

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

2002 JUN 26 AM 10:11

5. LEASE DESIGNATION AND SERIAL NO.

SF-078766

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

Rosa Unit

8. FARM OR LEASE NAME, WELL NO.

32C

9. API WELL NO.

30-039-27240

10. FIELD AND POOL OR WILDCAT

Blanco Mesa Verde/DK

11. SEC. T, R, M, OR BLK.
AND SURVEY OR AREA

F Sec. 21, T31N, R6W

12. COUNTY OR PARISH

Rio Arriba

13. STATE

NM

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK

DRILL ☒

DEEPEN ☐

1b. TYPE OF WELL

OIL
WELL ☐

GAS
WELL ☒

OTHER ☐

SINGLE
ZONE ☐

MULTIPLE
ZONE ☒

2. NAME OF OPERATOR

Williams Production Company, LLC

3. ADDRESS OF OPERATOR

c/o Walsh Engineering 7415 E. Main St., Farmington, NM 87402 (505) 327-4892

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. *)

At Surface 1675' FNL & 1700' FWL

At proposed Prod. Zone

660' FNL & 660' FWL

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*

22 miles NE of Blanco, NM

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY
OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)

1675'

16. NO. OF ACRES IN LEASE

2552.71

17. NO. OF ACRES ASSIGNED TO THIS WELL

325.31
320 N/A

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL,
DRILLING, COMPLETED, OR APPLIED FOR ON THIS LEASE, FT.

177'

19. PROPOSED DEPTH

8416'

20. ROTARY OR CABLE TOOLS

Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)

6331' GR

22. APPROX. DATE WORK WILL START*

July 1, 2002

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT/FOOT	SETTING DEPTH	QUANTITY OF CEMENT
14-3/4"	10-3/4"	40.5#	+/- 500'	~626 cu.ft. Type III w/ 2% CaCl ₂
9-7/8"	7-5/8"	26.4#	+/- 4113'	~1306 cu.ft. 65/35 poz & ~461 cu.ft. Type
6-3/4"	5-1/2"	17.0#	+/- 8416'	~478 cu.ft. Prem. Lite HS w/ additives

Williams Production Company, LLC proposes to drill a directional well to develop the Mesa Verde and Dakota formations at the above described location in accordance with the attached drilling and surface use plan. The surface is under the jurisdiction of the Bureau of Reclamation (BOR). **REVISED COPY DUE TO SURFACE OWNERSHIP**
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 not require any new access road (see Pipeline & Well Plats #3 & #4). The well will be accessed by utilizing an existing road that W/2 sect. 21, NW/NW sect. 28, SE/NE, NE/SE sect. 29, S/2 sect. 28, E/2 sect. 33, S/2 sect. 34 all of 31N, R6W, N/2 sect. 2, SW/NW, NW/SW sect. 1, NE/SE, SE/SE sect. 1, NE/NE sect. 11 all of 30N, R6W where it joins the main "Rosa Road".

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 [Signature] TITLE John C. Thompson, Agent DATE 6/25/2002

(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 /s/ Charlie Beecham TITLE _____ DATE SEP - 5

*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.

NMOCD

FIELD USE FOR Directional Survey

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

¹ API Number 30-039-27240		² Pool Code 72319 / 71599		³ Pool Name BLANCO MESAVERDE / BASIN DAKOTA	
⁴ Property Code 17033		⁵ Property Name ROSA UNIT			⁶ Well Number 32C
⁷ OGRID No. 120782		⁸ Operator Name WILLIAMS PRODUCTION COMPANY			⁹ Elevation 6331'

¹⁰ Surface Location

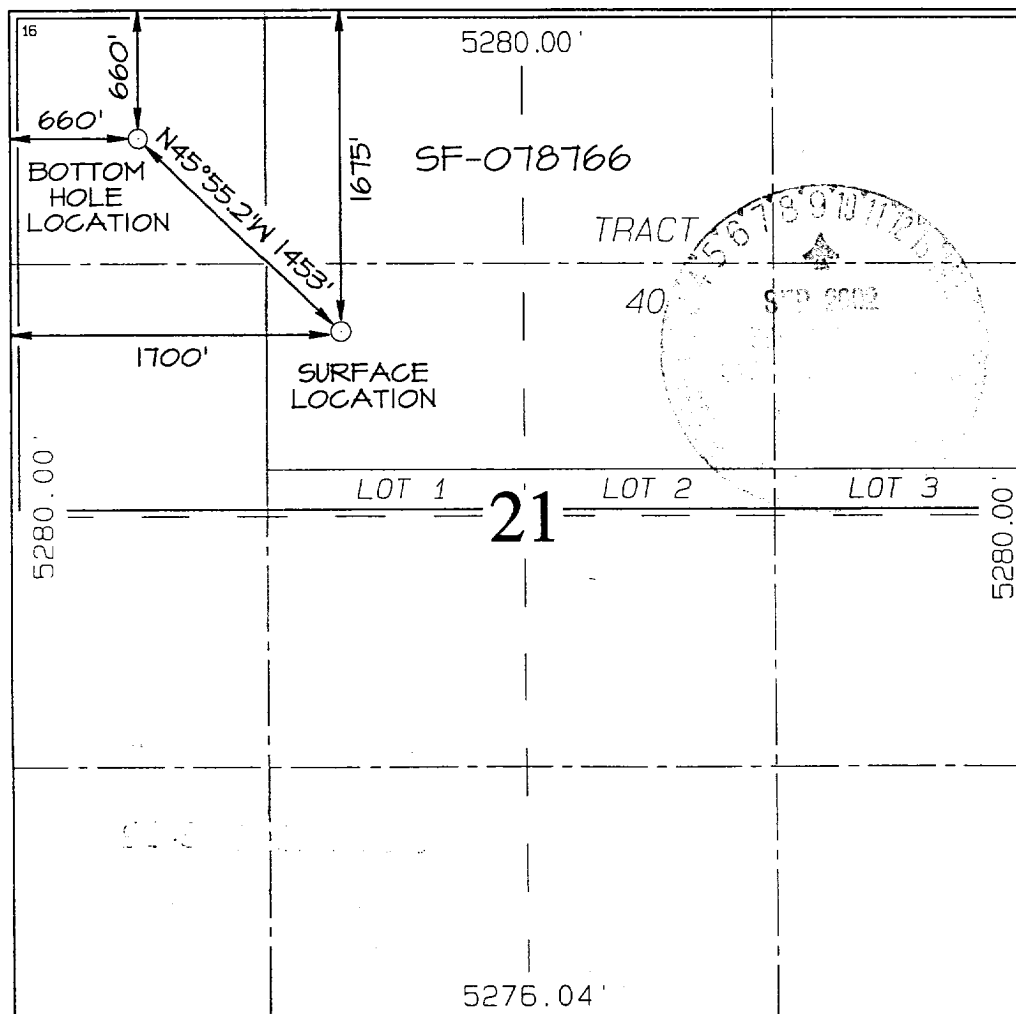
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
F	21	31N	6W		1675	NORTH	1700	WEST	RIO ARriba

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
D	21	31N	6W		660	NORTH	660	WEST	RIO ARriba

¹² Dedicated Acres 325.31 / 320.0 Acres - (N/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



¹⁷ OPERATOR CERTIFICATION

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

Signature
John C. Thompson
Printed Name
Agent/Engineer
Title
5/23/02
Date

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.

