

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-101
Revised February 10, 1994
Instructions on back
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RECEIVED
MAY 27 1994

AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUG BACK, OR ADD A ZONE

Operator Name and Address. NORTHWEST PIPELINE CORPORATION c/o Walsh Engr. & Prod. Corp. 7415 E. Main Farmington, New Mexico 87402 505 327-4892		OIL CON. DIV. DIST. 3	OGRID Number 16189
Property Code 008480	Property Name ROSA UNIT		API Number 30 - 039 - 25417
		Well No. 32A	

7 Surface Location

UL or lot no.	Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	County
F	21	31N	6W		1771	North	1551	West	Rio Arriba

8 Proposed Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	County
Proposed Pool 1 160 96175 Wildcat; Rosa-Pictured Cliffs					Proposed Pool 2 72319 Blanco Mesa Verde N/345.32				

Work Type Code N	Well Type Code M	Cable/Rotary R	Lease Type Code S	Ground Level Elevation 6336
Multiple Y	Proposed Depth 6050	Formation Mesa Verde	Contractor Four Corners	Spud Date 7/12/94

21 Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
12-1/4"	9-5/8" K55	36.0#	500'	315 cuft	circ.
8-3/4"	7" K-55	20.0#	3645'	960 cuft	circ.
6-1/4"	4-1/2" K-55	10.5#	3545'-6050	415 cuft	3545

Describe the proposed program. If this application is to DEEPEN or PLUG BACK give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary.

Northwest Pipeline proposes to drill a vertical well to develop the Pictured Cliffs and Mesa Verde formations at the above described location in accordance with the attached drilling plan. After surface pipe is set, a 3000# BOP will be installed for the remainder of the well. Please refer to the attached BOP and Choke Manifold Diagrams.

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

Signature:

Paul C. Thompson

Printed name:

Paul C. Thompson, P.E.

Title:

Agent

Date:

5/26/94

Phone:

505 327-4892

OIL CONSERVATION DIVISION

Approved by:

James B. Burch
DEPUTY OIL & GAS INSPECTOR, DIST. #3

Approved Date:

MAY 27 1994

Expiration Date:

MAY 27 1995

Conditions of Approval:

Attached ☐

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☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number 30-039-25417		2 Pool Code 72319		3 Pool Name BLANCO / MESA VERDE	
4 Property Code 008480		5 Property Name ROSA UNIT			6 Well Number # 32A
7 OGRID No. 16189		8 Operator Name NORTHWEST PIPELINE CORPORATION			9 Elevation 6336

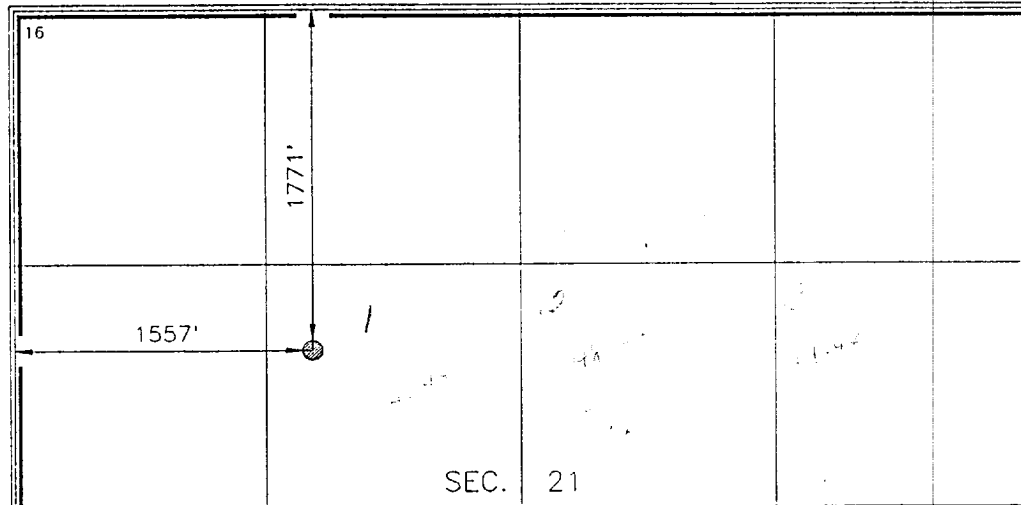
10 Surface Location

UL or lot no. F	Section 21	Township 31N	Range 6W	Lot Idn	Feet from the 1771'	North/South line FNL	Feet from the 1557'	East/West line FWL	County RIO ARRIBA
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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 220 345.32		13 Joint or Infill Y		14 Consolidation Code U		15 Order No.			

