juan, NM      **MINERALS:** FED

**SURF. LOCATION:** NESE Sec 17-31N-6W

**ELEVATION:** 6411' GR      **MINERALS:** FED

**TOTAL DEPTH:** 3614'      **LEASE #** SF-078766

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

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

NAME	TVD	MD	NAME	TVD	MD
San Jose	Surface	Surface	Top Coal	3,116	3,491
Nancimiento	1,041	1,058	Bottom Coal	3,236	3,611
Ojo Alomo	2,381	2,721	Pictured Cliffs	3,241	3,620
Kirtland	2,501	2,854	TD	3,238	3,614
Fruitland	2,986	3,360			

**B. LOGGING PROGRAM:** None

**C. 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. Treat for lost circulation as necessary. Expect 100% returns prior to cementing. Notify Engineering of any mud losses. If coal is detected before 3028' DO NOT drill deeper until Engineering is contacted.

**B. Drilling Fluid:** Coal section will be drilled with Fruitland Coal water. Mud logger will pick TD at +/- 3614'.

**C. MUD LOGGING PRORAM:** Mud logger will be on location at drill out below 7" casing to TD.

C. **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 rams will be tested to 1500 psi. The surface and intermediate casing strings will be pressure tested to 1500 psi in conjunction with the BOP test before drilling out cement. The drum brakes will be inspected and tested each tour. All tests, inspections and SPR's 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. &amp; GRADE</u>
Surface	12-1/4"	+/- 300'	9-5/8"	36# K-55
Intermediate	8-3/4"	+/- 3471'	7"	20# K-55
Prod. Liner	6-1/4"	+/- 3371-3620'	5-1/2"	15.5# K-55

#### B. **FLOAT EQUIPMENT:**

1. **SURFACE CASING:** 9-5/8" notched regular pattern guide shoe.
2. **INTERMEDIATE CASING:** 7" cement nose guide shoe with a self- fill insert float. Place float one(1) joint above the shoe and five(5) centralizers, spaced every other joint, starting with the float collar. Place turbulent centralizers, at 120' intervals, starting at 1585' to the surface. Total centralizers = 5 regular and 14 turbulent.
3. **PRODUCTION LINER:** 5-1/2"liner with notched collar on bottom.

#### C. **CEMENTING:**

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

1. **SURFACE:** Use 155 sx (206 cu.ft.) of "Type III" with 2% CaCl<sub>2</sub> and 1/4# of cello-flake/sk (Yield = 1.41 cu.ft./sk, Weight = 14.5 #/gal.). Use **100% excess** to circulate the surface. WOC 12 hours. Total volume = 206 cu.ft. Test to 1500#.
2. **INTERMEDIATE:** Lead - 430 sx (903 cu.ft.) of "Type III" 65/35 poz with 8% gel, 1% CaCl<sub>2</sub> 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, and 1% CaCl<sub>2</sub> (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 = 973 cu.ft. Bump Plug to 1,500 psi. Notify engineering if cement is not circulated to surface.
3. **PRODUCTION LINER:** Open hole completion. No cement.

#### **IV COMPLETION**

##### **A. PRESSURE TEST**


Pressure test 7" casing to 3300# for 15 minutes.

##### **B. STIMULATION**

**Cavitate Well** with reciprocation and rotation. Surge wells with water and air and then flow back to pit.  
Cavitate for 2 to 3 weeks. Maximum pressure not expected to exceed 2,000 psi.

##### **C. RUNNING TUBING**

1. Fruitland Coal: Run 2-3/8", 4.7#, J-55, EUE tubing with a SN (1.375" ID) on top of bottom joint. Land tubing approximately 50' above TD.

