

December 1, 1994

Amoco Production Company
P.O. Box 800
Denver, CO 80201

RE: Jicarilla 89, 94, 95 and 96 Leases

- Jicarilla 89 #2A Unit D, Section 14, T27N, R03W; PC add to existing MV well.
- Jicarilla 89 #4 Unit M, Section 11, T27N, R03W; PC add to existing PC/MV well.
- Jicarilla 89 #4A Unit P, Section 11, T27N, R03W; PC add to existing MV well.
- Jicarilla 89 #5 Unit A, Section 14, T27N, R03W; PC add to existing PC/MV well.
- Jicarilla 89 #7 Unit N, Section 13, T27N, R03W, PC add to existing MV well.
- Jicarilla 94 #1 Unit B, Section 22, T27N, R03W, PC add to existing PC/MV well.
- Jicarilla 94 #5 Unit M, Section 23, T27N, R03W, PC add to existing PC/MV well.
- Jicarilla 94 #7 Unit M, Section 24, T27N, R03W, PC add to existing PC/MV well.
- Jicarilla 95 #1 Unit A, Section 35, T27N, R03W, PC add to existing PC/MV well.
- Jicarilla 95 #4 Unit M, Section 26, T27N, R03W, PC add to existing PC/MV well.
- Jicarilla 95 #5 Unit M, Section 25, T27N, R03W, PC add to existing PC/MV well.
- Jicarilla 95 #7A Unit D, Section 36, T27N, R03W, PC add to existing MV well.
- Jicarilla 95 #8 Unit A, Section 26, T27N, R03W, PC add to existing PC/MV well.
- Jicarilla 96 #2 Unit A, Section 2, T26N, R03W, PC add to existing PC/MV well.
- Jicarilla 96 #5A Unit D, Section 11, T26N, R03W, PC add to existing MV well.

Rio Arriba County, New Mexico
Downhole Commingling Request

Gentlemen:

Meridian Oil, Inc. is in the process of applying for a downhole commingling order for the referenced wells in Rio Arriba County, New Mexico, in the Gavilan Pictured Cliffs and the Blanco Mesaverde fields.

The purpose of this letter is to notify you of such action. If you have no objections to the proposed commingling order, we would appreciate your signing this letter and returning it to this office.

Your prompt attention to this matter would be appreciated.

Sincerely,



Curtis A. Newstrom
Production Engineering

CAN/rjp

The above downhole commingling request is hereby approved:

Date: _____

RECEIVED
DEC - 5 1994
OIL CON. DE
DIST. 3

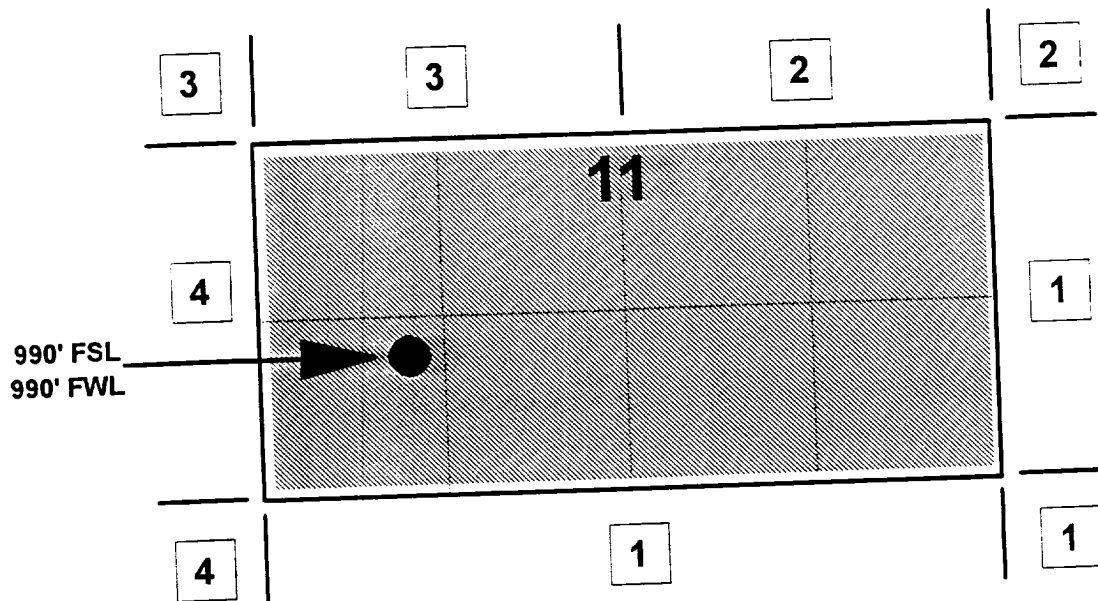
MERIDIAN OIL INC

JICARILLA 89 #4

OFFSET OPERATOR \ OWNER PLAT

Pictured Cliffs / Mesaverde Formations Commingle Well

Township 27 North, Range 3 West



1) Meridian Oil Inc

PO Box 507, Dulce, NM 87528

2) Jicarilla Apache Tribe

PO Box 58900, Salt Lake City, UT 84158

3) Northwest Pipeline Corp.

