

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

7/11/2004 13 PM 4:3

## 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- 078771</b>	
1b. TYPE OF WELL  OIL <input type="checkbox"/> WELL <input type="checkbox"/> GAS <input checked="" type="checkbox"/> WELL <input type="checkbox"/> OTHER <input type="checkbox"/> SINGLE <input checked="" type="checkbox"/> ZONE <input type="checkbox"/> MULTIPLE <input type="checkbox"/> ZONE <input type="checkbox"/>		6. IF INDIAN, ALLOTTEE OR TRIBE NAME	
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 361, Ignacio, CO 81137 (505) 563-3308</b>		8. FARM OR LEASE NAME, WELL NO. <b>202A</b>	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements:*) At Surface <b>2380' FNL and 1310' FWL</b> At proposed Prod. Zone		9. API WELL NO. <b>30039 27703</b>	
11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA <b>E Sec. 23, T31N, R6W</b>		10. FIELD AND POOL OR WILDCAT <b>Basin Fruitland Coal</b>	
12. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* <b>25 miles NE of Blanco, NM</b>		13. COUNTY OR PARISH <b>Rio Arriba</b>	
14. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) <b>1310</b>		15. NO. OF ACRES IN LEASE <b>2560</b>	
16. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR ON THIS LEASE, FT. <b>1450'</b>		17. NO. OF ACRES ASSIGNED TO THIS WELL <b>320 W/2</b>	
18. PROPOSED DEPTH <b>3148'</b>		19. ROTARY OR CABLE TOOLS <b>Rotary</b>	
20. ELEVATIONS (Show whether DF, RT, GR, etc.) <b>6218' GR</b>		21. APPROX. DATE WORK WILL START* <b>May 15, 2004</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 with 2% CaCl <sub>2</sub>
8-3/4"	7"	20.0#	+/- 2878'	~725 cu.ft. 65/35 poz & ~70 cu.ft. Type I
6-1/4"	5-1/2"	15.5#	+/- 2778' - 3148'	Open hole completion - no cement

Williams Production Company proposes to drill a vertical well to develop the Fruitland Coal formation at the above described location in accordance with the attached drilling and surface use plans.

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 300ft of new access road (see Pipeline & Well Plats #3 & #4). This new road will cross the NW qtr sec 23 where it joins an existing road. This road then proceeds South and East across the S/2 of sec 23, T31N, R6W. where it joins the main "Rosa Road" in the SE qtr of sec 23, T31N, R6W.

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 Larry Higgins TITLE Larry Higgins, Drlg COM DATE 4/13/2004

(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 [Signature] TITLE AFM DATE 5-19-04

\*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.

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number <b>30-03927703</b>		*Pool Code 71629	*Pool Name BASIN FRUITLAND COAL
*Property Code 17033	*Property Name ROSA UNIT		*Well Number 202A
*GRID No. 120782	*Operator Name WILLIAMS PRODUCTION COMPANY		*Elevation 6218'

