

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 South First, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
2040 South Pacheco
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 Conoco Inc., 10 Desta Drive, Suite 649W, Midland, TX 79705 | | ² OGRID Number 005073 |
| ³ Property Code 003105 | | ³ API Number 30 - 025-35480 |
| ⁵ Property Name State F1 | | ⁶ Well No. 12 |

| | | | | | | | | | |
|-------------------------------|--------------|-----------------|--------------|---------|-----------------------|---------------------------|-----------------------|------------------------|---------------|
| ⁷ Surface Location | | | | | | | | | |
| UL or lot no. D/ Lot 4 | Section 1 | Township 21S | Range 36E | Lot Idn | Feet from the 990' | North/South line North | Feet from the 990' | East/West line West | 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 South Cass Strawn | | | | | | ¹⁰ Proposed Pool 2 | | | |

| | | | | |
|-----------------------------------|---------------------------------------|-----------------------------------|------------------------------------|---|
| ¹¹ Work Type Code N | ¹² Well Type Code O | ¹³ Cable/Rotary R | ¹⁴ Lease Type Code S | ¹⁵ Ground Level Elevation 3495' |
| ¹⁶ Multiple No | ¹⁷ Proposed Depth 8120' | ¹⁸ Formation Strawn | ¹⁹ Contractor | ²⁰ Spud Date 05/29/01 |

| | | | | | |
|--|--------------|--------------------|---------------|-----------------|---------------|
| ²¹ Proposed Casing and Cement Program | | | | | |
| Hole Size | Casing Size | Casing weight/foot | Setting Depth | Sacks of Cement | Estimated TOC |
| 12 1/4" | J-55, 8-5/8" | 24# | 1500' | 665' | Surface |
| 7 7/8" | J-55, 5 1/2" | 17# | 8120' | 995' | Surface |
| | | | | | |
| | | | | | |
| | | | | | |

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.

1. Well Location and Acreage Dedication Plat (C-102)
2. Proposed Well Plan Outline
3. Cementing Program
4. BOP/Choke Diagram

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: <i>Kimberly Southall</i> Printed name: Kimberly Southall Title: Associates Assistant Date: 03/28/01 | | OIL CONSERVATION DIVISION Approved by: <i>[Signature]</i> Title: <i>[Signature]</i> Approval Date: <i>[Signature]</i> Expiration Date: <i>[Signature]</i> Conditions of Approval: <i>[Signature]</i> Attached <input type="checkbox"/> | |
|---|--|--|--|

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised February 10, 1994
Instruction on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

OIL CONSERVATION DIVISION

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

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

| | | |
|------------------------------------|-------------------------------------|---|
| API Number 30-025-354 80 | Pool Code 10460 | Pool Name South Cass - STRAWN |
| Property Code 003105 | Property Name STATE "F-1" | Well Number 12 |
| OGRID No. 005073 | Operator Name CONOCO INC. | Elevation 3495 |

