

CASE 3424: Hearing called on the
motion of the OIL COMMISSION TO
AMEND RULE 701 E 4.

Case Number

3424

Application

Transcripts.

Small Exhibits

ETC.

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

CASE No. 3424
Order No. R-3092

IN THE MATTER OF THE HEARING CALLED BY
THE OIL CONSERVATION COMMISSION ON ITS
OWN MOTION TO CONSIDER THE AMENDMENT
OF RULE 701 E 4 OF THE COMMISSION RULES
AND REGULATIONS.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on July 13, 1966, at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission."

NOW, on this 18th day of July, 1966, the Commission, a quorum being present, having considered the testimony presented and the exhibits received at said hearing, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.

(2) That Rule 701 E 4 of the Commission Rules and Regulations establishes the basic 40-acre Area Allowable Factor for the counties of Lea, Eddy, Chaves, and Roosevelt as 42 barrels of oil per day and for the counties of San Juan, Rio Arriba, Sandoval, and McKinley as 70 barrels of oil per day.

(3) That said Area Allowable Factors were based upon past allowable histories, and they are constant and not subject to change as market conditions and demand for crude oil fluctuate.

(4) That the aforesaid Area Allowable Factors, being constant, do not allow operators of waterflood projects to fully share in the improved market when the demand for crude oil in New Mexico results in normal unit allowables in excess of 42 barrels of oil per day

-2-

CASE No. 3424
Order No. R-3092

in Southeast New Mexico or 70 barrels of oil per day in Northwest New Mexico.

(5) That Rule 701 E 4 of the Commission Rules and Regulations should be amended to permit the establishment each month, by order of the Commission, of an Area Allowable Factor for Southeast New Mexico and Northwest New Mexico equal to the normal unit allowable for each of said areas when said normal unit allowable equals or exceeds 42 or 70 for said areas, respectively.

(6) That in order to continue to provide a relatively constant allowable for waterflood projects to permit the substantially constant project injection rates which are beneficial from the standpoint of economics and operational efficiency and convenience, the present Area Allowable Factors of 42 and 70 for Southeast New Mexico and Northwest New Mexico, respectively, should be retained as minimum Area Allowable Factors to be assigned by order of the Commission whenever normal unit allowables fall below 42 or 70 for Southeast New Mexico and Northwest New Mexico, respectively.

(7) That the amendment of Rule 701 E 4 in the above-described manner will protect correlative rights and prevent waste.

IT IS THEREFORE ORDERED:

(1) That Rule 701 E 4 of the Commission Rules and Regulations is hereby amended to read in its entirety as follows:

4. Each month the Commission shall, in its State-wide Oil Proration Order, establish basic 40-acre Area Allowable Factors for waterfloods in Southeast New Mexico and Northwest New Mexico. Such waterflood allowable factors shall be equal to the basic 40-acre normal unit allowable established in said order for wells on primary production in each of said areas, provided however, in no event shall said waterflood allowable factors be less than 42 for Southeast New Mexico or 70 for Northwest New Mexico.

(2) That the Area Allowable Factors for waterfloods for the month of August, 1966, shall be 45 for Southeast New Mexico and 70 for Northwest New Mexico.

-3-
CASE No. 3424
Order No. R-3092

(3) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

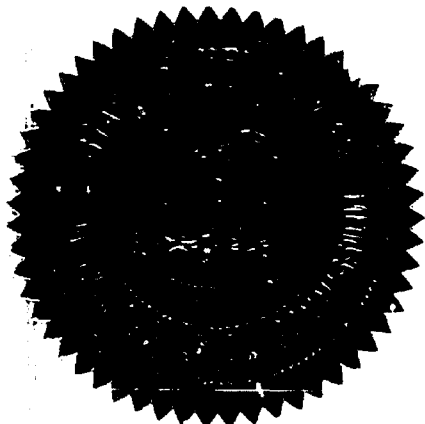
DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION


JACK M. CAMPBELL, Chairman


GUYTON B. HAYS, Member


A. L. PORTER, Jr., Member & Secretary



eer/

CLASS OF SERVICE
This is a fast message unless its deferred character is indicated by the proper symbol.

WESTERN UNION TELEGRAM

W. P. MARSHALL, PRESIDENT

SYMBOLS
DL = Day Letter
NL = Night Letter
LT = International Letter Telegram

The filing time shown in the date line on domestic telegrams is LOCAL TIME at point of origin. Time of receipt is LOCAL TIME at point of destination.

LA087 DA365

34

D EPA283 PD=WUX ARTESIA NMEX 12 1200P MST= 1966 JUL 12 PM 12 46

A L PORTER, SECRETARY DIRECTOR=

OIL CONSERVATION COMMISSION SANTA FE NMEX=

IN CASE (3424) NEWMONT OIL COMPANY SUPPORTS THE
AMENDMENT OF RULE 701-E-4 WHEREBY WATERFLOODS WOULD
SHARE THE INCREASE IN DEMAND ABOVE 42 BARRELS PER DAY
IN SOUTHEAST NEW MEXICO AND 70 BARRELS PER DAY IN
NORTHWEST NEW MEXICO PROVIDING THE 42 AND 70 BARREL
PER DAY MINIMUMS FOR WATERFLOOD ALLOWABLES REMAIN=

HERMAN J LEDBETTER DIVISION SUPERINTENDENT
NEWMONT OIL CO=

THE COMPANY WILL APPRECIATE SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE

PAN AMERICAN PETROLEUM CORPORATION

OIL AND GAS BUILDING P. O. BOX 1410

FORT WORTH, TEXAS—76101

WILLIAM V. GRISHAM
DIVISION ENGINEER

July 8, 1966

[Handwritten signature]
66 JUL 11 AM 7 32

File: GHF-245-986.510.1

Subject: New Mexico Oil Conservation
Commission Hearings,
July 13, 1966,
Cases 3424 and 3425

Mr. A. L. Porter, Jr.
Secretary-Director
New Mexico Oil Conservation Commission
P. O. Box 871
Santa Fe, New Mexico

Dear Sir:

[Handwritten mark]

Pan American Petroleum Corporation supports the amending of Rule 701-E-4 of the New Mexico Oil Conservation Commission Rules and Regulations to permit assignment of waterflood basic area allowable factors equal to the normal unit allowable times the appropriate proportional depth factor, whenever the normal unit allowables exceed the Southeast and Northwest waterflood basic area allowables of 42 BOPD and 70 BOPD, respectively.

[Handwritten mark]

Pan American Petroleum Corporation also believes that the existing allowable system in the State of New Mexico is satisfactory, and that the adoption of a bonus discovery allowable is unnecessary and would not stimulate oil and gas exploration in the State.

