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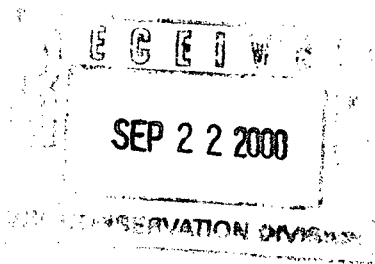
DHC

10/12/00

**MERRION**

OIL &amp; GAS

2847



September 20, 2000

Mr. David Catanach  
New Mexico Oil Conservation Division  
2040 S. Pacheco St.  
Santa Fe, New Mexico 87505

**Re: Application for Administrative Approval**  
**Downhole Commingling**  
**Antelope Ridge Morrow and Antelope Ridge Atoka Pools**  
**State 23 Com #1**  
**Section 23, T23S, R34E**  
**Lea County, New Mexico**

Dear Mr. Catanach:

Merrion Oil & Gas requests administrative approval for downhole commingling of the Antelope Ridge Morrow and Atoka Pools in the subject wellbore. The following information is provided in support of this application.

I. Proposed Spacing Units

Exhibit 1 shows the C-102 plat for the Antelope Ridge Morrow Pool with a 320 acre spacing unit in the S/2 of Section 23. Exhibit 2 is the C-102 plat for the Antelope Ridge Atoka Pool with a 320 acre spacing unit also in the S/2 of Section 23.

II. Justification

This well was originally completed as a dual producer in the Atoka and Morrow zones. Because of low productivity in the Morrow, a plug was set in its tubing string and, for many years, just the Atoka was produced. In 1994, the Atoka production rate had dropped off to less than 100 MCFD, so the operator at the time (Hunt) decided to fracture stimulate and produce the Morrow by itself. The Morrow zone has now also declined to less than 100 MCFD.

Merrion plans to stimulate and restore production in the Atoka. After testing the Atoka, we plan to commingle that zone with the Morrow. By combining the intervals, we will be able to install piston lift to help keep fluid off both formations. The combined gas rate will also extend the economic life of the well, increasing the ultimate recovery from both zones.

III. Allocation Methodology

Exhibit 3 shows the Morrow historical production while Exhibit 4 shows the production history from the Atoka zone. The current Morrow interval is on a stable decline at 60 MCFD, 1 BOPD, and 15 BWPD. Merrion proposes to obtain a stabilized production test on the Atoka zone and use a fixed percentage to allocate future production between the two zones. If subsequent data indicates the need, additional testing may be done in the future to adjust the allocation percentages.

IV. Reservoir Fluid Compatibility

Water analyses are not available for wells in the immediate area. However, the waters of the Atoka and Morrow have been generally determined to be compatible across the basin based on other similar applications to the OCD.

V. Cross Flow Between Zones

The current reservoir pressure of the Morrow is estimated to be 1800 psi, while the Atoka is estimated to be at 1100 psi. With a flowing line pressure of approximately 200 psi, crossflow is not anticipated to be a problem.

VI. Well Ownership

The spacing unit and ownership of the two zones are identical.

VII. Summary

Both the Atoka and the Morrow have declined to the point where they are economically marginal. Commingling the zones will extend the economic life, maximize reserves and protect correlative rights. Therefore, we request your approval of this application.

Please call me with questions or if additional information is required.

Sincerely,



George F. Sharpe  
Manager - Oil & Gas Investments

xc: Hobbs OCD  
Commissioner of Public Lands

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 TYPE

☒ Single Well

☐ Establish Pre-Approved Pools

EXISTING WELLBORE

☒ Yes ☐ No

APPLICATION FOR DOWNHOLE COMMINGLING

MERRION OIL & GAS CORPORATION, 610 Reilly Avenue, Farmington, NM 87401-2634

Operator STATE 23 COM 1 N 23 23S 34E LEA Address

Lease Well No. Unit Letter-Section-Township-Range County

OGRID No. 014634 Property Code 26507 API No. 30-025-26198 Lease Type: Federal X State Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	Antelope Ridge (Atoka)		Antelope Ridge (Morrow)
Pool Code	70360		70440
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	12903'-12953'		13360'-13419'
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)	1100 PSI		1800 PSI
Oil Gravity or Gas BTU (Degree API or Gas BTU)	1100 BTU		1100 BTU
Producing, Shut-In or New Zone	Shut In		Producing
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: Jan, 2000  Rates: Shut In	Date:  Rates:	Date: Jan, 2000  Rates: 60 MCFD, 1 BOPD, 15 BWPD
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 To be determined % %	Oil Gas % %	Oil Gas To be determined % %

