

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 S. St. Francis Dr.
Santa Fe, NM 87505

Form C-101
Revised March 17, 1999

Submit to appropriate District Office
State Lease - 6 Copies
Fee Lease - 5 Copies

☐ AMENDED REPORT

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

| | | |
|--|--|---|
| ¹ Operator Name and Address PATTERSON PETROLEUM LP P.O. DRAWER 1416, SNYDER, TX 79550 | | ² OGRID Number 141928 |
| | | ³ API Number 30-025-36419 |
| ⁴ Property Code 32945 | ⁵ Property Name MOHICAN "28" STATE | ⁶ Well No. 1 |

⁷ Surface Location

| | | | | | | | | | |
|--------------------|---------------|-----------------|--------------|---------|-----------------------|---------------------------|-----------------------|------------------------|---------------|
| UL or lot no. J | Section 28 | Township 17S | Range 33E | Lot Idn | Feet from the 1980 | North/South line SOUTH | Feet from the 1330 | East/West line EAST | County LEA |
|--------------------|---------------|-----------------|--------------|---------|-----------------------|---------------------------|-----------------------|------------------------|---------------|

⁸ Proposed 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 |
| ⁹ Proposed Pool 1 Wildcat; VACUUM; MORROW | | | | | | ¹⁰ Proposed Pool 2 | | | |

| | | | | |
|-----------------------------------|---|--------------------------------------|--|---|
| ¹¹ Work Type Code N | ¹² Well Type Code G | ¹³ Cable/Rotary ROTARY | ¹⁴ Lease Type Code S | ¹⁵ Ground Level Elevation 4168' |
| ¹⁶ Multiple NO | ¹⁷ Proposed Depth 13,800' | ¹⁸ Formation MORROW | ¹⁹ Contractor PATTERSON-UTI DRLC | ²⁰ Spud Date 09/29/2003 |


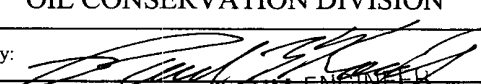
²¹ Proposed Casing and Cement Program

| Hole Size | Casing Size | Casing weight/foot | Setting Depth | Sacks of Cement | Estimated TOC |
|-----------|-------------|--------------------|---------------|-----------------|---------------|
| 17-1/2" | 13-3/8" | 48# | 400' | 500 | SURFACE |
| 12-1/4" | 9-5/8" | 40# | 4,800' | 1750 | SURFACE |
| 8-3/4" | 5-1/2" | 17# | 13,800' | 1000 | 9000' |
| | | | | | |
| | | | | | |

²² 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.

DRILLING FLUID SYNOPSIS ATTACHED
BOP: SERIES 900, 5000# WP - SEE FIGURE 2.5 ATTACHED
ADDITIONAL CASING & CEMENTING INFORMATION ATTACHED

Permit Expires 1 Year From Approval
Date Unless Drilling Underway

| | | | |
|--|--|---|------------------|
| ²³ I hereby certify that the information given above is true and complete to the best of my knowledge and belief. Signature:  | | OIL CONSERVATION DIVISION | |
| Printed name: NOLAN VON ROEDER | | Approved by:  | |
| Title: ENGINEER | | Title: PETROLEUM ENGINEER | |
| Date: 09/22/03 | | Approval Date: SEP 24 2003 | Expiration Date: |
| Phone: 325/573-1938 | | Conditions of Approval: Attached <input type="checkbox"/> | |

DISTRICT I
P.O. Box 1980, Hobbs, NM 88241-1980

DISTRICT II
P.O. Drawer DD, Artesia, NM 88211-0719

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

DISTRICT IV
P.O. BOX 2088, SANTA FE, N.M. 87504-2088

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised February 10, 1984
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

| | | |
|----------------------------|--|---|
| API Number 30-025-36419 | Pool Code 86840 ✓ | Pool Name Wildcat; Vacuum; Morrow |
| Property Code 32975 | Property Name MOHICAN 28 STATE | Well Number 1 |
| OGRID No. 141928 | Operator Name PATTERSON PETROLEUM, LP | Elevation 4168' |


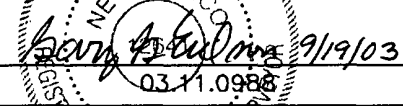
Surface Location

| UL or lot No. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
| J | 28 | 17 S | 33 E | | 1980 | SOUTH | 1330 | EAST | LEA |

