

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

Sundry Notices and Reports on Wells

1. Type of Well  
GAS

5. Lease Number

NM-020496

6. If Indian, All or  
Tribe Name

7. Unit Agreement Name

2. Name of Operator  
Meridian Oil Inc.

8. Well Name & Number

Angel Peak #3

3. Address & Phone No. of Operator  
Box 4289, Farmington, NM 87499 (505) 326-9700

9. API Well No.

4. Location of Well, Footage, Sec, T, R, M.  
1450'N, 1450'E Sec.20, T-27-N, R-11W, NMPM

10. Field and Pool

Basin Dakota

11. County and State

San Juan County, NM

12. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OTHER DATA

Type of Submission

Type of Action

☐ Notice of Intent

☐ Abandonment

☐ Change of Plans

☐ Subsequent Report

☐ Recompletion

☐ New Construction

☐ Final Abandonment

☐ Plugging Back

☐ Non-Routine Fracturing

☐ Casing Repair

☐ Water Shut Off

☐ Altering Casing

☐ Conversion to Injection

☐ Other

13. Describe Proposed or Completed Operations

Attached is the plug and abandonment procedure to be used for this location.

RECEIVED

MAY 29 1990

OIL CON. DIV.

DIST. 3

SEE ATTACHED FOR  
CONDITIONS OF APPROVAL

14. I hereby certify that the foregoing is true and correct  
Signed [Signature] (ROS Title Regulatory Affairs) Date 05-09-90

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_  
CONDITION OF APPROVAL, IF ANY:

NMOCD

DATE

Ken [Signature]

FOR [Signature]

Plug and Abandonment Procedure  
Angel Peak #3

1. Prepare location for workover. Install / replace anchors as necessary.
2. MOL with workover rig, hold safety meeting, install safety signs and proper fire equipment at strategic points. Comply with all BLM, NMOCD, and MOI regulations.
3. Rig up blow lines, record tubing and casing pressures and blow well down. Kill well as necessary with water. ND tree and NU 6" 3000 psi BOP and stripping head.
4. TOOH with 210 joints of 2 3/8" 4.7# J-55 EUE tubing set @ 6397'. A 4 1/2" Baker Model A-2 Lok-Set packer, with on/off tool, is set @ 6298' (3 jts of tailpipe). To release packer, pick up 4000 lbs over string weight and rotate 8 turns to the right.
5. TIH with 2 3/8" tubing and clean out to PBTD @ 6521'.
6. Establish a rate into Dakota perforations with water. Spot a cement plug from PBTD-5385' with 168 sx of class B neat cement (198 cf, 100% excess to cover 50' above the top of the Gallup). Pull up to 5385' and circulate casing with 85 bbl of 9.0 PPG mud with a minimum funnel viscosity of 50 sec/qt. TOOH. Tag cement top with wireline after 4 hours.
7. Perforate four squeeze holes at 3470'. Establish a rate into perforations with water. Set a 4 1/2" cement retainer @ 3370'. TIH with 2 3/8" tubing and sting into test position in retainer. Pressure test tubing to 1000 psi. Establish a rate into perforations with water. Squeeze cement with 50 sx of class B neat cement (59 cf, 100% excess to cover 50' above the top of the Cliff House). Sting out of retainer and spot 6 sx class B neat on top of retainer (7 cf, 81' in 4 1/2" casing). TOOH.
8. Perforate four squeeze holes at 2815'. Establish a rate into perforations with water. Set a 4 1/2" cement retainer @ 2715'. TIH with 2 3/8" tubing and sting into test position in retainer. Pressure test tubing to 1000 psi. Establish a rate into perforations with water. Squeeze cement with 50 sx of class B neat cement (59 cf, 100% excess to cover 50' above the top of the Chacra). Sting out of retainer and spot 6 sx class B neat on top of retainer (7 cf, 81' in 4 1/2" casing).
9. Pull up hole to 1946' and spot 28 sx of class B neat cement from 50' below the top of the Pictured Cliffs to 50' above the top of the Fruitland (33 cf, plug @ 1600'-1946', 10% excess). TOOH.
10. Perforate four squeeze holes at 904'. Establish a rate into perforations with water. Set a 4 1/2" cement retainer @ 697'. TIH with 2 3/8" tubing and sting into test position in retainer. Pressure test tubing to 1000 psi. Establish a rate into

perforations with water. Squeeze cement with 103 sx of class B neat cement (121.5 cf, 100% excess to cover 50' below the top of the Kirtland to 50' above the top of the Ojo Alamo). Sting out of retainer and spot 6 sx class B neat on top of retainer (7 cf, 81' in 4 1/2" casing). TOOH.

11. Perforate two squeeze holes at 339'. Establish a rate into perforations with water. Cement down 4 1/2" casing and circulate to surface with 225 sx of class B neat cement (265.5 cf, 100% excess to circulate to surface).
12. Cut off wellhead and casing 3' below ground level. Weld a plate to the top of the casing containing required information. Rig down and release rig.
13. Strip and clean up location.

# Angel Peak #3

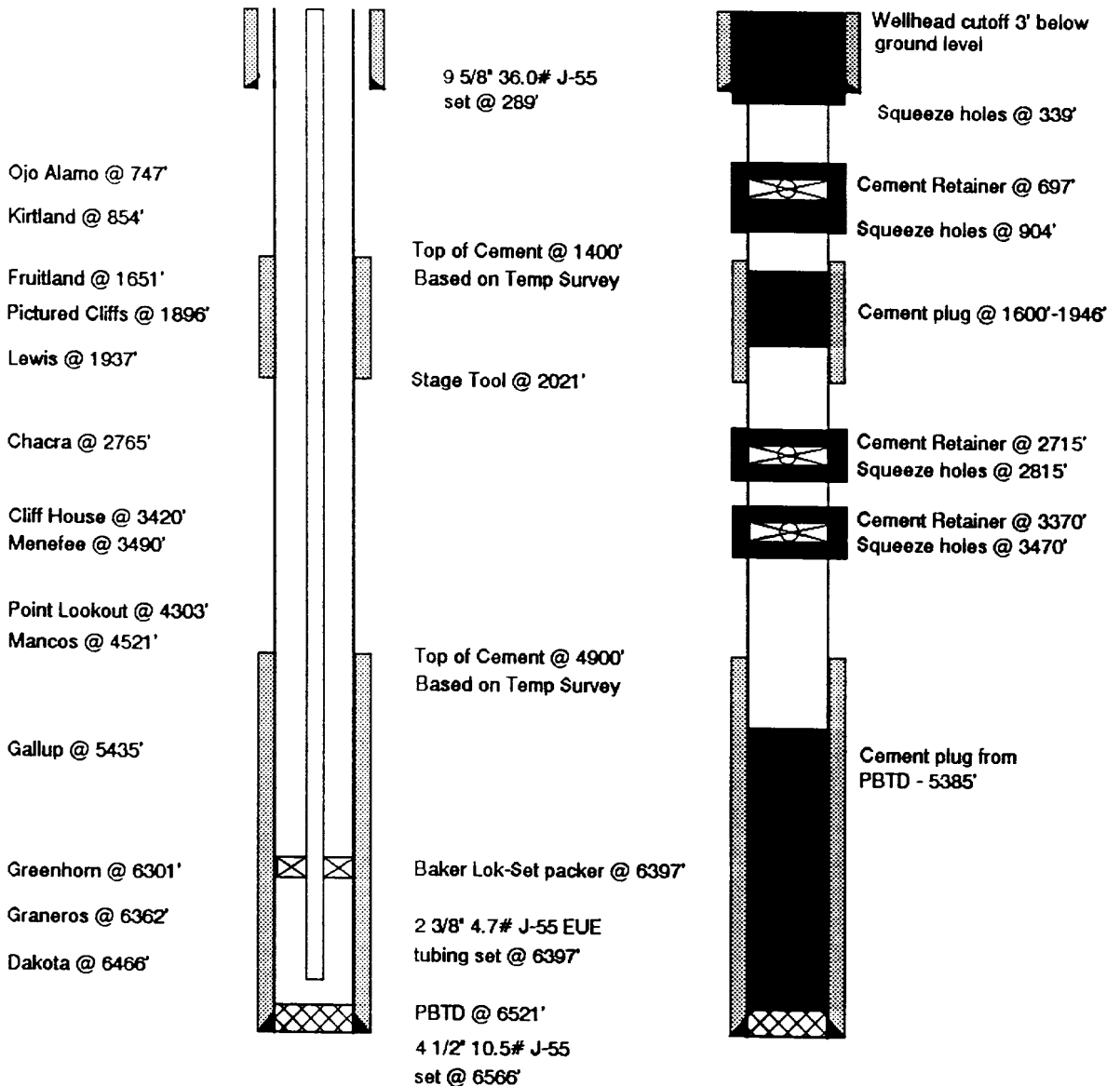
## NE/4 Section 20, T-27-N, R-11-W

### San Juan County, New Mexico

## Wellbore Schematic

**CURRENT**

**PROPOSED**



UNITED STATES DEPARTMENT OF THE INTERIOR

BUREAU OF LAND MANAGEMENT  
FARMINGTON RESOURCE AREA  
1235 LA PLATA HIGHWAY  
FARMINGTON, NEW MEXICO 87401

Attachment to Notice of

Re: Permanent Abandonment

Intention to Abandon

Well: 3 Angel Peak

CONDITIONS OF APPROVAL

1. Plugging operations authorized are subject to the attached "General Requirements for Permanent Abandonment of Wells on Federal Leases."
2. Mark Kelly with the Farmington Office is to be notified at least 24 hours before the plugging operations commence (505) 326-6201.
3. Blowout prevention equipment is required.
4. The following modifications to your plugging program are to be made (when applicable):

Office Hours: 7:45 a.m. to 4:30 p.m.

GENERAL REQUIREMENTS FOR  
PERMANENT ABANDONMENT OF WELLS ON FEDERAL AND INDIAN LEASES  
FARMINGTON RESOURCE AREA

1. Secure prior approval either on a Sundry Notice (Form 3160-5) or verbally from the Fluids Drilling & Production Section at this office before changing the approved plugging program.

2. Plugging equipment used shall have separate mixing and displacement pumps and a calibrated tank to assure proper displacement of plugs. The Operator is responsible for providing all measuring devices needed to assure proper measurement of materials being used.

3. A proper tank or pit will be used to contain all fluids pumped from the well during plugging operations. Unattended pits are to be fenced.

4. All cement plugs are to be placed through tubing (or drillpipe) and shall be a minimum of 100 feet in length with 50% excess inside casing or 100% excess when plug is set in open hole or squeezed into perforations. 15.6#/gal slurry weight is to be used when using class B neat cement or when  $\text{CaCl}_2$  is used. Use the recommended slurry weight of other type cements when they are used (Class C, Pozzolan etc.).

5. Any cement plugs placed when well is not full of fluid, or when well may be taking fluid, (i.e. across perms-unless bridge plug or retainer is used, across bad csg., or fresh water formations) will be tagged (touched) after cement has set to verify proper location.