Date of Survey: **APRIL 17, 2002**

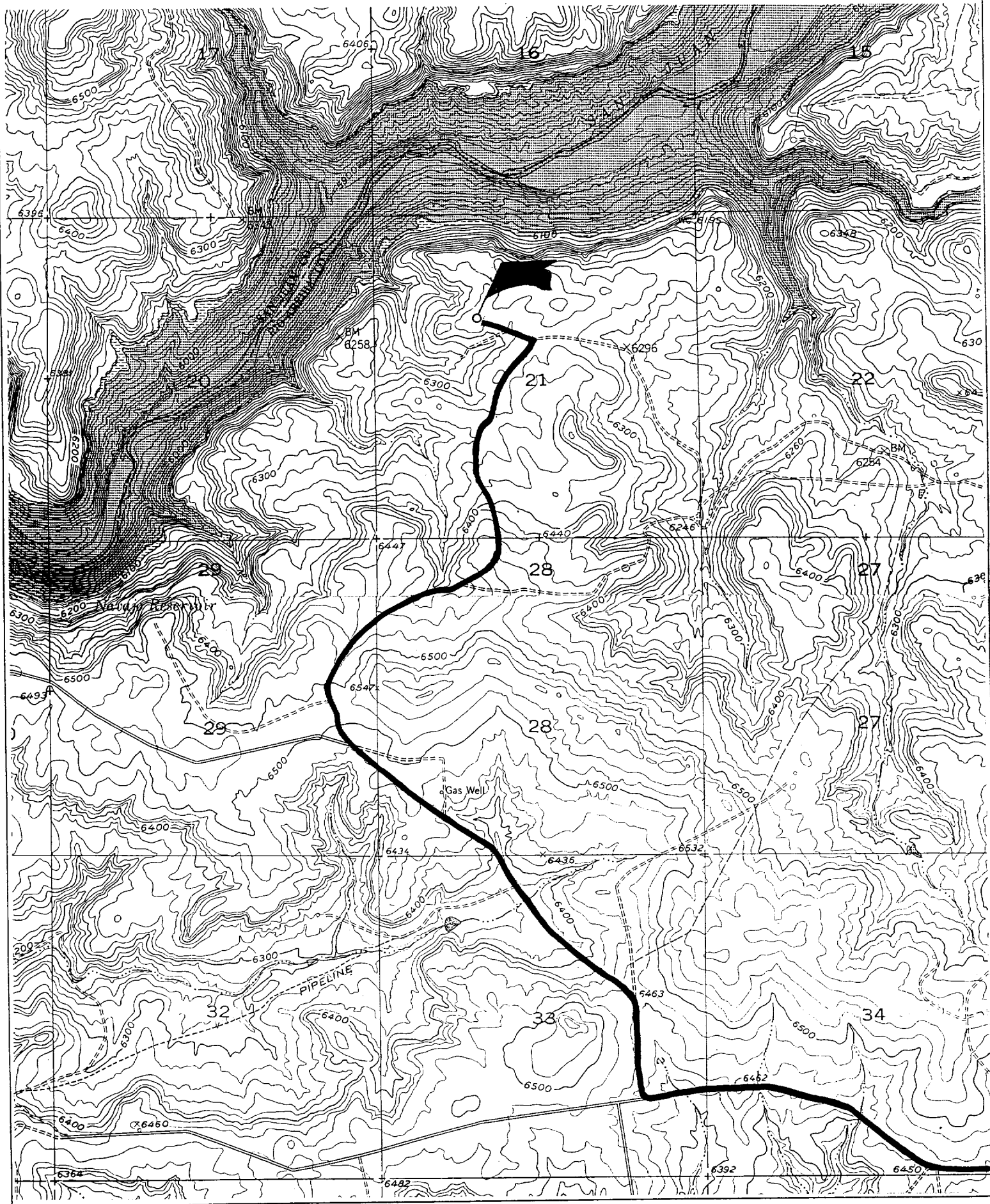
Signature and Seal of Professional Surveyor



JASON C. EDWARDS
Certificate Number 15269

WILLIAMS PRODUCTION COMPANY ROSA UNIT #32C

1675' FNL & 1700' FWL, SECTION 21, T31N, R6W, N.M.P.M.
RIO ARriba COUNTY, NEW MEXICO





WILLIAMS PRODUCTION COMPANY

OPERATIONS PLAN

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

DATE: 5/16/2002

WELL NAME: Rosa Unit 32C **FIELD:** Basin DK/ Blanco MV

SURFACE LOCATION: NW/4 NW/4 Sec. 21- T31N-R6W **SURFACE:** NM G&F
Rio Arriba, NM

ELEVATION: 6331' GR **MINERALS:** FED

LEASE # SF-078766

MEASURED DEPTH: 8416'

I. GEOLOGY: Surface formation - San Jose

A. FORMATION TOPS: (KB)

	<u>TVD</u>	<u>MD</u>		<u>TVD</u>	<u>MD</u>
Ojo Alamo	2313'	2499'	Mancos sh	5928'	6246'
Kirtland sh	2438'	2645'	Gallup ss	6928'	7246'
Fruitland cl	2873'	3139'	Greenhorn ls	7658'	7976'
Pictured Cliffs ss	3173'	3463'	Graneros sh	7713'	8031'
Lewis sh	3483'	3788'	Dakota ss	7848'	8166'
Cliff House ss	5308'	5626'			
Menefee	5368'	5686'			
Point Lookout ss	5518'	5936'	Total Depth	8098'	8416'

B. LOGGING PROGRAM: DIL from TD to the Intermediate Casing Shoe. DEN/Neutron/GR (selected intervals by on-site Geologist). *Subject to change as wellbore conditions dictate.*

C. NATURAL GAUGES: Gauge any noticeable increases in gas flow. Gauge well @ 5800' and before TOH for logs @ 7954'. Record all gauges in Tour book and on morning reports.

II. DRILLING

A. MUD PROGRAM: Clear water with benex to 7" casing point. LSND to log and run pipe. Treat for lost circulation as necessary. Obtain 100% returns prior to cementing. Notify Engineering of any mud losses.

B. BOP TESTING: While drill pipe is in use, the pipe rams will be function tested not less than once each day. 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.

