

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

RECEIVED  
BLM

## Sundry Notices and Reports on Wells

93 MAY 25 AM 7:48

5. Lease Number  
070 FARMINGTON, NM NE-079727  
6. If Indian, All. or  
Tribe Name  
7. Unit Agreement  
San Juan 28-4 Unit  
8. Well Name & Number  
S J 28-4 Unit #21  
9. API Well No.  
10. Field and Pool  
Blanco Mesaverde  
11. County and State  
Rio Arriba, NM

1. Type of Well  
Gas

2. Name of Operator  
MERIDIAN OIL

3. Address & Phone Number of Operator  
P. O. Box 4289, Farmington, NM 87499 (505) 326-9700

4. Location of Well, Footage, Section, T, T, M  
815' FSL, 1475' FWL, Section 7, T-28-N, R-04-W

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

## Type of Submission

## Type of Action

<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Abandonment	<input type="checkbox"/> Change of Plans
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Recompletion	<input type="checkbox"/> New Construction
<input type="checkbox"/> Final Abandonment	<input type="checkbox"/> Plugging Back	<input type="checkbox"/> Non-Routine Fracturing
	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> Water Shut off
	<input type="checkbox"/> Altering Casing	<input type="checkbox"/> Conversion to Injection
	<input checked="" type="checkbox"/> Other	

## 13. Describe Proposed or Completed Operations

It is intended to perforate and fracture stimulate the Menefee, Cliffhouse, and Lewis intervals of the Mesaverde per the attached pertinent data sheet, procedure, and wellbore diagram.

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AUG - 5 1993

OIL CON. DIV  
DIST. 3

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

Signed [Signature] (KS) Title Regulatory Affairs Date 8/21/93  
DISTRICT MANAGER

(This space for Federal or State Office use)

APPROVED BY \_\_\_\_\_ Title \_\_\_\_\_ Date \_\_\_\_\_

CONDITION OF APPROVAL, if any: NMOC

**San Juan 28-4 Unit #21  
SW/4 Section 7, T-28-N, R-04-W  
Rio Arriba County, New Mexico**

**Wellbore Schematic**

**CURRENT**

**PROPOSED**

CMT W/ 150 SX  
TO SURFACE

10-3/4" 32.75#  
SW 8RD CSG  
SET @ 254'

CEMENT W/ 130 SX  
TOC @ 4300' (TS)  
THEN SQUEEZED  
WITH 100 SX @ 4460'.  
TOP OF CEMENT  
UNKNOWN.

LINER HANGER @ 4507'.

7-5/8" 26.40# CASING  
SET @ 4541'.

2-3/8" TBG SET @ 6692'.

PT. LOOKOUT FRACED  
W/ 60,000# SAND AND  
76,188 GALLONS WATER.  
5-1/2" 15.50# J-55 8RD  
LINER FROM 4507'-6772'

ELEVATION: 7380' GL 7390' DF

TOP OF OJO ALAMO @ 3705'

TOP OF KIRTLAND @ 3880'

TOP OF FRUITLAND @ 4110'

TOP OF PICTURED CLIFFS  
@ 4368'

TOP OF LEWIS @ 4474'

TOP OF CLIFFHOUSE @ 5937'

TOP OF MENELEE @ 6216'

TOP OF PT. LOOKOUT @ 6517'

2-3/8" TUBING LANDED  
@ 6650' W/ SEATING  
NIPPLE ONE JOINT OFF  
BOTTOM.