<sup>10</sup> Surface Location

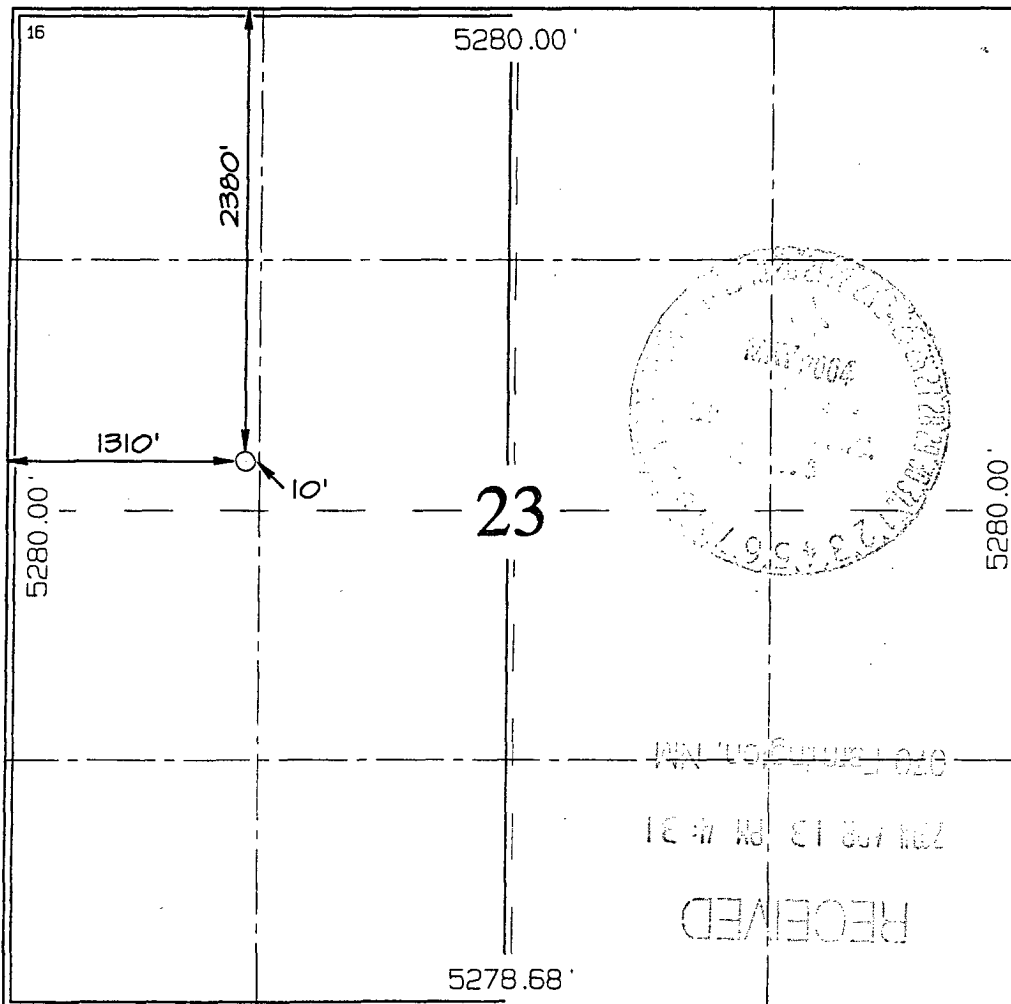
UL or lot no. E	Section 23	Township 31N	Range 6W	Lot Idn	Feet from the 2380	North/South line NORTH	Feet from the 1310	East/West line WEST	County RIO ARriba
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<sup>11</sup> Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
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<sup>12</sup> Dedicated Acres 320.0 Acres - (W/2)	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> 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



<sup>17</sup> OPERATOR CERTIFICATION

I hereby certify that the information  
contained herein is true and complete  
to the best of my knowledge and belief

Larry Higgins  
Signature  
LARRY HIGGINS  
Printed Name  
DRILLING COM  
Title  
4-13-04  
Date

<sup>18</sup> 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.

Survey Date: NOVEMBER 25, 2003

Signature and Seal of Professional Surveyor



JASON C. EDWARDS  
Certificate Number 15269



## WILLIAMS PRODUCTION COMPANY

### Operations Plan

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

**DATE:** 4/12/2004

**WELLNAME:** Rosa Unit #202A      **FIELD:** Basin Fruitland Coal

**LOCATION:** SWNW Sec. 23-T31N-6W      **SURFACE:** Federal  
Rio Arriba, NM

**ELEVATION:** 6,218' GR      **MINERALS:** Federal

**TOTAL DEPTH:** 3,148'      **LEASE #** SF-078771

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

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

NAME	DEPTH	NAME	DEPTH
San Jose	Surface	Top Coal	2,898
Nancimiento	1,143	Bottom Coal	3,048
Ojo Alamo	2,273	Pictured Cliffs	3,048
Kirtland	2,383	TD	3,148
Fruitland	2,783		

**B. LOGGING PROGRAM:** GR and Density/ Neutron log from intermediate shoe to TD. Onsite geologist will pick Density/ Neutron log intervals on both logging runs.