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

Paul C. Thompson

Signature
Paul C. Thompson, P.E.
Printed Name
Agent

Title
5/10/94
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.

APRIL 4, 1994

Date of Survey

Signature and Seal of Professional Surveyor

Jerry Lomon

8336

Certificate Number

RECEIVED
MAY 27 1994
OIL CON. DIV.
DIST. 3

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Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
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Santa Fe, NM 87504-2088

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☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number 30-039-25417		2 Pool Code 96175		3 Pool Name WILDCAT: ROSA - PICTURED CLIFF		
4 Property Code 008480		5 Property Name ROSA UNIT			6 Well Number # 32A	
7 OGRID No. 16189		8 Operator Name NORTHWEST PIPELINE CORPORATION			9 Elevation 6336	

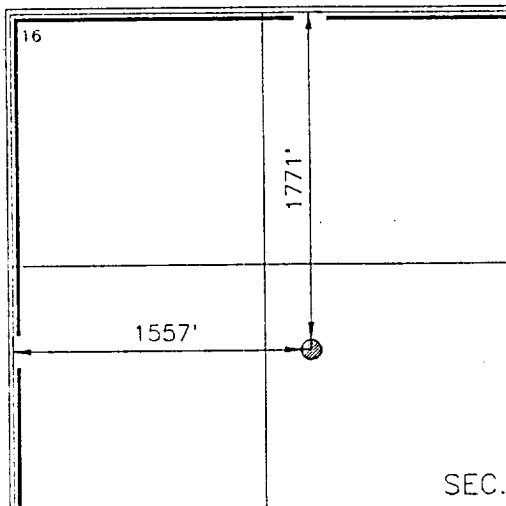
10 Surface Location

UL or lot no. F	Section 21	Township 31N	Range 6W	Lot Idn	Feet from the 1771'	North/South line FNL	Feet from the 1557'	East/West line FWL	County RIO ARriba
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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 160		13 Joint or Infill Y		14 Consolidation Code U		15 Order No.			

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

16		17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief	
		Signature <i>Paul C. Thompson</i> Paul C. Thompson, P.E. Printed Name Agent Title 5/10/94 Date	
SEC. 21		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. APRIL 4, 1994 Date of Survey Signature and Seal of Professional Surveyor: <i>Jerry James Jeffries</i> 8336 Certificate Number	
RECEIVED MAY 27 1994 OIL CON. DIV. DIST. 3			

NORTHWEST PIPELINE CORPORATION
OPERATIONS PLAN

DATE: 04/29/94

WELLNAME: ROSA UNIT #32A

FIELD: Rosa PC/Blanco MV

LOCATION: NW/4 NW/4 Sec. 21, T31N, R6W
Rio Arriba Co., NM

SURFACE: Bureau of Rec.

ELEVATION: 6336' GR

MINERALS: Federal

TOTAL DEPTH: 6050'

LEASE # SF-078766

I. GEOLOGY: Surface formation - San Jose

A. FORMATION TOPS:

Ojo Alamo	2358'	Cliff House	5343'
Kirtland	2468'	Menefee	5373'
Fruitland	2873'	Point Lookout	5650'
Pictured Cliffs	3220'	Mancos	5793'
Lewis	3495'	Total Depth	6050'

B. LOGGING PROGRAM: IND/GR, CDL/SNL. Log the Pictured Cliffs from TD to the Kirtland. Log the Mesa Verde from TD to 500' above the Cliff House.

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. LSND to log and run pipe.