C. **BIT PROGRAM:** Use **Hammer bit** from Intermediate to just above the Greenhorn formation. Replace Hammer bit with **Tricone** bit to drill through the Dakota formation

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	14-3/4"	+/- 500'	10-3/4"	40.5# K-55
Intermediate	9-7/8"	+/-4113'	7-5/8"	26.4# K-55
Prod. Casing	6-3/4"	+/- 8416'	5-1/2"	17.0# N-80

B. **FLOAT EQUIPMENT:**

1. **SURFACE CASING:** 10-3/4" notched regular pattern guide shoe. Run (1) Standard centralizer on each of the bottom (3) Joints.
2. **INTERMEDIATE CASING:** 7-5/8" 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 1500' to the surface. Total centralizers (5 regular and 13 turbulent).
3. **PRODUCTION CASING:** 5-1/2" whirler type cement nose guide shoe with a latch collar on top of 20' bottom joint. Place 20' marker joint on top of 10 th joint and one above 5100'.

C. **CEMENTING:**

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

1. **SURFACE:** Use 460sx (626cu.ft.) of class "Type III" with 2% CaCl₂ and 1/4# of cello-flake/sk (Yield = 1.39 cu.ft./sk, Weight = 14.5 #/gal.). 125% excess to circulate the surface. WOC 12 hours. Test to 1500#.
2. **INTERMEDIATE:** Lead: 625sx (1306cu.ft.) of class "Premium Lite" 65/35, Type III/Poz with 8% gel and 1/4# cello-flake/sk (Yield = 2.09 cu.ft./sk, Weight = 12.1 #/gal.). Tail: 335sx (461cu.ft.) of class "Type III" with 1/4# cello-flake/sk (Yield = 1.39 cu.ft./sk, Weight = 14.5#/gal.). 100% excess in lead and tail to circulate to surface. Total volume = 1767 cu.ft. WOC 12 hours. Run a temperature survey after 8 hours if cement is not circulated.
3. **PRODUCTION CASING:** 30 sks Scavenger of Premium Light HS + 1% FL-52 + .3% CD-32 + 2% KCl + .25 #/sk Celloflake + 4% Phenoseal + .2% R3. (Weight = 11 #/gal.). **Cement Slurry:** 235 sx (478ft³) of Premium Light HS + 1% FL-52 + .3% CD-32 + 2% KCl .25 #/sk Celloflake + 4% Phenoseal + .2% R3. (Yield = 2.02 ft³/sk, Weight = 12.5 #/gal.). Displace cement at a minimum of 8 BPM. Use 30% excess in calculation to raise cement 100' into intermediate casing. Total volume 478ft³. WOC 12 hours.