**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 2,878' DO NOT drill deeper until Engineering is contacted.

**B. Drilling Fluid:** Coal section will be drilled with Fruitland Coal water.

**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</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"	+/- 2,878'	7"	20# K-55
Prod. Liner	6-1/4"	+/- 2,778'- 3,148'	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 - 350 sx (725 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 = 795 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.

1-02   
Gary Sizemore  
Sr. Drilling Engineer

file:Rosa202A

# Williams Production Company, LLC

## Well Control Equipment Schematic for 2M Service

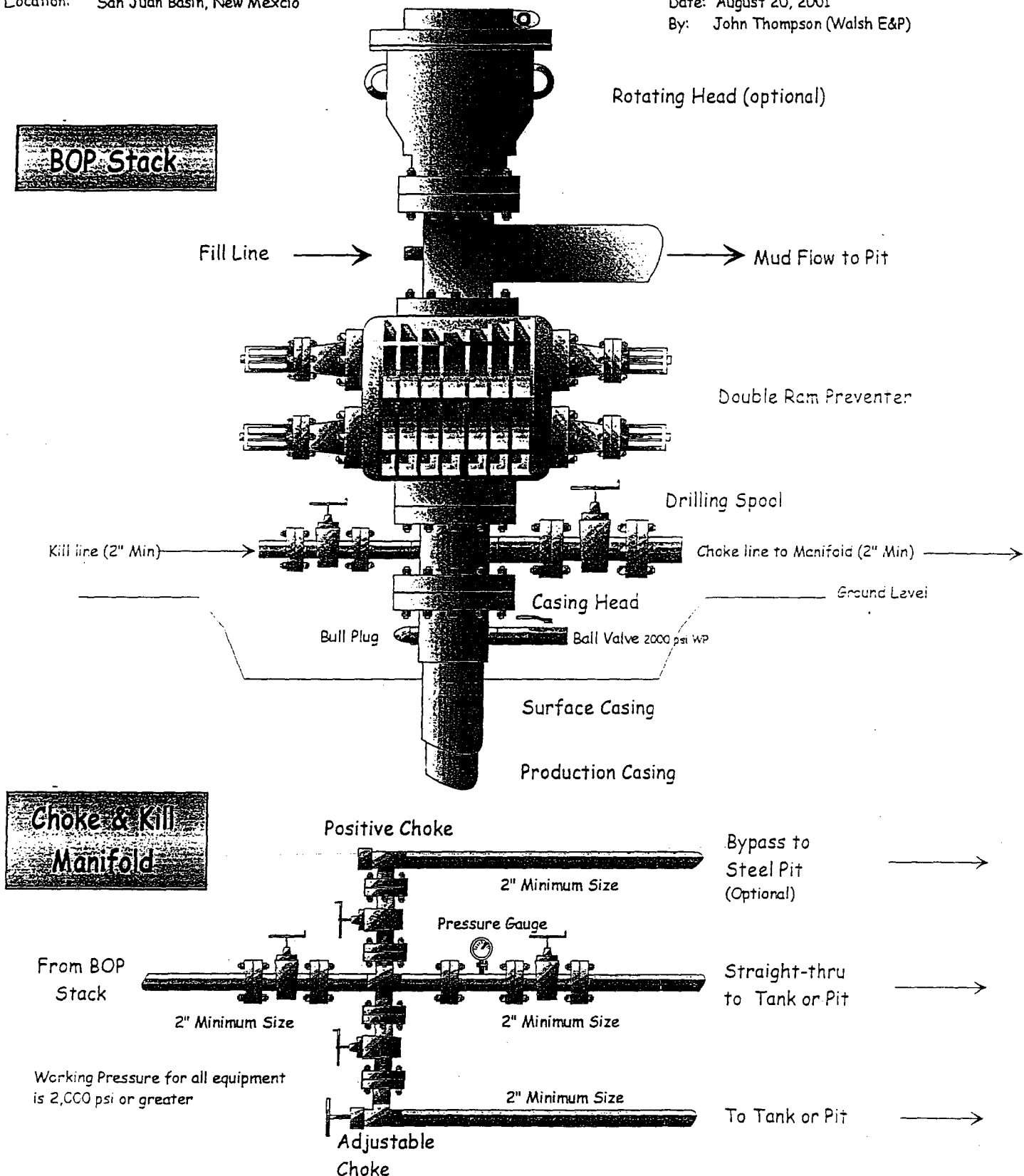
Attachment to Drilling Technical Program