  
for Gary Sizemore  
Sr. Drilling Engineer

file:Rosa276A

# Williams Production Company, LLC

## Well Control Equipment Schematic for 2M Service

Attachment to Drilling Technical Program

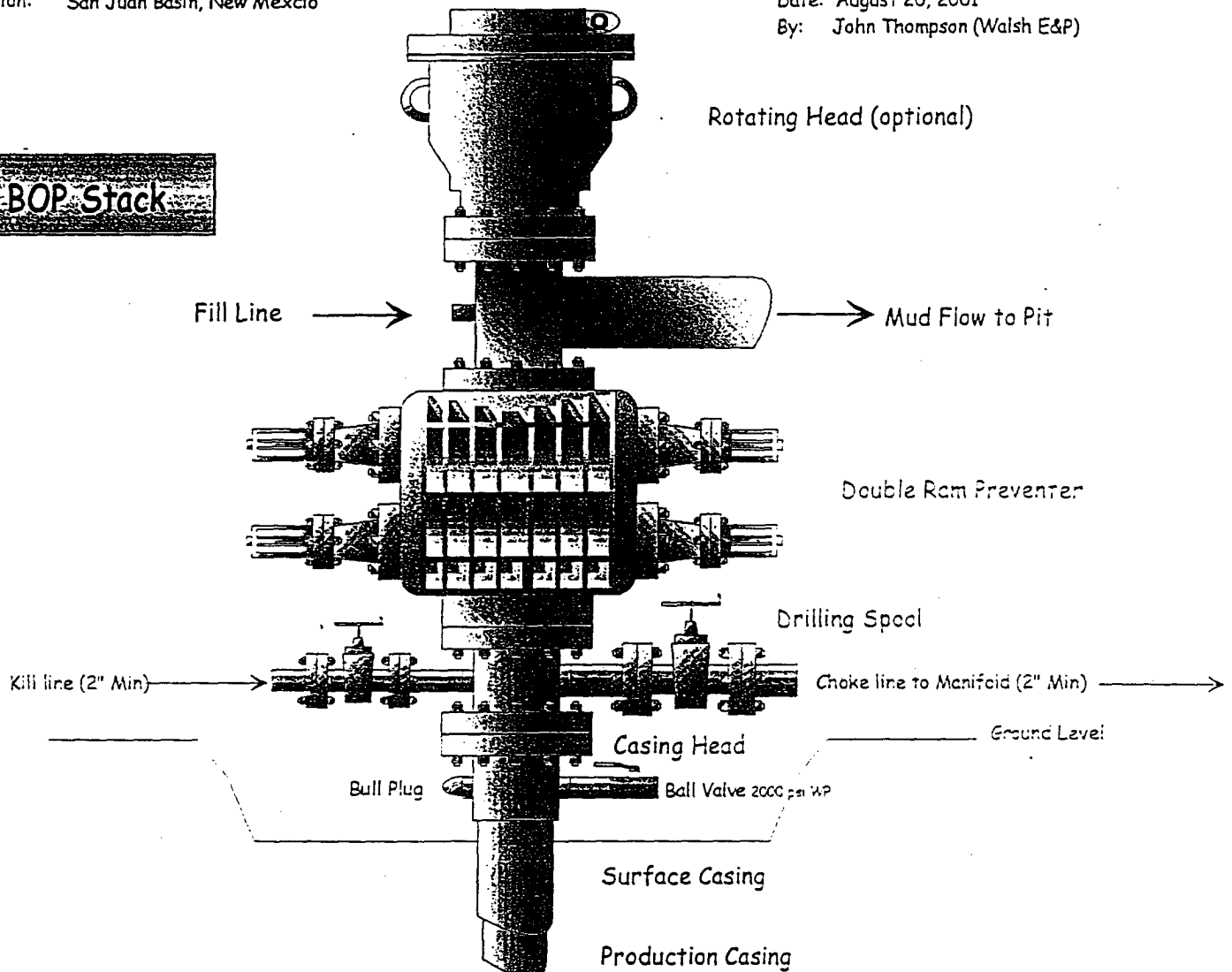
### Typical BOP setup

Location: San Juan Basin, New Mexico

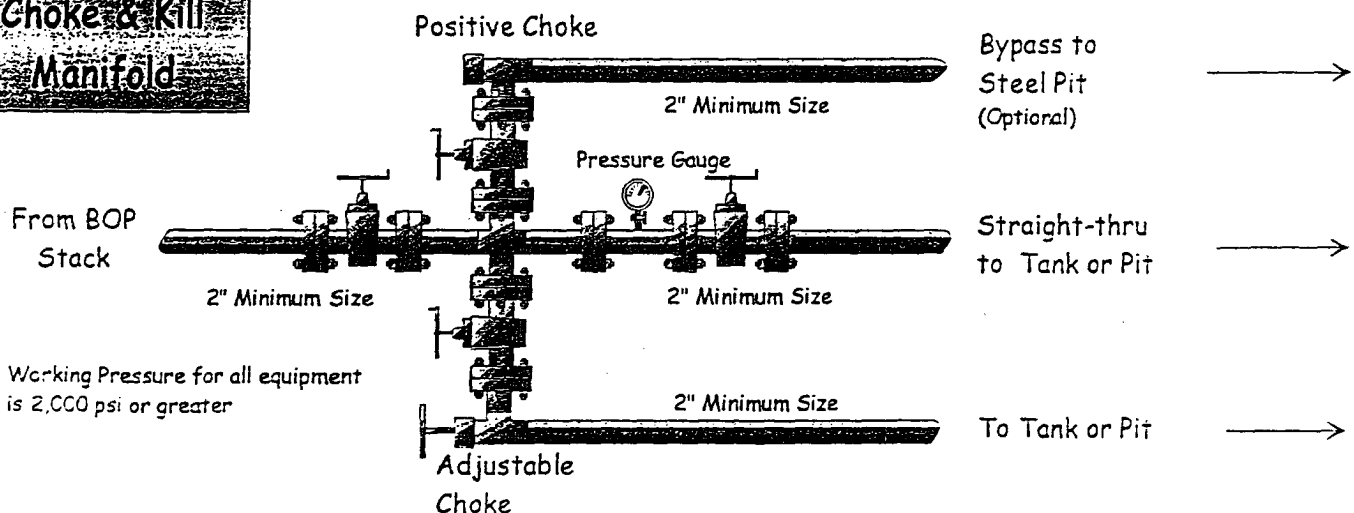
Date: August 20, 2001

By: John Thompson (Walsh E&P)

**BOP Stack**



**Choke & Kill Manifold**



Working Pressure for all equipment is 2,000 psi or greater

**SAN JUAN COUNTY, NEW MEXICO**  
**GROUND ELEVATION: 6411'**

WPX ROSA UNIT #138 WELLHEAD

F3

EXISTING ROADWAY

ACCESS (NO NEW)

WFS P/L

125'

75'

A

RESERVE PIT 55' X 140'

B

DRAIN TO RESERVE PIT

CATHODIC PROTECTION STATION N48°E LAYDOWN

125'

30'

25'

25'

30'

WPX ROSA UNIT #341 WELLHEAD

WPX ROSA UNIT #185A WELLHEAD

58'

WORKING SIDE

125'

SEPARATOR

METER ASSEMBLY

SEPARATOR METER ASSEMBLY

125'

TANK

FI

EDGE OF EXISTING WELLPAD

**LATITUDE: 36°53'54"**

Flat #2 cut & fill					
A-A'					
6421'					
6411'					
6401'					
B-B'					
6421'					
6411'					
6401'					
C-C'					
6421'					
6411'					
6401'					