

1625 N. French Dr., Hobbs, NM 88240  
DISTRICT II  
811 South First St., Artesia, NM 88210  
DISTRICT III  
1000 Rio Brazos Rd., Aztec, NM 87410  
DISTRICT IV  
2040 S. Pacheco, Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

2040 S. Pacheco  
Santa Fe, New Mexico 87505-6429

APPLICATION FOR DOWNHOLE COMMINGLING

Form C-107-A  
Revised March 17, 1999

APPROVAL PROCESS:

Administrative ☐ Hearing ☐

EXISTING WELLBORE

☒ YES ☐ NO

Operator Mewbourne Oil Company Address P.O. Box 7698, Tyler, Texas 75711

Lease Avalon "31" State Well No. 1 Unit Ltr. - Sec. - Twp. - Rge. H-31-T31S-R26E County Eddy

OGRID NO. 14744 Property Code 24594 API NO. 30-015-30650 Federal ☐ State ☒ (and/or) Fee ☐

The following facts are submitted in support of downhole commingling:	Upper Zone	Intermediate Zone	Lower Zone
1. Pool Name and Pool Code	Hackberry Hills Canyon - 77920		Hackberry Hills Atoka - 96239
2. Top and Bottom of Pay Section (Perforations)	9528' - 9536' 9544' - 9554'		10,277'-10,283' 10,244'-10,252'
3. Type of production (Oil or Gas)	Gas		Gas
4. Method of Production (Flowing or Artificial Lift)	Flowing		Flowing
5. Bottomhole Pressure Oil Zones - Artificial Lift: Gas & Oil - Flowing: All Gas Zones: Estimated Current Measured Current Estimated Or Measured Original	a. (Current) 4000 psig (est) b. (Original) 4558 psig (calc)	a.  b.	a. 4500 psig (est) b. 5237 psig (calc)
6. Oil Gravity ( <sup>o</sup> API) or Gas BTU Content	1211 BTU/cuft		1085 BTU/cuft
7. Producing or Shut-In?	Producing		Producing
Production Marginal? (yes or no)	Yes		Yes
* If Shut-In, give 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 * If Producing, give date and oil/gas/water rates of recent test (within 60 days)	Date: Rates:  Date: 7/20/99 Rates: 3 BO, 10 BW, 342 MCF/D	Date: Rates:  Date: Rates:	Date: Rates:  Date: 7/15/99 Rates: No cond or wtr, 317 MCF/D
8. Fixed Percentage Allocation Formula - % for each zone (total of %s to equal 100%)	Oil: 100% Gas: 52%	Oil: % Gas: %	Oil: 0% Gas: 48%

9. If allocation formula is based upon something other than current or past production, or is based upon some other method, submit attachments with supporting data and/or explaining method and providing rate projections or other required data.
10. Are all working, overriding, and royalty interests identical in all commingled zones? ☒ Yes ☐ No  
If not, have all working, overriding, and royalty interests been notified by certified mail? ☐ Yes ☐ No  
Have all offset operators been given written notice of the proposed downhole commingling? ☐ Yes ☐ No
11. Will cross-flow occur? ☐ Yes ☒ No If yes, are fluids compatible, will the formations not be damaged, will any cross-flowed production be recovered, and will the allocation formula be reliable. ☐ Yes ☐ No (If No, attach explanation)
12. Are all produced fluids from all commingled zones compatible with each other? ☒ Yes ☐ No
13. Will the value of production be decreased by commingling? ☐ Yes ☒ No (If Yes, attach explanation)
14. If this well is on, or communitized with, state or federal lands, either the Commissioner of Public Lands or the United States Bureau of Land Management has been notified in writing of this application. ☒ Yes ☐ No
15. NMOCD Reference Cases for Rule 303(D) Exceptions ORDER NO(S). None
16. 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 all offset operators.  
\* Notification list of working, overriding, and royalty interests for uncommon interest cases.  
\* Any additional statements, data, or documents required to support commingling.

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

SIGNATURE K.M. Calvert TITLE Eng. Mgr. DATE 8/17/99

TYPE OR PRINT NAME K.M. Calvert TELEPHONE NO. (903) 561-2900

Attachments  
Mewbourne Oil Company  
Avalon "31" State No. 1  
Unit H, Section 31, T21S, R 26E  
Eddy Co., New Mexico

- 1) Original C-102 dated 5-7-99. C-102 showing spacing units for Hackberry (Canyon) and Hackberry (Atoka).
- 2) There is no production curve for either zone due to perforating the Canyon four days after perforating the Atoka. The production data for the Atoka is based on flow tests performed directly after perforating the zones of interest. Production data for the Canyon is determined from the overall rate increase incurred by the addition of the Canyon zone.

