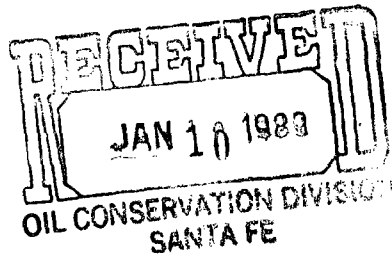


**ENSERCH
EXPLORATION** INC

ClayDesta National Bank Bldg.
Suite 5250
6 Desta Drive
Midland, Texas 79705
915-682-9756

Leonard Kersh
District Production Manager
Dane Hendley
District Petroleum Engineer
Sammy Reed
Production Superintendent
West Texas District
Production Division

January 5, 1989



New Mexico Department of
Energy & Minerals
Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico 87501-2088

Re: Application for Downhole Commingling
Enserch Exploration, Inc.
N.M. (55) Federal No. 1
Vada (Penn) Pool
Prairie, S. (Wolfcamp) Pool
Roosevelt County, New Mexico

Gentlemen:

Enserch Exploration, Inc., managing general partner of EP Operating Co. requests authority for downhole commingling of production from the Vada (Penn) Pool and the Prairie, S. (Wolfcamp) Pool in the above referenced well located in Roosevelt County, New Mexico.

In accordance with Rule 303-A of the Oil Conservation Division Rules and Regulations, information necessary upon application of a permit for downhole commingling of two oil zones is hereby submitted.

Sincerely,


Wm. Dane Hendley

TDB/bd

Attachments

cc: New Mexico Department of
Energy & Minerals
Oil Conservation Division
P. O. Box 1980
Hobbs, New Mexico 88241-1980

U.S. Department of the Interior
Bureau of Land Management
P. O. Box 1397
Roswell, New Mexico 88201-1397

Managing General Partner of EP Operating Company, a limited partnership

1. Operator: EP Operating Company
ClayDesta National Bank Bldg.
Suite 5250
6 Desta Drive
Midland, Texas 79705
2. Lease Name: N.M. (55) Federal
Well Number: 1
Well Location: Unit Letter - F
Section 27, T-8-S, R-36-E
1980' FNL, 1980' FWL
Roosevelt County, New Mexico
Polls to be Commingled: Vada (Penn) Pool
Prairie, S. (Wolfcamp) Pool
3. Plat Attached
4. Form C-116 is attached for the Prairie, S. (Wolfcamp) Pool.

Prior to abandonment, the Vada (Penn) Pool completion was producing 3 STB of oil, 40 MCF of gas, and 5 barrels of water per day.

5. Production decline curves for each pool are attached. Following is a brief synopsis of the well history:

The N.M. (55) Federal No. 1 was originally drilled by Lone Star Producing Company in early 1970 to a total depth of 9820 feet. Drilled as a development well in the Vada (Penn) Field, the well was completed through perforations in the 5½ inch casing from 9745 to 9763 feet. Following stimulation with 750 gallons of 15% HCl acid, a hydraulic casing pump was installed due to the high fluid volume and the well potentialized pumping on February 21, 1970 for 273 STB of oil + 386 MCF of gas + 514 barrels of water per day. The hydraulic casing pump operated efficiently for the first twelve months with the well producing 68,333 STB of oil and 65,653 barrels of water; however, during that first year the GOR continually increased with fluid volume decreasing and the hydraulic casing pump failed. At that time, the casing pump was pulled and, due to the high GOR, the well flowed for approximately 1½ years before dying. The well was then placed on rod pump and produced continually until July 23, 1988 with cumulative production of 164,986 STB oil and 849,717 MCF of gas. At that time, the Penn completion was producing 3 STB of oil and 40 MCF of gas per day and was uneconomical; consequently, the decision was made to test the Wolfcamp formation. A cast iron bridge plug (ClBP) was set at 9651 feet and the Wolfcamp formation perforated from 9040 to 9092 feet. Following stimulation with 12,000 gallons of 15% HCl acid, the Wolfcamp completion potentialized pumping on August 7, 1988 for 8 STB of oil, 35 barrels of water, and 50 MCF of gas per day. Currently, the Wolfcamp completion produces 7 STB of oil, 60 barrels of water, and 13 MCF of gas per day.

