

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

ROW/APD

**APPLICATION FOR PERMIT TO DRILL OR DEEPEN**

1a. Type of Work

DRILL  DEEPEN

b. Type of Well

Oil Well  Gas Well  Other  Single Well  Multiple Zone

2. Name of Operator

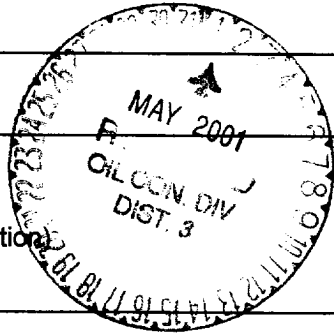
Williams Production Company

3. Address and Telephone No

P.O. Box 3102, MS 37-2, Tulsa, OK. 74101

4. Location of Well (Footages)  
At Surface

1970' FNL 1280' FEL, SENE, Sec. 34 (Surface location)  
1420' FNL 2540' FEL, SWNE, Sec. 34 (Bottom hole location)  
proposed prod. zone



5. Lease Designation and Serial No.  
SF-078772

6. If Indian, Allottee or Tribe Name

7. If Unit or CA, Agreement Designation  
Rosa Unit

8. Well Name and No.  
RU-# 89C

9. API Well No.  
30-039-26674

10. Field and Pool, or Exploratory Area  
Blanco-Mesa Verde

11. Sec., T., R., M., or BLK.  
and Survey or Area  
Section 34, T32N, R6W

14. Distance in Miles and Directions from Nearest Town or Post Office

Approximately 21.2 miles northeast of Navajo Dam Post Office (straight line)

12. County or Parish  
Rio Arriba

13. State  
NM

15. Distance from Proposed Location to Nearest Property or Lease Line, Ft 1280'	16. No. of Acres in Lease 2561.86 acres	17. No. of Acres Assigned to This Well 320 acres, E/2
18. Distance from Proposed Location to Nearest Well Drilling, Completed, or Applied for, on this Lease, FT 100'	19. Proposed Depth 6148 KB	20. Rotary or Cable Tools Rotary
21. Elevations (Show whether DF, RT, GR, etc) 6426' GR	22. Approximate Date Work will Start April 1, 2001	

**PROPOSED CASING AND CEMENTING PROGRAM**

SIZE OF HOLE	SIZE & GRADE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	9-5/8"	36# K-55	500'	255 sx-352 cu ft Type III
8-3/4"	7"	20# K55	4080'	460 sx-961 cu ft Type III 190sx-265 cu ft Type III
6-1/4"	4-1/2"	10.5# K55	3980'-6533'	80sx-116 cu ft 190sx-277 cu ft Class H + 50/50 poz+4%gel

Williams Production Company proposes to drill a directional well to develop the Blanco Mesa Verde formation in the described location above, and in accordance with the attached Operation and Surface Use plans. **The surface is under the jurisdiction of the Bureau of Land Management-Farmington Field Office.** Independent Contract Archaeology of La Plata, NM has surveyed the proposed location for Cultural Resources, and the report has been submitted to BLM for review. Nelson Consulting has submitted an Environmental Assessment to BLM-FFO for review.

The proposed well would not require the construction of a new access road, but would directly access from an existing gas field road (see Pipeline & Well Plats #3 and #4). The proposed 207-foot long steel pipeline would tie into the Williams Gas Gathering System at the Rosa Unit Well #329. This proposed well-tie pipeline would be entirely on the proposed well pad and the existing well pad (see the attached Pipeline Plat Map # 4).

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

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

**HOLD C104 FOR Div. Survey**

4. Above information is true and correct. If proposal to deepen, give present productive zone and proposed new productive zone.  
Signed Steve Nelson Title Agent

COPIES: BLM+4, WELL FILE+1  
Date March 7, 2001

(This space for Federal or State office use)

Permit No. \_\_\_\_\_ Approval Date \_\_\_\_\_  
Application approval does not warrant or certify that 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: NADCO

APPROVED BY: /s/ Joel Farrell TITLE \_\_\_\_\_ DATE APR 27 2001

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

State of New Mexico  
Energy, Minerals & Natural Resources Department

Form C-102  
Revised February 21, 1994

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

Instructions on back  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

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

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

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

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number <b>30-039-26674</b>		2 Pool Code 72319		3 Pool Name Blanco Mesaverde	
4 Property Code 17033		5 Property Name ROSA UNIT			6 Well Number 89C
7 OGRID No. 120782		8 Operator Name WILLIAMS PRODUCTION COMPANY			9 Elevation 6426