**Atoka**

<u>Time</u>	<u>FTP</u>	<u>Choke</u>
11:30 pm to 2:00 pm	440# to 210#	20/64"
2:00 pm to 5:00 pm	240#	20/64"

At 5:00 pm on 7/14/99, the Atoka was flowing on 32/64" choke, FTP 340# @ 312 MCFPD.

**Canyon**

After perforating the Canyon, the combined Atoka and Canyon zone's rate was 654 MCFPD. Therefore, the rate of production from the Canyon is 342 MCFPD.

- 3) Estimated production rates and supporting data:  
Gas rates since initial deliveries to pipeline on 7/16/99:

<u>Date</u>	<u>MCF/D</u>	<u>FTP</u>
7/16/99	654	340
7/23/99	530	350
7/30/99	319	420
8/6/99	278	390
8/11/99	261	350
8/17/99	434	80*

\* A compressor was installed to reduce back pressure. Production rates are expected to be back to approximately 250 MCF/D in one month and continue to decline from that point. This is an extremely poor producer due to the low permeability of the reservoir. Production of the remaining reserves is a salvage operation.

- 4) Allocation formula based upon initial rates. See item 2 above.
- 5) Offset operator notification not required.
- 6) No uncommon interest owners.
- 7) As evidenced by daily production rates shown in Item 3 above, this well is an extremely poor producer. A compressor has been required to maintain production as long as possible. Were this well required to be multiply completed, the economics of doing so could not justify the work. Commingling of these two zones will allow the salvaging of reserves that could not otherwise be recovered.

DISTRICT I  
P.O. Box 1200, Hobbs, NM 88241-1000

STATE OF NEW MEXICO  
Energy, Minerals and Natural Resources Depart

Revised February 10, 1994  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

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

DISTRICT III  
1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV  
P.O. BOX 2088, SANTA FE, N.M. 87504-2088

## OIL CONSERVATION DIVISION

P.O. Box 2088  
Santa Fe, New Mexico 87504-2088

☐ AMENDED REPORT

### WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
Property Code	Property Name <u>SW AVALON HILLS 31 STATE</u>	Well Number <u>1</u>
OGRID No. <u>14744</u>	Operator Name MEWBOURNE OIL CO.	Elevation 3308

#### Surface Location

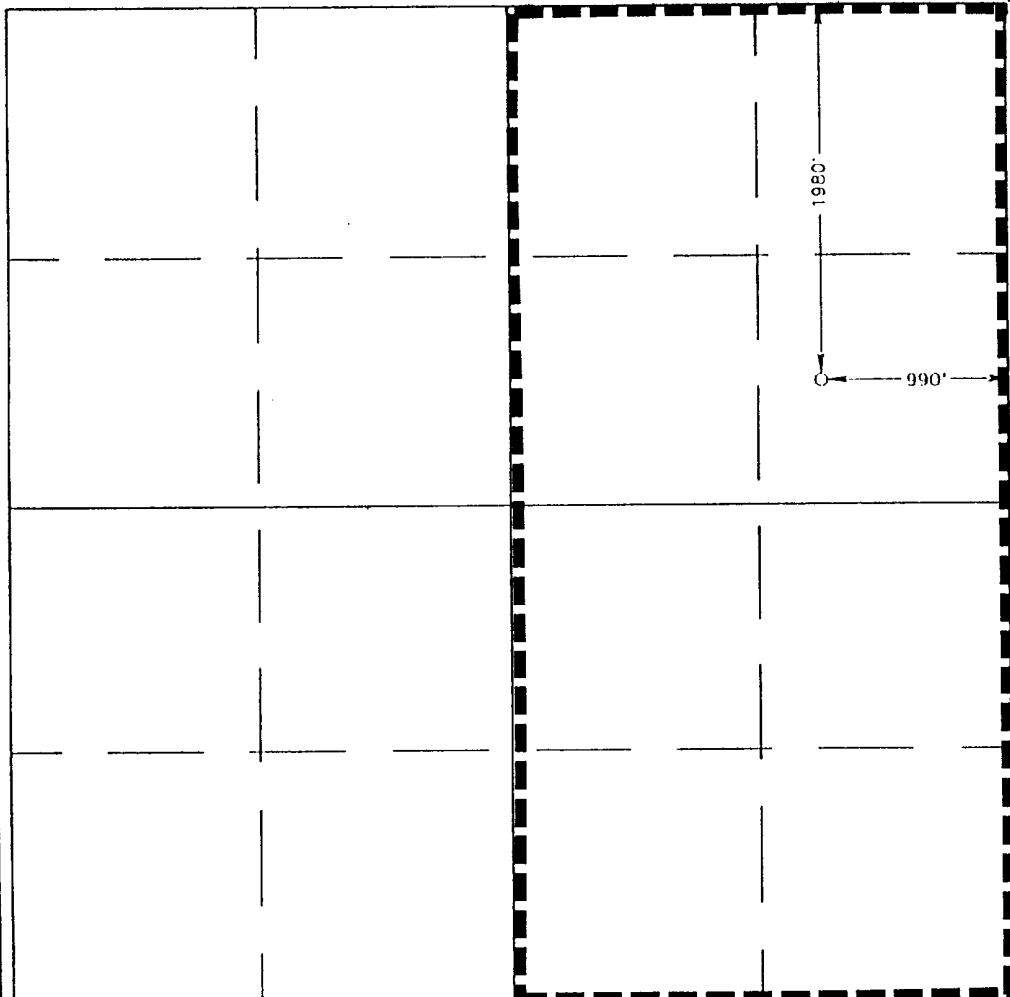
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	31	21 S	26 E		1980	NORTH	990	EAST	EDDY

