

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

5. LEASE DESIGNATION AND SERIAL NO.

SF- 078765

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 ☒

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

Rosa Unit

8. FARM OR LEASE NAME, WELL NO.

60 B

2. NAME OF OPERATOR

Williams Production Company

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 275' FSL and 1450' FWL

At proposed Prod. Zone

9. API WELL NO.

30-045- 30690

10. FIELD AND POOL OR WILDCAT

Blanco Mesa Verde/DK

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

N Sec. 4, T31N, R6W

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

24 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)

275'

16. NO. OF ACRES IN LEASE

2430.23

17. NO. OF ACRES ASSIGNED TO THIS WELL

343.23

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

1300'

19. PROPOSED DEPTH

8143'

20. ROTARY OR CABLE TOOLS

Rotary

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

6416'

22. APPROX. DATE WORK WILL START*

August 1, 2001

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"	32.75#	+/- 500'	~451 cu.ft. Cl "H" with 2% CaCl ₂
9-7/8"	7-5/8"	26.4#	+/- 3673'	~1284 cu.ft. 65/35 poz & ~346 cu.ft. Type
6-3/4"	5-1/2"	17.0#	+/- 8143'	~422 cu.ft. 50/50 poz & ~150 cu.ft. class "

TOC to 3573'

Williams Production Company proposes to drill a vertical well to develop the Mesa Verde and Dakota formations 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 reports 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 be accessed by an existing road that crosses the SE/SW, SW/SW of section 4, the NE/NE, SE/NE, SW/NE, SE/NW, NW/NW of section 8, the NE/NE of section 7, the SE/SE of section 6, the SW/SW, SE/SW, NE/SW & Lot 7 of section 5 all of T31N R6W and SW/SW, NW/SW of section 32, SE/NE, NE/NE of section 31, SE/SE, NE/SE, SW/SE, SE/NW & NW/NW of section 30 all of T32N R6W and NE/NE of section 25 of T32N R/W 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

TITLE John C. Thompson, Agent

DATE

6/11/01

(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/ Lee Otten

TITLE

DATE

JUL 11

*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.

HOLD C104 FOR

NSL in Basin Dakota

H200

District I
PO Box 1990, Hobbs, NM 88241-1990

District II
PO Drawer 00, Artesia, NM 88211-0719

District III
5000 Rio Grande Rd., Aztec, NM 87410

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

State of New Mexico
Geology, Minerals & Natural Resources Department

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

Form C-10:
Revised February 21, 1999
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 30045-30690		*Well Code 72319 / 71599		*Well Name Blanco Mesaverde / Basin Dakota	
*Property Code 17033		*Property Name ROSA UNIT COM			
*OGRIID No. 120782		*Operator Name WILLIAMS PRODUCTION COMPANY			
		*Well Number 608			
		*Elevation 6416'			

10 Surface Location

UL or lot no.	Section	Township	Range	Lot 34	Feet from the	North/South line	Feet from the	East/West line	County
N	4	31N	6W	.	275	SOUTH	1450	WEST	SAN JUAN

11 Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot 34	Feet from the	North/South line	Feet from the	East/West line	County

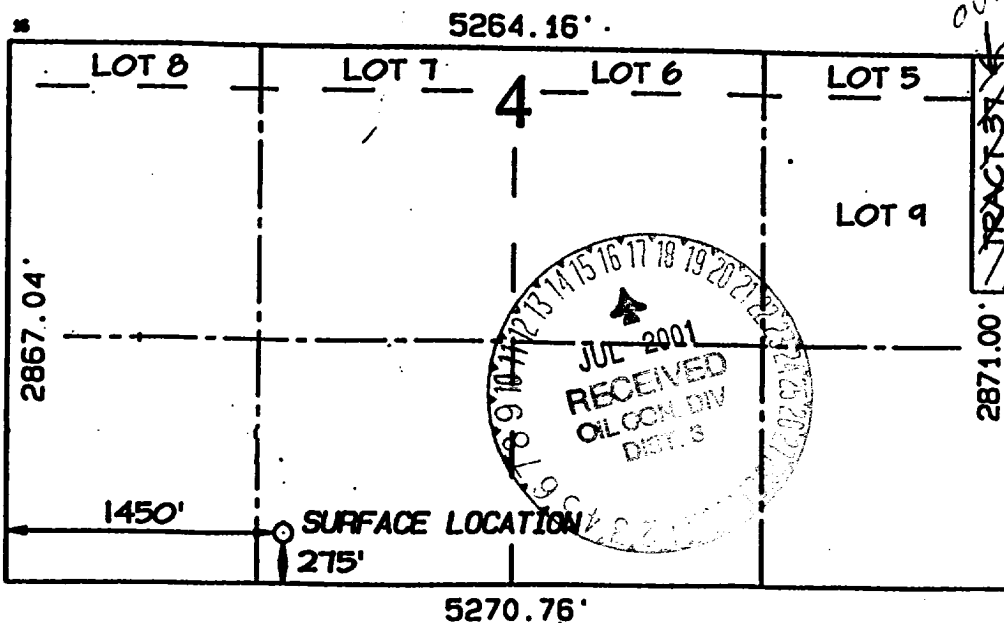
12 Dedicated Acres
343.23

13 Joint or Infill

14 Consolidation Code

15 Order No.
R2046T31N6W Tract D

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



OPERATOR CERTIFICATION

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

[Signature]
Signature
John C. Thompson
Printed Name
Agent
Title
6/5/01
Date

SURVEYOR CERTIFICATION

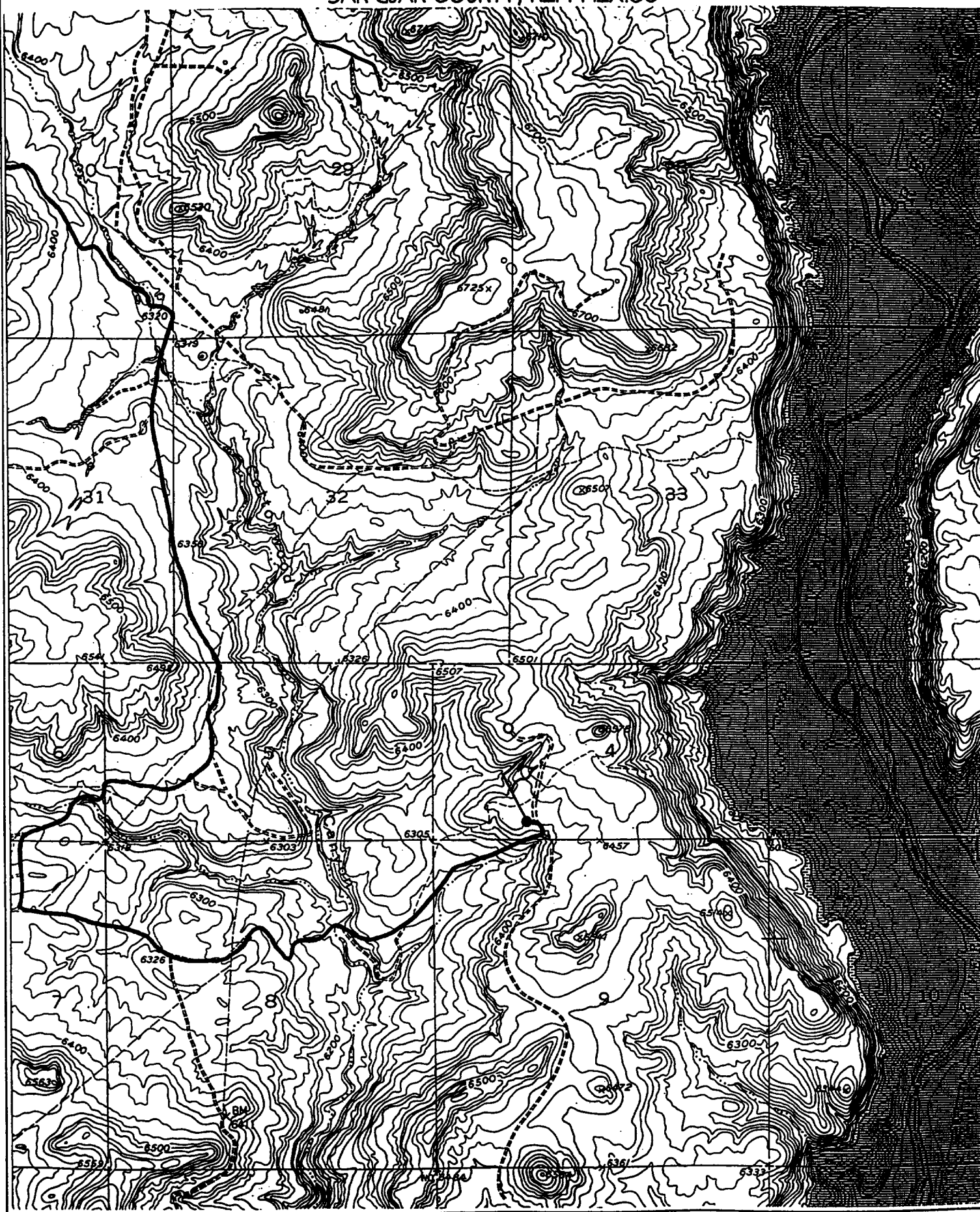
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

REVISED: MAY 2, 2001
DECEMBER 30, 2000

Date of Survey
Signature and Seal of Surveyor
[Signature]
NEALE G. EDWARDS
NEW MEXICO
6857
Certificate Number 6857

WILLIAMS PRODUCTION COMPANY ROSA UNIT COM #60B

275' FSL & 1450' FWL, SECTION 4, T31N, R6W, N.M.P.M.
SAN JUAN COUNTY, NEW MEXICO



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 not circulated to surface..

B. PRESSURE TEST

1. Pressure test 7 5/8" & 5-1/2" casing to 3300# for 15 minutes.

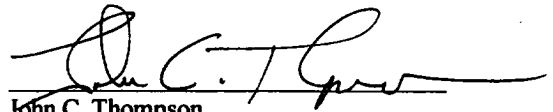
C. STIMULATION

1. Stimulate Dakota with approximately 70,000# of 20/40 sand in x-link foam.
2. Isolate Dakota with a RBP.
3. Stimulate Point Lookout with approximately 80,000# of 20/40 sand in slick water.
4. Isolate Point Lookout with a RBP.
5. Perforate the Menefee/Cliff House as determined from the open hole logs.
6. Stimulate with approximately 80,000# of 20/40 sand in slick water.
7. Test each zone before removing bridge plugs.

D. RUNNING TUBING

1. Dakota: Run 2-1/16", 3.25#, J-55, IJ tubing with 1/2 mule shoe on bottom, SN with pump-out plug on top of bottom joint and 5 Seal Units. Land tubing approximately 100' below top Dakota perf.
2. Mesa Verde: Run 2-3/8", 2.9#, J-55, EUE tubing with a SN (1.91" ID) on top of bottom joint. Land tubing approximately 25' above the bottom Point Lookout perforations.

* Note – Procedure may vary due to actual field conditions.


John C. Thompson
Engineer

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	14-3/4"	+/- 500'	10-3/4"	32.75# H-40
Intermediate	9-7/8"	+/- 3673'	7-5/8"	26.4# K-55
Prod. Casing	6-3/4"	+/- 8143'	5-1/2"	17.0# N-80

