

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTRECEIVED
MAY 22 PM 2:56
070 Farmington, NM

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/>		5. LEASE DESIGNATION AND SERIAL NO. SF- 078771
1b. TYPE OF WELL OIL <input type="checkbox"/> GAS <input checked="" 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 Williams Production Company, LLC		7. UNIT AGREEMENT NAME Rosa Unit
3. ADDRESS OF OPERATOR P. O. Box 361, Ignacio, CO 81137 (505) 563-3308		8. FARM OR LEASE NAME, WELL NO. 213A
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)* At Surface 1540' FSL and 1735' FEL At proposed Prod. Zone		9. API WELL NO. 30039 27687
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* 25 miles NE of Blanco, NM		10. FIELD AND POOL OR WILDCAT Basin Fruitland Coal
15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 1540'	16. NO. OF ACRES IN LEASE 2560.0168195	11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA J Sec. 23, T31N, R6W
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR ON THIS LEASE, FT. 600'	19. PROPOSED DEPTH 3107'	12. COUNTY OR PARISH Rio Arriba
21. ELEVATIONS (Show whether DF, RT, GR, etc.) 6247' GR		13. STATE NM
22. APPROX. DATE WORK WILL START* April 15, 2004		

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 ₂
8-3/4"	7"	20.0#	+/- 2917'	~737 cu.ft. 65/35 poz & ~70 cu.ft. Type I
6-1/4"	5-1/2"	15.5#	+/- 2817' - 3107'	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 550ft of new access road (see Pipeline & Well Plats #3 & #4). This new road will cross the SE qtr sec 23, T31N, R6W where it joins the main "Rosa Road" in the same qtr section.

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 3/22/2004

(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

TITLE

DATE

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.

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

NMOCDD

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

District I
PO Box 1980, Hobbs, NM 88241-1980

District II
PO Drawer 00, 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

¹ API Number 30-039-27687	² Pool Code 71629	³ Pool Name BASIN FRUITLAND COAL
⁴ Property Code 17033	⁵ Property Name ROSA UNIT	⁶ Well Number 213A
⁷ OGRID No. 120782	⁸ Operator Name WILLIAMS PRODUCTION COMPANY	⁹ Elevation 6247'

¹⁰ Surface Location

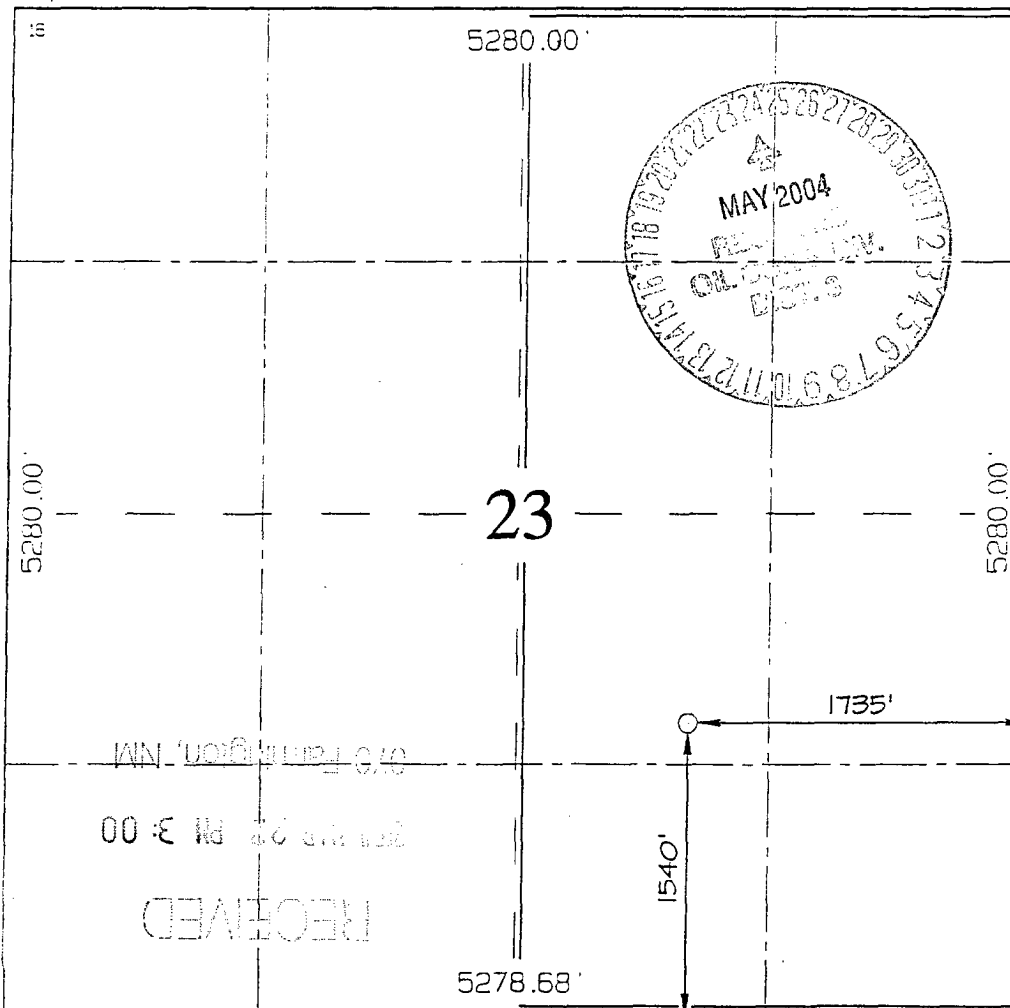
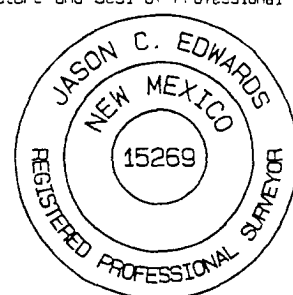
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	23	31N	6W		1540	SOUTH	1735	EAST	PIO ARriba