ADDITIONAL DATA

Are all working, royalty and overriding royalty interests identical in all commingled zones? Yes ☒ 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 ☒ No ☐

Will commingling decrease the value of production? Yes ☐ No ☒  
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 ☒ No ☐

NMOCD Reference Case No. applicable to this well: \_\_\_\_\_

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 George Sharpe TITLE Engineer DATE September 20, 2000

TYPE OR PRINT NAME George F. Sharpe TELEPHONE NO. (505) 327-9801 Ext. 114

NEW MEXICO OIL CONSERVATION COMMISSION  
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102  
Supersedes C-128  
Effective 1-1-65

All distances must be from the outer boundaries of the Section.

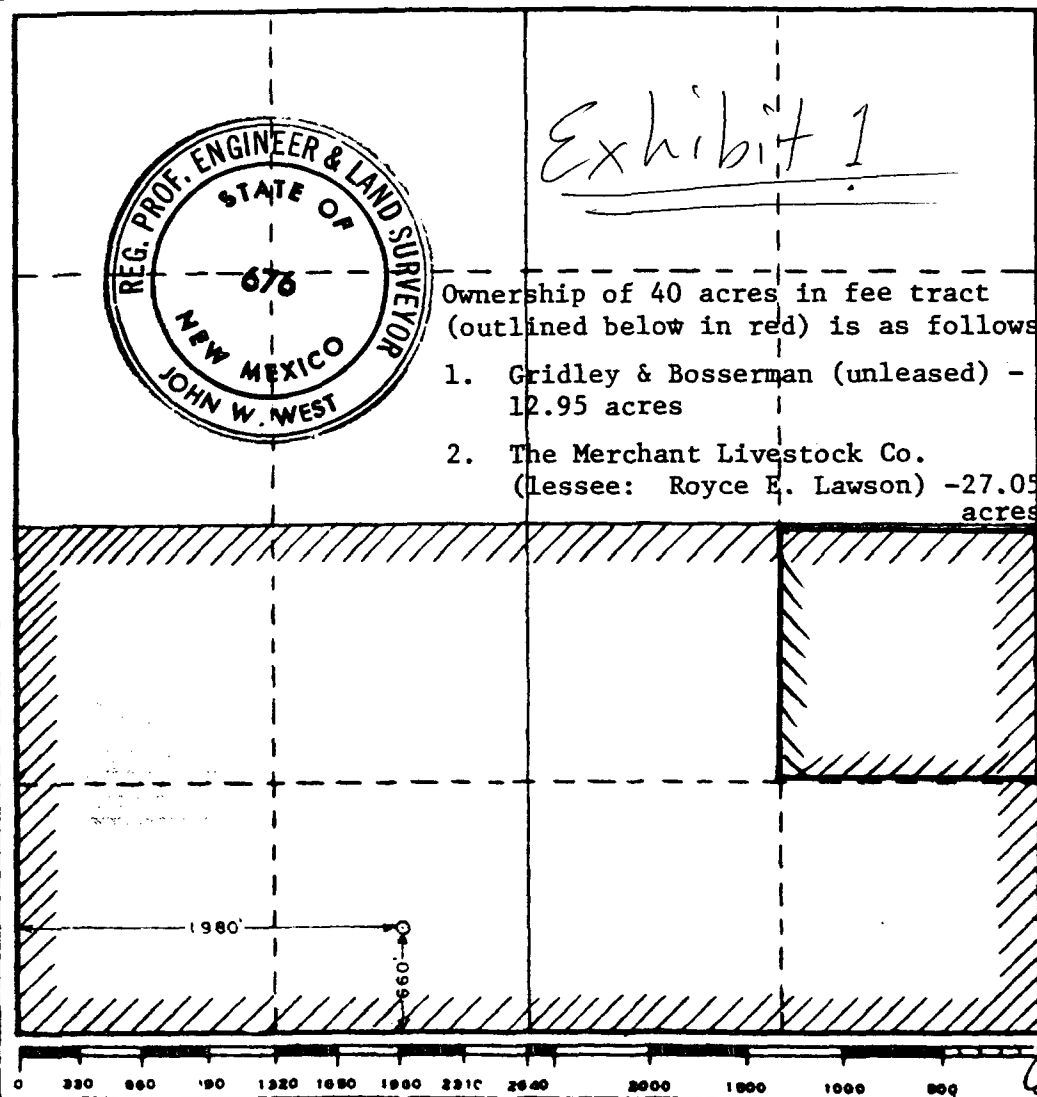
Operator <b>Natomas North America, Inc.</b>			Lessee <b>Natomas State Com. "23" Com</b>		Well No. <b>1</b>
Unit Letter <b>N</b>	Section <b>23</b>	Township <b>23 South</b>	Range <b>34 East</b>	County <b>Lea</b>	
Actual Footage Location of Well: <b>660</b> feet from the <b>South</b> line and <b>1980</b> feet from the <b>West</b> line					
Ground Level Elev. <b>3393.6</b>	Producing Formation <b>Morrow</b>	Pool <b>Antelope Ridge</b>		Dedicated Acreage: <b>320</b> Acres	

