

UNITED STATES  
DEPARTMENT OF THE  
BUREAU OF LAND MANAGEMENTOPER. OGRID NO. 20305  
PROPERTY NO. 1715  
POOL CODE 96229  
EFF. DATE 8/29/95  
API NO. 30-025-33075FORM APPROVED  
OMB NO. 1004-0136  
Expires: February 28, 1995

## APPLICATION FOR PERMIT TO

## 1a. TYPE OF WORK

DRILL ☒DEEPEN ☐

## b. TYPE OF WELL

OIL  
WELL ☒GAS  
WELL ☐OTHER ☐SINGLE  
ZONE ☒MULTIPLE  
ZONE ☐

## 2. NAME OF OPERATOR

Santa Fe Energy Resources, Inc.

## 3. ADDRESS AND TELEPHONE NO.

550 W. Texas, Suite 1330; Midland, Texas 79701 (915) 682-6973

## 4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)

At surface  
(N) 660' FSL & 1980' FWL

At proposed prod. zone

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

24 miles east of Loving, New Mexico

## 15. DISTANCE FROM PROPOSED\*

LOCATION TO NEAREST  
PROPERTY OR LEASE LINE, FT.  
(Also to nearest drlg. unit line, if any)

660'

## 18. DISTANCE FROM PROPOSED LOCATION\*

TO NEAREST WELL, DRILLING, COMPLETED,  
OR APPLIED FOR, ON THIS LEASE, FT.

1180'

## 16. NO. OF ACRES IN LEASE

560

## 19. PROPOSED DEPTH

8700'

17. NO. OF ACRES ASSIGNED  
TO THIS WELL

40

## 20. ROTARY OR CABLE TOOLS

Rotary

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

3526 GR

## 22. APPROX. DATE WORK WILL START\*

August 30, 1995

## 23.

## PROPOSED CASING AND CEMENTING PROGRAM

| SIZE OF HOLE | GRADE, SIZE OF CASING | WEIGHT PER FOOT | SETTING DEPTH | QUANTITY OF CEMENT   |
|--------------|-----------------------|-----------------|---------------|----------------------|
| 17 1/2"      | H-40 13 3/8"          | 48.0            | 600'          | 600 sx to circulate  |
| 11"          | K-55 8 5/8"           | 32.0            | 4600'         | 1300 sx to circulate |
| 7 7/8"       | K-55 5 1/2"           | 17.0            | 8700'         | tie back to 4400'    |

We propose to drill to a depth sufficient to test the Bone Spring formation for oil. If productive, 5 1/2" casing will be run to TD. If non-productive, the well will be plugged and abandoned in a manner consistent with Federal Regulations. Specific programs as per Onshore Oil and Gas Order No. 1 are outlined in the following attachments:

## Drilling Program

Exhibit A - Operations Plan  
Exhibit B - BOP and Choke Manifold  
Exhibit C - Drilling Fluid Program  
Exhibit D - Auxiliary Equipment

Exhibit E - Topo Map at Location  
Exhibit F - Map Showing Existing Wells  
Exhibit F (A) - Plat of Location  
Exhibit G - Well Site Layout  
Surface Use and Operations Plan

Santa Fe Energy Resources, Inc. accepts all applicable terms, conditions, stipulations and restrictions concerning operations conducted on the leased land or portion thereof, as described above.

Bond Coverage: Blanket Bond

BLM Bond File No.: MT 0750

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, 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

James D. Phil HinsonTITLE Agent for Santa Fe Energy

DATE

7-25-95

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APPROVAL SUBJECT TO  
GENERAL REQUIREMENTS AND  
SPECIAL STIPULATIONS  
ATTACHED

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

TITLE

DATE

AUG 25 1995

\*See Instructions On Reverse Side

RECEIVED  
AUG 26 1995  
UCB HUBBS  
OFFICE

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENTFORM APPROVED  
Budget Bureau No. 1004-0135  
Expires: March 31, 1993

## SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.  
Use "APPLICATION FOR PERMIT—" for such proposals

## SUBMIT IN TRIPLICATE

## 1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

## 2. Name of Operator

Santa Fe Energy Resources, Inc.

