



STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
HOBBS DISTRICT OFFICE

GARREY CARRUTHERS
GOVERNOR

5-15-89

POST OFFICE BOX 1980
HOBBS, NEW MEXICO 88241-1980
(505) 393-6161

OIL CONSERVATION DIVISION
P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

DEC 729

RE: Proposed:

MC _____
DHC ☒ _____
NSL _____
NSP _____
SWD _____
WFX _____
PMX _____

Gentlemen:

I have examined the application for the:

American Expl. Co. Elk State #1-N 16-23-37
Operator Lease & Well No. Unit S-T-R

and my recommendations are as follows:

OK

Yours very truly,

Jerry Sexton
Supervisor, District 1

/ed



American Exploration Company

May 9, 1989

Re: Application for Downhole
Commingling of the Teague
Blinebry and Abo Pools
Elk State No. 1
Sec. 16, T23S, R37E
Lea County, New Mexico

New Mexico Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico 87501

Gentlemen:

American Exploration Company respectfully requests administrative approval under the provisions of Rule 303-C to downhole commingle the Teague Blinebry and Abo/Drinkard pools in the Elk State No. 1 Well. This well is presently completed in the Teague Blinebry Oil Pool and produces 9 BOPD, 40 MCFPD and 2 BWPD. We recently tested the undesignated Abo for 10 BOPD, 130 MCFPD and 30 BWPD. Producing only the Blinebry is economically marginal due to the low rates, but commingling the two zones should return the well to profitability.

A summary of information required for commingling is attached. Additionally, American has a 100% interest in this lease and the royalty interests of each zone are common. Based on the information we have gathered, we believe the request to commingle is justified in the interest of conservataion.

If there are any questions, please contact the undersigned as soon as possible.

Very truly yours,

AMERICAN EXPLORATION COMPANY

Marty B. McClanahan
Marty B. McClanahan
Sr. Production Analyst

MBM:mm
Encl.

cc: Mr. J. T. Sexton ✓
New Mexico Conservation Division
P. O. Box 1980
Hobbs, New Mexico 88240

Elk State No. 1
Information for Downhole Commingling

- a. Operator: American Exploration Company
2100 RepublicBank Center
Houston, Texas 77002
- b. Lease, Well Location and Pools:
Elk State No. 1
330' FSL & 2310' FWL of Sec. 16, T23S, R37E
Lea County, New Mexico
Teague Blinebry and Undesignated Abo Pools
- c. Acreage Dedication (40 acres) Form C-102 is attached. Offset operators are listed on schedule attached.
- d. 24 hour productivity test - Form C-116 attached.
- e. Commingling Computations - Attached.
- f. Allocation of Production - based on latest production tests.
- | | <u>Oil</u> | <u>Gas</u> | <u>Water</u> |
|------------------|------------|------------|--------------|
| Blinebry | 47% | 24% | 6% |
| Undesignated Abo | 53% | 76% | 94% |
- g. Notification to Offset Operators.
A copy of the notice sent to offset operators.
- h. A complete resume of the well's completion history.
- i. Fluid Compatibility - See attached water analysis.



American Exploration Company

May 8, 1989

Re: Notification of Intent to
Commingle the Teague
Blineby and Abo Pools
Elk State No. 1
330' FSL & 2310' FWL of
Sec. 16, T23S, R37E
Lea County, New Mexico

OFFSET OPERATORS
ELK STATE NO. 1 LEASE

Gentlemen:

In accordance with New Mexico Oil Conservation Division regulations, you are hereby notified of American Exploration Company's application to downhole commingle production from the Teague Blinebry and Undesignated Abo pools in the Elk State Well No. 1 Lease.