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

☒ Yes ☐ No If answer is "yes," type of consolidation **Joint Operation Agreement**

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.)

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



CERTIFICATION

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

*R. P. Buhr*  
Name

**R. P. Buhr**  
Position

**Vice President -- Land**  
Company

**Natomas North America, Inc.**  
Date

**January 22, 1979**

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 knowledge and belief.

Date Surveyed  
**January 8, 1979**

Registered Professional Engineer and/or Land Surveyor

*John W. West*

Certificate No. **John W. West 676**  
**Ronald J. Eldon 3239**

NEW MEXICO OIL CONSERVATION COMMISSION  
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Form C-102  
Supersedes C-128  
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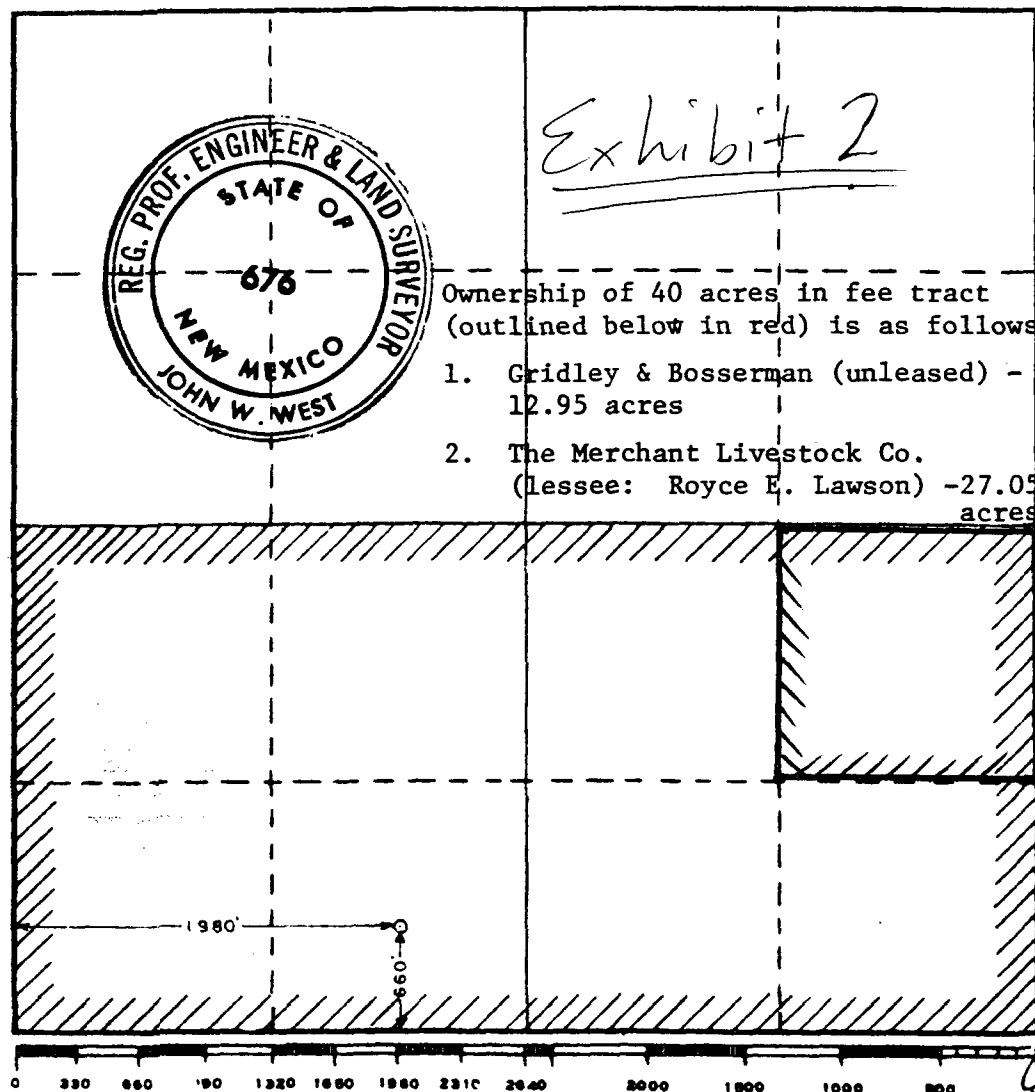
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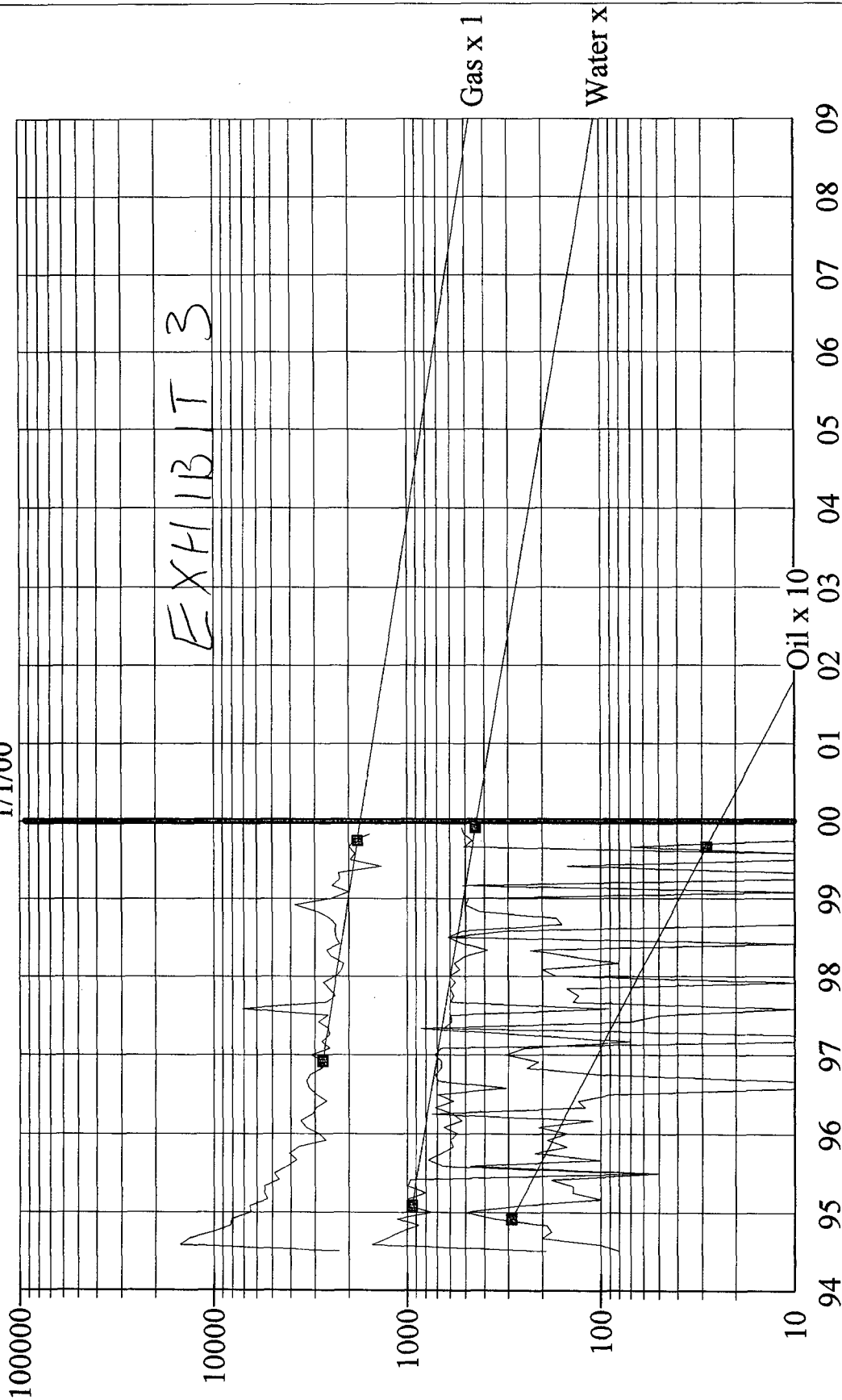
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Ronald J. Eldson

3239

# STATE 23 COM (1 - 100%), ANTELOPE RIDGE (MORROW) PM

Effective Date  
1/1/00



# STATE 23 COM (1 - 100%), ANTELOPE RIDGE (ATOKA) PA

Effective Date  
1/1/00