B. BOP TESTING: While drill pipe is in use, the pipe rams will be tested not less than once each day. The blind rams will be tested once each trip. The drum brakes will inspected and tested each tour. All tests and inspections 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"	500'	9-5/8"	36# K-55
Intermediate	8-3/4"	3645'	7"	20# K-55
Prod. Liner	6-1/4"	3545-6050'	4-1/2"	10.5# K-55

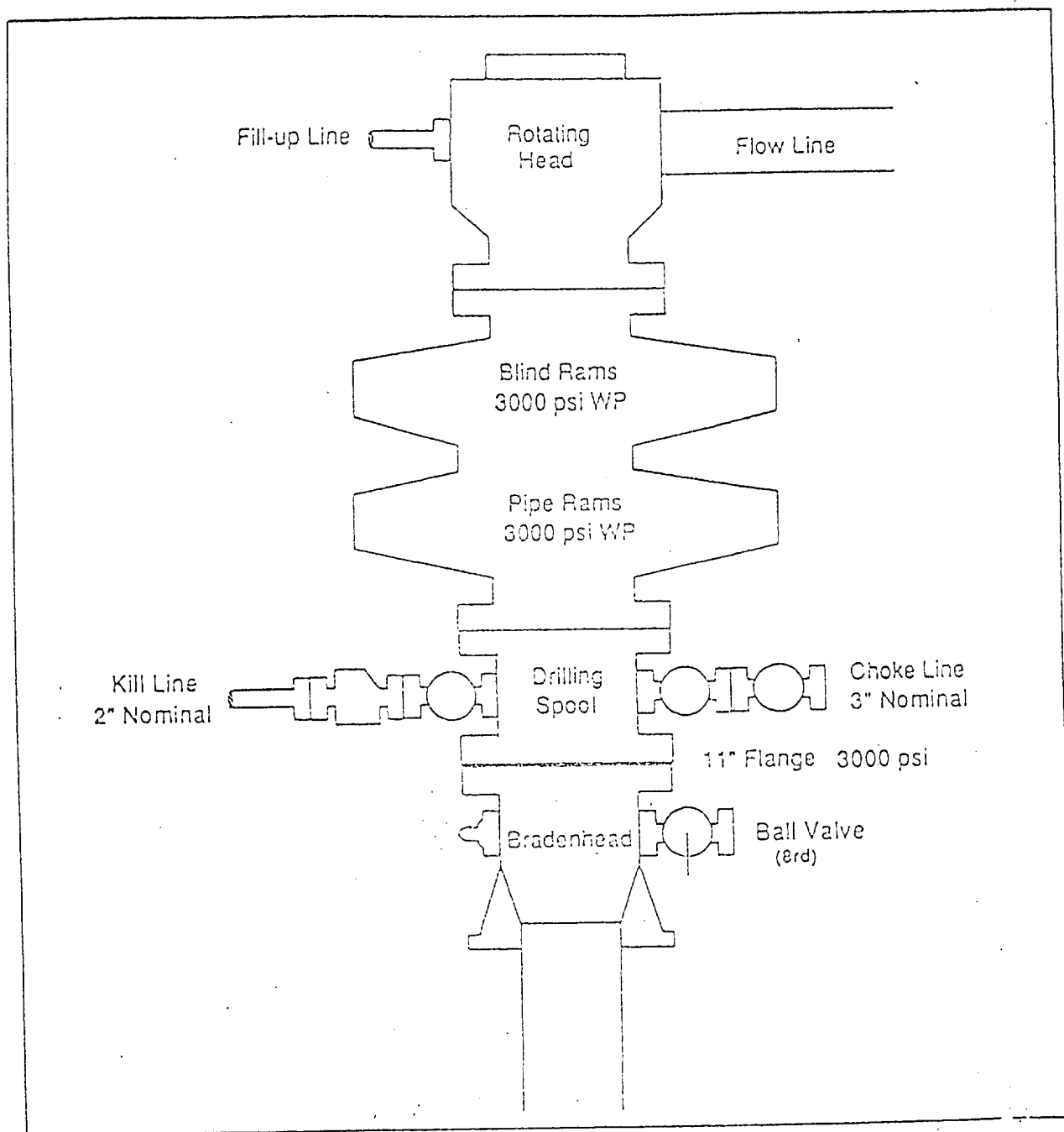
B. FLOAT EQUIPMENT:

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 2468' to the surface. Total centralizers = 5 regular and 21 turbulent.
3. PRODUCTION CASING: 4-1/2" whirler type cement nose guide shoe with a float collar and an insert float on top of bottom joint.

