

DATE IN 9/18/00	SUSPENSE 10/10/00	ENGINEER DC	LOGGED KN	TYPE DHC
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ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

26439461

ADMINISTRATIVE APPLICATION COVERSHEET

THIS COVERSHEET IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS

Application Acronyms:

- [NSP-Non-Standard Proration Unit] [NSL-Non-Standard Location]
 [DD-Directional Drilling] [SD-Simultaneous Dedication]
 [DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
 [PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]
 [WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]
 [SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]
 [EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

[1] TYPE OF APPLICATION - Check Those Which Apply for [A]

[A] Location - Spacing Unit - Directional Drilling

☐ NSL ☐ NSP ☐ DD ☐ SD

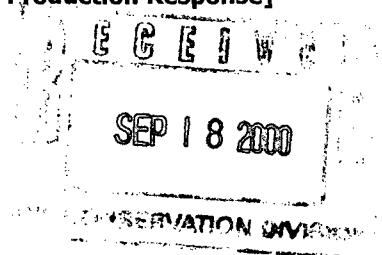
Check One Only for [B] and [C]

[B] Commingling - Storage - Measurement

☒ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery

☐ WFX ☐ PMX ☐ SWD ☐ IPI ☐ EOR ☐ PPR



[2] NOTIFICATION REQUIRED TO: - Check Those Which Apply, or ☐ Does Not Apply

[A] ☐ Working, Royalty or Overriding Royalty Interest Owners

[B] ☐ Offset Operators, Leaseholders or Surface Owner

[C] ☐ Application is One Which Requires Published Legal Notice

[D] ☐ Notification and/or Concurrent Approval by BLM or SLO

U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office

[E] ☐ For all of the above, Proof of Notification or Publication is Attached, and/or,

[F] ☐ Waivers are Attached

[3] INFORMATION / DATA SUBMITTED IS COMPLETE - Statement of Understanding

I hereby certify that I, or personnel under my supervision, have read and complied with all applicable Rules and Regulations of the Oil Conservation Division. Further, I assert that the attached application for administrative approval is accurate and complete to the best of my knowledge and where applicable, verify that all interest (WI, RI, ORRI) is common. I understand that any omission of data, information or notification is cause to have the application package returned with no action taken.

Note: Statement must be completed by an individual with supervisory capacity.

Terry G. Lindeman

Operations Superintendent

9/15/00

Print or Type Name

Signature

Title

Date

Mallon Oil Company

Denver/Colorado ♦ Durango/Colorado ♦ Carlsbad/New Mexico

a Mallon Resources Subsidiary

September 15, 2000


Mr. David Catanach
OCD Engineering Division
2040 S. Pacheco
Santa Fe, New Mexico 87505

Dear Mr. Catanach

Enclosed is Mallon Oil Company's application for approval to down hole commingle the Tertiary Pool and Pictured Cliffs formation in the Jicarilla 458-6 No. 6 wellbore.

If any additional information is required please contact me at 970-382-9100.
Thank you for your assistance in this matter.

Sincerely,



Terry Lindeman
Operations Superintendent

TGL/gd

Enclosures

Cc: Brian Davis / Bureau of Land Management
Dorothy Jacquez / Oil Conservation Division – Aztec
Thurman Velarde / Jicarilla Oil and Gas
Don Erickson / Mallon Resources
File

District I
1625 N. French Drive, Hobbs, NM 88240
District II
811 South First Street, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-107A
Revised May 15, 2000

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, New Mexico 87505
APPLICATION FOR DOWNHOLE COMMINGLING

APPLICATION TYPE
____ Single Well
____ Establish Pre-Approved Pools
EXISTING WELLBORE
____ Yes ____ No

Mallon Oil Company P. O. Box 2797 Durango, CO 81302
Operator
Jicarilla 458-6 6 Address J 6 30N 03W
Lease Well No. Unit Letter-Section-Township-Range Rio Arriba County
OGRID No. 013925 Property Code 00022859 API No. 30-039-25973 Lease Type: X Federal ____ State ____ Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	Cabresto Canyon; Tertiary		East Blanco; Pictured Cliffs
Pool Code	97037		72400
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	1,122' – 3,191'		3,700' – 3,767'
Method of Production (Flowing or Artificial Lift)	Flowing		Flowing
Bottomhole Pressure (Note: Pressure data will not be required if the bottom perforation in the lower zone is within 150% of the depth of the top perforation in the upper zone)	305 psia		1250 psia
Oil Gravity or Gas BTU (Degree API or Gas BTU)	Each zone will be isolated and	Tested for Gas Analysis and rate	For allocation percentages
Producing, Shut-In or New Zone	Intent		Intent
Date and Oil/Gas/Water Rates of Last Production. (Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data.)	Date: Rates:	Date: Rates:	Date: Rates:
Fixed Allocation Percentage (Note: If allocation is based upon something other than current or past production, supporting data or explanation will be required.)	Oil Gas % %	Oil Gas % %	Oil Gas % %