## 3. Address and Telephone No.

550 W. Texas, Suite 1330; Midland, TX 79701 (915) 682-6373

## 4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

(N) 660' FSL &amp; 1650' FWL Sec. 6, T-24-S, R-32-E

## 5. Lease Designation and Serial No.

NM-77064

## 6. If Indian, Allottee or Tribe Name

## 7. If Unit or CA, Agreement Designation

## 8. Well Name and No.

Mesa Verde "6" Fed No. 9

## 9. API Well No.

## 10. Field and Pool, or Exploratory Area

Mesa Verde Delaware/Bone Spring

## 11. County or Parish, State

Lea, New Mexico

## 12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

## TYPE OF SUBMISSION

- ☐
- Notice of Intent
- 
- ☒
- Subsequent Report
- 
- ☐
- Final Abandonment Notice

## TYPE OF ACTION

- ☐
- Abandonment
- 
- ☐
- Recompletion
- 
- ☐
- Plugging Back
- 
- ☐
- Casing Repair
- 
- ☐
- Altering Casing
- 
- ☒
- Other Amend Location

- ☐
- Change of Plans
- 
- ☐
- New Construction
- 
- ☐
- Non-Routine Fracturing
- 
- ☐
- Water Shut-Off
- 
- ☐
- Conversion to Injection
- 
- ☐
- Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

## 13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

Santa Fe Energy Resources, Inc. respectfully requests the surface location be moved from (N) 660' FSL & 1980' FWL to (N) 660' FSL & 1650' FWL, Sec. 6, T-24-S, R-32-E.

The location will be turned with the V-door to the north to avoid the buried pipeline 126' to the east.

A clearance report will be submitted by Desert West Archaeological Services.

## 14. I hereby certify that the foregoing is true and correct

Signed James P. Phil HansenTitle Agent for Santa Fe EnergyDate 8-3-95

(This space for Federal or State office use)

Approved by \_\_\_\_\_  
Conditions of approval, if any:

Title \_\_\_\_\_

Date \_\_\_\_\_

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

State of New Mexico  
Energy, Minerals, and Natural Resources Department

Form C-102  
Revised 02-10-94

Instructions on back

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

Submit to the Appropriate  
District Office  
State Lease - 4 copies  
Fee Lease - 3 copies