Yours very truly,

[Handwritten signature: W.V. Grisham]

CFH:df



Corporation

UNION TEXAS PETROLEUM DIVISION

1300 WILCO BUILDING • MIDLAND, TEXAS 79701 • AREA CODE 915, 682-0515

JUL 11 1966
AH 7 31

July 8, 1966

Complete

Mr. A. L. Porter, Jr.
Secretary-Director
New Mexico Oil Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico

Re: Case No. 3424

Dear Mr. Porter:

On July 13, 1966 the Oil Conservation Commission will hold a hearing to consider the amendment of Rule 701 E 4, Commission Rules and Regulations.

Union Texas Petroleum, a Division of Allied Chemical Corporation, desires to go on record favoring revision of Rule 701 E 4 to permit using the actual unit allowable factor when this exceeds 42 barrels of oil per day.

Yours very truly,

UNION TEXAS PETROLEUM

R. L. Stover

R. L. Stover
District Production Superintendent

ALM: RIS

MAIL OFFICE

'66 JUL 11 AM 7 30

William A. & Edward R. Hudson
1510 First National Building
Fort Worth, Texas

July 7, 1966

Case file

Oil Conservation Commission
State Land Office Building
Santa Fe, New Mexico

In re: Case (3424)

Gentlemen:

We have read with interest the proposed amendment to Rule 701 E 4 of the Commission Rules and Regulations to permit the assignment of allowables to waterfloods in Southeast New Mexico equal to the normal unit allowable times the appropriate proportional depth factor when the normal unit allowable exceeds the Southeast New Mexico Area allowable Factor of 42 barrels.

We are of the opinion that such an amendment is desirable and heartily recommend its adoption.

Yours very truly,

WILLIAM A. & EDWARD R. HUDSON

By: *Edward R. Hudson*

ERH/lb

cc - Mr. Ralph L. Gray
P.O. Box 198
Artesia, New Mexico

WINDFOHR OIL COMPANY
1202 FIRST NATIONAL BANK BUILDING
FORT WORTH, TEXAS 76102

July 8, 1966

MAILED
JUL 11 AM 7 33

EDISON 2-5108

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

Re: Commission Case No. 3424

Gentlemen:

With reference to the subject case which has been called for July 13, 1966 to consider an amendment of Rule 701 E 4, Windfohr Oil Company, as an oil producer and water flood operator in the State of New Mexico, recommends that the subject rule be revised to permit the actual unit allowable factor when this factor exceeds 42 barrels of oil per day.

Yours very truly,

WINDFOHR OIL COMPANY

John Rush Vann
John Rush Vann

JRV/mf



3 PM 17 66

SKELLY OIL COMPANY

P. O. Box 1650
TULSA, OKLAHOMA 74102

June 30, 1966

3424

PRODUCTION DEPARTMENT

- C. L. BLACKSHER, VICE PRESIDENT
- W. P. WHITMORE, MGR. PRODUCTION
- W. D. CARSON, MGR. TECHNICAL SERVICES
- ROBERT G. HILTZ, MGR. JOINT OPERATIONS
- GEORGE W. SELINGER, MGR. CONSERVATION

Re: Case No. ~~34-24~~
Hearing - July 13, 1966

Mr. A. L. Porter, Jr.
New Mexico Oil Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico 87501

Dear Mr. Porter:

We recommend amending Rule 701-E-4 in order to permit the assignment of allowables in Southeast New Mexico equal to the normal unit allowable times the appropriate proportional depth factor when the normal unit allowable exceeds the Southeast allowable factor of 42, with the area allowable factor remaining as the governing allowable factor when the normal unit allowable is less than 42 barrels per day affecting waterflood allowables.

We would recommend a similar revision with respect to the Northwest area allowable factor of 70 barrels.

Respectfully,

GWS:br

July 13, 1966

Questions to be asked

Case 3424: Waterflood

1. [Faint handwritten text]
2. [Faint handwritten text]
3. Have you had occasion to make a study concerning the amendment of Rule 701-E-4 of the Commission Rules and Regulations?
4. Do you have a report to make to the Commission concerning that study?
5. Please present it.
6. no exhibits to be admitted.

But letter [faint] [faint]

Docket No. 17-66

DOCKET: REGULAR HEARING - WEDNESDAY - JULY 13, 1966

OIL CONSERVATION COMMISSION - 9 A.M. - MORGAN HALL, STATE LAND OFFICE
BUILDING, SANTA FE, NEW MEXICO

- ALLOWABLE: (1) Consideration of the oil allowable for August, 1966.
- (2) Consideration of the allowable production of gas for August, 1966, from thirteen prorated pools in Lea, Eddy, and Roosevelt Counties, New Mexico. Consideration of the allowable production of gas from nine prorated pools in San Juan, Rio Arriba and Sandoval Counties, New Mexico, for August, 1966.

CASE 3424: In the matter of the hearing called by the Oil Conservation Commission on its own motion to consider the amendment of Rule 701 E 4 of the Commission Rules and Regulations to permit the assignment of allowables to waterfloods in Southeast New Mexico equal to the normal unit allowable times the appropriate proportional depth factor when the normal unit allowable exceeds the Southeast New Mexico Area Allowable Factor of 42. The area allowable factor would remain as the governing allowable factor when the normal unit allowable is less than 42 barrels per day. A similar revision with respect to the Northwest Area Allowable Factor of 70 will also be considered.

CASE 3425: In the matter of the hearing called by the Oil Conservation Commission on its own motion to consider all aspects of the possible adoption of a bonus discovery allowable for the state of New Mexico. Although testimony both pro and con the discovery allowable will be presented by the Commission staff, the Commission invites and will entertain full discussion and testimony from the industry as to the advantages and disadvantages of a discovery allowable and the advisability of the adoption thereof, as well as suggested rules relating to the administration of a bonus discovery allowable, the amount of the allowable, the length of time and the number of wells to which it should apply, and any other pertinent facts relating thereto.

CASE 3426: Application of Penroc Oil Corporation for an unorthodox gas well location and for the amendment of Order R-2581, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks authority to drill a second well in Section 19, Township 21 South, Range 24 East, Indian Basin-Upper Pennsylvanian Gas Pool, Eddy County, New Mexico, said well to be located at an unorthodox location for said pool 660 feet from the South and East lines of Section 19. Applicant further proposes that the allowable for the 640-acre unit comprising all of said Section 19 could be produced from either or both of the wells on the unit in any proportion. Applicant further requests an amendment to Order No. R-2581, which force-pooled all mineral interests in the Upper Pennsylvanian formation underlying said Section 19, to permit the allocation of well costs among the interest owners in said unit and the recovery thereof out of production from both wells, together with cost of operation thereof.

JULY 13, 1966, REGULAR HEARING

CASE 3427: Southeastern New Mexico nomenclature case calling for an order for the extension of certain pools in Lea and Roosevelt Counties, New Mexico:

a) EXTEND the North Bagley-Middle Pennsylvanian Pool to include therein:

TOWNSHIP 11 SOUTH, RANGE 33 EAST, NMPM
SECTION 15: SW/4

b) EXTEND the Flying "M"-San Andres Pool to include therein:

TOWNSHIP 9 SOUTH, RANGE 33 EAST, NMPM
SECTION 28: NE/4

c) EXTEND the Justis Blinebry Pool to include therein:

TOWNSHIP 24 SOUTH, RANGE 37 EAST, NMPM
SECTION 34: E/2 NE/4

d) EXTEND the Morton-Lower Wolfcamp Pool to include therein:

TOWNSHIP 15 SOUTH, RANGE 35 EAST, NMPM
SECTION 6: SW/4

e) EXTEND the Todd-San Andres Pool to include therein:

TOWNSHIP 7 SOUTH, RANGE 36 EAST, NMPM
SECTION 30: W/2

DEARNLEY-MEIER REPORTING SERVICE, Inc.

FARRINGTON, N. M.
PHONE 325-1182

SANTA FE, N. M.
PHONE 983-3971

ALBUQUERQUE, N. M.
PHONE 243-6691

BEFORE THE
NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico
July 13, 1966

REGULAR HEARING

IN THE MATTER OF: the hearing called by the
Oil Conservation Commission on its own
motion to consider the amendment of Rule
701 E 4 of the Commission Rules and
Regulations to permit the assignment of
allowables to waterfloods in Southeast
New Mexico equal to the normal unit
allowable times the appropriate pro-
portional depth factor when the normal
unit allowable exceeds the Southeast
New Mexico Area Allowable Factor of 42.

Case No. 3424

BEFORE: Honorable Jack M. Campbell
Mr. A. L. "Pete" Porter
Mr. Guyton B. Hays

TRANSCRIPT OF HEARING





MR. PORTER: We will take up Case 3424.

MR. HATCH: In the matter of the hearing called by the Oil Conservation Commission on its own motion to consider the amendment of Rule 701 E 4 of the Commission Rules and Regulations to permit the assignment of allowables to waterfloods in Southeast New Mexico equal to the normal unit allowable times the appropriate proportional depth factor when the normal unit allowable exceeds the Southeast New Mexico Area Allowable Factor of 42.

MR. PORTER: The Commission staff has some recommendations to offer in this case and will have one witness. Does anyone else desire to present testimony in this case?
Mr. Morris.

MR. MORRIS: Mr. Porter, Shell Oil Company will have one witness to present some brief testimony in this case.

MR. PORTER: One short witness?

MR. MORRIS: Yes.

MR. PORTER: Mr. Durrett.

MR. DURRETT: Standard of Texas will have one short witness to present.

MR. PORTER: Thank you.

(Witness sworn.)



DANIEL NUTTER

called as a witness, having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. HATCH:

Q Would you state your name and position for the record, please?

A Dan Nutter, chief engineer for the Oil Conservation Commission.

Q Have you had occasion to make a study concerning the amendment of Rule 701 E 4 of the Commission rules and regulations?

A Yes, I have.

Q Do you have a report to make to the Commission concerning that study?

A Yes, sir, I do.

Q Would you please present it at this time?

A Yes, sir. As the Commission is aware, in 1959 Commission Order No. R-1525 was entered, dated November 9, 1959, which amended Rule 701 and provided for the establishment of area allowable factors for waterflood projects in Southeast New Mexico and Northwest New Mexico. The area allowable factors at that time were based on historical allowables, in Southeast New Mexico it was based on the average allowable over

dearnley-meier

SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS

1120 SIMMS BLDG. • P.O. BOX 1092 • PHONE 243-6691 • ALBUQUERQUE, NEW MEXICO
1203 FIRST NATIONAL BANK EAST • PHONE 256-1294 • ALBUQUERQUE, NEW MEXICO

a period of ten years preceding this amendment to Rule 701. The average allowable and the factor established at that time was 42 barrels for Southeast New Mexico. The factor for Northwest New Mexico at that time was established as 52 barrels, based on its historic allowable picture.

Since that time allowables have been steady in the range of 70 barrels in Northwest New Mexico and the area allowable factor for Northwest New Mexico has been amended to be 70 barrels per day for waterflood 40-acre tract.

In recent months there has been an improvement in the market situation, there are just a few floods that are being actually suppressed and not being permitted to produce as much as primary production; because of this improved market situation the allowables, as we heard this morning, were fixed at 45 barrels for Southeast New Mexico and 70 for Northwest New Mexico. In other words, with this 45-barrel allowable in Southeast New Mexico, these floods which are held to 42 barrels are not permitted to share in this additional three barrels of market demand which is available at the present time.

I recommend that this rule be amended as shown in the docket here to provide that the floor of 42 barrels be maintained for Southeast New Mexico, that the floor of 70 barrels be maintained for Northwest New Mexico, but that the waterflood allowables be permitted to fluctuate upward with market demand,

and in the event market demand goes down, that these floods would return back to the 42-barrel floor.

Now, Finding No. 7 in Case No. 1787, Order R-1525 points out that from the standpoint of economics and operational efficiency and convenience, relatively constant injection rates are beneficial and that allowables, therefore, should remain constant and should not be subject to monthly variation as market demand fluctuates.

In maintaining a floor of 42 and 70 barrels per day respectively for the Southeast and Northwest, operators will still be able to size their equipment, that is their water supply equipment; pressuring pumps, distribution lines, lifting equipment and so forth, they'll be able to share in an increase of a few barrels per day in the market demand without any redesign of their equipment. Then if the market goes back down there will be no redesign necessary to curtail the rates back down to 42 barrels.

So I believe that in view of Finding No. 7 for this relatively constant injection rate and relatively constant producing rates, we can amend 701 to provide for this fluctuation in the minimum floor, or fluctuation in allowable, maintaining the minimum floor; and it would be expected, of course, that if any operator were foolhardy enough to redesign his equipment because the market demand increased three or

dearnley-meier



SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS

1120 SIMMS BLDG. • P.O. BOX 1092 • PHONE 243-6691 • ALBUQUERQUE, NEW MEXICO
1203 FIRST NATIONAL BANK EAST • PHONE 256-1294 • ALBUQUERQUE, NEW MEXICO



four barrels, that he would have to redesign if it went back to 42.

I, therefore, make that recommendation that the rule be amended.

MR. HATCH: I have no further questions.

MR. PORTER: Does anyone else have a question of Mr. Nutter? The witness may be excused.

(Witness excused.)

MR. PORTER: Mr. Morris.

(Witness sworn.)

MR. MORRIS: I might state to the Commission at the outset that Shell's purpose in presenting testimony in this case is to afford to the Commission a specific example of how the proposed amendment, as offered by Mr. Nutter, would work in the largest waterflood that Shell operates in Southeast New Mexico. We feel it will have a beneficial effect.

I would also like to state at the outset that at the time Rule 701 was adopted, Shell Oil Company supported the rule and its allowable features. We thought at that time when 35 barrels was the normal unit allowable that some incentive, some bonus, if you will, should be offered and allowed to the operator of a waterflood project. Our position is that we concur in the recommendation of the Commission for the reason that we still believe that some bonus should be allowed to the



waterflood operator, and at least he should not be penalized in relation to the operator of a well that is not in a waterflood project at a normal unit allowable higher than 42.

J. R. DODGE

called as a witness, having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. MORRIS:

Q Mr. Dodge, will you please state your name and where you reside?

A My name is J. R. Dodge and I reside at Midland, Texas.

Q By whom are you employed and in what capacity?

A Shell Oil Company in the position of senior reservoir engineer.

Q Have you previously testified either before this Commission or one of the Commission's examiners?

A No, sir.

Q Would you briefly state your education and your experience in the petroleum industry?

A I have a Bachelor of Science degree in mining engineering from the University of Wisconsin; I have been employed by Shell Oil Company as a petroleum engineer for seventeen years, and the last eight years as a senior reservoir



engineer. The last six years I have had considerable contact with secondary recovery operations.

MR. MORRIS: Are the witness's qualifications acceptable?

MR. PORTER: Yes, sir, they are.

Q (By Mr. Morris) Mr. Dodge, in connection with this case, have you made a study of any of the waterflood projects operated by Shell in Southeast New Mexico?

A Yes, sir, the East Pearl-Queen Unit.

Q Was my statement to the Commission correct that this is the largest waterflood project operated by Shell Oil Company in Southeast New Mexico?

A Yes, sir.

(Whereupon, Shell's Exhibits 1, 2 and 3 were marked for identification.)

Q Mr. Dodge, you mentioned the East Pearl-Queen Unit. Now, where, approximately, is that located?

A About twenty miles southwest of Hobbs in Lea County.

Q How long have waterflood operations been going on in that unit?

A About two and a half years. Water injection started in February of 1964.

Q Is Exhibit No. 1 a plat of the East Pearl-Queen Unit Area?



A Yes.

Q And what is shown on that plat?

A The unit area, enclosing some 2280 acres, is shown in a hashed line. There are 29 injection wells indicated, and the 26 producing wells are shown.

Q Referring next, Mr. Dodge, to Exhibit No. 2, would you state what that exhibit is and what it shows?

A Exhibit 2 is a graph of production performance of the unit and the unit area also, from the completion of the first well in December of 1956. It indicates oil production, water production and water injection. The effective date of the unit is indicated to be September 1st, 1963. Water injection is shown starting in February of 1964; late in 1964 I would point out the excellent response to the water injection, oil production having climbed to about 75,000 barrels per month in May of 1966. Secondary production may seem to have exceeded primary production by a good margin.

Q Now, for a blowup of the oil production curve, would you refer to Exhibit No. 3 and point out the features of that exhibit?

A Exhibit 3 shows oil production, monthly oil production from the unit area starting from the time of substantial response to injection in December of 1964, and was put on this separate graph on the larger scale in detail that



can be seen. Recent oil production is shown to be in the range of the allowables that we're discussing.

Q Now, there are three X's shown on this exhibit at different levels of production, and what do those represent?

A The bottom one, 69,300 barrels per month is the June allowable at the allowable factor of 42 barrels of oil per day per well. There are 55 wells in the unit, times 42 times 30 days in the month. Then the next X would be the June allowable with the normal unit allowable factor of 45 barrels of oil per day per well; again, 55 wells, thirty days in the month, which would indicate that 74,250. The top X indicates the June productive capacity of our wells, 75,900 barrels per month. That's based on June well tests times thirty days in the month.

Q Now, when Mr. Nutter mentioned on the stand that some floods in Southeast New Mexico are capable of producing at rates higher than allowed by the 42 barrels per day as presently prescribed by Rule 701, would his comments be applicable to the East Pearl-Queen Unit in view of the information shown on this Exhibit 3?

A Yes, sir.

Q Mr. Dodge, I note that for the month of May, 1966, the production from this unit shows to be somewhat in excess of the allowable prescribed under the 42 barrels per day figure.



Could you explain the reason for that?

A Yes, sir. That was an inadvertent slipup on our part. We did overproduce during the month of May; however, we're taking steps to correct this, and you'll note the production indicated for the month of June is less than the allowable in an effort to work off this excess.

Q So the decline during the month of June does not indicate a decline in producing capacities of these wells?

A No, sir; no, the producing capacity is indicated by the top X.

Q Yes. I take it, then, from your last statement, that the flood is producing at or near its capacity at the present time in view of the applicable allowables?

A Yes, sir. It is currently producing at somewhat less than its productive capacity.

Q In view of this, Mr. Dodge, what would be your conclusions with respect to the performance of this field in view of the recommendations by the Commission staff in this case?

A Well, our conclusion would be that this is an instance such as mentioned by Mr. Nutter, that we have a water project here that has productive capacity in excess of the allowable and we need relief. The flood was designed with the 42-barrel a day allowable in mind, but it's not often

dearnley-meier reporting services, inc.

SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS

1120 SIMMS BLDG. • P.O. BOX 1092 • PHONE 243-6691 • ALBUQUERQUE, NEW MEXICO
1203 FIRST NATIONAL BANK EAST • PHONE 256-1294 • ALBUQUERQUE, NEW MEXICO

predictable to predict these flood responses with any accuracy, and in the case of this unit it has exceeded the current allowable.

I understand there are perhaps only two floods in Southeastern New Mexico where response appears to exceed the allowable at the present time. At East Pearl-Queen a 45-barrel per day unit allowable would result in an increase of only 165 barrels per day of production, and at the one other unit that we find in the proration schedules, the Continental East Cap Unit, it will be even less, as I believe there are a smaller number of wells.

Q In your opinion, Mr. Dodge, would the adoption of the proposal by the Commission staff in this case work to protect the correlative rights of all operators?

A Yes, sir.

Q Can you point out any particular situation here in this waterflood where correlative rights will better be protected under this proposal?