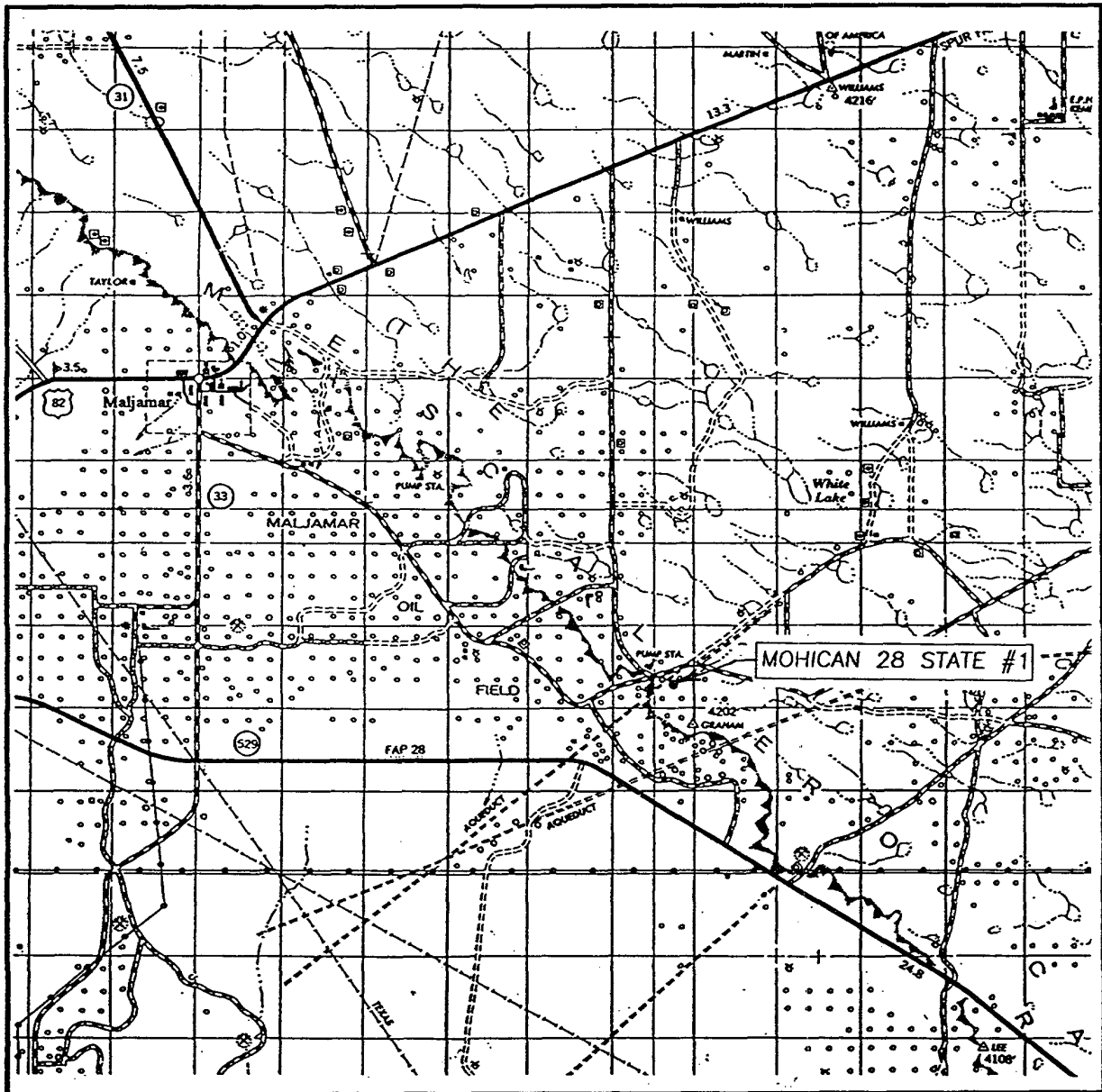
Bottom Hole Location If Different From Surface

| UL or lot No. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|------------------------|-----------------|--------------------|-----------|---------|---------------|------------------|---------------|----------------|--------|
| | | | | | | | | | |
| Dedicated Acres 320 | Joint or Infill | Consolidation Code | 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