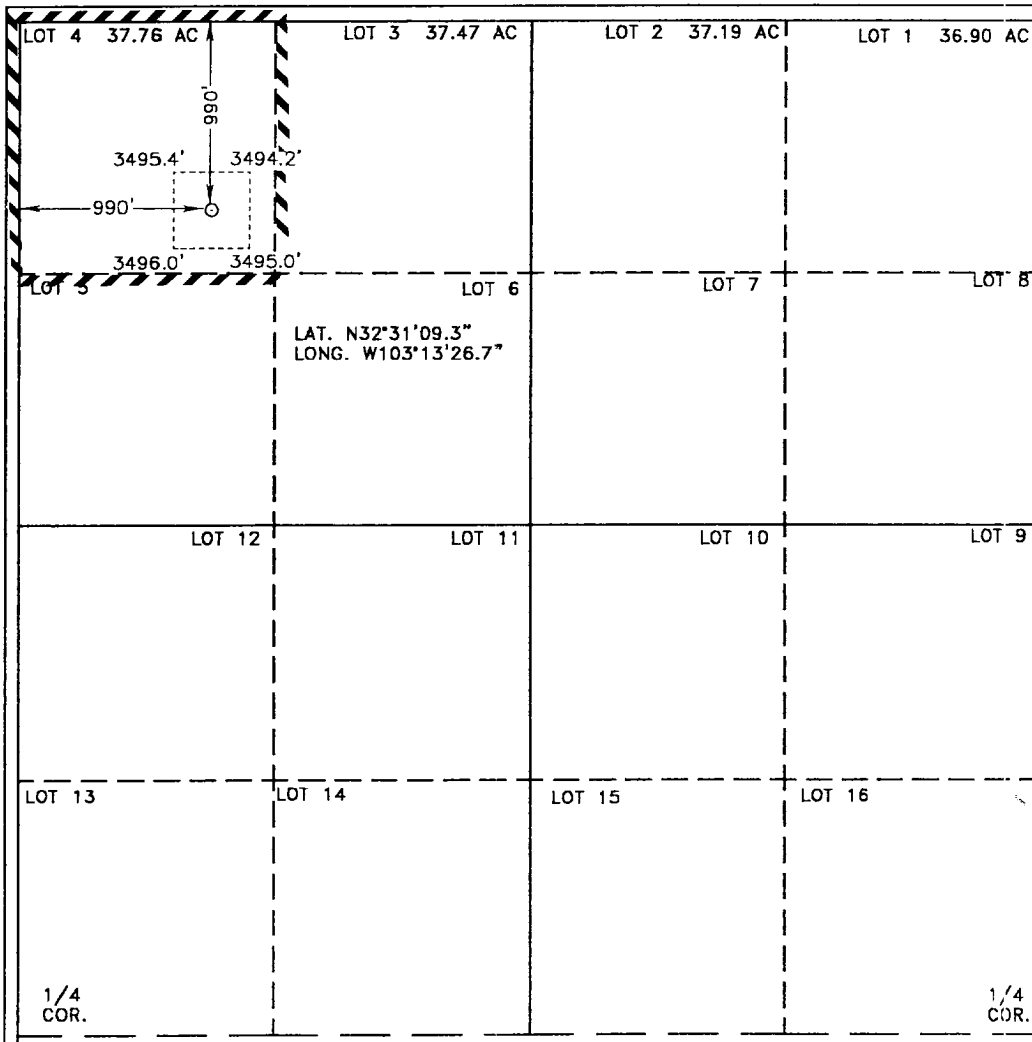
Surface Location

| | | | | | | | | | |
|----------------------------------|---------------------|-------------------------|----------------------|---------|-----------------------------|----------------------------------|-----------------------------|-------------------------------|----------------------|
| UL or lot No. 0/ LOT 4 | Section 1 | Township 21 S | Range 36 E | Lot Idn | Feet from the 990 | North/South line NORTH | Feet from the 990 | East/West line WEST | County 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 40 | 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



OPERATOR CERTIFICATION

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

Kay Maddox
Signature

KAY MADDOX
Printed Name

Regulatory Agent
Title

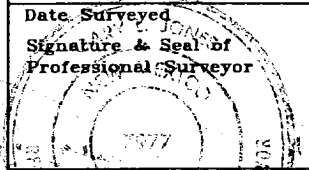
3/26/01
Date

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.