6. Bottomhole pressure for the Wolfcamp formation is estimated to be 3300 psig based on a drill stem test conducted in the offset N.M. (55) Federal No. 2 well. Bottomhole pressure for the Penn formation is estimated to be 3000 psig. Both zones require artificial lift.
7. Wolfcamp Oil - 47.1°API
Penn Oil - 47.1°API
8. Estimated production from the Penn formation: 3 BOPD
Estimated production from the Wolfcamp formation: 7 BOPD
Sum of Individual Flow Streams: 10 BOPD

According to Order No. R-6882 dated February 1, 1982, commingled production from zones with the lowermost pool existing between 9000' and 9999' may not exceed 70 BOPD.

9.

Penn production	-	3 BOPD		40 MCFPD
Wolfcamp production	-	<u>7 BOPD</u>		<u>13 MCFPD</u>
		10 BOPD	+	53 MCFPD

Oil production - 30% Penn & 70% Wolfcamp
Gas production - 75% Penn & 25% Wolfcamp

10. All offset operators have been notified and waiver letters are attached.

<p>Lila Wright, etal Rep. Nat'l. Bnk. Dallas, Tr. 1/2 M.I. J.C. Maxwell Minnie Bow</p> <p>S.P. Yates HBP 060521</p> <p>U.S. Insworth, (S)</p>	<p>C.C. Grynberg 11.1.95 63771</p> <p>I.M.C. Co R.N. Ains Liber 8.1 532</p> <p>Le Moy Ener. Celsius Fed. TD5105 0/A12.2.82</p> <p>U.S. R.N. Ainsworth, (S)</p>	<p>Acreage Dedication Plat EP Operating Company N.M. (55) Federal No. 1 Vada (Penn) Field Prairie, S. (Wolfcamp) Field Roosevelt County, New Mexico</p> <p>55979</p> <p>Judy Jones 11.1.91 145161</p> <p>I.M.C. Corp. etal U.S. Mary Hays (S)</p>
<p>A.R. Co. HBP 3875</p> <p>6</p> <p>Gos Prod Ent. E 8875</p> <p>A.R. Co. Coastal Sys Att. ST. HBP E 8875</p> <p>SA Disc. ate Plg 1.4.63</p>	<p>Liberty Pet. 8.1.92 53251</p> <p>S.P. Yates HBP 060521</p> <p>Roswell LaSalle</p> <p>Oxy Cities Serv. NGL Inc. (S)</p> <p>5</p> <p>Coastal States</p> <p>(Skelly) TD 9705 0/A10.29.62 (Max Pray)</p> <p>F4401</p> <p>Thomas S. Massey, etal</p>	<p>G.D. Williamson 1.11.88</p> <p>Yates 9.1.87 30895</p> <p>H Beebe, etal</p> <p>4</p> <p>Celsius Ener. 8.1.88 55160 791 KGS</p> <p>For Oil, etal 1/4 M.I Lignum Oil 3/4 F. T. Fleet Inc.