| | |
|--|---|
| <div>GEODETIC COORDINATES NAD 27 NME Y=656752.9 N X=705863.5 E LAT. 32°48'13.36" N LONG. 103°39'48.03" W</div> <div>1330'</div> <div>1980'</div> | <div>OPERATOR CERTIFICATION</div> <div>I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.</div> <div></div> <div>Signature</div> <div>Nolan von Roeder</div> <div>Printed Name</div> <div>Engineer</div> <div>Title</div> <div>09/22/03</div> <div>Date</div> <div>SURVEYOR CERTIFICATION</div> <div>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.</div> <div>SEPTEMBER 8, 2003</div> <div>Date Surveyed</div> <div></div> <div>Signature of Professional Surveyor</div> <div>NEW MEXICO</div> <div>03.11.0988</div> <div>Certificate No. GARY EDSON</div> <div>12641</div> |
|--|---|

VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 28 TWP. 17-S RGE. 33-E

SURVEY N.M.P.M.

COUNTY LEA

DESCRIPTION 1980' FSL & 1330' FEL

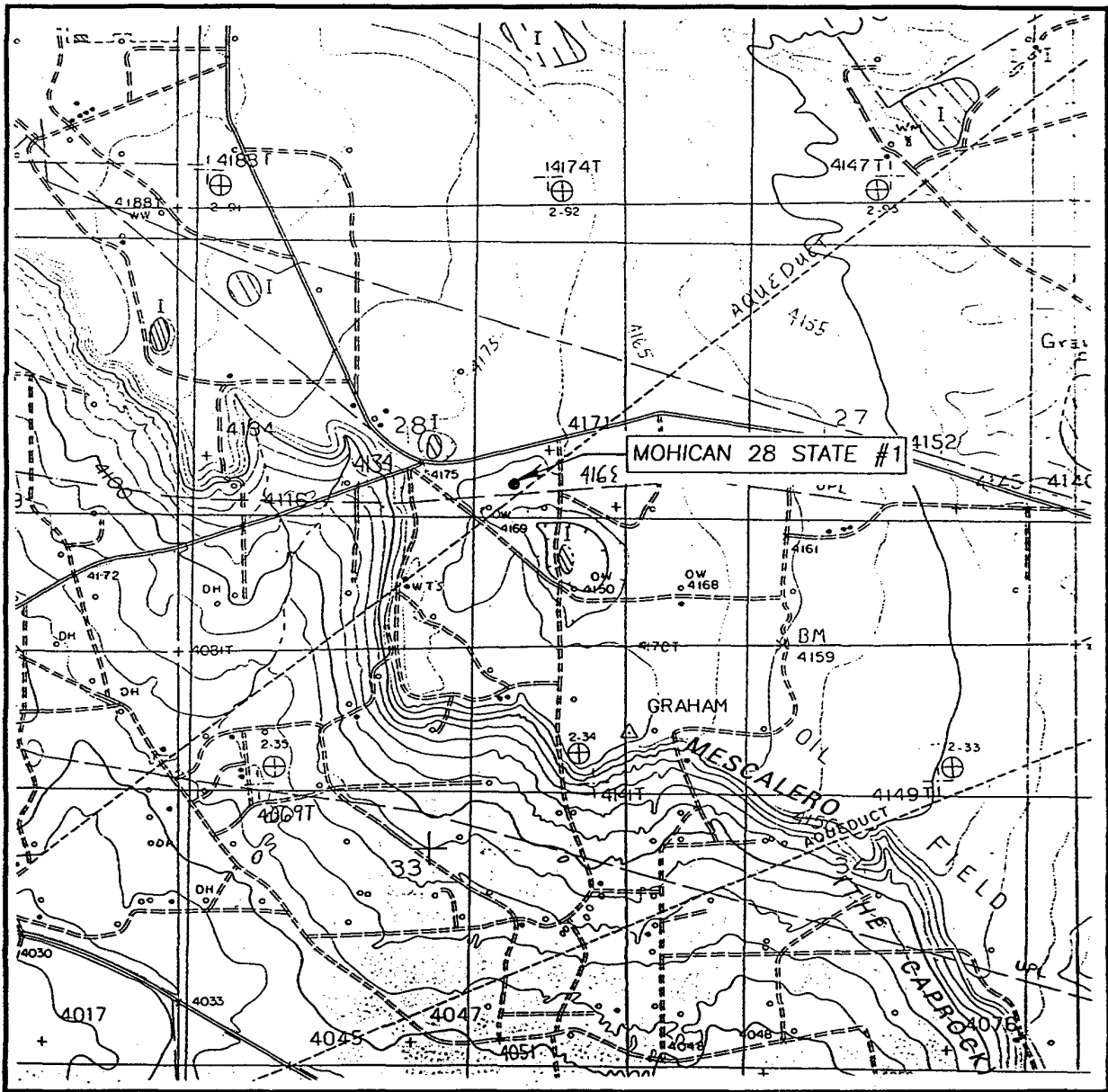
ELEVATION 4168'