A Yes, sir. If I could call the Commission's attention to Exhibit 1, the plat of the unit area, offsetting the unit area to the south there is some producing wells shown. The three wells immediately to the south of the unit area are all top allowable wells and have the 45-barrel per day allowable, where in our East Pearl-Queen Unit allowable is



dearnley-meier reporting services

SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXHIBIT TESTIMONY, DAILY COPY, CONVENTIONS

1120 SIMMS BLDG. • P. O. BOX 1092 • PHONE 243-6691 • ALBUQUERQUE, NEW MEXICO
1203 FIRST NATIONAL BANK EAST • PHONE 256-1294 • ALBUQUERQUE, NEW MEXICO

based on our 42-barrel a day factor.

MR. MORRIS: I have no further questions on direct. We would offer at this time -- Excuse me, I do have one further question.

Q (By Mr. Morris) Mr. Dodge, were Exhibits 1, 2 and 3 prepared either by you or under your direction?

A Yes, sir.

MR. MORRIS: We offer Shell's Exhibits 1, 2 and 3 into evidence.

MR. PORTER: If there is no objection, the exhibits will be admitted.

(Whereupon, Shell's Exhibits 1, 2 and 3 were offered and admitted in evidence.)

CROSS EXAMINATION

BY MR. PORTER:

Q One question, you may have answered this in your explanation to Exhibit 3, how do you account for the slump in March, 1966?

A The drop in March or February?

Q February.

A February was the drop.

Q February.

A Well, two factors, Mr. Porter.

Q That's a monthly figure that you have given?



dearnley-meier reporting service inc.

SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS

1120 SIMMS BLDG. • P.O. BOX 1092 • PHONE 243-6691 • ALBUQUERQUE, NEW MEXICO
1203 FIRST NATIONAL BANK EAST • PHONE 256-1294 • ALBUQUERQUE, NEW MEXICO



A Yes, sir. This is a monthly figure, so February would be about ten percent less. Also we did have a mechanical breakdown during February and it did affect our production to a degree.

MR. PORTER: Any other questions? The witness may be excused.

(Witness excused.)

MR. PORTER: Mr. Durrett, will you call your witness?

MR. DURRETT: Standard of Texas will call Mr. Paul Hull to the stand.

(Witness sworn.)

MR. DURRETT: I might at this point make a very brief opening statement to the Commission. Standard's reason for calling Mr. Hull to the stand is basically to present Standard's position to the Commission in the form of testimony which would be subject to cross examination by the Commission, and any interested party, rather than making a bare statement.

Standard is supporting the proposed amendment to Rule 701 E but they would like to present testimony in support of that rather than a statement.



PAUL HULL

called as a witness, having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. DURRETT:

Q Would you please state your name and position for the record?

A My name is Paul Hull. I am supervising proration engineer for Standard Oil Company of Texas.

Q Have you testified before this Commission previously as an expert geological engineer, Mr. Hull?

A Yes, sir.

MR. PORTER: Mr. Hull's qualifications are accepted by the Commission.

Q (By Mr. Durrett) Will you please give the Commission some idea, Mr. Hull, of Standard of Texas' experience concerning water flooding?

A Standard of Texas is one of the major waterflood operators. We operate the oldest successful waterflood in West Texas in addition to a number of others there. We are in the process of installing our first waterflood, company-operated waterflood in Southeast New Mexico.

Q Where will that be located?

A In the Maljamar field.

Q Does Standard of Texas also operate several true pressure maintenance projects?

A Yes, sir. We operate the Sackrock Unit, which is the world's largest true pressure maintenance project.

Q Will Standard of Texas be greatly affected as a company right today by the adoption or non-adoption of this proposed amendment to Rule 701 E?

A We will not be directly affected at present.

Q But you do feel that Standard will have a direct interest in this matter, is that correct?

A Yes, sir, primarily because of our interest in waterflooding, we feel that any rules beneficial to waterflooding in general are beneficial to the industry.

Q Will you please state to the Commission Standard of Texas' position concerning assisted recovery projects?

A We feel the present rule in New Mexico concerning waterfloods is a very good rule, that the proposed amendment will make it an even better rule. We feel very strongly, however, that incentive allowables should be afforded to all assisted recovery projects. Specifically, we have reference to pressure maintenance projects where the investment, which is often quite large, must be made at a time when the field quite likely is still at top allowable, so that any monetary recovery will be deferred a number of years into the future

dearley-meier reporting
SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS

1120 SIMMS BLDG. • P.O. BOX 1092 • PHONE 243-6691 • ALBUQUERQUE, NEW MEXICO
1203 FIRST NATIONAL BANK EAST • PHONE 256-1294 • ALBUQUERQUE, NEW MEXICO





when normal decline would have taken place. We feel that this type of project, too, is entitled to an incentive allowable.

Q Now, you are speaking there of pressure maintenance projects as well as waterflood projects as defined by the Commission?

A Yes, sir.

Q Do you agree with the proposed amendment to Rule 701 E 4?

A Yes. We feel that under no circumstance should the allowable of a waterflood project be curtailed below that of a normal field.

Q Is it your opinion, Mr. Hull, that adoption of the proposed Rule 701 E 4 will prevent waste and protect correlative rights in New Mexico?

A Yes, sir.

MR. DURRETT: If the Commission please, that's all I have on direct examination.

MR. PORTER: Anyone else have a question of the witness?

CROSS EXAMINATION

BY GOVERNOR CAMPBELL:

Q Just for information, what type of allowable treatment is the Sackrock pressure maintenance project given in Texas?



A We have received a 25% incentive allowable above the basic allowable for the state.

Q For the total project, used as you see fit?

A There are certain restrictions as to the amount of allowable that can be assigned to any one well, but in our operation to date these restrictions have not hampered us at all.

Q Is this common treatment for pressure maintenance projects in Texas?

A There are a large number of pressure maintenance projects that have received this treatment. We recently made a study of all the pressure maintenance projects in Texas and we could find none where this treatment had been denied where the project was capable of producing at that rate.

Q What is the present treatment of waterflood projects in Texas?

A It varies appreciably with the project. A number of the older projects and some of the small newer projects have capacity allowables. Many of the others have something less than this, but have an incentive allowable that varies from project to project.

Q Beyond the normal allowable?

A Beyond the normal allowable, yes, sir.

MR. PORTER: But they are always given some incentive



above primary allowable?

A I know of no waterflood project in Texas that is capable of producing more than normal allowable that hasn't been permitted to do so.

MR. PORTER: Anyone else have a question? The witness may be excused.

(Witness excused.)

MR. PORTER: Does anyone else have testimony to present? Any statements in the case? Mr. Anderson.

MR. ANDERSON: R. M. Anderson, Sinclair Oil and Gas Company. Sinclair concurs in the proposed amendment.

MR. PORTER: Mr. Hoover.

MR. HOOVER: John Hoover with Gulf. Gulf Oil Corporation concurs with the Commission in its effort to help waterfloods. However, we recommend that consideration be given to removing all allowable restrictions from waterflood projects. The installation of secondary recovery equipment is expensive and the producing cost per barrel is high. It is important to reduce the lifting cost for a barrel of oil and hold it as low as possible. This can most easily be done by producing more oil.