Very truly yours,

AMERICAN EXPLORATION COMPANY

Marty B. McClanahan
Marty B. McClanahan
Sr. Production Analyst

MBM:mm

LIST OF OFFSET OWNERS
ELK STATE NO. 1 LEASE

NE/4, SW/4, Sec. 16, T23S, R37E, Lea County, New Mexico

Texaco, Inc.
P. O. Box 3109
Midland, Texas 79702
(NE/4 SW/4 of Sec. 16, 3800-6200')

Chevron, U.S.A. Inc. (D/R NW/4-21)
P. O. Box 1635 (D/R W/2 NE/4-21)
Houston, Texas 77251

Zachary Oil Operating (to 3700'-W/2 NE/4-21)
1212 Commerce Building
Fort Worth, Texas 76102

Penroc Oil Corporation (To 3800'-SW/4-16)
P. O. Box 5970
Hobbs, New Mexico 88241

Elk Oil Company (D/R-SW/4-16)
P. O. Box 310
Roswell, New Mexico 88202

M.Y. Merchant Trading Co. (to 3700' NE/4 NW/4-21)
P. O. Box 5970
Hobbs, New Mexico 88240

MEMORANDUM

TO WHOM IT MAY CONCERN:

Pursuant to Rule 303 (C) (2) (i) of the rules and regulations of the State of New Mexico for downhole commingling, the following formula should apply as to the production allocation for the new zone added to the following well:

Elk State #1 located in Unit N; 330' FSL and 2310' FWL of Section 16, T23S, R37E, Lea County, New Mexico.

Prior Production (Before Recent Workover)

°195 BOPM @ 9% Decline GOR 5700

$$\frac{(\text{Initial Prod.}) - (\text{Economic Limit}) (12 \text{ Mo.})}{-\ln (1-\text{decline})} = \text{Total Production Rem.}$$

(195-45) (12)

$-\ln (1-.09) = °19,000 \text{ BO}$

195 BOPM (IP)
45 BOPM (E.L.)
9% decline

Current Production (After Workover)

°490 BOPM @ 9% Decline

(490-45) (12)

$-\ln (1-.09) = °56,000 \text{ BO}$

490 BOPM (IP)
45 BOPM (EL)
9% decline

56 MBO -19 MBO = °37 MBO

Submit 2 copies to Appropriate District Office.
DISTRICT I
P.O. Box 1980, Hobbs, NM 88240
DISTRICT II
P.O. Drawer DD, Artesia, NM 88210
DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

State of New Mexico
Energy, Minerals and Natural Resources Department
OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

Form C-116
Revised 1/1/89

GAS - OIL RATIO TEST

Operator American Exploration Company		Pool Undesignated Also				County Lea										
Address 2100 RepublicBank Center, Houston, Texas 77002		TYPE OF TEST - (X)		Scheduled <input type="checkbox"/>		Completion <input checked="" type="checkbox"/>		Special <input type="checkbox"/>								
LEASE NAME	WELL NO.	LOCATION				DATE OF TEST	2 1/2 IN. CHOKE SIZE	TBG. PRESS.	DAILY ALLOW-ABLE	LENGTH OF TEST HOURS	PROD. DURING TEST			GAS - OIL RATIO CU FT/BBL.		
		U	S	T	R						WATER BBL.S.	GRAV. OIL	OIL BBL.S.		GAS M.C.F.	
Elk State	1	N	16	23	37	3/13/89	P	2"	23	M	24	30	38	10	130	13

Instructions:

During gas-oil ratio test, each well shall be produced at a rate not exceeding the top unit allowable for the pool in which well is located by more than 25 percent. Operator is encouraged to take advantage of this 25 percent tolerance in order that well can be assigned increased allowables when authorized by the Division.

Gas volumes must be reported in MCF measured at a pressure base of 15.025 psia and a temperature of 60° F. Specific gravity base will be 0.60.

Report casing pressure in lieu of tubing pressure for any well producing through casing.

(See Rule 301, Rule 1116 & appropriate pool rules.)

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

Signature

Marty B. McClanahan, Sr. Production Analyst

Printed name and title

4/11/89

713-237-0800

Date

Telephone No.