10 Surface Location

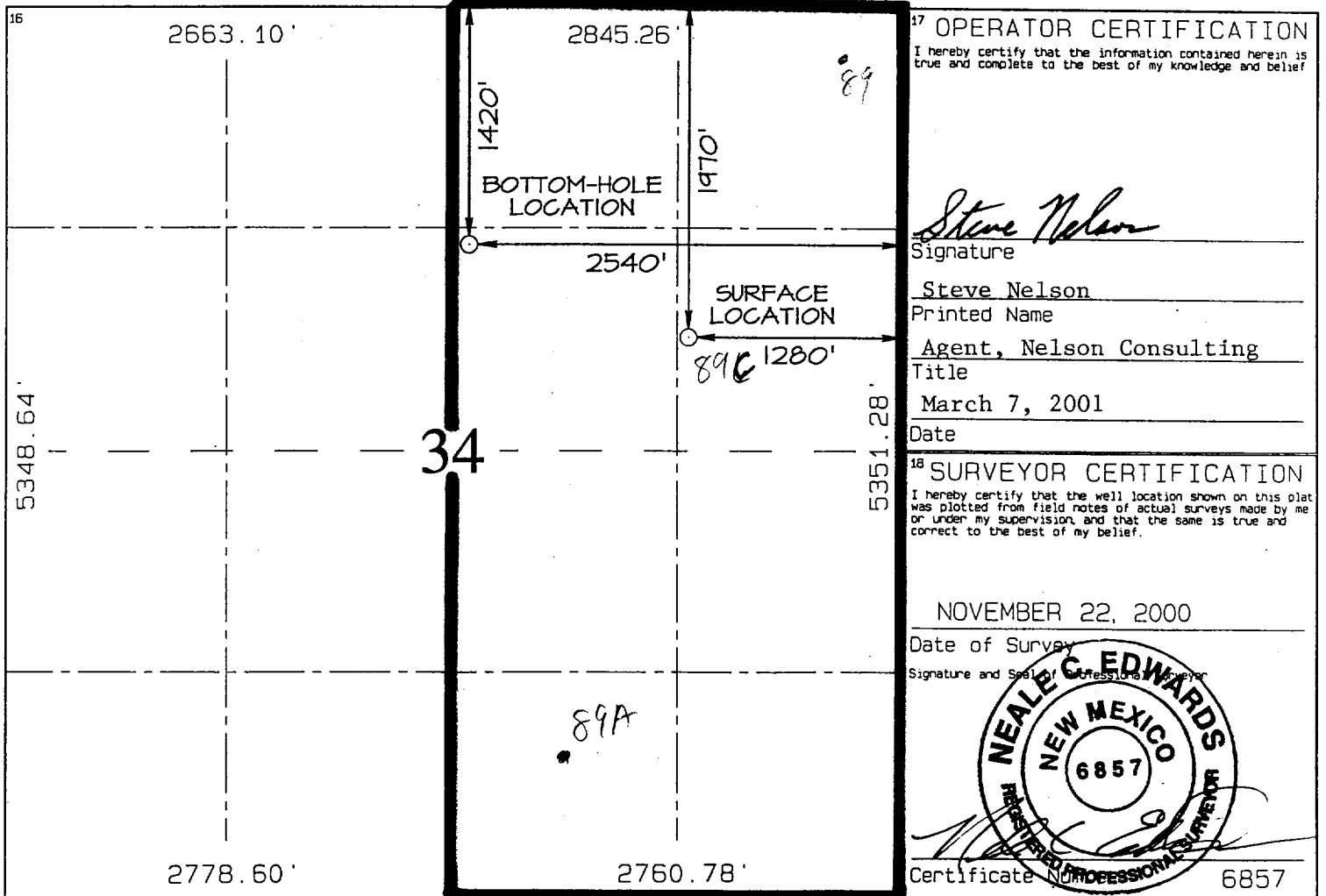
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	34	32N	6W		1970	NORTH	1280	EAST	RIO ARRIBA

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
G	34	32N	6W		1420	NORTH	2540	EAST	RIO ARRIBA

12 Dedicated Acres 320 - E/2	13 Joint or Infill I	14 Consolidation Code U	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

*Steve Nelson*  
Signature

Steve Nelson  
Printed Name

Agent, Nelson Consulting  
Title

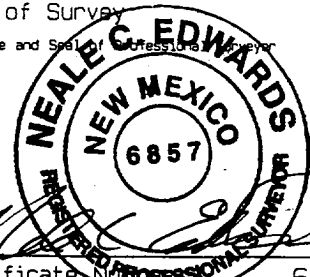
March 7, 2001  
Date

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.