5a. Testing The first plug below the surface plug shall generally be tested by either tagging the plug with the working pipe string, or pressuring to a minimum pump (surface) pressure of 1000 psig, with no more than a 10 percent drop during a 15-minute period (cased hole only). If the integrity of any other plug is questioned, it must be tested in the same manner. Also, any cement plug which is the only isolating medium for a fresh water interval or a zone containing a valuable mineral deposit should be tested by tagging with the drill string.

6. Mud must be placed between plugs. Plugging mud is to be made up with a minimum of 15 lbs/bbl of sodium bentonite, and a nonfermenting polymer. Minimum consistency of plugging mud must be 9 lbs/gal and with a minimum viscosity of 50 sec/qt. Fresh water is to be utilized for mixing mud.

7. Following the placement of a cement plug, the withdrawal rate for at least the length of the cement plug shall not exceed 30 ft/min, in order to minimize the contamination of the plug.

8. Within 30 days after plugging work is completed, file a Sundry Notice (Subsequent Report of Abandonment, Form 3160-5), in quintuplicate with Area Manager, Bureau of Land Management, 1235 La Plata Highway, Farmington, NM 87401. The report should give in detail the manner in which the plugging work was carried out, the extent (by depths) of cement plugs placed, and the size and location (by depths) of casing left in the well. Show date well was plugged.

9. All permanently abandoned wells are to be marked with a regulation marker (4" pipe extending 4' above the ground line) containing the information as specified in 43 CFR 3162.6(d). Unless otherwise approved.

10. After plugging work is completed the surface is to be rehabilitated in accord with instructions from the Fluids Surface Management Section of the Farmington Resource Area Office.

All above are minimum requirements. The period of liability under the bond of record will not be terminated until the lease is inspected and surface work approved.

Please advise this office when the well location is ready for final inspection.

Failure to comply with the above conditions of approval may result in an assessment for noncompliance and/or a Shut-in Order being issued pursuant to 43 CFR 3163.1.

You are further advised that any instructions, orders or decisions issued by the Bureau of Land Management are subject to administrative review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4 and 43 CFR 4.700.