

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0136
Expires November 30, 2000

APPLICATION FOR PERMIT TO DRILL OR REENTER

| | | | |
|--|--|--|-----------------|
| 1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER | | 5. Lease Serial No. MDA 701-98-0013 | |
| 1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone | | 6. If Indian, Allottee or Tribe Name JICARILLA | |
| 2. Name of Operator MALLON OIL COMPANY | | 7. If Unit or CA Agreement, Name and No. | |
| 3a. Address 350 INDIANA STREET, SUITE 400 GOLDEN, CO 80401 | | 8. Lease Name and Well No. JIC 30-3-36 #4 | |
| 3b. Phone No. (include area code) Ph: 720.210.1300 Fx: 720.210.1301 | | 9. API Well No. 30-039-27828 | |
| 4. Location of Well (Report location clearly and in accordance with any State requirements.) At surface NESW Lot K 1975FSL 2020FWL At proposed prod. zone NESW Lot K 1975FSL 2020FWL | | 10. Field and Pool, or Exploratory PICTURED CLIFFS E Blanco | |
| 4. Distance in miles and direction from nearest town or post office* 57 MILES EAST OF BLOOMFIELD | | 11. Sec., T., R., M., or Blk. and Survey or Area Sec 36 T30N R3W Mer NMP K | |
| 15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 2020 FEET | 16. No. of Acres in Lease 9600.00 | 12. County or Parish RIO ARRIBA | 13. State NM |
| 18. Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft. 1200 FEET - JIC. 30-3-36 #2 | 19. Proposed Depth 4000 MD | 17. Spacing Unit dedicated to this well 160.00 SWH | |
| 21. Elevations (Show whether DF, KB, RT, GL, etc.) 7370 GL | 22. Approximate date work will start 12/12/2003 | 23. Estimated duration 45-60 DAYS | |

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form:

- Well plat certified by a registered surveyor.
- A Drilling Plan.
- A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
- Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
- Operator certification
- Such other site specific information and/or plans as may be required by the authorized officer.

| | | |
|---|--|---------------------|
| 25. Signature (Electronic Submission) | Name (Printed/Typed) KATHY L. SCHNEEBECK Ph: 303.820.4480 | Date 11/12/2003 |
| Title AGENT | | |
| Approved by (Signature) <i>[Signature]</i> | Name (Printed/Typed) | Date JUL 12 2004 |
| Title Assistant Field Manager | Office | |

Application approval does not warrant or certify the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

Additional Operator Remarks (see next page)

Electronic Submission #24815 verified by the BLM Well Information System
For MALLON OIL COMPANY, sent to the Rio Puerco
Committed to AFMSS for processing by ANGIE MEDINA-JONES on 11/12/2003 ()

| |
|-------------------------|
| Adjud |
| Engr |
| Geol <i>[Signature]</i> |
| Surf <i>[Signature]</i> |
| Appvl |

** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED **

DISTRICT I
P.O. Box 1980, Hobbs, N.M. 88241-1980

DISTRICT II
P.O. Drawer DD, Artesia, N.M. 88211-0719

DISTRICT III
1000 Rio Brazos Rd., Aztec, N.M. 87410

DISTRICT IV
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, NM 87504-2088

Form C-102
Revised February 21, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

| | | | |
|-----------------------------|--------------------------------------|---------------------|---|
| *API Number 30-039-27828 | | *Pool Code 72400 | *Pool Name E. Blanco/Pictured Cliffs |
| *Property Code 24245 | *Property Name JICARILLA 30-3-36 | | *Well Number 4 |
| *GRID No. 013925 | *Operator Name MALLON OIL COMPANY | | *Elevation 7370' |