NOVEMBER 22, 2000  
Date of Survey

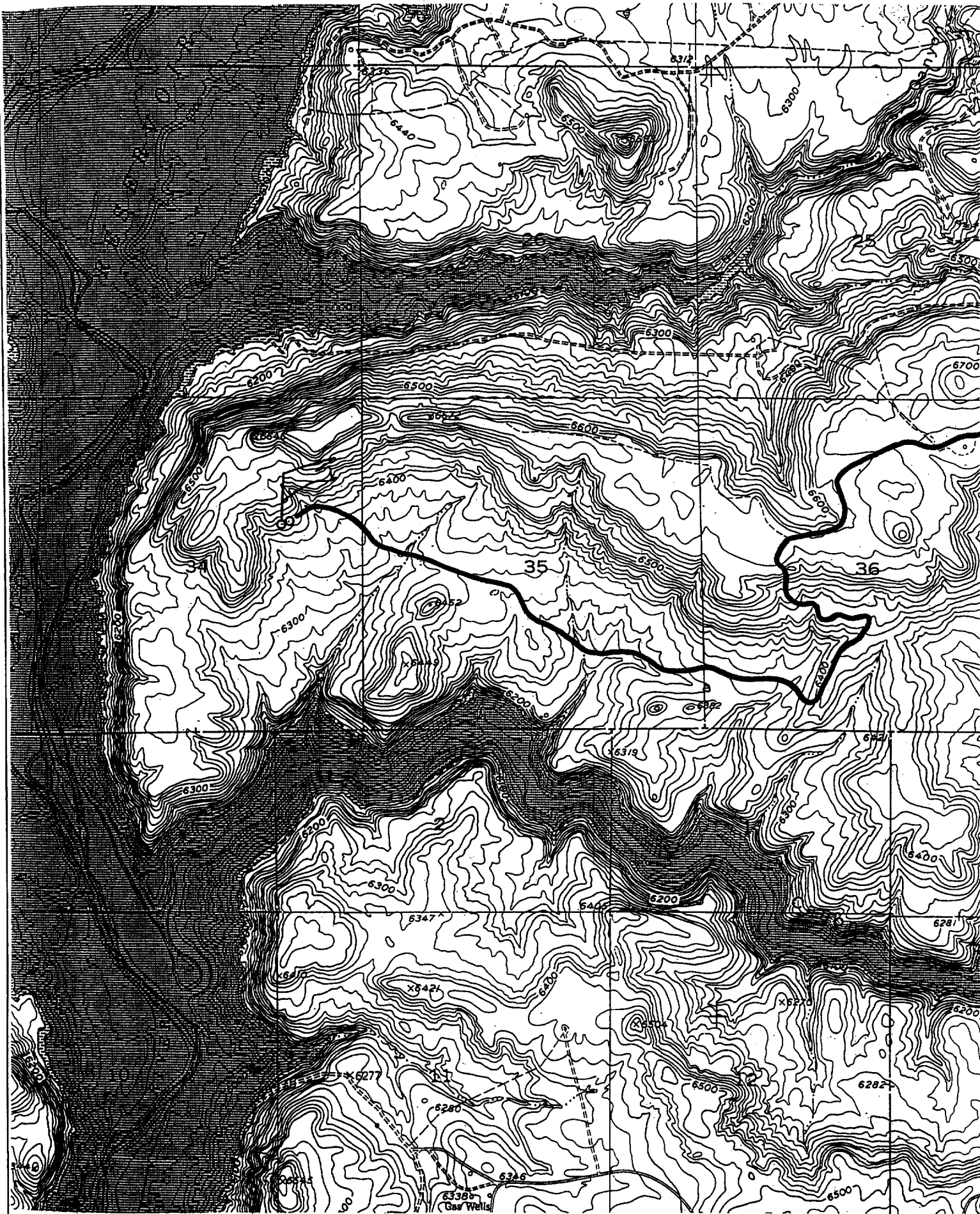
Signature and Seal of Professional Surveyor



Certificate No. 6857

WILLIAMS PRODUCTION COMPANY ROSA UNIT #89C

1970' FNL & 1280' FEL, SECTION 34, T32N, R6W, N.M.P.M.  
RIO ARriba COUNTY, NEW MEXICO



**B. FLOAT EQUIPMENT:**

1. **SURFACE CASING:** 9-5/8" notched regular pattern guide shoe. Run (1) standard centralizer on each of the bottom (3) joints of Surface Casing.
2. **INTERMEDIATE CASING:** 7" cement nose guide shoe with a self-fill insert float. Place float collar one joint above the shoe. Install one Turbulent centralizer on each of the bottom (3) joints and one standard centralizer every (4) joints to the surface casing. Total centralizers = (26) regular and (3) turbulent.
3. **PRODUCTION CASING:** 4-1/2" whirler type cement nose guide shoe with a latch collar on top of 20" bottom joint. Place marker joint above 5630'. Place one positive standoff turbolizer every other joint. Total turbolizers is 34.