</p> <p>U.S.</p>
<p>C.E. Boyd III 7.1.87 53386 256.29</p> <p>et, KGS C.B. Read Bates-Fed TD9734</p> <p>21 Yates Pet. 76.98</p> <p>FINA O.C. HBP</p> <p>10.B. Boxter Cit. Serv. Fed. 2958</p> <p>U.S.</p>	<p>Breck Oper. (BBI Ltd. 1/2) 058677 "A"</p> <p>Breck Oper Bate-Fed.</p> <p>22 BRECK OPERATING CO. P.O. Box 911 BRECKENRIDGE, TX. 76024</p> <p>Solar Louise-Fed. 109375</p> <p>"Dedicated Acreage"</p> <p>"Bate-Fed"</p> <p>U.S.</p>	<p>2-J American Petrofina Fed.</p> <p>MWJ 5.1.91 65984 3815 KGS</p> <p>American Petrofina Fed.</p> <p>MWS PRODUCING 400 W. ILLINOIS SUITE 1100 MIDLAND, TX 79701 U.S.</p> <p>D.W. Davis, (S)</p> <p>23</p> <p>EP Oper. HBP 0328425</p> <p>Celsius Ener. 3.1.88 55161 791 KGS</p> <p>U.S.</p> <p>K.G. Flott</p>
<p>Yates Pet. 3.81.2.28.93 AB 9093</p> <p>105 S. 4TH ARTESIA, NM 88210</p> <p>KGS</p> <p>28</p> <p>FINA OIL & CHEM. mer. PETROJ HBP 01.E #6 DESTA 051845P392 Dr. Str. 5200</p> <p>D.D. Dudley's/R (Amer. Petroj) HBP</p> <p>U.S. 058677</p>	<p>EP Oper. ML 455 0328425</p> <p>2 III Tom Boyd F330. (w.o.) 2.1.73 10948589</p> <p>(C.B. Read) (Stone-Fed) 99720</p> <p>N.M. (55) Fed."</p> <p>EP Oper. (C.B. Read) 0272981</p> <p>N.M. (54) Fed."</p> <p>U.S. K.G. Flott</p>	<p>MWJ 12.1.88 57708 2215 KGS</p> <p>F368</p> <p>Tom Brown Aztec-Fed.</p> <p>26 Sabine 7.27.88 8.3.88 9.12.88 9.26.88</p> <p>J.C. Ainsworth & G. Beebe 1/4 U.S. H.M. Ray 1/2 K.G. Flott</p>
<p>RR. Morrison Fed P333</p>	<p>C.C. Kennedy 6.1.88 56273 A44</p>	<p>Skelly, etal HBP 03431</p> <p>Lillie Yates) 03283</p>