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 |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|------------|
| K | 36 | 30-N | 3-W | | 1975' | SOUTH | 2020' | WEST | 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 160 | | | *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>FD. MARKED STONE</p> <p>N 00-06-29 W</p> <p>5263.8' (M)</p> <p>36</p> <p>2020'</p> <p>1975'</p> <p>CALC'D CORNER</p> <p>N 88-51-53 E 2543.9' (M)</p> <p>FD. MARKED STONE & 1/2" REBAR WITH 1 1/2" PLASTIC CAP STAMPED "LS 8894"</p> <p>LAT. 36°46'01.5"N (NAD 83) LONG. 107°06'13"W</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>Kathy L. Schneebeck</i> Signature Kathy L. Schneebeck Printed Name Agent for Mallon Oil Company Title Submitted November 12, 2003 Date Re-submitted August 2, 2004</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>[Signature]</i> Date of Survey NEW MEXICO Signature and Seal of Professional Surveyor: 14827 REGISTERED PROFESSIONAL SURVEYOR 14827 Certificate Number</p> |
|--|--|

COMPANY: MALLON OIL COMPANY
 LEASE: JICARILLA 30-3-36 #4
 FOOTAGE: 1975' FSL, 2020' FWL
 SEC.: 36, TWN: 30-N, RNG: 3-W, NMPM
 ELEVATION: 7370'

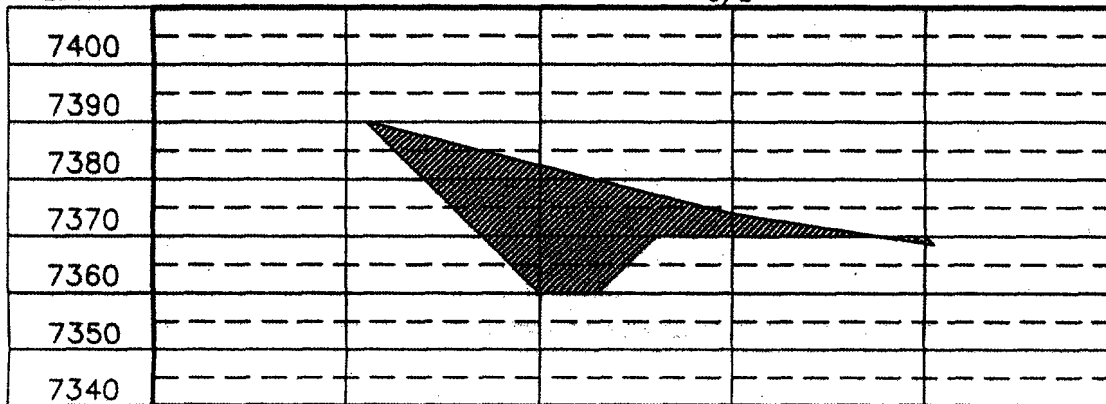
NOTE:

DAGGETT ENTERPRISES, INC. IS NOT LIABLE FOR
 UNDERGROUND UTILITIES OR PIPELINES. NEW MEXICO
 ONE CALL TO BE NOTIFIED 48 HOURS PRIOR TO
 EXCAVATION OR CONSTRUCTION.

ACCESS
ROAD

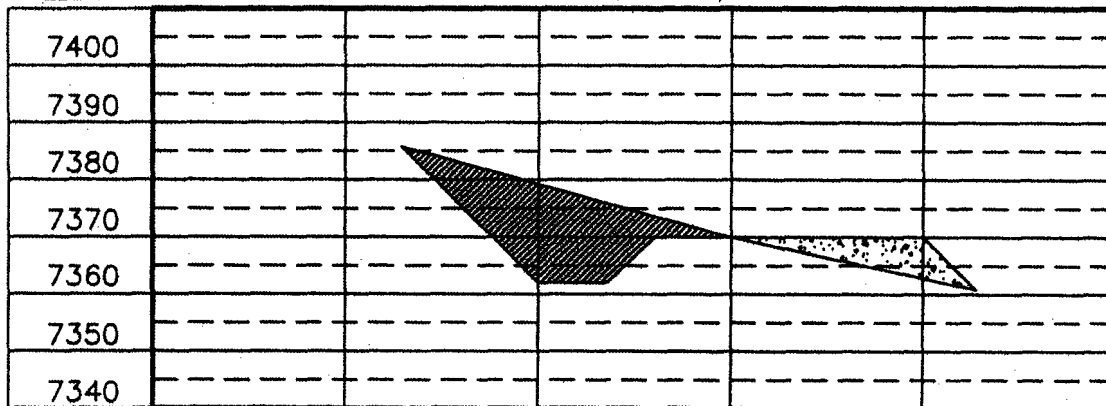
ELEV. A-A'