**C. CEMENTING:**

1. **SURFACE:** Slurry: 255sx (352 cu.ft.) of "Type III" + 2% CaCl<sub>2</sub> + ¼ # of cello-flake/sk (Yield = 1.39 cu.ft./sk, Weight = 14.5 #/gal.). The 125% excess should circulate cement to the surface. WOC 12 hours. Test csg to 1500psi.
2. **INTERMEDIATE:** Lead: 460sx (961 ft<sup>3</sup>) of "Type III" 65/35 poz + 8% gel + 1% CaCl<sub>2</sub> + ¼ # cello-flake/sk (Yield = 2.09 ft<sup>3</sup>/sk, Weight = 12.1 #/gal.). Tail: 190sx (265 ft<sup>3</sup>) of class "Type III" + 1% CaCl<sub>2</sub> + ¼ # cello-flake/sk. (Yield = 1.39 ft<sup>3</sup>/sk, Weight = 14.5#/gal.). The 100% excess in lead and tail should circulate cement to the surface. Total volume = 1226 ft<sup>3</sup>. WOC 12 hours. Run a temperature survey after 8 hours if cement is not circulated to the surface. Test csg. to 1500psi.
3. **PRODUCTION LINER:** Lead: 80sx (116 ft<sup>3</sup>) of Class-H + 50/50 poz + 4 % gel + 0.4% FL-52. ( Yield = 1.45 cu.ft./sk, Weight = 13.2 #/gal.). Tail: 190 sx (277 ft<sup>3</sup>) of Class-H + 50/50 poz + 4 % gel + 0.4% FL-5 + ¼# celloflake/sk and 4% Phenoseal (Yield = 1.45 ft<sup>3</sup>/sk, Weight = 13.2 #/gal.). Displace cement at a minimum of 8 BPM. The 50% excess in lead and tail should cover liner top. Total volume 393ft<sup>3</sup>. WOC 12 hours.

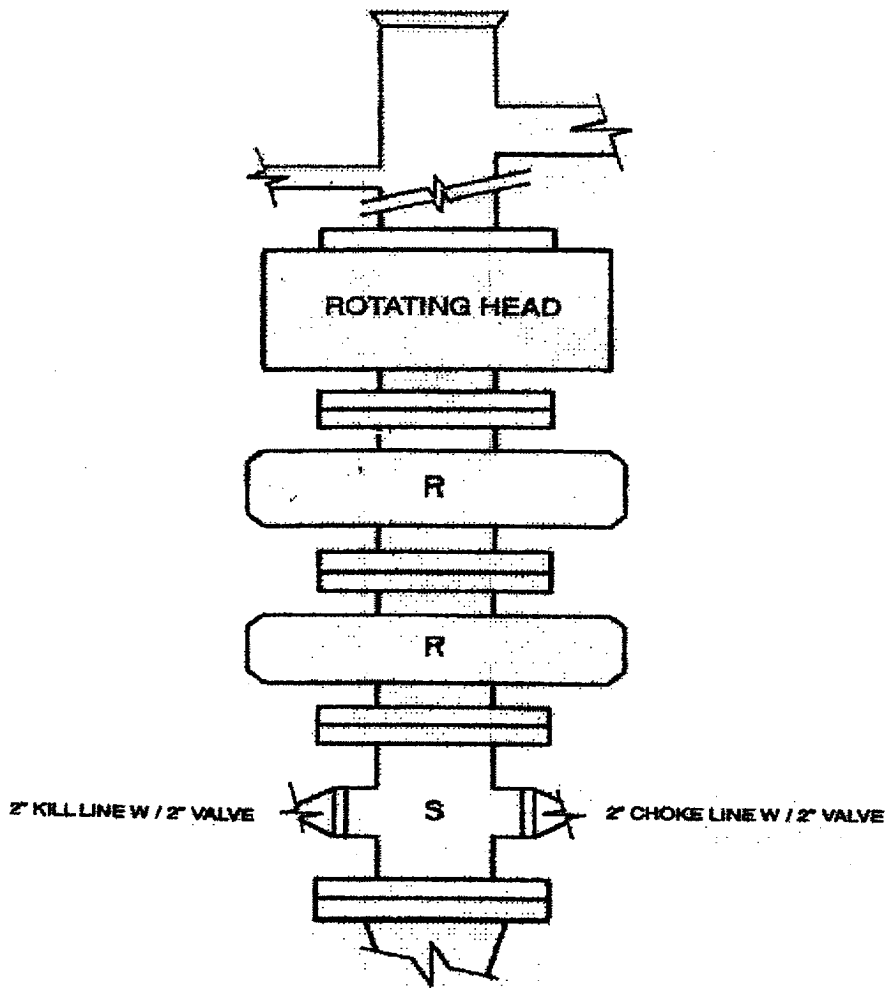
**IV COMPLETION**

**A. CBL**

1. Run Cement Bond Log across all intervals to be perforated and find Top of Cement behind all casing strings if cement is not circulated to surface.

**B. PRESSURE TEST**

1. Pressure test 7" & 4-1/2" casing to 3300# for 15 minutes.



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