650 South Cherry, Suite 1225, Denver, CO 80222

4) Nassau Resources

Mesaverde Formation

submitted in lieu of Form 3160-5

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Sundry Notices and Reports on Wells

1. Type of Well
GAS

2. Name of Operator
MERIDIAN OIL

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

4. Location of Well, Footage, Sec., T, R, M
990'FSL, 990'FWL, Sec.11, T-27-N, R-3-W, NMPM

5. Lease Number
Jic Contract 89
6. If Indian, All. or
Tribe Name
Jicarilla Apache
7. Unit Agreement Name

8. Well Name & Number
Jicarilla 89 #4
9. API Well No.
30-039-07117
10. Field and Pool
Gavilan Pictured Cliffs/
Blanco Mesaverde
11. County and State
Rio Arriba Co, NM

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 workover the subject well and add pay to the Pictured Cliffs zone according to the attached procedure and wellbore diagram. After the workover the well will be commingled. A down-hole commingling order has been applied for with the New Mexico Oil Conservation Division.

RECEIVED
JAN 31 1995
OIL CON. DIV.
DIST. 3

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

Signed [Signature] (CAN9) Title Regulatory Affairs Date 12/29/94

(This space for Federal or State Official Signature)
APPROVED BY [Signature] Title Chief, Lands and Mineral Resources Date JAN 30 1995

CONDITION OF APPROVAL, if any:

JICARILLA 89 #4

Unit M, Section 11, T27N, R03W
Recommended Recompletion Procedure
Pictured Cliffs Pay Add & Completion

Inspect location and install and/or test rig anchors. Install 1 - 400 bbl rig tank and fill w/ 2% KCl water. Approximately 194 jts. 2-3/8" 4.7# J-55 tubing will be required (MOI, District Tools) for cleanout and production. Comply with all BLM, NMOCD, Jicarilla Apache, and MOI rules and regulations. Notify engineering when work has commenced. Hold Safety Meetings on a regular basis.

*******All vendors/service companies on location will be responsible for protection of the environment, any questions call _____ at ____-____.*******

1. Install 1 X 400 bbl frac tanks and fill with 300 bbls 2% KCl water.
2. Hold Safety Meeting. MIRU. Place fire and safety equipment in easily accessible locations. 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 KCl water. ND WH, NU BOP. PBTD is 6078'.
4. TOOH with 3683'(PC, laydown) then 5577'(MV) of 2-3/8" 4.70# tubing (Pluck Baker Model D @ 5550'), CO to COTD (6078') visually inspect and tally tubing.
5. RU wireline. RIH with 7-5/8" 26.4# gauge ring to 3860' then RIH with 5-1/2" 15.5# gauge ring to 6050' and check pipe. PU 7-5/8" Retrievable bridge plug, TIH and set bridge plug at 3670'. Dump 2 sx sand on RBP. Run GR - CBL - CCL in 7-5/8" casing from bridge plug to Surface pipe (Estimated TOC at 3465' by Temp. Survey). Good TOC must be above 3500' to continue. Evaluate GR - CBL - CCL and send copy to production engineering.
6. TIH w/ pkr and one stand 2-7/8" tbg. Pressure test pkr and one stand 2-7/8" tbg and casing to 2800 psi. for 15 min. If pressure test fails, prepare to test and repair casing. Contact Production Engineering and a casing repair will be submitted. TOOH with pkr and one stand 2-7/8" tbg.