Williams Production Company, LLC

Well Control Equipment Schematic for 2M Service

Attachment to Drilling Technical Program

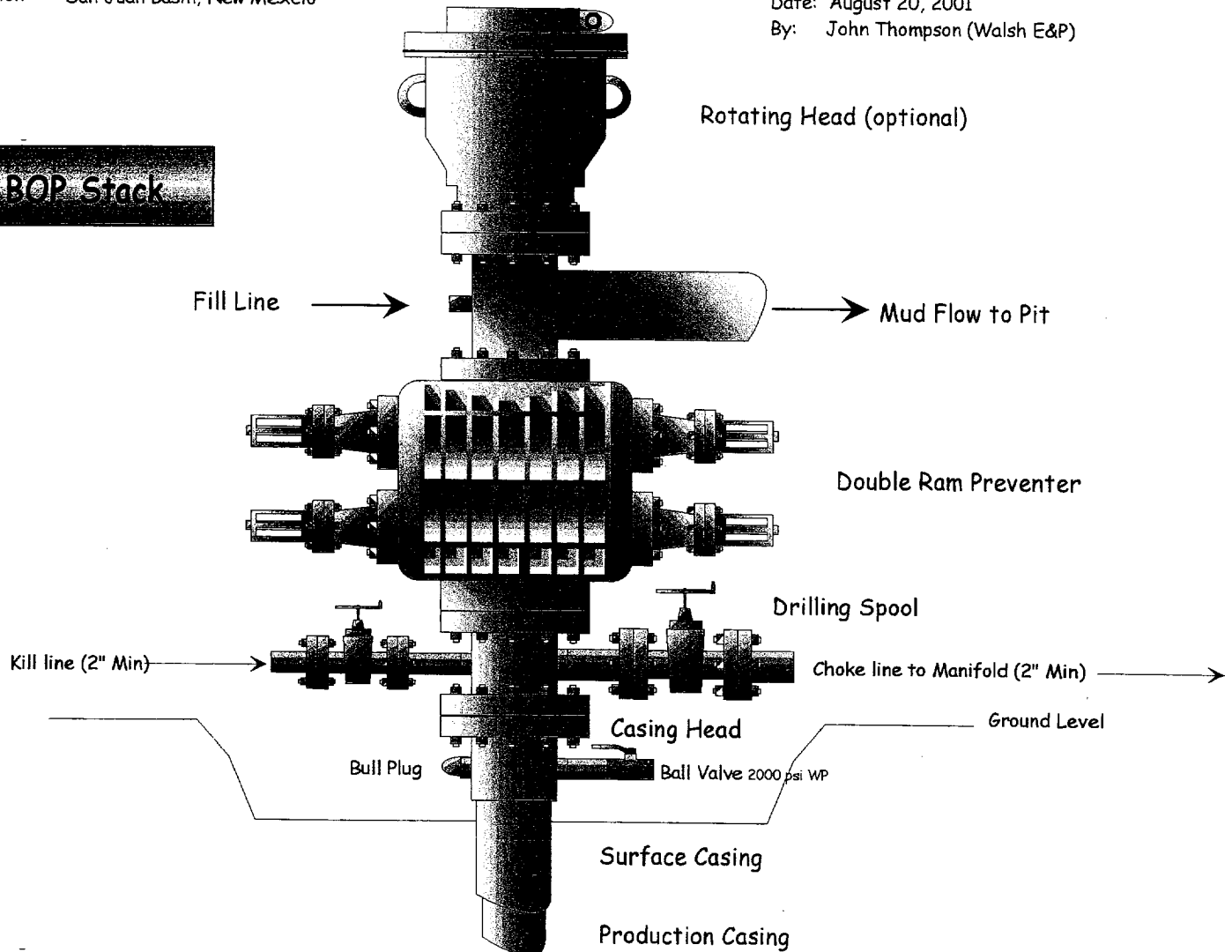
Typical BOP setup

Location: San Juan Basin, New Mexico

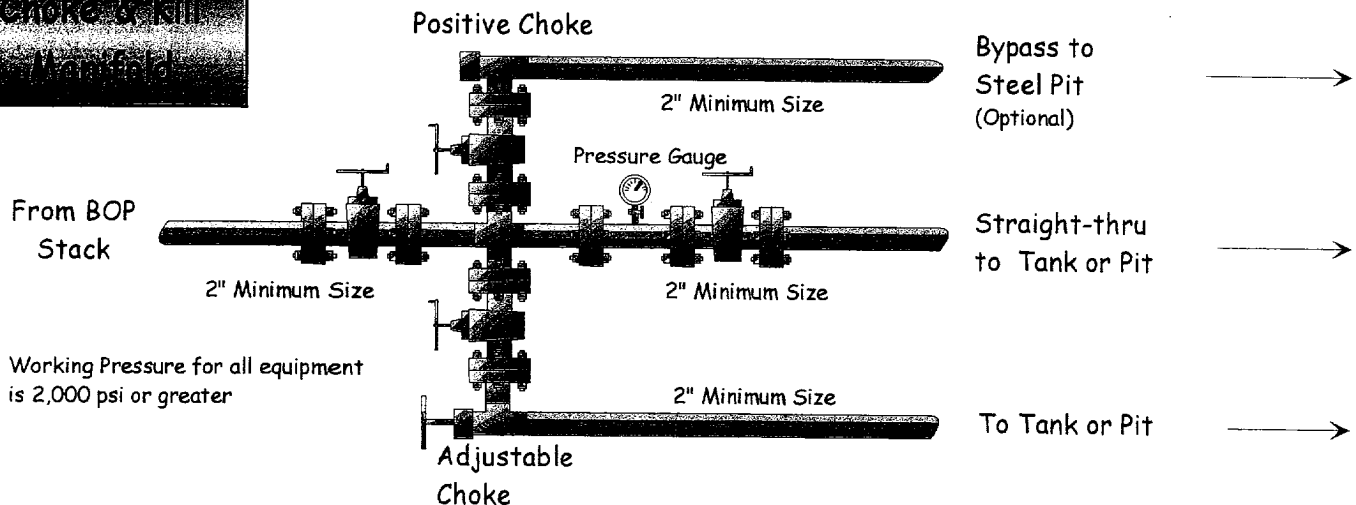
Date: August 20, 2001

By: John Thompson (Walsh E&P)

BOP Stack



Choke & Kill Manifold



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