

December 1, 1994

New Mexico Oil Conservation Division  
Attn: Mr. Bill LeMay  
P.O. Box 2088  
310 Old Santa Fe Trail  
Santa Fe, New Mexico, 87501

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.
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- 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

Dear Mr. LeMay:

Meridian Oil Inc. is applying for an administrative downhole commingling order for the referenced wells in the Gavilan Pictured Cliffs and the Blanco Mesaverde fields. The ownership of the zones to be commingled is common. All offset interest owners shown on the attached plats and the Bureau of Land Management will receive notice of this commingling application.

The Mesaverde and Pictured Cliffs wells in this area are marginal economic producers based on current rates of 10-150 MCFD for each zone. The projects are economic when commingled due to savings realized on surface facilities and tubulars. The only economical way to recover the Mesaverde and Pictured Cliffs reserves identified on the lease is to downhole commingle production from both zones in the wells proposed.

In the Pictured Cliffs pay adds to existing Mesaverde wells, it is proposed to set a bridge plug above the Mesaverde formation, perforate and stimulate the Pictured Cliffs, and test its production. The bridge plug will then be removed, and both zones produced through a single string of tubing. In the Pictured Cliffs/Mesaverde duals, it is proposed to set a bridge plug above the Mesaverde, add additional Pictured Cliffs pay, stimulate, and test its production. The bridge plug will then be removed, and both zones produced through a single string of tubing. The reservoir characteristics of each of the subject zones are such that underground waste will not be caused by the proposed commingling. The fluids in the two reservoirs are compatible and no precipitates will be formed to cause damage to either reservoir (see attached fluid analyses and compatibility tests, completed for prior commingling on the Jicarilla 94 and 95 leases). The shut-in pressure for the Mesaverde and Pictured Cliffs are 541 and 526 psi, respectively.

The allocation of the commingled production will be calculated using flow tests from the Mesaverde and Pictured Cliffs during completion operations, and the surrounding production history from both producing intervals. Meridian will consult with the district supervisor of the Aztec NMOCOD office for approval of the allocation.

Mr. Bill LeMay  
December 1, 1994  
Page 2

Approval of this commingling application will allow for the prevention of wasted resources and the protection of correlative rights. The Mesaverde and Pictured Cliffs are commingled in twenty-one other wells in this township as per the following NMOCD Order #'s:

R-5350	R-6004	R-5350
R-6004	DHC-924	DHC-925
DHC-982	DHC-983	DHC-984
DHC-985	DHC-986	DHC-987
DHC-988	DHC-989	DHC-1052
DHC-1053	DHC-1054	DHC-1055
DHC-1056	DHC-1057	DHC-1058

Included with this letter are plats showing ownership of offsetting leases for both formations, copies of letters to offset operators and the Bureau of Land Management, and a detailed report of fluid compatibility.

Sincerely,



Curtis A. Newstrom  
Production Engineer

CAN/rjp

Attachments

xc: Frank T. Chavez - NMOCD/Aztec

Bureau of Land Management  
Robert Kent  
435 Montano NE  
Albuquerque, NM 87107

RE: Jicarilla 89, 94, 95 and 96 Leases

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- 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.
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- Jicarilla 95 #1 Unit A, Section 35, T27N, R03W; PC add to existing PC/MV well.
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- Jicarilla 95 #5 Unit M, Section 25, T27N, R03W; PC add to existing PC/MV well.
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- Jicarilla 95 #8 Unit A, Section 26, T27N, R03W; PC add to existing PC/MV well.
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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: \_\_\_\_\_

December 1, 1994

Jicarilla Apache Tribe  
P.O. Box 167  
Dulce, NM 87528

RE: Jicarilla 89, 94, 95 and 96 Leases

- Jicarilla 89 #2A Unit D, Section 14, T27N, R03W; PC add to existing MV well.
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Sincerely,



Curtis A. Newstrom  
Production Engineering

CAN/rjp

The above downhole commingling request is hereby approved:

\_\_\_\_\_  
Date: \_\_\_\_\_

Northwest Pipeline Corporation  
P.O. Box 58900  
Salt Lake City, UT 84158

RE: Jicarilla 89, 94, 95 and 96 Leases

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Sincerely,



Curtis A. Newstrom  
Production Engineering

CAN/rjp

The above downhole commingling request is hereby approved:

\_\_\_\_\_  
Date: \_\_\_\_\_

December 1, 1994

Nassau Resources  
650 South Cherry, Suite 1225  
Denver, CO 80222

RE: Jicarilla 89, 94, 95 and 96 Leases

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Sincerely,



Curtis A. Newstrom  
Production Engineering

CAN/rjp

The above downhole commingling request is hereby approved:

\_\_\_\_\_  
Date: \_\_\_\_\_

c:\windows\can002

En Re Corp.  
4940 Broadway, Suite 200  
San Antonio, TX 78209

RE: Jicarilla 89, 94, 95 and 96 Leases

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Sincerely,



Curtis A. Newstrom  
Production Engineering

CAN/rjp

The above downhole commingling request is hereby approved:

\_\_\_\_\_

Date: \_\_\_\_\_

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

RE: Jicarilla 89, 94, 95 and 96 Leases

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Curtis A. Newstrom  
Production Engineering

CAN/rjp

The above downhole commingling request is hereby approved:

\_\_\_\_\_  
Date: \_\_\_\_\_

*ATTN: David Peterson*

**MERIDIAN OIL**

December 1, 1994

NOV 15 1994  
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Jicarilla Apache Tribe  
P.O. Box 167  
Dulce, NM 87528

RE: Jicarilla 89, 94, 95 and 96 Leases

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Sincerely,

Curtis A. Newstrom  
Production Engineering

CAN/rjp

The above downhole commingling request is hereby approved:

Joe Incardine

Date: DEC 15 1994

RECEIVED  
DEC 20 1994

OIL CON. DIV.  
DIST. 3

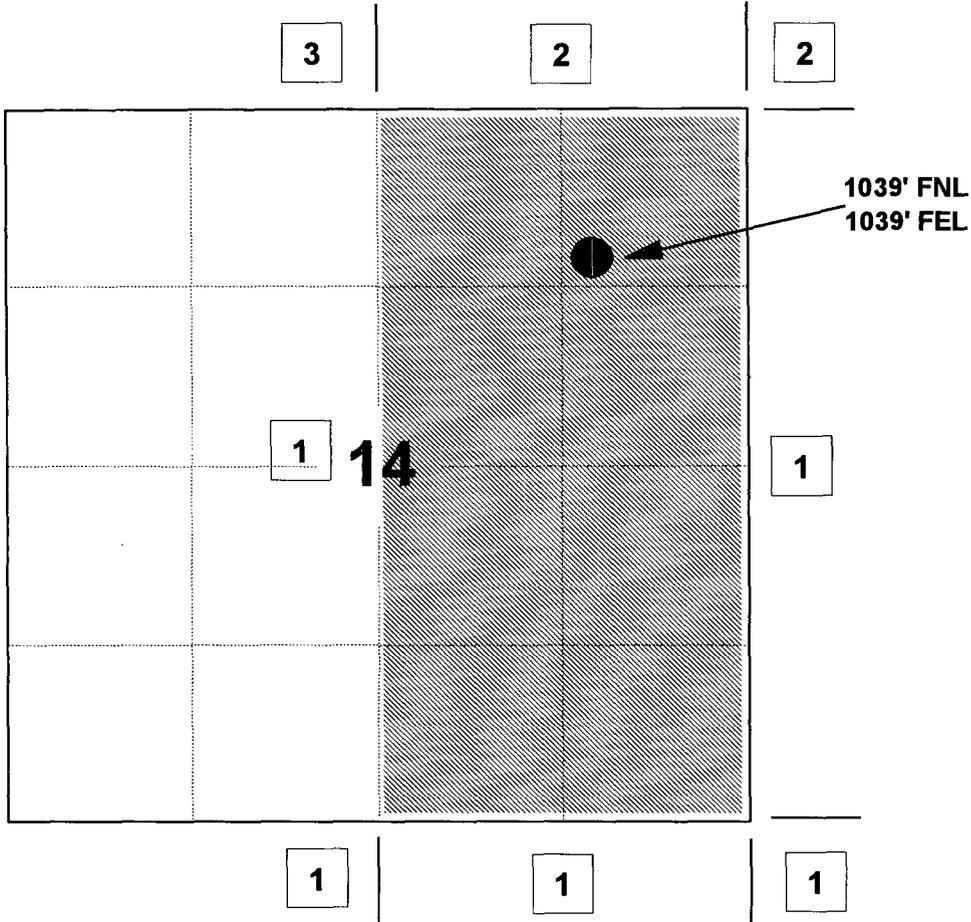
# MERIDIAN OIL INC

## JICARILLA 89 #5

### OFFSET OPERATOR \ OWNER PLAT

#### Mesaverde / Pictured Cliffs Formations Commingle Well

Township 27 North, Range 3 West



1) Meridian Oil Inc

2) Meridian Oil Inc &

Jicarilla Apache Tribe

PO Box 507, Dulce, NM 87528

3) Meridian Oil Inc &

Northwest Pipeline Corporation

PO Box 58900, Salt Lake City, UT 84158

Mesaverde Formation

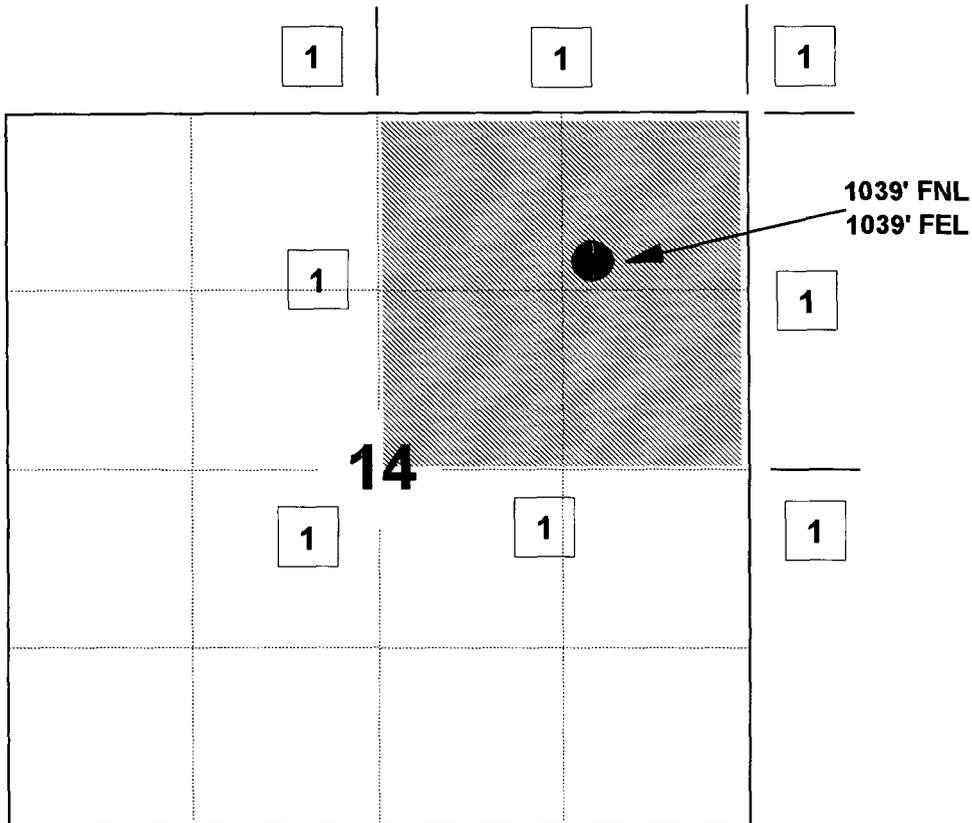
# MERIDIAN OIL INC

## JICARILLA 89 #5

OFFSET OPERATOR \ OWNER PLAT

Mesaverde / Pictured Cliffs Formations Commingle Well

Township 27 North, Range 3 West



1) Meridian Oil Inc

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Mesaverde Formation