DISTRICT III  
1000 Rio Brazos Rd.  
Aztec, NM 87410

**OIL CONSERVATION DIVISION**  
P. O. Box 2088  
Santa Fe, New Mexico 87504-2088

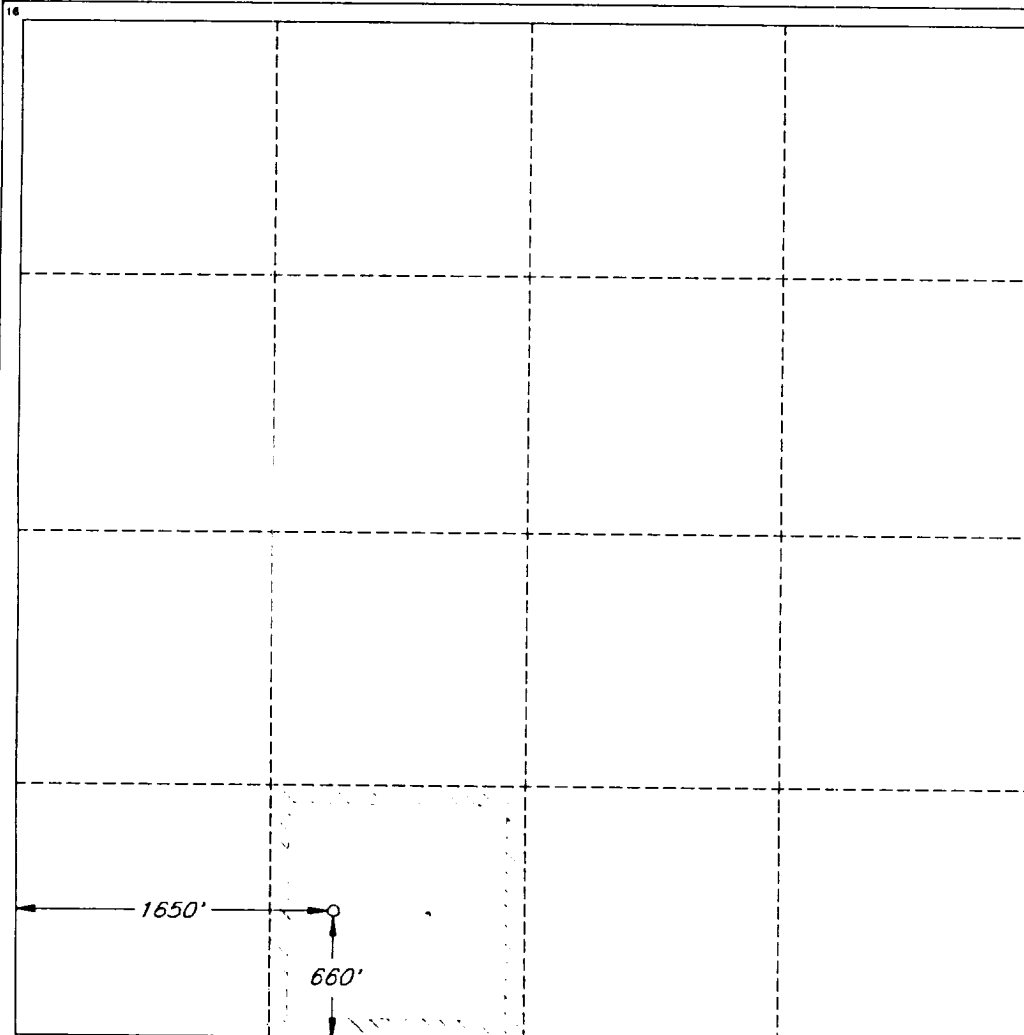
☐ AMENDED REPORT

DISTRICT IV  
P. O. Box 2088  
Santa Fe, NM 87507-2088

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

|   |                     |  |                                   |  |                              |                                  |                               |                               |                      |
|---|---------------------|--|-----------------------------------|--|------------------------------|----------------------------------|-------------------------------|-------------------------------|----------------------|
| 1 API Number<br><b>30-025-33075</b>               |                     | 2 Pool Code<br><b>96229</b>                        |                                   | 3 Pool Name<br>Mesa Verde Delaware/Bone Spring |                              |                                  |                               |                               |                      |
| 4 Property Code<br><b>17129</b>                   |                     | 5 Property Name<br>MESA VERDE '6' FEDERAL          |                                   |  |                              |                                  |                               | 6 Well Number<br><b>9</b>     |                      |
| 7 GRID No.<br><b>20305</b>                        |                     | 8 Operator Name<br>SANTA FE ENERGY RESOURCES, INC. |                                   |  |                              |                                  |                               | 9 Elevation<br><b>3538'</b>   |                      |
| 10 SURFACE LOCATION                               |                     |  |                                   |  |                              |                                  |                               |                               |                      |
| UL or lot no.<br><b>N</b>                         | Section<br><b>6</b> | Township<br><b>24 SOUTH</b>                        | Range<br><b>32 EAST, N.M.P.M.</b> | Lot Ida  | Feet from the<br><b>660'</b> | North/South line<br><b>SOUTH</b> | Feet from the<br><b>1650'</b> | East/West line<br><b>WEST</b> | County<br><b>LEA</b> |
| 11 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               |
| 12 Dedicated Acres<br><b>40</b>                   |                     | 13 Joint or Infill                                 |                                   | 14 Consolidation Code                          |                              | 15 Order No.                     |                               |                               |                      |

NO ALLOWABLE WELL 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

*James P. "Phil" Stinson*

Printed Name

James P. "Phil" Stinson

Title

Agent for Santa Fe Energy

Date

8-3-95

**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.

Date of Survey

AUGUST 1, 1995

Signature and Seal of Professional Surveyor

*V. Lynn Bezner*  
V. LYNN BEZNER  
NO. 7920  
V. L. BEZNER  
#7920  
JOB #40816-22 LAND SURV. / V.H.B.

**DRILLING PROGRAM**  
**SANTA FE ENERGY RESOURCES, INC.**  
**MESA VERDE "6" Fed. No. 9**

In conjunction with Form 3160-3, Application For Permit to Drill the subject well, Santa Fe Energy Resources, Inc. submits the following ten items of pertinent information in accordance with Onshore Oil & Gas Order No. 1.

1. **Geologic Name of Surface Formation:** Permian

2. **Estimated Tops of Significant Geologic Markers:**

|               |       |
|---------------|-------|
| Rustler       | 930'  |
| Delaware Lime | 4600' |
| Bell Canyon   | 4580' |
| Cherry Canyon | 5650' |
| Bone Spring   | 8500' |
| Total Depth   | 8700' |

3. **The estimated depths at which water, oil, or gas formations are expected:**

|       |                       |
|-------|-----------------------|
| Water | None expected in area |
| Oil   | Delaware @ 4600'      |
|       | Bone Spring @ 8500'   |

4. **Proposed Casing Program:** See Form 3160-3 and Exhibit A.