5123' FRAC W/ 52,000# SAND  
AND 80,194 GALLONS  
SLICKWATER.  
5608'

6202' FRAC W/ 77,000# SAND  
AND 122,255 GALLONS  
SLICKWATER.  
6382'

COTD @ 6728'  
TD @ 6777'

**San Juan 28-4 Unit #21  
SW/4 Section 7, T-28-N, R-04-W  
Recommended Recompletion Procedure  
Mesaverde Pay-Add Pilot**

**Note:** Notify BLM (326-6201) and NMOCD (327-5344) 24 hours before rig activity.

1. Inspect location. Test location rig anchors and repair if necessary. Install 1 X 400 bbl rig tank and fill with water. Install 9 X 400 bbl tanks and fill with 3,202 bbls of usable water.
2. Hold safety meeting. MIRU. Place fire and safety equipment in strategic locations. Comply with all MOI, BLM, and NMOCD rules and regulations. NU relief line and blooie line to laydown flow tank. Obtain and record all wellhead pressures.
3. Blow down tubing. If tubing will not blow down, kill well with water.
4. TOOH with 6692' of 2-3/8", 4.7# 8rd tubing. Visually inspect tubing and replace any bad joints.
5. TIH with 5-1/2", 15.50# casing scraper and 2-3/8" tubing. Make scraper run down to 6410'. TOOH.
6. RU wireline. Set 5-1/2", 15.50# cast-iron drillable bridge plug @ 6402' on wireline above Point Lookout perforations. RD wireline.
7. TIH with 3-1/2", 9.30# N-80 workstring and 5-1/2" Baker Retrievmatic packer. Set packer @ 4550'. Load well with water.
8. Pressure test bridge plug, tubing, and packer to 3800 psi for 15 minutes. Load tubing - casing annulus and pressure test to 1000 psi for 15 minutes. If pressure test fails, TIH with tubing and packer and locate holes in casing. Record each hole depth, injection rate, and pressure bleed off rate. Contact production engineering and a casing repair will be submitted. TOOH.
9. RU wireline. Run GR-CBL-CCL in 5-1/2" liner from bridge plug @ 6402' to 4507' (top of Liner Hanger) and from 4300' to TOC in 7-5/8" casing (TOC was located @ 4300' with Temperature Survey, but was squeezed w/ 100 sx). Evaluate GR-CBL-CCL and send copy to production engineering.

**Menefee/Cliffhouse Stimulation:**

10. Perforate the following Menefee and Cliffhouse intervals with 3-3/8" Select-Fire HSC and 14 gram Owen 3375-302 charges (Dp = 0.34", Penetration = 21.26"). RD wireline.

6202'	6204'	6211'
6213'	6229'	6243'
6271'	6283'	6295'
6297'	6301'	6303'
6311'	6354'	6359'
6361'	6370'	6372'
6374'	6376'	6380'
6382'		

Total: 22 holes.

**San Juan 28-4 Unit #21  
Mesaverde Pay-Add Pilot**

11. TIH with 3-1/2" workstring and packer. Set packer @ 4550'. Install TIW valve on top of tubing for acid job.
12. RU stimulation company and prepare to breakdown perforations. **Maximum treating pressure during acid job is 3800 psi.** Pump 2200 gallons of 7-1/2% HCl @ 4 bbl/min. Add 1/1000 gallons Claytrol-6 clay control agent, 4/1000 gallons NE-18 silt suspender, 2/1000 gallons CI-15 corrosion inhibitor, and 10/1000 gallons Acetic Acid to the acid. Drop a total of 44 7/8" diameter and 1.1 specific gravity RCN ball sealers spaced evenly throughout the job. Record injection rate and all breakdown pressures throughout job.
13. Release packer. Run packer down to 6392' and knock balls off perforations with packer. Pull up in well and reset packer @ 4550'.
14. RU stimulation company and prepare to fracture stimulate well. Hold safety meeting. Pressure test surface lines to 6000 psi (1000 psi over maximum allowable treating pressure but no greater than working pressure of surface lines). **Maximum treating pressure during frac job is 5000 psi.** Fracture well according to attached procedure. After completion of frac job, unseat packer and TOOH.