ADDITIONAL DATA

Are all working, royalty and overriding royalty interests identical in all commingled zones? Yes X No ____
If not, have all working, royalty and overriding royalty interest owners been notified by certified mail? Yes ____ No ____
Are all produced fluids from all commingled zones compatible with each other? Yes X No ____
Will commingling decrease the value of production? Yes ____ No X ____
If this well is on, or communitized with, state or federal lands, has either the Commissioner of Public Lands or the United States Bureau of Land Management been notified in writing of this application? Yes X No ____
NMOCD Reference Case No. applicable to this well: N/A

Attachments:
C-102 for each zone to be commingled showing its spacing unit and acreage dedication.
Production curve for each zone for at least one year. (If not available, attach explanation.)
For zones with no production history, estimated production rates and supporting data.
Data to support allocation method or formula.
Notification list of working, royalty and overriding royalty interests for uncommon interest cases.
Any additional statements, data or documents required to support commingling.

PRE-APPROVED POOLS

If application is to establish Pre-Approved Pools, the following additional information will be required:

List of other orders approving downhole commingling within the proposed Pre-Approved Pools
List of all operators within the proposed Pre-Approved Pools
Proof that all operators within the proposed Pre-Approved Pools were provided notice of this application.
Bottomhole pressure data.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Terry G. Lindeman TITLE Operations Superintendent DATE 9/15/00
TYPE OR PRINT NAME TELEPHONE NO. ()

Mallon Oil Company

a Mallon Resources Subsidiary

Denver/Colorado ♦ Durango/Colorado ♦ Carlsbad/New Mexico

September 15, 2000

Mr. David Catanach
OCD Engineering Division
2040 S. Pacheco
Santa Fe, New Mexico 87505

Dear Mr. Catanach

The following information is intended to be supplemental to Mallon Oil Company's application for approval to down hole commingle the Tertiary Pool (previously the San Jose, Nacimiento, and Ojo Alamo formations) and Pictured Cliffs formations in the Jicarilla 458-6 No. 6 wellbore.

In regards to the recent changes of Rule 303.C, and the formation of the Tertiary Pool, the commingling criteria set forth in Rule 303.C will only consider the formation characteristics of the Pictured Cliffs Formation and the lowest pressure interval of the Tertiary (previously referred to as the San Jose Formation). To avoid confusion, in any subsequent applications for commingling approval will only mention Tertiary with no referrals to previously considered formations.

The field average bottom hole pressures are:

1. Tertiary Pool – **Average Bottom hole Pressure @ 5600' sea level elevation is 305 psia** and the average BTU content of the gas is 1065.
2. Pictured Cliffs Formation – Average Bottom hole Pressure @ 3500 sea level elevation is **1250 psia** and the average BTU content of the gas is 1136.

Based on data obtained from the acid breakdowns performed on the zones in question, in the wellbore of the Jicarilla 458-6 No. 6, the following information will show the fracture pressures to be adequate for safely commingling all four zones.

The **Pictured Cliffs Formation** was perforated at 3700' – 3715', 3722' – 3753', 3758' – 3767' with the mid-perf being 3733'. Following the acid breakdown the **fracturing pressure at mid-perf calculated to be 1942psi. (0.52 psi / ft).**

The **Ojo Alamo Formation** was perforated at 3141' – 3167' with the mid-perf being 3154'. Following the acid treatment the **fracturing pressure at mid-perf calculated to be 2504 psi. (0.79 psi / ft).**

The **Nacimiento Formation** was perforated at 2490' – 2502', 2866' – 2876', 2915' – 2924', 2936' – 2939', 2946' – 2950', 2953' – 2956', 2984' – 2990' with the mid-perf being 2740'. Following the acid breakdown the **fracturing pressure at mid-perf calculated to be 2006 psi. (0.73 psi / ft).**

The **San Jose Formation** was perforated at 1433' – 1448', 1456' – 1464', 1479' – 1492', 1504' – 1512' with the mid-perf being 1472'. Following the acid treatment the **fracturing pressure at mid-perf calculated to be 1647 psi. (1.11 psi / ft).**

Flow tests on each zone were conducted for a period of time as to allow for stabilization. These results are:

Pictured Cliffs Formation:	495 mcf, 48 BWPD
<u>Tertiary Pool:</u>	<u>1232 mcf, 360 BWPD</u>

Total	1,727 mcf, 408 BWPD
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The allocation method that was agreed upon between Mallon Oil Company and the Jicarilla Apache Tribe is to use a percentage based on the initial test.

Pictured Cliffs Formation:	495 / 1727 = .2866 (28.66%)
Tertiary Pool:	1232 / 1727 = .7134 (71.34%)

I hope this information will help expedite the administrative approval for the commingling of the above referenced well. If you should require any additional information concerning this matter please contact me at (907) 382-9100. I appreciate the help and attention you have shown on this matter.