OPERATOR PATTERSON PETROLEUM, LP

LEASE MOHICAN 28 STATE

JOHN WEST SURVEYING
HOBBS, NEW MEXICO
(505) 393-3117

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:
DOG LAKE, N.M. - 10'

SEC. 28 TWP. 17-S RGE. 33-E

SURVEY N.M.P.M.

COUNTY LEA

DESCRIPTION 1980' FSL & 1330' FEL

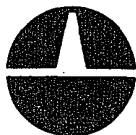
ELEVATION 4168'

OPERATOR PATTERSON PETROLEUM, LP

LEASE MOHICAN 28 STATE

U.S.G.S. TOPOGRAPHIC MAP
DOG LAKE, N.M.

JOHN WEST SURVEYING
HOBBS, NEW MEXICO
(505) 393-3117



PATTERSON PETROLEUM LP

A LIMITED PARTNERSHIP

P.O. Box 1416, Snyder, TX 79550

Phone 915-573-1938 • Fax 915-573-1939

DRILLING FLUID SYNOPSIS

PATTERSON PETROLEUM LP

Mohican "28" State No. 1

Section 28

T-17-S

R-33-E

Lea County, New Mexico

CASING

13 3/8" at 400'

9 5/8" at 4800'

5 1/2" at 13,800'

| DEPTH | MUD WT. | VISCOSITY | FLUID LOSS | DRILL SOLIDS | COMMENTS |
|------------------|-------------|-----------|---------------|--------------|-------------------------------------|
| 0' - 400' | 8.4 to 9.0 | 28 to 40 | No Control | 5% | Spud mud & paper |
| 400' - 4800' | 8.4 to 10.3 | 28 to 33 | No Control | 1% | Brine water, paper, caustic |
| 4800 - 12,900' | 8.4 to 9.2 | 28 to 30 | No Control | 1% | Cut-brine, paper & caustic |
| 12,900 - 13,800' | 10 to 10.5 | 36 to 46 | 10 cc or less | < 5% | Xanthan gum, starch, pac, & caustic |

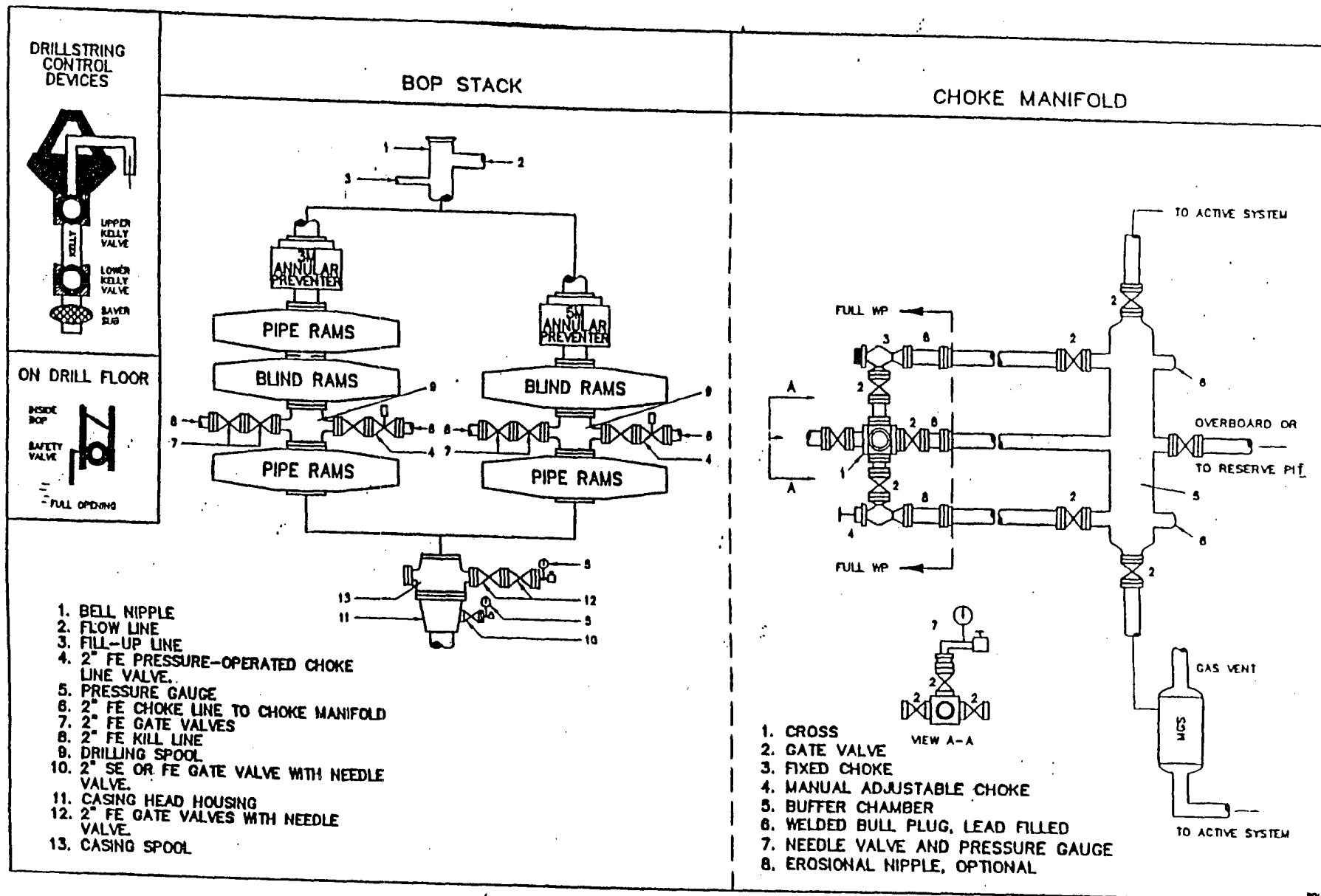


Fig. 2.5. Class 3 BOP and Choke Manifold.

PATTERSON PETROLEUM LP
PROPOSED CASING & CEMENTING PROGRAM
MOHICAN "28" STATE WELL NO. 1

13 3/8", 48 lb/ft, H-40 Surface Casing Set at 400' - in a 17 1/2" Hole

Circulate to surface with 500 sacks of Class "C" + 2% CaCl₂ + ¼ lb/sk celloflake

| | |
|--------------------|---------------|
| Slurry Weight: | 14.8 ppg |
| Slurry Yield: | 1.32 cu.ft/sk |
| Water Requirement: | 6.3 gal./sk |

9 5/8", 40 lb/ft, J-55 & N-80 Intermediate Casing Set at 4800' - in a 12¼" Hole

Lead : 1500 sx of 35:65 Poz Class "C" + 5% salt + 6% gel + 1/4 lb/sk celloflake
+ 2/10 % antifoamer

Desired TOC = Surface

| | |
|--------------------|---------------|
| Slurry Weight: | 12.4 ppg |
| Slurry Yield: | 2.15 cu.ft/sk |
| Water Requirement: | 11.99 gal/sk |

Tail : 250 sx of Class "C" Neat

| | |
|--------------------|---------------|
| Slurry Weight: | 14.8 ppg |
| Slurry Yield: | 1.32 cu.ft/sk |
| Water Requirement: | 6.31 gal/sk |

5½" , 17 lb/ft, N-80 & P110 Production String Casing Set at 13,800' - in an 8 3/4" Hole

Lead : 700 sx of Halliburton Light H + 5% salt + 3/10% HR-7 retarder

Desired TOC = 9000'

| | |
|--------------------|---------------|
| Slurry Weight: | 12.7 ppg |
| Slurry Yield: | 1.95 cu.ft/sk |
| Water Requirement: | 10.48 gal/sk |

Tail : 300 sx of Halliburton Super H w/ 0.5% Lap-1+ 0.4% dispersant +
0.25% antifoamer and 0.25% retarder

| | |
|--------------------|---------------|
| Slurry Weight: | 13.2 ppg |
| Slurry Yield: | 1.60 cu.ft/sk |
| Water Requirement: | 8.21 gal/sk |