B. FLOAT EQUIPMENT:

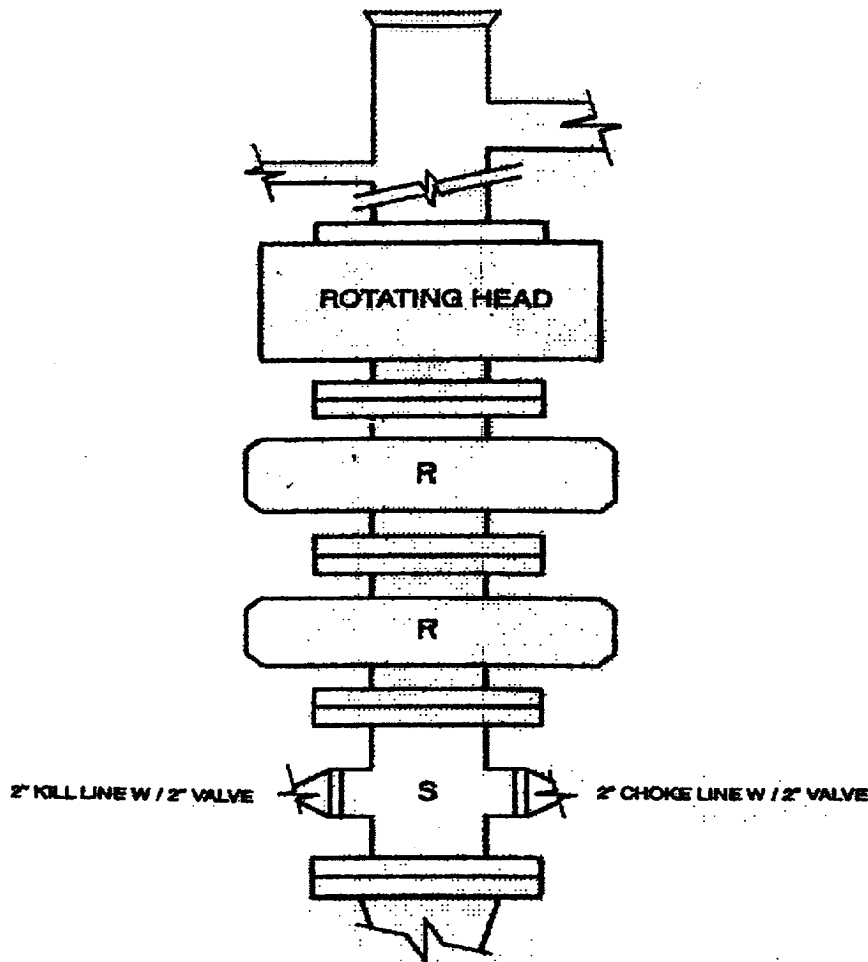
1. SURFACE CASING: 10-3/4" notched regular pattern guide shoe. Run (1) Standard centralizer on each of the bottom (3) Joints.
2. INTERMEDIATE CASING: 7-5/8" cement nose guide shoe with a self- fill insert float. Place float one (1) joint above the shoe and five (5) centralizers, spaced every other joint, 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 345sx (451 cu.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: 580sx (1284 cu.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: 250sx (346 cu.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 = 1578 cu.ft. WOC 12 hours. Run a temperature survey after 8 hours if cement is not circulated.
3. PRODUCTION STRING Lead: 310 sx (422 cu.ft.) of class 50/50, Poz/Class H with 4% gel, 2% kcl, 0.2% CD-32, 4.0% Phenoseal, 0.6% FL-50 and 1/4#/sk cello-flake. (Yield = 1.38 cu.ft./sk, Weight = 13.4 #/gal.). Tail: 100 sx (150 cu.ft.) of class "H" with 35% silica flour, 1.5% FL-62, 0.3% CD-32, 0.2% A-2, and 1/4# cello-flake/sk, (Yield = 1.50 cu.ft./sk, Weight = 15.9 #/gal.) Batch mix tail slurry. Displace cement at a minimum of 8 BPM. 50% excess in lead and tail. Total volume 572 cuft. WOC 12 hours. cuft. WOC 12 hours.

Toc to 3573' min.