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

¹² Dedicated Acres 320.0 Acres - (E/2)	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ 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

	<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</p> <p>LARRY HIGGINS Printed Name</p> <p>DRILLING COM Title</p> <p>3-22-04 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: NOVEMBER 25, 2003</p> <p>Signature and Seal of Professional Surveyor</p> <p></p> <p>JASON C. EDWARDS Certificate Number 15269</p>



WILLIAMS PRODUCTION COMPANY

Operations Plan

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

DATE: 2/26/2004

WELLNAME: Rosa Unit #213A **FIELD:** Basin Fruitland Coal

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

ELEVATION: 6,247' GR **MINERALS:** Federal

TOTAL DEPTH: 3,107' **LEASE #** SF-078771

I. GEOLOGY: Surface formation - San Jose

A. FORMATION TOPS: (KB)

NAME	DEPTH	NAME	DEPTH
San Jose	Surface	Top Coal	2,937
Nancimiento	1,199	Bottom Coal	3,087
Ojo Alamo	2,304	Pictured Cliffs	3,092
Kirtland	2,412	TD	3,107
Fruitland	2,817		

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 2,917' 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. & GRADE</u>
Surface	12-1/4"	+/- 300'	9-5/8"	36# K-55
Intermediate	8-3/4"	+/- 2,917'	7"	20# K-55
Prod. Liner	6-1/4"	+/- 2,817'- 3,107'	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% CaCl₂ 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 - 355 sx (737 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 - 50 sx (70cu.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 = 807 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:Rosa213A