**NEW MEXICO OIL CONSERVATION COMMISSION
GAS-OIL RATIO TESTS**

C-116
Revised 1-1-65

Operator EP Operating Company		Pool Prairie, S. (Wolfcamp) Field		County Roosevelt															
Address 6 Desta Dr., Suite 5250, Midland, Texas 79705				TYPE OF TEST - (X)	Scheduled <input type="checkbox"/> Special <input checked="" type="checkbox"/>														
LEASE NAME	WELL NO.	LOCATION U S T R		DATE OF TEST	CHOKE SIZE														
N.M. (55) Federal	1	F	27	8S	36E														
						12/16/88	P	---	---	8	24	60	47.1	7	13	1625/1			

No well will be assigned an allowable greater than the amount of oil produced on the official test.

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 Commission.

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.

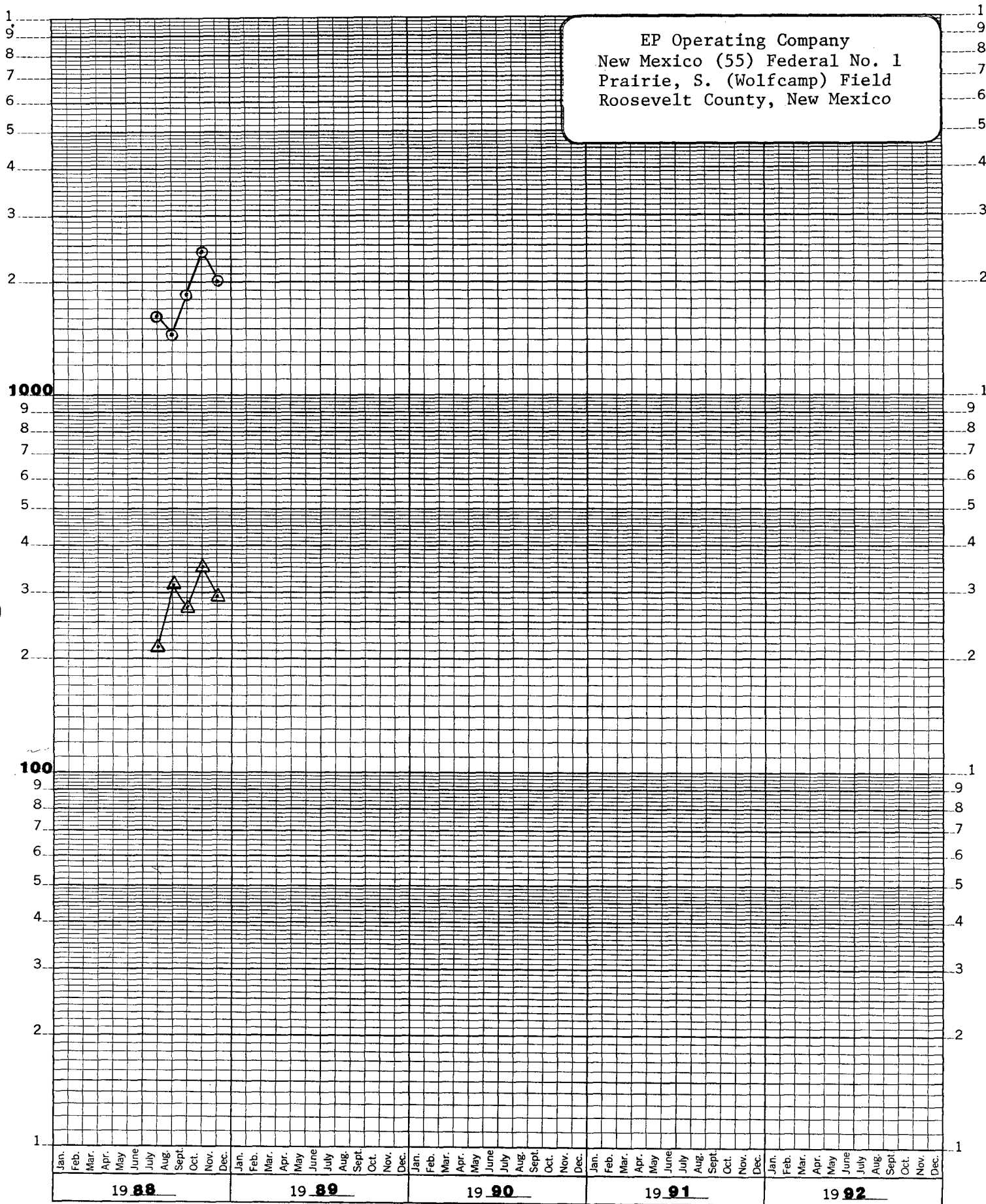
Report casing pressure in lieu of tubing pressure for any well producing through casing.

Mail original and one copy of this report to the district office of the New Mexico Oil Conservation Commission in accordance with Rule 301 and appropriate pool rules.