C. CEMENTING:

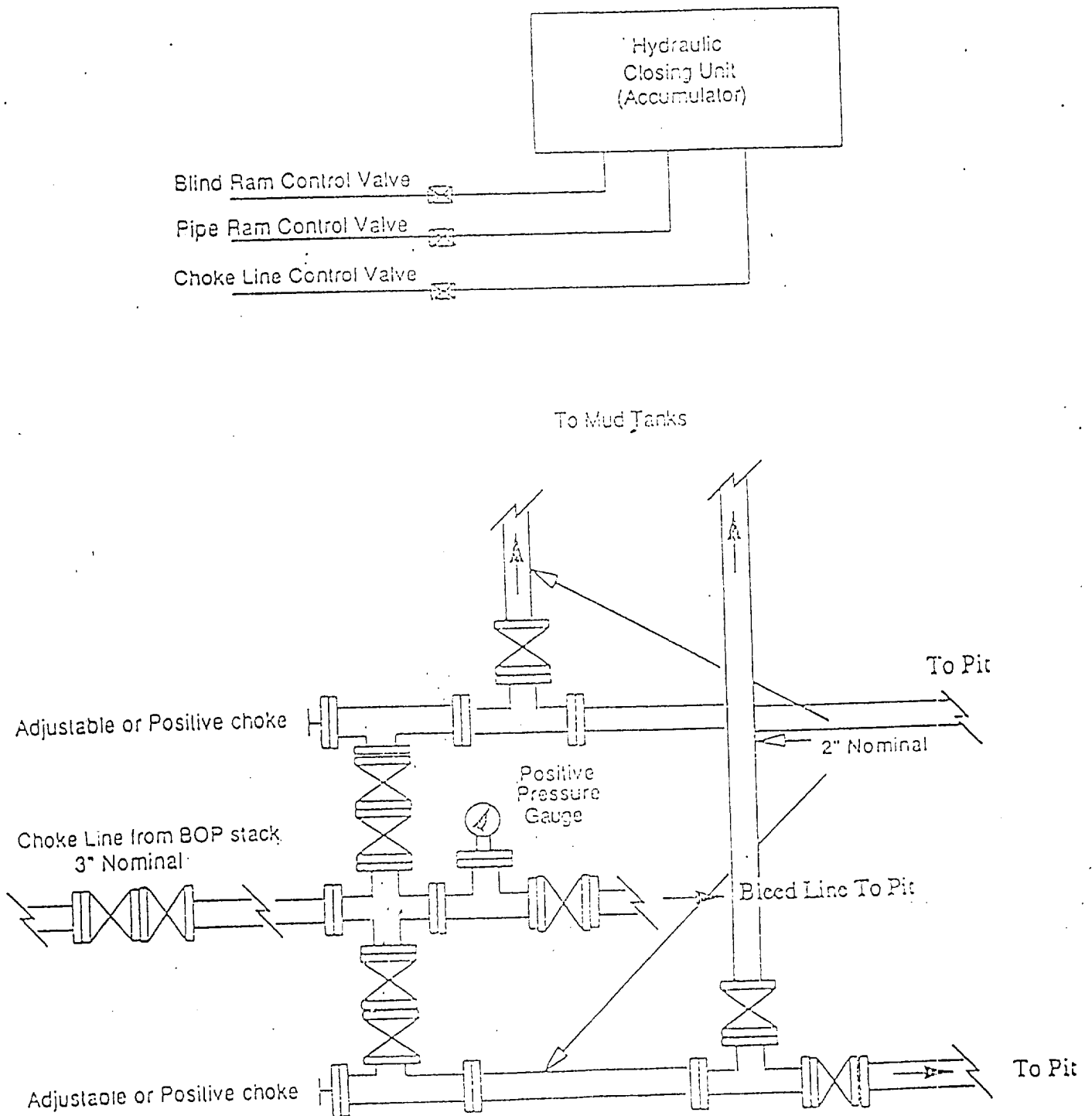
1. SURFACE: Use 265 sx (315 cu.ft.) of class "B" with 3% CaCl₂ and 1/4# of cello-flake/sk (Yield = 1.19 cu.ft./sk, Weight = 15.6 #/gal.). Use 100% excess to circulate the surface. WOC 12 hours. Test to 1500#.
2. INTERMEDIATE: Lead - 360 sx (756 cu.ft.) of class "B" 65/35 poz with 12% gel and 1/4# cello-flake/sk (Yield = 2.1 cu.ft./sk, Weight = 12.1 #/gal.). Tail - 150 sx (204 cu.ft.) of class "B" with 2% gel, 1/4# cello-flake/sk and 2% CaCl₂ (Yield = 1.36 cu.ft./sk, Weight = 14.7#/gal.). Use 75% excess to circulate the surface. Total volume = 960 cu.ft. WOC 12 hours. Run a temperature survey after 8 hours if cement is not circulated. Test to 1500#.
3. PRODUCTION LINER: Use 240 sx (415 cu.ft.) of class "B" with 4% gel, 6-1/4# fine gilsonite/sk and 0.5% Halad 9 (Yield = 1.73 cu.ft./sk, Weight = 13.5 #/gal.). Displace cement at a minimum of 10 BPM. Use 60% excess to cover liner top. WOC 12 hours. Run a temperature survey after 8 hours if liner top is not circulated.

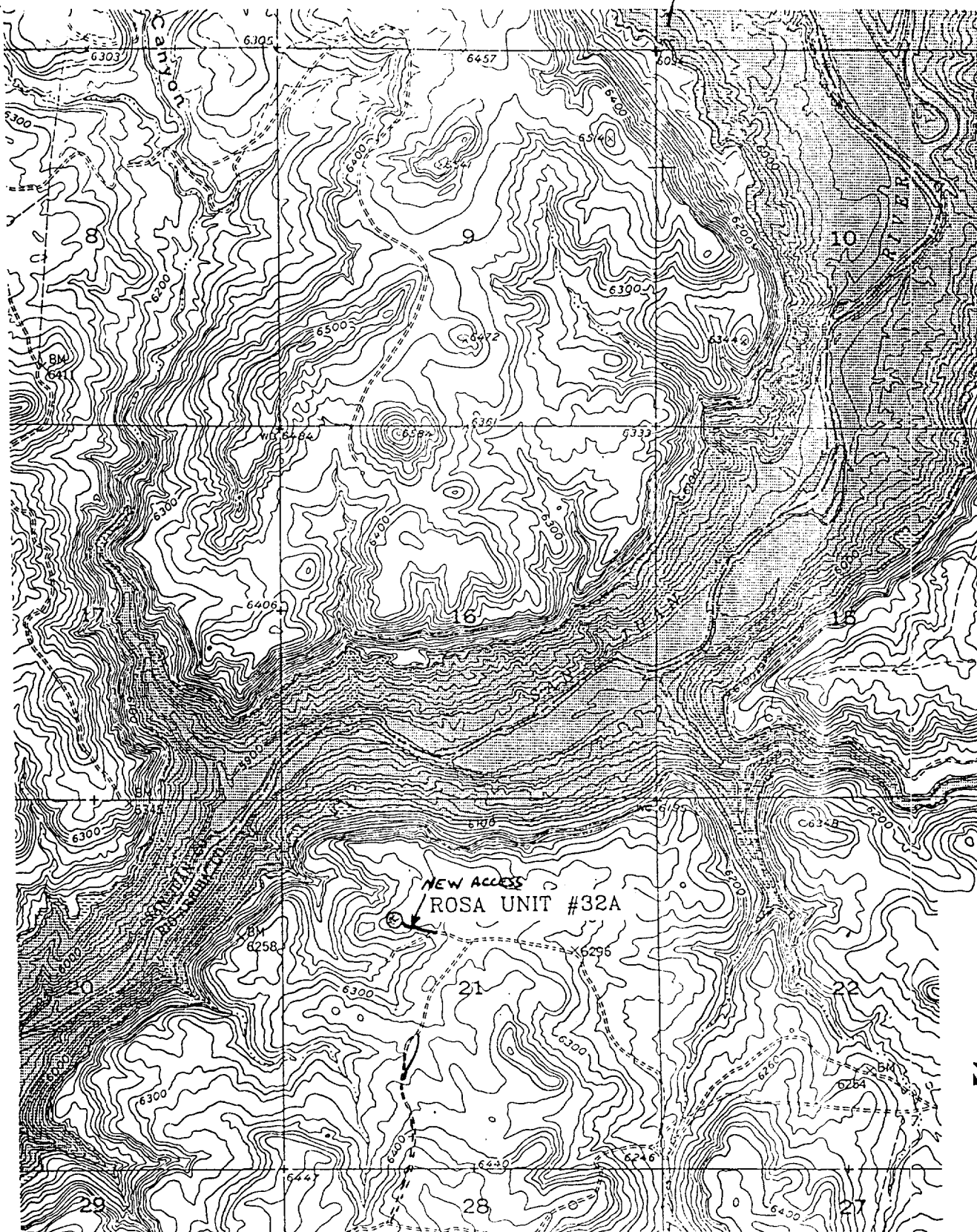
BOP STACK ARRANGEMENT



All ram type preventers and related equipment will be hydraulically tested at nipple-up and after any use under pressure to 600 psi. The blind ram will be hydraulically activated and checked for operational readiness each time pipe is pulled out of the hole. All checks of the BOP stack and equipment will be noted on the daily drilling report. The BOP equipment will include a kelly cock, floor safety valve, and choke manifold all rated to 3000 psi.

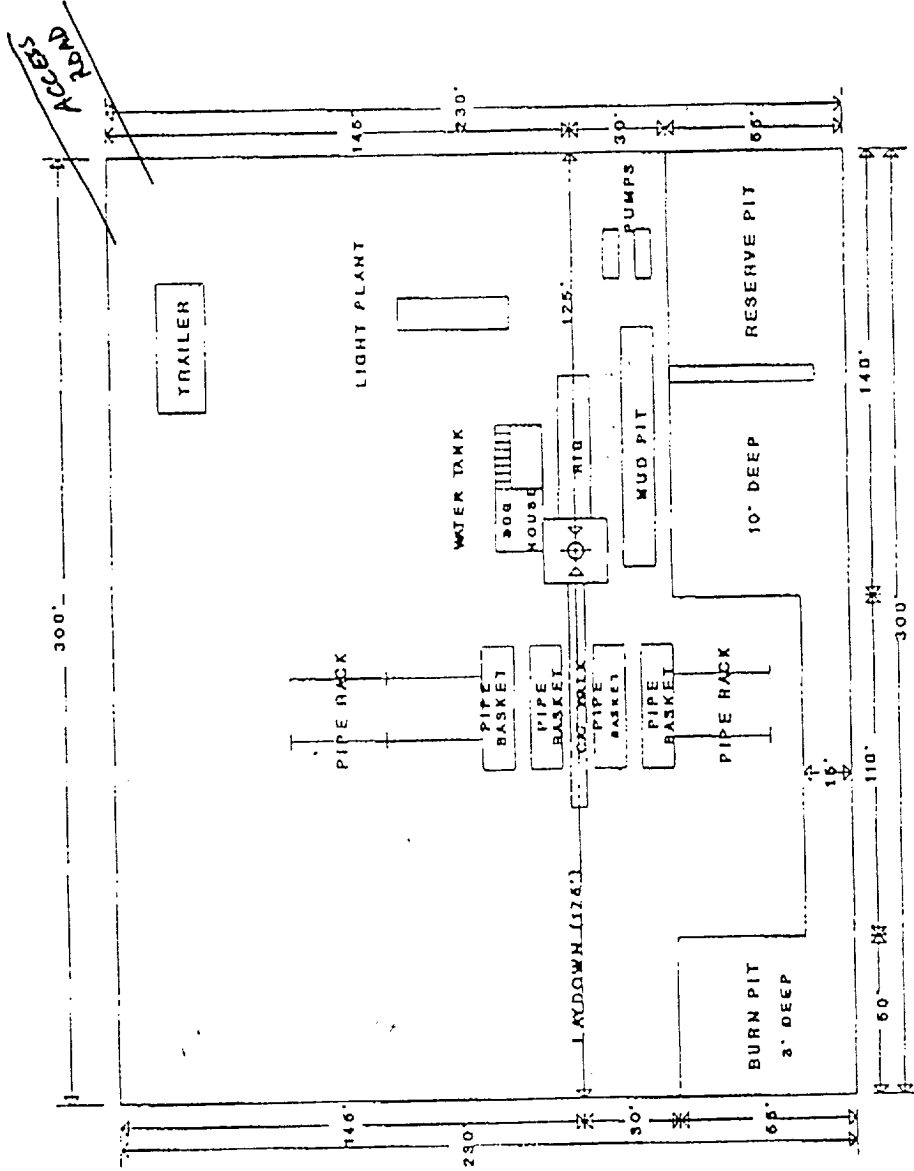
Choke Manifold & Accumulator Schematic





ROSA UNIT #32A NORTHWEST PIPELINE CORPORATION
 1771' FNL, 1557' FWL, SEC. 21, T.31 N., R.6 W. N.M.P.M.
 RIO ARriba COUNTY, NEW MEXICO
 BANCOS MESA NW
 ELEV.= 6336

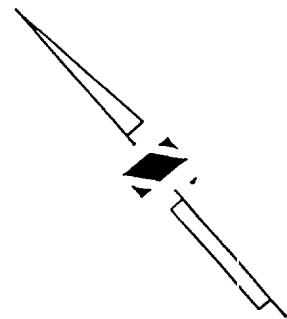
NORTHWEST PIPELINE CORPORATION LOCATION DIAGRAM



NORTHWEST PIPELINE CORPORATION
ROSA UNIT #32A
1771'FNL & 1557'FWL, SEC. 21, T31N, R6W
Rio Arriba County, New Mexico

The site plan shows a rectangular area with the following dimensions and features:

- Overall Dimensions:**
 - Top: 300' (A to B)
 - Right: 230' (C to C')
 - Bottom: 300' (A' to B')
 - Left: 230' (A to A')
- Internal Features and Dimensions:**
 - BURN PIT:** Located in the bottom left corner, measuring 50' wide and 85' high.
 - RESERVE PIT:** Located in the bottom right corner, measuring 55' x 140'.
 - LAYDOWN:** A horizontal line across the middle of the site, labeled "N 50° W".
 - ELEV. 6336:** A point marked on the laydown line.
 - Distances from Laydown:**
 - 50' from the left edge to the start of the laydown.
 - 50' from the end of the laydown to the right edge.
- Other Labels:**
 - C11.9:** Located in the upper central part of the site.
 - Access Road:** Indicated by an arrow pointing towards the top right corner.
 - Distances from Corners:**
 - Top left: F4.4 (A to corner)
 - Top right: C3.7 (B to corner)
 - Bottom left: F3.9 (A' to corner)
 - Bottom right: C2.0 (B' to corner)
 - Left side: F4.7 (A to laydown)
 - Right side: C6.0 (C to laydown)
 - Bottom: C4.7 (B' to laydown)



ELEV.	A-A'	C/L			
6366					
6356					
6346					
6336					
6326					
6316					

ELEV.	B-B'	C/L
6366		
6356		
6346		
6336		
6326		
6316		

ELEV.	C-C'	C/L
6366		
6356		
6346		
6336		
6326		
6316		