MARCH 20, 2001

Date Surveyed
Signature & Seal of
Professional Surveyor



W.O. No. 1234

Certificate No. **Gary L. Jones 7977**

JLP BASIN SURVEYS

PROPOSED WELL PLAN OUTLINE

WELL NAME
LOCATION

State F-1 #12
990' FNL & 990' FWL, Sec 1, T21S & R36E

Ground Level : 3,509' (est)
Kelly Bushing: 11' AGL

| Depth MD | FORMATION TOPS (from GL) | DRILLING PROBLEMS | TYPE OF FORMATION EVALUATION | HOLE SIZE | CASING PROGRAM | FRAC GRAD | FORM. PRES. GRAD. | Mud Weight & Type | Days |
|-------------|--------------------------------|--|--|--------------|---|--------------|-------------------------|-------------------------|------|
| 0 | | Possible Hole Enlargement & Sloughing | | 12-1/4" | | | Less than 8.3 | 8.4 - 9.5 Fresh | |
| 1000 | | | | | 8-5/8", 24#, J-55 ST&C @ 1,500' | | | | 3 |
| | Top Salt @ 1,380' | Washouts in Salt Section | | 7-7/8" | Circulate Cement | | | 10 Brine | |
| 2000 | | | | | | | Less than 8.4 | | |
| | Base Salt @ 2,570' | | Mud Loggers @ 2,600' | | | | | | |
| | Yates 2,685' | | H2S monitor equipment on @ 2,600' | | | | | | |
| | 7 Rivers 2,950' | | | | | | | | |
| 3000 | | | | | | | | | |
| | Queen 3,465' | | | | | | | | |
| | Penrose 3,590' | | | | | | | | |
| | Grayburg 3,735' | | | | | | | | |
| | San Andres 3,920' | | | | | | | | |
| 4000 | | Mud loss in San Andres is likely. Possible loss of returns. | | | | | | | |
| 5000 | | | | | | | | | 7 |
| | Glorietta 5,190' | Possible differential sticking thru Glorietta Possible lost returns. | | | | | | | |
| | | Losses as great as 40 bph likely from 4000' to 6800'. | | | | | | | |
| | Blinberry 5,870' | | | | | | | | |
| 6000 | | | | | | | | | |
| | Tubb 6,400' | | | | | | | | 10 |
| | Drinkard 6,710' | | | | | | | | |
| 7000 | | | First Log Run: GR-CAL-DLL-MLL-SGR-SONIC FDC-CNL-PE : TD to 2000' Pull GR-CNL-Cal to Surf SGR interval to be chosen | | | | | 10 ppg Starch Gel | |
| | Abo 7,020' | Minor mud loss possible upon drilling into Strawn. | Second Log Run: 60 rotary sidewall cores | | 5-1/2", 17#, J-55 LT&C set @ 8,120' | | | | |
| | Strawn @ 7,602' | Offset data from: State F-1 #9 & #10 Deck Estate 7-1 Oxy State F-1 #1 | Possible Third Run: FMI imaging log | | Circulate cement either single or 2 stage | | | | 18 |
| 8000 | TD @ 8,120' | | | | | | | | |

DATE 28-Mar-01

Al Gomez, Geologist

APPROVED David Delao, Drilling Engineer

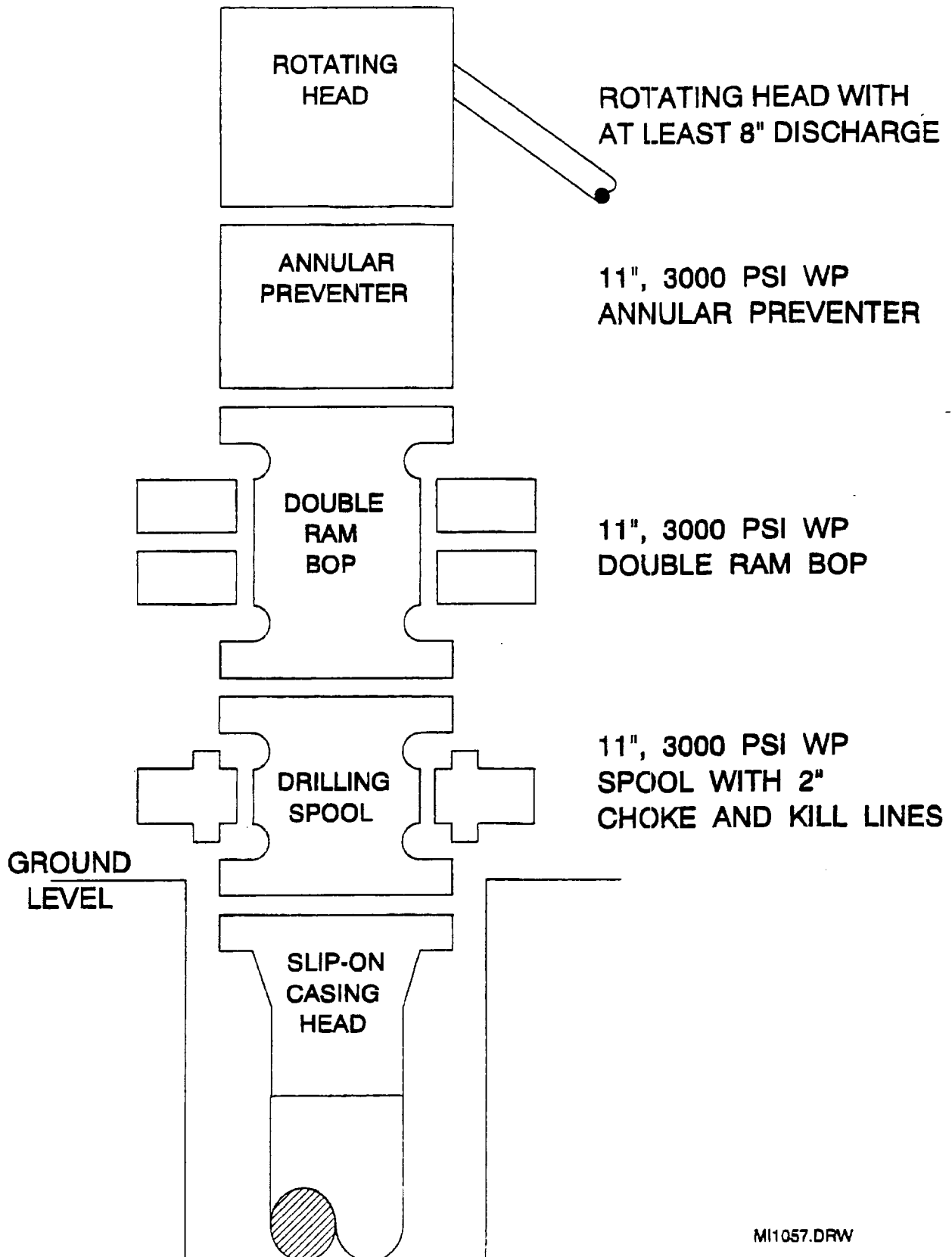
Jim Hubbard, Reservoir Engineer

State F-1 #12
PROPOSED CASING & CEMENT PLAN

| | | | |
|--|-------------------------|--|-------------|
| Surface casing size: | 8-5/8", 24#, J-55, ST&C | Casing OD: | 8.625 in |
| Surface casing depth: | 1,500 ft | Casing ID: | 8.097 in |
| Hole size: | 12.25 in | Shoe jt length: | 40 ft |
| Static temperature: | 89 deg F | Lead Excess: | 101 % |
| Circulating temperature: | 85 deg F | Tail Excess: | 106 % |
| Lead: | 465 sx | Cl C + 0.25 pps Cello Flake + 0.005 gps FP-6L + 2% Sodium Metasilicate | |
| Tail: | 200 sx | Cl C + 2% CaCl + 0.005 gps FP-6L | |
| Properties | | Lead | Tail |
| Slurry Weight (ppg) | | 12.4 | 14.8 |
| Slurry Yield (cfps) | | 2.15 | 1.34 |
| Mix Water (gps) | | 12.33 | 6.35 |
| Pump time - 70 BC (HH:MM) | | 6:25 | 2:20 |
| Free Water (mls) @ 80 deg F @ 90 deg angle | | 0 | 0 |
| Fluid Loss (cc/30 min) @ 1000 psi and 80 deg F | | 854 | 900 |
| Compressive Strength (psi) | | | |
| 12 hrs @ | | 89 deg F | 124 |
| 24 hrs @ | | 89 deg F | 250 |

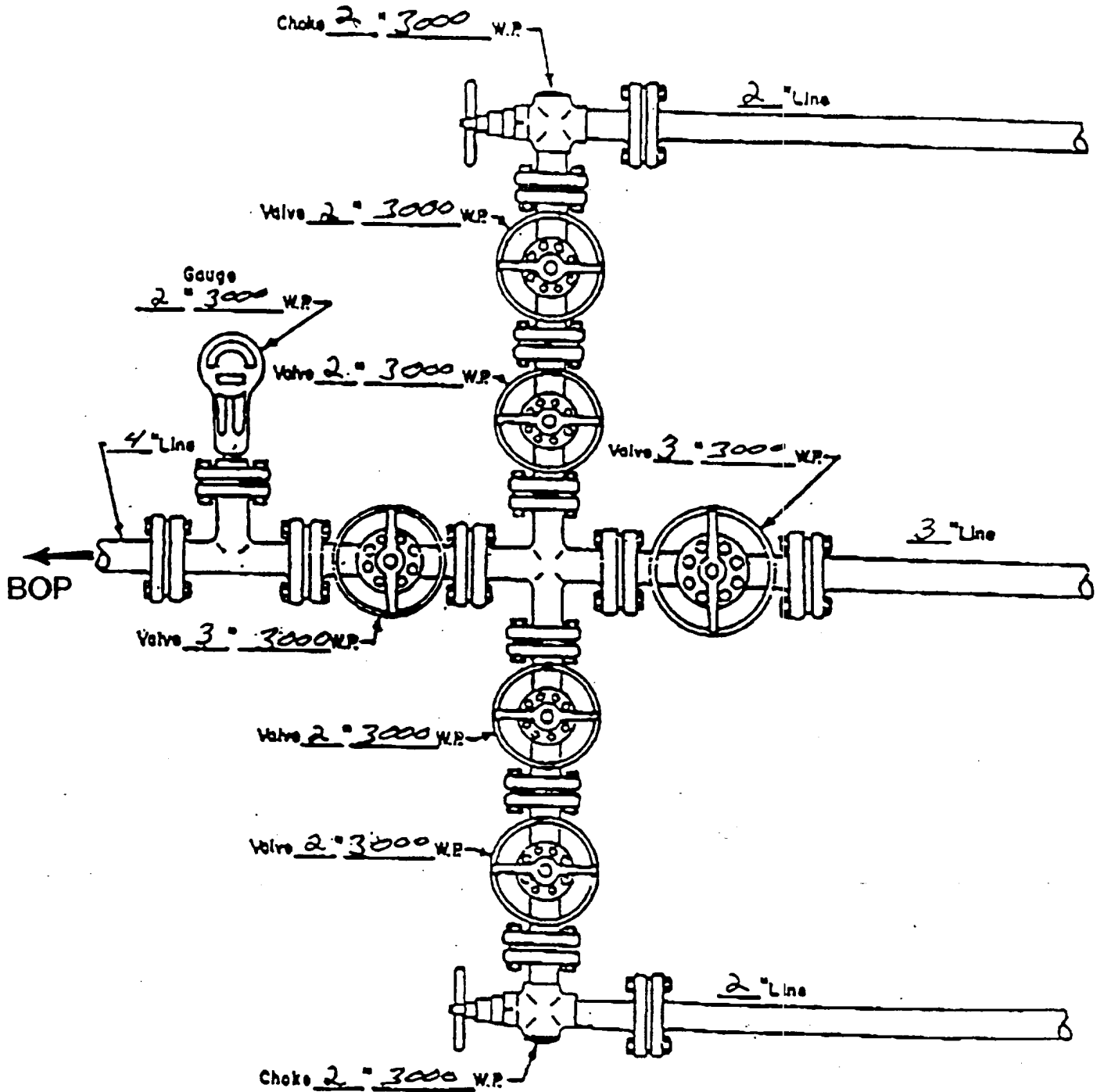
| | | | |
|--|------------------------|--|-------------|
| Production casing size: | 5-1/2", 17#, J55, LT&C | Casing OD: | 5.500 in |
| Production casing depth: | 8,120 ft | Casing ID: | 4.892 in |
| Hole size: | 7.875 in | Shoe jt length: | 80 ft |
| Static temperature: | 129 deg F | Lead Excess: | 51 % |
| Circulating temperature: | 122 deg F | Tail Excess: | 51 % |
| Lead: | 570 sx | 50:50 Poz:Cl C + 5% bwow NaCl + 0.25 pps Cello Flake + 0.005 gps FP-6L + 10% Bentonite | |
| Tail: | 425 sx | 15:61:11 Poz:Cl C:CSE + 5% bwow NaCl + 1% FL-62 + 0.005 gps FP-6L | |
| Properties | | Lead | Tail |
| Slurry Weight (ppg) | | 11.85 | 13.6 |
| Slurry Yield (cfps) | | 2.41 | 1.49 |
| Mix Water (gps) | | 13.79 | 7.31 |
| Pump time - 70 BC (HH:MM) | | 2:58 | 2:31 |
| Free Water (mls) @ 80 deg F @ 90 deg angle | | 1 | 0 |
| Fluid Loss (cc/30 min) @ 1000 psi and 80 deg F | | 792 | 62 |
| Compressive Strength (psi) | | | |
| 12 hrs @ | | 124 deg F | 50 |
| 24 hrs @ | | 124 deg F | 175 |

BOP SPECIFICATIONS



MI1057.DRW

CHOKE - MANIFOLD DIAGRAM



MANIFOLD
3000 #W.P.

☒ Manual
☐ Hydraulic