Williams Production Company, LLC

Well Control Equipment Schematic for 2M Service

Attachment to Drilling Technical Program

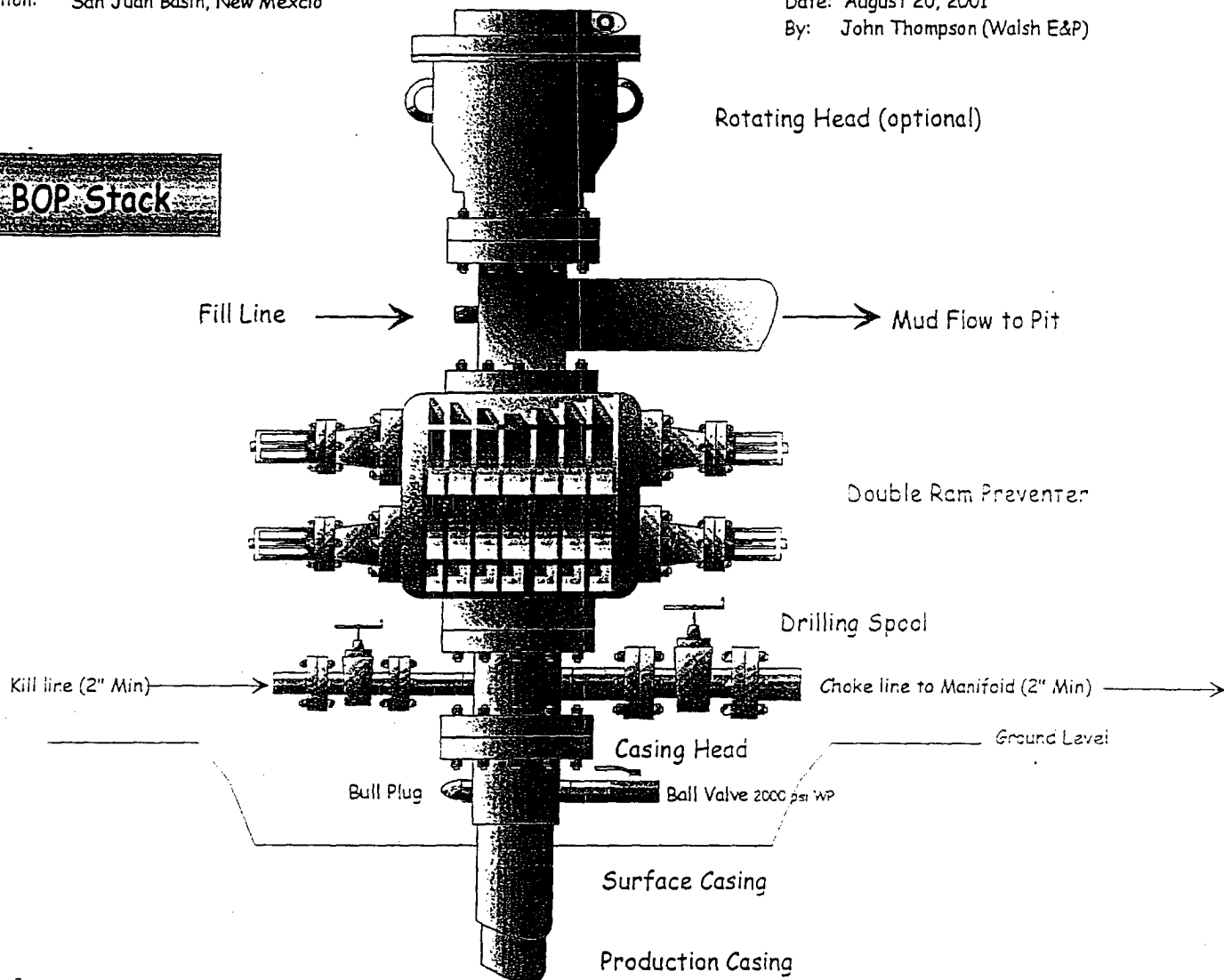
Typical BOP setup

Location: San Juan Basin, New Mexico

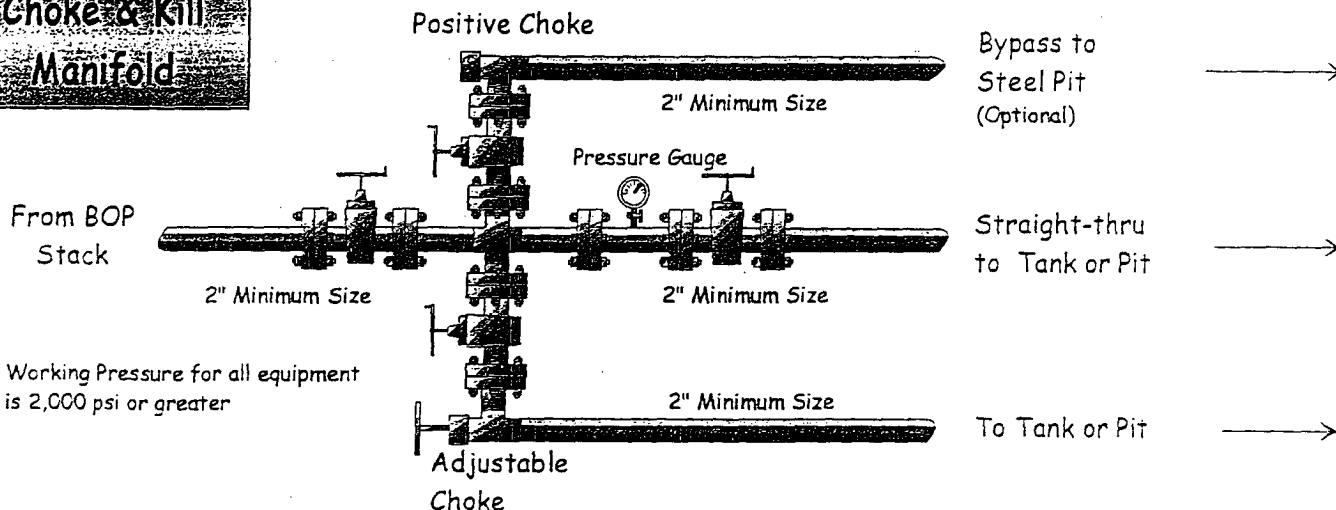
Date: August 20, 2001

By: John Thompson (Walsh E&P)