At the time that the Southeast area was set at 42, the normal unit allowable was lower than 42. In our opinion, the secondary oil allowable was set higher than the normal unit

dearnley-meier reporting services



SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATE HEARINGS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS
1120 SIMMS BLDG. • P.O. BOX 1092 • PHONE 243-6691 • ALBUQUERQUE, NEW MEXICO
1203 FIRST NATIONAL BANK EAST • PHONE 256-1294 • ALBUQUERQUE, NEW MEXICO

allowable because among other reasons it would recognize that waterflooding was expensive and cost to recover the oil exceeded the cost to recover the primary oil for a similar depth.

As previously stated by Gulf at the original hearing, Gulf recommended the removal of waterflood allowable restriction. If the Commission does not consider this to be practical, it is recommended that the waterflood allowable factor times the depth factor be increased about 20% over the normal unit allowable with a minimum to be not less than 42 barrels.

MR. PORTER: Mr. Whigham.

MR. WHIGHAM: Carl Whigham representing Texaco, Incorporated. As an active participant in the oil and gas industry in New Mexico, Texaco, Incorporated is vitally interested in any proposed rule or regulation that would affect the oil industry. We are directly concerned with the proposal that has been made here this morning by the Commission.

We would like to state our position and recommendations with regard to Case 3424. It's long been recognized that an incentive allowable for the operator of waterflood projects was desirable to encourage and promote these projects as a means of increasing ultimate recovery. This was the purpose of the New Mexico Oil Conservation Commission Rule 701 B 4. The



purpose was accomplished until recently when the fluctuating basic normal unit allowable for primary production exceeded the fixed waterflood level.

To reinstate the desired incentive and to maintain this incentive, we feel that waterflood allowable should increase along with the basic normal unit allowable along with improvements in the market demand situation. Therefore, Texaco, Incorporated concurs in the recommendation made by the New Mexico Oil Conservation Commission and recommends its adoption.

MR. PORTER: Mr. Kellahin.

MR. KELLAHIN: Jason Kellahin for Cities Service.

Cities Service also would like to concur with the recommendations that have been made by Mr. Nutter, feeling that under the present situation the incentive features of the waterflood allowable that were built into it originally have been lost and these must be restored if waterflooding is to be encouraged in the state.

MR. PORTER: Mr. Lyon.

MR. LYON: Vic Lyon with Continental Oil Company.

Continental would like to concur with the Commission's proposed amendment of Rule 701. We are the operator of the East Cap-Queen waterflood project which does have excess producing capacity. The proposed amendment would permit us to produce a



small amount of additional oil per day, something less than a hundred barrels per day. We would appreciate the opportunity to increase our production to this extent.

MR. PORTER: Anyone else? Mr. Hocker.

MR. HOCKER: Amerada Petroleum Corporation supports the amendment as proposed by Mr. Nutter.

MR. TOMLINSON: Phil Tomlinson with Atlantic Richfield. We support the position of the Commission staff and their recommendations, and recommend it be adopted.

MR. PORTER: Thank you, Phil.

MR. COUCH: Terrell Couch, Marathon Oil Company. Marathon concurs in the recommendation Mr. Nutter has made.

MR. PORTER: Anyone else like to take a position? The Commission will take the case under advisement.

MR. HATCH: I have some correspondence.

MR. PORTER: Excuse me, Mr. Hatch. I believe we do have a few letters.

MR. HATCH: Telegram dated July 12th, 1966 to A. L. Porter, Oil Conservation Commission. "In Case 3424, Newmont Oil Company supports the amendment of Rule 701 E 4 whereby waterfloods would share the increase in demand above 42 barrels per day in Southeast New Mexico and 70 barrels per day in Northwest New Mexico, providing that 42 and 70-barrel per day minimums for waterflood allowables remain. Herman J. Ledbetter, Division Superintendent, Newmont Oil Company."



Letter from Pan American Petroleum Corporation dated July 8, 1966, Mr. A. L. Porter, Secretary-Director, New Mexico Oil Conservation Commission. "Dear Sir: Pan American Petroleum Corporation supports the amending of Rule 701 E 4 of the New Mexico Oil Conservation Commission Rules and Regulations to permit assignment of waterflood basic area allowable factors equal to the normal unit allowable times the appropriate proportional depth factor, whenever the normal unit allowables exceed the Southeast and Northwest waterflood basic area allowables of 42 barrels per day and 70 barrels per day, respectively. W. V. Grisham, Division Engineer."

Letter from Union Texas Petroleum Division, Mr. A. L. Porter, Junior, Secretary-Director, New Mexico Oil Conservation Commission, dated July 8, 1966. "Dear Mr. Porter: On July 13, 1966 the Oil Conservation Commission will hold a hearing to consider the amendment of Rule 701 E 4, Commission Rules and Regulations. Union Texas Petroleum, a Division of Allied Chemical Corporation, desires to go on record favoring revision of Rule 701 E 4 to permit using the actual unit allowable factor when this exceeds 42 barrels of oil per day. Union Texas Petroleum by R. L. Stover, District Production Superintendent."

A letter from William A. and Edward R. Hudson dated July 7, 1966, Oil Conservation Commission. "Gentlemen: We



have read with interest the proposed amendment to Rule 701 E 4 of the Commission Rules and Regulations to permit the assignment of allowables to waterfloods in Southeast New Mexico equal to the normal unit allowable times the appropriate proportional depth factor when the normal unit allowable exceeds the Southeast New Mexico Area Allowable Factor of 42 barrels. We are of the opinion that such an amendment is desirable and heartily recommend its adoption. William A. and Edward R. Hudson."

Letter from Windfohr Oil Company dated July 8, 1966, New Mexico Oil Conservation Commission, Santa Fe, New Mexico. "Gentlemen: With reference to the subject case which has been called for July 13, 1966 to consider an amendment of Rule 701 E 4, Windfohr Oil Company, as an oil producer and waterflood operator in the State of New Mexico, recommends that the subject rule be revised to permit the actual unit allowable factor when this factor exceeds 42 barrels of oil per day. Windfohr Oil Company by John Rush Vann."

Letter from Skelly Oil Company dated June 30, 1966 to Mr. A. L. Porter, New Mexico Oil Conservation Commission. "Dear Mr. Porter: We recommend amending Rule 701 E 4 in order to permit the assignment of allowables in Southeast New Mexico equal to the normal unit allowable times the appropriate proportional depth factor when the normal unit allowable exceeds



dearnley-meier reporting service, inc.

SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS

1120 SIMMS BLDG. • P.O. BOX 1092 • PHONE 243-6891 • ALBUQUERQUE, NEW MEXICO
1203 FIRST NATIONAL BANK EAST • PHONE 256-1294 • ALBUQUERQUE, NEW MEXICO

PAGE

25

the Southeast allowable factor of 42, with the area allowable factor remaining as the governing allowable factor when the normal unit allowable is less than 42 barrels per day affecting waterflood allowables. We would recommend a similar revision with respect to the Northwest area allowable factor of 70 barrels. Respectfully, George W. Selinger."

That's all the correspondence.

MR. PORTER: If there is nothing further to be offered in this case, the Commission will take it under advisement.

dearnley-meier reporting services, inc.

SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS

1120 SIMMS BLDG. • P.O. BOX 1092 • PHONE 243-6691 • ALBUQUERQUE, NEW MEXICO
1203 FIRST NATIONAL BANK EAST • PHONE 256-1294 • ALBUQUERQUE, NEW MEXICO



I N D E X

<u>WITNESS</u>		<u>PAGE</u>
DANIEL NUTTER		
Direct Examination by Mr. Hatch		3
J. R. DODGE		
Direct Examination by Mr. Morris		7
Cross Examination by Mr. Porter		13
PAUL HULL		
Direct Examination by Mr. Durrett		15
Cross Examination by Governor Campbell		17
<u>EXHIBIT</u>	<u>MARKED</u>	<u>OFFERED AND ADMITTED</u>
Shell's 1, 2 & 3	8	13

dearnley-meier reporting service, inc.

SPECIALIZING IN: DEPOSITIONS, HEARINGS, STATEMENTS, EXPERT TESTIMONY, DAILY COPY, CONVENTIONS

1120 SIMMS BLDG. • P.O. BOX 1092 • PHONE 243-6691 • ALBUQUERQUE, NEW MEXICO
1203 FIRST NATIONAL BANK EAST • PHONE 256-1294 • ALBUQUERQUE, NEW MEXICO



STATE OF NEW MEXICO)
) SS
COUNTY OF BERNALILLO)

I, ADA DEARNLEY, Notary Public in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached Transcript of Hearing before the New Mexico Oil Conservation Commission was reported by me; and that the same is a true and correct record of the said proceedings, to the best of my knowledge, skill and ability.

Witness my Hand and Seal this 15th day of July, 1966.

Ada Dearnley

NOTARY PUBLIC

My Commission Expires:

June 19, 1967.

CLASS OF SERVICE
This is a fast message unless its deferred character is indicated by the proper symbol.

WESTERN UNION TELEGRAM

SYMBOLS
DL=Day Letter
NL=Night Letter
LT=International Letter Telegram

1201 (4-00)

W. P. MARSHALL, PRESIDENT

The filing time shown in the date line on domestic telegrams is LOCAL TIME at point of origin. Time of receipt is LOCAL TIME at point of destination.

LA087 DA365

(34) 0700

D EPA283 PD=WUX ARTESI A NMEX 12 1200P MST= 1966 JUL 12 PM 12 46

A L PORTER, SECRETARY DIRECTOR=

OIL CONSERVATION COMMISSION SANTA FE NMEX=

IN CASE 3424, NEWMONT OIL COMPANY SUPPORTS THE AMENDMENT OF RULE 701-E-4 WHEREBY WATERFLOODS WOULD SHARE THE INCREASE IN DEMAND ABOVE 42 BARRELS PER DAY IN SOUTHEAST NEW MEXICO AND 70 BARRELS PER DAY IN NORTHWEST NEW MEXICO PROVIDING THE 42 AND 70 BARREL PER DAY MINIMUMS FOR WATERFLOOD ALLOWABLES REMAIN=

HERMAN J LEDBETTER DIVISION SUPERINTENDENT
NEWMONT OIL CO=

THE COMPANY WILL APPRECIATE SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE

PAN AMERICAN PETROLEUM CORPORATION

OIL AND GAS BUILDING P. O. BOX 1410
FORT WORTH, TEXAS—76101

WILLIAM V. GRISHAM
DIVISION ENGINEER

July 8, 1966

RECEIVED
MAIL OFFICE
JUL 11 11 17 32
C. G. ...

File: GHF-245-986.510.1

Subject: New Mexico Oil Conservation
Commission Hearings,
July 13, 1966,
Cases 3424 and 3425

Mr. A. L. Porter, Jr.
Secretary-Director
New Mexico Oil Conservation Commission
P. O. Box 871
Santa Fe, New Mexico

Dear Sir:

Read

Pan American Petroleum Corporation supports the amending of Rule 701-E-4 of the New Mexico Oil Conservation Commission Rules and Regulations to permit assignment of waterflood basic area allowable factors equal to the normal unit allowable times the appropriate proportional depth factor, whenever the normal unit allowables exceed the Southeast and Northwest waterflood basic area allowables of 42 BOPD and 70 BOPD, respectively.

not to be used

Pan American Petroleum Corporation also believes that the existing allowable system in the State of New Mexico is satisfactory, and that the adoption of a bonus discovery allowable is unnecessary and would not stimulate oil and gas exploration in the State.

Yours very truly,

W. V. Grisham

CFH:df



Corporation

UNION TEXAS PETROLEUM DIVISION

1300 WILCO BUILDING • MIDLAND, TEXAS 79704 • AREA CODE 915, 682-0515

11:41 AM
JUL 11 1966

July 8, 1966

Case file

Mr. A. L. Porter, Jr.
Secretary-Director
New Mexico Oil Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico

Re: Case No. 3424

Dear Mr. Porter:

On July 13, 1966 the Oil Conservation Commission will hold a hearing to consider the amendment of Rule 701 E 4, Commission Rules and Regulations.

Union Texas Petroleum, a Division of Allied Chemical Corporation, desires to go on record favoring revision of Rule 701 E 4 to permit using the actual unit allowable factor when this exceeds 42 barrels of oil per day.

Yours very truly,

UNION TEXAS PETROLEUM

R. L. Stover
R. L. Stover
District Production Superintendent

RLS:ms

MAIN OFFICE 0000

'66 JUL 11 AM 7 38

William A. & Edward R. Hudson
1510 First National Building
Fort Worth, Texas

July 7, 1966

Case file

Oil Conservation Commission
State Land Office Building
Santa Fe, New Mexico

In re: Case 3424

Gentlemen:

We have read with interest the proposed amendment to Rule 701 E 4 of the Commission Rules and Regulations to permit the assignment of allowables to waterfloods in Southeast New Mexico equal to the normal unit allowable times the appropriate proportional depth factor when the normal unit allowable exceeds the Southeast New Mexico Area Allowable Factor of 42 barrels.

We are of the opinion that such an amendment is desirable and heartily recommend its adoption.