### Typical BOP setup

Location: San Juan Basin, New Mexico

Date: August 20, 2001

By: John Thompson (Walsh E&P)



District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-144  
March 4, 2004

For drilling and production facilities, submit to appropriate NMOCD District Office.  
For downstream facilities, submit to Santa Fe office

Pit or Below-Grade Tank Registration or Closure

Type of action: Registration of a pit or below-grade tank ☒ Closure of a pit or below-grade tank

Operator: Williams Production Company Telephone: (970) 563-3308 e-mail address: larry.higgins@williams.com  
Address: P.O. Box 316 - Ignacio, Colorado  
Facility or well name: Rosa Unit #202A API #: \_\_\_\_\_ U/L or Qtr/Qtr SW/NW Sec 23 T 31N R 6W  
County: Rio Arriba Latitude \_\_\_\_\_ Longitude \_\_\_\_\_ Surface Owner Federal ☒ State Private Indian

<b>Pit</b> Type: Drilling Production <input checked="" type="checkbox"/> Disposal Vorkover <input type="checkbox"/> Emergency <input type="checkbox"/> Lined <input type="checkbox"/> Unlined <input type="checkbox"/> Liner type: Synthetic Thickness <u>    </u> mil Clay <input type="checkbox"/> Volume <u>    </u> bbl	<b>Below-grade tank</b> Volume: <u>120</u> bbl Type of fluid: <u>produced water</u> Construction material: <u>fiberglass</u> Double-walled, with leak detection? Yes <input checked="" type="checkbox"/> If not, explain why not. _____	
Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of ground water.)	Less than 50 feet	(20 points)
	50 feet or more, but less than 100 feet	(10 points)
	100 feet or more <input checked="" type="checkbox"/>	( 0 points)
Wellhead protection area: (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources.)	Yes	(20 points)
	No <input checked="" type="checkbox"/>	( 0 points)
Distance to surface water: (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses.)	Less than 200 feet	(20 points)
	200 feet or more, but less than 1000 feet	(10 points)
	1000 feet or more <input checked="" type="checkbox"/>	( 0 points)
<b>Ranking Score (Total Points)</b>		0

**If this is a pit closure:**

- (1) attach a diagram of the facility showing the pit's relationship to other equipment and tanks.
- (2) Indicate disposal location: onsite ☐ offsite ☐ If offsite, name of facility \_\_\_\_\_
- (3) Attach a general description of remedial action taken including remediation start date and end date.
- (4) Groundwater encountered: No ☐ Yes ☐ If yes, show depth below ground surface \_\_\_\_\_ ft. and attach sample results.
- (5) Attach soil sample results and a diagram of sample locations and excavations.

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that the above-described pit or below-grade tank will be constructed or closed according to NMOCD guidelines.