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

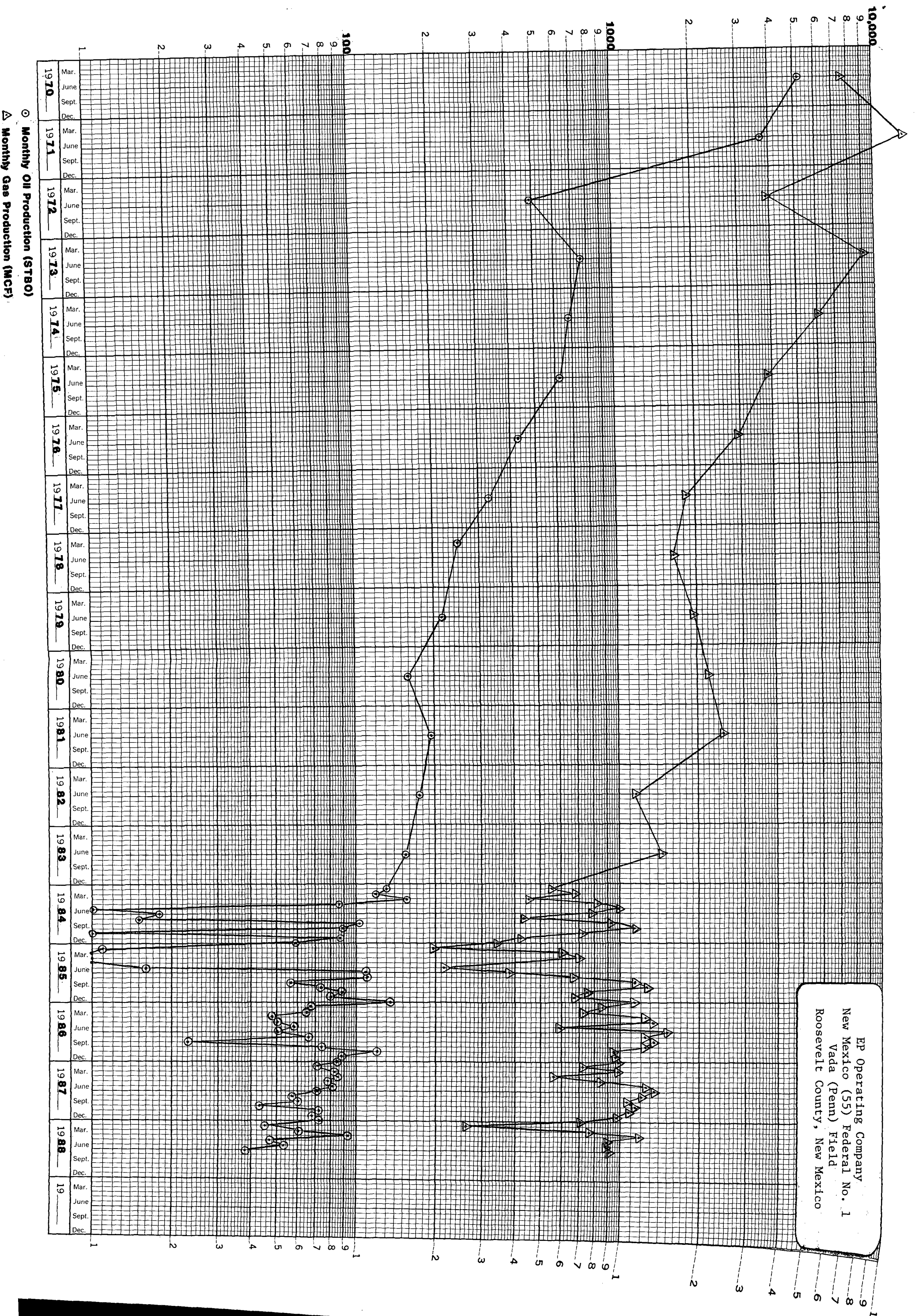
Mr. Paul Jendley
(Signature)
District Petroleum Engineer
January 4, 1989
(Date)

46 6690

K&E 5 YEARS BY MONTHS x 3 LOG CYCLES
KEUFFEL & ESSER CO. MADE IN U.S.A.

© Monthly Oil Production (STBO)

△ Monthly Gas Production (MCF)



**ENSERCH
EXPLORATION** INC.

ClayDesta National Bank Bldg.
Suite 5250
6 Desta Drive
Midland, Texas 79705
915-682-9756

Leonard Kersh
District Production Manager
Dane Hendley
District Petroleum Engineer
Sammy Reed
Production Superintendent
West Texas District
Production Division

September 15, 1988

MWJ Producing Company
400 W. Illinois
Suite 1100
Midland, Texas 79701

Re: Exception to New Mexico Rule 303-A
Downhole Commingling
EP Operating Company
N.M. (55) Federal No. 1
Prairie, S. (Wolfcamp) Field
Vada (Penn) Field
Roosevelt County, New Mexico

Gentlemen:

EP Operating Company proposes to commingle downhole within the wellbore of the N.M. (55) Federal Well No. 1 production from the Prairie, S. (Wolfcamp) Field and the Vada (Penn) Field. If, as an offset lease owner, you have no objection to the granting of this exception provided for under the provisions of New Mexico Rule 303-C and hereby waive objection and notice of hearing on this application, please execute two (2) copies of this waiver and return them to the above address.

Please advise if there are questions or additional information is required for this purpose.