Yours very truly,

WILLIAM A. & EDWARD R. HUDSON

By: *Edward R. Hudson*

ERH/lis

cc - Mr. Ralph L. Gray
P.O. Box 198
Artesia, New Mexico

WINDFOHR OIL COMPANY
1202 FIRST NATIONAL BANK BUILDING
FORT WORTH, TEXAS 76102

July 8, 1966

MAIL OFFICE 0-0

'66 JUL 11 AM 7 31

EDISON 2-5108

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

Re: Commission Case No. 3424

Gentlemen:

With reference to the subject case which has been called for July 13, 1966 to consider an amendment of Rule 701 E 4, Windfohr Oil Company, as an oil producer and water flood operator in the State of New Mexico, recommends that the subject rule be revised to permit the actual unit allowable factor when this factor exceeds 42 barrels of oil per day.

Yours very truly,

WINDFOHR OIL COMPANY

John Rush Vann
John Rush Vann

JRV/mf



SKELLY OIL COMPANY

P. O. Box 1650
TULSA, OKLAHOMA 74102

PRODUCTION DEPARTMENT

C. L. BLACKSHER, VICE PRESIDENT
W. P. WHITMORE, MGR. PRODUCTION
W. D. CARSON, MGR. TECHNICAL SERVICES
ROBERT G. HILTZ, MGR. JOINT OPERATIONS
GEORGE W. SELINGER, MGR. CONSERVATION

June 30, 1966

3424
Re: Case No. 34-24
Hearing - July 13, 1966

Mr. A. L. Porter, Jr.
New Mexico Oil Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico 87501

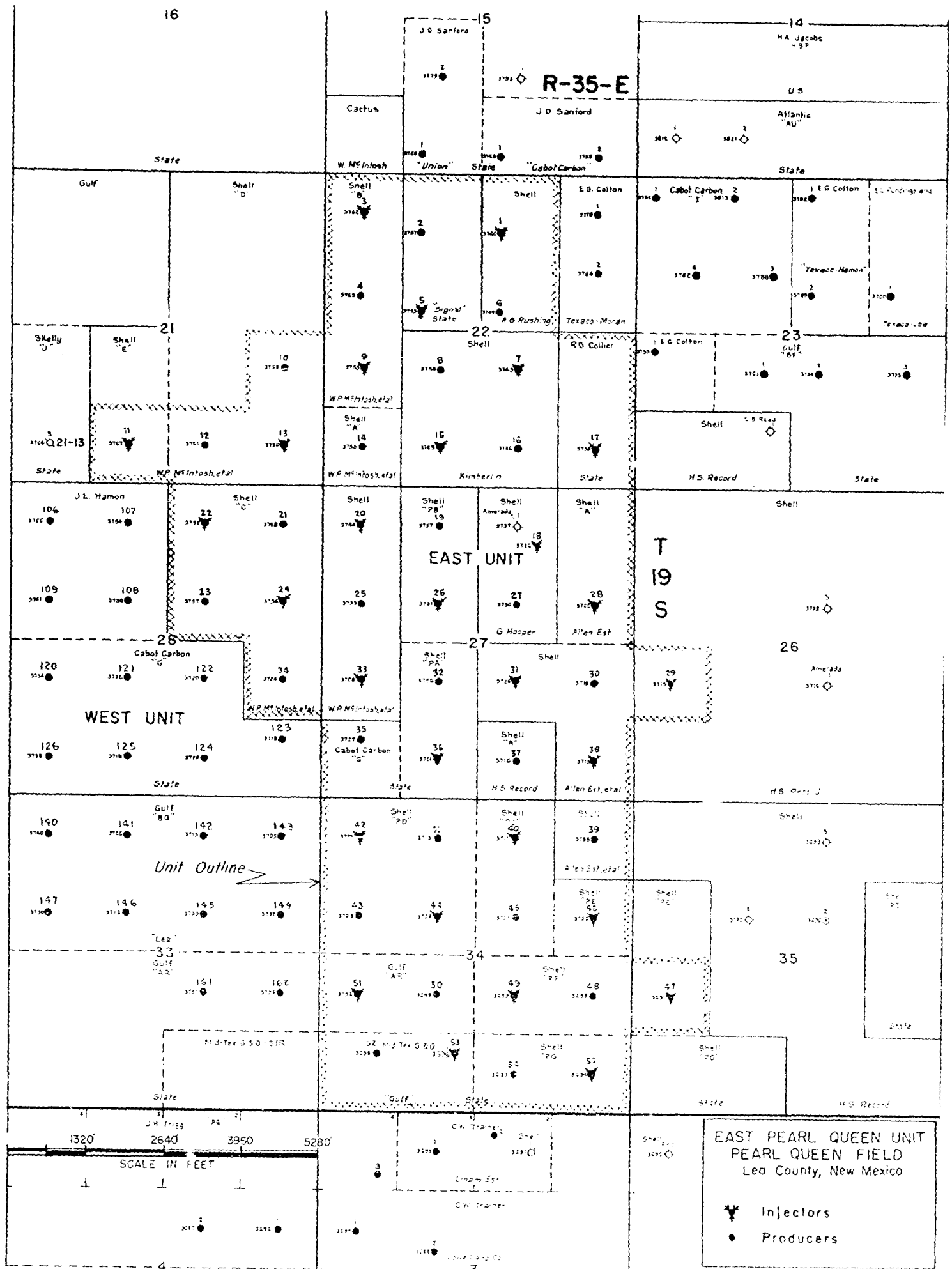
Dear Mr. Porter:

We recommend amending Rule 701-E-4 in order to permit the assignment of allowables in Southeast New Mexico equal to the normal unit allowable times the appropriate proportional depth factor when the normal unit allowable exceeds the Southeast allowable factor of 42, with the area allowable factor remaining as the governing allowable factor when the normal unit allowable is less than 42 barrels per day affecting waterflood allowables.

We would recommend a similar revision with respect to the Northwest area allowable factor of 70 barrels.

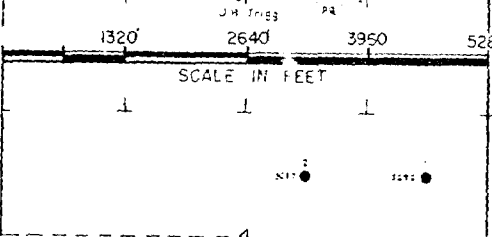
Respectfully,

GWS:lr




EAST PEARL QUEEN UNIT
PEARL QUEEN FIELD
 Lea County, New Mexico

Injectors
 Producers



Scale 1" = 1000'


 5 YEARS BY MONTHS 46 3290
 X 100 DIVISIONS
 MADE IN U.S.A.
 KEUFFEL & ESSER CO.