#### 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 <u>3.20</u>	Joint or Infill	Consolidation Code	Order No.
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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

	<b>OPERATOR CERTIFICATION</b>  I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.  <u>Steve Matthews</u> Signature <u>Steve Matthews</u> Printed Name <u>Dir/g. Supt</u> Title <u>5-12-99</u> Date
	<b>SURVEYOR CERTIFICATION</b>  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.  MAY 5, 1999 Date Surveyed Signature & Seal of Professional Surveyor <u>Ronald E. Eidson</u> Professional Surveyor NEW MEXICO 5-07-99 59-11-032 Certificate No. RONALD E. EIDSON 3239 GARY EIDSON 12641 WAGNER McDONALD 12185

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☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
Property Code	Property Name <del>SW</del> AVALON <del>HILLS</del> 31 STATE	Well Number 1
OGRID No. 14744	Operator Name MEWBOURNE OIL CO.	Elevation 3308

Surface Location

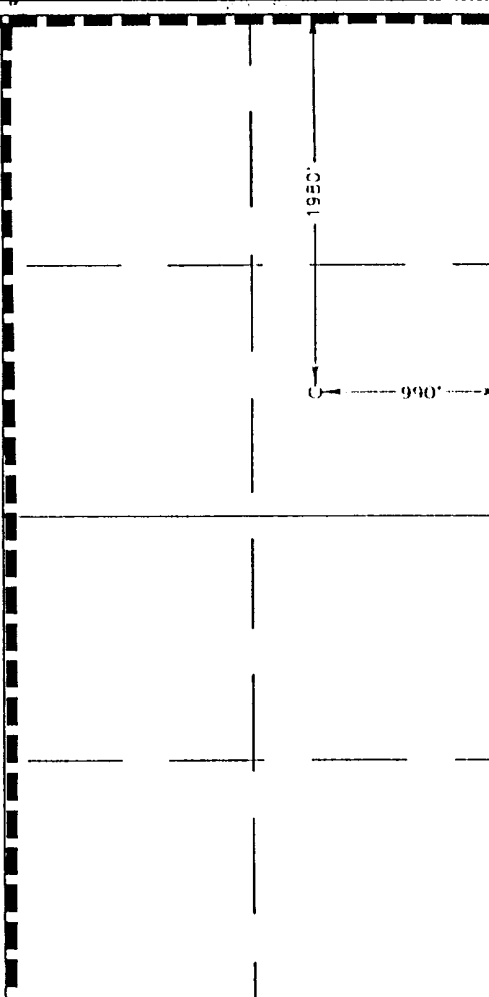
UL or lot No. H	Section 31	Township 21 S	Range 26 E	Lot Idn	Feet from the 1980	North/South line NORTH	Feet from the 990	East/West line EAST	County EDDY
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Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
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Dedicated Acres 320	Joint or Infill	Consolidation Code	Order No.
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OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

<p>NOTE: Hackberry Hills (Canyon) and Hackberry Hills (Atoka) are spaced and commingled on 320 ac., E/2 Sec. 21.</p>		<p>OPERATOR CERTIFICATION</p> <p>I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>Steve Matthews</i> Signature Steve Matthews Printed Name Dir. Supt. Title 5-12-99 Date</p>
		<p>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>MAY 5, 1999 Date Surveyed DMCC</p> <p><i>Ronald E. Tidson</i> Signature Professional Surveyor 5-07-99 53-11-0321</p> <p>Certificate No. RONALD E. TIDSON 3239 CARY TIDSON 12641 HAROLD McDONALD 12185</p>