BOP Stack

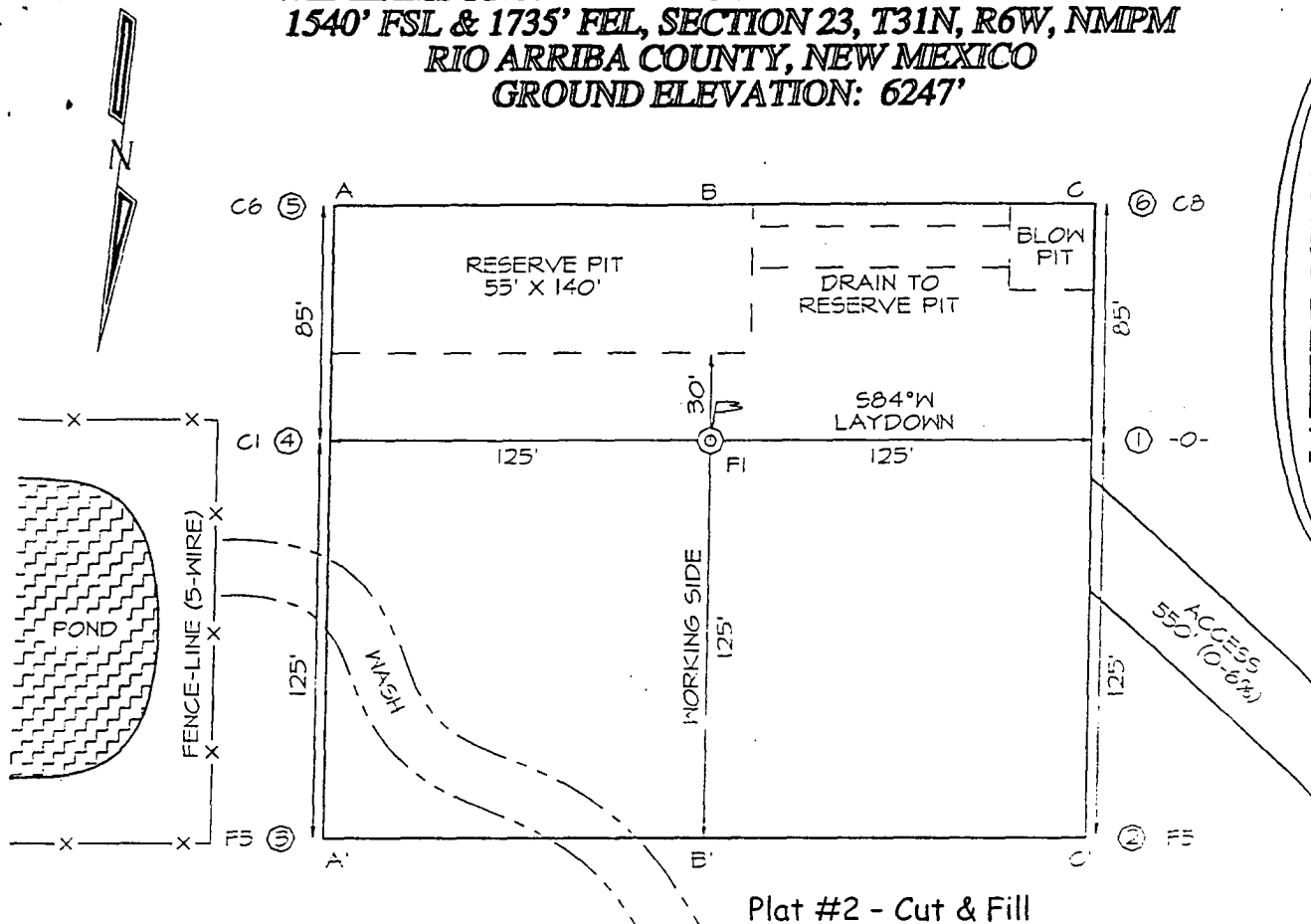


Choke & Kill Manifold



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

WILLIAMS PRODUCTION COMPANY ROSA UNIT #213A
1540' FSL & 1735' FEL, SECTION 23, T31N, R6W, NMPM
RIO ARriba COUNTY, NEW MEXICO
GROUND ELEVATION: 6247'



LATITUDE: 36°52'56"
LONGITUDE: 107°25'42"
 DATUM: NAD1927

Plat #2 - Cut & Fill