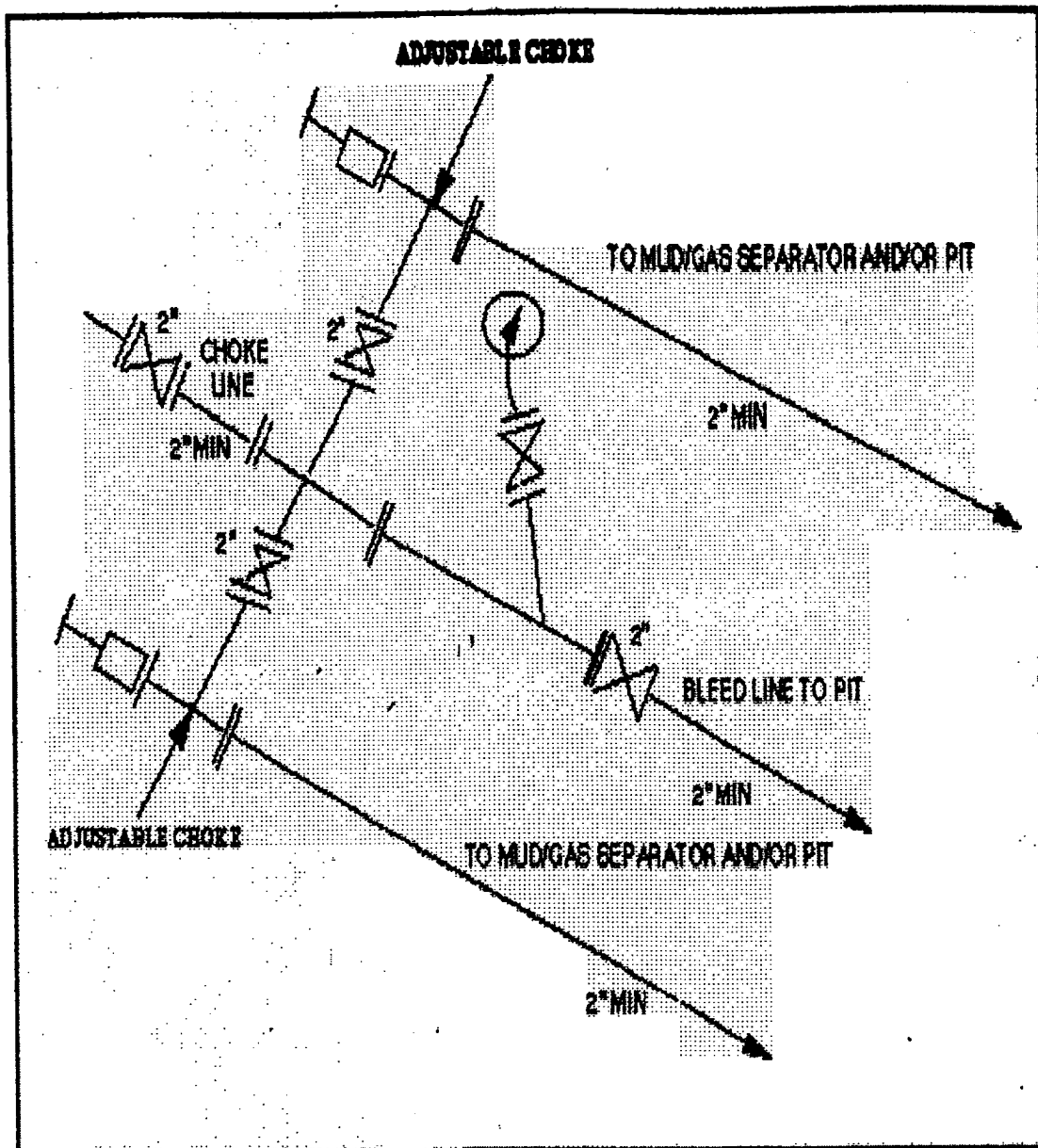
2M – BOP ARRANGEMENT

2M SYSTEM:

- Annular preventer or double ram or two rams with one being blind and one being a pipe ram
- Kill line (2 inch minimum)
- 1 kill line valve (2 inch minimum)
- 1 choke line valve
- 2 chokes (refer to diagram)
- Upper kelly cock valve with handle available
- Safety valve and subs to fit all drill strings in use
- Pressure gauge on choke manifold
- 2 inch minimum choke line
- Fill-up line above uppermost preventer

Anticipated reservoir pressure is expected to be less than 1300 psi on all encountered zones.

All ram type preventers and related equipment will be hydraulically tested at nipple-up and after any use under pressure to 1500 psi. The pipe and blind rams will be activated and checked for operational readiness each trip. All checks of the BOP stack and equipment will be noted on the daily drilling report. The BOP equipment will include a kelly cock with handle, floor safety valve with changeovers for each tool joint in the string and choke manifold all rated to 2000 psi



2M CHOKE MANIFOLD EQUIPMENT - CONFIGURATION OF CHOKES MAY VARY