**Lewis Stimulation:**

23. Refill tanks with 2,100 bbls of usable 2% KCl water for Lewis stimulation.
24. RU wireline. Set 5-1/2", 15.50# retrievable bridge plug @ 5628' on wireline above Cliffhouse perforations.
25. TIH with 3-1/2" workstring and packer. Set packer @ 4550'. Load well with water and pressure test bridge plug, tubing, and packer to 3800 psi for 15 minutes. Dump 2 sx of sand on top of bridge plug. TOOH.
26. Perforate the following Lewis intervals with 3-3/8" Select-Fire HSC and 14 gram Owen 3375-302 charges (Dp = 0.34", Penetration = 21.26"). RD wireline.

5123'	5126'	5128'
5137'	5139'	5140'
5364'	5366'	5373'
5376'	5386'	5388'
5512'	5515'	5518'
5523'	5525'	5560'
5562'	5608	

Total: 20 holes.

27. TIH with 3-1/2" workstring and packer. Set packer @ 4550'. Install TIW valve on top of tubing for acid job.
28. RU stimulation company and prepare to breakdown perforations. **Maximum treating pressure during acid job is 3800 psi.** Pump 2000 gallons of 7-1/2% HCl @ 4 bbl/min. Add 1/1000 gallons Claytrol-6 clay control agent, 4/1000 gallons NE-18 silt suspender, 2/1000 gallons CI-15 corrosion inhibitor, and 10/1000 gallons Acetic Acid to the acid. Drop a total of 40 7/8" diameter and 1.1 specific gravity RCN ball sealers spaced evenly throughout the job. Record injection rate and all breakdown pressures throughout job.
29. Release packer. Run packer down to 5618' and knock balls off perforations with packer. Pull up in well and reset packer @ 4550'.

**San Juan 28-4 Unit #21  
Mesaverde Pay-Add Pilot**

30. RU stimulation company and prepare to fracture stimulate well. Hold safety meeting. Pressure test surface lines to 6000 psi (1000 psi over maximum allowable treating pressure but no greater than working pressure of surface lines). **Maximum treating pressure during frac job is 5000 psi.** Fracture well according to attached procedure sand stages. After completion of frac job, unseat packer and TOOH.
31. Flow well to pit until pressures and flow back rates allow. TIH with 2-3/8" tubing and retrieving head. Clean out down to retrievable bridge plug with air. Shut off the air, pull up tubing, and allow the well to flow naturally, if possible. When the gas rate drops due to sand or water fill, make a trip to the bridge plug with air. Continue this cycle until sand and water production are minimal. Obtain pitot gauge up annulus on a 2" line. Record pitot gauge for the Lewis formation only.
32. Clean out to retrievable bridge plug with air. Latch on to retrievable bridge plug above Cliff House perforations. Release bridge plug while pumping water down annulus, if necessary. TOOH and lay down retrievable bridge plug.
33. Flow well to pit on choke until pressures and flow back rates allow. TIH with 2-3/8" tubing and 4-3/4" drill bit. Clean out down to retrievable bridge plug with air. Shut off the air, pull up tubing, and allow the well to flow naturally, if possible. When the gas rate drops due to sand or water fill, make a trip to the bridge plug with air. Continue this cycle until sand and water production are minimal. Obtain pitot gauge up annulus on a 2" line. Record pitot gauge for the Lewis, Cliffhouse, and Menefee formations.
34. Drill out cast-iron bridge plug above Point Lookout perforations. Continue cleaning out to COTD (6728') with drill bit and air until returns are clean. TOOH.
35. RU wireline. Run after-frac gamma ray from 6400' to 5000'. RD wireline.
36. TIH with expendable check valve, one joint of 2-3/8" tubing, seating nipple, and 2-3/8" production tubing. Cleanout with air and land tubing around 6650'. Obtain final pitot gauge. ND BOP's, NU WH. Pump off expendable check valve. RD and MOL. Return well to production.

Approve: \_\_\_\_\_  
J. A. Howieson

**Vendors:**

Wireline Services: ..... Basin Perforating (327-5244)  
Stimulation: ..... BJ Services (327-6288)

**Production Engineer:**

Kurt A. Shipley ..... Office (326-9524)  
..... Home (325-9361)