Pictured Cliffs Stimulation:

7. Select-Fire Perf. the following intervals w/ 3-1/8" HSC -3125-306, 12 gram Owen charges 0.31" holes w/ 12.02 " penetration, 4 spf - 90° phasing:

3550' - 3644'. (30 Holes) Actual settings for Select-Fire will be picked prior to giving the logs to the Perforating Company.
8. RD wireline. TIH w/ pkr and 2-3/8" tbg and set pkr at +/-3450'.
9. RU stimulation company. **Hold Safety Meeting.** Pressure test surface treating lines to 5000 psi. **Maximum STP during acid job is 4000 psi.** Pump 1,000 gals 15% HCl w/additives (DAD) at a rate of 5-7 BPM, attempt to ball-out the perforations. Drop a total of 50 7/8" RCN ball sealers (1.3sp.gr.) spaced evenly throughout the job. Record rates and pressures while attempting to achieve ball-out.
10. RD stimulation company. Knock off balls w/ pkr, then TOOH w/ pkr and 2-3/8" tbg. TIH w/ pkr and one stand 2-7/8" tbg. RU stimulation company. Prepare to fracture stimulate the Pictured Cliffs.

**Jicarilla 89 #4
Pictured Cliffs Pay-Add**

11. Pressure test surface treating lines to 4000 psi. **Maximum treating pressure is 2800 psi.** Fracture stimulate the PC according to the attached procedure. Flow-back the well immediately using a variable choke manifold. Increase choke size as needed to keep the well from logging off, if possible. When pressures and flow rates allow, TOOH w/ pkr and one stand 2-7/8" tbg.
12. TIH w/ retrieving head and 2-3/8" 4.70# workstring and clean out to the retrievable bridge plug @ 3670' with air until sand and water production is minimal. Obtain flow gauge for the Pictured Cliffs formation. Record flow gauge as the Pictured Cliffs formation only. Latch onto the retrievable bridge plug and TOOH.
13. TIH w/ one joint 2-3/8" 4.7# J-55 tubing, seating nipple, expendable check and 2-3/8" production tubing. Cleanout to 6078' with air. Land tubing @ +/-6000' (78' of rathole) and obtain final flow gauge. ND BOP, NU WH. Contact Production Operations for well tie-in. RD and MOL.

Approved: W.S. Smith
Drilling Superintendent

Suggested Contacts/Vendors:

Trucking/Water haul:	Dawn Trucking	327-6314
Wireline:	Blue Jet	325-5584
Tubing:	MOI, District Tools	326-9826
Stimulation:	Schlumberger, Dowell	325-5096
Packer and RBP:	Mountain States	326-5141
Rig Supervisor:		
Production Oper.:	Bruce Voiles	326-9571
Engineering:	Brian Ault	326-9871 w 326-6613 h

Pertinent Data Sheet - Jicarilla 89 #4

Location: 990' FSL, 990' FWL, Unit M, Section 11, T-27-N, R-03-W; Rio Arriba County, NM
Lat. 36.583313, Long. 107.119125; GITI

Field: Blanco Mesaverde
Gavilan Pictured Cliffs

Elevation: 6960' GL **TD:** 6110'
PBTD: 6078

Spud Date: 09/26/57
Completed: 10/13/57

DP#: 29186A & B (MV & PC)
Prop. #: 071337600
GW: 100%
NRI: 87.5%

Casing Record:

<u>Hole Size</u>	<u>Casing Size</u>	<u>Weight & Grade</u>	<u>Depth Set</u>	<u>Cement</u>	<u>Top/Cement</u>
15"	10-3/4"	32.75# H-40	284'	250 sx	Surface
9-7/8"	7-5/8"	26.4# J-55	4072'	175 sx	3465' (TS)
6-3/4"	5-1/2"	15.5# J-55	6100**	175 sx	4300' (TS)

** 5-1/2" liner set @ 6110' and top of liner @ 3872'. Sqz'd top of liner w/ 200 sx.

Tubing Record:

<u>Tubing Size</u>	<u>Weight & Grade</u>	<u>Depth Set</u>
2-3/8"	4.70# J-55	5577' MV w/ 4 GL Valves
		3683' PC
		Baker Model 'D' @ 5550'

Formation Tops:

Ojo Alamo	3242'
Kirtland	3422'
Pictured Cliffs	3672'
Lewis	3886'
Cliffhouse	5545'
Menefee	5604'
Point Lookout	5868'
Mancos	6034'

Logging Record: E log, TS, GR-Neutron

<u>Stimulation:</u>	<u>Perfed Pictured Cliffs:</u>	3675' - 3761'
	<u>Fraced Pictured Cliffs:</u>	40,000 lbs sand and 40,000 gallons water.
	<u>Perfed Mesaverde:</u>	5577' - 6028' 3/4
	<u>Fraced Mesaverde:</u>	105,000 lbs sand and 105,000 gallons water.

Transporter: Williams Field Service

Jicarilla 89 #4

Unit M, Sec. 11, T27N, R03W
Lat. 36.583313 Long. 107.119125

Pictured Cliffs Pay Add and Stimulation