C/L



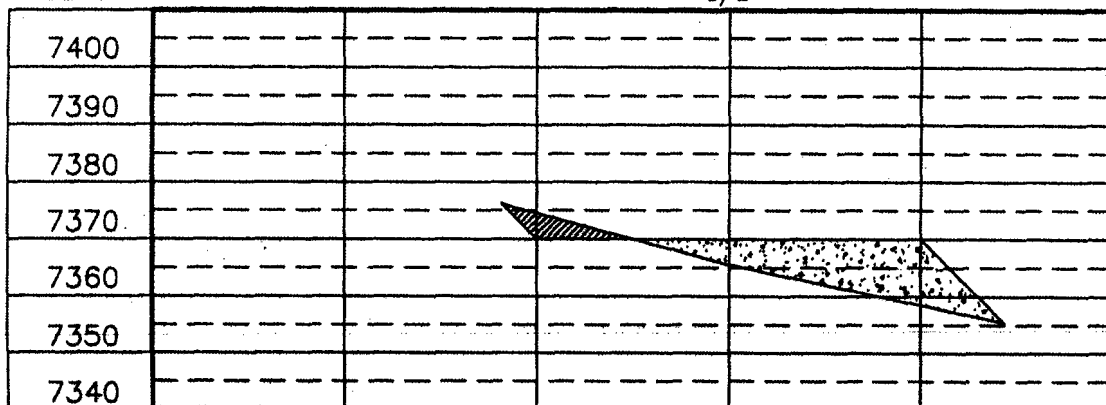
ELEV. B-B'

C/L



ELEV. C-C'

C/L



DRAWN BY: BS

R.O.W.#: MN253

CADFILE: MN253CF8

DATE: 8/5/03

Daggett Enterprises, Inc.
 Surveying and Oil Field Services
 P. O. Box 15088 Farmington, NM 87401
 Phone (505) 326-1772 Fax (505) 326-6019



Mallon Oil Company
Jicarilla 30-3-36 #4
1,975' FSL 2,020' FWL (NE/4 SW/4) Lot K
Sec. 36 T30N R3W
Rio Arriba County, New Mexico
Lease: MDA 701-98-0013 Tract 4

CONFIDENTIAL

DRILLING PROGRAM
(Per Rule 320)

This Application for Permit to Drill (APD) was initiated under the NOS process as stated in Onshore Order No. 1 and supporting Bureau of Land Management (BLM) documents. This NOS process includes an onsite meeting which was held on September 30, 2003 as determined by Bureau of Land Management (BLM), Bureau of Indian Affairs (BIA) and Jicarilla Oil & Gas Commission (JOGC), and at which time the specific concerns of Mallon Oil Company (Mallon), BLM, BIA and JOGC were discussed.

MALLON RESPECTFULLY REQUESTS THAT ALL INFORMATION REGARDING THIS WELL BE KEPT CONFIDENTIAL.

SURFACE FORMATION - San Jose

GROUND ELEVATION - 7,370'

ESTIMATED FORMATION TOPS - (Water, oil, gas and/or other mineral-bearing formations)

| | | |
|------------------|---------|--------------------------------|
| Upper San Jose ✓ | Surface | Sandstone, shales & siltstones |
| Lower San Jose ✓ | 1,731' | Sandstone, shales & siltstones |
| Nacimiento ✓ | 2,400' | Sandstone, shales & siltstones |
| Ojo Alamo ✓ | 3,292' | Sandstone, shales & siltstones |
| Kirtland | 3,584' | Sandstone, shales & siltstones |
| Fruitland | 3,716' | Sandstone, shales & siltstones |
| Pictured Cliffs | 3,788' | Sandstone, shales & siltstones |
| Lewis | 3,895' | Sandstone, shales & siltstones |

TOTAL DEPTH 4,000'

Estimated depths of anticipated fresh water, oil, or gas:

Tertiary

| | | |
|-----------------|---------|-----|
| San Jose | surface | Gas |
| Nacimiento | 2,400' | Gas |
| Ojo Alamo | 3,292' | Gas |
| Fruitland | 3,716' | Gas |
| Pictured Cliffs | 3,788' | Gas |

> *water-bearing*

CASING PROGRAM

| Depth | Hole Diameter | Casing Diameter | Casing Weight and Grade | Cement |
|-----------|---------------|-----------------|-------------------------|---|
| 0' - 250' | 12-1/4" | 8-5/8" | J-55 24# ST&C New | To surface (± 175 sxs Class B) |
| 0' - T.D. | 7-7/8" | 5-1/2" | J-55 15.5# LT&C New | TD to surface (± 630 sxs lite or 65:35 poz and ± 270 sxs 50:50 poz)* |

* Actual cement volume to be determined by caliper log.

Yields: Class B yield = $1.18 \text{ ft}^3/\text{sx}$
 65:35 Poz yield = $1.62 \text{ ft}^3/\text{sx}$
 50:50 Poz yield = $1.26 \text{ ft}^3/\text{sx}$

All fresh water and prospectively valuable minerals encountered during drilling, will be recorded by depth and protected.

PRESSURE CONTROL

BOPs and choke manifold will be installed and pressure tested before drilling out under surface casing (subsequent pressure test will be performed whenever pressure seals are broken), and then will be checked daily as to mechanical operating condition. BOP's will be pressure tested at least once every 30 days. Ram type preventors and related pressure control equipment will be pressure tested to 1,000 psi. Annular type preventor will be pressure tested to 50% of the rated working pressure, not to exceed 1,000 psi. All casing strings will be pressure tested to 0.22 psi/ft. or 1,000 psi, whichever is greater, not to exceed 70% of internal yield.

BOP to be either double gate rams or an annular preventor as per Onshore Order No. 2.

Statement on Accumulator System and Location of Hydraulic Controls

The drilling rig has not yet been selected for this well. Selection will take place after approval of this application. Manual and/or hydraulic controls will be in compliance with Onshore Order No. 2 for 2M systems.

A remote accumulator will be used. Pressures, capacities, location of remote hydraulic and manual controls will be identified at the time of the BLM supervised BOP test.

MUD PROGRAM

| | |
|-----------|--|
| 0' - 250' | Fresh water - M.W. 8.5 ppg, Vis 30-33 |
| 250' - TD | Fresh water - Low solids non-dispersed |
| | M.W. 8.5 - 9.2 ppg |
| | Vis - 28 - 50 sec |
| | W.L. 15cc or less |

Sufficient mud materials to maintain mud properties, control lost circulation and to contain "kick" will be available at wellsite.

AUXILIARY EQUIPMENT

- A) A Kelly cock will be kept in the drill string at all times
- B) Inside BOP or stab-in valve (available on rig floor)
- C) Mud monitoring will be visually observed

LOGGING, CORING, TESTING PROGRAM

- A) Logging: DIL- CNL-FDC-GR - TD - BSC (GR to surface)
Sonic (BSC to TD)
- B) Coring: None
- C) Testing: Possible DST – None anticipated. Drill stem tests may be run on shows of interest

ABNORMAL CONDITIONS

- A) Pressures: No abnormal conditions are anticipated
Bottom hole pressure gradient – 0.31 psi/ft
- B) Temperatures: No abnormal conditions are anticipated
- C) H₂S: None is anticipated.
- D) Estimated bottomhole pressure: 1,240 psi

ANTICIPATED START DATE

December 12, 2003

COMPLETION

The location pad will be of sufficient size to accommodate all completion activities and equipment. A string of 2-3/8" J-55 4.7#/ft tubing will be run for a flowing string. A Sundry Notice will be submitted with a revised completion program if warranted.

2-M SYSTEM

MALLON OIL COMPANY

ANNULAR PREVENTOR MAY BE SUBSTITUTED FOR DOUBLE GATE PREVENTORS
BOP PRESSURE TEST TO 1,000 PSI