5. **Pressure Control Equipment:** See Exhibit B.

6. **Drilling Fluid Program:** See Exhibit C.

7. **Auxiliary Equipment:** A mud logging unit will be utilized to monitor penetration rate and hydrocarbon shows while drilling below the intermediate casing at 4600'.

8. **Testing, Logging, and Coring Program:**

Drill Stem Tests: None Planned.

Logging:

|   |               |
|---|---------------|
| Dual Laterolog w/MSFL and Gamma Ray         | 4600'-8700'   |
| Compensated Neutron/Litho-Density/Gamma Ray | 4600'-8700'   |
| Compensated Neutron/Gamma Ray (thru csg)    | Surface-4600' |

**DRILLING PROGRAM**

Mesa Verde "6" Fed. No. 9

Page 2

**9. Abnormal Conditions, Pressures, Temperatures, & Potential Hazards:**

No abnormal pressures or temperatures are anticipated. The estimated bottom hole temperature is 135° psi and the estimated bottom hole pressure is 3100 psi. No Hydrogen Sulfide or other hazardous gases or fluids have been encountered, reported or are known to exist at this depth in this area. No major lost circulation zones have been reported in the offsetting wells.

**10. Anticipated Starting Date and Duration of Operations:**

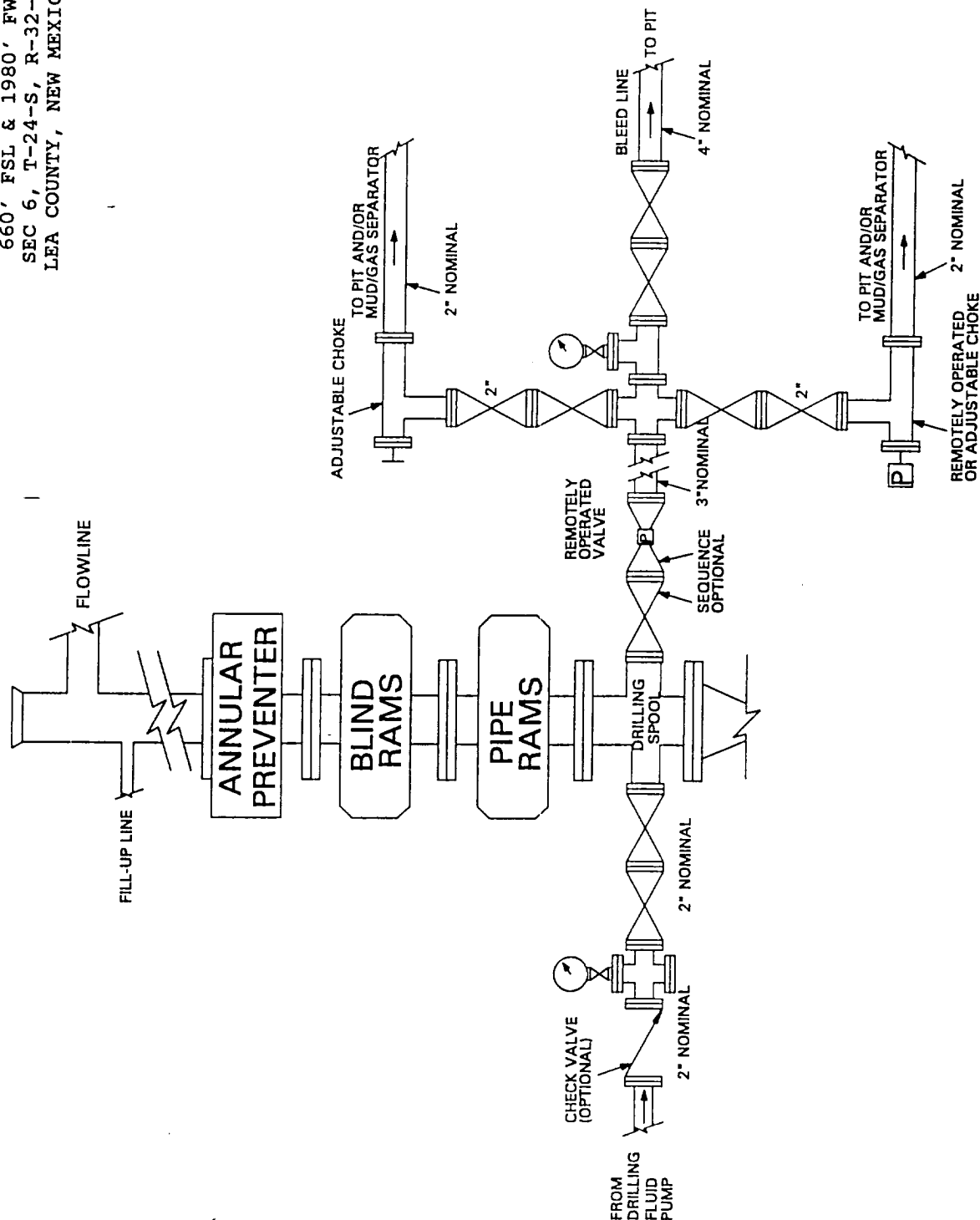
Road and location work will not begin until approval has been received from the BLM. The anticipated spud date is August 30, 1995. Once spudded the drilling operation should be completed in approximately 15 days. If the well is productive, an additional 30 days will be required for completion and testing before permanent facilities are installed.