Date: 4-12-04

Printed Name/Title Larry Higgins Signature Larry Higgins

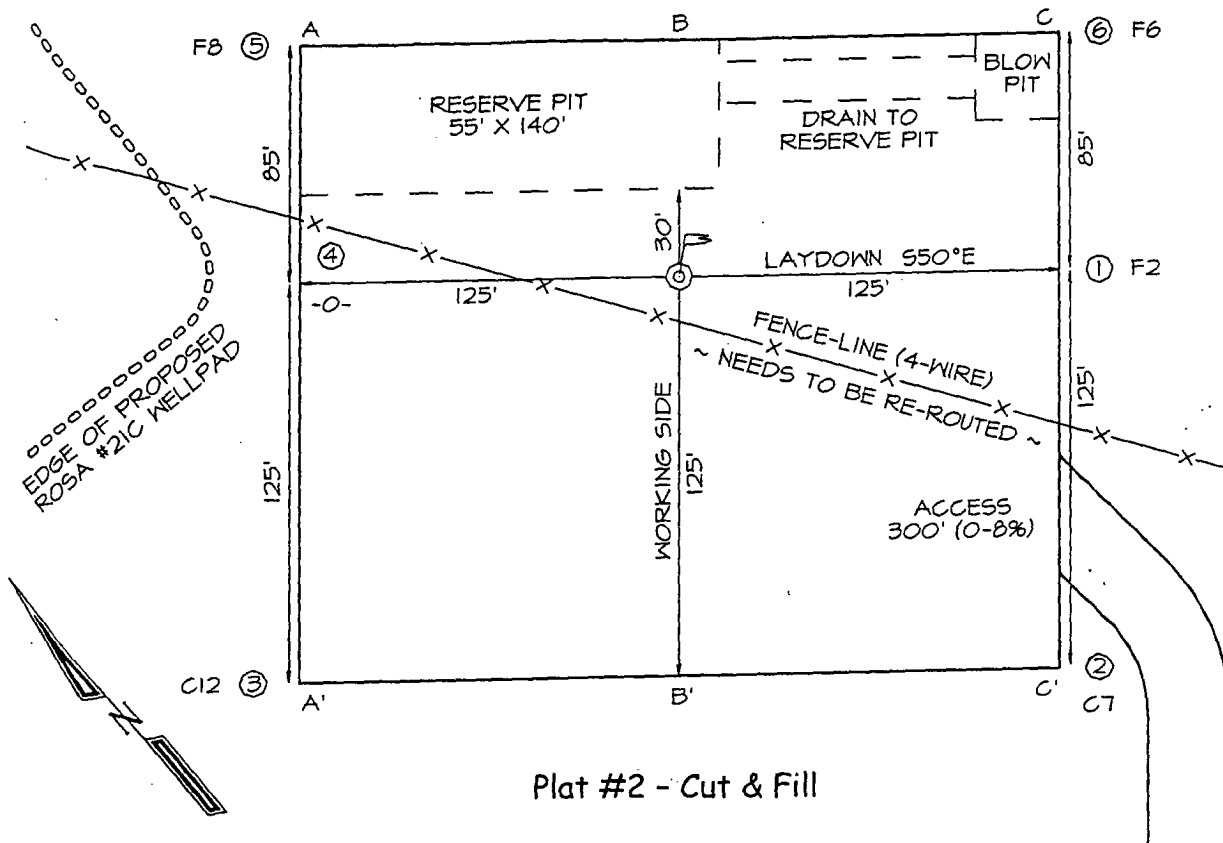
Our certification and NMOCD approval of this application/closure does not relieve the operator of liability should the contents of the pit or tank contaminate ground water or otherwise endanger public health or the environment. Nor does it relieve the operator of its responsibility for compliance with any other federal, state, or local laws and/or regulations.

Approval:

Date: \_\_\_\_\_

Printed Name/Title \_\_\_\_\_ Signature \_\_\_\_\_

**WILLIAMS PRODUCTION COMPANY ROSA UNIT #202A**  
**2380' FNL & 1310' FWL, SECTION 23, T31N, R6W, NMPM**  
**RIO ARriba COUNTY, NEW MEXICO GROUND ELEVATION: 6218'**



**Plat #2 - Cut & Fill**