Sincerely,


Leonard Kersh

TB/jd

Attachment

Name: Edward H. Judson
Edward H. Judson
Title: Vice President/Treasurer & Assistant Secretary

Date: 9/21/88

Managing General Partner of EP Operating Company, a limited partnership

**ENSERCH
EXPLORATION INC.**

ClayDesta National Bank Bldg.
Suite 5250
6 Desta Drive
Midland, Texas 79705
915-682-9756

RECEIVED

NOV 17 1988

Midland Production

Leonard Kersh
District Production Manager
Dane Hendley
District Petroleum Engineer
Sammy Reed
Production Superintendent
West Texas District
Production Division

September 15, 1988

Fina Oil & Chemical Company
#6 Desta Dr., Suite 3200
Midland, Texas 79705

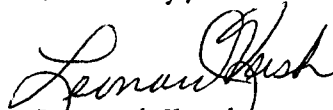
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Sincerely,


Leonard Kersh

TB/jd

Attachment Fina Oil and Chemical Company

Name:

Ronald E. Smalley

Title: District Production Manager

Date: 11-15-88

Managing General Partner of EP Operating Company, a limited partnership

**ENSERCH
EXPLORATION** INC

ClayDesta National Bank Bldg.
Suite 5250
6 Desta Drive
Midland, Texas 79705
915-682-9756

Leonard Kersh
District Production Manager
Dane Hendley
District Petroleum Engineer
Sammy Reed
Production Superintendent
West Texas District
Production Division

September 15, 1988

Breck Operating Company
P. O. Box 911
Breckenridge, Texas 76024

Re: Exception to New Mexico Rule 303-A
Downhole Commingling
EP Operating Company
N.M. (55) Federal No. 1
Prairie, S. (Wolfcamp) Field
Vada (Penn) Field
Roosevelt County, New Mexico

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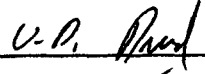
Sincerely,


Leonard Kersh

TB/jd

Attachment

Name: 

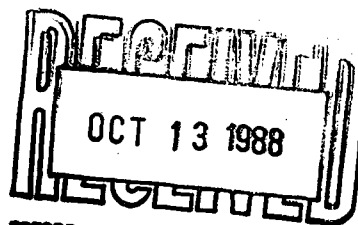
Title: 

Date: 

Managing General Partner of EP Operating Company, a limited partnership

**ENSERCH
EXPLORATION INC.**

ClayDesta National Bank Bldg.
Suite 5250
6 Desta Drive
Midland, Texas 79705
915-682-9756



Leonard Kersh
District Production Manager
Dane Hendley
District Petroleum Engineer
Sammy Reed
Production Superintendent
West Texas District
Production Division

September 15, 1988

SECOND REQUEST
DATED 10-11-88

Yates Petroleum
105 South 4th
Artesia, New Mexico 88210

Re: Exception to New Mexico Rule 303-A
Downhole Commingling
EP Operating Company
N.M. (55) Federal No. 1
Prairie, S. (Wolfcamp) Field
Vada (Penn) Field
Roosevelt County, New Mexico

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Please advise if there are questions or additional information is required for this purpose.

Sincerely,

Leonard Kersh

TB/jd

Attachment YATES PETROLEUM CORPORATION

Name: [Signature]

Title: Attorney-in-Fact

Date: November 1, 1988

Managing General Partner of EP Operating Company, a limited partnership



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

1-9-89

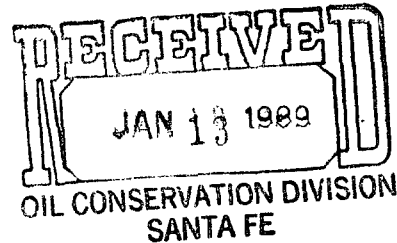
GARREY CARRUTHERS
GOVERNOR

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

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

RE: Proposed:

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



Gentlemen:

I have examined the application for the:

Ensearch Expl. + Prod Co. n.m. 55 Fed #1-F 27-8-36
Operator Lease & Well No. Unit S-T-R

and my recommendations are as follows:

OK

Yours very truly,

Jerry Sexton
Supervisor, District 1

/ed