**EXHIBIT A**  
**OPERATIONS PLAN**  
SANTA FE ENERGY RESOURCES, INC.  
Mesa Verde "6" Federal No. 9  
Section 6, T-24-S, R-32-E  
Lea County, New Mexico

1. Drill a 17-1/2" hole to approximately 500'.
2. Run 13-3/8" 48.0 ppf H-40 ST&C casing. Cement with 600 sx Class "C" cement containing 2% CaCl<sub>2</sub>. Run centralizers on every other joint above the shoe. Apply thread lock to bottom two joints and guide shoe.
3. Wait on cement twelve hours prior to cutting off.
4. Nipple up an annular BOP system and test casing to 600 psi. WOC twenty-four (24) hours prior to drilling out.
5. Drill a 11" hole to approximately 4600'.
6. Run 8-5/8" 32.0 ppf K-55 ST&C casing. Cement with 1100 sx Cl "C" Lite containing 12 pps salt and 1/4 pps celloflake followed by 200 sx Class "C" with 2% CaCl<sub>2</sub>. Run guide shoe on bottom and float collar two joints from bottom. Centralize every other joint for bottom 400' of casing and place two centralizers in surface casing. Thread lock bottom 2 joints.
7. Wait on cement for twelve hours prior to cutting off.
8. Nipple up and install a 3000 psi. Double Ram and Annular BOP system with choke manifold. WOC 24 hours prior to drilling out.
9. Test BOP system to 1500 psi with the rig pump. Test casing to 1500 psi.
10. Drill 7-7/8" hole to 8700'. Run logs. L (SJS)
11. Either run and cement 8700' of 5-1/2" 17.0 ppf K-55 LT&C ~~or~~ 5-1/2" 15.50 ppf K-55 LT&C casing or plug and abandon as per BLM requirements.

# **EXHIBIT B**

SANTA FE ENERGY RESOURCES, INC.  
 MESA VERDE "6" FED NO 9  
 660' FSL & 1980' FWL  
 SEC 6, T-24-S, R-32-E  
 LEA COUNTY, NEW MEXICO





**EXHIBIT C**  
**DRILLING FLUID PROGRAM**  
**SANTA FE ENERGY RESOURCES, INC.**  
Mesa Verde "6" FED NO. 9  
Section 6, T-24-N, R-32-E  
Lea County, New Mexico

0-600'

Spud mud consisting of fresh water gel flocculated with lime. Use ground paper for seepage control and to sweep the hole. MW-8.5 ppg, Vis-40.

600'-4600'

Drill out with brine water circulating the inner portion of the reserve pit. Utilize ground paper mixed in prehydrated fresh gel to sweep the hole. MW-10.0 ppg, Vis-28.

4600'-8700'

Drill out with cut brine (30,000 ppm chlorides minimum) circulating the outer portion of the reserve pit. Maintain pH at 8.5-9.5 with caustic and sweep the hole as necessary with ground paper. If it becomes necessary to mud up due to hole conditions, utilize a cut brine/Drispac system for 15-20 WL and a Vis of 30-32. MW-8.5/8.9 ppg.