Sincerely,


Terry Lindeman
Operations Superintendent

DISTRICT II

Drawer DD, Artesia, N.M. 88201-0719

DISTRICT III

10000 Rio Brazos Rd., Artesia, N.M. 87410

DISTRICT IV

P.O. Box 2088, Santa Fe, NM 87504-2088

OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, NM 87504-2088

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-039-25973		*Pool Code 97037	*Pool Name Cabresto Canyon, Tertiary
*Property Code 00022859	*Property Name JICARILLA 458-6		*Well Number 6
*OGRID No. 013925	*Operator Name MALLON OIL COMPANY		*Elevation 7049'

10 Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
1	6	30-N	3-W		1450'	SOUTH	1850'	EAST	RIO ARriba

11 Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

*Dedicated Acres	*Joint or Infill	*Consolidation Code	*Order No.

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

<p>16</p> <p>U.S.G.L.O. B.C.</p>	<p>17 OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>Christy Serrano</i> Signature Christy Serrano Printed Name Production Secretary Title September 3, 1998 Date</p>
	<p>18 SURVEYOR CERTIFICATION</p> <p>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.</p> <p><i>ROY A. RUSH</i> Signature and Seal of Professional Surveyor 8894 Date of Survey 8894 Certificate Number</p>

1980, Hobbs, N.M. 88241-1080

Reg. Minerals & Natural Resources Department

Revised February 21, 1994

Instructions on back

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

☐ AMENDED REPORT

DISTRICT II

Drawer DD, Artesia, N.M. 88211-0719

DISTRICT III

1000 Rio Brazos Rd., Artesia, N.M. 87410

DISTRICT IV

PO Box 2088, Santa Fe, NM 87504-2088

OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, NM 87504-2088

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-039-25973	² Pool Code 72400	³ Pool Name East Blanco, Pictured Cliffs Ext.
⁴ Property Code 00022859	⁵ Property Name JICARILLA 458-6	⁶ Well Number 6
⁷ OCRID No. 013925	⁸ Operator Name MALLON OIL COMPANY	⁹ Elevation 7049'

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
1	6	30-N	3-W		1450'	SOUTH	1850'	EAST	RIO ARriba

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

¹² Dedicated Acres	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

<div data-bbox="243 978 1120 2000"> <p>18</p> <p>U.S.G.L.O. B.C.</p> <p>6</p> <p>1450'</p> <p>1850'</p> <p>1320'</p> <p>2665.32' U.S.G.L.O. B.C.</p> <p>4517.52'</p> <p>S 88-03-31 W</p> </div>	<div data-bbox="1120 978 1591 1510"> <p>17 OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>Christy Serrano</i></p> <p>Signature</p> <p>Christy Serrano</p> <p>Printed Name</p> <p>Production Secretary</p> <p>Title</p> <p>September 3, 1998</p> <p>Date</p> </div>
	<div data-bbox="1120 1510 1591 2000"> <p>18 SURVEYOR CERTIFICATION</p> <p>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.</p> <p>6-BOX-A-RUN</p> <p>NEW MEXICO</p> <p>REGISTERED PROFESSIONAL LAND SURVEYOR</p> <p>8894</p> <p>8894</p> <p>Certificate Number</p> </div>

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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.

FORM APPROVED

Budget Bureau No. 1004-0135

Expires March 31, 1993

5. Lease Designation and Serial No.

6. If Indian, Allotee or Tribe Name
Jicarilla Apache Tribe

7. If Unit or CA, Agreement Designation

N/A

8. Well Name and No.

Jicarilla 458-6 No. 6

9. Well API No.

30-039-25973

10. Field and Pool, or Exploratory Area

East Blanco; Pictured Cliffs

11. County or Parish, State

Rio Arriba County, New Mexico

SUBMIT IN TRIPLICATE

1. Type of Well

☐ Oil Well ☒ Gas Well ☐ Other:

2. Name of Operator

Mallon Oil Company

3. Address and Telephone No.

P.O. Box 2797 Durango, CO 81302

(970)382-9100

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

1450' FSL and 1850' FEL (NW SE) Unit J

Sec. 6, T30N-R03W

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: Commingled Completion
☐ 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 zone.)

Mallon Oil Company intends on completing the above referenced well, and down hole commingling of the San Jose, Nacimiento, Ojo Alamo and Pictured Cliffs formations.

RECEIVED
BLM
00 MAY -8 AM 10:56
010 ALBUQUERQUE, N.M.

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

Signed

Gay Davis

Title

Office Manager

Date

5/3/00

(THIS SPACE FOR FEDERAL OR STATE OFFICE USE)

Lands and Mineral Resources

Approved B

Title

Date

5/3/00

Conditions of approval, if any: